

Developing Project Initiation Documents: A Survey of State Practice

Requested by

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The Caltrans Division of Research and Innovation (DRI) receives and evaluates numerous research problem statements for funding every year. DRI conducts Preliminary Investigations on these problem statements to better scope and prioritize the proposed research in light of existing credible work on the topics nationally and internationally. Online and print sources for Preliminary Investigations include the National Cooperative Highway Research Program (NCHRP) and other Transportation Research Board (TRB) programs, the American Association of State Highway and Transportation Officials (AASHTO), the research and practices of other transportation agencies, and related academic and industry research. The views and conclusions in cited works, while generally peer reviewed or published by authoritative sources, may not be accepted without qualification by all experts in the field.

Executive Summary

Background

Caltrans is performing an assessment of its project initiation document (PID) program in response to findings and recommendations provided by the Legislative Analyst's Office (LAO) in its February 2009 annual budget report.

PIDs are highway project programming documents that are prepared at the beginning of the project development process, before environmental evaluation and detailed design are completed. A PID is the outcome of the project scoping effort, providing a record of the purpose and need for a project, and including the project's scope, cost and schedule. Caltrans uses PIDs to obtain approval for inclusion of a project in the State Transportation Improvement Program (STIP) or State Highway Operation and Protection Program (SHOPP), or to get conceptual approval of a project-funded-by-others (a project sponsored by a local agency or private developer that does not use funds programmed into the state's STIP or SHOPP).

Through a survey of state departments of transportation (DOTs) and consulting planners, and an examination of state DOT procedural documents, this Preliminary Investigation aims to address key issues raised in the LAO's report, including:

- Providing the criteria for selecting PID projects.
- Estimating the resources required to develop PIDs.
- Streamlining the PID process.
- Establishing reimbursement parameters for PID projects completed for local agencies.
- Assessing the viability of PIDs awaiting inclusion in the STIP or SHOPP.

Summary of Findings

To gather information about state DOT practices in the preparation of highway project programming documents, we distributed a brief online survey to members of the American Association of State Highways and Transportation Officials (AASHTO) Standing Committee on Planning and a select group of planning consultants. To augment the results of this **Survey of Current Practice**, we identified **Other State DOT Practices and Tools** used by states not responding to the survey. The two sections of this Preliminary Investigation are summarized below.

Survey of Current Practice

- Sixteen state DOTs and two consultants responded to the survey. Of these respondents, the majority develop programming documents based on departmental policy. Only three states—Maryland, Nevada and Washington—prepare programming documents to meet the requirements of state law.
- Two states report relatively new project scoping processes.
 - Minnesota DOT began implementation of a new scoping process in 2007 that requires an approved scoping document before a project can enter a STIP. The new process involves more rigorous procedures for planning and project development.
 - Taking a different approach, a new process in New Mexico DOT—Planning and Environmental Linkage—requires no preliminary documents. Instead, projects go directly into the environmental review process.
- Most respondents prepare programming documents for all projects. Of those who report a more selective process:
 - Three respondents—Florida, Nevada and West Virginia—report dollar amounts ranging from \$10,000 to \$25 million that trigger production of programming documents.
 - Three other states—Maryland, North Carolina and North Dakota—produce programming documents for specific requests or project types.
- Some type of environmental evaluation is conducted by all but two respondents—Kentucky and North Dakota. The environmental work conducted by most states sets the stage for further review when the project is included in a work program. The draft Environmental Classification Summary prepared by Washington State DOT is an example of a more rigorous environmental evaluation.
- The specifics of programming document production vary widely among respondents.
 - While respondents report a wide range of document lengths—from a single page to hundreds of pages—almost three-quarters (72 percent) produce programming documents of 20 pages or less.
 - Staff hours devoted to production of programming documents range from a half-hour to up to 1,000 hours.
- Of the four respondents producing programming documents for local agencies—Nevada, North Carolina, Oregon and South Carolina—only Nevada and North Carolina DOTs are reimbursed by the local agency.
- All of the 11 state DOTs maintaining a queue of programming documents report updating those documents while they wait for possible inclusion in a work program. Four states—Maryland, North Dakota, Oregon and South Carolina—do not maintain a queue. Descriptions of the queues with regard to number and dollar value of projects varied widely.
- Some agencies have developed tools to support the production of programming documents. South Carolina DOT's Project Screening Tool allows state agencies to provide input and share files for a proposed project, while databases used by South Dakota, Washington State and West Virginia DOTs house project information and allow for online generation of programming documents.

Other State DOT Practices and Tools

We highlight policies, practices and tools used by five state DOTs not responding to the online survey—Massachusetts, Missouri, New Jersey, New York and Texas.

- Massachusetts uses a template Project Need Form to define preliminary elements of a project. After review and evaluation, Project Planning Reports are prepared for projects requiring further planning. Projects that are more straightforward or are supported by prior planning studies may move directly into the third step of the planning process—project initiation—during which a Project Initiation Form is completed.
- Missouri DOT's Engineering Policy Guide provides guidelines for project scoping, including checklists, sample project summaries and environmental considerations associated with a scoped project.

- New Jersey DOT’s project delivery process includes two early planning stages:
 - Projects are identified, defined and evaluated at the purpose and need stage. In a process that takes six months to a year, potential solutions are identified and conceptual development is completed.
 - Feasibility assessment refines and narrows alternatives until one alternative is identified as an Approved Project Plan.
- New York State DOT’s project scoping procedure provides guidance on preparing scoping documents for four types of projects (maintenance, simple, moderate and complex) and four types of reports (Initial Project Proposal, Project Scoping Report, Draft Design Report and Final Design Report).
- The Advance Planning Risk Analysis software tool developed for Texas DOT using Microsoft Excel and Visual Basic provides a method to measure project scope definition for completeness and identify potential risks early in a project.

Gaps in Findings

We found no consensus among survey respondents with regard to the process used to develop programming documents. Some states dedicate relatively little time to the production of these documents, while others report devoting hundreds of hours. The depth and breadth of the reports produced also vary widely, with some states completing forms of just a few pages, while others prepare lengthy, detailed reports.

Survey respondents did not provide samples of completed programming documents, though a search of state DOT web sites netted a few examples that appear in this Preliminary Investigation.

Nevada DOT’s scoping guidelines are undergoing revision and will be available January 2011.

Next Steps

Caltrans might consider the following in a continuing evaluation of current PID development practices:

- Based on the resources used and the types of activities that contribute to the production of programming documents, contact the survey respondents whose current approaches appear to be similar to Caltrans’ practices, including:
 - Nevada DOT’s production of scoping reports.
 - New Jersey DOT’s project delivery process.
 - The feasibility studies produced by North Carolina DOT.
 - The extensive reconnaissance data collection that contributes to Oklahoma DOT’s production of project initiation reports.
 - South Carolina DOT’s Advanced Project Planning Report.
- Examine the standard forms and formats used by survey respondents to determine if some of the forms’ components may be applicable to the Caltrans PID process.
 - Kentucky Transportation Cabinet’s Project Identification Form.
 - The Project Need Form used by Massachusetts DOT.
 - Washington State DOT’s Project Summary Forms.
- Learn more about another approach to reviewing potential projects—New Mexico DOT’s Planning and Environmental Linkage process. This approach eliminates the production of early-stage programming documents in favor of moving projects directly into the environmental process.
- Contact Mn/DOT to learn more about its relatively recent evaluation of the scoping process, and the impact of the new policies and procedures that came out of that evaluation. While the production of programming documents is overseen by the districts in Mn/DOT’s decentralized structure, consulting with the Mn/DOT office managing these processes may be instructive.

- Contact Nevada and North Carolina DOTs to learn more about reimbursement practices for programming documents produced for local agencies.
- Contact states that have developed special tools or processes to determine their applicability to Caltrans, including:
 - The Project Screening Tool developed by South Carolina DOT.
 - The Advance Planning Risk Analysis software tool developed for Texas DOT.
 - Washington State DOT's FileMaker database.

Survey of Current Practice

We conducted a brief online survey of members of the AASHTO Standing Committee on Planning to gather information from state DOTs with experience in the preparation of highway project programming documents at the beginning of the project development process, before environmental evaluation and detailed design are completed. We provided the same survey to consultants known to work with state DOTs in preparing such programming documents. The survey consisted of the following questions:

1. What drives your agency's production of programming documents that are similar to the Caltrans PID?
 - 1a. Please briefly describe the state law or departmental policy that guides production of programming documents.
2. What is the dollar amount that triggers production of a programming document for an individual project?
3. What type of environmental evaluation or work, if any, is performed in connection with your programming document (i.e., prior to preparation of any environmental impact statement-type document)?
4. What is the typical length (in pages) of your agency's programming documents?
5. Typically, how many staff hours are needed to produce a programming document?
6. Does your agency develop programming documents for local agencies?
- 6a. Do the local agencies provide reimbursement?
7. Does your agency have a queue of programming documents for projects waiting to be programmed (sometimes called a "shelf")?
 - 7a. Please describe your agency's queue of programming documents by providing the estimates below:
 - Number of projects waiting in the queue.
 - Value of projects waiting in the queue.
 - Overall funds available for programming per year.
 - 7b. Does your agency update programming documents for projects waiting in the queue?
8. Please provide contact information for the staff member in your agency responsible for overseeing the production of programming documents.
9. Please use this space to provide details on any of your answers above, or to provide additional comments.

We also asked respondents to provide links to or electronic copies of guidance or procedures related to the production of programming documents.

We received responses from 16 state DOTs:

- Georgia
- Kentucky
- Maine
- Maryland
- Minnesota
- Nevada
- New Mexico
- North Carolina
- North Dakota
- Oklahoma
- Oregon
- South Carolina
- South Dakota
- Utah
- Washington
- West Virginia

Wyoming DOT reported that its process for developing programming documents is not as detailed as Caltrans' PID process and elected not to participate in the survey.

We also received two vendor responses that addressed the development of programming documents for Florida and Illinois DOTs. See **Survey Results** beginning on page 12 for the full text of all survey responses.

The survey gathered information in nine topic areas related to the production of programming documents:

- Selecting Projects for Production of Programming Documents.
- Triggers for Production of Programming Documents.
- Type of Environmental Evaluation.
- Length of Programming Documents.
- Staff Hours Required to Develop Programming Documents.
- Developing Programming Documents for Local Agencies.
- Maintaining a Queue of Programming Documents.
- Queues Maintained by Survey Respondents.
- Tools to Support Document Production.

Key findings from the survey follow.

Selecting Projects for Production of Programming Documents

- Departmental policy guides the development of programming documents for the majority (83 percent) of those responding to this survey question.
 - In 2007, Mn/DOT began implementation of a new scoping process, which includes a policy that requires an approved scoping document for all projects before the project can enter a STIP. Mn/DOT notes that its more rigorous procedures for planning and project development are based on accepted project management techniques. As a decentralized agency, Mn/DOT's eight districts are responsible for overseeing production of programming documents.
 - Operational notices in the form of guidelines define the project development life cycle for Oregon DOT, including all activities from pre-STIP scoping through the bid award. Unlike the Caltrans PID process, Oregon DOT's pre-STIP scoping is fairly high-level and does not thoroughly identify project scope and other issues. More detailed programming documents are prepared after the project is included in the STIP.
 - South Dakota DOT's policy is under revision, but the general intent is to conduct a thorough review of the project scope before survey or design begins, and before inclusion in the STIP.
- Three respondents—Maryland, Nevada and Washington—report that programming documents are prepared to meet the requirements of state law.
 - The Maryland State Highway Administration (SHA) produces its Highway Needs Inventory (HNI) every three years to meet the requirements of state law. Projects in the HNI represent an acknowledgment of need but not a commitment to implementation or funding. Most major projects must be included in the HNI before they can be programmed in Maryland's work program.
 - State law requires that Nevada DOT prepare a report that includes a discussion of the scope, cost and progress of any current or proposed highway projects. A change in organizational culture has prompted revisions to the state's scoping guidelines that reflect a matrix management organization.
 - Washington State DOT applies state law and recommendations provided by the state Joint Legislative Audit and Review Committee to its production of programming documents.
- Two respondents report that programming documents similar to the Caltrans PID are not prepared.
 - New Mexico DOT reports a prior process that involved preparation of programming documents similar to the Caltrans PID. This system was replaced by a new Planning and Environmental Linkage process that requires no preliminary documents. Projects now go directly into the environmental review process.

- A consultant reporting on the production of programming documents for Illinois DOT reports that no project-specific programming documents are prepared by Illinois DOT.

Triggers for Production of Programming Documents

- More than three-quarters (81 percent) of respondents addressing the question of a dollar amount trigger report that the production of programming documents is not related to a dollar amount. For these states, programming documents are prepared for all proposed projects.
- Three states—Maryland, North Carolina and North Dakota—report a more selective process for producing programming documents.
 - For Maryland SHA, a feasibility study is initiated for major projects requested by local agencies or at the request of elected officials.
 - For North Carolina DOT, the type and scope of the project determine whether a programming document is produced, not the dollar amount.
 - North Dakota DOT prepares programming documents for all projects that are not preventive maintenance.
- Three states—Florida, Nevada and West Virginia—report specific dollar amounts that prompt production of programming documents.
 - Construction costs greater than \$25,000 trigger production of programming documents in Florida DOT District 7.
 - In Nevada, the dollar amount trigger is \$25 million.
 - West Virginia DOT prepares programming documents for projects estimated at \$10,000 or more.

Type of Environmental Evaluation

- Only two states—Kentucky and North Dakota—do not conduct any type of environmental evaluation in connection with the production of programming documents.
- Many states report conducting enough environmental work to set the stage for further review as the project proceeds to inclusion in a work program.
 - A consultant working with Florida DOT's District 7 reports that only estimates of environmental impact are prepared when projects are scoped.
 - In Maryland, only an environmental inventory is conducted for feasibility studies. Reviews are expanded as projects move into the state's Consolidated Transportation Plan.
 - Mn/DOT conducts enough environmental work to provide an accurate scope for the project. Ideally, a draft or final environmental document should be issued or nearly complete when the scoping document is approved.
 - Nevada DOT's work plan seeks to identify critical environmental issues before the National Environmental Policy Act (NEPA) process.
 - North Carolina DOT conducts an environmental screening of geographic information systems (GIS)-level information.
 - Preliminary environmental work may occur in connection with Oregon DOT's pre-STIP scoping.
 - For West Virginia, environmental work involves identifying potential environmental issues and suggesting the anticipated environmental document required for the project.

- Other states appear to conduct a more rigorous environmental evaluation.
 - Oklahoma DOT’s environmental analysis includes an evaluation of historic properties, hazardous waste sites, farmland, wetlands and more.
 - South Carolina’s Advanced Project Planning Report considers all environmental impacts associated with a proposed project.
 - Washington State DOT prepares a draft Environmental Classification Summary. A final version of this document is used as part of Washington State DOT’s federal-aid agreement package delivered to the Federal Highway Administration (FHWA).

Length of Programming Documents

- The table below summarizes the typical length in pages of the programming documents produced by survey respondents. Programming document lengths range from a single page (West Virginia and Minnesota) to more than 600 pages (Maryland). Almost three-quarters (72 percent) of respondents produce programming documents that are 20 pages or less.

