Restructuring the Texas Transportation Planning and Programming Process

*m wade TTI fn=c:/FAIC/restructuring version 5*

*Work Group Findings and Recommendations*

*DRAFT FINAL REPORT*

*October 2009*

*Submitted for Review to*

TxDOT Executive Management

*and the*

Texas Transportation Commission



*Prepared by*

*Texas Transportation Institute*



*In Cooperation with the*

*Texas Department of Transportation*



*and the*

*Association of Texas Metropolitan*

*Planning Organizations*

**UTP Work**

**Group Members Addresses**

**MPOs and Districts**

***MPOs***

Mr. Dan Lamers

Senior Program Manager

North Central Texas Council of Governments

[dlamers@nctcog.org](mailto:dlamers@nctcog.org)

817-695-9263

Mr. Brad McCaleb

MPO Director

Texarkana Urbanized Area MPO

[McCaleb@txkusa.org](mailto:McCaleb@txkusa.org)

903-798-3927

Mr. Alan Clark

MPO Director

Houston-Galveston Area Council   
[alan.clark@h-gac.com](mailto:alan.clark@h-gac.com)

713-627-3200

Mr. Tom Niskala

MPO Director

Corpus Christi MPO  
 [tomniskala@swbell.net](mailto:tomniskala@swbell.net)

361-884-0687

Mr. Joe Cantalupo

MPO Director

Capitol Area MPO

Email: [joe.cantalupo@campotexas.org](mailto:joe.cantalupo@campotexas.org)

Mr. Robert R. Allen

Transportation Planning Director

Abilene Area MPO  
[robert.allen@abilenetx.com](mailto:robert.allen@abilenetx.com)

325-676-6243

***Districts***

Mr. Kenneth Petr

Director of TP&D

TxDOT-Amarillo District

[KPetr@dot.state.tx.us](mailto:KPetr@dot.state.tx.us)

806-356-3202

Mr. Edwardo Calvo

Advance Transportation Planning Supervisor

TxDOT-El Paso District

[ecalvo@dot.state.tx.us](mailto:ecalvo@dot.state.tx.us)

915-790-4322

Mr. Clay Smith

Director of TP&D

TxDOT-San Antonio District

[csmith1@dot.state.tx.us](mailto:csmith1@dot.state.tx.us)

210-615-5920

Mr. Bob Appleton

Director of TP&D

TxDOT-Bryan/College Station District

[bapplet@dot.state.tx.us](mailto:bapplet@dot.state.tx.us)

979-778-9707

Mr. Dale Booth

Advance Project Development Engineer

TxDOT-Tyler District

[dbooth@dot.state.tx.us](mailto:dbooth@dot.state.tx.us)

936-634-4433

Mr. Jody Ellington

Director of TP&D

TxDOT-Pharr District

[jelling@dot.state.tx.us](mailto:jelling@dot.state.tx.us)

956-702-6100 Ext 242

***TxDOT Administration***

Mr. Steve Simmons

Deputy Executive Director

TxDOT Administration

[ssimmon@dot.state.tx.us](mailto:ssimmon@dot.state.tx.us)

512-305-9527

Mr. James Bass

Chief Financial Officer

TxDOT Administration

[bass@dot.state.tx.us](mailto:bass@dot.state.tx.us)

512-463-8835

Mr. John Barton

Assistant Executive Director for Engineering Operations

TxDOT Administration

[jbarto1@dot.state.tx.us](mailto:jbarto1@dot.state.tx.us)

512-305-9504

Mr. Phil Russell

Assistant Executive Director for Innovative Project Development

TxDOT Administration

[prussel@dot.state.tx.us](mailto:prussel@dot.state.tx.us)

Ms. Mary Meyland

Special Assistant to the Executive Director for Strategic Policy & Performance Measures

TxDOT Administration

[mmeylan@dot.state.tx.us](mailto:mmeylan@dot.state.tx.us)

512-305-9508

***FHWA***

Mr. Michael Leary

Director, Planning and Program Development

Federal Highway Administration

Austin, TX \*

[Michael.Leary@fhwa.dot.gov](mailto:Michael.Leary@fhwa.dot.gov)

(512) 536-5940

***TxDOT Finance Division***

Mr.Wayne Wells

Manager, Programming and Letting

TxDOT Finance Division

[wwells@dot.state.tx.us](mailto:wwells@dot.state.tx.us)

512-416-2252

Mr. David Plutowski

UTP Development Engineer

TxDOT Finance Division

[dplutow@dot.state.tx.us](mailto:dplutow@dot.state.tx.us)

512-486-5043

Ms. Dione Albert

Letting Management Coordinator

Programming and Letting

TxDOT Finance Division

[dalbert@dot.state.tx.us](mailto:dalbert@dot.state.tx.us)

512-416-2582

***TxDOT Transportation Programming & Planning***

Mr. Jack Foster

Director, Statewide Planning & Project Management

TxDOT Transportation Planning & Program System Planning

[jfoster@dot.state.tx.us](mailto:jfoster@dot.state.tx.us)

512-486-5024

Ms. Lori Morel

Statewide Planning & Project Management

TxDOT Transportation Planning & Program System Planning

[lmorel@dot.state.tx.us](mailto:lmorel@dot.state.tx.us)

512-486-5033

***TTI Support***

Mr. Montie Wade

Senior Research Engineer

Texas Transportation Institute

[Montie-wade@tamu.edu](mailto:Montie-wade@tamu.edu)

817-462-0531

Mr. Todd Carlson

Associate Transportation Researcher

Texas Transportation Institute

Email: [tcarlson@tamu.edu](mailto:tcarlson@tamu.edu)

817-462-0517

Ms. Carol Court

Senior Office Associate

Texas Transportation Institute

[c-court@tamu.edu](mailto:c-court@tamu.edu)

817-462-0532

***TxDOT Support***

Jim Randall

Director, TxDOT Transportation Planning and Programming Division

[jrandall@dot.state.tx.us](mailto:jrandall@dot.state.tx.us)

512-486-5001

Mr. Wayne Dennis

Deputy Director,

TxDOT Transportation Planning and Programming Division

[wdennis@dot.state.tx.us](mailto:wdennis@dot.state.tx.us)

512-486-5002

Stuart Hanzlik

Financial Analyst

TxDOT Finance Division

[shanzli@dot.state.tx.us](mailto:shanzli@dot.state.tx.us)

512-463-8697

Mr. Lanny Wadle

Director, Funds Management Section

TxDOT Finance Division

Texas Department of Transportation

[lwadle@dot.state.tx.us](mailto:lwadle@dot.state.tx.us)

512-486-5579

Mr. Brian Ragland

Director, TxDOT Finance Division

[braglan@dot.state.tx.us](mailto:braglan@dot.state.tx.us)

512-486-5555

**Table of Contents**

[Executive Summary 11](#_Toc243127096)

[I. Definitions of Terms Used 15](#_Toc243127097)

[II. Introduction 17](#_Toc243127098)

[Implement Communication, Transparency, and Accountability 18](#_Toc243127099)

[Planning Process 19](#_Toc243127100)

[Project Development Process 19](#_Toc243127101)

[Project Concurrence 20](#_Toc243127102)

[Financial Planning 20](#_Toc243127103)

[III. Proposed Project Development Process 21](#_Toc243127104)

[Level of Authority 23](#_Toc243127105)

[Project Phasing/Incremental Project Implementation 24](#_Toc243127106)

[Plan Level of Authority 24](#_Toc243127107)

[Develop Level of Authority 25](#_Toc243127108)

[Program Level of Authority 25](#_Toc243127109)

[Implement Level of Authority 25](#_Toc243127110)

[Let Level of Authority 26](#_Toc243127111)

[Revenue Estimating and Forecasting 27](#_Toc243127112)

[Translating Cash Forecast to Letting Capacity 30](#_Toc243127113)

[Planning and Programming Documents 33](#_Toc243127114)

[Transportation Improvement Program and Statewide Transportation Improvement Program 34](#_Toc243127115)

[Unified Transportation Program 35](#_Toc243127116)

[Metropolitan Transportation Plan and Statewide Transportation Plan 35](#_Toc243127117)

[Vision Plan 36](#_Toc243127118)

[I. Environmental Activities 38](#_Toc243127119)

[I. Construction Bid - NEPA Approval/Design – FLOA 38](#_Toc243127120)

[IV. Supporting Processes 39](#_Toc243127121)

[Project TRACKER 39](#_Toc243127122)

[Public Involvement and the Planning Process 40](#_Toc243127123)

[Evaluation of the Statewide Transportation Network through the Use of Performance Measures (PMs) 41](#_Toc243127124)

