



**CENTRAL TEXAS
Regional Mobility Authority**

AGENDA ITEM #14 SUMMARY

Quarterly Briefing on the Manor Expressway Project

Strategic Plan Relevance: Regional Mobility given that the Manor Expressway will reduce congestion and improve mobility in the area

Department: Engineering

Associated Costs: Not applicable

Funding Source: Not applicable

Board Action Required: No

Description of Matter: The report is a comprehensive account of the activities on the Manor Expressway Project during the 4th quarter of 2013

Reference documentation: Quarterly Progress Report on the Manor Expressway Project - Phase II

Contact for further information: Alastair T. Miller, P.E., Atkins North America, Inc., GEC Program Manager



MANOR EXPRESSWAY PROJECT - PHASES I & II

Quarterly Progress Report



No. 18 | January 2014



TOLL ROAD		
		PAY BY Mail
2 AXLE VEHICLES	\$0.50	\$0.67
EACH ADDITIONAL AXLE	\$0.50	\$0.67

ATKINS

Independent Engineering Report



CENTRAL TEXAS
Regional Mobility Authority

Board of Directors

Ray A. Wilkerson, Chairman
James H. Mills, Vice-Chairman
Robert L. Bennett, Jr., Treasurer
David B. Armbrust
Nikelle S. Meade
David Singleton
Charles Heimsath

Executive Director

Mike Heiligenstein

General Engineering Consultant (GEC)

ATKINS

Phase I Construction Contractor

webber

Phase II Design-Build Developer



MANOR EXPRESSWAY PROJECT - PHASES I & II
Quarterly Progress Report
No. 18
January 2014



TABLE OF CONTENTS

INTRODUCTION.....	1
PROJECT DESCRIPTION.....	1
PHASE I ACTIVITIES.....	4
PHASE II DEVELOPMENT ACTIVITIES.....	4
PHASE II PROGRESS PHOTOS	5
PHASE II PROGRESS PHOTOS	6
PHASE II PROGRESS PHOTOS	7
PHASE II PROGRESS.....	8
MANOR EXPRESSWAY PROJECT FINANCIAL SUMMARY	10
PHASE II CONSTRUCTION FINANCIAL STATUS	11
DBE STATUS.....	12
EMPLOYMENT REPORTING STATUS.....	13
SUSTAINABILITY	14
PUBLIC INVOLVEMENT.....	16

LIST OF TABLES

Table 1 - Phase II Development Progress	8
Table 2 - Schedule of Project Milestones.....	9
Table 3 - Project Financial Status Summary.....	10

LIST OF FIGURES

Figure 1 - Project Location Map.....	3
Figure 2 - Project Cash Flow Curve (Phase I & Phase II Total Project Costs)	10
Figure 3 - Phase II DBE Design & Construction Commitment for Period Ending May 2013	12
Figure 4 - Phase II Employment History.....	13

INTRODUCTION

This report documents and describes Phase II of the Manor Expressway Project during the period from September 26, 2013 to December 25, 2013. This Project is being developed and constructed by the Central Texas Regional Mobility Authority (“Mobility Authority”). The Project is funded by a combination of funds including, a State Infrastructure Bank loan, Series 2011 Senior Lien Bonds, Series 2011 Subordinate Lien Bonds, TxDOT grant funds, and Mobility Authority funds.

PROJECT DESCRIPTION

The Manor Expressway Project is an approximately 6.2-mile toll project located in Travis County along the existing U.S. Highway (US) 290 corridor between US 183 and just east of State Highway (SH) 130. This project will upgrade the existing US 290 four-lane divided highway to a controlled access highway facility with three tolled mainlanes and three non-tolled frontage lanes in each direction. The tolled mainlanes will provide grade-separated access through several local intersections that currently experience significant congestion throughout the day, and will provide a more expeditious route to traverse the US 290 corridor. Local traffic will continue to access adjacent properties by use of non-tolled frontage roads and signalized intersections at cross streets. The Manor Expressway Project also includes four direct connectors at the US 183 interchange that allow for continuous movement from the US 183 interchange to the Manor Expressway Project.

The Manor Expressway Project is being implemented in three phases as shown on Figure 1 and described below.

Manor Expressway Project - Phase I

Phase I of the Manor Expressway Project includes completion of four tolled direct connectors and associated pavement at the US 183 interchange that provide direct access to and from the Manor Expressway Project mainlanes. Toll gantries were installed to toll each of the direct connectors. Frontage roads between the US 183 interchange and Cross Park Drive were also constructed in this phase. Access to the westbound direct connectors from the westbound frontage road has been achieved by construction of an entrance ramp located just west of Tuscany Way. Construction of Phase I of the Manor Expressway Project has been completed, and is currently open to tolled traffic.