Range	State of Survey Respondent	Estimated Number of Pages
1 to 5 pages	West Virginia	1
	Minnesota	1 (for simple projects)
6 to 20 pages	South Carolina	3 (for Project Screening Tool)
	Kentucky	4
	Oklahoma	5
	Oregon	5
	Minnesota	5 to 15 (for more complex projects)
	Washington	7 to 12
	North Dakota	8 to 12
	Georgia	10
	New Mexico	10 to 15
	North Carolina	10 to 20
	Utah	10 to 20
	Maine	15
	21 to 50 pages	South Dakota
South Carolina		50 (for Advanced Project Planning Report)
Florida (provided by consultant)		39+
51 pages or more	Illinois (provided by consultant)	20 to 200
	Nevada	150 to 200
	Maryland	650 to 700

Staff Hours Required to Develop Programming Documents

- Staff hours devoted to production of programming documents range widely, from a half-hour to produce West Virginia’s documents to up to 1,000 hours reported by North Carolina DOT. The hours reported by Maryland SHA are to produce the HNI, a document that includes multiple project documents. See the table below for a summary of survey responses.

Range	State of Survey Respondent	Estimated Number of Hours
1 to 5 hours	West Virginia	.5
6 to 25 hours	Florida (provided by consultant)	8 to 14
	Kentucky	10 to 16
	Maine	10 to 40
	North Dakota	25
26 to 100 hours	South Carolina	60
	Georgia	100
101 hours or more	Utah	180 to 220
	Oklahoma	214 (200 hours for data collection and site visit; 14 hours for document preparation)
	Nevada	320
	North Carolina	640 to 1,000
	Maryland	1,500 to 2,000

- Some respondents note that staff hours devoted to production of programming documents vary or are difficult to determine.
 - Staff hours vary for New Mexico and Washington State DOTs, with no range provided.
 - Mn/DOT reports that staff hours vary based on the complexity of the project, and Mn/DOT is still determining the amount of effort required to properly define a project under its new scoping process.
 - South Dakota DOT notes a variation in staff hours based on the type of project, providing a broad range of 2 to 240 hours.

Developing Programming Documents for Local Agencies

- Only four state DOT respondents—Nevada, North Carolina, Oregon and South Carolina—report producing programming documents for local agencies.
 - In Nevada, once the document is completed, Nevada DOT’s Local Public Agency coordinator bills the local agency for reimbursement.
 - In rare instances where North Carolina DOT prepares a programming document for a local agency, it is done under a municipal agreement.
 - Local agencies in Oregon and South Carolina do not provide reimbursement for programming documents prepared by their state DOTs.

Maintaining a Queue of Programming Documents

- Almost three-quarters (73 percent) of state DOT respondents producing programming documents maintain a queue, or “shelf,” of programming documents waiting for possible inclusion in a STIP or other work program.
 - The 11 state DOTs maintaining a queue include Georgia, Kentucky, Maine, Minnesota, Nevada, North Carolina, Oklahoma, South Dakota, Utah, Washington and West Virginia.
 - Four states—Maryland, North Dakota, Oregon and South Carolina—do not maintain a queue.
- All states with a queue of programming documents report updating those documents.
 - Four state DOTs—Minnesota, Nevada, Utah and Washington—conduct annual reviews or updates.
 - Six states—Georgia, Kentucky, North Carolina, Oklahoma, South Dakota and West Virginia—update documents only when a need is identified, such as better-defined cost estimates, a change in project sponsor or change in scope.
 - For some states, changes in scope or purpose and need require reconsideration as a new project.
 - If a project’s purpose and need changes, Mn/DOT considers it to be a new project that requires rescoping.
 - Oklahoma DOT updates documents only when the proposed scope of a project is significantly modified. The project is then considered for a new project initiation report.
 - North Carolina updates cost estimates every two years; right of way (ROW) and utilities are updated early in the NEPA project planning phases.
 - MaineDOT is just beginning a “drawer” process and is still working out the details. Many shelf projects are not developed to the point that they are waiting in a queue.

Queues Maintained by Survey Respondents

Survey respondents were asked to describe the queue of programming documents awaiting possible inclusion in a STIP or other work program by estimating the number of projects in the queue, the dollar value of those projects and overall funds available for programming per year.

Estimated Number of Projects

- Relatively few respondents provided an estimated number of projects in their queues. Some respondents noted that the number varied, or assigning a number would be difficult or time-consuming. The table below summarizes the responses we received.

Range	State	Estimated Number of Projects in the Queue
0 to 10 projects	Minnesota	Close to zero
11 to 100 projects	Nevada	10 to 25
	Maine	60 to 65
101 to 500 projects	North Carolina	300
501 and more projects	Oklahoma	1,474
	Kentucky	2,400+
	Illinois (provided by consultant)	Thousands

- Mn/DOT noted that its queue of projects has been reduced to almost zero by the American Recovery and Reinvestment Act.

Estimated Dollar Value of Projects

- The table below summarizes the responses that estimated the dollar value of projects waiting in the queue.

State	Estimated Dollar Value of Projects in the Queue
Nevada	\$25 million to \$2 billion
Maine	\$60 million to \$70 million
Oklahoma	\$3.8 billion
Illinois (provided by consultant)	\$8 billion to \$10 billion
North Carolina	\$12.5 billion
Kentucky	\$72 billion+
Washington	10% to 20% of annual funds available

Note: The Nevada DOT respondent appears to have provided a range in the dollar value of individual projects in the queue rather than the cumulative total of all projects in the queue.

Funds Available for Programming

- Respondents were asked to provide the overall funds available for programming each year. The table below summarizes survey responses.

State	Funds Available for Programming
South Dakota	\$300 million
Maine	\$350 million to \$400 million
Washington	\$400 million
West Virginia	\$500 million to \$600 million
Nevada	\$500 million to \$800 million
Oklahoma	\$550 million
Minnesota	\$600 million
North Carolina	\$1.25 billion to \$1.5 billion
Georgia	\$1.8 billion
Illinois (provided by consultant)	\$2 billion to \$3 billion
Kentucky	\$2.1 billion

Tools to Support Document Production

- South Carolina DOT uses a web-based application—the Project Screening Tool—to allow agencies to provide input and to upload and download files for a proposed project.
- Programming documents are created within a South Dakota DOT database that contains more than 30 tabs of background information, commenting, recommendations, exceptions and approvals.

- Washington State DOT develops project summaries in a FileMaker database. The project record in the database can include any supporting documents, such as engineering reports or the Basis of Estimate.
- West Virginia DOT is transitioning to a Primavera software package that will render its production of programming documents essentially paperless. GIS demographics are used to automatically populate programming documents.

Survey Results

The full text of each survey response is provided below. For reference, we have included an abbreviated version of each question before the response; for the full question text, please see page 5 of this Preliminary Investigation. Survey responses are categorized as **State DOTs** and **Vendors**.

State DOTs

Georgia

Contact: Angela Alexander, Georgia Department of Transportation, aalexander@dot.ga.gov.

1. **What drives production of programming documents?** Development of programming documents is guided by departmental policy.
- 1a. **Describe state law or departmental policy:** During a project’s PE [preliminary engineering], or SCP, phase, the department conducts field visits, reviews planning documents (studies), performs engineering studies and considers alternatives.
2. **Dollar amount trigger:** N/A
3. **Environmental evaluation or work:** The “scoping” phase’s intent is to take a project all the way to the environmental stage; this includes reviewing the potential environmental impacts of the project.
4. **Document length:** 10.
5. **Staff hours to produce:** 100.
6. **Develop documents for local agencies?** No.
- 6a. **Local agencies provide reimbursement? Please describe:** [No response.]
7. **Maintain queue for projects waiting to be programmed?** Yes.
- 7a. **Describe queue:**

Number of projects waiting in the queue:	N/A
Value of projects waiting in the queue:	N/A
Overall funds available for programming per year:	\$1.8 billion.
- 7b. **Update programming documents waiting in the queue?** Yes. If there is a need to update (change in project, sponsor, etc.), then the department will update the document.
8. **Staff contact information:** Brent Story, Office of Design Policy and Support Administrator, Georgia Department of Transportation, bstory@dot.ga.gov.
9. **Details or comments:** [No response.]

Related Documents:

Design Policy Manual, Georgia Department of Transportation, various dates.

<http://www.dot.ga.gov/doingbusiness/PoliciesManuals/roads/designpolicies/Pages/DesignPolicyManual.aspx>

See Chapter 2 of the *Design Policy Manual* for design policies, guidelines and standards.

See below for a manual, not provided by the survey respondent, which relates to the production of programming documents.

- **Plan Development Process – 2000, Policies and Procedure 4050**, Georgia Department of Transportation, October 2010.
<http://www.dot.state.ga.us/doingbusiness/PoliciesManuals/roads/PDP/4050-1.pdf>
Project identification is discussed in Chapter 4, Project Programming and Scheduling, which begins on page 27 of the PDF.

Kentucky

Contact: Keith Damron, Kentucky Transportation Cabinet, (502) 564-7183, keith.damron@ky.gov.

1. **What drives production of programming documents?** Development of programming documents is guided by departmental policy.
- 1a. **Describe state law or departmental policy:** As needs are identified and recommended to be a project, Kentucky prepares a Project Identification Form to document the issues, who requested and expected cost. Very preliminary.
2. **Dollar amount trigger:** All.
3. **Environmental evaluation or work:** None.
4. **Document length:** Four-page form, photographs, maps and other pertinent information.
5. **Staff hours to produce:** 10 to 16.
6. **Develop documents for local agencies?** No.
- 6a. **Local agencies provide reimbursement? Please describe:** No.
7. **Maintain queue for projects waiting to be programmed?** Yes.
- 7a. **Describe queue:**

Number of projects waiting in the queue:	Over 2,400 projects.
Value of projects waiting in the queue:	Over \$72 billion.
Overall funds available for programming per year:	Approximately \$2.1 billion.
- 7b. **Update programming documents waiting in the queue?** Yes. Sometimes, if issues change or if cost of the proposed project changes, then we will update the forms.
8. **Staff contact information:** Keith Damron, Kentucky Transportation Cabinet, (502) 564-7183, keith.damron@ky.gov.
9. **Details or comments:** Because ours is basically a form, we do not have specific guidelines; it is self-explanatory.

Related Documents:

None provided. See below for materials, not provided by the survey respondent, which relate to the production of programming documents.

- **KYTC Project Identification Form**, Kentucky Transportation Cabinet, August 2004. <http://www.planning.kytc.ky.gov/regionalPlanning/KYTC%20Project%20ID%20Form%20Aug%202004.dot>
This document is an online template of the Project Identification Form.
- **Guidelines: Project Identification Form (PIF)**, Division of Planning, Kentucky Transportation Cabinet, June 10, 2008. [http://www.planning.kytc.ky.gov/regionalPlanning/FINAL%20PIF%20GUIDELINES-May%202008%20\(2\).pdf](http://www.planning.kytc.ky.gov/regionalPlanning/FINAL%20PIF%20GUIDELINES-May%202008%20(2).pdf)
These guidelines describe the preparation of a PIF for every unscheduled project that would be included on the Unscheduled Projects List and/or the Six-Year Highway Plan.

Maine

Contact: Martin Rooney, Maine Department of Transportation, (207) 624-3300, martin.rooney@maine.gov.

1. **What drives production of programming documents?** Development of programming documents is guided by departmental policy.
- 1a. **Describe state law or departmental policy:** Maine's biennial budget submission, State Sensible Transportation Policy Act, and Maine's agreement for categorical exclusions with Maine's FHWA Division guide the amount of documentation associated with MaineDOT's programming documents. In essence, the amount of documentation and analysis is based on a project's scope of work or potential impact. The greater

- the impact or any scope involving new transportation capacity, the more documentation is necessary.
2. **Dollar amount trigger:** +/-15 pages on average; considerably more for complex projects or ones with salient public interest.
 3. **Environmental evaluation or work:** Varies extensively, but MaineDOT may conduct field reviews, survey project stakeholders and draft a scoping report, or just list a basic project description in a STIP.
 4. **Document length:** +/-15 pages.
 5. **Staff hours to produce:** 10 to 40 hours.
 6. **Develop documents for local agencies?** No.
 - 6a. **Local agencies provide reimbursement? Please describe:** [No response.]
 7. **Maintain queue for projects waiting to be programmed?** Yes.
 - 7a. **Describe queue:**

Number of projects waiting in the queue:	60 to 65.
Value of projects waiting in the queue:	\$60 million to \$70 million.
Overall funds available for programming per year:	\$350 million to \$400 million.
 - 7b. **Update programming documents waiting in the queue?** Yes. MaineDOT is just beginning a drawer process and we have yet to establish a detailed process. Currently, project development and systems planning bureaus collaborate and submit lists for executive approval.
 8. **Staff contact information:** Martin Rooney, Program Development/Program Management, Maine Department of Transportation, (207) 624-3300, martin.rooney@maine.gov.
 9. **Details or comments:** Please note that many “shelf” projects are not developed to the point that they are waiting in the queue as of today’s date.

Related Documents:
None provided.

Maryland

Contact: Shiva K. Shrestha, Maryland State Highway Administration, (410) 545-5667, sshrestha@sha.state.md.us.

1. **What drives production of programming documents?** We prepare programming documents to meet the requirements of state law.
- 1a. **Describe state law or departmental policy:** Prior to starting a NEPA study, Maryland SHA requires the project to be included in the following programming documents:
 - a. County Transportation Priority Letter.
 - b. Highway Needs Inventory.
 - c. Consolidated Transportation Program.
 - d. Transportation Improvement Program.
 - e. Financially Constrained Long-Range Transportation Plan.

County [Transportation] Priority Letter: Section 8-612 of the Annotated Code of Maryland provides the legal provision for the submission of the Transportation Priority Letter by 23 counties to the state. Section 8-612 of the Annotated Code states that “... The local governing body and a majority of the local legislative delegation shall establish a list of priorities from among those secondary system projects listed in the needs inventory and the Administration shall engage in initial project planning upon the request of the local governing body and a majority of the local legislative delegation in the order established in the list of priorities.”

Highway Needs Inventory (HNI): Section 8-611 of the Annotated Code of Maryland states that “... the Administration shall furnish members of the General Assembly and the Governor with (1) Current information on highway needs, and The Administration following an assessment of the highway conditions and transportation needs of this State, shall prepare those proposed modifications to the highway needs inventory that it considers necessary” ... every three years. Therefore, the Maryland state law requires the SHA to develop the HNI for the state, and also requires the SHA to update the HNI once every three

years. The projects in the HNI represent an acknowledgment of need based on technical analysis and adopted local/regional transportation plans. The HNI is not financially constrained. It is not a capital program, and inclusion of a project does not represent a commitment to implementation or funding. However, most major projects must be included in the HNI before they can be programmed in the Consolidated Transportation Program.

Consolidated Transportation Program (CTP): The CTP is Maryland’s six-year capital budget for transportation projects. The capital program includes major and minor projects for the Maryland DOT and the modal agencies and related authorities within the department, including the Maryland Aviation Administration, the Motor Vehicle Administration, the Maryland Transit Administration, the Washington Metropolitan Area Transit Authority, the SHA, the Maryland Port Administration and the Maryland Transportation Authority. The CTP is developed in coordination with the local and state elected officials, and their priorities included in the County Priority Letter. The state presents the draft CTP to the local elected officials in the fall and receives their feedback. After addressing the local elected officials’ comments, the draft CTP is finalized. The final draft CTP is submitted to the Maryland General Assembly at the legislative session in January. After discussion, the General Assembly approves the final CTP. The state submits the approved CTP to the federal government. The federal government reviews the CTP for consistency with the metropolitan planning organizations’ (MPOs’) Transportation Improvement Programs (TIPs). If the CTP is consistent with the MPOs’ TIPs, then the previous CTP becomes the STIP.