[Context Sensitive Solutions 42](#_Toc243127125)

[V. Assumptions 44](#_Toc243127126)

[VI. Other Recommendations 44](#_Toc243127127)

List of Tables and Figures

Table 1. Levels of Authority 24

Table 2. Planning and Programming Documents 34

Table 3. Restructured UTP Plan Design 38

Figure 1. Roles of Goals, Project Selection Criteria, and Performance Measures 18

Figure 2. Project Development Process 22

Figure 3. Revenue Forecasting 28

Figure 4. Financial Forecasting Example 29

Figure 5. Financial Forecast Resources and Cycles 30

Figure 6. Relationship between Cash Forecasting and Letting 32

Figure 7. Restructuring the Planning Process 37

**List of Attachments – to be added**

Restructuring Work Group Progress Report –May 2009 ………………………………….……39

Meeting #1 Notes, February 16-17, 2009 *To Be Added To Final Report*

Meeting #2 Notes, March 9-10, 2009 *To Be Added To Final Report*

Meeting #3 Notes, March 31-April 1, 2009 *To Be Added To Final Report*

Meeting #4 Notes, April 29-30, 2009 *To Be Added To Final Report*

Meeting #5 Notes, June 8-9, 2009 *To Be Added To Final Report*

Meeting #6 Notes, June 22-23, 2009 *To Be Added To Final Report*

Meeting #4 Notes, July 9-10, 2009 *To Be Added To Final Report*

Meeting #5 Notes, August 3-4, 2009 *To Be Added To Final Report*

Meeting #6 Notes, Aug. 31-Sept. 1, 2009 *To Be Added To Final Report*

Meeting #4 Notes, Sept. 28-29, 2009 *To Be Added To Final Report*

Restructuring the Texas Transportation   
Planning and Programming Process

Work Group Findings and Recommendations

Draft Final Report

*October 30, 2009*

# Executive Summary

As part of its efforts to address the need to improve understanding, accountability, and transparency between transportation agencies and the general public, the Work Group identified several issues that it sought to address through documentation and revision of the project development process and in the other recommendations made by the group. These issues are listed below as a summary of Work Group recommendations, and are presented by category.

**Finding: Implement Communication, Transparency, and Accountability**

**There is critical need for increasing and improving communication, transparency, and accountability for a variety of audiences. Public participation should be a continuous, sustained component of the project planning and development process.**

**Recommendations:**

* Incorporate continuous public involvement throughout the entire planning and programming process.
* Develop appropriate communication tools that will allow a variety of audiences to effectively participate.
* Establish performance benchmarks for the development, delivery, and value of projects by which all partners can be measured.

**Finding: Planning Process**

**There is critical need for a revised state transportation planning process that coordinates local, regional, and state transportation priorities throughout the project development process.**

**Recommendations:**

* Develop a comprehensive, statewide multimodal transportation plan and provide regular updates.
* Develop a planning process that sets priorities and identifies authority to perform designated work.
* Create a priority-based, financially constrained planning process which will support and guide decision-making in response to changing circumstances.
* Include a statewide vision plan that looks beyond the 20 year time horizon without financial constraint. The plan should identify needs and goals and estimate possible benefits achievable at a higher level of funding. The vision plan should be based on desired outcomes such as those used in the Texas Metropolitan Mobility Plan (TMMP) and the Texas Urban Mobility Plan (TUMP) to address metropolitan congestion.

**Finding: Project Development Process**

**The project development process is too complex, lacks clarity and transparency, and does not lead to predictable outcomes.**

**Recommendations:**

* Develop a process that is less complicated and more understandable.
* Use Level of Authority as a framework for cooperative decision-making that moves projects from concept to implementation.
* Identify levels of authority based on achievement of major milestones and compliance with fiscal constraints.
* Support the development, maintenance, and execution of project lettings by strengthening the State Transportation Improvement Program as a mechanism to better match fiscal constraints and the timely delivery of projects.

**Finding: Project Concurrence**

**There is critical need for improving coordination between the Texas Department of Transportation (TxDOT) Administration, TxDOT Districts, and Metropolitan Planning Organizations (MPOs) /Rural Planning Organizations (RPOs).**

**Recommendation:**

* Enhance the communication process between TxDOT and MPOs/RPOs regarding project development, project selection, and funding using the Project TRACKER concept.
* Clearly define the relationships between TxDOT Administration, Divisions, Districts, and MPOs/RPOs for project development and programming, based on a cooperatively developed financial forecast.
* Require MPO/RPO/TxDOT coordination on project Level of Authority.

**Finding: Financial Planning**

**There is critical need for reliable TxDOT financial forecasts that are continually integrated into the statewide planning and programming processes at all levels.**

**Recommendations:**

* Implement an understandable process for the allocation of resources to address the identified needs and goals following a total project cost (TPC) process that addresses cash budgets for engineering, right-of-way (ROW), and construction.
* Manage programming through a financial forecast that allows the availability of projects to let to contract if others are delayed or if additional funding becomes available, while staying within established priorities as reflected in the TIP/STIP.
* Form an MPO/RPO/TxDOT standing work group to establish financial/economic parameters used in the forecasts and monitor the forecast as historical data is received.

Restructuring the Texas Transportation   
Planning and Programming Process

Work Group Findings and Recommendations

Draft Final Report

*Revised October 12, 2009*

# Definitions of Terms Used

In the course of the Restructuring the Texas Transportation Planning and Programming Process Work Group’s discussions and documentation, terms have been used that are vital to the understanding of the recommendations formed. These terms are listed below and are defined according to their use in this Work Group’s Findings and Recommendations Final Report.

**Bands** - Total cost or revenue within a specified time period, not disaggregated by individual year.

**Cash Flow** - Analysis of costs and revenue for each increment of a given time period. This generally results in funding available after all costs, including finance costs, are taken out.

**Document Amendment** - Changes to an existing TIP, Unified Transportation Plan (UTP), and MTP/RTP/Statewide Long Range Plan (LRP) that do not require the creation of a new document (in non attainment areas only), or air quality conformity analysis .

**Document Update** - Changes to an existing planning document such as the Transportation Improvement Plan (TIP) or the Metropolitan Transportation Plan (MTP)/Rural Transportation Plan (RTP), etc. that require creation of a new document. An update resets the document timeframe and cycle clock.

**Economic Conditions, Current** - Short-range (0-4 years) value of variables that affect the cost of projects or amount of revenue expected to be available. Examples are the gasoline consumption rate, construction cost index, inflation, etc.

**Economic Conditions, Likely** - An estimate of the mid-range (2-10 years) value of variables that affect the cost of projects or revenue expected to be available.

**Economic Conditions, Projected** - An estimate of the long-range (10-20 years) value of variables that allows for future cost estimates and revenue projections.

**Financial Constraint** - Cost balancing of all construction projects or phases of projects, against the amount of revenue expected to be available for a given document in a given timeframe.

**Financial Forecast** - An estimate of the amount of revenue expected to be available in a given timeframe using specified assumptions.

**Level of Authority** (LOA) – The allowable status of a project, that permits individual project development activities. Certain milestones may have to be met before advancing to the next level of authority.

**NEPA –** Actions and documentation to satisfy requirements of the National Environmental Policy Act.

**Project Phase** – The portion of a project expected to occur within a given timeframe. For example, advance purchase of ROW may be shown in year 1 of a document while the construction phase may be in year 11.

**Project Implementation Plan (PIP) – A management plan used to monitor a project’s schedule, scope, and cost. A PIP is required for projects in Program, Implement, and Let Levels of Authority.**

**Timeframe, Short-Range – 0 to 4 years.**

**Timeframe, Mid-Range – 5 to 10 years.**

**Timeframe, Long-Range – 11 to 20+ years.**

**Total Project Cost (TPC)** - In 2006 the TxDOT Commission directed the staff to implement a “Total Project Cost” (TPC) system which would document all costs associated with an individual project. The TPC is not a budget allocation, but rather is a means to capture information in the Design Construction Information System (DCIS) to enable the reporting of all costs associated with a project. The concept originated through a desire to see a comprehensive, single-source system that captures planning, development, ROW, and construction costs for a project. Regional training of staff was conducted in 2006 and the system became operational in 2007.

**TRENDS** - TEMPO/TxDOT revenue forecasting model used in the development of planning level forecasts.

**Value Engineering** – A systematic and creative method to remove unnecessary costs from a project by identifying and analyzing the function(s), determining their cost, and developing alternative ways of performing them, while maintaining or improving the project’s necessary quality, aesthetics and other desired factors.

