Internal Audit Report

Plan Review Process
TxDOT Office of Internal Audit
Plan Review Process  
TxDOT Office of Internal Audit – Limited Scope

Objective
To evaluate the development and effectiveness of the plan review process in conformance with established policies, procedures, and regulations.

Opinion
Based on the audit scope areas reviewed, control mechanisms are effective and sustainable and substantially address risk factors and exposures considered significant relative to impacting financial reporting reliability, operational execution, and regulatory compliance. The organization's system of internal controls provides reasonable assurance that key goals and objectives will be achieved despite improvement opportunities identified. Improvement opportunities identified include minor enhancements that would improve achievement of control/business objectives but are not currently resulting in negative impacts to the organization.

Control Environment
Overall there is a positive tone throughout the plan review process from both the Districts and the Design Division. Both TxDOT management and staff recognize the importance of this process and the inherent risks associated with plan reviews and their impact to the projects overseen by TxDOT. As plan reviews continue with the transition to be the sole responsibility of the districts, there is an increasing need for a more defined and documented framework to drive state-wide consistency.

Summary Results

<table>
<thead>
<tr>
<th>Finding</th>
<th>Scope Area</th>
<th>Evidence</th>
</tr>
</thead>
<tbody>
<tr>
<td>None identified</td>
<td>Project Review</td>
<td>No findings identified</td>
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</table>

An observation point related to the variability in documentation of the state-wide plan certification process was created. In addition, a maturity model, developed by the Office of Internal Audit, is included based on research and analysis conducted during this engagement related to this plan certification and review process.

Audit Scope
The audit was performed by Jessica Esqueda, Anuradha Masand, Sabra Vaughan, and Lindsay Bibeau (Engagement Lead). The audit was conducted during the period from March 24, 2014 to May 30, 2014.

Methodology
The methodology(s) used to complete the objectives of this audit included:

- Reviewing TxDOT internal documents, including procurement policy and procedures manuals, organization charts, and process maps
- Reviewing state codes, manuals, and Texas Administrative Code sections for Project Design
- Interviewing key personnel including District Engineers and Plan Reviewers
Plan Review Process  

- Conducting judgmental sampling
- Performing an overall risk assessment of the design plan review process
- Observing personnel performing key function areas in the design plan review cycle

These procedures were applied as necessary to perform the audit fieldwork.

Background

This report is prepared for the Texas Transportation Commission, TxDOT Administration and Management. The report presents the results of the Plan Review Process which was conducted as part of the Fiscal Year 2014 Audit Plan.

Prior to awarding contractors TxDOT projects, otherwise known as letting, TxDOT District Engineers must certify each project for their district by signing and stamping the project plans’ title page. These plans, along with certain supporting documents, are consolidated into a Plan Specifications & Estimates package (PS&E) and submitted to the Design Division for letting. In order to certify these projects, they must undergo a review.

Prior to September 1, 2013, the Design Division did a final review of the plans when the design plans were substantially complete (e.g., known as the 95%/100% review). The district would submit the plans to the Design Division for final review before going to letting. The Design Division no longer requires their review in order for a project to be let.

We conducted this performance audit in accordance with Generally Accepted Government Auditing Standards and in conformance with the International Standards for the Professional Practice of Internal Auditing. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. Recommendations to mitigate risks identified were provided to management during the engagement to assist in the formulation of the management response included in this report. We believe that the evidence obtained provides a reasonable basis for our audit observation and conclusions based on our audit objectives.

A defined set of control objectives was utilized to focus on reporting, operational, and compliance goals for the identified scope areas. Our audit opinion is an assessment of the health of the overall control environment based on (1) the effectiveness of the enterprise risk management activities throughout the audit period and (2) the degree to which the defined control objectives were being met. Our audit opinion is not a guarantee against reporting misstatement and reliability, operational sub-optimization, or non-compliance, particularly in areas not included in the scope of this audit.

Best Practices

The audit team came across several best practices within the districts. Several of those best practices encompassed ways to help incorporate stakeholder (e.g., Bridge, Traffic, Construction Divisions, etc.) comments into the various projects through different tools and techniques.
Observations and Recommendations

Audit Observation (a): Variability of the State-Wide Process Plan Certification Process

Project development documentation to support review of plans and the final Plans Specifications & Estimates (PS&E) package varied within each district evaluated. The documentation is to support the certification of the project plans.

