

**APRIL 27, 2011 CTRMA BOARD OF DIRECTORS MEETING  
Summary Sheet**

**AGENDA ITEM # 17**

**183A Phase II Project Report General Briefing**

**Department: Engineering**

**Associated Costs: None**

**Funding Source: N/A**

**Board Action Required: No**

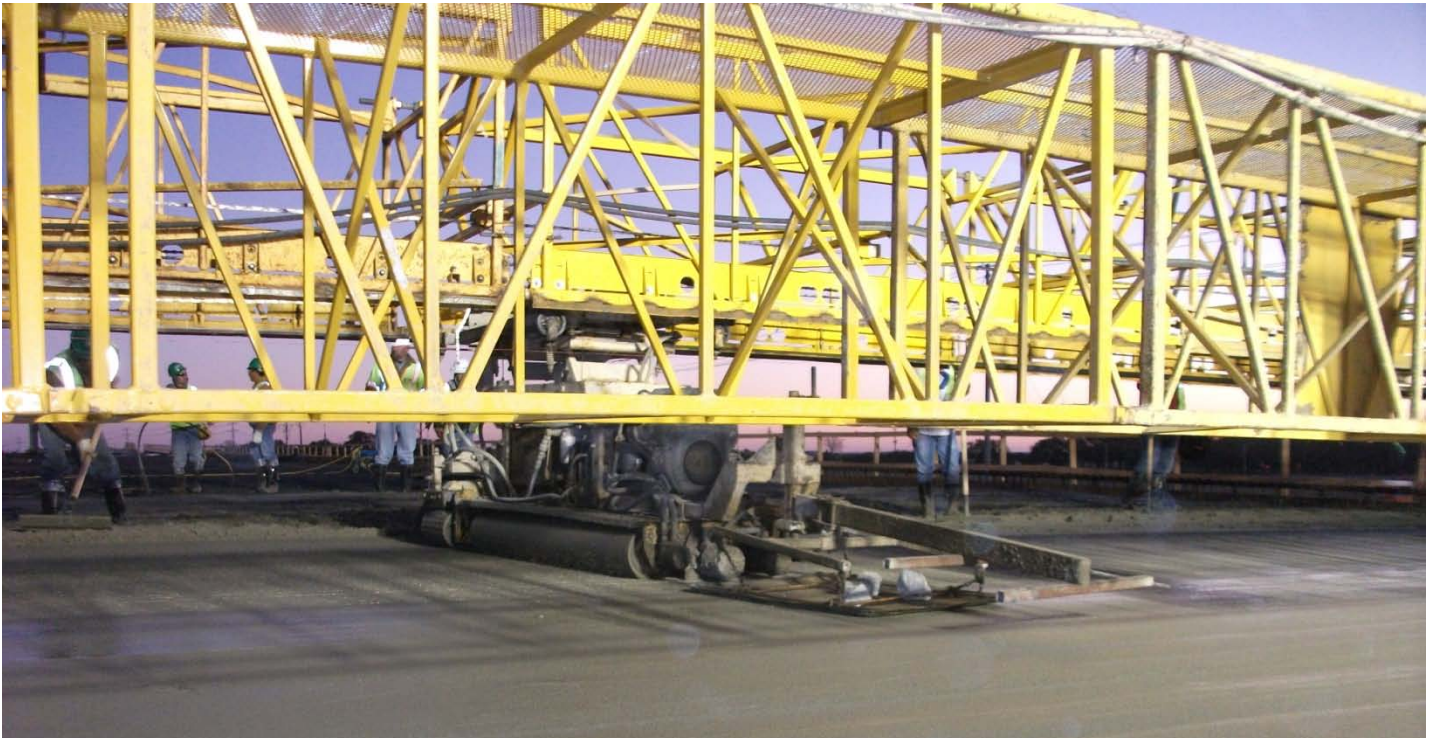
**Description of Matter: The report is an account of the construction activities on the 183A Phase II Project construction from January through March, 2011.**

**Attached documentation for reference:**

**GEC Quarterly Activities Report and Board Presentation**

**Contact for further information:**

**Wesley M. Burford, P.E., Director of Engineering**



183A TURNPIKE - PHASE II  
**QUARTERLY  
CONSTRUCTION  
PROGRESS REPORT**



No. 4 | April 2011





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183A TURNPIKE - PHASE II  
**Quarterly Construction  
Progress Report**  
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183A TURNPIKE - PHASE II  
**Quarterly Construction  
Progress Report**  
No. 4



## INTRODUCTION

This report documents and describes the second phase of the 183A Turnpike Project construction from January 1, 2011 to March 31, 2011. This project is an extension of the existing 183A toll road facility and is being constructed by the Central Texas Regional Mobility Authority (Mobility Authority). The project is funded entirely from toll revenue bonds.