# Introduction

The Sunset Advisory Commission (SAC) was created by the Texas Legislature and is the legislative body that reviews the policies and programs of more than 150 government agencies on a rotating basis every 12 years. The SAC questions the need for the agency under review, examines the potential duplication of services or programs with other state agencies, and considers new and innovative changes to improve the operations and activities of each agency being reviewed.

The SAC issued its staff review of the Texas Department of Transportation (TxDOT) policies and programs in June of 2008, in advance of the 2009 legislative session during which the sunset of TxDOT was considered. Some key recommendations of the report included:

* Requiring TxDOT to redevelop and regularly update the long-range Statewide Transportation Plan describing total system needs, establishing overarching statewide transportation goals, and measuring progress toward those goals.
* Requiring TxDOT to develop a transparent, well-defined, and understandable system of project programming within TxDOT that integrates project milestones, forecasts, and priorities.
* Requiring TxDOT Districts to develop detailed work programs driven by milestones for major projects and other statewide goals for smaller projects.
* Requiring TxDOT, with input from transportation partners and policymakers, to develop a system to measure and report on progress in meeting transportation goals and milestones.

As part of its response to the issues raised by the SAC staff report, TxDOT formed the Restructuring the Texas Transportation Planning and Programming Process Work Group to evaluate the effectiveness of TxDOT practices in developing and managing the project development process and the Unified Transportation Program (UTP). More specifically, the Work Group was asked by TxDOT to identify best practices for the planning and programming process, evaluate existing practices, and suggest recommendations for developing a new process that is transparent, easily understood, streamlined, and predictable. Additionally, the Work Group was authorized to review and comment on any area of planning and programming it believed was warranted.

The Work Group included members from the TxDOT Administration, the TxDOT Transportation Planning and Program Division (TPP), the TxDOT Finance Division (FIN), TxDOT Districts, and selected Metropolitan Planning Organizations (MPOs). The Work Group was supported and facilitated by Texas Transportation Institute (TTI) staff. The Work Group began meeting periodically in February of 2009, with members contributing additional time between meetings to develop and review additional material as needed.

As part of its efforts to address the need to improve understanding, accountability, and transparency between transportation agencies and the general public, the Work Group identified several issues that it sought to address through its documentation and revision of the project development process and in the other recommendations that it made. A list of these issues follows, providing a summary of Work Group recommendations presented by category. As shown in Figure 1, the importance of continuous public involvement throughout the entire planning process is essential. Individual audiences and expected communication techniques must be effectively utilized.

Figure 1. Role of Goals, Project Selection Criteria, and Performance Measures.

## Implement Communication, Transparency, and Accountability

* Incorporate continuous public involvement throughout the entire planning and programming process;
* Develop appropriate communication tools for the audience to effectively participate;
* Establish performance benchmarks for the development, delivery, and value of projects by which all partners can be measured.
* Identify audiences, improve techniques, and increase opportunities for public involvement;
* Identify audiences for each document in the planning process; and,
* Establish new, or document existing, funding formulas.

## Planning Process

* Develop a comprehensive, statewide multimodal transportation plan and provide regular updates;
* Develop a planning process that sets priorities and identifies authority to perform designated work;
* Create a priority-based, financially constrained plan which will support and guide decision-making in response to changing circumstances;
* Include a statewide vision plan without financial constraint. The vision plan should be based on desired outcomes such as those used in the Texas Metropolitan Mobility Plan (TMMP) and the Texas Urban Mobility Plan (TUMP) to address metropolitan congestion. The plan should identify needs and goals and estimate possible benefits achievable beyond current fiscally constrained levels of funding;
* Include corridor preservation as part of the planning process; and,
* Improve coordination to insure delivery of priority projects year to year.

## Project Development Process

* Develop a less complicated and more understandable process;
* Use Level of Authority as a framework for cooperative decision-making that moves projects from concept to implementation;
* Identify levels of authority based on achievement of major milestones and compliance with fiscal constraints;
* Support the development, maintenance, and execution of project lettings by strengthening the Statewide Transportation Improvement Program as a mechanism to better match fiscal constraints and the timely delivery of projects;
* Simplify the project development process by reducing the number of funding categories; and
* Create a project development process that is fully multimodal.

## Project Concurrence

* Enhance the communication process between TxDOT and MPOs/RPOs regarding project development, project selection, and funding using the Project TRACKER concept;
* Clearly define the relationships between TxDOT Administration, Divisions, Districts, and MPOs/RPOs for project development and programming based on a cooperatively developed financial forecast; and,
* Require MPO/RPO/TxDOT coordination on project Level of Authority (LOA).

## Financial Planning

* Implement an understandable process for the allocation of resources to address the identified needs and goals following a total project cost (TPC) process that addresses cash budgets for engineering, right-of-way (ROW), and construction;
* Manage programming through a financial forecast that allows the availability of projects to let if others are delayed or if additional funding becomes available, while staying within established priorities as reflected in the TIP/STIP;
* Form an MPO/RPO/TxDOT standing work group to establish financial/economic parameters used in the forecasts and monitor the forecast as historical data is received;
* Provide regular financial forecasts to support the project development process;
* Reflect a range of forecasted funding, particularly to address uncertainty in the out years;
* Include financial guidelines for short-range (years 0 - 4), mid-range (years 5 – 10), and long-range (years 11- 25) time-frames of the project development process;
* Include a consistent baseline (provided by the State) for key assumptions while maintaining flexibility;
* Establish an understandable process for the allocation of resources to address the needs and goals identified; and
* Assure equity of resource distribution in a manner that everyone understands.

The purpose of this report is to present the revised project development process being recommended by the Work Group for consideration by TxDOT. The report includes the following:

* Definitions of terms used to define and describe the revised project development process (Section I);
* A narrative describing the proposed project development process (Section III);
* Graphics representing and detailing the revised project development process (Section III);
* A narrative describing the roles of project tracking and Project TRACKER to promote transparency and communication throughout the project development process (Section IV);
* A narrative on the use of performance measures to support the project development process, providing accountability and understanding (Section IV);
* A narrative describing how public participation interfaces with the planning process (Section IV);
* A list of assumptions made in developing the recommended project development process (Section V); and,
* Other recommendations (Section VI).

# Proposed Project Development Process

There are three distinct areas of the proposed project development process: project-specific level of authority (LOA), financial forecasts, and planning and programming documents. Individually, each of these is fairly straight forward. However, when trying to correlate them, difficulties in understanding how they relate often arise. For example, some projects take significantly longer than other projects; making milestone-based levels of authority difficult to fit into time-based financial forecasts. However, through the development of statewide, metropolitan and rural transportation plans (STPs, MTPs, and RTPs), the UTP/project development process, and the TIP/STIP, costs from projects in all levels of authority can be reflected and accounted for.

Figure 2 is an effort to portray, in layman’s terms, the flow of project development as envisioned by the Work Group. One should imagine the tall tank filled with projects expected to be developed over a twenty-year time period. The type of work allowed to proceed on the individual projects in the tank is dictated by its Level of Authority (LOA). The number of projects allowed to enter the tank is controlled by financially controlled documents such as Metropolitan and Rural Transportation Plans (MTPs/RTPs), the Unified Transportation Program (UTP), and the Four-Year Letting Plan.

Two “valves” control the speed at which project flow is dictated. The valve on the tank controls “programming dollars,” i.e., programming documents such as the UTP and Four-Year Letting Plan determine the flow of projects into the process. The number of projects allowed to enter the Twelve-Month Dynamic (moving) Letting Plan (trough) is determined by the programming process valve.

The valve at the end of the trough represents control by the monthly Finance Cash Flow forecast and determines how quickly the projects flow from the Twelve-Month Dynamic (moving) Letting Plan. This trough allows TxDOT Letting Management to have a full twelve months of projects to select from at all times to determine a letting schedule that will accommodate both priorities set by the Four-Year Letting Plan, types of Federal funding available, as well as to accommodate the Monthly Cash Flow forecast.

Figure 2. Project Development Process.

*Note: LOA designates Level of Authority granted to proceed on individual projects.*

Programming

“Valve”

Programming Dollars

4-year Letting Plan (Project Implementation Plan) / STIP = updated every 2 years

UTP = 10-year document updated annually

MTP / RTP = 25-year document updated every 4/5 years, depending on the size of the MPO / RPO.

12-Month Dynamic Letting Plan

Cash Flow

“Valve”

*Let volume determined by Finance Division Cash Forecast.*

Plan LOA

Develop LOA

Program LOA

Implement LOA

The overall Work Group philosophy is that the amount of revenue available for programming should be estimated for certain periods of time, and project-related costs should be constrained to the available revenue. However, the process should allow the flexibility to tightly constrain projects that are ready to let to the resources currently available, while still allowing for a larger pool of projects to reach development stage in case additional revenue becomes available. With that in mind, it is important to realistically estimate revenue availability in the near term while allowing for uncertainty in future revenue forecasts, positive or negative.