Manor Expressway Project - Phase II

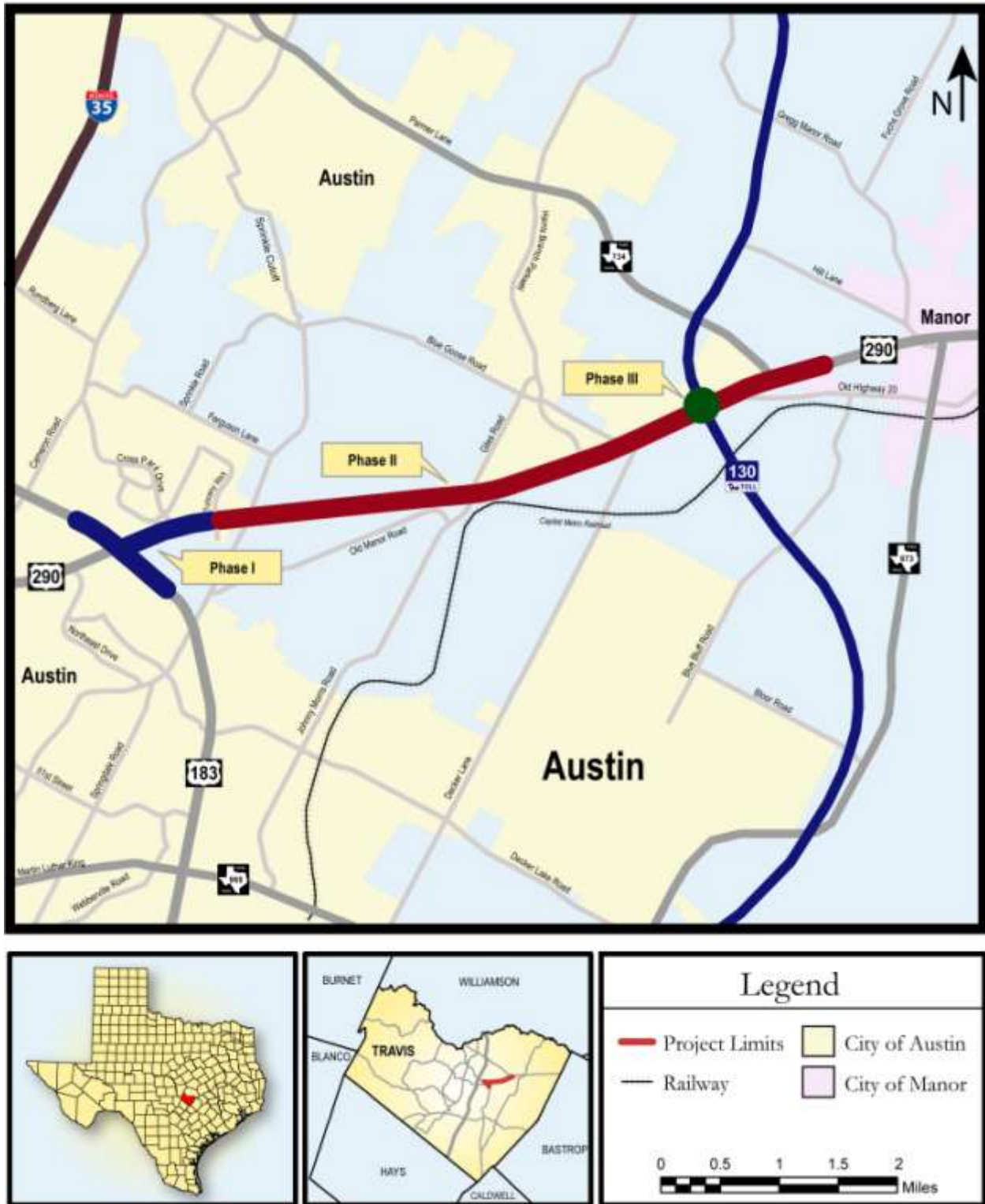
Phase II of the Manor Expressway Project includes completion of the Manor Expressway Project from Phase I at the US 183 interchange to the eastern limits east of SH 130. Three tolled mainlanes and three lane non-tolled frontage roads will be constructed in each direction as well as all associated ramps, auxiliary lanes, toll gantries, and ramp gantries. Phase II of the Manor Expressway Project includes an interim milestone that provides grade-separated intersections

at Tuscan Way and Springdale Road so that users of the direct connectors constructed as part of Phase I can bypass the existing signals at those intersections. These two grade-separated intersections provide for a minimum of two tolled lanes and two-lane non-tolled frontage roads in each direction. The work associated with the interim milestone, the Interim Development Work, has been completed.