## PROJECT DESCRIPTION

Phase II of the 183A Turnpike Project is located in southwestern Williamson County and extends approximately 5.1 miles, traversing through the cities of Cedar Park and Leander in the State of Texas. The Project extends the mainlanes of the existing 183A Turnpike from FM 1431 to north of RM 2243. This limited-access toll road will be constructed between the existing frontage roads – which were constructed as part of the initial phase of the Project – and the added capacity will consist of three lanes in each direction with access ramps connecting to the frontage roads. It is located east of, and parallel to, the existing US 183 facility. See Figure 1 for the Project Map.

The construction tasks principally include: preparation of right-of-way; excavation and embankment; flexible base / cement treated base; warm mix asphalt; concrete pavement; concrete curb and gutter; roadway bridges; retaining walls; drill shafts; rip rap; concrete box culverts and other drainage structures; water quality ponds; barricades, signs, and traffic handling; illumination; overhead sign supports; traffic / pedestrian signal head, pole, and detectors; a pedestrian bridge; toll facilities; and ITS ducts.

The Mobility Authority entered into a contract with Webber LLC Contractors (Webber) to construct the 183A Phase II Project. The agreement requires the project to be substantially complete by March 2012. The Contractor has developed an acceptable Baseline CPM (Critical Path Method) Schedule for the Project. The Mobility Authority issued Notices to Proceed (NTP) for NTP 1 and NTP 2 on March 24, 2010, in accordance with the terms of the contract. An Alternative Bid NTP was granted on May 7, 2010; and NTP 3 was issued on November 24, 2010.