Federal regulation: The Safe, Accountable, Flexible, Efficient Transportation Equity Act—A Legacy for Users (SAFETEA-LU) requires that MPOs of the state develop regional transportation plans called the TIP, and a financially Constrained Long-Range Plan in coordination with the local, state and federal agencies.

Transportation Improvement Program: The TIP is a six-year financial program that describes the schedule for obligating federal funds to state and local projects. The TIP contains funding information for all modes of transportation including highways and HOV [high-occupancy vehicles] as well as transit capital and operating costs. State, regional and local transportation agencies update the program each year to reflect priority projects in the financially Constrained Long-Range Plan.

Financially Constrained Long-Range Plan (CLRP): The CLRP identifies all regionally significant transportation projects and programs that are planned in the metropolitan areas between 2010 and 2030. This is a regional, financially constrained, 20-year transportation plan. This planning document includes projects ranging from simple highway landscaping to billion dollar highway and transit projects. Some of the projects will be completed in the near future, while others are only in the initial planning stage.

2. **Dollar amount trigger:** Feasibility studies are initiated for major projects that are included in the County Transportation Priority Letter or when elected officials request to investigate the potential capacity, operations and safety concerns. Depending on the availability of funds, projects are added to the CTP.
3. **Environmental evaluation or work:** For feasibility studies, only an environmental inventory is conducted. This includes review of impacts such as displacement of residential and business establishments, residential and business parcel replacements, residential and business establishment impacts as needed for the right of way (ROW) needs, historic properties, wetlands, waters of the United States, open space and green infrastructures, etc. These reviews are expanded as projects move forward to inclusion in CTP to be included in the NEPA and permitting processes.
4. **Document length:** HNI: 650 to 700 pages. County [Transportation] Priority Letters: 3 to 5 pages, depending on the county. CTP (multimodal): 400 to 500 pages. TIP (multimodal and multistate): Varies depending on the MPOs. For example, approximately 50 pages for Metropolitan Washington Council of Governments (WashCOG) Suburban Maryland portion only. Rural MPOs are smaller. CLRP (multimodal and multistate): Varies depending on the MPOs. For example, the WashCOG’s full CLRP document may be 150 pages. Again, rural regions have smaller documents.
5. **Staff hours to produce:** Various offices from the Maryland DOT get involved in preparation of these documents. As a result, it is challenging to accurately determine the staff person-hours in the development of these documents. But the range of the person-hours is provided below: HNI: 1,500 to 2,000 hours; County Priority Letters: N/A (this is submitted by the counties); CTP: 8,000 to 10,000 hours; CLRP (state): 900 to 1,000 hours; TIP (state): 4,500 to 5,000 hours.
6. **Develop documents for local agencies?** No.
- 6a. **Local agencies provide reimbursement? Please describe:** [No response.]

7. **Maintain queue for projects waiting to be programmed?** No.
- 7a. **Describe queue:** [No response.]
- 7b. **Update programming documents waiting in the queue?** [No response.]
8. **Staff contact information:** For HNI: Mr. Suh Ade Fobujong, HNI Manager, (410) 545-5657, sade@sha.state.md.us.
9. **Details or comments:** If you have any questions or need help in CTP, CLRP, TIP and feasibility study, please contact Mr. Shiva K. Shrestha, AICP Tech Support Planner, Maryland State Highway Administration, (410) 545-5667, sshrestha@sha.state.md.us.

Related Documents:

Mr. Shrestha notes that Maryland SHA does not make available online procedures. The links below provide access to programming documents or information about them.

- **Consolidated Transportation Program** (draft); 2011 State Report of Transportation, FY 2011-2016, Maryland Department of Transportation, undated.
http://www.mdot.maryland.gov/Planning/CTP/Documents/Full_CTP_Document_8_31_10.pdf
The CTP is Maryland's six-year capital budget for transportation projects.
- **Highway Needs Inventory**, Maryland State Highway Administration.
<http://www.marylandroads.com/Index.aspx?PageId=509>
Find links to county reports that compose the HNI, a long-term, financially unconstrained technical reference and planning document that identifies highway improvements to serve existing and projected population and economic activity in the state.
- **Transportation Improvement Program for the Metropolitan Washington Region FY 2010 – 2015**, National Capital Region Transportation Planning Board, Metropolitan Washington Council of Governments, July 2009.
<http://www.mwcog.org/clrp/projects/tip>
This web page provides information on the six-year TIP.
- **National Capital Region's Financially Constrained Long-Range Transportation Plan**, Metropolitan Washington Council of Governments.
<http://www.mwcog.org/clrp>
This web page provides details in projects, process, performance, participation, federal regulation and the latest documents associated with the CLRP.

Minnesota

Contact: Jean Wallace, Minnesota Department of Transportation, (651) 366-3181, jean.wallace@state.mn.us.

1. **What drives production of programming documents?** Development of programming documents is guided by departmental policy.
- 1a. **Describe state law or departmental policy:** Mn/DOT has implemented a new scoping process, which has a policy that requires that all projects must have an approved scoping document before the project can enter into the STIP. Similarly, Mn/DOT's cost estimating policy relies on the approved scoping document to develop a Total Project Cost Estimate (TPCE). The baseline TPCE is based upon the approved scoping document and is used to manage future cost estimates and actual costs. Essentially, Mn/DOT is developing more rigorous procedures for the planning and developing of a project based on accepted project management techniques.
2. **Dollar amount trigger:** All Mn/DOT projects that are programmed into the STIP require a scoping document. There is no dollar threshold or trigger.
3. **Environmental evaluation or work:** Enough environmental work must be done to be able to provide an accurate scope for the project (i.e., what's in and what's out of the project). Ideally, a draft or final environmental document should be issued or nearly complete in coordination with the approval of the scoping document. However, this will vary based on the type and complexity of the project. Scoping and environmental work also need to be coordinated and timed to ensure that the project is in a fiscally constrained plan.

4. **Document length:** This varies based on the type and complexity of the project. For simple projects, it can be as little as one page. For more complex projects, it may be around five to 15 pages.
5. **Staff hours to produce:** The amount of effort will be determined by the complexity of the project. Mn/DOT is still determining the amount of effort required to properly define a project to be able to deliver the right project on time and on budget.

6. **Develop documents for local agencies?** No.

6a. **Local agencies provide reimbursement? Please describe:** [No response.]

7. **Maintain queue for projects waiting to be programmed?** Yes.

7a. **Describe queue:**

Number of projects waiting in the queue: Close to zero; ARRA [American Recovery and Reinvestment Act] has greatly reduced the number of “shelf” projects.

Value of projects waiting in the queue: Close to zero.

Overall funds available for programming per year: \$600 million.

7b. **Update programming documents waiting in the queue?** Yes. In general, all projects are reviewed annually to ensure that they still meet programming goals and objectives. Projects in the 10-year plan and the STIP are reviewed annually to see if any updates are required to scope, schedule and budget based on any new information. Projects that are still in the long-range plan can also be reviewed to see if there is additional information or need to continue the project forward to programming. If there is a change to the project once the scope has been approved, we have a formal scoping amendment process that evaluates and documents the impacts of the change to scope, schedule and budget as well as potential for rework. The impact of any change to the program is also evaluated and documented, and must be approved to continue forward. If the project’s purpose and need changes, it is considered to be a new project and must be rescoped based on the new purpose and need.

8. **Staff contact information:** Jean Wallace, Assistant Director, Office of Project Scope & Cost Management, Minnesota Department of Transportation, (651) 366-3181, jean.wallace@state.mn.us.

9. **Details or comments:** Mn/DOT is a decentralized agency. Therefore, the eight Mn/DOT districts are responsible for overseeing the production of programming documents (i.e., project scopes and cost estimates). The name provided above is for the office that is responsible for implementing and managing the project scoping process for Mn/DOT.

Related Documents:

Scoping and Cost Estimating: A Resource for Mn/DOT Project Managers and Estimators, Minnesota Department of Transportation.

<http://www.dot.state.mn.us/cost-estimating/scoping/index.html>

This web page provides links to documents and tools used in the Mn/DOT scoping process. We highlight some of these documents below.

- **Mn/DOT Scoping Process Narrative**, Minnesota Department of Transportation, October 15, 2008. <http://www.dot.state.mn.us/cost-estimating/pdf/scoping-process-narrative.pdf>
This document presents the three phases of the scoping process—project planning, project scoping and programming—and describes the process and tools for implementing project changes.
- **Planning - Scoping - Programming Process 2008**, Minnesota Department of Transportation, October 13, 2008. <http://www.dot.state.mn.us/cost-estimating/pdf/scoping-process-flowchart.pdf>
This scoping process flowchart accompanies the scoping process narrative. (See above.)
- **Mn/DOT Scoping Process Executive Summary**, Minnesota Department of Transportation, December 12, 2006. <http://www.dot.state.mn.us/cost-estimating/pdf/scoping-executive-summary.pdf>
This document summarizes the results of a working group’s efforts to develop a model for scoping projects that would be used statewide. The main features of the new scoping process are a set of expectations for Mn/DOT districts statewide, a process and a set of tools. Expectations include:
 - Comprehensive scoping will be conducted before the project is programmed in the STIP.

- Consistent with the principles of Context Sensitive Solutions (CSS) ... “A full range of stakeholders should be involved with transportation officials in the scoping phase. The purposes of the project should be clearly defined and consensus on the scope should be forged before proceeding.”
 - Investigations will be sufficiently in-depth and decisions will be made so that the defined scope is complete and uncertainties are reduced.
 - Districts will define a timeline for the planning-scoping-programming cycle to ensure that functional groups get enough time to adequately scope a project before the scope is finalized.
 - The scope of the project will be well-documented.
 - Changes in the scope will be documented.
 - The Scoping Report and Amendments will be approved by district management.
 - Districts will modify the statewide process and tools to best fit their needs—provided the principles of early, comprehensive, documented and having a change process are included.
 - Scoping will be charged to the appropriate activity codes and project SP [a unique number associated with each project].
- **Mn/DOT Scoping Process: Fact Sheet**, Minnesota Department of Transportation, undated, <http://www.dot.state.mn.us/cost-estimating/pdf/scoping-fact-sheet.pdf>
This high-level overview of Mn/DOT’s scoping process identifies four key characteristics—early, comprehensive, documented and effectively deals with change.
 - **Scoping Workflow Document List**, Minnesota Department of Transportation, undated, <http://dotapp7.dot.state.mn.us/edms/download?docId=518687>
This list of the documents required for the scoping process includes the document type, a description of the document and where the document originates.
 - **Project Scoping Report** (template), Minnesota Department of Transportation, undated, <http://www.dot.state.mn.us/cost-estimating/documents/project-scoping-report.doc>
The purpose of the Project Scoping Report is to document and obtain approval for items that are included (and excluded) in the scope of the project.

Nevada

Contact: Kent Steele, Nevada Department of Transportation, (775) 888-7010, ksteele@dot.state.nv.us.

1. **What drives production of programming documents?** We prepare programming documents to meet the requirements of state law.
- 1a. **Describe state law or departmental policy:** NRS 408.133 [see <http://www.leg.state.nv.us/nrs/NRS-408.html#NRS408Sec133>] requires the department to prepare a report, based upon the relevant performance measurements. The report must include a discussion of the scheduling, scope, cost and progress of any current or proposed highway projects.
2. **Dollar amount trigger:** \$25 million.
3. **Environmental evaluation or work:** Environmental stewardship for early identification of critical environmental issues before the NEPA process, which results in minimizing environmental impacts and developing innovative mitigation measures to preserve environmental quality.
4. **Document length:** 150 to 500 pages.
5. **Staff hours to produce:** Approximately 320 staff hours for composition and review, on average.
6. **Develop documents for local agencies?** Yes.
- 6a. **Local agencies provide reimbursement? Please describe:** Yes. Once the document is completed the LPA [Local Public Agency] coordinator bills the local agencies for reimbursement. [Nevada DOT’s Local Public Agency Program, as established under a Stewardship Agreement executed by FHWA and Nevada DOT, allows for the delegation of project review, oversight and administration for projects involving federal funds that are not located on the National Highway System. See **Related Documents** below for a link to the *Local Public Agency Manual*.]
7. **Maintain queue for projects waiting to be programmed?** Yes.

7a. **Describe queue:**

Number of projects waiting in the queue: 10 to 25.
Value of projects waiting in the queue: Ranges from \$25 million to \$2 billion.
Overall funds available for programming per year: \$500 million to \$800 million.

7b. **Update programming documents waiting in the queue?** Yes. The projects are updated annually unless the project is selected to be scoped; then the project is updated prior to beginning the Level II scoping process.

8. **Staff contact information:** Kent Steele, Supervisor 3, Associate Engineer-Scoping/Estimating, Nevada Department of Transportation, (775) 888-7010, ksteele@dot.state.nv.us.

9. **Details or comments:** The scoping guidelines are currently in revision due to the change in the organizational culture—transposing into a matrix management organization.

Related Documents:

None provided. Scoping guidelines are currently in the final draft stage and will be available in January 2011.

See below for a manual, not provided by the survey respondent, which relates to the survey response.

- **Local Public Agency Manual**, Nevada Department of Transportation, April 2010. http://www.nevadadot.com/divisions/pdfs/010/2010_04_April_LPA_Manual.pdf
This manual is designed to assist local public agencies in designing and administering construction of projects with the oversight of NDOT for numerous types of federal-aid funding.

New Mexico

Contact: Patricia Oliver-Wright, New Mexico Department of Transportation, patricia.oliver-wright@state.nm.us.

1. **What drives production of programming documents?** [No response.]

1a. **Describe state law or departmental policy:** We used to provide programming documents very similar to the PID; however, that system was abolished and a new Planning [and] Environment[al] Linkage process has been initiated. No preliminary documents are now being developed. Projects are going directly into the environmental process. [See **Related Documents** below for an NMDOT design directive on the Planning and Environmental Linkage process.]

2. **Dollar amount trigger:** N/A

3. **Environmental evaluation or work:** N/A

4. **Document length:** They used to be 10 to 15 pages with photos.

5. **Staff hours to produce:** Varied.

6. **Develop documents for local agencies?** No.

6a. **Local agencies provide reimbursement? Please describe:** [No response.]

7. **Maintain queue for projects waiting to be programmed?** No.

7a. **Describe queue:** [No response.]

7b. **Update programming documents waiting in the queue?** [No response.]

8. **Staff contact information:** [No response.]

9. **Details or comments:** NMDOT used to conduct Project Evaluation Reports that could be used for preliminary development of a project. Over the years these reports were used less and less, especially in the districts that had design engineers who wanted to do their own preliminary work.

Related Documents:

None provided. See below for materials, not provided by the survey respondent, which relate to survey response.

- **Infrastructure Design Directive IDD-2009-07**, Project Development Process – Planning and Environmental Linkage, New Mexico Department of Transportation, July 24, 2009. http://www.nmshtd.state.nm.us/upload/images/Contracts_Unit/IDD-2009-07.pdf
This memo describes a revised project development process that is characterized by two primary changes:

- The addition of initial project definition and screening procedures that provide early information to identify, screen and select projects for inclusion in the STIP.
 - Increasing the level of engineering and environmental investigations and analyses conducted during the evaluation of alternatives. The change was made to better define the activities, cost and schedule of projects programmed in the STIP.
- **Activities Description Manual**, New Mexico Department of Transportation, July 2010.
http://www.nmshtd.state.nm.us/upload/images/Infrastructure_Division/PEL/NMDOT%20PROJECT%20DEV%20ACTIVITIES%20DESC%20MANUAL.pdf
 This manual provides a description, resources and tasks for each of the activities associated with the Process Environmental Linkage workflow.