## Level of Authority

The first concept to consider in the project development process is the Level of Authority (LOA). The LOA for any given project represents how far along the development process the project has progressed, or is authorized to progress. Five LOAs are proposed as listed below.

* Plan
* Develop
* Program
* Implement
* Let

Each LOA can be thought of as identifying what types of development activities are allowed to occur at the current time. Unlike Letting or Implement Authority, Develop or Program Authority should not be thought of as an indication of the amount of time before a project is expected to be implemented, but more in terms of meeting certain milestones in the planning, engineering or design processes or funding availability. Some projects may proceed through the LOAs in a year or less, while others may take 15 years or more. The time spent in each LOA, and the entire LOA process for that matter, is dependent on several factors such as project type, project priority, availability of funding, environmental development complexity, complexity in mode choice analysis, and right-of-way (ROW) acquisition complexity. The five LOAs are shown in relation to permitted activities and milestones in Table 1.

Table 1. Levels of Authority.

|  |  |  |
| --- | --- | --- |
| **Level of Authority LOA** | **Permitted Activities** | **Milestone Necessary to Advance to the next LOA** |
| Plan | Pre-NEPA  Feasibility  Initial Coordination | Notice of Intent (NEPA) |
| Develop | NEPA  Schematics  ROW Maps  Value Engineering (VE) | Financial Constraint  (Inclusion in UTP) |
| Program | *All Develop Activities,* and  Purchase ROW  Agreements  Design  Utility Adjustments | Project Implementation Plan  Financial Constraint  (Inclusion in TIP/STIP) |
| Implement | *All Program Activities* | Project Implementation Plan  Financial Constraint  Inclusion in 12-Month Letting Schedule  Complete VE Study |
| Let | *All Implement Activities,* and  Twelve-Month Dynamic Letting Plan | Project Tracking  Financial Constraint  Subject to Cash Flow  NEPA Complete |

### Project Phasing/Incremental Project Implementation

Every project is contained in multiple planning and/or programming documents. These planning and programming documents are, for illustrative purposes, organized in time increments. Larger projects are often advanced in segments or phases. Therefore, it can sometimes be misinterpreted that the entire, larger project should automatically proceed to an advanced LOA if funding in certain phases (such as ROW acquisition, engineering or early stand-alone construction elements) is advanced to the Program or Let LOA. However, in these cases, the major project will still be maintained in the Develop or Program LOA while just those early phases are separated out and advanced as “independent” projects.

### Plan Level of Authority

Only projects contained in an adopted MTP/RTP, or the financially constrained Statewide LRP, are included in the Plan LOA. This would allow early planning activities prior to the National Environmental Policy Act (NEPA) initiation (if needed) to occur, such as fatal flaw analysis, toll feasibility, initial public involvement and local coordination efforts. For a project to move to the Develop LOA, NEPA must be initiated and the type of environmental document to be developed must be approved by the Federal Highway Association (FHWA). In the case of exempt projects, documentation showing exempt status should be prepared and processed.

### Develop Level of Authority

Depending on the ability of the project to meet fiscal constraint, Develop LOA may be granted once the NEPA process has been initiated. Develop status allows the full range of NEPA activities to proceed and reach completion. Projects with Develop status are not expected to go to construction within the next 10 years. Funding for NEPA activities (such as consultant services) will only require the availability of consultant contracting dollars for the year or consultant contract period. Some post-environmental project development activities (such as early ROW purchase, engineering, public outreach, or other planning and project development activities) may be performed or initiated in the Develop phase. However, those portions of the project should be split off as separate sub-projects or activities with their own project code, as their expenses must also be constrained to funding available for the letting year or relevant contract period. The new, related project will be given a different LOA depending on when the expenditure is expected, but a link to the host project should still be maintained. Essentially, Develop LOA can be considered a phased approach for projects that require a fairly long development period (ten years or more) or for which construction or implementation funding has not yet been secured, but for which development activities are necessary.

### Program Level of Authority

Once the NEPA process has been initiated and construction funding is expected within ten years, Program LOA is granted. Program status anticipates the full range of NEPA activities have or will be completed, and detailed engineering design is to begin (Plan, Specifications and Engineering activities-PS&E) within the next six years. The significant difference between Program status and Develop status is that a commitment is being made that the project is expected to go to letting within ten years. Once the environmental finding has been received, the detailed engineering design should begin. The larger host project may also be split into several independent project phases in which each phase may be classified under a different LOA depending on when their expenditures are expected to occur. It is also expected that once a project reaches Program status, its development progress will be monitored to ensure the project remains on schedule.

### Implement Level of Authority

Projects with Implement LOA are considered to have a high degree of commitment and are shown in the four-year TIP and STIP for construction or implementation. Major projects with Implement LOA should have completed the NEPA process or have a NEPA decision pending. Minor projects (expected to qualify for a Categorical Exclusion or Finding of No Significant Impact [FONSI]) should be entering the NEPA process (if required) with a Record of Decision (ROD)/FONSI imminent or received. Similar to Program LOA, projects with Implement LOA should be aggressively monitored to ensure schedule and cost expectations. Project monitoring is critical for any project without a completed environmental decision; as unanticipated changes to required environmental mitigation can substantially increase project scope, cost, and scheduling.

### Let Level of Authority

Projects with Let LOA are those listed in the Twelve-Month Dynamic Letting Plan. Because they are expected to proceed to construction or implementation within 12 months, the project must be cleared through the NEPA process and all preconstruction activities and agreements should be complete or imminent. This should not be confused with the currently existing One-Year Project Letting Schedule. Projects with Implement Authority can dynamically move to this LOA, and not wait for a new One-Year Project Letting Schedule to be developed.

The Twelve-Month Dynamic Letting Plan was created to overcome the deficiencies in the TIP/STIP process, which include:

* failure to continuously and accurately identify actual funds available for contract obligation or require adherence to programming targets, resulting in programming that significantly exceeded the State's financial capacity;
* failure to adequately identify project priorities within a given program year;
* failure of the TIP/STIP to support the process of monthly lettings with project programming that matched project readiness for letting;
* failure to identify consequential funding constraints and project costs for right of way, engineering, utility relocation and other project costs; and
* failure to anticipate project costs at the time of project letting;

As a consequence, the TIP/STIP fails to inform the letting process. If the TIP/STIP is allowed to deliver a financially constrained program of ready to let projects and identify their letting priority; that provides the ability to use the TIP as the basis for a Twelve-Month Dynamic (moving) Letting Plan which could be updated monthly as project lettings progress or new financial information becomes available.

Levels of Authority, as they relate to individual planning documents might be as follows.

* The 20-Year Statewide Plan could include individual projects that include any range of LOA. In other words, an individual project could be in any one of Plan, Develop, Program, Implement or Let Authority.
* The Ten-Year UTP could include individual projects that are in Develop, Program, Implement, or Let Authority.
* The Four-Year Letting Plan (STIP) could include projects with Program and Let Authority.
* The Twelve-Month Dynamic (rolling) Letting Plan consists of individual projects with Let Authority.

## Revenue Estimating and Forecasting

The second concept to consider is revenue estimation and forecasting. As inferred in the discussion of the planning and programming documents, it is desirable to estimate short-term revenue availability very accurately and, as one moves to intermediate and longer timeframes, more flexibility should be allowed to account for less certain economic conditions and project cost estimates. For each timeframe represented in the planning and programming documents, a single estimate of federal and state revenue should be developed by TxDOT and provided to each MPO/RPO and TxDOT district. To define the variables and parameters that will go into each forecast, a work group should be created, made up of representatives from TxDOT’s financial division, planning and programming division, districts, MPOs/RPOs, and potentially outside consultants. Parallel to TxDOT’s forecast of federal and state revenue, each metropolitan area and rural area should develop an estimate of local funds expected to also be available. These local fund estimates should then be shared with TxDOT for inclusion in a total revenue forecast for use by TxDOT and MPOs/RPOs in project selection and programming. This concept is shown in Figure 3. It is noted that each time period may have different assumed economic conditions used in the forecasts.

Economic Conditions

Time Period

Figure 3. Revenue Forecasting.

Figure 4 also portrays the various economic conditions that may be considered to address the different planning documents over the 20-Year planning period.