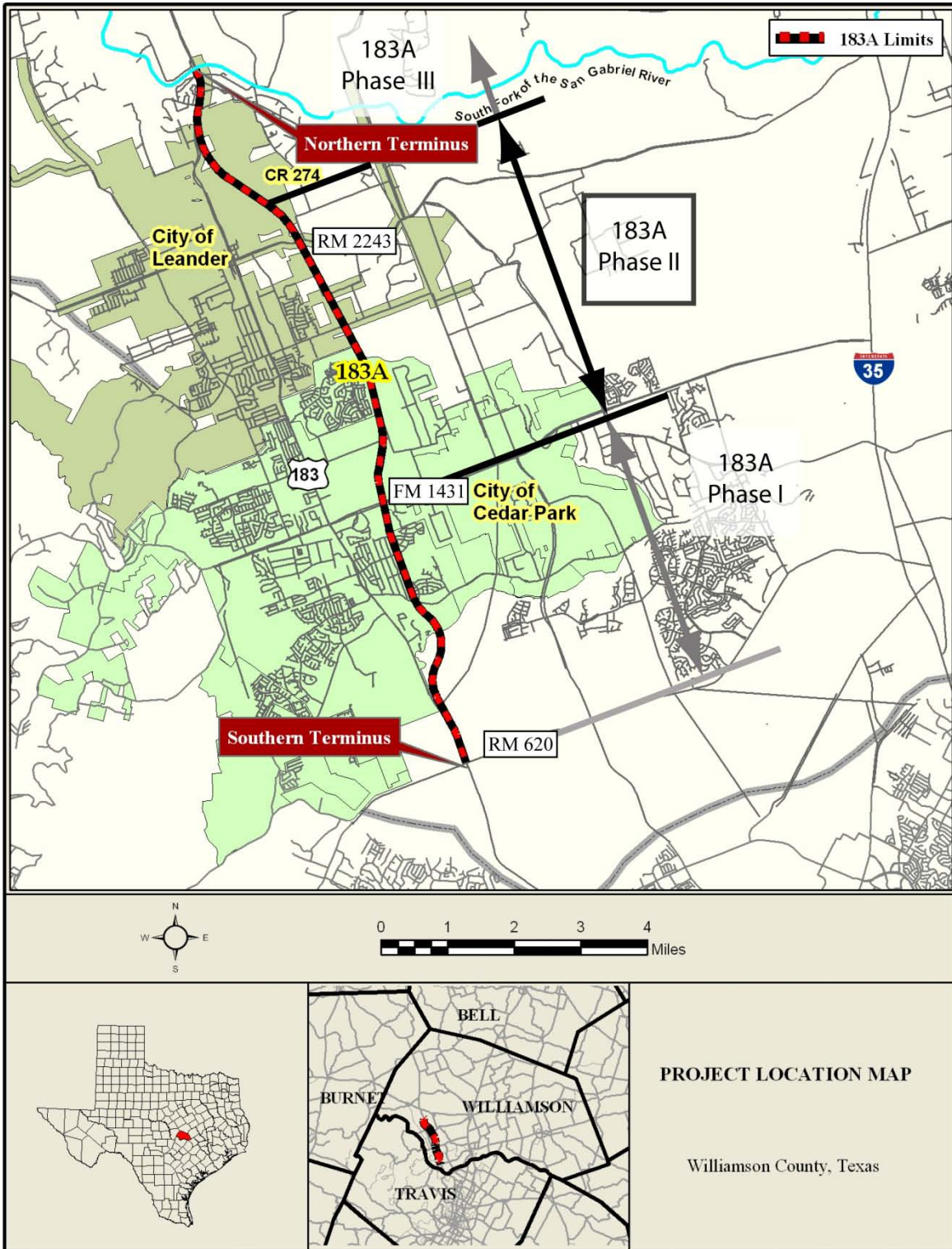


Figure 1:  
Project Location

# CONSTRUCTION ACTIVITIES

With over a fourth of the work finished, the construction of the 183A Phase II Project continues on its two-year timeline to complete approximately 5.1 miles of tolled mainlanes, 26 bridges, and the necessary toll collection systems.

Construction progress for this reporting period was marked by the installation of pre-cast bridge deck panels and the placing of concrete for the bridge decks at the 183A mainlane overpasses at New Hope Drive and Block House Creek. Precast bridge deck panels act as stay-in-place forms which are subsequently covered with cast-in-place concrete. This layer of the bridge exists below the final roadway which will be placed at these two locations at a later date. Concrete must be placed at night or early morning in order to take advantage of cooler temperatures and low winds. Heat and high winds evaporate water from the surface of concrete faster thus risking the quality of a finished surface. This process will be repeated at each of the multiple bridge locations along the project.

In late March, Webber informed the Mobility Authority that the temporary closure of the Scottsdale Drive crossover would begin on May 2, 2011. This closure will last for approximately four months to facilitate a focused construction effort in order to meet the project schedule. The 183A mainlanes will be constructed lower than the existing frontage roads and the Scottsdale crossover will be rebuilt as an at-grade bridge over the mainlanes during this time period. For many months, this area has been the focus of continuous excavation and rock grinding for the depressed section. Soil nail wall installation has continued in this area to support future retaining walls. Soil nailing is a stabilization method of reinforcing existing soil by installing steel bars into slopes or cuts.

Additionally, the team placed cement-treated base (CTB) material at locations throughout the project area in preparation for roadway construction. CTB is a compacted mixture of graded aggregate, cement, and water, and it is used as a base for the construction of highways. CTB usually utilizes a graded aggregate, instead of native soils, and is primarily used to provide a structurally sound base material.

The following tasks continue from the last reporting period: ongoing excavation of material and embankment building; construction of drainage facilities along the project; placement of columns and concrete caps at future bridge locations, especially Crystal Falls Parkway and RM 2243; MSE wall placement throughout the project area; ongoing traffic control activities; and erosion control.

The Mobility Authority's GEC continues to perform construction inspection and oversight of the Contractor, including all materials testing. Offsite material fabrication plant inspections continue to take place.



## Placement of Bridge Deck Panels

Starting in January, deck panels were placed at the two southernmost bridges - the overpasses over New Hope Drive and Block House Creek. Afterwards, preparations were made for the cast-in-place concrete deck to be placed over the panels on both bridges.