North Carolina

Contact: Derrick Lewis, Program Development Branch, North Carolina Department of Transportation, (919) 715-5572, dlewis@ncdot.gov.

1. **What drives production of programming documents?** Development of programming documents is guided by departmental policy.
 - 1a. **Describe state law or departmental policy:** [No response.]
2. **Dollar amount trigger:** Anticipated type/scope of facility, not dollar amount, triggers production of feasibility study. Mostly I [Interstate], R [rural] and U [urban] projects and a few very large-scale bridge projects.
3. **Environmental evaluation or work:** Environmental screening of existing GIS-level information including natural and human environment.
4. **Document length:** 10 to 20 pages.
5. **Staff hours to produce:** Depends on scope and magnitude. Time frame is a little easier to answer. Typically, a feasibility study takes 1.75 to 2 years to complete, but the majority of the actual work for staff could be compressed into about four to six months, or 640 to 1,000 staff hours.
6. **Develop documents for local agencies?** No.
 - 6a. **Local agencies provide reimbursement? Please describe:** Rarely. This is difficult to answer. If a cursory review of something they wish to submit, then it is absorbed by traditional in-house feasibility study budget. If significant review or coordination is required or if we are actually doing something for an outside local government (city), then it is under a municipal agreement.
7. **Maintain queue for projects waiting to be programmed?** Yes.
 - 7a. **Describe queue:**

Number of projects waiting in the queue:	Approximately 300.
Value of projects waiting in the queue:	Approximately \$12.5 billion.
Overall funds available for programming per year:	Approximately \$1.25 billion to \$1.5 billion per year for everything.
 - 7b. **Update programming documents waiting in the queue?** Yes, only if management/local government or other wishes to expand, re-evaluate or update the conceptual scope. Cost estimates for construction are updated every two years, regardless. ROW and utilities are updated early in the NEPA project planning phases.
8. **Staff contact information:** Derrick Lewis, Feasibility Studies Unit Head, North Carolina Department of Transportation, (919) 715-5572, dlewis@ncdot.gov.
9. **Details or comments:** Mr. Lewis provided the following by e-mail:

I know how many future-year unfunded projects we have, their dollar figure and the approximate overall funds available.

However, the number that had a feasibility study is more difficult to answer. Currently, we do feasibility studies for the majority of the I (Interstate), R (Rural) and U (Urban) projects in our STIP but

very few B (Bridge) projects. I don't have a way to tabulate the number of these that actually have a feasibility study on them without a great deal of work. I have logged in nearly 1,050 entries into our feasibility study database, which was started in 1991, but the studies in the database go back to about 1984. I will strip off the bridge projects from the future-year TIP and see what I can do to filter the ones that have not had feasibility studies on them.

Related Documents:

See [Appendix A](#) for:

- **Feasibility Studies**, North Carolina Department of Transportation, undated.
This document outlines the background information required to prepare a feasibility study, the NCDOT units and location government staff participating in the process, and project development. The process is summarized as follows:

The unit evaluates available information, e.g., traffic demand, environmental concerns, local government concerns and long-range transportation plan compatibility, in order to develop project alternates. Once alternates are developed, the estimated cost of right of way and construction [is] prepared. These findings are then used by the upper management and Board Members of the Department of Transportation to set funding priorities for the biennial update of the TIP.
- **Feasibility Studies Outline**, North Carolina Department of Transportation, undated.
This document, provided to consultants, outlines the summary document above.
- **Scoping Procedures**, Feasibility Studies Unit, North Carolina Department of Transportation, September 13, 2007.
These procedures were drafted for use with in-house projects, but can also be used for consultant projects. Included are step-by-step procedures through the scoping meeting and a general overview of the process after the scoping meeting.

North Dakota

Contact: Stephanie Weigel, North Dakota Department of Transportation, (701) 328-2528, sjweigel@nd.gov.

1. **What drives production of programming documents?** Development of programming documents is guided by departmental policy.
- 1a. **Describe state law or departmental policy:** Our District Engineers submit projects based on their priorities of work based on the work type (i.e., preventive maintenance, minor rehab, structural improvement, major rehab, new/reconstruction). We prepare scoping reports for projects (larger than preventive maintenance) that include history, proposed alternatives and cost estimate(s).
2. **Dollar amount trigger:** Any project that is not a preventive maintenance project.
3. **Environmental evaluation or work:** None.
4. **Document length:** Eight to 12 pages.
5. **Staff hours to produce:** 25 hours.
6. **Develop documents for local agencies?** No.
- 6a. **Local agencies provide reimbursement? Please describe:** [No response.]
7. **Maintain queue for projects waiting to be programmed?** No.
- 7a. **Describe queue:** [No response.]
- 7b. **Update programming documents waiting in the queue?** [No response.]
8. **Staff contact information:** Stephanie Weigel, Lead Scoping Engineer, North Dakota Department of Transportation (701) 328-2528, sjweigel@nd.gov.
9. **Details or comments:** See **Related Documents** below for a link to our design manual that explains the type of projects we scope.

Related Documents:

Section 6, Design Philosophy, Investment Strategy, and Guides; Chapter I: Introductory and General Design Information, Design Manual, North Dakota Department of Transportation, September 22, 2010.

http://www.dot.nd.gov/manuals/design/designmanual/chapter1/DM-1-06_tag.pdf

This section of NDDOT's *Design Manual* provides design guidelines for the six types of investment strategies: preventive maintenance, minor rehabilitation, structural improvement, major rehabilitation and new/reconstruction projects.

Oklahoma

Contact: Ray Sanders, Oklahoma Department of Transportation, (405) 522-7600, rsanders@odot.org.

1. **What drives production of programming documents?** Development of programming documents is guided by departmental policy.
- 1a. **Describe state law or departmental policy:** Project initiation reports are a normal part of the department's project development process although not a policy directive.
2. **Dollar amount trigger:** \$0.
3. **Environmental evaluation or work:** Historic properties, archeological sites, cemeteries, hazardous waste/LUST [leaking underground storage tank] sites, endangered species, Section 4F or 6F properties, farmland, wetlands, scenic and protected aquifers, 100-year flood plain.
4. **Document length:** Five pages.
5. **Staff hours to produce:** 214 hours.
6. **Develop documents for local agencies?** No.
- 6a. **Local agencies provide reimbursement? Please describe:** [No response.]
7. **Maintain queue for projects waiting to be programmed?** Yes.
- 7a. **Describe queue:**

Number of projects waiting in the queue:	1,474.
Value of projects waiting in the queue:	\$3.8 billion.
Overall funds available for programming per year:	\$550 million.
- 7b. **Update programming documents waiting in the queue?** Yes, only when the proposed scope of the project is significantly modified, and then the process is the same as a new initiation.
8. **Staff contact information:** Ray Sanders, Project Management Division Manager, Oklahoma Department of Transportation, (405) 522-7600, rsanders@odot.org.
9. **Details or comments:**
 - Question 2: Most all multidisciplinary projects in the eight-year construction work plan are initiated.
 - Question 5: The 214 staff hours reported include 160 hours of reconnaissance data collection conducted by consultants through a task order-based contract and 10 people spending four hours each conducting a site visit. Therefore, the actual document preparation typically requires 14 staff hours.
 - Question 7: The department maintains an eight-year construction work plan that is updated annually. This plan is the programming document. Projects are initiated after they are introduced into the work plan. The numbers are reported as if the current year was considered programmed and the remaining seven years was considered shelf.

Mr. Sanders provided the following by e-mail:

The Oklahoma Department of Transportation maintains a fiscally constrained eight-year construction work plan.

This plan balances the project priorities with the anticipated funding. The work plan is updated annually and presented to the Transportation Commission for approval. Each project within the work plan is considered programmed at the time of commission approval. Project initiation reports are typically prepared for each multidisciplinary project within the work plan. Project initiation reports

document the scope decisions made during a multidisciplinary site visit. The site visit is conducted with varying degrees of information at hand depending on the complexity of the project intent. [See **Related Documents** below for a link to the current construction work plan, a copy of the initiation report form, and a copy of the scope of services for the reconnaissance data collected prior to the site visit.]

Related Documents:

FFY-2011 through FFY-2018 Construction Work Plan, Volume VIII, Oklahoma Department of Transportation, August 10, 2010.

<http://www.okladot.state.ok.us/cwp-8-year-plan/pdfs/cwp2011-2018.pdf>

This plan encompasses state, federal and Interstate highway improvement projects recommended through an annual validation and consideration process led by the state's eight Field Division Engineers and approved by the Transportation Commission.

See **Appendix B** for:

- **Project Initiation** (draft memo), Oklahoma Department of Transportation, undated.
This draft memo provides an outline for the content of the project initiation report, including functional classification, environmental considerations, alternative impacts, permit information, a description of the proposed improvement and initiation estimate.
- **Engineering Contract, Attachment A**, Oklahoma Department of Transportation, undated.
This document provides the scope of services for the reconnaissance data collected prior to site visits, including:
 - Georeferenced graphics.
 - As-built plans.
 - Property identification.
 - Utility information.
 - Accident history.
 - Existing bridge condition and hydrological data.
 - Cultural resources.
 - Hazardous waste/LUST sites.
 - Natural resources.
 - Existing facility data.

Oregon

Contact: Kim Hunn, Oregon Department of Transportation, kimberly.hunn-basl@odot.state.or.us.

1. **What drives production of programming documents?** Development of programming documents is guided by departmental policy.
- 1a. **Describe state law or departmental policy:** ODOT has operational notices (guidelines) that define the entire project development life cycle including all activities from pre-STIP scoping through contract plans development and resulting bid award. Our scoping process (and supporting documentation) is used to prepare the project for STIP inclusion, similar to what Caltrans does, as well as documenting detailed scope of project and potential issues.
2. **Dollar amount trigger:** It is not triggered by a dollar amount other than when our commission identifies broad funding priorities and then drive project decisions.
3. **Environmental evaluation or work:** As part of our detailed scoping efforts after the project is included in the STIP, environmental documentation is developed as required by FHWA and/or Oregon regulatory agencies. There is preliminary environmental work that may also occur prior to specific project identification and pre-STIP.
4. **Document length:** Depends on project complexity and what deliverables are required. If this is specific to preparing the project for STIP inclusion, I'd estimate at around five pages.
5. **Staff hours to produce:** ??
6. **Develop documents for local agencies?** Yes.
- 6a. **Local agencies provide reimbursement? Please describe:** No.

7. **Maintain queue for projects waiting to be programmed?** No.
- 7a. **Describe queue:** [No response.]
- 7b. **Update programming documents waiting in the queue?** [No response.]
8. **Staff contact information:** [No response.]
9. **Details or comments:** ODOT does not have exactly the same process as Caltrans in terms of “programming documents.” I will send a more detailed e-mail to Chris Kline describing how projects are assessed/developed for STIP inclusion, plus what happens after the STIP is approved. Typically, our more detailed documents occur after the project is in the STIP. Our level of scoping pre-STIP is fairly high level and does not thoroughly identify project scope, issues, etc.

Ms. Hunn provided the following by e-mail:

Generally speaking, in order for a project to be entered into the STIP, very little documentation is actually required. Our state transportation commission (Oregon Transportation Commission, or OTC) identifies the funding priorities at the program level (i.e., modernization, safety, bridge, pavement preservation) based on revenue projections, public input and infrastructure needs and conditions, then the ODOT regions (who are generally responsible for project identification, development and management) and program areas identify the project priorities that will utilize those funds. The regions, in conjunction with the various program managers, will perform preliminary scoping to identify rough cost estimates and general scope of the projects. These project priorities are then approved by the OTC, FHWA and FTA [Federal Transit Administration] as part of our STIP.

Once the STIP is approved, regions are authorized to begin detailed scoping to fine-tune the scope, cost and schedule of the project. At this point, regions will use tools like our STIP Scoping Report to document their findings and to generate additional requirements in terms of environmental issues, or other technical areas that need further analysis or work. Each technical discipline has certain documentation requirements depending on project specifics. Some regions may start developing the Scoping Summary prior to STIP approval, but again, it’s not final until detailed scoping occurs.

Some of our regions also use things like Project Charters to better define various activities of the project development project. Because we are decentralized, our five ODOT regions may use slightly different processes or produce slightly different deliverables to meet their specific needs. We, at the statewide level, try to build standards and tools that can be useful to almost anybody across the state.

In closing, I would like to mention that if I had a PID to look at, I might be better able to specifically define the document or documents that correspond based on what ODOT uses. If this is something you can send, that would be great.

Related Documents:

Below are ODOT web sites that reference some of the guidance documents used by project development staff.

- **Operational Notices–Directives–Policies**, Project Delivery Unit, Oregon Department of Transportation.
http://www.oregon.gov/ODOT/HWY/PDU/operational_notices.shtml
 This web page provides links to operational notices, which serve as ODOT’s project delivery policy guidelines and are intended to ensure consistency in project delivery practices throughout ODOT.
- **PD-02 Deliverables & References**, Project Delivery Unit, Oregon Department of Transportation.
http://www.oregon.gov/ODOT/HWY/PDU/pd02_deliverables_refs.shtml
 This web page provides a list of deliverables and references (templates, examples, criteria and guidance documents) that defines the process for project development and inclusion in the STIP. Ms. Hunn felt the information available from this site will most closely align with the Caltrans PID process. Among the documents available on this site is the STIP Scoping Summary Report. (See http://www.oregon.gov/ODOT/HWY/PDU/docs/word/STIP_Scoping_Summary_Report.doc.)

See below for additional materials, not provided by the survey respondent, which relate to the production of programming documents.

- **Phase 1: Program Development**, ODOT Project Delivery Guide, Oregon Department of Transportation, 2010._
http://www.oregon.gov/ODOT/HWY/PDU/docs/pdf/PDG_PDFs/PDG_PHASE1_ProgramDevelopment.pdf
This section of the Project Delivery Guide addresses program development and its five major milestones—transportation planning, management systems analysis, identify potential projects, draft scope, schedule, cost estimate (draft STIP) and project selection (final STIP).
- **Project Scoping Best Practices Guidebook**, Office of Project Delivery, Project Delivery Unit, Oregon Department of Transportation, June 2006._
<http://www.oregon.gov/ODOT/HWY/PDU/docs/pdf/Scopingguidebook061406.pdf>
This guide, developed for use by ODOT regions, provides best practices for STIP development scoping.

South Carolina

Contact: Nasser Vakili Rad, South Carolina Department of Transportation, (803) 737-4661, radnv@scdot.org.

1. **What drives production of programming documents?** [No response.]
 - 1a. **Describe state law or departmental policy:** N/A
 2. **Dollar amount trigger:** N/A
 3. **Environmental evaluation or work:** The Office of Planning and Environmental prepares a document called the Advanced Project Planning Report (APPR). The APPR looks at project costs, projected level of service and all environmental impacts due to the proposed project. To assist the APPR process, the SCDOT has developed a program called Project Screening Tool (PST). The PST is a web-based application that can be used by resource agencies to provide input and [to] upload and download files for a proposed project.
 4. **Document length:** APPR is about 50 pages and the PST application is about three pages.
 5. **Staff hours to produce:** 60 hours.
 6. **Develop documents for local agencies?** Yes.
 - 6a. **Local agencies provide reimbursement? Please describe:** No.
 7. **Maintain queue for projects waiting to be programmed?** No.
 - 7a. **Describe queue:** [No response.]
 - 7b. **Update programming documents waiting in the queue?** [No response.]
 8. **Staff contact information:** Nasser Vakili Rad, Special Projects Engineer, (803) 737-4661, radnv@scdot.org.
 9. **Details or comments:** [No response.]

