

TEXAS TRANSPORTATION COMMISSION

TRAVIS and WILLIAMSON Counties

MINUTE ORDER

Page 1 of 1

AUSTIN District

In TRAVIS and WILLIAMSON COUNTIES, STATE HIGHWAY 130 has been designated a toll project and a controlled access state highway from I-35 north of Georgetown to a southern terminus at US 183.

In TRAVIS and WILLIAMSON COUNTIES, STATE HIGHWAY 45N has been designated a toll project and a controlled access state highway from west of US 183 to SH 130.

In TRAVIS and WILLIAMSON COUNTIES, STATE HIGHWAY LOOP 1 has been designated a toll project and a controlled access state highway from FM 734 (Parmer Lane) in Austin to the intersection of Loop 1 and SH 45N.

The Texas Transportation Commission (commission) has issued toll revenue bonds and other obligations to finance a portion of the costs of the 2002 Project of the Central Texas Turnpike System (system), a toll project composed of the SH 130, SH 45N, and Loop 1 project elements, and has entered into an Indenture of Trust dated July 15, 2002 with Bank One, National Association, as Trustee to secure the revenue bonds and other obligations issued for the 2002 Project.

In Section 707 of the Indenture of Trust, the commission covenants that it shall cause the general engineering consultant to make an inspection of the system at least once in the fiscal year following the substantial completion of the 2002 Project and in each fiscal year thereafter.

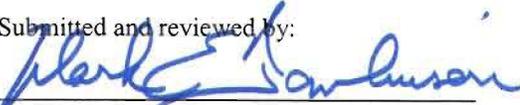
Following each inspection and on or before the 90th day prior to the end of each fiscal year, the general engineering consultant shall submit to the commission a report concerning the inspection, setting forth (a) their findings as to whether the system has been maintained in good repair, working order and condition and (b) their advice and recommendations as to the proper maintenance, repair and operation of the system during the ensuing fiscal year and (c) an estimate of the amount of money necessary for such purposes, including their recommendations as to the total amounts and classifications of items and amounts that should be provided for in the annual operating budget, the annual maintenance budget and annual capital budget for the next ensuing fiscal year.

Section 707 of the Indenture of Trust requires copies of the report to be filed with the U.S. Department of Transportation and the Trustee.

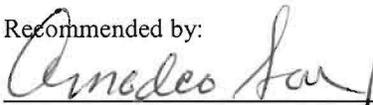
The commission has previously engaged PBS&J to serve as general engineering consultant in accordance with the Indenture of Trust. The FY 2009 Central Texas Turnpike Project Annual Inspection Report, attached as Exhibit A, has been prepared by PBS&J in accordance with Section 707 of the Indenture of Trust.

IT IS THEREFORE ORDERED by the commission that the general engineering consultant's FY 2009 Central Texas Turnpike Project Annual Inspection Report attached as Exhibit A is accepted.

Submitted and reviewed by:


Director, Texas Turnpike Authority Division

Recommended by:


Executive Director

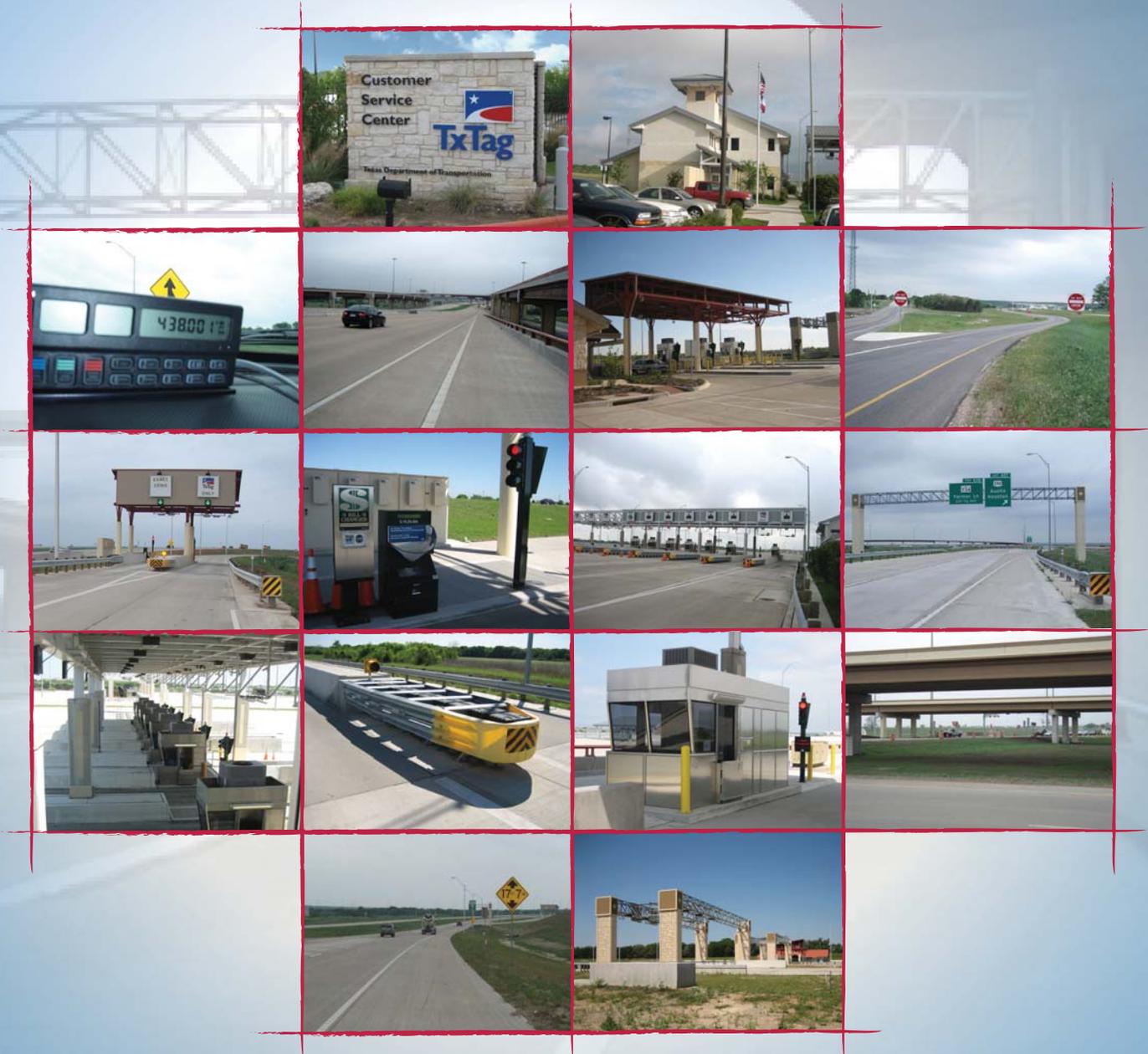
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Date
Passed



Central Texas Turnpike Project Annual Inspection Report 2009





An employee-owned company

May 1, 2009

Mr. Mark Tomlinson, P.E.
Director of Texas Turnpike Authority
Texas Department of Transportation
125 East 11th Street
Austin, TX 78701

Subject: FY 09 Inspection of the Central Texas Turnpike Project

Dear Mr. Tomlinson:

As General Engineering Consultant to the Central Texas Turnpike Project and in accordance with Section 707 of the Indenture of Trust, PBS&J is pleased to submit to you twenty copies of the FY 2009 Central Texas Turnpike Project Annual Inspection Report.

The results of this year's inspection are indicative of the project having recently opened to traffic and being maintained in a proactive manner. The condition of the project is excellent with an overall rating of 97. This is a combined rating for Loop 1, SH 45 and SH 130.

The inspection does reveal that a number of elements are in less than fair condition, however, the Austin District has two comprehensive maintenance contracts in place and funded for routine and periodic maintenance sufficient to address each of these elements.