Manor Expressway Project - Phase III

Phase III of the Manor Expressway Project includes construction of the seven remaining direct connectors at the SH 130 interchange. The Mobility Authority has no current plans to design or construct these direct connectors at this time. Phase III of the Manor Expressway Project will be developed as traffic conditions warrant and funding sources are identified.

Figure 1 - Project Location Map



PHASE I ACTIVITIES

Construction of Phase I of the Manor Expressway Project has been completed. The Phase I Contractor, Webber, LLC (“Webber”) achieved Final Acceptance on April 12, 2013. The facility is currently open to tolled traffic.

PHASE II DEVELOPMENT ACTIVITIES

Since the Quarterly Report in October, 2013, Central Texas Mobility Constructors, LLC (“CTMC”) has completed much of the frontage road construction throughout Phase II of the Manor Expressway Project. Although a majority of the eastbound and westbound frontage road work has been completed; there is some frontage road work, subject to execution of pending change orders that must be completed for the Project. This change order work includes a reconfigured eastern terminus transition, and additional asphalt surfacing at the US 183 and SH 130 interchanges. Additionally, there is a small amount of the final asphalt surface course that must be placed prior to completion of the frontage road construction. With the frontage roads nearly completed during the reporting period, CTMC’s construction focus shifted from frontage road construction to mainlane construction.

CTMC has made significant progress on the eastbound and westbound mainlane construction. During the reporting period, CTMC has nearly completed construction of the pavement sections of both the eastbound mainlanes and the westbound mainlanes from the western terminus of the Project through the SH 130 interchange. CTMC continues to prepare for the construction of the concrete paving from the SH 130 interchange through the Parmer Lane intersection. Additionally, some of the concrete paving for the shoulders of the mainlanes and the access ramps remain to be completed. Furthermore, the approaches to the Parmer Lane bridge remain incomplete. CTMC expects to complete these concrete pours in early 2014.

Although much of the major roadway is nearing completion, there is a small amount of miscellaneous work remaining on some of the retaining walls. Coping still has to be installed on the retaining walls at the Parmer Lane intersection, and on the abutment walls at a number of other intersections. Many walls also have to be prepped and painted. In addition to the outstanding retaining wall work, there is also a substantial amount of incidental work that must be completed. This incidental work includes, but is not limited to, completion of mow strips at retaining walls, installation of overhead sign gantries, stabilization of soil slopes, construction of miscellaneous driveways, completion of hardscaping at intersections, and completion of the median cable barrier and concrete riprap. Installation of the tolling equipment, and Intelligent Transportation System (ITS) equipment also continues.

Since the last Quarterly Report in October 2013, CTMC has continued to relocate utilities throughout the project; only several utilities remain to be relocated. All utilities in conflict with the Project construction have been relocated.

PHASE II PROGRESS PHOTOS

Eastbound Mainlane Work

Since the Quarterly Report in October 2013, CTMC has transitioned its construction focus to mainlane construction. These photos show the progress specific to the eastbound mainlanes during the reporting period.



Concrete paving east of Giles Road
(Looking East)



Concrete paving east of Harris Branch Parkway
(Looking West)



Concrete paving east of the SH 130
interchange (Looking East)



Crews continue to pour concrete paving east
of Tributary #1C (Looking East)



The overhead sign bridge has been installed
near Arterial "A" (Looking East)

PHASE II PROGRESS PHOTOS

Westbound Mainlane Work

Since the Quarterly Report in October 2013, CTMC has transitioned its construction focus to mainlane construction. These photos show the progress specific to the westbound mainlanes during the reporting period.



Concrete paving east of the Arterial "A" intersection (Looking West)



Concrete paving east of the Giles Road intersection (Looking West)



Concrete paving west of the Harris Branch Parkway intersection (Looking West)



Concrete paving west of the SH 130 interchange (Looking West)



The overhead sign structure west of Harris Branch Parkway (Looking West)

PHASE II PROGRESS PHOTOS

Frontage Road and Access Ramp Work

While CMTC was primarily focused on mainlane construction during the reporting period, some of the remaining frontage road work was also progressed. Additionally, CTMC also completed work on the access ramps during the period.