Related Documents:

APPR Development Process, South Carolina Department of Transportation, undated.

See [Appendix C](#).

A step-by-step accounting of the APPR development process.

See below for an article, not provided by the survey respondent, which relates to the survey response.

- **“A Look at SCDOT’s Project Screening Tool (PST),”** *GIS in Transportation*, FHWA, Spring 2010.
http://www.gis.fhwa.dot.gov/documents/newsletter_spring2010.pdf
This article, focusing on the GIS-related aspects of SCDOT’s Project Screening Tool, addresses how the tool can be used to identify impacts due to a potential project early in the planning process.

South Dakota

Contact: Tim Bjorneberg, South Dakota Department of Transportation, tim.bjorneberg@state.sd.us.

1. **What drives production of programming documents?** Development of programming documents is guided by departmental policy.
 - 1a. **Describe state law or departmental policy:** Our policy is under revision, but it generally requires a thorough review of the project scope (we use that term instead of your programming document terminology) before survey or design begins. In utopia, we are looking to have this accomplished prior to inclusion into our STIP, but ARRA has put us behind.
2. **Dollar amount trigger:** All projects are to be scoped. Some are quicker than others, where only the begin/end is confirmed and a type of work identified.
3. **Environmental evaluation or work:** That depends. If reconstruction or new construction, NEPA starts with the alternative route considerations and early determination of whether impacts are possible. NEPA then continues throughout the project's life until approved. We even obtain a "batched" categorical exclusion for most of our projects at this early stage where it is determined no impact will be made.
4. **Document length:** It is all within an electronic module (database) that contains 30+ tabs of background information, commenting, recommendations, exceptions and approvals.
5. **Staff hours to produce:** Wow. Two to 240 hours, depending on the type of project.
6. **Develop documents for local agencies?** No.
 - 6a. **Local agencies provide reimbursement? Please describe:** No.
7. **Maintain queue for projects waiting to be programmed?** Yes.
 - 7a. **Describe queue:**

Number of projects waiting in the queue:	Not taking the time to count.
Value of projects waiting in the queue:	Or add.
Overall funds available for programming per year:	\$300 million, if typical without earmarks or ARRA.
 - 7b. **Update programming documents waiting in the queue?** Yes, only if we get funding better identified and potentially re-strategize for a certain highway.
8. **Staff contact information:** Dean VanDeWiele, Engineering Supervisor, South Dakota Department of Transportation, dean.vandewiele@state.sd.us.
9. **Details or comments:** Dean works in my office.

Related Documents:

Chapter 2, Scope Process; Road Design Manual, South Dakota Department of Transportation, undated.

<http://www.sddot.com/pe/roaddesign/docs/rdmanual/rdmch02.pdf>

Mr. Bjorneberg notes that the manual is being updated to reflect SDDOT's current electronic scoping process.

Note: See <http://www.sddot.com/pe/Roaddesign/docs/A4scopesummary.pdf> from the current version of the manual for a template Initial/Final Scope Summary. This document is based on an in-house scoping meeting and subsequent region and area office input.

Utah

Contact: Lori Dabling, Utah Department of Transportation, (801) 964-4456, ldabling@utah.gov.

1. **What drives production of programming documents?** Development of programming documents is guided by departmental policy.
 - 1a. **Describe state law or departmental policy:** UDOT STIP development process includes the process guidance to prepare project concept documents.
2. **Dollar amount trigger:** No dollar limitations are defined, so all projects that will advertise/construct should have concept documents.
3. **Environmental evaluation or work:** Long-range planning studies, models and work with local planning agencies.

4. **Document length:** They range between 10 to 20 pages for noncomplex projects. (Six- to 12-page narrative + eight- to 10-page cost estimate is common.)
5. **Staff hours to produce:** Approximately 180 to 220 hours.
6. **Develop documents for local agencies?** No.
- 6a. **Local agencies provide reimbursement? Please describe:** Yes. It varies by MPO, but usually local agency funding match is paid via agreement prior to the begin[ning] of each phase of work.
7. **Maintain queue for projects waiting to be programmed?** Yes.
- 7a. **Describe queue:**

Number of projects waiting in the queue:	Queue project documents are prepared/managed locally by regional Program Managers.
Value of projects waiting in the queue:	[No response.]
Overall funds available for programming per year:	[No response.]
- 7b. **Update programming documents waiting in the queue?** Yes. There is an annual regional review to update potential “queue” candidates. As a project transitions, our Project Delivery Design Network process includes re-evaluation/update team activities.
8. **Staff contact information:** Lisa Wilson, Director of Engineering Services, Utah Department of Transportation, (801) 965-4190, lwilson@utah.gov.
9. **Details or comments:** To clarify response on Question 6: Local MPOs are expected to prepare/provide concept documents. We’ve encouraged (and many have) adopted our UDOT concept-style format to ensure a more rigorous concept cost estimate and document.

Related Documents:

Statewide Transportation Improvement Program (STIP) Development Process, Program Development, Utah Department of Transportation, December 2001.

<http://www.udot.utah.gov/main/uconowner.gf?n=200309291653012>

This document includes descriptions, responsibilities and products associated with activities that are part of the STIP development process.

Washington

Contact: Patrick E. Morin, Capital Program Development & Management, Washington State Department of Transportation, (360) 705-7141, morinp@wsdot.wa.gov.

1. **What drives production of programming documents?** We prepare programming documents to meet the requirements of state law.
 - 1a. **Describe state law or departmental policy:** Revised Code of Washington 47.05 (Priority programming for highway development) [see <http://apps.leg.wa.gov/rcw/default.aspx?cite=47.05>] and the Joint Legislative Audit and Review Committee (JLARC) recommendations for project scoping (based on a survey of national best practices). [See **Related Documents** below for a link to the JLARC’s proposed final report on project scoping.]
2. **Dollar amount trigger:** All projects require a Project Summary document to be prepared.
3. **Environmental evaluation or work:** Draft Environmental Classification Summary. [See **Related Documents** below for a link to a guidebook.] WSDOT, FHWA and the regulatory agencies agreed on the information contained [in] this document. WSDOT also uses the final version as part of its federal-aid agreement package to FHWA.
4. **Document length:** Between seven to 12 pages, depending on project complexity, plus Basis of Estimate and engineering reports.
5. **Staff hours to produce:** Varies depending on complexity. WSDOT also has a majority of its enterprise data in a data warehouse.
6. **Develop documents for local agencies?** No.
- 6a. **Local agencies provide reimbursement? Please describe:** [No response.]

7. **Maintain queue for projects waiting to be programmed?** Yes.

7a. **Describe queue:**

Number of projects waiting in the queue:	Varies depending on dollar value.
Value of projects waiting in the queue:	10% to 20% of annual funds available at any time.
Overall funds available for programming per year:	\$400 million.

7b. **Update programming documents waiting in the queue?** Yes. We have guidance to update these documents on a yearly basis.

8. **Staff contact information:** Omar Miller, Project Scoping Engineer, Washington State Department of Transportation, (360) 705-7148, millero@wsdot.wa.gov.
9. **Details or comments:** WSDOT develops project summaries in a FileMaker database and can attach any supporting documents, including engineering reports or the Basis of the Estimate (including risk factors) to the project record in the database.

Related Documents:

See below for materials, not provided by the survey respondent, which relate to the production of programming documents.

- **Washington State Department of Transportation’s Scoping and Cost Estimating for Highway Construction Projects**, Proposed Final Report, State of Washington Joint Legislative Audit and Review Committee, January 5, 2010.
<http://www.leg.wa.gov/JLARC/AuditAndStudyReports/2009/Documents/WSDOTScopingCostEstimatingProposedFinal.pdf>
The 2009-2011 Transportation Budget directed JLARC to review how WSDOT develops highway construction project scope and cost estimates. Focusing on projects funded from the increased revenues provided in 2003 and 2005, JLARC compared WSDOT policies and procedures to industry guidelines and looked at actual practices used in WSDOT regions through analysis of eight case studies. The report’s conclusions, which did not focus on preliminary scoping, include:
 - WSDOT is now able to more accurately estimate costs than in 2003 and 2005.
 - Three issues should be considered to make estimates more accurate:
 - Time.
 - Resources.
 - Communication.
- **Design Manual**, Volume 1 – Procedures, Washington State Department of Transportation, December 2009.
<http://www.wsdot.wa.gov/publications/manuals/fulltext/M22-01/design.pdf>
See page 130-9 of the manual (page 79 of the PDF) for a discussion of the Project Summary, which is developed in the region when a project is proposed for programming. The Project Summary:
 - Defines the purpose and need for the project and spells out the scope of work.
 - Includes a cost/benefit measure to determine the project’s cost-effectiveness.
 - Documents the design decisions or assumptions that the region made while determining the project scope.
 - Identifies the major factors that will influence the scope, schedule and budget and includes a cost increase factor for unidentified risks.
 - Establishes initial preliminary engineering, right of way and construction cost estimates.
 - Documents the project delivery schedule.
 - Requires approval by the HQ SA&PD [Systems Analysis and Program Development] Section prior to submittal to the Legislature for programming consideration.
 - Documents the potential environmental impacts and permits that may be required.
- **2007 Transportation Planning Studies Guidelines and Criteria**, Washington State Department of

Transportation, November 2007.

<http://www.wsdot.wa.gov/NR/rdonlyres/8B2B613F-D6F1-4515-82E5-23417C7C321D/0/NovFinalTPSGC.pdf>

See Chapter 9, Scoping, Programming, and Project Delivery, which begins on page 102 of the PDF.

- **Project Summary Forms**, Washington State Department of Transportation, undated.
<http://www.wsdot.wa.gov/publications/fulltext/ProjectDev/ProjectSummary/PROJSUM.pdf>
WSDOT staff prepares a Project Summary by using the WSDOT Project Summary Database to electronically fill out three Project Summary forms: a Project Definition form, a Design Decisions form and an Environmental Review Summary form.
- **Pre-Construction Phase**, Project Management Online Guide, Washington State Department of Transportation.
http://www.wsdot.wa.gov/Projects/ProjectMgmt/OnLine_Guide/Phase_Guides/Pre-Construction/Pre-Construction_files/slide0001.htm
WSDOT's Project Management Online Guide (PMOG) is an interactive web site that includes links to tools, templates, manuals and specifications, and offers examples of good practice to describe the project management process. The Pre-Construction phase includes five elements: initiate and align; plan the work; endorse the plan; work the plan; and transition and closure. Elements of the PMOG that relate to scoping-type activities include:
 - **Overview of the "Plan the Work" Element**
http://www.wsdot.wa.gov/Projects/ProjectMgmt/OnLine_Guide/Phase_Guides/Pre-Construction/PC_Plan_the_Work/PC_Plan_Overview.htm
The "Plan the Work" element is the portion of the project management process that produces the Project Management Plan. The Project Management Plan describes both the Project Performance Baseline—the project deliverables and the schedule and budget plans for delivering them—and the Project Management Methods that will be used by the project team during their delivery.
 - **Tools Inventory for the Five Pre-Construction Elements**
http://www.wsdot.wa.gov/Projects/ProjectMgmt/OnLine_Guide/Tools/PC_Tools_Inventory.htm
This element includes sample plans, checklists and templates for each of the five elements of the Pre-Construction phase.
 - **Sample Project Management Plan**
http://www.wsdot.wa.gov/Projects/ProjectMgmt/OnLine_Guide/Tools/PMP_Example.pdf
This July 19, 2006, sample plan drafted by Washington State Department of Transportation is for US 101 Cooper Point Rd. Interchange. See page 8 of the PDF for an example of the types of tasks addressed in scoping a project.
- **Local Programs Environmental Classification Summary Guidebook**, Highways and Local Programs Division, Washington State Department of Transportation, October 20, 2010.
<http://www.wsdot.wa.gov/NR/rdonlyres/87901EB4-008A-43A0-9DB7-2179E0BC939F/0/ECSSGuidebooksecure.pdf>
This guide assists local agencies in Washington in completing the Environmental Classification Summary form for transportation projects that receive federal funding.

West Virginia

Contact: Robert Pennington, Program Planning and Administration Division, West Virginia Department of Highways, (304) 558-9291, robert.pennington@wv.gov.

1. **What drives production of programming documents?** Development of programming documents is guided by departmental policy.
- 1a. **Describe state law or departmental policy:** The WVDOH has a Program Review Committee (PRC) that routinely meets and discusses new project additions to the STIP, and significant cost changes or schedule

changes as well. This process is in our Administrative Procedures.

2. **Dollar amount trigger:** \$10,000.
3. **Environmental evaluation or work:** Identifying potential environmental issues and suggesting the anticipated environmental document required for the project.
4. **Document length:** One page; we are currently changing our system to use Primavera P6 so it will become all electronic soon.
5. **Staff hours to produce:** 0.5 hour per each.
6. **Develop documents for local agencies?** No.
- 6a. **Local agencies provide reimbursement? Please describe:** No.
7. **Maintain queue for projects waiting to be programmed?** Yes.
- 7a. **Describe queue:**

Number of projects waiting in the queue:	Unknown, as many would need updating to current standards.
Value of projects waiting in the queue:	Unknown.
Overall funds available for programming per year:	\$500 million to \$600 million for new starts.
- 7b. **Update programming documents waiting in the queue?** Yes. We only update them when a change necessitates it such as cost increase, schedule becomes past due, placing a project in reserve status, etc.
8. **Staff contact information:** Nyle Fisher, Highway Engineer, West Virginia Department of Highways, (304) 558-3113, nyle.l.fisher@wv.gov.
9. **Details or comments:** We are currently changing our programming process from a mainframe-based system that is labor-intensive and paper-based to the Primavera software that essentially is almost exclusively paperless. We are using our GIS demographics to help populate our programming documents automatically.

Related Documents: Contact Nyle Fisher at (304) 558-3113 regarding programming requirements utilizing Primavera (in development phase now).

Wyoming

Contact: Martin Kidner, State Planning Engineer, Wyoming Department of Transportation, martin.kidner@dot.state.wy.us.

Mr. Kidner provided the following by e-mail:

While Wyoming does produce a Project Selection Report (PSR) documenting the purpose and need, it doesn't go into the details that California is looking at, so I think we won't participate in the survey.

Vendors

We provided the survey to a select list of vendors across the country known to work with state DOTs in the production of programming documents. We received two responses from vendors describing their work with Florida and Illinois DOTs.

Vendor 1 (Florida)

1. **What drives production of programming documents?** Development of programming documents is guided by departmental policy.
 - 1a. **Describe state law or departmental policy:** FDOT District 7 (we are their general consultant) develops PPRs (preliminary project reports), PECs (preliminary engineering costs), SURs (survey cost estimates), R/W [right of way] cost estimates, and LREs (long-range (construction) estimates) as its way of documenting the scope and budgetary needs of its five-year work program.
2. **Dollar amount trigger:** More than \$25,000 construction cost.