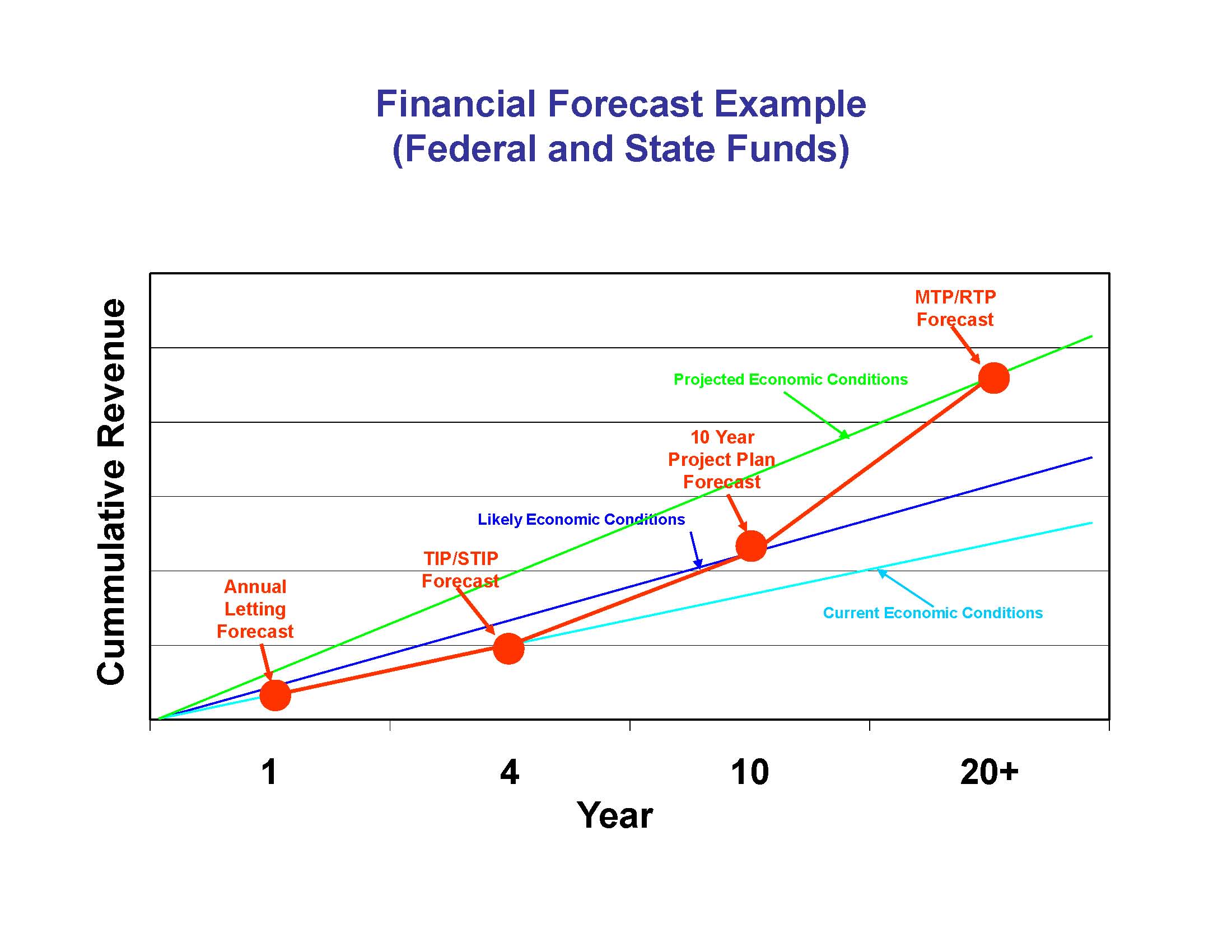


Figure 4. Financial Forecasting Example (Federal and State Funds)

Cash flow-based forecasts should be developed for short- and mid-range documents, the letting schedule, TIP/STIP, and UTP/project development processes. These cash flow estimates should take into account all anticipated revenue collections, federal reimbursements, and previously committed obligations that have not yet been expended. They should be based on the current and likely economic conditions as illustrated in Figures 3 and 4. For the letting schedule, they should be developed monthly to ensure the proper scheduling of projects for the Twelve-Month Dynamic Letting Plan. For the TIP/STIP and UTP/project development process the estimates should be made and certified by TxDOT every two years to coincide with the state legislature’s budget and appropriations cycle. Even though TxDOT will develop a new cash flow forecast every year, only the intermediate forecast will result in a significant change to the amount of available revenue. The TIP/STIP and UTP/project development process do not need to be updated to use the new forecast. However, they may be amended to account for minor changes to project scheduling and costs if the resulting intermediate cash flow forecast results in a significant change to expected revenue. TxDOT may elect to update the TIP/STIP and UTP/project development process, if the resulting intermediate cash flow forecast results in a significant change in expected revenue. For long-range forecasts, the TRENDS model will be used.

Figure 5 is a graphic representation of the logic proposed to link the financial forecast sources (TRENDS or the Finance Division Forecast Model) to necessary update schedules and planning timeframes.



**Figure 5. Financial Forecast Resources and Cycles**

A revenue-based forecasting model, Transportation Revenue Estimator and Needs Determination (TRENDS), has been developed and validated by the Texas Transportation Institute (TTI) and the Center for Transportation Research (CTR). TRENDS is the product of a collaborative project by the Texas Association of Metropolitan Planning Organizations (TEMPO) and TxDOT to produce an estimate of conventional revenues for a long-range planning period (20+ years) and allow quantification of possible revenue enhancements. TRENDS allows extensive and rapid scenario analyses by policymakers of the critical factors affecting revenues as well as alternative policy options. TRENDS or a similar successor product is expected to provide revenue estimates beyond the UTP period.

## Translating Cash Forecast to Letting Capacity

By convention, TxDOT planning documents describe projects in terms of total cost. These single dollar values are listed chronologically in the year the project will let out to bid.

TxDOT cash flow is analyzed and projected differently. Cash flow is analyzed and projected in terms of periodic revenue and payments over the multiyear life of construction contracts, both existing and proposed. Figure 6 provides a tabular and graphical depiction of how future project payments are compared to future revenue (Fund 6 only) and translated to project cost for use in planning documents.

In Figure 6, each curve represents this multiyear payout for contracts let in a given year, plotted cumulatively over previous years’ lettings. When total payments for all contracts active in a given year are set at or near projected revenue for that year, the difference in these curves translates to a projected “letting capacity” or “letting volume” for a given year or years. In analytic terms, the integrated area between any two curves represents the project letting capacity for that timeframe.

Large projects often take multiple years to complete in the construction phase alone. Project costs are not budgeted with cash in hand for the entire project cost at time of letting but rather are spread out over the life of the project phase according to the amount of project cost outlays that are expected to occur in each year of a multiyear project. This is similar in concept to ordinary State and local government budgets, in which outlays are budgeted based upon anticipated revenue during the budget period, not on amount of cash on hand at time of budget approval.

Figure 6. Relationship between Cash Forecasting and Letting.

By way of example, the letting capacity for FY 2010 (Fund 6 only) is the difference between the FY 2010 project curve and the existing projects curve. This is shaded in pink in the table and on the graph. By comparison, letting capacity for the STIP period would be the area between the FY 2013 project curve and the existing projects curve. These four years (2010 – 2013) are shaded in pink, gold, blue, and maroon (respectively) in the table and on the graph.

A practical observation is that funds appropriated for any given fiscal year, pay for a portion of projects already under contract as well as a portion of contracts let that year. For FY 2010, the funds available total $1.833 billion. $1.171 billion of this total is dedicated to existing contracts. Only $662 million is available for the first year’s expense for projects let in FY 2010. To derive the letting capacity for FY 2010, one would sum the projected available payouts (shaded in pink) for the contracts let in FY 2010 and go on through FY 2013. This sums to $ 1.600 billion.

## Planning and Programming Documents

Planning and Programming documents include those that are either required under federal regulation or the Texas Administrative Code (TAC). This is where the concepts of project development and revenue forecasting merge. Each document serves a separate purpose and may have different assumptions, but they should also provide a level of consistency within the process. Figure 6 shows the time-based concepts of financial forecasts and their relationship to the required documents. Table 2 attempts to portray the process when adding the non-time-based concept of LOA to the process.

