



**CENTRAL TEXAS
Regional Mobility Authority**

Regular Meeting of the Board of Directors

9:00 a.m.
Wednesday, July 27, 2016

Lowell H. Lebermann, Jr., Board Room
3300 N. IH-35, Suite 300
Austin, Texas 78705

*A live video stream of this meeting may be viewed on the internet at
www.mobilityauthority.com*

AGENDA

No action on the following:

1. Welcome and opening remarks by the Chairman and members of the Board of Directors.
2. Opportunity for public comment – See **Notes** at the end of this agenda.

Regular Items

Items to discuss, consider, and take appropriate action.

3. Approve the minutes for the June 15, 2016, Regular Board Meeting and July 11, 2016 Special Board Meeting.
4. Accept the financial statements for May 2016 and June 2016.
5. Approve an Interlocal Agreement with the Texas Department of Transportation to co-locate personnel for the purposes of serving Pay-by-Mail customers of both Agencies.
6. Approve an Interlocal Agreement with the Texas Department of Transportation for off-site materials, independent assurance, and skid and permeability testing.
7. Approve a contract and Work Authorization No. 1 with CP&Y to provide design services for 290E Phase III.

8. Consider and take appropriate action on a Memorandum of Agreement with Capital Metro and Capital Area Metropolitan Planning Organization to implement the Park and Ride Initiative.
9. Approve a Parameters Resolution to finance the design and construction of 290E, Phase III.
10. Authorize reimbursement of financing expenditures for 290E, Phase III.
11. Authorize reimbursement of financing expenditures for 183A, Phase III.

Executive Session

Under Chapter 551 of the Texas Government Code, the Board may recess into a closed meeting (an executive session) to deliberate any item on this agenda if the Chairman announces the item will be deliberated in executive session and identifies the section or sections of Chapter 551 that authorize meeting in executive session. A final action, decision, or vote on a matter deliberated in executive session will be made only after the Board reconvenes in an open meeting.

The Board may deliberate the following items in executive session if announced by the Chairman:

12. Discuss acquisition of one or more parcels or interests in real property needed for the Bergstrom Expressway (183 South) Project and related legal issues, including consideration of the use of eminent domain to condemn property, pursuant to §551.072 (Deliberation Regarding Real Property; Closed Meeting) and §551.071 (Consultation With Attorney; Closed Meeting).
13. Discuss legal issues related to claims by or against the Mobility Authority; pending or contemplated litigation and any related settlement offers; or other matters as authorized by §551.071 (Consultation With Attorney).
14. Discuss legal issues relating to procurement and financing of Mobility Authority transportation projects, as authorized by §551.071 (Consultation with Attorney).
15. Discuss personnel matters as authorized by §551.074 (Personnel Matters).

Reconvene in Open Session.

Regular Items

Items to discuss, consider, and take appropriate action.

16. Discuss and consider authorizing the Executive Director to take any and all actions necessary to enforce the terms of the design-build contract with CH2MHill.

17. Consider amendments to the CTRMA Policy Code regarding the Executive Director's procurement and contracting authority.
18. Consider award of a contract for the construction of the SH 45 Southwest Project.
19. Consider award of a contract for Construction Engineering and Inspection services for the SH 45 Southwest Project.
20. Consider award of a contract for Independent Environmental Compliance Management services for the SH 45 Southwest Project.
21. **Consideration of the use of eminent domain to condemn property:** Declare a public necessity to acquire the following described parcels of land, or interests therein, for the 183 South (Bergstrom Expressway) Project; and with respect to each such parcel or interest therein, authorize any of the following actions: (i) acquisition through negotiation or by the use of eminent domain to condemn the parcel or interest therein; (iii) execution of a contract to purchase, and (ii) execution of a possession and use agreement:
 - A. Parcel E13A of the 183 South (Bergstrom Expressway) Project, a 0.123 acre parcel of real estate, **owned by New Century Investment, LLC and Braker-Park, LP**, and located at 6000 FM 969 in Austin, TX 78724.
22. Authorize negotiation and execution of a contract to purchase each of the following described parcels or property interests for the 183 South (Bergstrom Expressway) Project:
 - A. Parcel 147AC of the 183 South (Bergstrom Expressway) Project, a 379 +/- feet denial of access from a 1.159 acre parcel of real estate, **owned by KAF Development**, and located at 609 S. Hwy 183, in Austin, TX 78741.

Briefings and Reports

Items for briefing and discussion. No action will be taken by the Board.

23. Presentation on the July 19, 2016 sale of Subordinate Lien Revenue Refunding Bonds, Series 2016.
24. MoPac Improvement Project.
25. Oakhill Parkway Public Outreach.
26. Executive Director's Report.
 - A. SH 45 North / IH-35 direct connectors.
27. Wire One Austin, Presentation by Jared Ficklin as requested by board members David Armbrust and Nikelle Meade.

28. Adjourn Meeting.

Notes

Opportunity for Public Comment. At the beginning and at the end of the meeting, the Board provides a period of up to one hour for public comment on any matter subject to the Mobility Authority's jurisdiction. Each speaker is allowed a maximum of three minutes. A person who wishes to address the Board should sign the speaker registration sheet before the beginning of the public comment period. If a speaker's topic is not listed on this agenda, the Board may not deliberate the speaker's topic or question the speaker during the open comment period, but may direct staff to investigate the matter or propose that an item be placed on a subsequent agenda for deliberation and possible action by the Board. The Board may not deliberate or act on an item that is not listed on this agenda.

Consent Agenda. The Consent Agenda includes routine or recurring items for Board action with a single vote. The Chairman or any Board Member may defer action on a Consent Agenda item for discussion and consideration by the Board with the other Regular Items.

Public Comment on Agenda Items. A member of the public may offer comments on a specific agenda item in open session if he or she signs the speaker registration sheet for that item before the Board takes up consideration of the item. The Chairman may limit the amount of time allowed for each speaker. Public comment unrelated to a specific agenda item must be offered during the open comment period.

Meeting Procedures. The order and numbering of agenda items is for ease of reference only. After the meeting is convened, the Chairman may rearrange the order in which agenda items are considered, and the Board may consider items on the agenda in any order or at any time during the meeting.

Persons with disabilities. If you plan to attend this meeting and may need auxiliary aids or services, such as an interpreter for those who are deaf or hearing impaired, or if you are a reader of large print or Braille, please contact Laura Bohl at (512) 996-9778 at least two days before the meeting so that appropriate arrangements can be made.

Participation by Telephone Conference Call. One or more members of the Board of Directors may participate in this meeting through a telephone conference call, as authorized by Sec. 370.262, Texas Transportation Code (*see below*). Under that law, each part of the telephone conference call meeting law must be open to the public, shall be audible to the public at the meeting location, and will be tape-recorded. On conclusion of the meeting, the tape recording of the meeting will be made available to the public.

Sec. 370.262. MEETINGS BY TELEPHONE CONFERENCE CALL.

(a) Chapter 551, Government Code, does not prohibit any open or closed meeting of the board, a committee of the board, or the staff, or any combination of the board or staff, from being held by telephone conference call. The board may hold an open or closed meeting by telephone conference call subject to the requirements of Sections 551.125(c)-(f), Government Code, but is not subject to the requirements of Subsection (b) of that section.

(b) A telephone conference call meeting is subject to the notice requirements applicable to other meetings.

(c) Notice of a telephone conference call meeting that by law must be open to the public must specify the location of the meeting. The location must be a conference room of the authority or other facility in a county of the authority that is accessible to the public.

(d) Each part of the telephone conference call meeting that by law must be open to the public shall be audible to the public at the location specified in the notice and shall be tape-recorded or documented by written minutes. On conclusion of the meeting, the tape recording or the written minutes of the meeting shall be made available to the public.

Sec. 551.125. OTHER GOVERNMENTAL BODY. (a) Except as otherwise provided by this subchapter, this chapter does not prohibit a governmental body from holding an open or closed meeting by telephone conference call.

~~(b) A meeting held by telephone conference call may be held only if:~~

~~(1) an emergency or public necessity exists within the meaning of Section 551.045 of this chapter; and~~

~~(2) the convening at one location of a quorum of the governmental body is difficult or impossible; or~~

~~(3) the meeting is held by an advisory board.~~

(c) The telephone conference call meeting is subject to the notice requirements applicable to other meetings.

(d) The notice of the telephone conference call meeting must specify as the location of the meeting the location where meetings of the governmental body are usually held.

(e) Each part of the telephone conference call meeting that is required to be open to the public shall be audible to the public at the location specified in the notice of the meeting as the location of the meeting and shall be tape-recorded. The tape recording shall be made available to the public.

*Mobility Authority Board Meeting Agenda
Wednesday, July 27, 2016*

(f) The location designated in the notice as the location of the meeting shall provide two-way communication during the entire telephone conference call meeting and the identification of each party to the telephone conference shall be clearly stated prior to speaking.

Español. Si desea recibir asistencia gratuita para traducir esta información, llame al (512) 996-9778.



**CENTRAL TEXAS
Regional Mobility Authority**

July 27, 2016
AGENDA ITEM #1

Welcome and opening remarks by the
Chairman and members of the Board of
Directors.

Welcome, Opening Remarks and Board Member Comments

Board Action Required: No



**CENTRAL TEXAS
Regional Mobility Authority**

July 27, 2016
AGENDA ITEM #2

Open Comment Period for Public Comment.
Public Comment on Agenda Items.

Open Comment Period for Public Comment - At the beginning of the meeting, the Board provides a period of up to one hour for public comment on any matter subject to CTRMA's jurisdiction. Each speaker is allowed a maximum of three minutes. A person who wishes to address the Board should sign the speaker registration sheet before the beginning of the open comment period. If the speaker's topic is not listed on this agenda, the Board may not deliberate the topic or question the speaker during the open comment period, but may direct staff to investigate the subject further or propose that an item be placed on a subsequent agenda for deliberation and possible action by the Board. The Board may not act on an item that is not listed on this agenda.

Public Comment on Agenda Items - A member of the public may offer comments on a specific agenda item in open session if he or she signs the speaker registration sheet for that item before the Board's consideration of the item. The Chairman may limit the amount of time allowed for each speaker. Public comment unrelated to a specific agenda item must be offered during the open comment period.

Board Action: None.



**CENTRAL TEXAS
Regional Mobility Authority**

July 27, 2016
AGENDA ITEM #3

Approve the minutes for the June 15, 2016
Regular Board Meeting and the July 11, 2016
Special Board Meeting.

Strategic Plan Relevance: Regional Mobility
Department: Legal
Contact: Geoffrey Petrov, General Counsel
Associated Costs: N/A
Funding Source: N/A
Action Requested: Consider and act on motion to approve minutes

Summary:

Approve the attached draft minutes for the June 15, 2016 Regular Board Meeting and the July 11, 2016 Special Board Meeting.

Backup provided: Draft Minutes, June 15, 2016 Regular Board Meeting and the July 11, 2016 Special Board Meeting.

MINUTES
Special Called Meeting of the Board of Directors
of the
CENTRAL TEXAS REGIONAL MOBILITY AUTHORITY
Monday, July 11, 2016
10:00 A.M.

This was a telephone conference call meeting. Notice of the meeting was posted July 7, 2016, 2016, at the Williamson County Courthouse and the Travis County Courthouse; online on the website of the Mobility Authority; and in the Mobility Authority's office lobby at 3300 N. Interstate 35, #300, Austin, Texas 78705-1849. Board Members on the called were Jim Mills, Bob Bennett, Nikelle Meade, Charles Heimsath, and David Singleton.

An archived copy of the live-streamed audio of this meeting is available at:

<http://www.mobilityauthority.com/about/vod.php>

1. Welcome and Opening Remarks by Chairman Ray Wilkerson.

After noting that a quorum of the Board was present, Chairman Ray Wilkerson called the meeting to order at 10:01 a.m.

2. Opportunity for Public Comment.

No members of the public presented comments to the Board.

Regular Board Items

3. Authorize an administrative change order approval process for use on the 183 South Project.

Speaking on: Mike Heiligenstein, Executive Director.