3. **Environmental evaluation or work:** Only estimates of the environmental impact; if known impacts are to occur, preliminary scopes, PD&E [project development and environment] and construction cost estimates are developed. No detailed studies or impact statements at this stage.
4. **Document length:** PPR = three pages; SUR = three pages; PEC = 20+ pages (spreadsheet design or PD&E cost estimates; depends on project complexity); R/W = five pages plus backup; LRE varies depending on complexity (anywhere from eight to 60 pages from the automated estimating program).
5. **Staff hours to produce:** 8 to 14 hours.
6. **Develop documents for local agencies?** Yes.
- 6a. **Local agencies provide reimbursement? Please describe:** No.
7. **Maintain queue for projects waiting to be programmed?** No.
- 7a. **Describe queue:** [No response.]
- 7b. **Update programming documents waiting in the queue?** [No response.]
8. **Staff contact information:** N/A
9. **Details or comments:** [No response.]

Related Documents:

None provided.

Vendor 2 (Illinois)

1. **What drives production of programming documents?** Development of programming documents is guided by departmental policy.
- 1a. **Describe state law or departmental policy:** There is no departmental policy; however, there are internal practices in place within the state and MPO that require a STIP and TIP to be developed, which require knowledge of scope and planning-level cost estimates for engineering, land acquisition and construction. These figures are adjusted yearly as new or better information and/or scope development is available. In addition, by law the state (governor's office) must publish a proposed MYP [Multi-Year Program] document annually that is adopted by the General Assembly. That sets the Illinois Department of Transportation's annual budget, which includes the obligation of federal funds for the local governments. Illinois works on a reimbursement program.
2. **Dollar amount trigger:** N/A
3. **Environmental evaluation or work:** On occasion feasibility of more formal corridor studies; however, this is discretionary.
4. **Document length:** For the above, anywhere from 20 to 200 pages of text plus exhibits. No formal scoping documents for each project are prepared, although there was an effort at one time to do so. Fell by the wayside due to time constraints and lack of available staffing. Many projects have scope already identified by knowledge of department managers, maintenance needs/reoccurring issues, pavement surveys and political reasons.
5. **Staff hours to produce:** N/A
6. **Develop documents for local agencies?** No.
- 6a. **Local agencies provide reimbursement? Please describe:** [No response.]
7. **Maintain queue for projects waiting to be programmed?** No.
- 7a. **Describe queue:**

Number of projects waiting in the queue:	Thousands.
Value of projects waiting in the queue:	\$8 billion to \$10 billion.
Overall funds available for programming per year:	\$2 billion to \$3 billion.
- 7b. **Update programming documents waiting in the queue?** No.
8. **Staff contact information:** [No response.]
9. **Details or comments:** Since no formal project-specific programming documents are prepared in the context

of your definition, many of the above questions were answered “No.” The state of Illinois does develop a comprehensive Multi-Year Program, which is evaluated annually. Projects are moved forward in the Annual Program, while some are adjusted, others added and some deleted. It is a six-year, \$10 billion plus program administered by area programmers and program development managers who are very knowledgeable about the areas they oversee. When in need of project information that would have an impact on scope or budget, they seek out the assistance of others to assist in developing a “program” based on a scope of work that eventually will get implemented, even when meeting the NEPA tests and going through the extensive public involvement.

Related Documents:

None provided.

Other State DOT Practices and Tools

Below we highlight policies, manuals, forms, checklists and software tools related to the scoping efforts of five state DOTs not responding to the survey: Massachusetts, Missouri, New Jersey, New York and Texas.

Massachusetts

Chapter 2, Project Development. Project Development & Design Guide, Highway Division, Massachusetts Department of Transportation, January 2006.

http://www.mhd.state.ma.us/downloads/designGuide/CH_2.pdf

This chapter introduces MassDOT’s project development process, which covers a range of activities extending from identification of a project need to construction. Preliminary elements of a project are defined (need, goals and objectives, project constituents, etc.) in the Project Need Form (PNF). After the PNF has been reviewed and evaluated by the MassHighway District Office, a project requiring further planning moves into Step II, Planning, and a Project Planning Report is prepared. Other projects that are more straightforward or supported by prior planning studies often move directly to Step III, Project Initiation, during which the Project Initiation Form is completed. Points of interest in the chapter include:

- Page 3 of the PDF provides an overview of project development that identifies processes and outcomes.
- Page 14 of the PDF gives an overview of project planning tasks.
- Page 79 of the PDF presents a project development schematic timetable.

The appendix to Chapter 2 is available at

http://www.mhd.state.ma.us/downloads/designGuide/ch_2_appendixA_0709_revised.pdf and includes template documents.

- See page 3 of the PDF for the template PNF.
- See page 27 of the PDF for the template Project Initiation Form.

Missouri

Category: 104 Scope, Engineering Policy Guide, Missouri Department of Transportation

http://epg.modot.org/index.php?title=Category:104_Scope

Missouri DOT’s Engineering Policy Guide (EPG) contains MoDOT policy, procedure and guidance for the planning, design, construction and maintenance of roadway and related facilities. The information is presented as articles numbered to reflect as closely as possible the pay items and divisions from *Missouri Standard Specifications for Highway Construction*.

The EPG article addressing scope, available at the URL above, “covers the initial steps necessary to identify transportation needs, properly scope solutions to those needs and develop commitments prior to inclusion in the Statewide Transportation Improvement Program (STIP). Guidelines are also included for the preparation of appropriate project cost estimates at various milestones and the required documentation of those estimates.”

Appearing at the bottom of this web page are links to 13 related articles that provide additional information about MoDOT’s scoping process. Relevant materials included in these related articles include:

- **Project Scoping Process**, Missouri Department of Transportation, April 2003.
http://epg.modot.org/files/b/b4/104.2_Project_Scoping_Process.pdf
A flowchart depicting the project scoping process.
- **Project Scoping Checklist**, Missouri Department of Transportation, January 1, 2003.
http://epg.modot.org/files/6/60/104.6_Project_Scoping_Checklists.doc
Developed to assist the project manager in determining the members who are required to be involved in various project decisions, this checklist summarizes the expectations that each type of core team member is trying to meet.
- **Sample Project Summary**, STIP Information Management System (SIMS) Form, Missouri Department of Transportation, January 9, 2008.
http://epg.modot.org/files/7/71/104.11_Completed_SIMS_form_887.pdf
Documentation of the recommended solution to a given need and the concurrence of MoDOT management in the project's scope appears in a completed SIMS form.
- **104.9 Environmental Considerations**, Engineering Policy Guide, Missouri Department of Transportation.
http://epg.modot.org/index.php?title=104.9_Environmental_Considerations
From the article:
By the time the scoping is completed for a given project, the appropriate environmental documentation will have been completed for the project. This is not to say that the project is clear and that additional work may not be necessary later in the process. However, the appropriate environmental document will be approved at this point. A location public hearing will be held and the location approved by the Commission, if necessary. Therefore, any commitments that are required as a part of the environmental process shall be included in the scope of the project prior to the time that STIP commitments are made.
- **Category: 138 Project Development Chronology**, Engineering Policy Guide, Missouri Department of Transportation.
http://epg.modot.org/index.php?title=Category:138_Project_Development_Chronology
This article is a brief outline of the process involved in the path of an improvement project from the initial identification of a "need" to a completed project.

New Jersey

Capital Project Procedures, New Jersey Department of Transportation, August 22, 2008.

<http://www.state.nj.us/transportation/eng/documents/procedures/>

This web page presents the current practices used in producing a capital project, from problem statement, design reviews, construction contract documents and award, to final closeout. The page provides links to detailed information about the project development and delivery process, including:

- **Capital Project Delivery Process**, New Jersey Department of Transportation, undated.
<http://www.state.nj.us/transportation/capital/pd/pdf/CPDPProcess.pdf>
This flowchart describes the stages in the project delivery process, including:
 - **Purpose & Need (P&N)** is the first stage, where potential projects are identified, defined and evaluated. Existing information on the project location will be collected and analyzed, and a list of deficient elements in the study area will be identified. Initial concepts or alternatives will be developed and potential solutions will be presented to eliminate the identified deficiencies.
 - **Feasibility Assessment (FA)** is the second step. Alternatives identified in the P&N process are further refined through a review process that includes NJDOT subject matter experts and outside stakeholders. Alternatives are refined and narrowed until one alternative is clearly identified as an Approved Project Plan. FA includes all the necessary activities to bring the design of a project to a level of detail necessary to support the approved environmental document and preliminary utility involvement definition, ROW needs and permits required.
- **Concept Development & Feasibility Assessment Quality Assurance Checklist**, New Jersey Department of Transportation, February 24, 2006.
http://www.state.nj.us/transportation/eng/documents/DPPD/Final_QA_checklist.shtm

This checklist is a compilation of the items and tasks that are completed as a project moves through the beginning of the NJDOT project delivery process. It includes Tier 2 screenings, concept development and FA. Each document on the list includes sections titled “Why” and “How” to describe a task and explain its purpose.

- **Activity List for Purpose & Need, Feasibility Assessment & Environmental**, New Jersey Department of Transportation, October 21, 2008.
http://www.state.nj.us/transportation/eng/documents/procedures/actlist_fasd.shtm
This list provides descriptions of activities involved in developing the P&N, FA and environmental documents, and identifies the pipeline associated with the activity. Also provided are links to Project Development Unit tasks.

New York

Project Development Manual, New York State Department of Transportation.

<https://www.nysdot.gov/divisions/engineering/design/dqab/pdm>

This web page provides links to components of NYSDOT’s Project Development Manual, including.

- **Chapter 3, Project Scoping Procedure**, Project Development Manual, New York State Department of Transportation, December 2004.
<https://www.nysdot.gov/divisions/engineering/design/dqab/dqab-repository/pdmch3.pdf>
Page 5 of the PDF describes the purpose of the project scoping stage:

The purpose of the Project Scoping Stage is to:

1. Identify the project area’s safety, mobility, infrastructure, community, and environmental conditions, needs, and objectives.
2. Establish project objectives.
3. Establish design criteria.
4. Identify feasible alternative(s).
5. Estimate the project cost based on project information readily available.
6. Confirm the likely SEQR [State Environmental Quality Review] Type.
7. Confirm the likely NEPA Class, if the project uses federal funds or requires a federal approval or permit. (Refer to Section 2.3.1, Overview of the NEPA Environmental Classes and the SEQR Environmental Types.)

- **Appendix 7, Scoping & Design Approval Documents**, Project Development Manual, New York State Department of Transportation, February 2008.
<https://www.nysdot.gov/divisions/engineering/design/dqab/dqab-repository/PDM%20Appendix%207%20-%20a%20-%20Intro.doc>

This document provides guidance on preparing scoping and design approval documents for four types of projects (maintenance, simple, moderate and complex) and preparing four types of reports (Initial Project Proposal, Project Scoping Report, Draft Design Report and Final Design Report).

- **Project Report Shells**, Project Development Manual, New York State Department of Transportation, various dates.

<https://www.nysdot.gov/divisions/engineering/design/dqab/pdm/shells>

Find links on this web page to Word document shells for scoping and design approval documents.

Texas

TxDOT Best Practices Model and Implementation Guide for Advance Planning Risk Analysis for Transportation Projects, Texas Department of Transportation, Report No. 0-5478-P2, August 31, 2007.

http://www.utexas.edu/research/ctr/pdf_reports/0_5478_P2.pdf

The Advance Planning Risk Analysis (APRA) for transportation projects developed in this study is a software tool that offers a method to measure project scope definition for completeness and identify potential risks early in a project across all major disciplines, including ROW, utilities, environmental, design, transportation planning and programming, and construction. Developed with the Microsoft Office Excel platform using Visual Basic for Application, the tool identifies and describes each element of the project scope and allows a project team to quickly predict factors impacting project risk. The tool is intended to evaluate the completeness of the scope definition at any point prior to plans, specifications and estimates (PS&E) development and construction. The report discusses

the benefits of APRA, gives instructions for assessing a project, discusses what an APRA score means and concludes with recommendations on how to improve performance on future projects.

User Guide for the Advance Planning Risk Analysis Tool for Transportation Projects, Texas Department of Transportation, Report No. 0-5478-P1, August 31, 2007.

http://www.utexas.edu/research/ctr/pdf_reports/0_5478_P1.pdf

This document is the user guide for the APRA software program. All data used in the program are stored in 11 worksheets in an Excel file.

Feasibility Studies

The Feasibility Studies Unit investigates candidate Transportation Improvement Program (TIP) projects recommended by the public, local governments and Board of Transportation Members. The unit evaluates available information, e.g., traffic demand, environmental concerns, local government concerns and long-range transportation plan compatibility, in order to develop project alternates. Once alternates are developed, the estimated cost of right-of-way and construction are prepared. These findings are then used by the upper management and Board Members of the Department of Transportation to set funding priorities for the biennial update of the TIP.

Background Information

The Feasibility Studies Unit begins each project by gathering all the available background information from the following resources:

1. TIP Hearing Minutes
2. Approved Thoroughfare Plan, if applicable.
3. Roadway Functional Classification
4. Mileage Inventory and Straight line summary
5. Available Bridge Inventory Data, if applicable.
6. Obtain Available Mapping, Aerials, Topography, etc.
7. Signals and Geometrics Unit (Traffic Signal Inventory)
8. Current TIP document for related projects.
9. Existing GIS Databases
10. National Register of Historic Places and State Study List (Historic Properties)
11. Stream Classification
12. National Heritage Program (Threatened and/or Endangered Species)
13. National Wetland Inventory
14. Project Site Visit

Project Input

As part of the Feasibility Study Process, the unit will request that various NCDOT units and local government officials/staff provide comments and concerns on the candidate project. The following is a list of the NCDOT units and local government officials/staff that are included in this process:

1. Transportation Planning Branch (Project Traffic Volume Projections)
2. Traffic Engineering Safety Systems Unit (Crash Analysis)
3. Congestion Management Section
4. NCDOT Rail Division (if applicable)
5. NCDOT Bicycle and Pedestrian Division
6. NCDOT Highway Division Engineer
7. Local Government input (Municipal and/or County depending on project location)
8. MPO /RPO Input

Feasibility Scoping Meeting: After all relative background information and comments regarding the project have been compiled, the assigned Feasibility Studies Engineer will hold a joint meeting with Roadway Design, Traffic Engineering, Division, PD&EA and Transportation Planning personnel to discuss and refine the project scope as well as brainstorm alternatives to be considered. The local officials, MPO and/or RPO representatives should also be invited to attend.

Development of Project

The Feasibility Studies Unit will then analyze and evaluate all project data and comments gathered in order to develop preliminary project alternates to address the operational and safety concerns of the project. Following this, the assigned Feasibility Studies Engineer will meet and discuss the preliminary alternates with staff from our Roadway Design Unit, Traffic Engineering and Safety Systems Branch, and Project Development and Environmental Analysis Branch (*Quality Control*).

After the project alternates are refined, the Feasibility Studies Engineer will request the preliminary pavement design, construction cost estimates and right-of-way cost estimates for each alternate. Upon receipt of these cost estimates, the Unit will send the appropriate Board of Transportation Member and Division Engineer the draft Feasibility Study report. After any comments and/or concerns from the Board Member and Division Engineer have been addressed, the Unit will finalize and distribute the Feasibility Study.

It should be noted that a Feasibility Study is a preliminary document that is the initial step in the planning and design process for a candidate project and not the product of exhaustive environmental or design investigations. The purpose of this study is to describe the proposed project including cost, and identify potential problems that may require consideration in the planning and design phases.

Once a candidate project is identified for funding in the TIP, the Feasibility Study is followed by a rigorous planning and design process that meets the requirements of the National Environmental Policy Act, where either an Environmental Impact Statement or an Environmental Assessment is done.