Preparations for setting deck panels at New Hope Drive



Setting deck panels at New Hope Drive



Placed deck panels at the Block House Creek Bridges



Preparations for placing concrete on a bridge deck at New Hope Drive



Setting up a smoothing and leveling device for freshly placed concrete

## Cast-in-Place Concrete Deck Placement at Bridges

In March, the team began placement of concrete over the deck panels on the bridges over New Hope Drive and Block House Creek. This activity at these locations will continue into April.

The construction equipment necessary to pump concrete (pictured right) must be large enough to reach the elevated distances over the bridge spans.

*Pictured right:*  
Pumping concrete for the bridge deck at the southbound mainlanes over Block House Creek



A smoothing and leveling device in action on the freshly placed concrete



Finishing the concrete bridge deck surface with a broom



## The Cut at Scottsdale Drive

Excavation has been ongoing at Scottsdale for many months. Starting in May, the full depressed section will be excavated and a bridge for Scottsdale Drive to span the 183A mainlanes will be constructed. During this time, the Scottsdale Drive crossover will be temporarily closed.



The cut at Scottsdale facing southeast (pictured left) and southwest (pictured right); Soil nail wall installation has been ongoing at this location to stabilize the retaining walls



The Scottsdale Drive Crossover will be closed to traffic for approximately four months starting in May

## Moving North

Progress continues in the northern sections of the project, including the bridge beam placement at Crystal Falls Parkway, bridge structure work at RM 2243, and placement of sidewalk at Hero Way.



The bridge beams at Crystal Falls Parkway, facing north



Bridge columns at RM 2243, looking south



Placing concrete for the sidewalk at Hero Way



# PROJECT PROGRESS

Based on the assessment of the Contractor's activities and progress, the summary of the construction progress achieved on work tasks through the end of March 2011 is as follows:

**Table 1:  
183A Phase II Construction Progress for Period Ending March 2011**

Construction Tasks	% Complete
Earthwork / Excavation / Embankment	85%
Stormwater Protection	65%
Drainage Structures	80%
Bridge Substructures	80%
Bridge Superstructure	35%
Retaining Walls	60%
Pavement Base	30%
Roadway Concrete Paving	0%
Asphalt Paving	15%
Toll Structures	0%
Electrical/Lighting / Signing / Signals	30%
Landscaping	0%

The assessment of the Contractor’s progress against the acceptable Baseline CPM (Critical Path Method) schedule for the reporting period indicates that the Contractor is maintaining the schedule and forecasting an early project completion on March 2, 2012. There are no identified threats to the schedule at this time. **The Project is currently ahead of schedule.**

As of March 31, 2011, fifty-one (51%) of the 730 calendar days to substantial completion have expired and **construction is reported at 46% complete.**

**Table 2:  
Schedule of Project Milestones**

Task	Date
Selection of Contractor	December 17, 2009
Early NTP	January 22, 2010
NTP 1 and NTP 2 Issued	March 24, 2010
Alternate Bid NTP Issued	May 7, 2010
NTP 3 Issued	November 24, 2010
Scheduled Substantial Completion (Open to Traffic)	March 23, 2012
Scheduled Final Completion	June 23, 2012



# PROJECT FINANCIAL STATUS

The following summarizes the financial status of the Project through March 31, 2011.

<b>Original Webber Contract Amount:</b>	<b>\$ 75,792,413.92</b>
<i>Authorized Changes (Change Order and/or Amendments):</i>	
Change Order Nos. 01-07 (2010)	(\$407,090.74)
Change Order No. 08 (January 2011)	\$86,425.76
Change Order No. 09 (January 2011)	\$26,120.05
Change Order No. 10 (January 2011)	\$42,378.78
Change Order No. 11 (January 2011)	\$44,295.52
Change Order No. 12 (March 2011)	(\$58,601.95)
Change Order No. 13 (March 2011)	<u>\$7,175.19</u>
<b>Current Authorized Contract Amount:</b>	<b>\$ 75,533,116.53</b>

<b>Webber Payments:</b>	
Amount of Draw Nos. 01-08 (2010)	\$27,251,122.06
Amount of Draw No. 09 (January 2011)	\$2,061,497.34
Amount of Draw No. 10 (February 2011)	\$2,010,075.03
Amount of Draw No. 11 (March 2011)	<u>\$3,756,925.04</u>
<b>Total Requested Amount To-Date through Draw No. 11:</b>	<b>\$ 35,079,619.47</b>
Retainage withheld*:	<u>\$ 0.00</u>
<b>Approved Amount for Work Completed through Draw No. 11:</b>	<b>\$ 35,079,619.47</b>

**Total Project Budget Expended Through March 2011: 46.4%**

**Amount remaining for work to be completed: \$40,453,497.06**

\*Retainage to be withheld only after 95% of the adjusted contract price has been paid.