The final asphalt course has been placed east of Giles Road (Looking West)



The final asphalt surface course has been placed at the Parmer Lane intersection (Looking South)



The westbound entrance ramp west of the SH 130 interchange is paved (Looking East)



The eastbound entrance ramp west of Parmer Lane is paved (Looking West)



Hardscape pavers being installed at the Springdale Road intersection (Looking East)

PHASE II PROGRESS

CTMC has submitted their progressed schedule for the period ending November 25, 2013 (CTMC's draw request for December 2013 services has not yet been submitted). Based on an assessment of CTMC's activities and progress, a summary of the construction progress achieved on work tasks through this period is provided in Table 1.

CTMC's latest schedule indicates Substantial Completion of all remaining Development Work on February 7, 2014, on schedule with the current contract requirement. However, the scope of work for a number of change orders will require an extension to the substantial completion date. Atkins, the General Engineering Consultant for the Manor Expressway Project, has estimated that the substantial completion date could be extended to May 2014 as a result of this change order scope. This anticipated extension of the substantial completion date to complete the aforementioned change order scope will not impact the projected date for commencement of toll revenue collection for Phase II of the Manor Expressway Project. As of November 25, 2013, there were 74 days remaining until contractual Substantial Completion for the Project; CTMC has used 92.3% of the days allotted in the contract for the Development Work.

Table 1 - Phase II Development Progress

Development Tasks	% Complete
Development Design	100%
Utility Coordination	99%
Earthwork	96%
Utility Relocation	94%
Pavement	91%
Structures (Bridges and Retaining Walls)	98%
Drainage	73%
Lighting, Signing, Striping, and Signals	59%
Toll Facility Infrastructure	93%
Toll System Integration	80%
Incidental Construction (Barriers, Sidewalks, Landscaping)	47%

The Manor Expressway Project (Phases I & II) milestones are provided in Table 2.

Table 2 - Schedule of Project Milestones

Task	Date (*Projected)
Selection of Phase I Contractor	January 12, 2010
Phase I NTP Issued	April 27, 2010
Phase I Substantial Completion	November 30, 2012
Phase I Final Acceptance	April 12, 2013
Phase II Selection of Developer	February 23, 2011
Phase II NTP Issued	June 29, 2011
Phase II Interim Completion (Open to Traffic)	December 22, 2012
Phase II Substantial Completion (Phase II Open to Traffic)	February 7, 2014**
Phase II Final Acceptance	June 7, 2014**

****Based on CTMC's schedule submitted with Draw Request #30 for November 2013 efforts (excludes some change order scope)**

MANOR EXPRESSWAY PROJECT FINANCIAL SUMMARY

Table 3 shows the overall financial status for the Manor Expressway Project through November 2013. The original budget established for the Project and the expenditures to date are provided. An estimated cost remaining and an estimate at completion is also provided. The Manor Expressway Project is currently projected to be under budget.