Feasibility Studies Outline

Project Initiation

- Setup project file.
- Determine project scope by researching TIP hearing Minutes and discussing with TIP unit (Ray McIntyre, Van Argabright or Mike Stanley) to see what they have on the request.
- Prepare preliminary figure for project.
- Prepare traffic forecast & Transportation Planning Branch input request. Allow six months for response.

Background Information and Project input

- Research and/or request project background information below (all items should be complete before moving on to Analysis and Design stage):
 1. Approved Thoroughfare Plan, if applicable.
 2. Roadway Functional Classification
 3. Mileage Inventory and Straight line summary
 4. Available Bridge Inventory Data, if applicable.
 5. Available mapping of area, Aerial Photography, USGS Quad Maps, NCDOT County Maps, etc.
 6. Signals and Geometrics Unit (Traffic Signal Inventory)
 7. Current TIP document for related projects.
 8. GIS Information
 9. Historic Properties (National Register of Historic Places and State Study List, GIS search required)
 10. Stream Classification
 11. Threatened and Endangered Species
 12. National Wetland Inventory
- As part of the Feasibility Study Process, the unit will request that various NCDOT units and local government officials/staff provide comments and concerns on the candidate project. The following is a list of the NCDOT units and local government officials/staff that are included in this process: (Note: Please send these out as soon as possible)
 1. Traffic Engineering Safety Systems Unit (Crash Analysis)
 2. NCDOT Rail Division (if applicable)
 3. NCDOT Bicycle and Pedestrian Division
 4. NCDOT Highway Division Engineer
 5. Local Government input (Municipal and/or County depending on project location)
 6. MPO Input (if applicable)
 7. RPO Input

Scoping

Prior to project development but after data collection, a scoping meeting must be held including the following departments:

- Roadway Division
- Traffic Safety
- PDEA
- Traffic Control
- Transportation Planning

Development of Project

- Analyze all information previously gathered to determine issues to be addressed and/or avoided during design.
- Perform detailed capacity analysis
- Order pavement design
- Prepare preliminary design of alternatives
- Discuss design with Feasibility Study Unit before setting up Roadway/Traffic meeting
- Discuss project with Roadway Design and Traffic Engineering
- Modify Preliminary Designs as required
- Order Right of way and Construction Cost estimates

Report Preparation

- Prepare draft report while waiting for cost estimates
- Submit Draft for Feasibility Study Unit Review.
- Revise per comments
- Submit draft for Calvin's, BOT, and Division review (1 month)
- Finalize draft per their comments
- Distribute draft
- Revise per comments
- Prepare final report

FEASIBILITY STUDIES UNIT SCOPING PROCEDURES

Please Note:

- The Scoping Procedures are written for both widening and new location candidate TIP highway projects including high profile replacement projects.
- **Scoping meetings will be held for all in-house and consultant projects.**
- The Scoping Procedures are written specifically for in-house projects; however, they can be used for consultant projects too.
- The Scoping Procedures consist of two items:
 1. Step-by-Step Procedures through the scoping meeting
 2. General overview of remainder of process beyond the scoping meeting

STEP-BY-STEP PROCEDURES

A. Initial Project Scope

After the feasibility study is assigned, the Feasibility Studies Engineer will request the appropriate Division Engineer, Transportation Planning Branch (TPB) Unit Head (for the applicable geographic area) and State Roadway Design Engineer provide the names of the Division, TPB contact person and Roadway Project Engineer for the project.

The Feasibility Studies Engineer should then discuss the candidate project with the appropriate Division, Roadway Design and TPB staff. The topics to be discussed with the appropriate staff should include:

- Discussion of initial scope of project and alignments that should be considered in traffic forecast request for project. (Division and TPB)
- Discussion of origin of feasibility study request and the need that should be addressed. (Division and TPB)
- Division and Feasibility Study staff may be able to provide insight into the priority of the project to the Department (let TPB know up front that this is high profile) or other special needs they foresee during project development
- Traffic forecasting tool(s) and traffic projections that are readily available – information in the study report (daily link volumes or other information that may be useful prior to the project traffic forecast)

However, if a project is unusually complex or sensitive, the Feasibility Studies Engineer may need to set up a formal *Preliminary Scoping Meeting* to discuss issues and alternatives before proceeding with the later stages of the Feasibility Study.

B. Project Research

After defining the initial scope, the assigned Feasibility Studies Engineer will research the project's background data, request project input from others inside and outside the DOT and request traffic forecasts on the alignments identified in the initial scope.

Background Information

The Feasibility Studies Engineer will research all the available background information from the following resources:

1. TIP Hearing Minutes
2. Approved Thoroughfare Plan, if applicable.
3. Roadway Functional Classification
4. Mileage Inventory and Straight line summary
5. Available Bridge Inventory Data, if applicable.
6. Obtain Available Mapping, Aerials, Topography, etc.
7. Signals and Geometrics Unit (Traffic Signal Inventory)
8. Current TIP document for related projects.
9. Existing GIS Databases
10. National Register of Historic Places and State Study List (Historic Properties)
11. Stream Classification
12. Natural Heritage Program (Threatened and/or Endangered Species)
13. National Wetland Inventory
14. Project Site Visit

Project Input

The Feasibility Studies Engineer will request various NCDOT units and local government officials/staff provide comments and concerns on the candidate project. The following is a list of the NCDOT units and local government officials/staff that are included in this process:

1. Roadway Design Unit
2. Traffic Engineering Safety Systems Unit (Crash Analysis)
3. Congestion Management Section (including ITS when appropriate)
4. NCDOT Rail Division (if applicable)
5. NCDOT Bicycle and Pedestrian Division
6. NCDOT Highway Division Engineer
7. NCDOT Work Zone Traffic Control Unit (WZTCU)
8. Local Government input (Municipal and/or County depending on project location)
9. Metropolitan Planning Organization (MPO)/Rural Planning Organization (RPO) Input
10. Alternate Delivery Systems Unit

Transportation Planning and Traffic Forecast Request

The Feasibility Studies Engineer will request that the Transportation Planning Branch prepare a Traffic Forecast as well as provide related planning level data that may provide some assistance with the project development. Some examples of additional information that might be useful are as follows:

- A copy of the latest Comprehensive Transportation Plan (CTP) or Thoroughfare Plan and any other information related to the candidate project including the
 - Status – complete, currently in update, outdated, etc.
 - Long-Range Transportation Plan (LRTP) update schedule MPOs
 - Local development patterns (information used to develop CTP/thoroughfare plan)
 - Local issues that arose during development of CTP/thoroughfare plan – concerns or support for project implementation
 - Environmental issues considered during development of CTP/thoroughfare plan
- Unique characteristics of the local area/project vicinity
- System-Level Purpose and Need Statement
- Whether or not the facility is identified as a Strategic Highway Corridor
- Recommended Cross Section for facility
- Recommended revision to project limits if different from one provided as well as justification for revision.
- Any extenuating circumstances that might influence the magnitude of the design year traffic (i.e., projections based on construction of an outer loop, etc.)?
- Any related projects in progress or on the CTP or LRTP and their possible effect on the subject project
- Any other information that is important to this project, such as the need for this project, as well as data indicating local support or opposition to the project.

In cases where the Feasibility Study is being prepared by others for submittal to the NCDOT for consideration, the submitting party is responsible for the preparation of the project traffic forecast (including current and design year build and no build conditions). This traffic forecast should be submitted to the Transportation Planning Branch for review and comments during the early stages of the study development.

C. Feasibility Study Scoping Meeting

The Feasibility Studies Engineer will schedule a Scoping Meeting within two months after receiving the projected traffic volumes and related information from the Transportation Planning Branch. The Feasibility Studies Engineer will request attendance from representatives of the following Branches/Units of the NCDOT:

- Roadway Design Unit
- Division(s) Engineer, as well as Assistant Division Engineers
- Traffic Engineering and Safety Systems Branch
- Project Development and Environmental Analysis Branch include the Project Development, Human Environment, and Natural Environment Units
- Work Zone Traffic Control Unit
- Hydraulics Unit
- Transportation Planning Branch
- Alternative Delivery Systems Unit

If deemed desirable, representatives from other units (i.e. Structure Design, Geotechnical Engineering, etc.) may also be requested to attend. At least one month before the scheduled scoping meeting, the Feasibility Studies Engineer should send a letter informing the attendees of the date, time and location. This letter should also include a project description, location map as well as the projected traffic volumes for the project. The contact person for the appropriate MPO and/or RPO, as well as the city and/or county manager will be sent a copy of this letter and given the opportunity to attend the scoping meeting. The State Highway Administrator, Director of Preconstruction and State Highway Design Engineer will be sent a copy of this letter for their information.

The topics to be discussed at this meeting should include:

1. The basic project description
2. Existing conditions
3. Planning level purpose and need
4. Strategic Corridor Status
5. The proposed roadway cross section(s) to be considered including:
 - Shoulder vs. curb and gutter
 - Median configuration and width
6. The intersection and interchange improvement(s) including
 - Spacing issues and requirements
 - Configurations
 - Auxiliary Turn Lanes
 - Side Street improvements (Y-line)
7. Right of way
 - Base width required
 - Control of Access
8. Environmental Information
 - River, Stream and Wetland impacts
 - Historic Properties

- Community Issues
 - Economic Concerns
 - Hazardous Waste Sites
9. Railroad issues
 10. ITS improvements
 11. Adjacent TIP projects
 12. Discuss potential alternatives and alignments to be considered
 13. Constructability Issues
 14. Need to consider pedestrian impacts during construction and beyond.
 15. Consider project network impacts and significance as it relates to the Work Zone Safety and Mobility Policy.

D. Feasibility Study Analysis and Preliminary Design

The Feasibility Studies Engineer will then analyze and evaluate all project data and comments gathered in order to develop preliminary project alternates to address the operational and safety concerns of the project. The analysis should include detailed capacity analyses, as well as an evaluation of the crash data, environmental and historic concerns, and project input from local governmental and other NCDOT sources. The Conceptual Designs shall then be prepared in order to determine the cost and impacts associated with the alternatives to be carried forward in the Feasibility Study.

E. Quality Control, Cost Estimates and Report Preparation

Prior to requesting cost estimates, the Feasibility Studies Engineer will setup a feasibility study design review meeting and discuss the conceptual designs with staff from the Roadway Design Unit, Traffic Engineering and Safety Systems Branch and Highway Division in order to refine the project alternatives. The contact person for the appropriate MPO and/or RPO, as well as the city and/or county manager will be sent a copy of this letter and given the opportunity to attend this meeting.

After the project alternates are refined, the Feasibility Studies Engineer will request the construction, right-of-way, utility and ITS cost estimates for each alternate. Upon receipt of these cost estimates, the Draft Feasibility Study will send the appropriate Board of Transportation Member and Division Engineer for comments. After any comments and/or concerns from the Board Member and Division Engineer have been addressed, the Feasibility Studies Unit will finalize and distribute the Feasibility Study.

It should be noted that a Feasibility Study is a preliminary document that is the initial step in the planning and design process for a candidate project and not the product of exhaustive environmental or design investigations. The purpose of this feasibility study is to describe the proposed project including cost, and identify potential problems that may require consideration in the planning and design phases.

Once a candidate project is identified for funding in the TIP, a rigorous planning and design process that meets the requirements of the National Environmental Policy Act follows the Feasibility Study.



Oklahoma Department of Transportation

Project Management Division (405)522-7601 Fax (405) 522-7612 Room 3C9

DATE:

TO: Distribution List

FROM: Project Management Division

SUBJECT: Draft - Project Initiation

J/P Number: County: Highway: Division:
 PS&E Date: R/W Date : Drive-out Date:
 Programmed Estimate: \$
 Project Description:

FUNCTIONAL CLASSIFICATION

Area Type: Urban Suburban Rural
 Terrain Type: Flat Rolling Mountainous
 Access Control: Full Partial None
 Highway Type: Freeway Principal Arterial Minor Arterial Collector
 NHS Non-NHS STRAHNET Scenic Hwy

EXISTING INFORMATION

Current ADT: % Trucks: Number of Lanes: Lane Width:
 Outside Shoulder Width: Inside Shoulder Width:
 Open Section Curb & Gutter Divided, median width:
 Other (describe):
 Pavement Type: Pavement Condition: Good Fair Poor
 Shoulder Type: Shoulder Condition: Good Fair Poor
 Storm Sewer No Yes Storm Sewer Condition: Good Fair Poor
 Sidewalks No Yes Sidewalk Width:
 Bridge One Description:
 Bridge Two Description:
 Bridge Three Description:

Bridge One Bridge Two Bridge Three

Feature Intersected:
 NBI Number(s):
 Location Number(s):
 Sufficiency Rating(s):
 Year(s) Built:
 Bridge Width(s):
 Bridge Length(s):
 Posted Clearance(s):
 Posted:
 Health Index:

ENVIRONMENTAL CONSIDERATIONS

- Historic Properties, list:
- Archeological Sites, list:
- Cemeteries, list:
- Hazardous Waste / LUST Sites, list:
- Endangered Species, list:
- Section 4F or 6F Properties, list:
- Farmland Wetlands Scenic and Protected Aquifers 100 Year Flood Plain

ALTERNATIVE IMPACTS

- Other Agencies List:
 - Turnpike Involvement
 - Metropolitan Planning Organizations List:
-

PERMIT INFORMATION

- Design Exception Anticipated: No As required by design Yes, type:
Maintenance Agreements (Lighting, Signals, etc.): No Yes, type:
Permits required: FAA USACE OWRB Railroad Other, type:
Additional:

PROPOSED IMPROVEMENT

Project Intent:

Special Considerations:

Description of Proposed Improvements:

Design Speed: mph

Project Termini

Beginning of Project:

End of Project:

Limits of Survey:

Limits of NEPA Survey Area:

Typical Section

- Open Section
- Curb & Gutter
- Divided, median width:
- Other (describe):
- Number of Lanes: Lane Width: '
- Outside Shoulder Width: ' Inside Shoulder Width: '
- Storm Sewer No Yes Sidewalks No Yes, width: '
- Overlay No Yes, thickness:
- Coldmill No Yes, thickness:
- Add Shoulders No Yes, width: '
- Bridge Width '

Alignment

- Existing
- New, located North or South or East or West of existing
- Parallel Lanes, located North or South or East or West of existing
- Spot Improvements
- Horizontal, Description:
- Vertical, Description:

Detour

- Shoo-fly, located North or South or East or West of existing
- Widening, located North or South or East or West of existing
- Crossovers
- Close Road
- Signed Detour, Route Description:
- Phased Construction, Description:

Traffic Items

- Traffic Management Plan No Yes
- Median Barrier No Yes
- New Guardrail No Yes
- End Treatment No Type:
- Highway Lighting No Outside or Median
- Traffic Signals No Location(s):

Right-of-Way

- Additional RW Required No Yes, describe:
- Utility Conflicts No Yes, describe:

Miscellaneous

- Channel Re-Alignment No Yes, describe:

INITIATION ESTIMATE

Roadway:	\$	Total Construction:	\$
Bridge:	\$	Right-of-Way:	\$
Traffic Control:	\$	Utility:	\$
Signing and Striping:	\$	Total Estimate:	\$
Highway Lighting:	\$		
Traffic Signals:	\$		
Mobilization:	\$		
Staking:	\$		
E & C:	\$		

PROGRAM REVISIONS

Estimate: \$ Letting Date: Project Length:
Work Type:
Description:

Attachments (Aerial with Preliminary RW & County Map)

Distribution List:

- Director of Engineering
- Director of Capital Projects and Information Management
- Bridge Division
- Environmental Programs Division
- FHWA
- Field Division
- Project Management Division
- Right-of-Way Division
- Roadway Design
- Survey Division
- Traffic Engineering
- Planning Division

**OKLAHOMA DEPARTMENT OF TRANSPORTATION
ENGINEERING CONTRACT NO.
ATTACHMENT A**

SECTION 1 Geo-Referenced Graphics

1.1 1-Meter GSD Aerial/Satellite Ortho Imagery of study area.