**Summary of Change Orders During Reporting Period**

**Change Order No. 8** incorporates costs for the construction of an additional travel lane on the southbound frontage road adjacent to the Cedar Park Center. The addition of this lane was requested by the City of Cedar Park. The change order, a total of \$86,425.76, was submitted to the GEC on December 20, 2010 and was fully executed on January 13, 2011.

**Change Order No. 9** incorporates costs for work performed to install additional drainage at the intersection of RM 2243 and 183A; and to remove and replace reinforced concrete pipe due to a redesign based on unforeseen existing utility conflicts. It also includes work performed to supplement the existing 50 mph signs with "WORK ZONE" signs, in an effort to improve motorist response to the 50 mph advisory speed signs. The signs were placed as an additional measure of safety along the corridor. The change order, a total of \$26,120.05, was submitted to the GEC on December 20, 2010 and was fully executed on January 13, 2011.

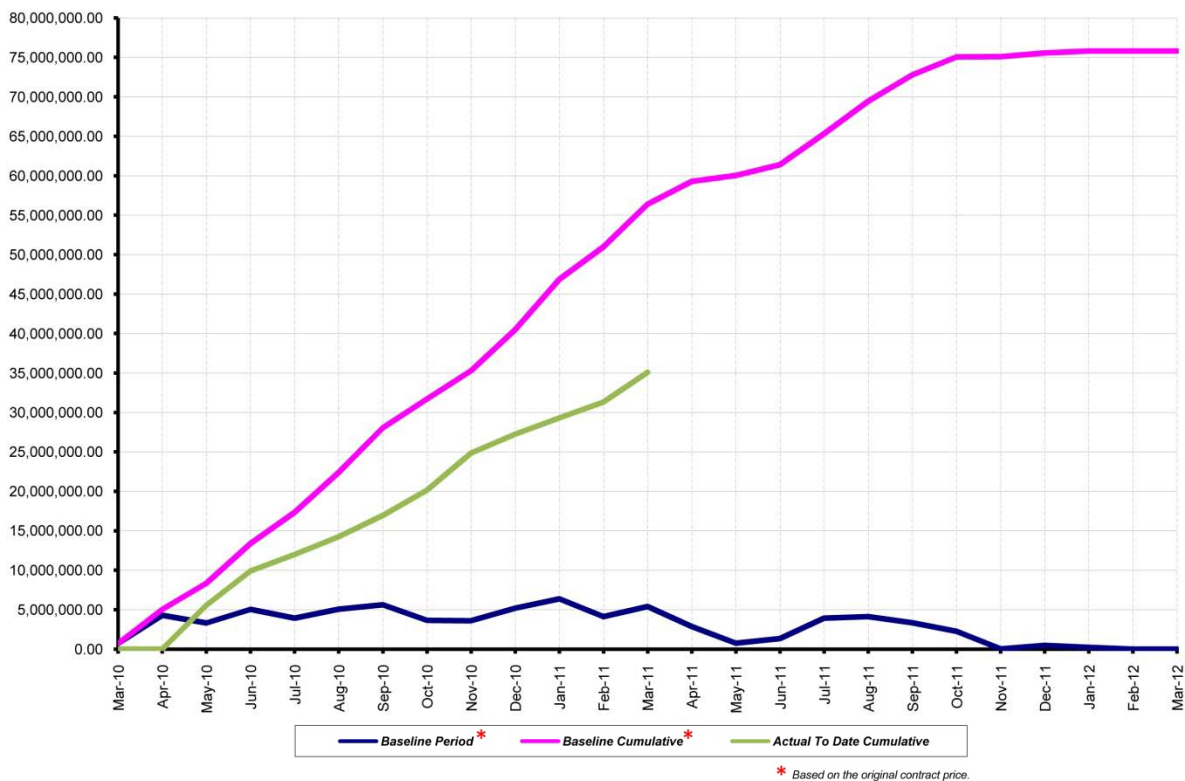
**Change Order No. 10** incorporates costs for work performed in accordance with modifications to the plans at Crystal Falls Parkway Bent No. 3 due to a utility conflict. The change order, a total of \$42,378.78, was submitted to the GEC on December 20, 2010 and was fully executed on January 13, 2011.