This report contains a comprehensive summary of inspection results in tabular form. Additionally, photographs and graphics have been included to illustrate the major system elements. The Introduction, Inspection Results and Recommendations are included in the body of the report. Appendix A-Selected Photographs of existing conditions, Appendix B-Inspection Worksheets and Appendix C-Bridge Reports are included on the CD in the back of the report.

If you have any questions, please feel free to contact us.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Stephen W. Austin', written over a light blue horizontal line.

Stephen W. Austin

cc: Mr. Timothy Weight, P.E.
Mr. Lowell Choate, P.E.

Annual Inspection Report
for the fiscal Year ending August 31, 2009

TABLE OF CONTENTS

Description	Page
List of Tables.....	2
List of Figures.....	3
Executive Summary	4
1. Introduction	5
1.1 General Description and Procedure of Inspection	5
1.2 Description of Central Texas Turnpike Project.....	6
2. FY 2007 Maintenance Inspection Results	8
2.1 Introduction	8
2.2 Roadways	8
2.2.1 Pavement	13
2.2.2 Roadside	14
2.2.3 Traffic Operations.....	15
2.3 Buildings.....	20
2.3.1 Customer Service Center	21
2.3.2 Toll Plaza Administrative Buildings and Canopies	22
2.3.3 Tollbooths.....	23
2.3.4 Mechanical	24
2.3.5 Electrical.....	24
2.4 Structures	29
2.4.1 Bridges	30
2.4.2 Overhead / Cantilever Signs	32
2.4.3 High Mast Light Towers	33
3. Program Status, Commitments, and Recommendations.....	34
3.1 Maintenance Rating Program Status.....	34
3.2 Programmed Commitments	34
3.3 Recommendations	34
Appendix A - Selected Photographs of Existing Conditions	A
Appendix B – Inspection Worksheets.....	B
Appendix C – Bridge Report Summary.....	C

LIST OF TABLES

1 – Central Texas Turnpike Project Components	6
2 – Turnpike Project Roadway Inspection Rating Scale.....	11
3 – TxCAP Roadway Weighted Scoring Values.....	12
4 – Condition of CTTP Roadway Elements - Loop 1	16
5 – Condition of CTTP Roadway Elements - SH 45	17
6 – Condition of CTTP Roadway Elements – SH 130	18
7 – Condition of CTTP Roadway Elements – All Roadways	19
8 – CTTP Building Quantities – FY 2009	20
9 – Condition of CTTP Buildings – Loop1	25
10 – Condition of CTTP Buildings – SH 45	26
11 – Condition of CTTP Buildings – SH 130	27
12 – Condition of CTTP Buildings – All Roadways.....	28
13 – Quantities of CTTP Major Structures.....	29
14 – Bridge Components	31
15 – Bridge Inspection Rating Scale	31
16 – Overhead / Cantilever Sign Components	32
17 – High Mast Light Tower Components	33

LIST OF FIGURES

1 – Central Texas Toll Roads...7

2 – Major System Elements ...10

3 – Typical Roadway Section...13

4 – Typical Roadside Section...14

5 – Roadside Sign and Pavement Symbols...15

6 – Customer Service Center...21

7 – Mainline Canopy...22

8 – Toll Booth...23

9 – Facility Generator...24

10 – Bridge ...30

11 – Overhead Sign Structure...32

12 – High Mast Light Tower ...33

Executive Summary

As General Engineering Consultant to the Central Texas Turnpike Project (CTTP) and in accordance with Section 7.07 of the Indenture of Trust, dated July 15, 2002 between the Texas Transportation Commission and Bank One, National Association, as Trustee, PBS&J is pleased to submit the Central Texas Turnpike Project Annual Inspection Report for the Fiscal Year ending August 31, 2009. The findings contained in this report are based upon the assessment of inspection data compiled for the roadway, buildings, and structures components; in coordination with the Texas Department of Transportation (TxDOT) Maintenance and Finance Offices; and PBS&J's general knowledge of the condition of Turnpike Project facilities.

This is the second annual inspection of the CTTP since it opened to traffic. The overall condition of the Turnpike Project is excellent with an overall rating of 97 for the roadway features. The system's primary feature, its 65 miles of roadway, is in new condition with only minor deficiencies noted. No single element achieved a score less than 80, with the exception of delineators / missing mile markers which rated a score of 78 overall. Mile markers are only present on SH 130 and were not scored on SH 45 and Loop 1.

The FY 2009 annual inspection also revealed that all facilities (buildings) are in very good condition overall. The majority of the deficiencies found are cosmetic in nature. Bridges, inspected under the federal bridge Inspection program, are reported in good condition and are included in this report.

The CTTP has programmed over \$9.0 million in FY 2009, and has two comprehensive maintenance contracts in place, and funded through FY 2010 for routine and periodic maintenance of all highway and structure assets and other safety related upgrades.

In addition to the analysis of inspection results, this report presents the current status of the Turnpike Project with respect to the Texas Condition Assessment Program (TxCAP). The TxDOT commitment to system improvement and preservation is obvious. By continually monitoring system conditions and ensuring that its facilities are maintained in top condition, the Turnpike Project is better able to provide for the safety and convenience of its patrons while maintaining a safe investment for bondholders.



Section 1



Introduction

1. Introduction

1.1 General Description and Procedure of Inspection

The Turnpike Project annual inspection is conducted based on three major categories of system facilities: roadways, buildings, and structures. The roadway inspection features three general categories of roadway elements: pavement, roadside and traffic operations. The building inspection is divided into three general building types; toll plaza administration buildings, toll plaza buildings (ramps) and canopies. The major elements in each of the three building types are subdivided into four categories and are detailed in Section 2.3 Buildings. All roadways and facilities were inspected by PBS&J, the CTTTP General Engineering Consultant. This report reflects the findings of the roadway and building inspections that were accomplished in 2009. Selected photographs of roadway and building components are included in Appendix A.

The visual inspection of all structures was conducted during this year's field inspection. The structures inspection includes bridges; overhead / cantilever signs, and High Mast Light Towers (HMLTs). A summary of all the Federal Bridge Inspection Reports for bridges within the CTTTP indicates no major deficiencies with any of the Project's bridges. The bridge summary is located in Appendix C.

All three roadways within the CTTTP were inspected utilizing the TxCAP scoring system. The TxCAP program combines data from three different division's reporting systems: The Texas Maintenance Assessment Program (TxMAP), the Pavement Management Information System (PMIS) and the Texas Traffic Assessment Program (TxTAP) to assess the Turnpike Project's assets. The development of TxCAP eliminates duplication of the three separate scoring systems and provides a simplified and concise scoring scale. The system is based on a 5-point rating scale.

The TxCAP rating, which supports the findings of the annual inspection, allows a comparison of the CTTTP roadway conditions to the statewide standard. The ratings assigned to the Turnpike Project can be used to make general recommendations on system components needing improvement. A summary of the TxCAP is described in more detail and the scores are included in the roadway section of this report. The rating system utilized by the Central Texas Turnpike Project is defined in detail in Section 2, FY 2009 Maintenance Inspection Results, Subsection 2.2, Roadways.

All inspections are conducted in accordance with standard procedures developed by the Federal Highway Administration and Texas Department of Transportation (TxDOT) and involve an extensive visual examination of all elements relative to the category of inspection. A detailed tabulation of the conditions observed on the date of the field inspection is prepared in the form of inspection worksheets. The

worksheets are spot-checked in the field to verify accuracy and consistency and the results are reviewed and summarized for presentation in Appendix B.