MOTION: Authorize an administrative change order approval process for use on the 183 South Project by adopting resolution provided as backup for Agenda Item 3.

RESULT: Approved (Unanimous)

MOTION BY: Jim Mills

SECONDED BY: Nikelle Meade

AYE: Chairman Wilkerson, Mr. Mills, Mr. Bennett, Mr. Heimsath, Ms. Meade, Mr. Singleton.

NAY: None

ADOPTED AS: RESOLUTION NO. 16-041

Executive Session Pursuant to Government Code, Chapter 551

Chairman Wilkerson announced in open session at 10:04 a.m. that the Board would recess the open meeting and reconvene in Executive Session to deliberate the following items:

The Board then recessed into an executive session in the Williamson Conference Room.

4. Discuss acquisition of one or more parcels or interests in real property needed for the Bergstrom Expressway (183 South) Project and related legal issues, including consideration of the use of eminent domain to condemn property, pursuant to §551.072 (Deliberation Regarding Real Property; Closed Meeting) and §551.071 (Consultation With Attorney; Closed Meeting).
5. Discuss legal issues related to claims by or against the Mobility Authority; pending or contemplated litigation and any related settlement offers; or other matters as authorized by §551.071 (Consultation with Attorney).
6. Discuss legal issues relating to procurement and financing of Mobility Authority transportation projects, as authorized by §551.071 (Consultation with Attorney).
7. Discuss personnel matters as authorized by §551.074 (Personnel Matters).

After completing the executive session, the Board reconvened in open meeting at 10:18 a.m. via telephone conference call. No action was taken during Executive Session.

Regular Board Items

8. **Consideration of the use of eminent domain to condemn property:** Declare a public necessity to acquire the following described parcels of land, or interests therein, for the 183 South (Bergstrom Expressway) Project; and with respect to each such parcel or interest therein, authorize any of the following actions: (i) acquisition through negotiation or by the use of eminent domain to condemn the parcel or interest therein; (ii) execution of a contract to purchase, and (ii) execution of a possession and use agreement:
 - a. Parcel E04 of the 183 South (Bergstrom Expressway) Project, a 0.205 acre parcel of real estate, **owned by Hassan Rahimi**, and located at 7009 Ed Bluestein Blvd. in Austin, TX 78723.

MOTION: Authorize the use of the power of eminent domain to acquire an easement interest in Parcel E04, a 0.205 acre parcel, located at 7009 Ed Bluestein

Boulevard, Austin, Travis County, for public use to install City of Austin water utilities related to the expansion, construction, operation, and maintenance of Highway 183 South, a state highway project, by adopting the resolution provided as backup for Agenda Item 8-A.

RESULT: Approved (Unanimous)
MOTION BY: Nikelle Meade
SECONDED BY: Jim Mills
AYE: Chairman Wilkerson, Mr. Mills, Mr. Bennett, Mr. Heimsath, Ms. Meade, Mr. Singleton.
NAY: None

ADOPTED AS: RESOLUTION NO. 16-042

- b. Parcel E05 of the 183 South (Bergstrom Expressway) Project, a 0.149 acre parcel of real estate, **owned by Gold Star Realty**, and located at 6450 Ed Bluestein Blvd. in Austin, TX 78723.

MOTION: Authorize the use of the power of eminent domain to acquire an easement interest in Parcel E05, a 0.149 acre parcel, located at 6450 Ed Bluestein Boulevard, Austin, Travis County, for public use to install City of Austin water utilities related to the expansion, construction, operation, and maintenance of Highway 183 South, a state highway project, by adopting the resolution provided as backup for Agenda Item 8-B.

RESULT: Approved (Unanimous)
MOTION BY: Nikelle Meade
SECONDED BY: Charles Heimsath
AYE: Chairman Wilkerson, Mr. Mills, Mr. Bennett, Mr. Heimsath, Ms. Meade, Mr. Singleton.
NAY: None

ADOPTED AS: RESOLUTION NO. 16-043

- c. Parcel E06B of the 183 South (Bergstrom Expressway) Project, a 0.347 acre parcel of real estate, **owned by Medanjo Partners, LTD**, and located on the west side of Ed Bluestein Blvd., south of Loyola Lane in Austin, TX 78723.

MOTION: Authorize the use of the power of eminent domain to acquire an easement interest in Parcel E06B, a 0.347 acre parcel, located at on the west side of Ed Bluestein Boulevard, approximately 750' south of Loyola Lane, Austin, Travis County, for public use to install City of Austin water utilities related to the

expansion, construction, operation, and maintenance of Highway 183 South, a state highway project, by adopting the resolution provided as backup for Agenda Item 8-C.

RESULT: Approved (Unanimous)
MOTION BY: Nikelle Meade
SECONDED BY: Charles Heimsath
AYE: Chairman Wilkerson, Mr. Mills, Mr. Bennett, Mr. Heimsath, Ms. Meade, Mr. Singleton.
NAY: None

ADOPTED AS: RESOLUTION NO. 16-044

- d. Parcel E08 of the 183 South (Bergstrom Expressway) Project, a 0.084 acre parcel of real estate, **owned by Medanho Partners, LTD**, and located 5513 Rangoon Rd. in Austin, TX 78723.

MOTION: Authorize the use of the power of eminent domain to acquire an easement interest in Parcel E08, a 0.084 acre parcel, located at 5513 Rangoon Rd, adjacent to and on the west side of Ed Bluestein Boulevard, Austin, Travis County, for public use to install City of Austin water utilities related to the expansion, construction, operation, and maintenance of Highway 183 South, a state highway project, by adopting the resolution provided as backup for Agenda Item 8-D.

RESULT: Approved (Unanimous)
MOTION BY: Nikelle Meade
SECONDED BY: Bob Bennett
AYE: Chairman Wilkerson, Mr. Mills, Mr. Bennett, Mr. Heimsath, Ms. Meade, Mr. Singleton.
NAY: None

ADOPTED AS: RESOLUTION NO. 16-045

After confirming that no member of the public wished to address the Board, Chairman Wilkerson declared the meeting adjourned at 10:25 a.m.

MINUTES
Regular Meeting of the Board of
Directors of the
CENTRAL TEXAS REGIONAL MOBILITY AUTHORITY
Wednesday, June 15, 2016
9:00 A.M.

The meeting was held in the Mobility Authority's Lowell H. Lebermann, Jr. Board Room at 3300 N. Interstate 35, #300, Austin, Texas 78705-1849. Notice of the meeting was posted June 9, 2016 at the respective County Courthouses of Williamson and Travis Counties; online on the website of the Mobility Authority; and in the Mobility Authority's office lobby at 3300 N. Interstate 35, #300, Austin, Texas 78705-1849.

**An archived copy of the live-streamed video of this meeting
is available at:**

<http://www.mobilityauthority.com/about/vod.php>

1. Welcome and Opening Remarks by Chairman Ray Wilkerson.

After noting that a quorum of the Board was present, Chairman Ray Wilkerson called the meeting to order at 9:06 a.m. with the following Board members present: James H. Mills, David B. Armbrust, David Singleton, Nikelle Meade, and Charles Heimsath.

Note: Chairman Wilkerson announced that items 9, 10, and 20 would be considered after Executive Session.

2. Opportunity for Public Comment.

Public comment by Mike Rollins, President of the Greater Austin Chamber of Commerce.
Public comment by Patrick Rose, member of the Real Estate Council of Austin.
Public comment by Bob Moore, on behalf of Travis County Commissioner Daugherty.
Public comment by Lauren Charnow, southwest Austin resident.
Public comment by Pamela Baggett, member of South Brodie Neighborhood Alliance.
Public comment by Vikki Goodwin, Shady Hollow resident.
Public comment by Bill (William) Moore, 5 year resident of Knollwood Community.
Public comment by Rosemary Moore, 5 year resident of Knollwood Community.

Mike Heiligenstein presented Chairman Wilkerson with emails of support for SH 45 SW Project.

Consent Board Items

Chairman Ray Wilkerson presented Items 3 through 6 for Board consideration as the consent agenda:

3. Approve Amendment No. 1 to the Consulting Services Agreement with Sigma Information Group, Inc.

ADOPTED AS: RESOLUTION 16-029

4. Approve Amendment No. 1 to the Personal Services Agreement with Neal Spelce for communications support services.

ADOPTED AS: RESOLUTION 16-030

5. Approve an agreement with eBuilder for program management system services.

ADOPTED AS: RESOLUTION 16-031

6. Approve Amendment No. 3 to CP & Y's Work Authorization No. 1 for a time extension for the development of the 183 North Project.

ADOPTED AS: RESOLUTION 16-032

MOTION: Approval of consent agenda items 3-6.

RESULT: Approved (Unanimous); 6-0

MOTION BY: Nikelle Meade

SECOND BY: Charles Heimsath

AYE: Wilkerson, Armbrust, Heimsath, Mills, Singleton, and Meade.

NAY: None

Regular Board Items

7. Approve the minutes for the May 3, 2016, Regular Board Meeting.

MOTION: Approval for May 3, 2016, Board Meeting minutes.

RESULT: Approved (Unanimous); 6-0

MOTION BY: Nikelle Meade

SECONDED BY: Charles Heimsath

AYE: Wilkerson, Armbrust, Heimsath, Mills, Singleton, and Meade.

NAY: None

8. Accept the financial statements for April 2016.

Speaking on: Mary Temple, Controller.

MOTION: Accept the financial statements for April 2016.

RESULT: Approved (Unanimous); 6-0

MOTION BY: Charles Heimsath

SECONDED BY: Nikelle Meade
AYE: Wilkerson, Armbrust, Heimsath, Mills, Singleton, and Meade.
NAY: None

ADOPTED AS: RESOLUTION NO. 16-033

11. Approve an agreement with Parsons Brinkerhoff for general engineering consulting services.

Speaking on: Justin Word, Director of Engineering.

MOTION: Approve an agreement with Parsons Brinkerhoff for general engineering consulting services

RESULT: Approved (Unanimous); 6-0

MOTION BY: Charles Heimsath

SECONDED BY: David Armbrust

AYE: Wilkerson, Armbrust, Heimsath, Mills, Singleton, and Meade.

NAY: None

ADOPTED AS: RESOLUTION NO. 16-034

12. Discuss and consider approval of Supplement No. 3 to HNTB's Work Authorization No. 16 for the MoPac Improvement Project.

Speaking on: Jeff Dailey, Deputy Executive Director.

MOTION: Approve Supplement No. 3 to HNTB's Work Authorization No. 16 for the MoPac Improvement Project.

RESULT: Approved (Unanimous); 6-0

MOTION BY: Jim Mills

SECONDED BY: Charles Heimsath

AYE: Wilkerson, Armbrust, Heimsath, Mills, Singleton, and Meade.

NAY: None

ADOPTED AS: RESOLUTION NO. 16-035

13. Discuss and consider adoption of the proposed 2017 Operating Budget.

Speaking on: Mary Temple, Controller

MOTION: Adopt the proposed 2017 Operating Budget.

RESULT: Approved (Unanimous); 6-0

MOTION BY: Charles Heimsath

SECONDED BY: David Singleton

AYE: Wilkerson, Armbrust, Heimsath, Mills, Singleton, and Meade.

NAY: None

ADOPTED AS: RESOLUTION NO. 16-036

14. Presentation on the May 12, 2016 sale of Senior Lien Revenue Refunding Bonds, Series 2016.

Speaking on: Mary Temple, Controller

Note: Presentation only, no board action.

15. Authorize the issuance, sale and delivery of the Central Texas Regional Mobility Authority Subordinate Lien Revenue Refunding Bonds, Series 2016, in accordance with specified parameters.

MOTION: Authorize the issuance, sale and delivery of the Central Texas Regional Mobility Authority Subordinate Lien Revenue Refunding Bonds, Series 2016, in accordance with specified parameters.

RESULT: Approved (Unanimous); 6-0

MOTION BY: Nikelle Meade

SECONDED BY: Charles Heimsath

AYE: Wilkerson, Armbrust, Heimsath, Mills, Singleton, and Meade.