**Change Order No. 11** incorporates costs for work performed in accordance with modifications to the plans at RM 2243 Bent No. 5 due to a utility conflict. The change order, a total of \$44,295.52, was submitted to the GEC on December 20, 2010 and was fully executed on January 13, 2011.

**Change Order No. 12** incorporates costs for work performed involving barrier rail modifications at the Scottsdale Drive bridges, additional drainage for area under the Shared Use Path, and pavement widening at RM 2243 for ultimate striping configuration. The change order, a credit to the Mobility Authority of \$58,601.95, was submitted to the GEC on February 28, 2011, and was fully executed on March 14, 2011.

**Change Order No. 13** incorporates costs for work performed in accordance with relocating an existing 2-inch water line discovered at the footing location of two MSE walls. The change order, a total of \$86,425.76, was submitted to the GEC on March 7, 2011, and was fully executed on March 14, 2011.

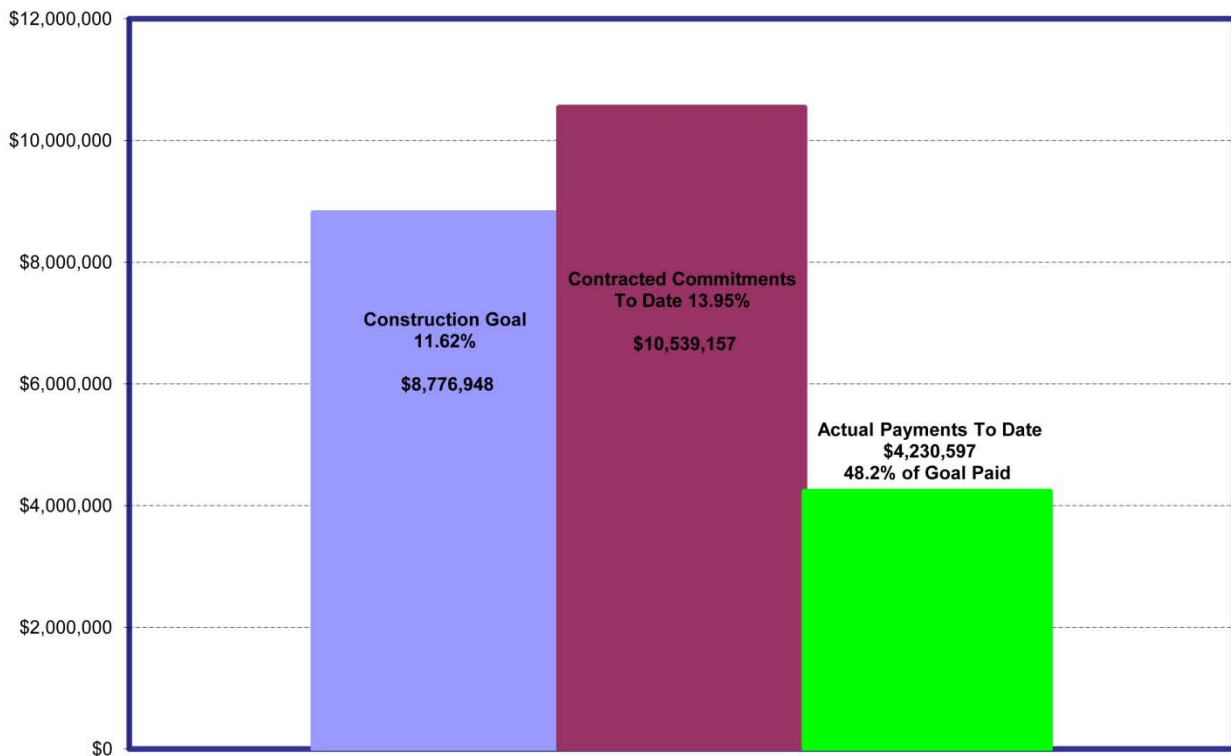
### Project Baseline Cash Flow Curve



**Figure 2:**  
Project Baseline Cash Flow Curve for Period Ending March 2011

## DBE STATUS

Webber is required to meet the Disadvantaged Business Enterprise (DBE) goal of 11.62% for the project. The total DBE amount subcontracted to date is \$10,539,157 which is 13.95% of the authorized contract total. This represents executed DBE subcontracts with the following firms: Royal Vista, Indus, N-Line, Roadway Specialties, and TrevCon. To date, the DBE firms have been paid a total of \$4,230,957, which is 48.2% of the goal.