1.2 Description of Central Texas Turnpike Project

In FY 2009, the Central Texas Turnpike Project was comprised of three main roadway components. The first component; the Loop 1 Extension is approximately three miles in length and runs north from FM 734 (Parmer Lane) to the SH 45 interchange. SH 45, the second of CTTTP’s three highways currently begins west of US 183 at Ridgeline Blvd. and extends east approximately 13 miles to the SH 130 / SH 45 interchange north of Pflugerville. The third component, SH 130 currently begins north of Georgetown, Texas and extends 49 miles south to US 183 in southeast Travis County. This includes 8 miles that opened to traffic in April of 2008 that was not completed for the 2008 inspection. All three of CTTTP highways are multi-lane, limited access toll facilities. The three highways combined provide 65 centerline miles to the Texas Intrastate Highway System, these three components include 209 bridges, and 57 buildings. The system’s main roadway components are summarized in Table 1 and illustrated in Figure 1.

Table 1 Central Texas Turnpike Project Components		
Component	Centerline Mile Lengths	
	Mi.	km
Loop 1	3	4.83
State Highway 45	13	20.92
State Highway 130	49	78.86
Total	65	104.61

CENTRAL TEXAS TURNPIKE PROJECT

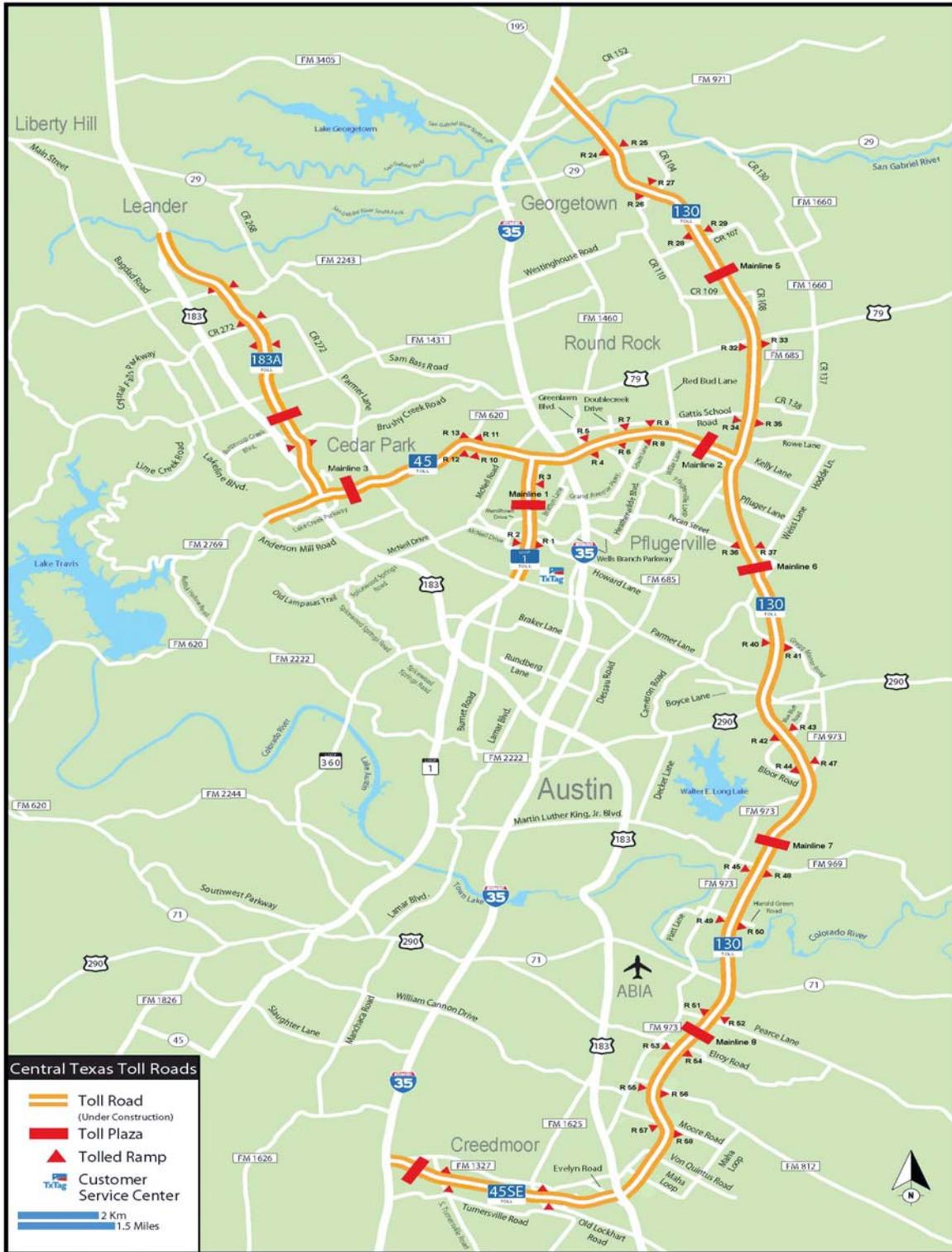


Figure 1 - Central Texas Toll Roads



Section 2



FY 2009 Maintenance Inspection Results

2. FY 2009 Maintenance Inspection Results

2.1 Introduction

The findings of the FY 2009 Annual Inspection of Central Texas Turnpike Project are based on an extensive evaluation of the roadway, building, and structures inspection and are outlined in the following paragraphs. The TxDOT ratings assigned to the various roadway elements are presented, along with a general description of the condition of the system's roadways, buildings and structures at the time of inspection.

No major deficiencies were found in any of the three categories of the 2009 inspection; roadways, buildings or structures that have been completed and are in service.

The CTTTP inspection does not take into account the criticality of the elements in relationship to each other. When reviewing deficiencies, one should remember that a number of considerations influence the desired level of service. These include safety, protection of private and public investment, comfort, economics, environmental impact, aesthetics, and funding constraints. A deficient pavement failure, for example, would receive priority over a deficiency in litter removal because it may have an immediate impact on the safety of the patron.

2.2 Roadways

The roadway inspection is divided into three general categories of roadway elements: pavement, traffic operations and roadside features. A sketch identifying the major elements of a typical roadway is included as Figure 2.