NAY: None

ADOPTED AS: RESOLUTION NO. 16-037

16. Approve the Second Amendment to the Transportation Infrastructure Finance and Innovation (TIFIA) Agreement.

Speaking on: Mary Temple, Controller

MOTION: Approve the Second Amendment to the Transportation Infrastructure Finance and Innovation (TIFIA) Agreement.

RESULT: Approved (Unanimous); 6-0

MOTION BY: Nikelle Meade

SECONDED BY: Charles Heimsath

AYE: Wilkerson, Armbrust, Heimsath, Mills, Singleton, and Meade.

NAY: None

ADOPTED AS: RESOLUTION NO. 16-038

17. Discuss and consider appropriate action on the proposed Interlocal Agreement with the Capital Area Metropolitan Planning Organization to fund and participate in the Near Northwest Corridor – Connections Case Study.

Speaking on: Justin Word, Director of Engineering

MOTION: Authorization to execute the ILA between the Mobility Authority and Capital Area Metropolitan Planning Organization.

RESULT: Approved (Unanimous); 6-0

MOTION BY: Charles Heimsath

SECONDED BY: Jim Mills

AYE: Wilkerson, Armbrust, Heimsath, Mills, Singleton, and Meade.

NAY: None

ADOPTED AS: RESOLUTION NO. 16-039

18. Presentation and discussion on the proposed Memorandum of Agreement with Capital Metro and Capital Area Metropolitan Planning Organization to implement the Park and Ride Initiative.

Speaking on: Justin Word, Director of Engineering

Presentation only, no board action.

Briefing and Discussion on the Following:

19. Monthly update on transportation projects.

A. MoPac North.

Speaking on: Steve Pustelnyk, Director of Community Relations and
Craig Martel, CH2M.

B. 183 South Project (Bolm Rd. /briefing on intersection configuration).

Speaking on: Justin Word, Director of Engineering and
Jerel Rackley, Design Manager, Atkins

Executive Session Pursuant to Government Code, Chapter 551

Chairman Wilkerson announced in open session that the Board would recess the open meeting at 10:47 a.m. and reconvene in Executive Session to deliberate the following items:

21. Discuss legal issues related to claims by or against the Mobility Authority; pending or contemplated litigation and any related settlement offers; or other matters as authorized by §551.071 (Consultation With Attorney).

22. Discuss legal issues relating to procurement and financing of Mobility Authority

transportation projects, as authorized by §551.071 (Consultation with Attorney).

23. Discuss personnel matters as authorized by §551.074 (Personnel Matters).

The Board then recessed into an executive session in the Travis Conference Room.

After completing the executive session, the Board reconvened in open meeting at 12:40 p.m. in the Lebermann Board Room.

9. Authorize the advertisement of bid proposals for construction services for SH 45 Southwest Project.

Speaking on: Justin Word, Director of Engineering

MOTION: Authorize the advertisement of bid proposals for construction services for SH 45 Southwest.

RESULT: Approved (Unanimous); 6-0

MOTION BY: David Armbrust

SECONDED BY: Nikelle Meade

AYE: Wilkerson, Armbrust, Heimsath, Mills, Singleton, and Meade.

NAY: None

ADOPTED AS: RESOLUTION NO. 16-040

10. Presentation and discussion on Waiver of Primacy on the SH 45 Southwest Project.

Speaking on: Brian Cassidy, Partner, Locke Lord, LLP

Note: Presentation only, no board action.

20. Executive Director's Report.

A. Pay by Mail Complexities.

Speaking on: Tracie Brown, Customer Care and Toll Operations Manager

B. New employee introduction.

Speaking on: Tim Reilly, Director of Operations

C. Future Budget Considerations.

Speaking on: Mike Heiligenstein, Executive Director

No action was taken was taken on this item.

After confirming that no member of the public wished to address the Board, Chairman Wilkerson declared the meeting adjourned at 1:26 p.m.



**CENTRAL TEXAS
Regional Mobility Authority**

July 27, 2016
AGENDA ITEM #4

Accept the financial statements for
May 2016 and June 2016.

Department: Finance
Contact: Bill Chapman, Chief Financial Officer
Action Requested: Consider and act on draft resolution

Summary:

Presentation and acceptance of the monthly financial statements for May 2016 and June 2016.

Backup provided: Draft Financial Statements for May 2016 and June 2016.
Draft Resolution

**GENERAL MEETING OF THE BOARD OF DIRECTORS
OF THE
CENTRAL TEXAS REGIONAL MOBILITY AUTHORITY**

RESOLUTION NO. 16-0XX

ACCEPT THE FINANCIAL STATEMENTS FOR MAY 2016 AND JUNE 2016

WHEREAS, the Central Texas Regional Mobility Authority (“Mobility Authority”) is empowered to procure such goods and services as it deems necessary to assist with its operations and to study and develop potential transportation projects, and is responsible to insure accurate financial records are maintained using sound and acceptable financial practices; and

WHEREAS, close scrutiny of the Mobility Authority’s expenditures for goods and services, including those related to project development, as well as close scrutiny of the Mobility Authority’s financial condition and records is the responsibility of the Board and its designees through procedures the Board may implement from time to time; and

WHEREAS, the Board has adopted policies and procedures intended to provide strong fiscal oversight and which authorize the Executive Director, working with the Mobility Authority’s Chief Financial Officer, to review invoices, approve disbursements, and prepare and maintain accurate financial records and reports;

WHEREAS, the Executive Director, working with the Chief Financial Officer, has reviewed and authorized the disbursements necessary for the month of May 2016, and has caused Financial Statements to be prepared and attached to this resolution as Exhibit A; and

WHEREAS, the Executive Director, working with the Chief Financial Officer, has reviewed and authorized the disbursements necessary for the month of June 2016, and has caused Financial Statements to be prepared and attached to this resolution as Exhibit B.

NOW THEREFORE, BE IT RESOLVED, that the Board of Directors accepts the Financial Statements for May 2016 and June 2016, attached hereto as Exhibit A and Exhibit B, respectively.

Adopted by the Board of Directors of the Central Texas Regional Mobility Authority on the 27th day of July 2016.

Submitted and reviewed by:

Approved:

Geoffrey Petrov, General Counsel

Ray A. Wilkerson
Chairman, Board of Directors

Exhibit A

Financial Statements for May 2016

Central Texas Regional Mobility Authority
Income Statement
All Operating Departments

Account Name	Budget Amount FY 2016	Actual Year to Date 5/31/2016	Percent of Budget	Actual PY to Date 5/31/2015
Revenue				
Operating Revenue				
Toll Revenue-TxTag-183A	32,107,731	25,707,911	80.07%	24,448,614
Toll Revenue-HCTRA-183A	1,678,072	2,296,494	136.85%	1,466,312
Toll Revenue-NTTA-183A	1,425,660	3,755,554	263.43%	993,235
Toll Revenue-TxTag-Manor	8,014,417	8,697,667	108.53%	7,402,775
Toll Revenue-HCTRA Manor	1,561,572	1,724,709	110.45%	1,545,055
Toll Revenue-NTTA-Manor	392,459	568,066	144.75%	363,301
Video Tolls 183A	9,541,998	7,937,533	83.19%	6,657,731
Video Tolls Manor Expressway	4,334,167	3,157,451	72.85%	2,372,072
Fee revenue 183A	2,471,500	2,812,201	113.79%	1,905,413
Fee revenue Manor Expressway	885,000	1,409,545	159.27%	871,061
Total Operating Revenue	62,412,575	58,067,131	93.04%	48,025,568
Other Revenue				
Interest Income	250,000	1,404,044	561.62%	356,274
Grant Revenue	3,130,258	71,370,180	2280.01%	106,350,283
Reimbursed Expenditures	-	2,849	-	-
Misc Revenue	-	48,372	-	15,959
Total Other Revenue	3,380,258	72,825,445	2154.43%	106,722,515
Total Revenue	\$ 65,792,833	\$ 130,892,576	198.95%	154,748,083

Central Texas Regional Mobility Authority
Income Statement
All Operating Departments

Account Name	Budget Amount FY 2016	Actual Year to Date 5/31/2016	Percent of Budget	Actual PY to Date 5/31/2015
Expenses				
Salaries and Wages				
Salary Expense-Regular	2,710,710	2,582,887	95.28%	2,098,725
Part Time Salary Expense	36,000	-	-	-
Overtime Salary Expense	3,000	-	-	-
Salary Reserve	40,000	-	-	-
TCDRS	349,552	357,160	102.18%	285,783
FICA	109,682	122,483	111.67%	94,022
FICA MED	34,956	37,591	107.54%	30,658
Health Insurance Expense	232,154	240,242	103.48%	185,231
Life Insurance Expense	6,468	3,948	61.05%	3,541
Auto Allowance Expense	10,200	8,500	83.33%	2,975
Other Benefits	203,942	171,549	84.12%	129,760
Unemployment Taxes	14,400	4,689	32.56%	3
Total Salaries and Wages	3,751,064	3,529,050	94.08%	2,830,698

Central Texas Regional Mobility Authority
Income Statement
All Operating Departments

Account Name	Budget Amount FY 2016	Actual Year to Date 5/31/2016	Percent of Budget	Actual PY to Date 5/31/2015
Administrative				
Administrative and Office Expenses				
Accounting	7,500	15,648	208.65%	6,476
Auditing	75,000	51,247	68.33%	51,888
Human Resources	50,000	20,589	41.18%	82,131
IT Services	64,000	57,240	89.44%	52,447
Internet	1,700	4,950	291.19%	1,373
Software Licenses	76,100	22,157	29.12%	20,996
Cell Phones	13,600	10,277	75.57%	14,299
Local Telephone Service	13,000	13,142	101.09%	12,334
Overnight Delivery Services	850	119	13.99%	147
Local Delivery Services	900	276	30.64%	-
Copy Machine	12,000	11,666	97.21%	10,385
Repair & Maintenance-General	1,000	2,950	295.04%	3,060
Meeting Facilities	250	-	-	-
Community Meeting/ Events	2,000	616	30.80%	-
Meeting Expense	15,000	6,680	44.53%	10,341
Public Notices	2,000	-	-	-
Toll Tag Expense	1,700	1,270	74.73%	1,206
Parking	3,475	2,424	69.75%	3,131
Mileage Reimbursement	9,600	4,757	49.55%	6,591
Insurance Expense	180,000	120,330	66.85%	84,388
Rent Expense	525,000	358,191	68.23%	395,297
Legal Services	220,000	96,481	43.85%	118,966
Total Administrative and Office Expenses	1,274,675	801,010	62.84%	875,455
Office Supplies				
Books & Publications	5,950	1,082	18.19%	2,122
Office Supplies	12,000	19,108	159.23%	8,366
Computer Supplies	20,200	16,987	84.09%	11,892
Copy Supplies	2,200	1,760	80.02%	1,362
Other Reports-Printing	13,000	5,088	39.14%	3,452
Office Supplies-Printed	2,700	3,559	131.81%	1,226
Misc Materials & Supplies	3,000	2,238	74.61%	676
Postage Expense	5,850	549	9.38%	589
Total Office Supplies	64,900	50,371	77.61%	29,686

Central Texas Regional Mobility Authority
Income Statement
All Operating Departments

Account Name	Budget Amount FY 2016	Actual Year to Date 5/31/2016	Percent of Budget	Actual PY to Date 5/31/2015
Communications and Public Relations				
Graphic Design Services	50,000	20,410	40.82%	19,058
Website Maintenance	100,000	14,260	14.26%	15,635
Research Services	50,050	-	-	4,163
Communications and Marketing	250,000	214,668	85.87%	212,225
Advertising Expense	225,200	128,064	56.87%	73,748
Direct Mail	10,000	380	3.80%	1,020
Video Production	20,000	34,229	171.14%	4,820
Photography	10,000	9,232	92.32%	5,620
Radio	10,000	-	-	10,000
Other Public Relations	27,500	71,430	259.75%	-
Promotional Items	17,500	8,322	47.55%	7,562
Displays	5,000	-	-	312
Annual Report printing	14,000	1,706	12.19%	10,032
Direct Mail Printing	11,300	-	-	-
Other Communication Expenses	1,500	925	61.66%	6,033
Total Communications and Public Relations	802,050	503,625	62.79%	370,229
Employee Development				
Subscriptions	1,500	8,973	598.18%	1,708
Memberships	37,100	41,961	113.10%	31,198
Continuing Education	4,550	331	7.28%	3,880
Professional Development	12,200	303	2.48%	4,743
Other Licenses	950	430	45.26%	457
Seminars and Conferences	41,000	14,501	35.37%	26,267
Travel	88,000	54,627	62.08%	27,294
Total Employee Development	185,300	121,125	65.37%	95,547