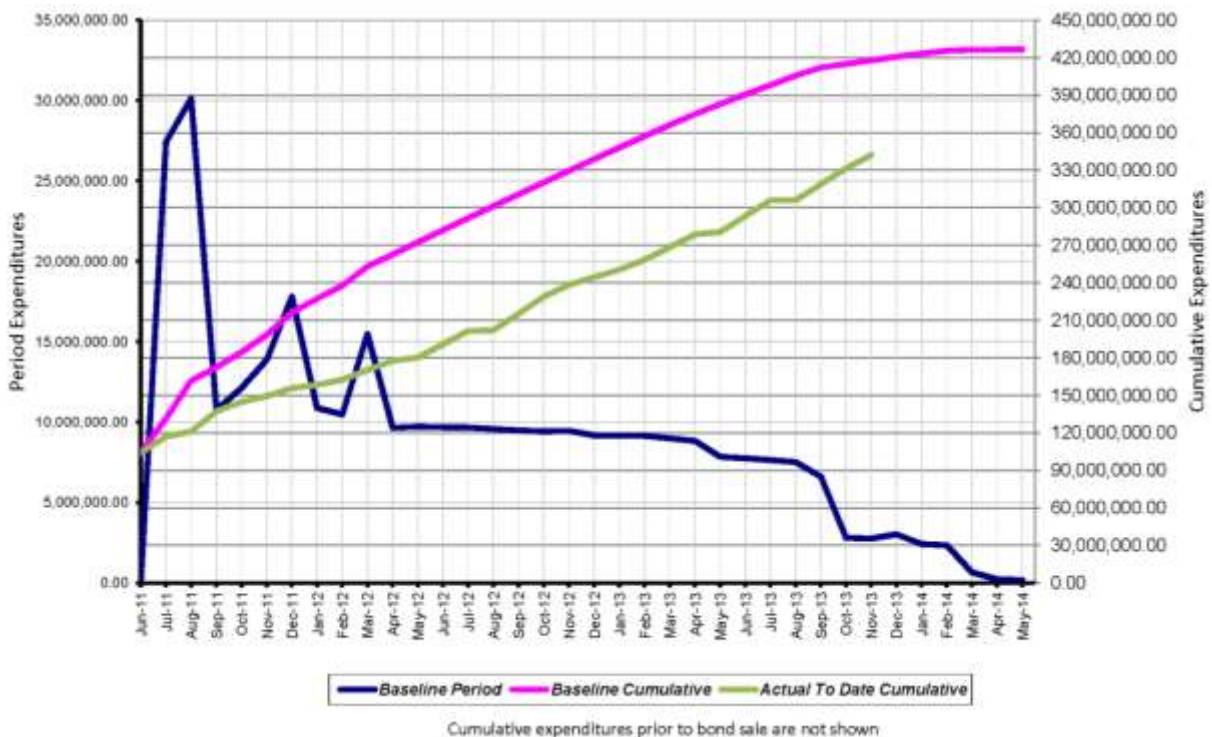
Table 3 - Project Financial Status Summary

Project Description	Original Cost Estimate (\$)	Expenditures to Date (\$)	Estimated Remaining Cost (\$)	Estimate at Completion (\$)
Total Project Cost (Phases I and II)	426,434,773	342,060,718	54,724,353	396,785,071

Note: These costs include Traffic & Revenue analyses costs, Final Engineering costs, Utility Adjustment costs, Construction costs, Toll & ITS costs, GEC costs, Legal costs, and contingencies.

Project Cash Flow Curve - Baseline

Figure 2 - Project Cash Flow Curve (Phase I & Phase II Total Project Costs)



PHASE II CONSTRUCTION FINANCIAL STATUS

The following summary provides the financial status of design-build CDA contract for the Phase II Project.

Original CTMC Contract Amount:	\$ 207,297,859.00
<i>Authorized Changes (Change Order and/or Amendments):</i>	
Allowable Dispute Resolution Board Expenses ⁽¹⁾	\$ 24,346.91
Liquidated Damages Assessed ⁽²⁾	\$ (550,000.00)
Change Order #1	\$ 1,480,445.71
Change Order #2	\$ 9010.88
Change Order #3	<u>\$ 41,339.71</u>
Current Authorized Contract Amount:	\$ 208,303,002.21
Previous Total of CTMC Payments:	\$ 159,674,676.23
Amount of CTMC Draw Request #28 for September 2013 efforts	\$ 8,226,972.82
Amount of CTMC Draw Request #29 for October 2013 efforts	\$ 10,433,328.29
Amount of CTMC Draw Request #30 for November 2013 efforts	<u>\$ 9,193,205.21</u>
Total Amount Paid To-Date: ⁽³⁾	\$ 187,528,182.55
Retainage withheld: ⁽⁴⁾	<u>\$ 0.00</u>
Approved Amount for work completed (through Draw #30):	\$ 187,528,182.55
Amount remaining for work to be completed:	\$ 20,774,819.66
Total Percent of Budget Expended through November 2013:	90.03%

Footnotes:

- (1) The Dispute Resolution Board ("DRB") was convened to introduce the board to the project; the CDA allows CTMC to invoice half of the expenses associated with the DRB to the Mobility Authority.
- (2) Liquidated Damages were assessed for CTMC's failure to meet the contractual Interim Completion Date.
- (3) Draw Request #30 for CTMC's November 2013 efforts is currently being processed by the Mobility Authority.
- (4) Retainage to be withheld only after 95% of the adjusted contract price has been paid.

Summary of Phase II Change Orders This Reporting Period

No new change orders were approved during the reporting period.