**Figure 3:**  
**DBE Construction Commitment vs. Payment**  
**for Period Ending March 2011**

## EMPLOYMENT REPORTING STATUS

Construction of Phase II of the 183A Turnpike Project supported **336 jobs** during the reporting month of March 2011. This number of jobs supported by the construction includes: the construction personnel and their subcontractors; construction management staff, including inspectors and subconsultants; design support staff; and the general engineering consultant staff and their subconsultants. The total payroll associated with the jobs and work effort for March 2011 is **\$789,982.42**

# ECONOMIC DEVELOPMENT IN THE 183A CORRIDOR

The 183A Project, as a whole, produces significant benefits to the regional economy in terms of jobs, increased tax base, and enhanced prospects of new and recycled property development. 183A encourages and accelerates existing and planned developments in the fast-growing cities of Cedar Park and Leander. These include: residential - Villages of Messina, Sarita Valley Ranch, Cedar Park Town Center; commercial - Pecan Grove, Leander Crossing, 1890 Ranch; and other opportunities, like the Cedar Park Center, the Regional Medical Center, and Schilletterbahn Cedar Park. Since construction began, there has been an increase in inquires for driveway and utility permitting along the Corridor in anticipation of development.

One of the many developments coming to the 183A Corridor is *Vision Leander*. Located in the southeast corner of 183A and Crystal Falls Parkway, the *Vision Leander* development will include more than 400 acres of retail, commercial, office, and residential opportunities, as well as a series of parks. In partnership with the developer, the Mobility Authority has shifted an exit ramp approximately 1,000 feet to improve access to this development and general roadway operations. The *Vision Leander* developer has paid half of the cost for the ramp relocation. NTP for this adjustment in the Phase II design was issued to Webber on May 7, 2010.



**Figure 4:**  
**An Artist's Rendering of the Proposed *Vision Leander* Development**

In addition, the Mobility Authority has added a new northbound exit ramp in the Scottsdale Drive area to facilitate access to the future Pecan Grove development and the Cedar Park Center. This additional access supports development and increases the tax base for the City of Cedar Park.

Local and regional infrastructure is also keeping up with the Mobility Authority's 183A project and potential developments in the Corridor. New wastewater lines were constructed along 183A near Crystal Falls Parkway in order to facilitate the *Vision Leander* development. Also, a series of other roadway developments have occurred, including:

- Construction of a portion of San Gabriel Parkway (Part of the 183A Phase II construction)
- Ongoing construction for the FM 1431 roadway widening improvements east of 183A
- Completion of Crystal Falls Parkway roadway widening improvements east of 183A and construction west of 183A
- Construction of Hero Way intersection at 183A (Part of the 183A Phase II construction)
- Ongoing construction of Hero Way as a key arterial for Leander
- US 183 roadway improvements north of 183A

Part of the success of 183A Phase I was the economic opportunities that were created as the project was initially announced, and they have continued since that date. 183A Phase II has followed this same development pattern by allowing for new investments in economic expansion and hiring planned along the Corridor. With Austin's economy going strong despite the nationwide economic struggle, the expansion of 183A continues to bolster the region overall.

## PUBLIC INVOLVEMENT

The Mobility Authority's Public Involvement Team manages the 183A hotline (512-684-3256) and the project website (183A.com). Lane closures and construction alerts are regularly posted on the project website as well as posted on the project Twitter account (@183AExtension). Additionally, stakeholders can sign up on the project website for lane closure information to be sent directly to their cell phone via SMS text.

A call was made to the Mobility Authority Public Involvement Team about visibility and safety concerns at the Scottsdale Drive crossover. The resident received personal calls and emails from the Team regarding how the issue was being addressed.

During the reporting period, the Team began neighborhood outreach planning as well as coordination with the Block House Creek Owners Association and the Leander Independent School District with regard to the upcoming temporary closure of the Scottsdale Drive crossover. Meetings with both of these key stakeholder groups are scheduled for April. Additional outreach efforts for the full community will be established in April.