Central Texas Regional Mobility Authority
Income Statement
All Operating Departments

Account Name	Budget Amount FY 2016	Actual Year to Date 5/31/2016	Percent of Budget	Actual PY to Date 5/31/2015
Financing and Banking Fees				
Trustee Fees	16,000	16,663	104.14%	10,213
Bank Fee Expense	8,000	5,432	67.90%	4,694
Continuing Disclosure	10,000	-	-	19,147
Arbitrage Rebate Calculation	8,000	3,685	46.06%	9,875
Loan Fee Expense	5,000	-	-	-
Rating Agency Expense	50,000	14,000	28.00%	46,500
Total Financing and Banking Fees	97,000	39,780	41.01%	90,429
Total Administrative	2,423,925	1,515,911	62.54%	1,461,344
Operations and Maintenance				
Operations and Maintenance Consulting				
General Engineering Consultant	250,000	-	-	(5,718)
GEC-Trust Indenture Support	142,000	111,344	78.41%	148,428
GEC-Financial Planning Support	10,000	2,421	-	7,179
GEC-Toll Ops Support	20,000	31,643	158.21%	7,522
GEC-Roadway Ops Support	261,000	476,251	182.47%	296,529
GEC-Technology Support	15,000	63,445	422.97%	-
GEC-Public Information Support	-	43,368	-	738
GEC-General Support	318,000	445,387	140.06%	327,974
General System Consultant	175,000	149,312	85.32%	125,031
Traffic and Revenue Consultant	60,000	73,267	122.11%	43,763
Total Ops and Mtce Consulting	1,251,000	1,396,439	111.63%	951,445
Road Operations and Maintenance				
Roadway Maintenance	1,800,000	1,236,479	68.69%	404,009
Landscape Maintenance	110,000	108,103	98.28%	155,755
Signal & Illumination Maint	20,000	141,816	709.08%	63,365
Maintenance Supplies-Roadway	30,000	68,483	228.28%	375
Tools & Equipment Expense	250	517	206.92%	227
Gasoline	6,000	2,675	44.58%	2,122
Repair & Maintenance-Vehicles	1,500	7,805	520.32%	2,578
Roadway Operations	-	521	-	-
Electricity - Roadways	160,000	132,349	82.72%	109,246
Total Road Operations and Maintenance	2,127,750	1,698,748	79.84%	737,677

Central Texas Regional Mobility Authority
Income Statement
All Operating Departments

Account Name	Budget Amount FY 2016	Actual Year to Date 5/31/2016	Percent of Budget	Actual PY to Date 5/31/2015
Toll Processing and Collection Expense				
Image Processing	4,527,740	1,573,175	34.75%	2,100,386
Tag Collection Fees	2,823,744	2,906,393	102.93%	1,986,462
Court Enforcement Costs	30,000	15,400	51.33%	22,305
DMV Lookup Fees	4,000	2,002	50.04%	2,991
Total Toll Processing and Collections	7,385,484	4,496,970	60.89%	4,112,144
Toll Operations Expense				
Facility maintenance	-	825		216
Generator Maintenance	10,000	5,512	55.12%	6,300
Generator Fuel	6,000	1,291	21.51%	749
Fire and Burglar Alarm	500	370	74.02%	370
Elevator Maintenance	2,800	2,530	90.35%	3,178
Refuse	800	793	99.13%	666
Pest Control	1,600	3,074	192.14%	2,000
Custodial	2,000	1,313	65.63%	2,831
Telecommunications	80,000	70,298	87.87%	73,597
Water	8,000	13,340	166.75%	3,715
Electricity	-	-	-	10,166
Repair & Maintenance Toll Equip	500,000	365,029	73.01%	-
Law Enforcement	265,225	201,090	75.82%	188,888
ETC Maintenance Contract	1,368,000	1,140,774	83.39%	1,137,908
ETC Testing	70,000	-	-	-
Total Toll Operations	2,314,925	1,806,239	78.03%	1,430,584
Total Operations and Maintenance	13,079,159	9,398,395	71.86%	7,231,850
Other Expenses				
Special Projects and Contingencies				
HERO	1,400,000	1,124,495	80.32%	1,063,904
Special Projects	200,000	737,879	368.94%	675,596
Other Contractual Svcs	130,000	36,369	27.98%	52,109
Contingency	165,000	21,342	12.93%	-
Total Special Projects and Contingencies	1,895,000	1,920,085	101.32%	1,791,610

Central Texas Regional Mobility Authority
Income Statement
All Operating Departments

Account Name	Budget Amount FY 2016	Actual Year to Date 5/31/2016	Percent of Budget	Actual PY to Date 5/31/2015
Non Cash Expenses				
Amortization Expense	275,000	351,294	127.74%	244,431
Amort Expense - Refund Savings	1,030,000	942,205	91.48%	942,205
Dep Exp- Furniture & Fixtures	5,000	1,288	25.75%	-
Dep Expense - Equipment	15,000	8,595	57.30%	7,078
Dep Expense - Autos & Trucks	10,000	4,846	48.46%	6,323
Dep Expense-Buildng & Toll Fac	200,000	162,355	81.18%	162,355
Dep Expense-Highways & Bridges	20,000,000	15,532,202	77.66%	15,228,660
Dep Expense-Communic Equip	250,000	179,772	71.91%	179,772
Dep Expense-Toll Equipment	3,000,000	2,524,539	84.15%	2,514,269
Dep Expense - Signs	350,000	298,735	85.35%	295,507
Dep Expense-Land Improvemts	900,000	811,190	90.13%	802,070
Depreciation Expense-Computers	28,000	14,960	53.43%	23,486
Total Non Cash Expenses	26,063,000	20,831,981	79.93%	20,406,156
Total Other Expenses	27,958,000	22,752,066	81.38%	22,197,766
Non Operating Expenses				
Non Operating Expense				
Bond issuance expense	200,000	195,716	97.86%	195,716
Interest Expense	44,660,046	38,091,003	85.29%	37,839,231
Community Initiatives	65,000	35,000	53.85%	46,000
Total Non Operating Expense	44,925,046	38,321,719	85.30%	38,080,947
Total Expenses	\$ 92,137,194	\$ 75,517,142	81.96%	\$ 71,802,605
Net Income	\$ (26,344,361)	\$ 55,375,434		\$ 82,945,478

Central Texas Regional Mobility Authority

Balance Sheet

as of 5/31/2016

as of 5/31/2015

Assets

Current Assets

Cash

Regions Operating Account	\$ 744,963	\$ 846,823
Cash In TexSTAR	1,082,472	681,136
Regions Payroll Account	213,904	57,788

Restricted Cash

Fidelity Govt MMA	323,587,587	227,665,552
Restricted Cash-TexStar	6,832,737	6,552,780
Overpayments account	136,598	77,543

Total Cash and Cash Equivalents

	332,598,261	235,881,623
--	-------------	-------------

Accounts Receivable

Accounts Receivable	14,485	14,892
Due From TTA	570,892	684,539
Due From NTTA	439,634	404,604
Due From HCTRA	816,976	675,572
Due From TxDOT	6,439,918	18,982,679
Interest Receivable	457,030	83,740

Total Receivables

	8,738,935	20,846,027
--	-----------	------------

Short Term Investments

Agencies	217,738,363	48,716,174
----------	-------------	------------

Total Short Term Investments

	217,738,363	48,716,174
--	-------------	------------

Total Current Assets

	559,075,559	305,443,823
--	-------------	-------------

Total Construction In Progress

	311,302,748	134,207,920
--	-------------	-------------

Fixed Assets (Net of Depreciation)

Computers	41,621	58,040
Computer Software	1,175,358	947,881
Furniture and Fixtures	31,822	-
Equipment	(5,223)	3,793
Autos and Trucks	21,354	1,150
Buildings and Toll Facilities	5,482,413	5,670,420
Highways and Bridges	609,659,784	606,766,917
Communication Equipment	234,765	392,230
Toll Equipment	17,486,381	20,105,497
Signs	11,283,513	11,468,240
Land Improvements	11,582,617	12,267,738
Right of Way	86,849,829	85,152,004
Leasehold Improvements	163,300	181,401

Total Fixed Assets

	744,007,536	743,015,311
--	-------------	-------------

Other Assets

Intangible Assets-Net	11,958,218	12,986,079
2005 Bond Insurance Costs	4,732,766	4,946,274
Prepaid Insurance	47,104	30,840

Total Other Assets

	16,738,088	17,963,193
--	------------	------------

Total Assets

	\$ 1,631,123,932	\$ 1,200,630,248
--	------------------	------------------

Central Texas Regional Mobility Authority

Balance Sheet

as of 5/31/2016

as of 5/31/2015

Liabilities

Current Liabilities

Accounts Payable	\$ 152,726	\$ 995,576
Construction Payable-Maha Loop	3,118,483	4,921,956
Overpayments	138,837	79,438
Interest Payable	23,773,943	16,598,115
TCDRS Payable	46,890	60,791
Medical Reimbursement Payable	1,860	-
Due to Other Entities	772,061	740,954
Other	650,000	-

Total Current Liabilities	28,654,801	23,396,829
----------------------------------	------------	------------

Long Term Liabilities

Accrued Vac & Sick Leave Payable	189,089	189,089
Total Long Term Payables	189,089	189,089

Bonds Payable

Senior Lien Revenue Bonds:		
Senior Lien Revenue Bonds 2010	115,403,324	111,404,352
Senior Lien Revenue Bonds 2011	309,434,505	308,621,156
Senior Refunding Bonds 2013	147,880,000	182,555,000
Senior Lien Revenue Bonds 2015	298,790,000	-
Senior Lien Put Bnd 2015	68,785,000	-
Sn Lien Rev Bnd Prem/Disc 2010	15,470	56,463
Sn Lien Rev Bnd Prem/Disc 2011	(3,260,276)	(3,425,652)
Sn Lien Rev Bnd Prem/Disc 2013	12,223,326	14,406,599
Sn Lien Revenue Bnd Prem 2015	23,270,067	-
Sn Lien Put Bnd Prem 2015	7,608,490	-
Total Senior Lien Revenue Bonds	980,149,907	613,617,919

Sub Lien Revenue Bonds:

Subordinated Lien Bond 2011	70,000,000	70,000,000
Sub Refunding Bnds 2013	102,030,000	102,530,000
Sub Lien Bond 2011 Prem/Disc	(1,699,225)	(1,797,206)
Sub Refunding 2013 Prem/Disc	2,855,007	3,341,943
Tot Sub Lien Revenue Bonds	173,185,782	174,074,737

Other Obligations

TIFIA Note 2015	51,002	-
SIB Loan 2015	41,252	-
State Highway Fund Loan 2015	41,252	-
2011 Regions Draw Down Note	-	1,730,258
2013 American Bank Loan	5,300,000	5,300,000
Total Other Obligations	5,433,506	7,030,258

Total Long Term Liabilities	1,158,958,285	794,912,003
------------------------------------	---------------	-------------

Total Liabilities	1,187,613,086	818,308,832
--------------------------	---------------	-------------

Net Assets

Contributed Capital	35,847,060	35,847,060
Net Assets Beginning	352,288,352	263,492,792
Current Year Operations	55,375,434	82,981,564
Total Net Assets	443,510,846	382,321,415

Total Liabilities and Net Assets	\$ 1,631,123,932	\$ 1,200,630,248
---	------------------	------------------

Central Texas Regional Mobility Authority
Statement of Cash Flows - FY 2016
as of May 31, 2016

Cash flows from operating activities:

Receipts from toll fees	\$57,911,802
Receipts from Department of Transportation	
Receipts from other fees	51,221
Receipts from interest income	
Payments to vendors	(7,284,519)
Payments to employees	(3,534,937)
Net cash flows provided by (used in) operating activities	<u>47,143,567</u>

Cash flows from capital and related financing activities:

Proceeds from bonds	397,078,326
Receipts from Department of Transportation	77,215,207
Payments on principal	(36,905,258)
Payments on interest	(31,308,697)
Acquisitions of construction in progress	(198,966,066)
Net cash flows provided by (used in) capital and related financing activities	<u>207,113,513</u>

Cash flows from investing activities:

Interest income	1,010,716
Purchase of investments	(239,164,354)
Proceeds from sale or maturity of investments	49,522,732
Net cash flows provided by (used in) investing activities	<u>(188,630,906)</u>

Net increase (decrease) in cash and cash equivalents 65,626,173

Cash and cash equivalents at beginning of period	<u>259,056,878</u>
Cash and cash equivalents at end of March	<u><u>\$324,683,052</u></u>

Reconciliation of change in net assets to net cash provided by operating activities:

Operating income	<u>\$20,645,114</u>
Adjustments to reconcile change in net assets to net cash provided by operating activities:	
Depreciation and amortization	19,538,482
Changes in assets and liabilities:	
Decrease in accounts receivable	(104,158)
(Increase) decrease in prepaid expenses and other assets	(23,973)
(Increase) in non-cash revenue (due from other agencies)	
(Decrease) increase in accounts payable	4,926,988
Increase (decrease) in accrued expenses	867,616
(Decrease) increase in Deferred Revenue	
(Increase) in deferred inflow of resources	1,293,499
Total adjustments	<u>26,498,453</u>
Net cash flows provided by (used in) operating activities	<u><u>\$47,143,567</u></u>

Reconciliation of cash and cash equivalents:

Unrestricted cash and cash equivalents	\$1,095,465
Restricted cash and cash equivalents	<u>323,587,587</u>
Total	<u><u>\$324,683,052</u></u>

INVESTMENTS by FUND

		Balance May 31, 2016		
Renewal & Replacement Fund				TexSTAR 7,915,208.81
TexSTAR	503,244.26			CD's -
Regions Sweep	188,229.72			Regions Sweep 320,821,495.22
Agencies		691,473.98		Agencies 217,737,975.45
TxDOT Grant Fund				
TexSTAR	82,391.23			\$ 546,474,679.48
Regions Sweep	9,457,022.29			
CD's				
Agencies		9,539,413.52		
Senior Debt Service Reserve Fund				
TexSTAR	591,443.94			
Regions Sweep	27,262,405.53			
Agencies	53,965,044.40	81,818,893.87		
Senior Debt Service Reserve 2015				
Regions Sweep	-	-		
2010 Senior Lien DSF				
Regions Sweep	2,106,640.83			
TexSTAR	-	2,106,640.83		
2011 Debt Service Acct				
Regions Sweep	8,204,629.26	8,204,629.26		
2013 Sr Debt Service Acct				
Regions Sweep	4,829,982.93	4,829,982.93		
2013 Sub Debt Service Account				
Regions Sweep	2,334,437.13	2,334,437.13		
2015 Sr Capitalized Interest				
Regions Sweep	75,480,706.84	75,480,706.84		
2015A Debt Service Account				
Regions Sweep	3.30	3.30		
2015B Debt Service Account				
Regions Sweep	1,433,216.34	1,433,216.34		
2011 Sub Debt DSRF				
Regions Sweep	7,070,991.97			
CD's		7,070,991.97		
2011 Sub DSF				
Regions Sweep	2,120,712.74	2,120,712.74		
Operating Fund				
TexSTAR	1,082,471.50			
TexSTAR-Trustee	1,474,704.51			
Regions Sweep	73,012.46	2,630,188.47		
Revenue Fund				
Regions Sweep	2,228,769.10	2,228,769.10		
General Fund				
TexSTAR	53.78			
Regions Sweep	27,982,088.47			
Agencies	4,416,574.25	32,398,716.50		
2013 Sub Debt Service Reserve Fund				
Regions Sweep	8,465,254.48			
Agencies		8,465,254.48		
MoPac Construction Fund				
Regions Sweep	66,410,767.89	66,410,767.89		
2011 Sub Debt Project fund				
TexSTAR	4,180,899.59			
Agencies				
Regions Sweep	9,837,309.43	14,018,209.02		
2015B Project Account				
Regions Sweep	19,728,587.28			
Agencies	20,283,437.29	40,012,024.57		
2015A Project Account				
Regions Sweep	6,232,808.99			
Agencies	139,072,919.51	145,305,728.50		
2015 TIFIA Project Account				
Regions Sweep	50,185.00	50,185.00		
2015 State Highway Fund Project Account				
Regions Sweep	25,002.19	25,002.19		
2015 SIB Project Account				
Regions Sweep	25,001.37	25,001.37		
2011 Sr Financial Assistance Fund				
Regions Sweep	32,286,545.41	32,286,545.41		
2011 Senior Lien Project Fund				
Regions Sweep	99,227.96			
Agencies		99,227.96		
Develper Deposits				
Regions Sweep	100,029.87	100,029.87		
45SW Trust Account Hays County				
Regions Sweep	76,704.65	76,704.65		
45SW Trust Account Travis County				
Regions Sweep	6,711,221.79	6,711,221.79		
		\$ 546,474,679.48		

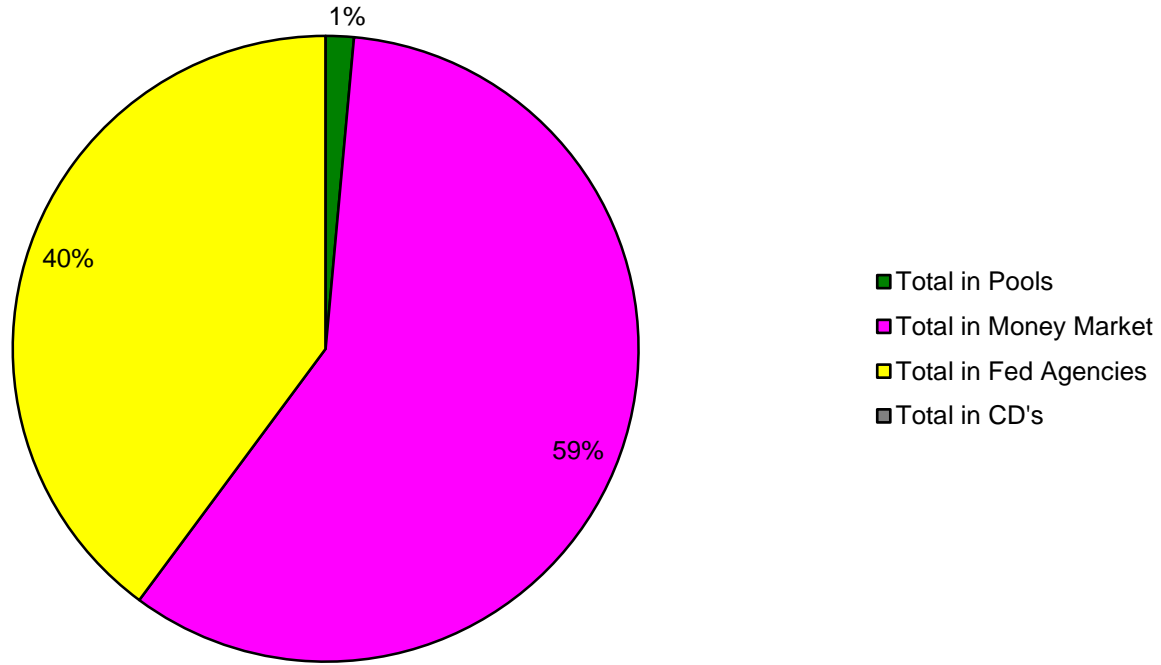
CTRMA INVESTMENT REPORT

	Month Ending 5/31/16					Rate May	
	Balance 5/1/2016	Additions	Discount Amortization	Accrued Interest	Withdrawals		Balance 5/31/2016
Amount in Trustee TexStar							
2011 Sub Lien Construction Fund	4,179,598.94			1,300.65		4,180,899.59	0.366%
General Fund	53.78					53.78	0.366%
Trustee Operating Fund	2,174,025.37	1,300,000.00		679.14	2,000,000.00	1,474,704.51	0.366%
Renewal and Replacement	3,113.23	500,000.00		131.03		503,244.26	0.366%
TxDOT Grant Fund	82,365.59			25.64		82,391.23	0.366%
Senior Lien Debt Service Reserve Fund	591,259.96			183.98		591,443.94	0.366%
	7,030,416.87	1,800,000.00		2,320.44	2,000,000.00	6,832,737.31	
Amount in TexStar Operating Fund	582,230.73	2,000,000.00		240.77	1,500,000.00	1,082,471.50	0.366%
Regions Sweep Money Market Fund							
Operating Fund	832.44	1,372,180.00		0.02	1,300,000.00	73,012.46	0.100%
45SW Trust Account Travis County	7,019,285.50			587.90	308,651.61	6,711,221.79	0.100%
45SW Trust Account Hays County	84,050.47			6.93	7,352.75	76,704.65	0.100%
2015A Project Account	16,807,947.36			154,183.87	10,729,322.24	6,232,808.99	0.100%
2015B Project Account	19,726,965.06			1,622.22		19,728,587.28	0.100%
2015D State Highway Fund Project Acct	25,001.37			0.82		25,002.19	0.100%
2015C TIFIA Project Account	50,183.34			1.66		50,185.00	0.100%
2015E SIB Project Account	1.37	25,000.00				25,001.37	0.100%
2011 Sub Lien Project Acct	9,871,922.38			813.38	35,426.33	9,837,309.43	0.100%
2011 Senior Lien Project Acct	99,219.80			8.16		99,227.96	0.100%
Developer Deposits	100,021.65			8.22		100,029.87	0.100%
2011 Sr Financial Assistance Fund	32,283,974.12			2,571.29		32,286,545.41	0.100%
2010 Senior DSF	1,685,337.29	421,181.17		122.37		2,106,640.83	0.100%
2011 Senior Lien Debt Service Acct	7,460,942.46	743,102.07		584.73		8,204,629.26	0.100%
2011 Sub Debt Service Fund	1,878,513.79	242,053.84		145.11		2,120,712.74	0.100%
2013 Senior Lien Debt Service Acct	3,864,466.51	965,235.82		280.60		4,829,982.93	0.100%
2013 Subordinate Debt Service Acct	1,867,649.95	466,651.57		135.61		2,334,437.13	0.100%
2015 Sr Capitalized Interest	75,474,503.46			6,203.38		75,480,706.84	0.100%
2015 Regions Bank Loan	0.00				0.00	0.00	0.100%
2015A Debt Service Acct	3.30					3.30	0.100%
2015B Debt Service Acct	1,146,532.05	286,601.05		83.24		1,433,216.34	0.100%
TxDOT Grant Fund	9,456,245.06			777.23		9,457,022.29	0.100%
Renewal and Replacement	688,173.16			56.56	500,000.00	188,229.72	0.100%
Revenue Fund	2,531,064.11	6,238,453.81		305.12	6,541,053.94	2,228,769.10	0.100%
General Fund	27,251,096.52	1,804,733.50		2,230.86	1,075,972.41	27,982,088.47	0.100%
2011 Sub Debt Service Reserve Fund	7,070,410.84			581.13		7,070,991.97	0.100%
Senior Lien Debt Service Reserve Fund	27,259,504.23			2,901.30		27,262,405.53	0.100%
Senior Lien Debt Proceeds	0.01				0.01	0.00	0.100%
2013 Sub Debt Service Reserve Fund	8,464,558.76			695.72		8,465,254.48	0.100%
MoPac Managed Lane Construction Fund	67,714,509.15			5,699.11	1,309,440.37	66,410,767.89	0.100%
	329,882,915.51	12,565,192.83	0.00	180,606.54	21,807,219.66	320,821,495.22	
Amount in Fed Agencies and Treasuries							
Amortized Principal	217,796,931.95		(58,956.50)			217,737,975.45	
	217,796,931.95	0.00	(58,956.50)	0.00	0.00	217,737,975.45	
Certificates of Deposit						0.00	
Total in Pools	7,612,647.60	3,800,000.00		2,561.21	3,500,000.00	7,915,208.81	
Total in Money Market	329,882,915.51	12,565,192.83		180,606.54	21,807,219.66	320,821,495.22	
Total in Fed Agencies	217,796,931.95	0.00	(58,956.50)		0.00	217,737,975.45	
Total Invested	555,292,495.06	16,365,192.83	(58,956.50)	183,167.75	25,307,219.66	546,474,679.48	

All Investments in the portfolio are in compliance with the CTRMA's Investment policy.