If 1-Meter GSD Imagery is not available through typical sources, acceptable imagery may be found at the Center of Spatial Analysis Website (www.csa.ou.edu) under the OK Data Warehouse tab. Download either the 2003 or 2005 NAIP Digital Orthophoto Mosaic, (Sid file format) for the appropriate county.

1.2 USGS Map of the study area.

Refer to the OK Data Warehouse tab at the Center of Spatial Analysis Website (www.csa.ou.edu). Download the USGS Topographical Quad Map, UTM DRG files.

1.3 ODOT County / City Maps.

Refer to the ODOT Website: www.okladot.state.ok.us/hqdiv/p-r-div/maps

SECTION 2 AS-BUILT PLANS

2.1 Title, Typicals, Plan & Profile and Bridge General Plan Elevation Sheets

As-built plans are often available in the ODOT Reproduction Branch, ODOT Field Division, and ODOT Bridge Division.

SECTION 3 PROPERTY IDENTIFICATION

Within the study area, identify the following properties and the general location of their boundaries:

3.1 Property Ownership

3.1.1 Property Card for each property ownership.

3.1.2 Legal Description of the property boundaries (for locating property boundaries).

The following procedure shall be used:

1. Obtain the “Property Card” through the Oklahoma Assessor Service Website (www.okassessor.com). This will require a reimbursable license fee.
2. If the full legal description is not included on the Property Card, visit the Assessors Office in the appropriate County Courthouse for this information.
3. If the full legal description is not included in the roles at the Assessors Office, note the Deed Book and Deed Page and visit the County Clerk in the appropriate County Courthouse to obtain the full legal description from the actual Deed.

3.2 Indian Ownership

Trust Land within any particular county will generally not have any recorded documents at the courthouse. All documents affecting trust property will be recorded with the agency of the Bureau of Indian Affairs (BIA) overseeing that property. All letters sent to the BIA should be specifically addressed to the Superintendent of the Agency with which you are corresponding.

3.3 Tribal Ownership

Ownership questions must be directed to the local BIA Office. Once determination that the property is trust land you can request an ownership report, such as a “Title Status Report” (TSR) from the BIA. This informs you if the land is a tribal or allottee tract. This information is sometimes available from the Tribe, depending on which Tribe is involved.

3.4 Military Properties

3.5 Oklahoma Turnpike Authority (OTA) Properties

3.6 Public parks and recreational areas

For information regarding public parks and recreational areas contact the Director of the Division of Research and Development of the Oklahoma Department of Tourism. Additional information can be found at their website: www.oklatourism.gov/.

3.7 Wildlife and waterfowl refuges

For information regarding Wildlife Refuges and Management Areas refer to the Oklahoma Department of Wildlife Conservation Website: www.wildlifedepartment.com.

3.8 Cemeteries

- 3.9 Airports. Identification should include the name and location of all public or private airports located within 4 miles of the study area.

This information can be obtained from the Oklahoma Aeronautics Commission (OAC) website: www.aeronautics.state.ok.us.

SECTION 4 UTILITY INFORMATION

For each utility located within the study area, identify the following information:

- 4.1 Type of Utility
- 4.2 Name and Address of Utility Owner
- 4.3 Name and Phone Number of Contact Person
- 4.4 Product Utility is Carrying
- 4.5 Size and Material of Utility (If applicable)
- 4.6 General Location of Utility (Crossing locations, parallel left or right, appearance of within or outside of existing right-of-way, approximate offsets, etc.)

This information may be obtained by the following general procedure: Contact the Oklahoma One-Call System (Call OKIE) for a list of utilities (including type and contact information) located within all quarter sections involved with the study area. Contact each listed utility owner for approximate location of the utility within the quarter section. This information should be available on the utility owner's atlas sheets. Contact the Rural Water District in the appropriate county and the City Public Works Director for information regarding any utilities they may have within the study area. Research the utility permit files located in the field division. Request permitted information for a utility attached to a bridge from the Bridge Division. Conduct a site visit to visually verify the location of all TUG Pedestals, valves, meters, markers, signs, man-hole covers, etc. within the study area.

SECTION 5 ACCIDENT HISTORY

- 5.1 Complete Accident History. Information will be for accidents occurring within the study area over the last 5 years.

Contact Information: The Accident History is available by submitting a request to the Collision Analysis and Safety Branch of the ODOT Traffic Engineering Division.

SECTION 6 EXISTING BRIDGE CONDITION AND HYDROLOGICAL DATA

- 6.1 The most current copy of the Structure Inventory & Appraisal (SI&A) sheet for each bridge within the study area. This information can be obtained from the Bridge Division.
- 6.2 Drainage Areas associated with each bridge within the study area.
 - 6.2.1 Total Area
 - 6.2.2 NRCS Controlled Area
 - 6.2.3 Effective Area
- 6.3 FEMA FIRMette for all bridges within the study area.

FIRMettes may be found at the FEMA Map Service Center at www.msc.fema.gov.

SECTION 7 CULTURAL RESOURCES

The Consultant shall request the following cultural resource information located within the study area:

- 7.1 Historic Properties/Structures
 - 7.1.1 Properties and districts listed in the National Register of Historic Places (NRHP).
 - 7.1.2 Properties and districts eligible to be listed in the NRHP.
 - 7.1.3 Segments of Route 66 eligible to be listed in the NRHP.
 - 7.1.4 Historic Bridges listed in the NRHP
 - 7.1.5 Historic Bridges eligible to be listed in the NRHP.
- 7.2 Archaeological Sites
 - 7.2.1 Prehistoric and historic archaeological sites recorded with the Office of the Oklahoma Archaeological Survey (OAS).
 - 7.2.2 Early historic "GLO" sites recorded with the OAS.
 - 7.2.3 Previously surveyed cultural resource site.
- 7.3 Historic Cemeteries

Contact Information: Contact the ODOT Cultural Resource Specialist to request all cultural resource data.

All historic properties identified during this process shall be shown on study maps for internal ODOT review only. The public disclosure of the location of some types of historic properties is a violation of Federal laws and regulations.

SECTION 8 HAZARDOUS WASTE/LUST SITES

- 8.1 Hazardous Waste Sites located in the proximity of the study area (using ASTM E1527-00 radius guidelines).

This consists of a database search of both the federal and state environmental records.

- 8.2 LUST Sites located within 1/8th of a mile of the study area.

This consists of a file review from the Oklahoma Corporation Commission (contact the appropriate District Office) for any past or present Oil and Gas activity – including salt water disposal. This includes any information regarding the location of drilled wells, records of completion and plugging, field inspection reports, reported leaks, spills or violations of any kind.

SECTION 9 NATURAL RESOURCES

- 9.1 Any Designated Critical Habitats for federally-listed endangered, threatened or candidate species located within the study area.

For a list of federally-listed endangered, threatened or candidate species that could be found within the county of interest, refer to the U.S. Fish & Wildlife Service Website: www.fws.gov/southwest/es/Oklahoma/endsp.htm. For Designated Critical Habitats, refer to: www.crithab.fws.gov/

- 9.2 Any potential jurisdictional wetlands located within the study area.

This consists of any wetlands or playa lakes indicated on the latest version of the National Wetlands Inventory (NWI) maps. In addition, a natural resource specialist shall perform a visual identification of any other potential jurisdictional wetlands located within the study area.

Refer to the Oklahoma Water Resources Board Website, www.owrb.ok.gov/learn/wetlands/nwimaps.php.

- 9.3 Scenic Rivers & Protected Aquifers located within the study area.

Refer to the Oklahoma Scenic River Commission Website. www.oklahomascenicrivers.net

Refer to the Oklahoma Water Resources Board Website. www.owrb.ok.gov/studies/groundwater/arbuckle_simpson/arbuckle_study.php

SECTION 10 EXISTING FACILITY DATA

10.1 Functional Classification

- 10.1.1 Area Type: Urban, Suburban or Rural
- 10.1.2 Terrain Type: Flat, Rolling or Mountainous
- 10.1.3 Access Control: Full, Partial or None
- 10.1.4 Highway Type: Freeway, Principal/Minor Arterial, or Collector
NHS, Non-NHS, STRAHNET &/or Scenic
Highway

This information can be obtained through the GRIP Inventory System with the appropriate business layer.

10.2 Traffic Data within the study area:

- 10.2.1 Current Average Annual Daily Traffic (AADT)
- 10.2.2 Projected AADT (20 years from known Let Date or 30 years from present)
- 10.2.3 Percentage of Truck Traffic

The Traffic Data will be provided by the ODOT Traffic Analyst of the Engineering Services Branch in the ODOT Planning and Research Division.

10.3 Roadway Characteristics within the study area:

- 10.3.1 Number and Width of Lanes
- 10.3.2 Inside and Outside Shoulder Widths
- 10.3.3 Open Section, Curb & Gutter, Divided (with median width) or a description of any other type.
- 10.3.4 Pavement & Shoulder Material Type and Condition
- 10.3.5 Storm Sewer Identification and Condition
- 10.3.6 Sidewalks Identification and Width

10.4 Bridge Characteristics, for each bridge within the study area:

- 10.4.1 Feature Intersected
- 10.4.2 NBI and Location Numbers
- 10.4.3 Span and Material Description
- 10.4.4 Sufficiency Rating, with SD/FO Designation
- 10.4.5 Year Built
- 10.4.6 Bridge Width and Length
- 10.4.7 Horizontal & Vertical Clearances, Measured & Posted
- 10.4.8 Health Index

10.5 Alternative Agency Impacts associated with study area:

10.5.1 Identify all Metropolitan Planning Organizations (MPOs) associated with the study area:

- Association of Central Oklahoma Governments (ACOG)
- Indian Nation Council of Governments (INCOG)
- Lawton Metropolitan Area Planning Commission (LMAPC)
- Ft. Smith, Arkansas

This information can be obtained through the GRIP Inventory System with the appropriate business layer.

10.5.2 Oklahoma Turnpike Authority

10.5.3 Other Agencies

10.6 Existing Agreements

Obtain copies of any existing agreements for the highway facility located within the study area:

10.6.1 City Agreements

10.6.2 County Agreements

10.6.3 State Agreements

10.6.4 OTA Agreements

This information can be obtained by contacting ODOT Field Divisions, Right-of-Way Division, Bridge Division and Maintenance Division.

SECTION 11 DELIVERABLES

11.1 A Micro-Station (V8) file containing the following information:

- 11.1.1 Geo-Referenced satellite imagery, as discussed in Section 1.
- 11.1.2 Approximate property boundaries, with property owners name and type of property, as discussed in Section 3.
- 11.1.3 Type and general location of each Utility, as discussed in Section 4.
- 11.1.4 General boundaries of any Cultural Resources, Hazardous Waste Sites and Natural Resources, as discussed in Sections 7, 8 and 9.

11.2 Individual Adobe PDF files containing the following information:

- 11.2.1 Aerial Photograph, as discussed in Section 1, cropped and showing the delineated study area, sized for a single 11"x17" print.
- 11.2.2 Adobe PDF Version of the Micro-Station File, as discussed in Section 11.1, using a 400'=1" scale when printed on 11"x17" paper. The file shall be sized for 11"x17" prints and will include a graphical scale and a North Arrow on all sheets.
- 11.2.3 Appropriate county / city maps, as discussed in Section 1, cropped to cover potential local detours around study area and sized for 8.5"x11" prints.
- 11.2.4 As-Built Plans, as discussed in Section 2, sized for 11"x17" prints.
- 11.2.5 Property Identification, as discussed in Section 3: Property Cards, Indian Trust documents, BIA Title Status Reports, etc., sized for 8.5"x11" prints. Ownership deeds are not to be included.
- 11.2.6 Utility Information, as discussed in Section 4, sized for 8.5"x11" prints.
- 11.2.7 Accident History Report, as discussed in Section 5, sized for 8.5"x11" prints.
- 11.2.8 SI&A Sheets for all bridges, as discussed in Section 6.1, sized for 8.5"x11" prints.
- 11.2.9 USGS Map, as discussed in Section 1, (with study area shown) cropped to delineate drainage areas of all bridges, showing all calculated drainage areas, as discussed in Section 6.2, and sized for 11"x17" prints.
- 11.2.10 FEMA FIRMettes, as discussed in Section 6.3, sized for 11"x17" prints.
- 11.2.11 Single page list of Historic Properties/Structures and Archaeological Sites, as discussed in Section 7, sized for 8.5"x11" prints.
- 11.2.12 Single page list of Hazardous Waste/Lust Sites, as discussed in Section 8, sized for 8.5"x11" prints.

11.2.13 Project Initiation Form indicating the Existing Facility Data, as discussed in Section 10, sized for 8.5"x11" prints.

11.3 Two paper-copy reports containing all the information as described in Section 11.2.

APPR Development Process

1. Receive project list from COG/MPO (expected to be an ongoing process)
2. Add projects, sort, and reprioritize project list
3. Discuss updates and APPR project selection with Dir. of Planning and chiefs
4. Meet and discuss individual project with chief and SCDOT region planner
5. Review Environmental Screening or initiate GIS screenings, as needed.
 - Environmental (HazMat – proposed new title)
 - Cultural
 - Natural Resources
 - Socioeconomic/Others
6. Obtain available existing plan data – hard copy
 - Roadway Characteristics
 - Cross sections
 - R/W corridor boundaries
 - Bridges
 - Other features
7. Request location map be generated
8. Request crash data
9. Request traffic data: past, present, future, LOS information – present and future
10. Request/research socioeconomic data
11. Environmental Planner conduct site visit and collect corridor assessment data
12. Present and discuss project: Dir. of Planning, Chief, Planner, Env. Planner, Prog. Mgr., Prelim Design Support
 - Discuss and establish Purpose and Need
 - Identify a Logical Termini for widenings
 - Discuss proposed facility to include alternative selection, cross section, HOV, bike lanes, etc.
 - Discuss public involvement plan, as needed
13. Conduct site visit with appropriate SCDOT personnel (some from #12 plus environmental personnel)
14. Summarize site visit information gathered
15. Conduct scoping meeting with liaisons and agencies as appropriate
16. Summarize meeting information and request comments on areas of concern
17. Compile data available (to date) within APPR template
18. Present “to date” findings to COG/MPO study team/staff
19. Conduct public involvement, as needed
20. Summarize public involvement, if applicable
21. Compile/complete draft APPR
22. Environmental Planner sign as completed (draft) and submit to chief for review/approval and signature
23. Submit to Director of Planning for review/approval and signature
24. Submit cc: copies to internal chain of command (Mr. Walsh, Mr. Freeman)
25. Present to study team / COG/MPO staff for review/approval and signature
26. Submit to city/county officials as appropriate for review/approval and signature
27. Present to COG/MPO Executive Director or board for review/approval and signature
28. Distribute Copies of approved APPR
 - COG/MPO
 - Director of Preconstruction
 - Program Manager