DBE STATUS

Phase II DBE Status

CTMC is required to meet the Disadvantaged Business Enterprise (“DBE”) goal of 12.2% for Phase II of the Manor Expressway Project. The total DBE amount subcontracted to date is \$26,367,356.74 which is 12.72% of the authorized contract total. This represents executed DBE subcontracts with the following firms: Aviles Engineering Corporation [geotechnical design], RJ Rivera Associates, Inc. [sign and pavement marking design], SE3, LLC [retaining wall design], PE Structural Consultants [bridge design], Lina T. Ramey & Associates [design surveying], United States R.O.W. [right-of-way acquisition], Solar Ray [utility design], Hayden Consultants [TDLR Review], Breda Company [furnish and tie reinforcing steel], N-Line Traffic Maintenance, L.P. [traffic barricades], Office Authority [furnishes office supplies], Panther Creek Transportation, Inc. [trucking], Roadway Specialties [cable barrier & small signs], Texas Trucking [trucking], S&R Investments [furnish fuel], Transtec [pavement design], and ID Guerra [wet utilities].

As of November 25, 2013, Webber has submitted costs associated with DBE development work in the amount of \$32,666,727.90 which equals 15.8% to date of the original contract value. CTMC has exceeded the contractual DBE goal of 12.2%.

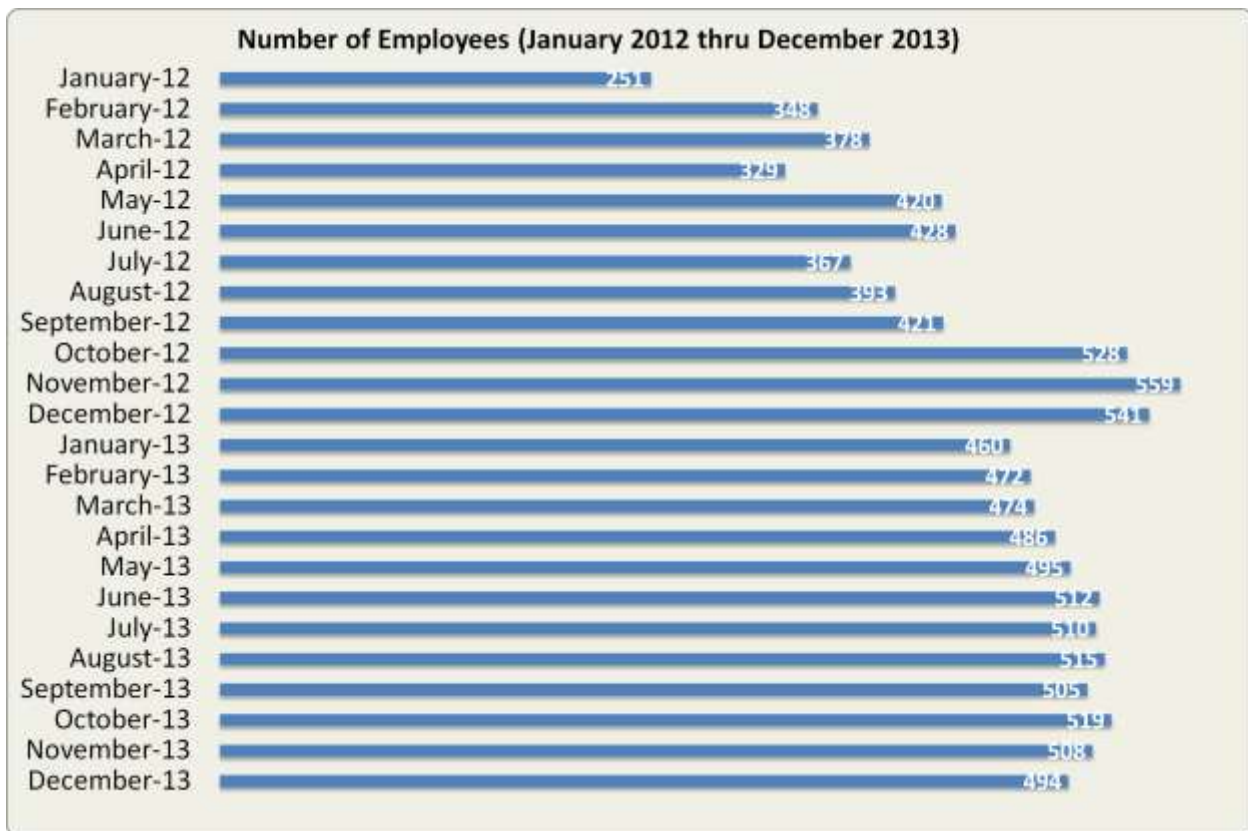
Figure 3 - Phase II DBE Design & Construction Commitment for Period Ending November 2013



EMPLOYMENT REPORTING STATUS

The Phase II Developer began providing employment data in January 2012. Construction of Phase II of the Manor Expressway Project supported **494 jobs** during the reporting month of December 2013. This number of jobs supported by the construction includes: the construction personnel and their subcontractors; design staff; design and construction management staff, including inspectors and subconsultants; and the general engineering consultant staff and their subconsultants. The employment history from January 2012 through December 2013 for Phase II of the Manor Expressway Project is provided in Figure 4.