William Chapman, CFO

Allocation of Funds



Amount of investments As of May 31, 2016

Agency	CUSIP #	COST	Book Value	Market Value	Yield to Maturity	Purchased	Matures	FUND
Farmer Mac	31315PV55	2,501,200.00	2,500,450.00	2,501,675.00	0.7751%	3/11/2015	2/23/2017	Senior DSRF
Federal Farm Credit	3133ECA79	4,959,250.00	4,975,097.22	4,993,550.00	1.2155%	3/11/2015	3/19/2018	Senior DSRF
Northeast Texas ISD	659155HX6	2,534,600.00	2,505,766.67	2,504,975.00	0.6010%	8/3/2015	8/1/2016	Senior DSRF
Federal Farm Credit	3133EE4K3	24,928,346.00	24,946,066.88	24,996,250.00	0.7200%	1/13/2016	7/21/2017	Senior DSRF
Federal Home loan Bank	3130A5K57	1,254,574.50	1,254,912.57	1,254,949.80	0.3300%	2/5/2016	6/30/2016	2015A Sr Project
Federal Farm Credit	3133EFG3	10,057,749.23	10,050,150.63	10,030,100.00	0.8421%	2/8/2016	3/14/2018	2015B Sr Project
Federal Home loan Bank	313378QK0	10,253,642.07	10,233,286.66	10,199,400.00	1.0369%	2/8/2016	3/8/2019	2015B Sr Project
Federal Home loan Bank	3030A3J70	5,001,836.28	5,001,163.84	17,004,250.00	0.5781%	2/9/2016	11/23/2016	2015A Sr Project
Federal Home loan Bank	3030A3J70	12,005,994.72	12,002,997.36		0.5580%	2/23/2016	11/23/2016	2015A Sr Project
Freddie Mac	3137EADF3	16,124,658.17	16,091,028.28	16,068,320.00	0.6259%	2/9/2016	11/23/2016	2015A Sr Project
Freddie Mac	3134G4Z84	9,850,343.91	9,841,278.79	9,828,322.00	0.8097%	2/18/2016	10/10/2017	2015A Sr Project
Federal Farm Credit	3133ECKC7	8,000,866.72	8,000,656.61	7,997,360.00	0.6400%	2/23/2016	3/28/2017	2015A Sr Project
Federal Home loan Bank	3130A2T97	8,270,315.03	8,270,210.04	8,270,909.70	0.4922%	3/30/2016	9/28/2016	2015A Sr Project
Federal Home loan Bank	3030A6S55	6,984,310.89	6,986,766.06	6,994,960.00	0.9053%	3/14/2016	8/28/2017	2015A Sr Project
Fannie MAE	3035G0GY3	8,037,563.20	8,027,863.34	8,030,960.00	0.7122%	3/14/2016	1/30/2017	2015A Sr Project
Fannie MAE	3135G0JA2	8,031,624.00	8,025,895.58	8,024,640.00	0.9023%	3/14/2016	4/27/2017	2015A Sr Project
Federal Home loan Bank	3030A7JU0	9,001,789.65	9,001,491.38	9,001,980.00	0.7103%	3/30/2016	3/30/2017	2015A Sr Project
Federal Home loan Bank	303370S22	14,536,023.18	14,488,352.65	14,502,082.50	0.9023%	3/7/2016	9/8/2017	2015A Sr Project
Federal Home loan Bank	3030A5QL6	8,000,900.56	8,000,731.71	8,000,480.00	0.7913%	3/4/2016	6/30/2017	2015A Sr Project
Freddie Mac	3137EADT3	8,013,462.84	8,010,291.43	8,009,840.00	0.6999%	3/4/2016	2/22/2017	2015A Sr Project
Federal Home loan Bank	313379FW4	8,027,415.64	8,023,059.88	8,015,200.00	0.7098%	3/30/2016	6/9/2017	2015A Sr Project
Federal Home loan Bank	3030A6SW8	10,039,900.00	10,037,668.75	10,019,400.00	0.7616%	4/11/2016	12/19/2016	Senior DSRF
Federal Home loan Bank	3030A6SW8	4,417,556.00	4,416,574.25	4,408,536.00	0.7616%	4/11/2016	12/19/2016	General
Federal Home loan Bank	313371PV2	8,058,893.21	8,046,219.99	8,043,920.00	0.4985%	4/12/2016	12/9/2016	2015A Sr Project
Federal Home loan Bank	3130A7T62	8,999,994.24	8,999,994.88	8,996,490.00	0.5501%	4/18/2016	1/18/2017	Senior DSRF
		<u>217,892,810.04</u>	<u>217,737,975.45</u>	<u>217,698,550.00</u>				

Agency	CUSIP #	COST	Cumulative			Interest Income		
			Amortization	5/31/2016 Book Value	Maturity Value	Accrued Interest	Amortization	May 31, 2016 Interest Earned
Farmer Mac	31315PV55	2,501,200.00	750.00	2,500,450.00	2,500,000.00	1,666.67	(50.00)	1,616.67
Federal Farm Credit	3133ECA79	4,959,250.00	(15,847.22)	4,975,097.22	5,000,000.00	3,916.67	1,131.94	5,048.61
Northeast Texas ISD	659155HX6	2,534,600.00	28,833.33	2,505,766.67	2,500,000.00	4,166.67	(2,883.33)	1,283.34
Federal Farm Credit	3133EE4K3	24,928,346.00	(17,720.88)	24,946,066.88	25,000,000.00	15,000.00	3,852.37	18,852.37
Federal Home loan Bank	3130A5K57	1,254,574.50	(338.07)	1,254,912.57	1,255,000.00	439.68	90.35	530.03
Federal Farm Credit	3133EFG3	10,057,749.23	7,598.60	10,050,150.63	10,000,000.00	9,166.67	(2,279.58)	6,887.09
Federal Home loan Bank	313378QK0	10,253,642.07	20,355.41	10,233,286.66	10,000,000.00	15,625.00	(6,861.37)	8,763.63
Federal Home loan Bank	3030A3J70	5,001,836.28	672.44	5,001,163.84	5,000,000.00	3,906.25	(148.71)	3,757.54
Federal Home loan Bank	3030A3J70	12,005,994.72	2,997.36	12,002,997.36	12,000,000.00	9,375.00	(765.99)	8,609.01
Freddie Mac	3137EADF3	16,124,658.17	33,629.89	16,091,028.28	16,000,000.00	25,000.00	(8,407.47)	16,592.53
Freddie Mac	3134G4Z84	9,850,343.91	9,065.12	9,841,278.79	9,800,000.00	9,187.50	(2,428.16)	6,759.34
Federal Farm Credit	3133ECKC7	8,000,866.72	210.11	8,000,656.61	8,000,000.00	4,333.33	(65.66)	4,267.67
Federal Home loan Bank	3130A2T97	8,270,315.03	104.99	8,270,210.04	8,270,000.00	3,445.83	(52.50)	3,393.33
Federal Home loan Bank	3030A6S55	6,984,310.89	(2,455.16)	6,986,766.06	7,000,000.00	4,375.00	818.39	5,193.39
Fannie MAE	3035G0GY3	8,037,563.20	9,699.86	8,027,863.34	8,000,000.00	10,000.00	(3,233.29)	6,766.71
Fannie MAE	3135G0JA2	8,031,624.00	5,728.42	8,025,895.58	8,000,000.00	7,500.00	(2,354.14)	5,145.86
Federal Home loan Bank	3030A7JU0	9,001,789.65	298.28	9,001,491.38	9,000,000.00	5,925.00	(149.14)	5,775.86
Federal Home loan Bank	303370S22	14,536,023.18	47,670.53	14,488,352.65	14,250,000.00	26,718.75	(15,890.18)	10,828.57
Federal Home loan Bank	3030A5QL6	8,000,900.56	168.85	8,000,731.71	8,000,000.00	10,666.67	(56.28)	10,610.39
Freddie Mac	3137EADT3	8,013,462.84	3,171.41	8,010,291.43	8,000,000.00	5,833.33	(1,160.27)	4,673.06
Federal Home loan Bank	313379FW4	8,027,415.64	4,355.76	8,023,059.88	8,000,000.00	20,000.00	(2,177.88)	17,822.12
Federal Home loan Bank	3030A6SW8	10,039,900.00	2,231.25	10,037,668.75	10,000,000.00	25,000.00	(2,231.25)	22,768.75
Federal Home loan Bank	3030A6SW8	4,417,556.00	981.75	4,416,574.25	4,400,000.00	11,000.00	(981.75)	10,018.25
Federal Home loan Bank	313371PV2	8,058,893.21	12,673.22	8,046,219.99	8,000,000.00	326.78	(12,673.22)	(12,346.44)
Federal Home loan Bank	3130A7T62	8,999,994.24	(0.64)	8,999,994.88	9,000,000.00	4,125.00	0.64	4,125.64
		<u>217,892,810.04</u>	<u>154,834.61</u>	<u>217,737,975.45</u>	<u>216,975,000.00</u>	<u>236,699.80</u>	<u>(58,956.50)</u>	<u>177,743.32</u>

May 31, 2016

Certificates of Deposit Outstanding

Bank	CUSIP #	COST	Yield to Maturity	Purchased	Matures	May 31, 2016 Interest	FUND
		<u> -</u>				<u>\$ -</u>	

Travis County Escrow account				
Balance		Accrued		Balance
5/1/2016	Additions	Interest	Withdrawals	5/31/2016
\$ 3,006,406.70		\$ 247.50		\$ 3,006,654.20



Monthly Newsletter - May 2016

Performance

As of May 31, 2016

Current Invested Balance	\$5,716,887,504.32
Weighted Average Maturity (1)	46 Days
Weighted Average Maturity (2)	107 Days
Net Asset Value	1.000086
Total Number of Participants	807
Management Fee on Invested Balance	0.05%*
Interest Distributed	\$1,993,198.87
Management Fee Collected	\$238,787.76
% of Portfolio Invested Beyond 1 Year	7.75%
Standard & Poor's Current Rating	AAAm

May Averages

Average Invested Balance	\$5,638,558,122.54
Average Monthly Yield, on a simple basis	0.3664%
Average Weighted Average Maturity (1)*	48 Days
Average Weighted Average Maturity (2)*	111 Days

Definition of Weighted Average Maturity (1) & (2)

- (1) This weighted average maturity calculation uses the SEC Rule 2a-7 definition for stated maturity for any floating rate instrument held in the portfolio to determine the weighted average maturity for the pool. This Rule specifies that a variable rate instrument to be paid in 397 calendar days or less shall be deemed to have a maturity equal to the period remaining until the next readjustment of the interest rate.
- (2) This weighted average maturity calculation uses the final maturity of any floating rate instruments held in the portfolio to calculate the weighted average maturity for the pool.

* The maximum management fee authorized for the TexSTAR Cash Reserve Fund is 12 basis points. This fee may be waived in full or in part in the discretion of the TexSTAR co-administrators at any time as provided for in the TexSTAR Information Statement.

Rates reflect historical information and are not an indication of future performance.

New Participants

We would like to welcome the following entities who joined the TexSTAR program in May:

★ Fort Bend County MUD 57

★ Montgomery County MUD 113

Holiday Reminder

In observance of **Independence Day, TexSTAR will be closed on Monday, July 4, 2016.** All ACH transactions initiated on Friday, July 1st will settle on Tuesday, July 5th. Notification of any early transaction deadlines on the business day preceding this holiday will be sent by email to the primary contact on file for all TexSTAR participants. Please plan accordingly for your liquidity needs.