Table 2. Planning and Programming Documents.

|  |  |  |
| --- | --- | --- |
| **Document** | **Project Listing (LOA)** | **Revenue Forecast** |
| Vision Plan | Strategic Needs, Goals, Resources and Initiatives | Unconstrained |
| MTP/RTP | Plan Authority may be granted. | 20+ Yrs  Projected Economic Conditions |
| Statewide  Transportation Plan | Priority Programs and Corridors | 20+ Yrs  Projected Economic Conditions |
| 10-yr Project Program (UTP/PDP) | Develop, Program, Implement, and Let | 10 Yrs  Likely Economic Conditions |
| 4-Year Letting Plan  (STIP) | Program and Let | 4 Yrs  Current Economic Conditions |
| 12-Month Dynamic  Letting Plan | Let | 1 Yr  Current Economic Conditions |

Currently, TxDOT requires an annual letting schedule to be developed. The letting schedule lists all projects expected to be let within the next year, month by month. The replacement Twelve-Month Dynamic Letting Plan should reflect the actual amount of money expected to be available taking into account all costs, including current and future obligations relative to the expected cash flow. As such, it should be somewhat conservative and account for all funds being spent on construction, ROW, design, engineering, and planning for each project. This should be consistent with TxDOT’s initiative to implement TPC accounting. Let Authority should be dynamically controlled so that projects can be moved to this LOA as other projects have been let, without waiting for a new One-Year Project Letting Schedule to be developed.

### Transportation Improvement Program and Statewide Transportation Improvement Program

The TIP and STIP are required under federal regulations to contain a listing of all regionally significant projects, including all projects utilizing federal funds, over the next four-year period. It should contain a realistic estimate of available revenue and should account for expenditures of funds for planning, engineering, design, ROW, and construction. Many projects in the TIP and STIP require local funds or local activities such as utility relocation, etc. Therefore, local governments need assurance that a project’s inclusion in the TIP and STIP generally represents a firm commitment that it is programmed for construction. As such, it should be conservative in its estimate of available revenue so that extensive efforts aren’t spent on a project that may not be ready within its scheduled timeframe.

### Unified Transportation Program

The UTP or Project Development Plan is a state planning requirement that represents an intermediate timeframe in the project development process. It should cover a period of 10 years and include all of the projects, or phases of projects, covered in the TIPs, STIP, and Letting Plan, plus those projects that will be ready for letting within 6 to 10 years. A project’s inclusion in the UTP/PDP development process also represents a commitment to its continued development and carries with it an expectation that funding will be available in the expected timeframe. This should give comfort to local governments and project developers who may be ready to expend significant effort on advanced development activities such as NEPA clearance, engineering, and design. Because of this commitment, it should also be conservative in its estimate of available funding. It should be updated every two years as required by federal regulation, but provisions should be made for annual amendments. It should utilize the financial forecast certified by TxDOT, which coincides with the legislative budget and appropriations cycle.

### Metropolitan Transportation Plan and Statewide Transportation Plan

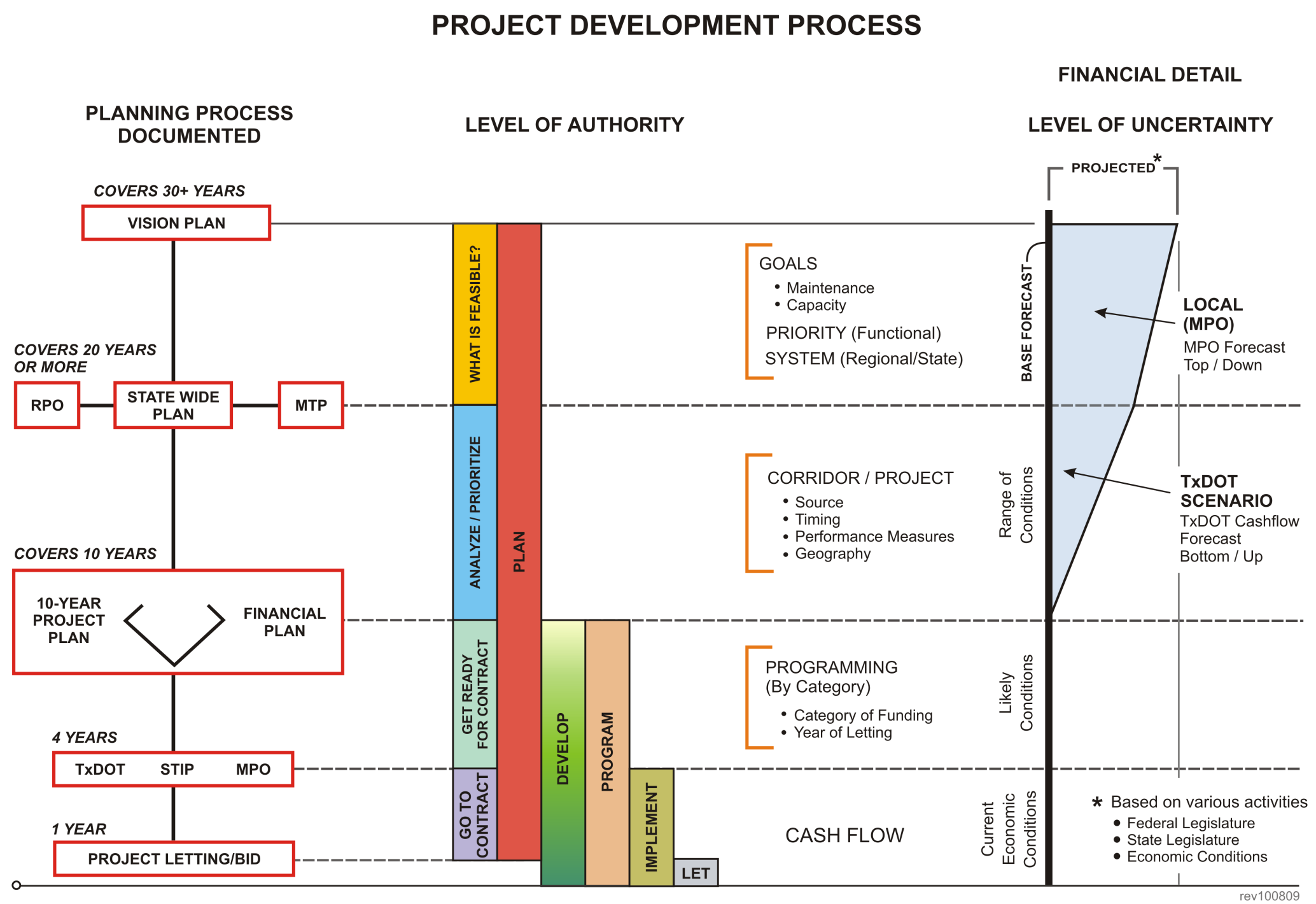
The MTP/STP represents a long-range blueprint for the transportation system. It is federally required to continuously cover a 20+ year timeframe. It is also required to be financially constrained to expected revenue. However, because it is difficult to predict revenue availability over such a long timeframe, it is recommended that assumptions regarding revenue should not be based on detailed cash flow expectations, but more on historic trends, projected economic conditions, and potential new legislative initiatives at both the federal and state levels. The MTP/STP should be updated at least every four or five years (depending on air quality attainment status) as required by federal regulation. Provisions should be made for periodic amendments as desired by the MPOs/RPOs (for MTPs/RTPs) and TxDOT (for the STP). MPOs/RPOs should use the cooperatively prepared revenue forecast available through TxDOT at the time of the update.

In addition, the STP should identify statewide priority corridors and programs. It should also contain policies as well as provide investment strategies and forecasts for the 20-30 year statewide multimodal needs. The STP should provide a framework for priorities which can be used by MPOs/RPOs in developing specific corridor and programmatic recommendations in the MTPs/RTPs. This Work Group understands that TxDOT’s Strategic Planning Group recommends that a 20-year project-specific element be included in the STP. The Restructuring Work Group recommendation is not in conflict with recommendations of this Strategic Planning Work Group.

### Vision Plan

The Vision Plan may contain broad, statewide, conceptual transportation goals and needs. It should articulate the State’s goals related to strategic areas such as mobility, safety, security, intermodalism, environment, and funding strategies. This document should set the direction for funding allocation to the various strategic areas and assist with the establishment of priorities across the strategic areas. No formal LOA is part of this stage in the process since there are no real projects or corridor recommendations identified. The Vision Plan should be unconstrained and identify transportation need and should include an analysis similar to the existing TMMP/TUMP efforts.

Various graphical representations have been developed throughout the Work Group’s discussion and development of their recommendations. Figure 7 and Table 3 each endeavor to provide detail on the relationship between the financial and planning aspects of the transportation project development process, and how they are supported by the various planning and programming documents.