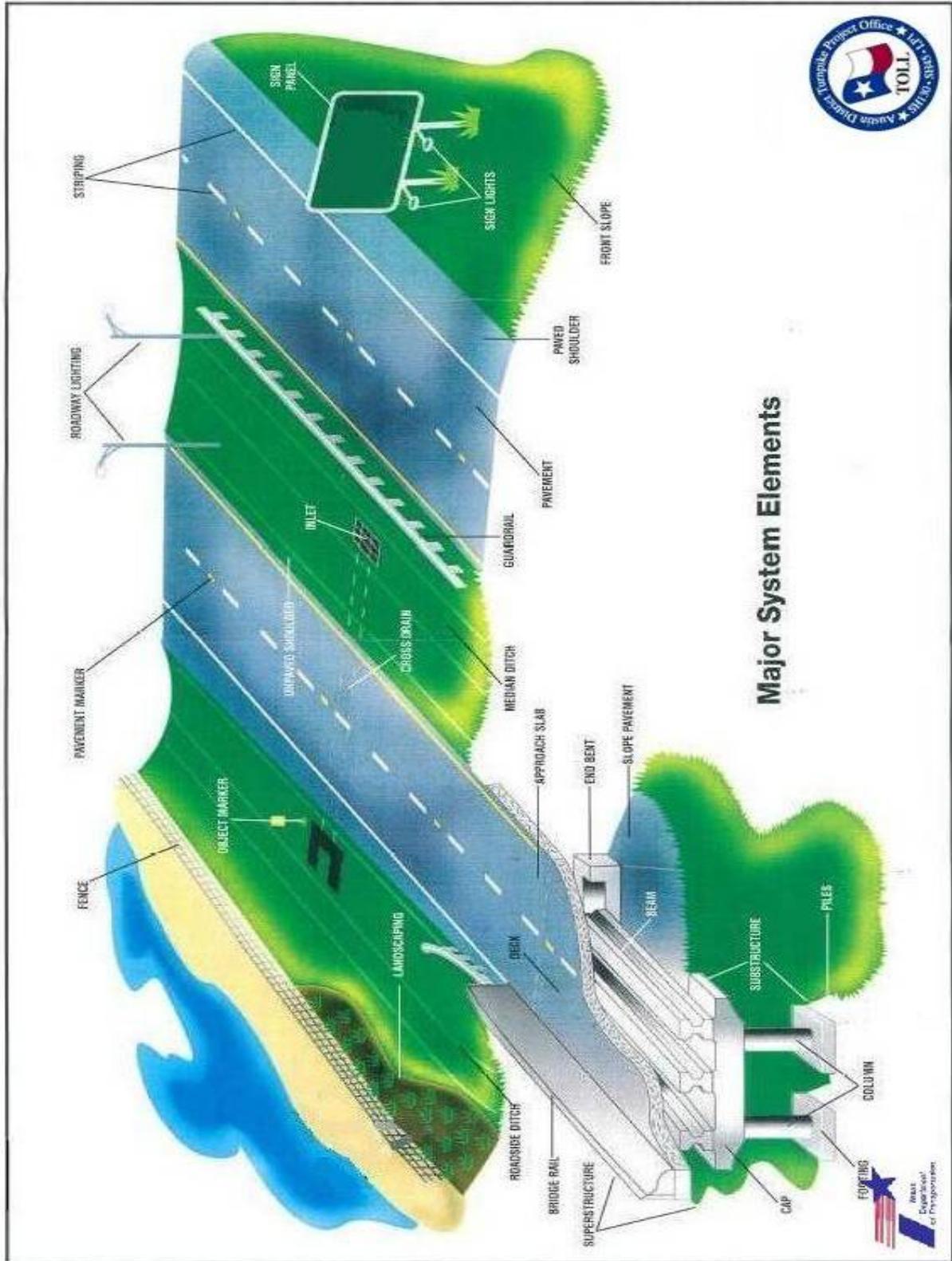
PBS&J utilized a Roadway rating procedure (RRP) based on using the original 25 roadway elements outlined in the TxCAP document. The ratings and descriptions of the numerical grading system are based on a five-point system as used in the TxCAP as shown in Table 2. The 5-point system then is converted to a 100 percent by multiplying each rating by twenty. The resulting score is then weighted by applying the TxCAP values outlined in Table 3 to determine the overall score for each category. Each category's overall score is then weighted according to appropriate TxCAP value to obtain a total composite score for the entire roadway system.

Five elements; railroad crossings, signals, work zones, mailboxes and general public rating contained in the traffic operations and roadside categories were not applicable to this project. These elements are not scored in this year's inspection. The TxCap weighted scores of the remaining elements were increased proportionally to obtain the 100-point maximum, as shown on Table 3.

This information is entered directly into a database located on laptop computers in the field for later compilation and reporting for each roadway. Inspection results are separated by roadway / ramp segment and lane direction.

All of the major elements contained within each category are in Tables 4 through 6. In addition, the scores for each major element are included. A rating of two or below on the field inspection worksheets indicates that the portion of the element is degraded and reported as deficient. All three roadways contained within the CTTP are summarized in Table 7. The inspection results shown include all major categories of Turnpike roadway facilities: mainline roadways, ramps and interchanges.

The results of this year's annual inspection indicate that the Turnpike System roadway facilities are in like new condition and are being maintained in an overall excellent condition. No major roadway deficiencies were identified by the Turnpike Systems annual inspection.



Major System Elements

Fig 2 – Major System Elements

Table 2 Turnpike Project Roadway Inspection Rating Scale		
Grade	Rating	Description
5	Excellent	No deficiencies noted. Feature is in like new condition
4	Good	No maintenance is necessary. Feature appearance and functionality/operability are good.
3	Degraded	Maintenance is required to protect public or system. Feature appearance and functionality/operability are below average.
2	Unsatisfactory	Immediate repair is required to protect public or system. Feature appearance and functionality/operability are substandard.
1	Emergency	Immediate maintenance is required to protect public or system. Feature appearance and functionality/operability are unacceptable.

Table 3		
TxCAP Roadway Weighted Scoring Values		
Pavement Score	Original Percentage	Adjusted Percentage
Rutting (PMIS)	17.50%	17.50%
Cracking (PMIS)	17.50%	17.50%
Failures (PMIS)	24.00%	24.00%
Ride (PMIS)	16.00%	16.00%
Edges (TxMAP)	12.00%	12.00%
Shoulders (TxMAP)	13.00%	13.00%
Traffic Operations Score		
Raised Pavement Markers (TxMAP)	10.00%	11.76%
Striping, Pavement Graphics (TxMAP)	20.00%	23.53%
Attenuators (TxMAP)	5.00%	5.88%
Delineators (TxMAP)	15.00%	17.65%
Shoulder Texturing (TxMAP)	5.00%	5.88%
Roadside Signs (TxTAP)	30.00%	35.29%
Railroad Crossings (TxTAP)	N/A (5.0%)	0.00%
Signals (TxTAP)	N/A (10.0%)	0.00%
Work Zones (TxTAP)	N/A (0.0%)	0.00%
Roadside Score		
Vegetation Management (TxMAP)	13.00%	18.57%
Litter (TxMAP)	6.00%	8.57%
Sweeping (TxMAP)	11.00%	15.71%
Trees and Brush (TxMAP)	8.00%	11.43%
Drainage (TxMAP)	12.00%	17.14%
Encroachments (TxMAP)	8.00%	11.43%
Guardrails (TxMAP)	7.00%	10.00%
Guardrail End Treatments (TxMAP)	5.00%	7.14%
Mailboxes (TxMAP)	N/A (7.0%)	0.00%
General Public Rating (TxMAP)	N/A (23.0%)	0.00%
Overall Score		
Pavement	50.00%	50.00%
Traffic Operations	25.00%	25.00%
Roadside	25.00%	25.00%

2.2.1 Pavement

The pavement category includes; rutting, cracking, pavement failures, ride rating edges and shoulders. Pavement throughout the CTTTP was generally found in new condition and achieved an overall score rating of 96. None of the pavement elements rated a score below 80 percent. The lowest pavement element score, cracking, received a score of 80 percent and was noted on Loop 1. There were no major deficiencies on any of the three roadway systems reported by the annual inspection.



Figure 3 - Typical Roadway Section

2.2.2 Roadside

The determination of the Roadside score for roadside features is generally based upon the consideration of vegetation management, litter removal, drainage structures, and other elements located outside of the paved travel way (Figure 2). The roadside category is in excellent condition and has achieved an overall score of 98. There were no characteristics that rated lower than 91. The lowest element, vegetation management, was found on SH 130. A combination of sparse and or missing turf in combination with minor erosion contributed to the reduced score.



Figure 4 – Typical Roadside Section

2.2.3 Traffic Operations

The Traffic Operations category ratings are based on the condition of all features that guide, protect, and assist the patron while traveling the Turnpike System's roadways and interchanges. A Traffic Operations score rating of 94 was achieved in this category. While the overall score generally reflects the good condition of this category, delineators / mile markers were noted to be less than adequate. During the inspection, many delineators and mile markers were noted as missing on SH 130. The delineators were rated at 70% on SH 130, the lowest score of all three CTPP highways. Mile markers are only present on SH 130 and were not scored on SH 45 and Loop 1.