Economic Commentary

This month dispelled the adage 'sell in May go away' as Treasury yields in the short-end sold off sharply and developed market equities performed positively. In addition, oil prices continued to rise, briefly touching \$50 as demand picked up and supply was impacted by wild fires in Canada, militant attacks in Nigeria, political unrest in Libya and decreased shale production in the U.S. The U.S. dollar posted strong gains as positive economic numbers released throughout the month showed U.S. growth is trending positive. The yield on the two-year U.S. Treasury note rose 10 basis points ending the month at 0.88%. The Federal Open Market Committee's (FOMC) April meeting minute's hawkish tone surprised the markets as the Committee members appeared to be making a concerted effort to communicate that a mid-2016 rate hike was a distinct possibility. As a result, market-implied probability of a potential June or July 2016 rate hike significantly increased. Stronger than expected retail sales, housing and consumer price data served as a catalyst for the Fed to raise expectations. A resurging household sector is expected to drive the rebound in U.S. GDP in the second quarter. Housing activity appears to be accelerating due to strong demand, easy credit availability and low interest rates, leading to a 15% increase in mortgage purchase applications over the prior year. Consumption spending is expected to improve around 2.5% on average for the remainder of the year with pent-up savings, improved real incomes, steady employment growth and rising net worth being supportive going forward. Business investment is likely to remain poor as uncertainty surrounds both the global growth environment and the upcoming political cycle.

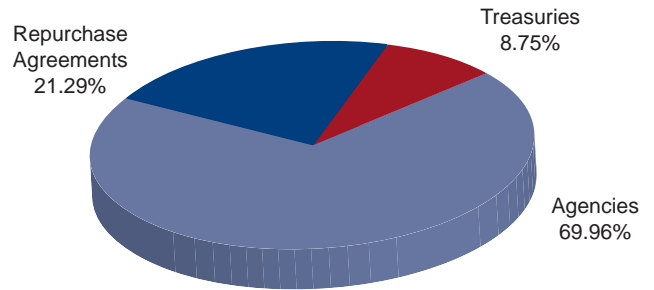
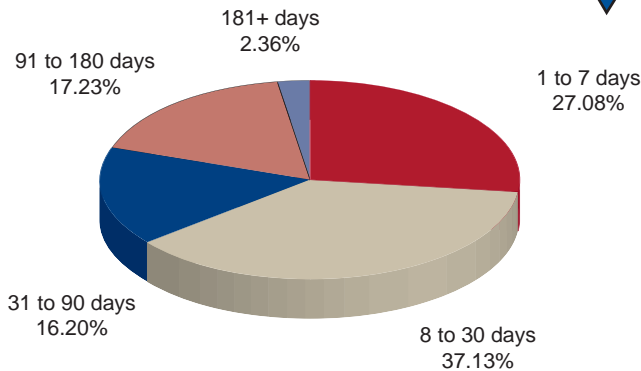
The U.S. remains susceptible to exogenous shocks, but given the lack of imbalances, a domestic catalyst for recession remains difficult to pinpoint. The Fed signaled a less accommodative stance in the release of its April FOMC Minutes. This shift has been reinforced by several Fed speakers, most notably Chair Yellen. It is being questioned whether the data has been sufficient enough to break the negative feedback loop between Fed policy and financial conditions. Market volatility is expected to resurface over the next few months calling into question whether the Fed will be able to tighten on the schedule the committee is now signaling. The current expectations forecast one rate hike during 2016, as event risk and expected volatility will challenge the Fed's desire to tighten. The Fed may be given a window of opportunity in July to raise rates which would increase the possibility of a second rate hike later in the year.

This information is an excerpt from an economic report dated May 2016 provided to TexSTAR by JP Morgan Asset Management, Inc., the investment manager of the TexSTAR pool.

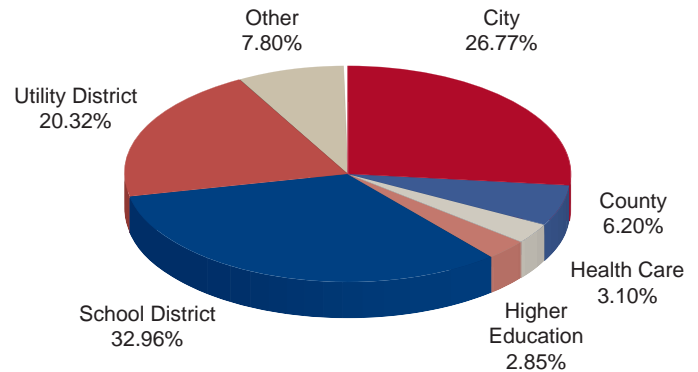
For more information about TexSTAR, please visit our web site at www.texstar.org.

Information at a Glance

Portfolio by Type of Investment As of May 31, 2016



Portfolio by Maturity As of May 31, 2016



Distribution of Participants by Type As of May 31, 2016

Historical Program Information

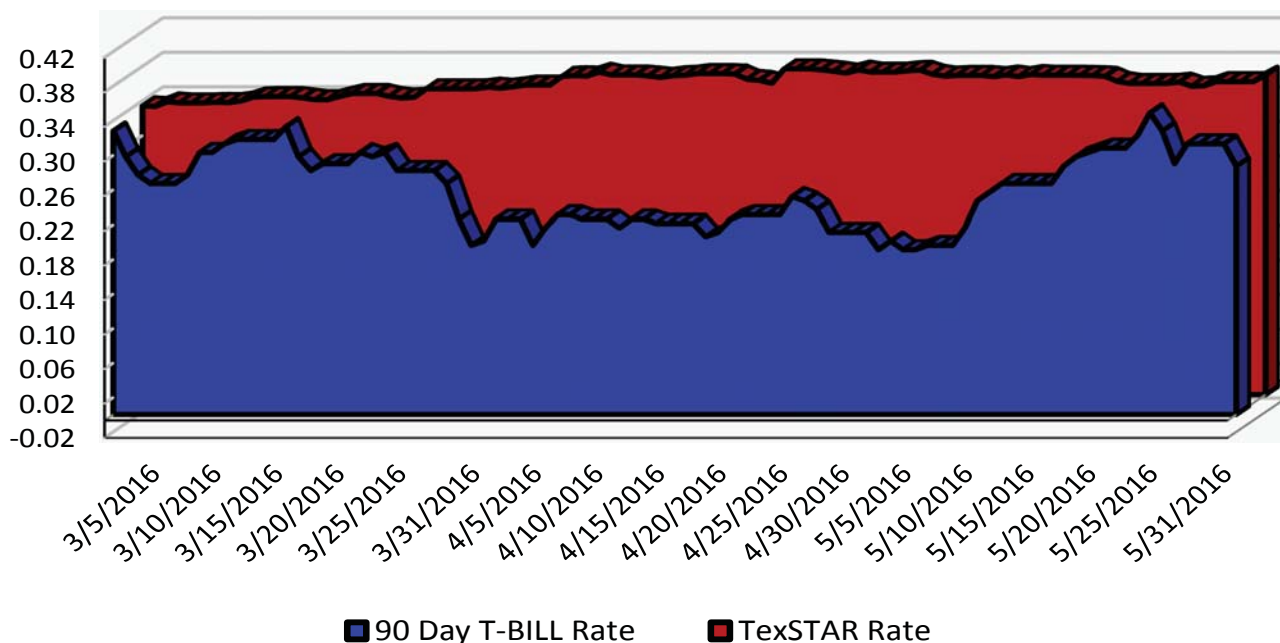
Month	Average Rate	Book Value	Market Value	Net Asset Value	WAM (1)*	WAM (2)*	Number of Participants
May 16	0.3664%	\$5,716,887,504.32	\$5,717,379,585.85	1.000086	48	111	807
Apr 16	0.3696%	5,540,251,067.80	5,541,072,494.98	1.000144	46	106	805
Mar 16	0.3450%	5,594,793,523.15	5,595,290,113.49	1.000088	45	86	803
Feb 16	0.3147%	6,329,887,983.78	6,330,019,653.99	1.000020	46	85	797
Jan 16	0.2713%	5,856,455,946.61	5,856,245,669.97	0.999964	41	79	797
Dec 15	0.1868%	5,077,006,074.74	5,076,619,261.50	0.999915	45	75	797
Nov 15	0.1155%	4,985,405,721.88	4,985,138,368.79	0.999946	48	80	797
Oct 15	0.1099%	5,137,746,592.55	5,138,104,083.30	1.000066	45	72	796
Sep 15	0.0994%	5,171,964,839.33	5,172,390,234.79	1.000082	46	62	796
Aug 15	0.0823%	5,444,712,315.25	5,444,863,919.29	1.000027	47	60	796
Jul 15	0.0722%	5,191,663,669.11	5,192,008,905.67	1.000063	50	63	795
Jun 15	0.0719%	5,113,377,874.72	5,113,798,319.64	1.000082	52	68	794

Portfolio Asset Summary as of May 31, 2016

	Book Value	Market Value
Uninvested Balance	\$ (307.46)	\$ (307.46)
Accrual of Interest Income	3,037,670.04	3,037,670.04
Interest and Management Fees Payable	(2,135,846.43)	(2,135,846.43)
Payable for Investment Purchased	0.00	0.00
Repurchase Agreement	1,216,708,999.78	1,216,708,999.78
Government Securities	4,499,276,988.39	4,499,769,069.92
Total	\$ 5,716,887,504.32	\$ 5,717,379,585.85

Market value of collateral supporting the Repurchase Agreements is at least 102% of the Book Value. The portfolio is managed by J.P. Morgan Chase & Co. and the assets are safekept in a separate custodial account at the Federal Reserve Bank in the name of TexSTAR. The only source of payment to the Participants are the assets of TexSTAR. There is no secondary source of payment for the pool such as insurance or guarantee. Should you require a copy of the portfolio, please contact TexSTAR Participant Services.

TexSTAR versus 90-Day Treasury Bill



This material is for information purposes only. This information does not represent an offer to buy or sell a security. The above rate information is obtained from sources that are believed to be reliable; however, its accuracy or completeness may be subject to change. The TexSTAR management fee may be waived in full or in part at the discretion of the TexSTAR co-administrators and the TexSTAR rate for the period shown reflects waiver of fees. This table represents historical investment performance/return to the customer, net of fees, and is not an indication of future performance. An investment in the security is not insured or guaranteed by the Federal Deposit Insurance Corporation or any other government agency. Although the issuer seeks to preserve the value of an investment at \$1.00 per share, it is possible to lose money by investing in the security. Information about these and other program details are in the fund's Information Statement which should be read carefully before investing. The yield on the 90-Day Treasury Bill ("T-Bill Yield") is shown for comparative purposes only. When comparing the investment returns of the TexSTAR pool to the T-Bill Yield, you should know that the TexSTAR pool consist of allocations of specific diversified securities as detailed in the respective Information Statements. The T-Bill Yield is taken from Bloomberg Finance L.P. and represents the daily closing yield on the then current 90-day T-Bill.