Figure 7. Restructuring the Planning Process.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Planning Documents** | | **Forecast Years** | **Plan & Design Permitted Activities** | **Level of Authority** |
| **Vision** | | **>MTP** | **I. Conceptual** | **None** |
| Metropolitan Transportation Plan (MTP)  &  Statewide  Transportation Plan  (STP) | Economically conservative for uncertain economic times  Long-Range Plan (LRP) | 25 - 30 | 1. Pre-Environmental Activities 2. Request environmental document type from FHWA 3. Initiate Pre-NEPA 4. Priority Activities 5. Begin environmental activities 6. EA/DEIS/CE mobility 7. CE, if necessary 8. Planning schematic (mobility) 9. Planning Schematic | Plan and  Develop |
| **Gatekeeper: Financial Constraint** | | | | |
| 10 Year Program  (UTP/PDP)  (Project Lists) | Economically conservative (Mid-Range) | 10 | 1. Environmental Activities 2. EA/DEIS/CE mobility 3. CE, if necessary 4. Design (Detailed Engineering) 5. Planning Schematic (Mobility) 6. ROW Maps | Program |
| **Gatekeeper: Financial Constraint; Complex Engineering Activities; Substantially Completed NEPA** | | | | |
| Statewide transportation  Improvement Plan (STIP) /  Transportation Improvement Plan (TIP)  (Project Lists) | Actual (Short-Range) | 4 | Environmental Activities  1. EA/DEIS/CE mobility - substantially 2. CE 3. PCE 4. Design (Detailed Engineering) 5. Planning Schematic (Operations) 6. ROW Maps | Implement |
| **Gatekeeper: Financial Constraint; Design Complete; Environmental Clearance** | | | | |
| 12-Month Dynamic Letting Plan  Federal Letter of Authority (FLOA)  (Project Lists) | Actual  Cash Flow | 1 | Construction Bid - NEPA Approval/Design – FLOA  1. Engineering (PS&E) 2. Planning Schematic 3. ROW Purchase – NEPA Approval 4. Utility Adjustments – NEPA Approval | Letting  (Expenses) |

Table 3. Restructured UTP Plan Design.

# Supporting Processes

Activities that support the overall transportation planning development process include project tracking, using performance measures, initiating public involvement, and incorporating Context Sensitive Solutions where beneficial.

## Project TRACKER

Project TRACKER currently serves as the gateway to all of TxDOT's project-related information. Users can locate projects by county, state/federal legislative member, and those funded under the Economic Stimulus Program and by Prop 14 bonds. TRACKER is available through the TxDOT Internet website. Updates are made as projects progress through planning, design, and construction. TxDOT will update the Project TRACKER once per month. The original intent was to post the status of all projects in design on the Internet. However, TxDOT is now updating the database from which Project TRACKER pulls its information so that it includes projects constrained within the cash flow of fiscal years 2010 and 2011. This includes a backlog of design projects similar in volume to the two-year cash flow, and another backlog of advance planning projects. Depending on the implementation of Proposition 12 funds, Toll and Pass-Through Toll projects, and work done by others, this project database may grow again. The next large update will be as TxDOT implements a Critical Path Method Schedule for each project to monitor project progress and milestones. Data and schedules change as the information is updated. When projects are very large and very complex, shifts in funding and regional priorities can affect their status.

The Work Group believes that project tracking should begin, at the latest, when a commitment is made that the project can be expected to go to letting within 10 years. This relates well to the document’s previous discussion of Program LOA and the new UTP/project development process document. Projects at this level begin to generate considerable interest from the general public and elected officials. Updating progress during this stage would provide for considerable insight into the project development process. It would also assist in another recommendation of the group which is the communication with and involvement of planning organizations as projects progress from the UTP/project development process into the STIP and then eventually into the Letting Schedule.

Project TRACKER could also be used to document the transportation planning community’s project development business work plan. It shows past progress and future target dates. Tracking projects with this tool could provide measures of performance as actual dates compare to planned dates and with comparisons of the progress of similar projects across the state.

There will be a period of transition as projects found in previous UTPs and MTPs migrate into what may be more appropriate funding statuses and or completion schedules. Consideration of a means to document to the public the potential “disappearance” of locally popular, but less feasible long-range projects is necessary to maintain transparency.

## Public Involvement and the Planning Process

Public Involvement refers to the full range of activities used to engage our respective communities in the transportation-planning process and to assure that the process is inclusive, transparent, and accountable. The “public” is made up of diverse interested parties including elected officials, community leaders, environmental agencies, impacted organizations, and individual citizens.

The TxDOT/MPO/RPO’s public involvement process is designed to ensure early and continuous opportunities for the public to express its views on transportation issues and to become active participants in the transportation planning and decision-making process.

The principal planning responsibilities of an MPO/RPO include the development of a 20+ year, and an MTP/RTP for the urbanized/rural area that is fiscally constrained within the projected federal and local funds available. Opportunities for the public to identify projects and priorities are an essential part of making these plans responsive to community needs.

The MTP/RTP serves as the foundation for the TIP, which identifies those projects that have a high probability of going to contract or construction, constrained by the available funding. Public input is essential to identify the projects of highest priority particularly in this time of limited resources.

By federal and state law, all regionally significant multi-modal transportation improvement projects (regardless of funding source) must be included in and be consistent (to the maximum extent feasible) with the TIP and MTP/RTP in order to be eligible for federal aid and state funding. Therefore, the TIP is the primary plan that guides all state and federally funded transportation improvements in urbanized/rural areas.

Under federal regulations, all planning organizations are encouraged to consult with other planning officials responsible for any type of planning activities affected by transportation in the area (including state and local planned growth, economic development, environmental protection, airport operations, and freight movements). In addition, the planning authorities’ processes will provide consistency between transportation improvements and planned growth and economic development patterns.

The planning process provides citizens, affected public agencies, representatives of public transportation employees, freight shippers, providers of freight transportation services, private providers of transportation, representatives of users of public transportation, representatives of users of pedestrian walkways and bicycle transportation facilities, representatives of the disabled, and other interested parties with a reasonable opportunity to comment on the MTP/RTP and TIP, and major revisions.

## Evaluation of the Statewide Transportation Network through the Use of Performance Measures (PMs)

One of the Sunset Advisory Commission’s (SAC) recommendations was that TxDOT establish a mechanism in which long-range statewide goals are clearly defined, and progress (or lack of) towards achieving these goals is tracked and measured regularly in a consistent manner. This tracking and evaluation mechanism should be based on a comprehensive set of performance measures (PMs) that will reflect the true performance of the statewide transportation network. The PM process requires a substantial level of effort to collect, analyze, and report data in a simple and comprehensive way that will be incorporated into the Texas Transportation Planning and Programming Process. All interested parties need to provide continuous input, including TxDOT (Administration, divisions, and districts), MPOs/RPOs, local governments, transportation agencies, elected officials, and the general public.

Within the framework of the proposed planning process, long-range statewide goals will be established in the 20+ year timeframe corresponding to the Statewide Transportation Plan (STP). A starting point for setting these goals can be the current five that are identified in TxDOT’s 2009-2013 Strategic Plan: 1) reduce congestion, 2) enhance safety, 3) expand economic opportunity, 4) improve air quality, and 5) preserve the value of transportation assets. Long-term goals can be revisited every time the STP is revised (e.g., every five years). Development of more detailed goals, PMs, and activity steps are currently being prepared through a consultant contract by TxDOT.

A comprehensive set of relevant PMs will be selected to evaluate progress toward achieving each individual long-term goal. The following thoughts should be considered when selecting PMs:

* PMs vary depending on the type of analysis (planning, operational. strategic), level of analysis (system performance, regional, statewide), and specific purpose (system performance, project selection, or impact assessment). (1)
* PMs should stand the 4-R test: they should be relevant, robust, repeatable, and responsive. (2)
* Evaluation of statewide performance through PMs should be done on a regular basis (e.g., every year)

Evaluation of the statewide transportation network using the selected PMs can be performed with the same frequency as the update of the 10-year UTP/project development process, which is currently done every year. The results of the evaluation will provide valuable information on how the different elements of the statewide transportation network are performing. Actions can be taken based on this information in order to correct deficiencies or continue to promote progress toward achieving goals. For instance, if a PM related to pavement condition is showing a continuous deterioration trend, policy makers (i.e., the Texas Transportation Commission [TTC]) can direct additional resources towards preventive maintenance or rehabilitation programs. The same can apply to safety, air quality improvement, or other goals. The TTC can change the distribution among the funding categories in the 10-year UTP/project development process to address and correct specific problems.

Once the statewide funding targets are established for each category in the 10-year UTP/project development process, individual regions (i.e., MPOs/RPOs and districts) will have information on the size of their respective funding programs. Projects can now be selected according to local priorities. Each region can and should have its own selection criteria to populate the 20+ year MTP, the10-year UTP/project development process, the 4-year TIP, and the 1-Year Letting Schedule following respective financial constraint principles.