Figure 5 – Roadside Sign and Pavement Symbols

CENTRAL TEXAS TURNPIKE PROJECT

Table 4 Condition of Roadway Elements - CTPP Loop 1 (Mainline) - FY 2009						
Category	Component	Component Score	Maximum Score	Sub Score	TxCAP Weighted Value	Weighted Score
Pavement Score	Rutting	1,400	1,400	100	17.50%	18
	Cracking	1,120	1,400	80	17.50%	14
	Failures	1,400	1,400	100	24.00%	24
	Ride	1,400	1,400	100	16.00%	16
	Edges	1,400	1,400	100	12.00%	12
	Shoulders	1,380	1,500	92	13.00%	12
Loop 1 - Pavement Score						95
Traffic Operations Score	Raised Pavement Markers	1,200	1,200	100	11.76%	12
	Striping, Pavement Graphics	1,240	1,400	89	23.53%	21
	Attenuators	1,200	1,200	100	5.88%	6
	Delineators	2,020	2,100	96	17.65%	17
	Shoulder Texturing	1,030	1,150	90	5.88%	5
	Roadside Signs	1,275	1,275	100	35.29%	35
	Railroad Crossings	0	0	0	0.00%	0
	Signals	0	0	0	0.00%	0
	Work Zones	0	0	0	0.00%	0
Loop 1 - Traffic Operations Score						96
Roadside Score	Vegetation Management	1,187	1,200	99	18.57%	18
	Litter	1,400	1,400	100	8.57%	9
	Sweeping	1,320	1,400	94	15.71%	15
	Trees and Brush	700	700	100	11.43%	11
	Drainage	1,200	1,200	100	17.14%	17
	Encroachments	700	700	100	11.43%	11
	Guardrails	1,400	1,400	100	10.00%	10
	Guardrail End Treatments	1,400	1,400	100	7.14%	7
	Mailboxes	0	0	0	0.00%	0
	General Public Rating	0	0	0	0.00%	0
Loop 1 - Roadside Score						99
Category Score	Pavement	8,100	8,500	95	50.00%	48
	Traffic Operations	7,965	8,325	96	25.00%	24
	Roadside	9,307	9,400	99	25.00%	25
Loop 1 - Total Roadway Score						97

CENTRAL TEXAS TURNPIKE PROJECT

Table 5 Condition of Roadway Elements - CTPP SH 45 (Mainline) - FY 2009						
Category	Component	Component Score	Maximum Score	Sub Score	TxCAP Weighted Value	Weighted Score
Pavement Score	Rutting	5,300	5,300	100	17.50%	18
	Cracking	4,600	5,700	81	17.50%	14
	Failures	5,220	5,240	100	24.00%	24
	Ride	5,300	5,300	100	16.00%	16
	Edges	5,300	5,300	100	12.00%	12
	Shoulders	4,880	5,400	90	13.00%	12
SH 45 - Pavement Score						95
Traffic Operations Score	Raised Pavement Markers	4,700	4,900	96	11.76%	11
	Striping, Pavement Graphics	4,700	5,200	90	23.53%	21
	Attenuators	3,900	3,900	100	5.88%	6
	Delineators	5,140	5,300	97	17.65%	17
	Shoulder Texturing	4,730	4,850	98	5.88%	6
	Roadside Signs	4,735	4,775	99	35.29%	35
	Railroad Crossings	0	0	0	0.00%	0
	Signals	0	0	0	0.00%	0
	Work Zones	0	0	0	0.00%	0
SH 45 - Traffic Operations Score						96
Roadside Score	Vegetation Management	4,707	4,800	98	18.57%	18
	Litter	5,180	5,400	96	8.57%	8
	Sweeping	5,100	5,300	96	15.71%	15
	Trees and Brush	3,400	3,400	100	11.43%	11
	Drainage	4,357	4,357	100	17.14%	17
	Encroachments	3,400	3,400	100	11.43%	11
	Guardrails	4,900	4,900	100	10.00%	10
	Guardrail End Treatments	4,900	4,900	100	7.14%	7
	Mailboxes	0	0	0	0.00%	0
	General Public Rating	0	0	0	0.00%	0
SH 45 - Roadside Score						99
Category Score	Pavement	30,600	32,240	95	50.00%	48
	Traffic Operations	27,905	28,925	96	25.00%	24
	Roadside	35,944	36,457	99	25.00%	25
SH 45 - Total Roadway Score						97

CENTRAL TEXAS TURNPIKE PROJECT

Table 6 Condition of Roadway Elements - CTPP SH 130 (Mainline) - FY 2009						
Category	Component	Component Score	Maximum Score	Sub Score	TxCAP Weighted Value	Weighted Score
Pavement Score	Rutting	17,300	17,300	100	17.50%	18
	Cracking	19,880	23,300	85	17.50%	15
	Failures	17,170	17,200	100	24.00%	24
	Ride	17,300	17,300	100	16.00%	16
	Edges	17,300	17,300	100	12.00%	12
	Shoulders	16,100	17,600	91	13.00%	12
SH 130 - Pavement Score						96
Traffic Operations Score	Raised Pavement Markers	17,100	17,100	100	11.76%	12
	Striping, Pavement Graphics	16,980	17,600	96	23.53%	23
	Attenuators	7,400	7,400	100	5.88%	6
	Delineators	13,440	19,100	70	17.65%	12
	Shoulder Texturing	16,780	18,450	91	5.88%	5
	Roadside Signs	17,115	17,250	99	35.29%	35
	Railroad Crossings	0	0	0	0.00%	0
	Signals	0	0	0	0.00%	0
	Work Zones	0	0	0	0.00%	0
SH 130 - Traffic Operations Score						93
Roadside Score	Vegetation Management	16,060	17,567	91	18.57%	17
	Litter	17,260	17,600	98	8.57%	8
	Sweeping	17,080	17,500	98	15.71%	15
	Trees and Brush	13,560	13,800	98	11.43%	11
	Drainage	16,111	16,171	100	17.14%	17
	Encroachments	13,560	13,800	98	11.43%	11
	Guardrails	17,140	17,300	99	10.00%	10
	Guardrail End Treatments	17,140	17,300	99	7.14%	7
	Mailboxes	0	0	0	0.00%	0
	General Public Rating	0	0	0	0.00%	0
SH 130 - Roadside Score						97
Category Score	Pavement	105,050	110,000	96	50.00%	48
	Traffic Operations	88,815	96,900	93	25.00%	23
	Roadside	127,911	131,038	97	25.00%	24
SH 130 - Total Roadway Score						95

CENTRAL TEXAS TURNPIKE PROJECT

Table 7 Condition of Roadway Elements - CTPP (All Roadways) - FY 2009						
Category	Component	Component Score	Maximum Score	Sub Score	TxCAP Weighted Value	Weighted Score
Pavement Score	Rutting	24,000	24,000	100	17.50%	18
	Cracking	25,600	30,400	84	17.50%	15
	Failures	23,790	23,840	100	24.00%	24
	Ride	24,000	24,000	100	16.00%	16
	Edges	24,000	24,000	100	12.00%	12
	Shoulders	22,360	24,500	91	13.00%	12
CTTP (All Roadways) - Pavement Score						96
Traffic Operations Score	Raised Pavement Markers	23,000	23,200	99	11.76%	12
	Striping, Pavement Graphics	22,920	24,200	95	23.53%	22
	Attenuators	12,500	12,500	100	5.88%	6
	Delineators	20,600	26,500	78	17.65%	14
	Shoulder Texturing	22,540	24,450	92	5.88%	5
	Roadside Signs	23,125	23,300	99	35.29%	35
	Railroad Crossings	0	0	0	0.00%	0
	Signals	0	0	0	0.00%	0
	Work Zones	0	0	0	0.00%	0
CTTP (All Roadways) - Traffic Operations Score						94
Roadside Score	Vegetation Management	21,954	23,567	93	18.57%	17
	Litter	23,840	24,400	98	8.57%	8
	Sweeping	23,500	24,200	97	15.71%	15
	Trees and Brush	17,660	17,900	99	11.43%	11
	Drainage	21,668	21,728	100	17.14%	17
	Encroachments	17,660	17,900	99	11.43%	11
	Guardrails	23,440	23,600	99	10.00%	10
	Guardrail End Treatments	23,440	23,600	99	7.14%	7
	Mailboxes	0	0	0	0.00%	0
	General Public Rating	0	0	0	0.00%	0
CTTP (All Roadways) - Roadside Score						98
Category Score	Pavement	143,750	150,740	96	50.00%	48
	Traffic Operations	124,685	134,150	94	25.00%	24
	Roadside	173,162	176,895	98	25.00%	25
Total Central Texas Toll Roadway Score						97