Opportunities to strengthen standard documentation were identified:
- 31 of 40 (78%) projects reviewed did not have documentation within the project file that demonstrated a project kick-off meeting had taken place. Documentation to show this meeting had taken place could have included, the Design Summary report or meeting minutes from the Design Concept meetings.
- 19 of 40 (48%) projects reviewed did not use or retain a final checklist that had information relating to accuracy and completeness of the PS&E package prior to sending for letting.

The following practices are not mandatory or consistently utilized, but may be considered procedures for other districts to adopt:
- 4 of 8 (50%) districts visited have customized templates that help ensure that plan review is sufficient. Customized templates seen in the districts included a use of a more streamlined Design Summary report for smaller projects, district checklists, or PS&E logs, where plan submittal to the review team is kept.
- 2 of 8 (25%) districts visited have a comment tracking mechanism in place, such as, a tool or a color coding system in order to document and retain comments into the project files.
- 1 of 8 (13%) districts visited is developing a milestone tracker to assist with deadline accountability.

In addition, it was noted that the manuals have not clearly defined what documents are needed to be retained by project classification. These clarifications help guide less tenured staff from those employees who have retired or moved to a new role.

While each district tested was working towards a process that is standard, the differences from district to district make it difficult to ensure that the process was meeting the overall objective of reviewing plans consistently. To illustrate where the plan review process is for TxDOT, a maturity model (see page 5) is included in this report. The maturity model allows the department to measure its methods and processes against external benchmarks. The following maturity model, illustrating a Level 2 or “Repeatable” for TxDOT, recognizes the progress made by the districts and provides an illustrative pathway for the districts to attain an even better model of performance and state-wide consistency.
**Effect/Potential Impact**

Having inconsistent documentation standards can lead to the following:
- insufficient documentation retained to support project decisions
- varying classification of project complexity
- inefficiencies in the plan review process

**Audit Recommendation**

The districts and Design Division should leverage the above maturity model to help the plan review process increase its state-wide level of consistency and development that is needed. This can also be accomplished through developing a project classification system to determine project complexity. By using this classification system, districts may be able to determine a minimal state-wide framework, provide project file expectations, and update manuals, as needed. Once this framework is established, baseline training should also be established and delivered state-wide on a reoccurring basis. Lastly, a reoccurring forum for knowledge sharing among plan reviewers in all districts would be recommended.

**Management Response**

The following response was provided by the Director of Engineering Operations and Director of Urban & Rural District Operations:

The above recommendations could be accomplished by:
- The Design Division will lead an effort, with support from other divisions and some districts, to develop a minimal framework for file documentation based on project complexity and the retention period for these files. In addition, use available forums to identify and share best practices across the state.
- Update Manuals, provide initial training to Districts, and provide training follow-up visits, as needed.
- Recommended Completion Date: January 15, 2015.

*Maturity model was developed by the audit team utilizing components of various maturity models reviewed during this engagement*
### Summary Results Based on Enterprise Risk Management Framework

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<th>ERM Component</th>
<th>Control Activities</th>
<th>Scope Areas Evaluated</th>
<th>Rating Assessment Grid</th>
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<tr>
<td>Business Objectives</td>
<td>Organizational Tone</td>
<td>R, O, C</td>
<td>Exemplary Satisfactory</td>
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<td></td>
<td>Planning</td>
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<td>Needs Improvement</td>
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<td>Forecasting</td>
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<td>Goal-Setting</td>
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<td>Cost-Benefit Analysis</td>
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<tr>
<td>Control Environment</td>
<td>Business Continuity</td>
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<td>Evaluations/Analysis</td>
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<td>Risk Assessment</td>
<td>Management Action Plans</td>
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<tr>
<td>Control Activities</td>
<td>Policies/Procedure Development &amp; Maintenance</td>
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<td>Approvals/Authorizations</td>
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<td>Supporting Evidence/Records Availability</td>
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<td>Segregation of Duties</td>
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<td>Output/Reporting and Messaging</td>
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<td>Monitoring</td>
<td>Exception Reporting Review</td>
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<td>Reconciliations/Root-Cause Analysis</td>
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<td>Management Representations</td>
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### Closing Comments

The results of this audit were discussed with District and Division Management. We appreciate the assistance and cooperation received from the Design Division and the various districts contacted during this audit.