TxDOT and each region need to create and maintain a database of information that can be used to perform the periodic evaluation of the transportation network. This information needs to be sufficient and consistent in order for the PM analysis to be meaningful. Clearly, much of the information is already being collected (e.g., accident data, pavement quality, bridge condition, congestion levels, air quality levels, lane-miles, etc.). However, other types of information may be required to complete the comprehensive performance evaluation of the statewide transportation network, such as opinion surveys. Many of these data collection efforts require significant time and resources of TxDOT, MPOs/RPOs, and other partnering agencies.

There are many challenges in establishing a PM-based evaluation system at the statewide level. One of these is to understand the differences between statewide circumstances and conditions versus regional/local ones. In a state as large and diverse as Texas, individual PMs may have different degrees of relevance depending on urban/rural area, climate, geographic, socioeconomic, and other conditions.

## Context Sensitive Solutions

Context sensitive solutions (CSS) - a collaborative, interdisciplinary approach that involves all stakeholders in providing a transportation facility that fits its setting. It is an approach that leads to preserving and enhancing scenic, aesthetic, historic, community, and environmental resources, while improving or maintaining safety, mobility, and infrastructure conditions (Results of Joint AASHTO/FHWA Context Sensitive Solutions Strategic Planning Process Summary Report, March 2007).

There are four core CSS Principles that apply to transportation processes, outcomes, and decision-making: 1. Strive towards a shared stakeholder vision to provide a basis for decisions; 2. Demonstrate a comprehensive understanding of contexts; 3. Foster continuing communication and collaboration to achieve consensus; 4. Exercise flexibility and creativity to shape effective transportation solutions, while preserving and enhancing community and natural environments.

CSS is guided by a process which...

* Establishes an interdisciplinary team early, including a full range of stakeholders, with skills based on the needs of the transportation activity.
* Seeks to understand the landscape, the community, valued resources, and the role of all appropriate modes of transportation in each unique context before developing engineering solutions.
* Communicates early and continuously with all stakeholders in an open, honest, and respectful manner, and tailors public involvement to the context and phase.
* Utilizes a clearly defined decision-making process.
* Tracks and honors commitments through the life cycle of projects.
* Involves a full range of stakeholders (including transportation officials) in all phases of a transportation program.
* Clearly defines the purpose and seeks consensus on the shared stakeholder vision and scope of projects and activities, while incorporating transportation, community, and environmental elements.
* Secures commitments to the process from local leaders.
* Tailors the transportation development process to the circumstances and uses a process that examines multiple alternatives, including all appropriate modes of transportation, and results in consensus.
* Encourages agency and stakeholder participants to jointly monitor how well the agreed-upon process is working, to improve it as needed, and when completed, to identify any lessons learned.
* Encourages mutually supportive and coordinated multimodal transportation and land-use decisions.
* Draws upon a full range of communication and visualization tools to better inform stakeholders, encourage dialogue, and increase credibility of the process.

The CSS approach to project development leads to outcomes that...

* Are in harmony with the community and preserve the environmental, scenic, aesthetic, historic, and natural resource values of the area.
* Are safe for all users.
* Solve problems that are agreed upon by a full range of stakeholders.
* Meet or exceed the expectations of both designers and stakeholders, thereby adding lasting value to the community, the environment, and the transportation system.
* Demonstrate effective and efficient use of resources (people, time, budget,) among all parties.

# Assumptions

**The revised planning process assumes that updates to the financial forecasts will be provided by TxDOT more frequently than they are currently.** This must be done with the understanding that these updates not serve as triggers for or otherwise affect the MPO/RPO timelines for updating MPO/RPO long-range plans (LRPs) or transportation improvement programs (TIPs). This is an especially critical assumption for non-attainment areas that must follow a more deliberate timeline and process for updating their LRPs and TIPs than other MPOs/RPOs do.

**The revised planning process assumes that financial forecasts used by the MPOs/RPOs will be based on or start from the financial forecasts developed by TxDOT.** As such, the revised planning process also assumes greater participation by the MPOs/RPOs in the development and review of the financial forecasts.

**The revised planning process assumes that TxDOT will carry through on its desire to allocate total project cost (TPC) funding to each MPO/RPO.** The MPOs/RPOs are assuming that current funding formulas will be used and that any changes made will be in consultation with the MPOs/RPOs, as has been done in the past.

**The revised planning process does not integrate the Texas Metropolitan Mobility Plans or the Texas Urban Mobility Plans.** The Work Group views these documents as very valuable but believes they are most useful if they exist to inform the planning process instead of being part of it.

# Other Recommendations

**Increase the financial resources to the MPOs/RPOs to facilitate the implementation of the revised planning process.** The assumption that TPC funding will be distributed to the MPOs/RPOs by formula will require the MPOs/RPOs to take a more active role in how the financial aspects of their LRPs and TIPs are developed, managed, and maintained. This will require additional staff and financial resources to accomplish, especially for smaller MPOs/RPOs. Any discussion about revising the planning process needs to include a discussion of how to increase the financial and technical resources made available to the MPOs/RPOs.

**Reduce the number of funding categories.** The Work Group has discussed and recommended reducing the number of funding categories to provide greater flexibility and to enhance our ability to communicate to the variety of audiences that we interact with. The general public, our legislators, and locally elected officials have a difficult time understanding what transportation funds are available for what purposes. A reduction in categories will simplify the explanation and provide confidence in funding expectations. It is recognized that any reduction in funding categories must be aligned with current federal legislation; however, current thinking at the federal level is in line with this recommendation.

The proposed Surface Transportation Authorization Act of 2009 includes recommendations to reduce the number of transportation funding categories. That recommendation is supported by the Work Group. Specifically the legislation proposes that:

The federal role will be redefined and federal surface transportation be restructured by consolidating or terminating more than 75 programs. The new bill would consolidate the majority of highway funding into four, core formula categories designed to:

* Bring our highway and bridge systems to a state of good repair;
* Improve highway safety;
* Develop new and improved capacity; and
* Reduce congestion and greenhouse gas emissions and improve air quality.

The work group recommends a reduction in funding categories aligned with adopted federal legislation however; with one added category:

1. **Maintenance:** to ensure that the current system assets are preserved,
2. **Mobility:** to reduce congestion and develop new and improved capacity and improve system efficiency through operational improvements,
3. **Safety:** to ensure the safe operation of the transportation network and to reduce hazards met by the public and our commercial operators.
4. **Environmental:** to ensure funding for projects that will reduce greenhouse gas emissions and improve air quality, and
5. **Other:** to provide Commission discretionary funding of statewide initiatives that will enhance the development of the Texas economy.

**More closely involve the MPOs/RPOs in the development and management of letting schedules.** One of the issues raised by the Work Group is that MPOs/RPOs do not have a clear understanding of how letting schedules are developed or managed and/or that they are not clearly or consistently tracking how and when roadway or transit projects funded through their Transportation Improvement Programs (TIPs) are implemented. This is partially because project letting schedules developed and maintained by TxDOT are not regularly developed or otherwise shared with MPOs/RPOs and partially because MPOs/RPOs have mostly concentrated on the planning and programming aspect of projects and not so much on project development or implementation aspects.

As the importance of using cash flow as a tool to manage letting schedules becomes more common and important, there is some concern that MPO/RPO priorities are not being implemented as they should due to the manner in which letting schedules are developed and maintained. While there is general agreement that TxDOT needs to manage the letting schedule to maximize the use of funds and to maximize project delivery, the lack of understanding of how these schedules are developed and managed is creating several issues for the MPOs/RPOs and TxDOT:

* The tracking of projects in any organized or efficient way is very difficult, or even impossible in some cases. This creates difficulty in managing projects in the TIP, which in turn makes it difficult to demonstrate fiscal constraint when TIPs are amended or developed. This can lead to possible issues with the development and approval of the Statewide TIP, ultimately affecting project delivery and complicating the development of updated projects lists for amended or new long-range transportation plans.
* Communication with local governments is much more difficult, especially with regard to how implementation expectations are communicated. While local governments can easily check on the status of a project, delays become a much greater issue due to the lack of familiarity with how the letting schedule was developed, how it is managed, and why.
* The management of transportation networks used for mapping and travel demand modeling is more difficult.

The work group recommends that TxDOT amend the letting schedule development process to include:

* A monitoring process that allows the MPOs/RPOs the opportunity to track the progress of scheduled lettings; and,
* An amendment process that allows MPOs/RPOs to help set priorities as changes to the letting schedule are needed because of changes to projects or changes in viable funding.