Figure 4 - Phase II Employment History



SUSTAINABILITY

Phase II Sustainability Initiatives

In accordance with the terms of the Comprehensive Development Agreement (“CDA”), CTMC is required to incorporate sustainable practices into the Project. The Mobility Authority, through provisions in the CDA, has implemented a “Green Credits” program that requires CTMC to attain a minimum number of credits for implementing sustainable practices into the Project; CTMC is required to attain 30 credits for the Project. CTMC is required to submit a quarterly report identifying the sustainable practices being implemented on the Project. CTMC submitted their Sustainability Initiatives Report for the third quarter of 2013 in December. The following sustainable initiatives were reported:

➤ Sustainability Plans:

CTMC has prepared and implemented a series of required sustainability plans on the Project. These plans include a Noise Mitigation Plan, a Dust/Emission and Odor Control Plan, a Waste Management Plan, a Site Recycling Plan, and a Water Quality Maintenance/Enhancement Plan.

➤ Solar-Powered Traffic Control Devices/Flashing Beacons:

During the third quarter of 2013, CTMC continued using two solar-powered flashing beacons and six solar-powered traffic control devices on the Project.

➤ Pavement Reuse:

During the third quarter of 2013, asphalt millings were used as detour subgrade, mainlane subgrade, shared-use-path subgrade, and foundation improvements. Unbound base was used for foundation improvements, pipe backfill, and intersection subgrade. To date, 95% of the paving structure which has been removed, has been reused.

➤ Reuse of Topsoil:

During the third quarter of 2013, CTMC stockpiled 7,898 cubic yards of topsoil. 2,954 cubic yards of topsoil was reused on the Project during the third quarter of 2013. To date, 53% of stockpiled topsoil has been reused.

➤ Recycled Fill/Embankment Materials:

During the third quarter of 2013, CTMC reused approximately 202,296 cubic yards of material for fill or embankment. All of this material was from the Project site or from overburden from a local sand reserve quarry.

➤ Wood Recycling:

During the third quarter of 2013, 15 tons of wood waste was generated for recycling.

➤ Steel Recycling:

During the third quarter of 2013, 1.4 tons of steel were recycled from the Project. To date, a total of 63.7 tons of steel waste (100% of that generated) has been recycled from the Project.

➤ Utilization of Reclaimed or Non-Treated Water:

During the third quarter of 2013, CTMC continued using non-treated water from Gilleland Creek for dust suppression on the Manor Expressway Project.

➤ Separating Waste for Landfills Recyclable Waste:

Recyclable materials are separated at the IESI waste recycling and disposal facility.

➤ Equipment Emission Reduction:

20% of CTMC's equipment fleet is Tier 4 equipment.

CTMC is on track to earn thirty three (33) green credits for the sustainable practices currently being implemented on the Project.

PUBLIC INVOLVEMENT

The Mobility Authority's Public Involvement Team manages the Manor Expressway hotline (512-684-3252) and the Project website (manorexpressway.com). Lane closures and construction alerts are regularly posted on the Project website as well as posted on the Project twitter account (@ManorExpressway). Additionally, stakeholders can sign up on the Project website for lane closure information to be sent directly to their cell phone via SMS text.

Public involvement continues to play a crucial role in the Manor Expressway Project. Following are the outreach activities for this quarter:

✓ Hotline:

28 calls were received over the project's hotline (512-684-3252) and 10 emails/website contacts were made regarding the Manor Expressway Project. The calls and messages included project information requests, complaints about noise/vibrations and alleged damage to town homes on Merion Circle, complaints about light pollution, damage claims from vehicles traveling the corridor, and complaints regarding the Springdale intersection signal timing at eastbound US 290.

✓ Twitter:

77 updates have been posted to the Manor Expressway's Twitter account (@ManorExpressway) and email this quarter to inform followers of closures and detours.

✓ SMS Bulk Texting Service:

77 text messages were sent to subscribers via the projects SMS bulk texting service account to inform them of closures and detours.

✓ Website:

All project updates have continued to be posted on the website in an effort to help keep the public informed on lane closures and construction activities.