2.3 Buildings

The building facilities inspection is based on three general building types: toll plaza administration buildings, toll plaza buildings (ramps) and canopies. The major characteristics of each building type are subdivided into four categories: buildings, tollbooths, mechanical, and electrical components. Fifty-seven buildings currently exist and are providing service at the time of the FY 2009 inspection. Approximately 6,924 building asset items were inspected, of which, 90 were rated as being in less than fair (rating of 2 or less) condition, for a deficiency rate of 1.30 percent. However, it should be pointed out that, in many cases, these deficiencies represented an aesthetics problem and not structural or safety issues. The CTTTP mainline toll plazas, ramp plazas and buildings are detailed in Table 8.

Table 8					
Central Texas Turnpike Building Quantities - FY 2009					
Category and Type		Loop 1	SH 130	SH 45	Totals
Buildings	Mainline Toll Plazas	1	8	2	11
	Ramp Plazas	3	30	12	45
	Customer Service Center	1	0	0	1
	Under Construction	0	0	0	0
Totals		5	38	14	57

As part of the inspection process, all relevant structural components and associated mechanical and electrical systems for all buildings are visually inspected and ratings are assigned based on the conditions observed. The ratings and descriptions of the numerical grading system are based on the same five-point system utilized for the roadway system elements (Table 3). Elements rated deficient are compared to the total number of elements inspected to achieve a percent deficient for each element in each category. A summary of the results for each of the three roadways are contained in Tables 9 through 11, and a system-wide summary is shown in Table 12.

Including the twenty-two elements inspected and included in the building category, elements that reported the highest deficiency rate were roof joints at 10.00%. Water intrusion was noted near the roof / exterior door joint at several toll plaza buildings (ramps). Additional elements found deficient were irrigation systems at 5.56%. Also, fire extinguishers and cabinets, were noted as deficient at 5.36%.

2.3.1 Customer Service Center

The Texas Tag (TxTag) Customer Service Center (CSC) as shown in Fig. 6 below provides support for TxDOT's and other toll projects throughout the state. "TxTag" is the toll transponder that patrons use to pay tolls electronically by establishing a pre-paid account. The TxTag CSC supports patrons using TxTags as well as toll road patrons choosing to use the Pay by Mail process for their tolls monthly. In both cases, a customer account is established to accept payment or pre-payment for tolls. For transponder-based accounts, the CSC also supports inventory, fulfillment and distribution of the TxTag kits.

The customer service center became operational in July of 2006, and now operates six days a week, 12 hours each workday and 9 hours on Saturday with approximately 200 employees. The CSC includes four walk-up counters, a call center, and centers for fulfillment and distribution of TxTags, violations processing and image review, payment processing, help desk support, and account management. Additionally, there are management activities, including general administration, quality assurance and quality control, accounting and reconciliation, human resources, and facility administration.



Figure 6 - Customer Service Center

2.3.2 Toll Plaza Administrative Buildings and Canopies

The toll plaza administration buildings and canopies are located either as part of a mainline toll plaza or ramp toll plaza facility. The canopies typically extend from the administration buildings outward, over the tollbooths or toll collection equipment located between the travel lanes. The administration buildings may also be connected to the toll collection booths/equipment by means of an underground tunnel, which facilitates the transport of personnel, toll collection data, and supplies.



Figure 7 - Mainline Canopy

2.3.3 Tollbooths

All tollbooths, including those that have been decommissioned, were inspected during the FY 09 inspection. Tollbooths and related subcomponents were noted in excellent condition throughout the CTTTP. Only one tollbooth element, Toll A/C at 10.00% was rated greater than 5% deficient within the system. A typical tollbooth configuration is pictured below in figure 8. The condition of the elements and the corresponding deficiencies for each of these categories is summarized in Tables 9 through 11, with a system-wide summary shown in Table 12.



Figure 8 - Toll Booth

2.3.4 Mechanical

Mechanical elements include plumbing fixtures, sewer / septic lines and well and water lines. Eight plumbing fixture deficiencies were noted in less than fair condition within the system for a deficiency rating of 4.30%.

2.3.5 Electrical

Of the 1279 total electrical elements in the electrical category, only twelve deficient elements were noted as deficient for an overall deficiency rate of 0.94%. Ten of the elements are non-functioning GFI receptacles located at several facilities throughout the system. Two generators are noted as not installed at the Heatherwilde Blvd facilities.



Figure 9 – Facility Generator

CENTRAL TEXAS TURNPIKE PROJECT

Table 9				
Condition of CTPP Buildings - Loop 1 - FY 2009				
Category	Element	Number Inspected	Number Rated Less Than Fair	Percent Deficient
Buildings	Parking Area & Drive Pvm't	48	1	2.08%
	Walks And Curbs	4	0	0.00%
	Area Lights	6	0	0.00%
	Site Drainage	0	0	0.00%
	Irrigation System	151	0	0.00%
	Exterior Walls	154	2	1.30%
	Exterior Trim	4	0	0.00%
	Exterior Windows	80	0	0.00%
	Exterior Doors	15	0	0.00%
	Interior Walls & Ceilings	412	0	0.00%
	Interior Windows & Sills	0	0	0.00%
	Interior Doors	134	0	0.00%
	Interior Flooring	137	1	0.73%
	Fire Extinguishers & Cabinets	43	0	0.00%
	Toilet Partitions & Screens	1	0	0.00%
	Bath Accessories	0	0	0.00%
	Lockers	0	0	0.00%
	Interior Signs	31	1	3.23%
	Roofs	5	1	20.00%
	Air Conditioners	175	1	0.57%
	Tunnel	1	0	0.00%
Elevators, Dumbwaiters	2	0	0.00%	
Toll Booths	Exterior Booth	14	0	0.00%
	Interior Booth	56	0	0.00%
	Toll Doors	14	0	0.00%
	Window	15	0	0.00%
	Counter/Drawer	19	0	0.00%
	Toll Light	8	0	0.00%
	Toll A/C	31	4	12.90%
	Underside Of Roof	4	0	0.00%
	Traffic Lights	28	0	0.00%
	Area Lights	6	0	0.00%
	Signs	29	0	0.00%
	Concrete Pavement	0	0	0.00%
	Nose Flashers (In Gator Heads)	18	0	0.00%
	Concrete Bumpers (Parking Stops)	0	0	0.00%
	Traffic Signal	28	0	0.00%
	Toll Indicator	24	0	0.00%
	Mechanical	Plumbing Fixtures	46	1
Sewer / Septic Lines		1	0	0.00%
Well / Water Lines		0	0	0.00%
Electrical	Building Electrical Fixtures	368	2	0.54%
	Generators	9	0	0.00%