✓ Emails:

26 construction alerts were sent out by email to 290 stakeholders via Constant Contact email.

✓ Outreach/Visits:

Manor Expressway Project team members met with property owners on Merion Circle in the Chimney Hill subdivision to document cracking in driveways and damage to homes. Property owners believe the damage was caused by vibrations from road construction. The property owners were referred to CTMC to view the results of a vibration study performed prior to construction.

Attachment A

Manor Expressway Phase II Project
Aerial Photographs
December 2013



US 290 East looking west from Gilleland Creek
(Taken 12/16/2013)



US 290 East looking west at Parmer Lane
(Taken 12/16/2013)



US 290 East at SH 130 Interchange looking west
(Taken 12/16/2013)



US 290 East at Decker Lane Intersection looking west
(Taken 12/16/2013)



US 290 East at Harris Branch Intersection looking west
(Taken 12/16/2013)



US 290 East at Crofford Lane Intersection looking west
(Taken 12/16/2013)



US 290 East at Giles Road Intersection looking west
(Taken 12/16/2013)



US 290 East near Old Manor Road looking west
(Taken 12/16/2013)



US 290 East looking west at the MOKAN Crossing
(Taken 12/16/2013)



US 290 East at Chimney Hill Blvd looking west
(Taken 12/16/2013)



US 290 East at Springdale Road looking west
(Taken 12/16/2013)



US 290 East at Tuscany Way looking west
(Taken 12/16/2013)

Attachment B

Manor Expressway Project
Contingency Tracking
December 2013

Manor Expressway Phase II | Contingency Balance Sheet

12/20/13

PROJECT CONSTRUCTION CONTINGENCY (from the bond sale)		\$17,200,000
APPROVED ITEMS		
Executed Change Orders		
CO#1	Revision to the mainline and frontage road pavement sections	\$1,480,446
CO#2	Archival research of discovered cistern (force majeure event)	\$9,011
CO#3	Broadcast seeding at the US 183 interchange	\$41,340
Subtotal Executed Change Orders		\$1,530,797
Approved Other Items		
	Dispute Resolution Board expenses	\$24,347
Subtotal Other Items		\$24,347
Subtotal Approved Items		\$1,555,144
ITEMS UNDER NEGOTIATION or ESTIMATED		
CO under negotiation		
CO#4	Design and construct column protection at SH 130 interchange	\$187,404
CO#5	Erosion repair at Bent 7 of NE direct connector at US 183	\$25,000
Subtotal CO under negotiation		\$212,404
Potential Change Orders or pending more information		
PCO#6	Revision to aesthetic scope on frontage roads ¹	-\$300,000
PCO#7	Design and construction costs associated with ADA compliant Shared Use Path ¹	\$700,000
PCO#8	Re-design and construction costs associated with minimization of impacts to Harris Branch wetland ¹	\$600,000
PCO#9	Revision to Shared Use Path at US 183 and deletion of sidewalk from Blue Goose Road to SH 130 ¹	\$250,000
PCO#10	Install LED lighting and remove an overhead sign bridge ¹	\$200,000
PCO#11	Revise pavement widening section near US 183 interchange ¹	\$200,000
PCO#12	Revise metal beam guardrail height from 27" to 31" ¹	\$100,000
PCO#13	Incorporate certain elements of the 2011 TMUTCD into the Development Work ¹	\$50,000
PCO#14	Guardrail revisions to Ramp #1 ¹	\$250,000
PCO#15	Eastern terminus geometric revisions	\$1,000,000
PCO#16	Asphalt surface course at US 183 and SH 130 interchanges	\$300,000
Subtotal Potential Change Orders		\$3,350,000
Other Items		
Incentive	Early Completion Incentives (Max Amount Achievable)	\$2,700,000
Subtotal Other Items		\$2,700,000
¹ Estimated cost		
Subtotal Items Under Negotiation or Estimated		\$6,262,404
Total Costs		\$7,817,548
Budgeted Construction Contingency		\$17,200,000
TOTAL REMAINING AVAILABLE CONSTRUCTION CONTINGENCY		\$9,382,452

RIGHT OF WAY COST (from the bond sale)		\$65,400,000
Estimated Right of Way Costs		
	Schematic ROW ²	\$49,300,000
Subtotal Right of Way Costs		\$49,300,000
Additional Right of Way Costs		
	Wetland Mitigation	\$48,000
Subtotal - Additional Right of Way		\$48,000
² Estimated Cost		
Available Right of Way Contingency		\$16,052,000