CENTRAL TEXAS TURNPIKE PROJECT

Table 10				
Condition of CTPP Buildings - SH 45 - FY 2009				
Category	Element	Number Inspected	Number Rated Less Than Fair	Percent Deficient
Buildings	Parking Area & Drive Pvm't	120	1	0.83%
	Walks And Curbs	4	1	25.00%
	Area Lights	6	0	0.00%
	Site Drainage	0	0	0.00%
	Irrigation System	63	0	0.00%
	Exterior Walls	77	0	0.00%
	Exterior Trim	14	0	0.00%
	Exterior Windows	27	0	0.00%
	Exterior Doors	28	1	3.57%
	Interior Walls & Ceilings	181	2	1.10%
	Interior Windows & Sills	0	0	0.00%
	Interior Doors	42	4	9.52%
	Interior Flooring	66	0	0.00%
	Fire Extinguishers & Cabinets	30	4	13.33%
	Toilet Partitions & Screens	0	0	0.00%
	Bath Accessories	0	0	0.00%
	Lockers	2	0	0.00%
	Interior Signs	17	0	0.00%
	Roofs	3	0	0.00%
	Air Conditioners	121	1	0.83%
Tunnel	2	0	0.00%	
Elevators, Dumbwaiters	4	0	0.00%	
Toll Booths	Exterior Booth	12	0	0.00%
	Interior Booth	48	1	2.08%
	Toll Doors	12	1	8.33%
	Window	12	0	0.00%
	Counter/Drawer	29	0	0.00%
	Toll Light	28	0	0.00%
	Toll A/C	25	3	12.00%
	Underside Of Roof	14	0	0.00%
	Traffic Lights	65	1	1.54%
	Area Lights	6	0	0.00%
	Signs	66	0	0.00%
	Concrete Pavement	0	0	0.00%
	Nose Flashers (In Gator Heads)	36	0	0.00%
	Concrete Bumpers (Parking Stops)	0	0	0.00%
	Traffic Signal	65	1	1.54%
	Toll Indicator	51	0	0.00%
Mechanical	Plumbing Fixtures	48	2	4.17%
	Sewer / Septic Lines	0	0	0.00%
	Well / Water Lines	0	0	0.00%
Electrical	Building Electrical Fixtures	280	4	1.43%
	Generators	16	2	12.50%

CENTRAL TEXAS TURNPIKE PROJECT

Table 11				
Condition of CTPP Buildings - SH 130 - FY 2009				
Category	Element	Number Inspected	Number Rated Less Than Fair	Percent Deficient
Buildings	Parking Area & Drive Pvm't	278	1	0.36%
	Walks And Curbs	28	0	0.00%
	Area Lights	21	0	0.00%
	Site Drainage	0	0	0.00%
	Irrigation System	128	18	14.06%
	Exterior Walls	180	0	0.00%
	Exterior Trim	38	0	0.00%
	Exterior Windows	53	0	0.00%
	Exterior Doors	76	0	0.00%
	Interior Walls & Ceilings	330	0	0.00%
	Interior Windows & Sills	0	0	0.00%
	Interior Doors	48	1	2.08%
	Interior Flooring	108	3	2.78%
	Fire Extinguishers & Cabinets	39	2	5.13%
	Toilet Partitions & Screens	2	0	0.00%
	Bath Accessories	0	0	0.00%
	Lockers	2	0	0.00%
	Interior Signs	42	0	0.00%
	Roofs	12	1	8.33%
	Air Conditioners	213	3	1.41%
	Tunnel	8	0	0.00%
Elevators, Dumbwaiters	0	0	0.00%	
Toll Booths	Exterior Booth	20	0	0.00%
	Interior Booth	89	0	0.00%
	Toll Doors	21	1	4.76%
	Window	20	0	0.00%
	Counter/Drawer	35	1	2.86%
	Toll Light	76	0	0.00%
	Toll A/C	41	3	7.32%
	Underside Of Roof	37	0	0.00%
	Traffic Lights	124	2	1.61%
	Area Lights	21	0	0.00%
	Signs	127	0	0.00%
	Concrete Pavement	0	0	0.00%
	Nose Flashers (In Gator Heads)	58	0	0.00%
	Concrete Bumpers (Parking Stops)	0	0	0.00%
	Traffic Signal	124	2	1.61%
	Toll Indicator	86	0	0.00%
	Mechanical	Plumbing Fixtures	92	5
Sewer / Septic Lines		0	0	0.00%
Well / Water Lines		0	0	0.00%
Electrical	Building Electrical Fixtures	553	4	0.72%
	Generators	53	0	0.00%

CENTRAL TEXAS TURNPIKE PROJECT

Table 12				
Condition of Buildings - CTPP (All Highways) - FY 2009				
Category	Element	Number Inspected	Number Rated Less Than Fair	Percent Deficient
Buildings	Parking Area & Drive Pvm't	446	3	0.67%
	Walks And Curbs	36	1	2.78%
	Area Lights	33	0	0.00%
	Site Drainage	0	0	0.00%
	Irrigation System	342	18	5.26%
	Exterior Walls	411	2	0.49%
	Exterior Trim	56	0	0.00%
	Exterior Windows	160	0	0.00%
	Exterior Doors	119	1	0.84%
	Interior Walls & Ceilings	923	2	0.22%
	Interior Windows & Sills	0	0	0.00%
	Interior Doors	224	5	2.23%
	Interior Flooring	311	4	1.29%
	Fire Extinguishers & Cabinets	112	6	5.36%
	Toilet Partitions & Screens	3	0	0.00%
	Bath Accessories	0	0	0.00%
	Lockers	4	0	0.00%
	Interior Signs	90	1	1.11%
	Roofs	20	2	10.00%
	Air Conditioners	509	5	0.98%
	Tunnel	11	0	0.00%
Elevators, Dumbwaiters	6	0	0.00%	
Toll Booths	Exterior Booth	46	0	0.00%
	Interior Booth	193	1	0.52%
	Toll Doors	47	2	4.26%
	Window	47	0	0.00%
	Counter/Drawer	83	1	1.20%
	Toll Light	112	0	0.00%
	Toll A/C	97	10	10.31%
	Underside Of Roof	55	0	0.00%
	Traffic Lights	217	3	1.38%
	Area Lights	33	0	0.00%
	Signs	222	0	0.00%
	Concrete Pavement	0	0	0.00%
	Nose Flashers (In Gator Heads)	112	0	0.00%
	Concrete Bumpers (Parking Stops)	0	0	0.00%
	Traffic Signal	217	3	1.38%
	Toll Indicator	161	0	0.00%
Mechanical	Plumbing Fixtures	186	8	4.30%
	Sewer / Septic Lines	1	0	0.00%
	Well / Water Lines	0	0	0.00%
Electrical	Building Electrical Fixtures	1,201	10	0.83%
	Generators	78	2	2.56%

2.4 Structures

The structures inspection consisted of a visual inspection of the bridge deck, deck joints, related vehicle containment elements, approach slabs, overhead / cantilever signs, and HMLTs. No major deficiencies were found during the assessment for any of the categories related to the CTTTP structures. In addition, a summary of the Federal bridge Inspection Reports for the CTTTP bridges were compiled, and reviewed. It should be noted that no significant deficiencies were reported or observed that pose a safety threat to users of Central Texas Turnpike Project. Table 13 shown below summarizes all major structures of the CTTTP.

Table 13				
Quantities of CTTTP Major Structures - FY 2009				
Category	Loop 1	SH 45	SH 130	TOTALS
Bridges	15	69	126	209
Overhead/ Cantilever Signs	21	64	65	150
High-Mast Light Towers	3	49	23	75
Totals	39	182	214	434

2.4.1 Bridges

The Federal Bridge Inspection Summary Report (Appendix C) was compiled, reviewed, and are included on the CD located in the CD jacket inside the back cover of this report. The bridge components and major elements are listed in Table 14. The biennial inspection is based on three main components, comprised of a total of 93 elements, and 117 sub elements, for fixed bridges only. A numerical score is generated for each component based on the rating scale shown in Table 15. A review of the Federal Bridge Inspection Summary Report found no major deficiencies on any bridge within the CTTTP.

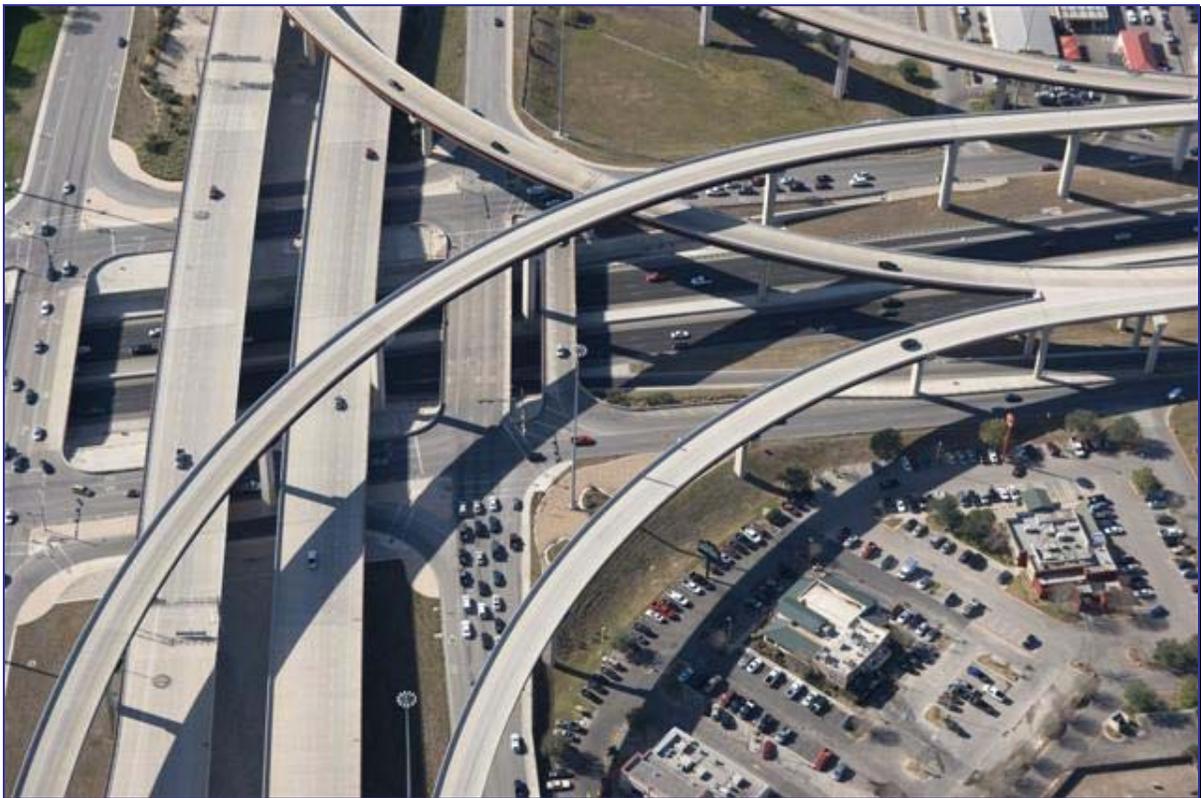


Figure 10 - Bridges

Table 14		
Bridge Components		
Deck	Substructure	Superstructure
Concrete Deck /Slab	Column or Pile	Closed/Open Girders
Deck Joints	Hollow Core Pile	Stringer
Approach Slabs	Pier Wall	Thru Truss
Bridge Railing	Abutment	Deck Truss
	Pile Cap/Footing	Arch
	Pile Jacket	Floor Beams
	Cap	Culvert
	Abutment Slope Protection	Bearings
	Bulkhead/Seawall	Unpainted Steel Superstructure
	Fender/Dolphin System	Painted Steel Superstructure
	Wingwall/Retaining Wall	Prestressed Concrete Superstructure
	Mechanical Stabilized Earth Wall	Reinforced Concrete Superstructure

Table 15		
Bridge Inspection Rating Scale		
Grade	Rating	Description
9	Excellent	All elements are in excellent condition.
8	Very Good	There were no problems noted.
7	Good	Element has some minor problems. Minor maintenance may be needed.
6	Satisfactory	Element shows some minor deterioration. Maintenance may be needed.
5	Fair	Element is sound, but may have minor section loss. Minor rehabilitation may be needed.
4	Poor	Element exhibits advanced section loss. Major rehabilitation may be needed.
3	Serious	Element has loss of section that has seriously affected the structure. Repair or rehabilitation is required immediately.
2	Critical	Element shows advanced deterioration. It may be necessary to close the bridge until corrective action is taken.
1	Imminent Failure	Bridge is closed to traffic. Corrective action may permit light service.
0	Failed	Bridge is out of service and beyond corrective action.

2.4.2 Overhead/Cantilever Signs

Overhead and cantilever signs, such as the one pictured in Figure 11 are suspended above the travel way by large support structures and are included in the roadside category. These signs provide critical directional information, guiding the patron throughout the Central Texas Turnpike Project. TxDOT performed an inspection of the overhead structures at the completion of their construction. At that time, none of the overhead / cantilever sign components and subcomponents inspected were noted as being in less than fair condition. Overhead sign components included in the assessment are listed in Table 16 below. The standard five point TxCAP rating scale was utilized to assess the condition of all overhead / cantilever sign structures.



Figure 11 - Overhead Sign Structure

Table 16 Overhead/Cantilever Sign Components	
Overlane Sign Structure Foundation	Overlane Sign Structure Horizontal Member
	Overlane Sign Structure Vertical Member

2.4.3 High Mast Light Towers (HMLTs)

Similar to overhead / cantilever signs, HMLTs were inspected by TxDOT at the completion of their construction. No deficiencies were noted during the post construction inspection. These structures, like the one pictured in Figure 12, provide illumination for improved nighttime visibility at various locations along the Turnpike Project, such as interchanges, and toll facilities. The condition of high mast light towers is determined by the two components listed in Table 17 below.



Figure 12 – High Mast Light Pole

Table 17 High Mast Light Tower Components	
High Mast Light Pole Foundation	High Mast Light Poles



Section 3



Program Status, Commitments, and Recommendations

3. Program Status, Commitments, and Recommendations

3.1 Program Status

The condition of the roadway, building and structure assets of the CTTTP is excellent. This is due both to the project having been opened to traffic recently and the proactive maintenance program that has been put in place by TxDOT.

3.2 Programmed Commitments

TxDOT has two comprehensive maintenance contracts in place for the maintenance activities on the CTTTP project. The first of these contracts is a three year contract that extends until 2012 and includes the maintenance activities on SH 45 and Loop 1 and a portion of the maintenance activities on SH 130. This contract amount is \$14.673M. The second contract is a Capital Maintenance Agreement with the SH 130 developer and provides the remaining maintenance activities on SH 130. This agreement is authorized by TxDOT in phases with this first phase expiring at the end of FY 2010. The authorized total of this first phase is \$4.154M.

These contracts are actively managed by TxDOT Maintenance to ensure compliance with accepted standards and to address deficiencies such as those that are identified in this report. There is also a Maintenance Reserve account with an annual funding level of approximately \$1M for 'Unusual and Extraordinary Maintenance' as required by bond indenture.

3.3 Recommendations

Those elements identified as sub-standard should be addressed and returned to the proper level.

The overhead / cantilever signs and high mast light towers were inspected by TxDOT at the completion of construction. PBS&J has discussed with TxDOT maintenance that those elements have regularly scheduled inspections by qualified inspectors.



Texas Department of Transportation
125 E. 11th Street
Austin, Texas 78701-2483
Phone: (512) 305-9500
Phone: (512) 832-7380
www.dot.state.tx.us

Austin District Office
7901 N. IH 35
Austin, Texas 78753
Phone: (512) 832-7000



6504 Bridge Point Parkway
Suite 200
Austin, Texas 78730
Phone: (512) 327-6840
Phone: (800) 880-5949
www.pbsj.com