Daily Summary for May 2016

Date	Mny Mkt Fund Equiv. [SEC Std.]	Daily Allocation Factor	TexSTAR Invested Balance	Market Value Per Share	WAM Days (1)*	WAM Days (2)*
5/1/2016	0.3732%	0.000010226	\$5,540,251,067.80	1.000144	49	112
5/2/2016	0.3748%	0.000010268	\$5,548,528,532.57	1.000181	49	113
5/3/2016	0.3754%	0.000010285	\$5,522,173,528.70	1.000200	51	114
5/4/2016	0.3707%	0.000010156	\$5,542,640,918.11	1.000207	52	116
5/5/2016	0.3685%	0.000010097	\$5,582,579,950.63	1.000202	51	115
5/6/2016	0.3693%	0.000010119	\$5,555,743,435.26	1.000199	50	113
5/7/2016	0.3693%	0.000010119	\$5,555,743,435.26	1.000199	50	113
5/8/2016	0.3693%	0.000010119	\$5,555,743,435.26	1.000199	50	113
5/9/2016	0.3680%	0.000010082	\$5,552,639,270.90	1.000195	49	112
5/10/2016	0.3699%	0.000010135	\$5,582,622,721.75	1.000186	48	111
5/11/2016	0.3680%	0.000010083	\$5,595,735,949.76	1.000184	47	112
5/12/2016	0.3704%	0.000010148	\$5,545,379,025.34	1.000189	46	113
5/13/2016	0.3696%	0.000010127	\$5,592,923,657.83	1.000166	45	110
5/14/2016	0.3696%	0.000010127	\$5,592,923,657.83	1.000166	45	110
5/15/2016	0.3696%	0.000010127	\$5,592,923,657.83	1.000166	45	110
5/16/2016	0.3693%	0.000010119	\$5,625,454,413.22	1.000162	44	108
5/17/2016	0.3691%	0.000010111	\$5,699,301,071.17	1.000165	45	108
5/18/2016	0.3683%	0.000010091	\$5,752,162,627.33	1.000147	47	111
5/19/2016	0.3623%	0.000009925	\$5,717,500,173.27	1.000121	48	111
5/20/2016	0.3600%	0.000009863	\$5,696,259,017.51	1.000080	48	110
5/21/2016	0.3600%	0.000009863	\$5,696,259,017.51	1.000080	48	110
5/22/2016	0.3600%	0.000009863	\$5,696,259,017.51	1.000080	48	110
5/23/2016	0.3601%	0.000009865	\$5,649,143,363.94	1.000082	48	110
5/24/2016	0.3616%	0.000009907	\$5,654,254,292.22	1.000102	46	106
5/25/2016	0.3568%	0.000009775	\$5,671,725,423.59	1.000072	50	111
5/26/2016	0.3572%	0.000009786	\$5,718,222,547.11	1.000114	49	109
5/27/2016	0.3621%	0.000009920	\$5,760,830,271.31	1.000100	47	107
5/28/2016	0.3621%	0.000009920	\$5,760,830,271.31	1.000100	47	107
5/29/2016	0.3621%	0.000009920	\$5,760,830,271.31	1.000100	47	107
5/30/2016	0.3621%	0.000009920	\$5,760,830,271.31	1.000100	47	107
5/31/2016	0.3696%	0.000010125	\$5,716,887,504.32	1.000086	46	107
Average	0.3664%	0.000010038	\$5,638,558,122.54		48	111

TexSTAR Participant Services
FirstSouthwest, A Division of Hilltop Securities
1201 Elm Street, Suite 3500
Dallas, Texas 75270



TexSTAR Board Members

<i>William Chapman</i>	<i>Central Texas Regional Mobility Authority</i>	<i>Governing Board President</i>
<i>Nell Lange</i>	<i>City of Frisco</i>	<i>Governing Board Vice President</i>
<i>Kenneth Huewitt</i>	<i>Houston ISD</i>	<i>Governing Board Treasurer</i>
<i>David Medanich</i>	<i>FirstSouthwest / Hilltop Securities</i>	<i>Governing Board Secretary</i>
<i>Jennifer Novak</i>	<i>J.P. Morgan Asset Management</i>	<i>Governing Board Asst. Sec./Treas.</i>
<i>Eric Cannon</i>	<i>City of Allen</i>	<i>Advisory Board</i>
<i>Nicole Conley</i>	<i>Austin ISD</i>	<i>Advisory Board</i>
<i>Monte Mercer</i>	<i>North Central TX Council of Government</i>	<i>Advisory Board</i>
<i>Stephen Fortenberry</i>	<i>Plano ISD</i>	<i>Advisory Board</i>
<i>Becky Brooks</i>	<i>Government Resource Associates, LLC</i>	<i>Advisory Board</i>

For more information contact TexSTAR Participant Services ★ 1-800-TEX-STAR ★ www.texstar.org



J.P.Morgan
Asset Management

Exhibit B

Financial Statements for June 2016

Central Texas Regional Mobility Authority
Income Statement - Unaudited
All Operating Departments

Account Name	Budget Amount FY 2016	Actual Year to Date 6/30/2016	Percent of Budget	Actual PY to Date 6/30/2015
Revenue				
Operating Revenue				
Toll Revenue-TxTag-183A	32,107,731	28,186,210	87.79%	26,706,730
Toll Revenue-HCTRA-183A	1,678,072	2,534,087	151.01%	1,645,354
Toll Revenue-NTTA-183A	1,425,660	4,153,468	291.34%	1,293,158
Toll Revenue-TxTag-Manor	8,014,417	9,540,813	119.05%	8,115,712
Toll Revenue-HCTRA Manor	1,561,572	1,901,893	121.79%	1,687,989
Toll Revenue-NTTA-Manor	392,459	626,234	159.57%	407,913
Video Tolls 183A	9,541,998	9,079,982	95.16%	7,739,301
Video Tolls Manor Expressway	4,334,167	3,604,829	83.17%	2,797,557
Fee revenue 183A	2,471,500	3,121,747	126.31%	2,187,009
Fee revenue Manor Expressway	885,000	1,562,788	176.59%	1,010,926
Total Operating Revenue	62,412,575	64,312,050	103.04%	53,591,649
Other Revenue				
Interest Income	250,000	1,451,873	580.75%	403,746
Grant Revenue	3,130,258	110,354,876	3525.42%	116,257,105
Reimbursed Expenditures	-	2,849	-	-
Misc Revenue	-	48,372	-	15,959
Total Other Revenue	3,380,258	111,857,969	3309.15%	116,676,809
Total Revenue	\$ 65,792,833	\$ 176,170,019	267.76%	170,268,459

Central Texas Regional Mobility Authority
Income Statement - Unaudited
All Operating Departments

Account Name	Budget Amount FY 2016	Actual Year to Date 6/30/2016	Percent of Budget	Actual PY to Date 6/30/2015
Expenses				
Salaries and Wages				
Salary Expense-Regular	2,710,710	2,804,551	103.46%	2,296,746
Part Time Salary Expense	36,000	-	-	-
Overtime Salary Expense	3,000	-	-	-
Salary Reserve	40,000	-	-	-
TCDRS	349,552	389,532	111.44%	314,786
FICA	109,682	134,872	122.97%	105,498
FICA MED	34,956	40,905	117.02%	33,641
Health Insurance Expense	232,154	250,624	107.96%	190,581
Life Insurance Expense	6,468	4,282	66.21%	3,872
Auto Allowance Expense	10,200	8,500	83.33%	10,200
Other Benefits	203,942	177,592	87.08%	142,993
Unemployment Taxes	14,400	4,860	33.75%	3
Total Salaries and Wages	3,751,064	3,815,719	101.72%	3,098,319

Central Texas Regional Mobility Authority
Income Statement - Unaudited
All Operating Departments

Account Name	Budget Amount FY 2016	Actual Year to Date 6/30/2016	Percent of Budget	Actual PY to Date 6/30/2015
Administrative				
Administrative and Office Expenses				
Accounting	7,500	16,059	214.12%	7,229
Auditing	75,000	73,747	98.33%	93,388
Human Resources	50,000	26,956	53.91%	82,319
IT Services	64,000	65,675	102.62%	59,761
Internet	1,700	5,195	305.58%	1,651
Software Licenses	76,100	22,157	29.12%	21,486
Cell Phones	13,600	12,537	92.18%	15,669
Local Telephone Service	13,000	14,336	110.28%	16,029
Overnight Delivery Services	850	119	13.99%	161
Local Delivery Services	900	276	30.64%	-
Copy Machine	12,000	13,467	112.23%	11,377
Repair & Maintenance-General	1,000	3,293	329.29%	3,060
Meeting Facilities	250	-	-	-
Community Meeting/ Events	2,000	616	30.80%	-
Meeting Expense	15,000	7,545	50.30%	11,903
Public Notices	2,000	-	-	64
Toll Tag Expense	1,700	1,396	82.10%	1,373
Parking	3,475	2,521	72.56%	3,588
Mileage Reimbursement	9,600	5,266	54.86%	6,830
Insurance Expense	180,000	132,251	73.47%	92,098
Rent Expense	525,000	411,359	78.35%	373,177
Legal Services	220,000	324,916	147.69%	219,894
Total Administrative and Office Expenses	1,274,675	1,139,687	89.41%	1,021,054
Office Supplies				
Books & Publications	5,950	1,334	22.42%	3,791
Office Supplies	12,000	20,216	168.47%	9,583
Computer Supplies	20,200	28,817	142.66%	11,892
Copy Supplies	2,200	2,227	101.20%	1,476
Other Reports-Printing	13,000	5,341	41.08%	6,014
Office Supplies-Printed	2,700	3,713	137.50%	1,226
Misc Materials & Supplies	3,000	2,238	74.61%	916
Postage Expense	5,850	565	9.66%	659
Total Office Supplies	64,900	64,450	99.31%	35,558

Central Texas Regional Mobility Authority
Income Statement - Unaudited
All Operating Departments

Account Name	Budget Amount FY 2016	Actual Year to Date 6/30/2016	Percent of Budget	Actual PY to Date 6/30/2015
Communications and Public Relations				
Graphic Design Services	50,000	20,867	41.73%	29,054
Website Maintenance	100,000	21,740	21.74%	39,642
Research Services	50,050	70,000	139.86%	41,247
Communications and Marketing	250,000	291,898	116.76%	306,139
Advertising Expense	225,200	128,064	56.87%	213,130
Direct Mail	10,000	380	3.80%	1,620
Video Production	20,000	34,229	171.14%	20,474
Photography	10,000	9,232	92.32%	6,180
Radio	10,000	-	-	10,000
Other Public Relations	27,500	71,430	259.75%	-
Promotional Items	17,500	8,322	47.55%	11,333
Displays	5,000	-	-	312
Annual Report printing	14,000	1,706	12.19%	10,032
Direct Mail Printing	11,300	-	-	-
Other Communication Expenses	1,500	1,115	74.31%	6,251
Total Communications and Public Relations	802,050	658,982	82.16%	695,414
Employee Development				
Subscriptions	1,500	9,123	608.18%	1,717
Memberships	37,100	41,961	113.10%	32,193
Continuing Education	4,550	331	7.28%	3,880
Professional Development	12,200	1,803	14.77%	4,743
Other Licenses	950	430	45.26%	457
Seminars and Conferences	41,000	16,301	39.76%	30,592
Travel	88,000	60,724	69.00%	37,052
Total Employee Development	185,300	130,672	70.52%	110,634

Central Texas Regional Mobility Authority
Income Statement - Unaudited
All Operating Departments

Account Name	Budget Amount FY 2016	Actual Year to Date 6/30/2016	Percent of Budget	Actual PY to Date 6/30/2015
Financing and Banking Fees				
Trustee Fees	16,000	16,663	104.14%	10,213
Bank Fee Expense	8,000	5,893	73.67%	5,110
Continuing Disclosure	10,000	3,500	35.00%	19,147
Arbitrage Rebate Calculation	8,000	3,685	46.06%	9,875
Loan Fee Expense	5,000	-	-	-
Rating Agency Expense	50,000	47,000	94.00%	46,500
Total Financing and Banking Fees	97,000	76,741	79.11%	90,844
Total Administrative	2,423,925	2,070,532	85.42%	1,953,503
Operations and Maintenance				
Operations and Maintenance Consulting				
General Engineering Consultant	250,000	-	-	-
GEC-Trust Indenture Support	142,000	118,878	83.72%	171,410
GEC-Financial Planning Support	10,000	2,875	-	9,358
GEC-Toll Ops Support	20,000	49,687	248.43%	7,722
GEC-Roadway Ops Support	261,000	732,248	280.55%	380,082
GEC-Technology Support	15,000	155,667	1037.78%	4,924
GEC-Public Information Support	-	60,073	-	1,160
GEC-General Support	318,000	609,896	191.79%	385,688
General System Consultant	175,000	161,961	92.55%	149,479
Traffic and Revenue Consultant	60,000	95,895	159.82%	69,228
Total Ops and Mtce Consulting	1,251,000	1,987,179	158.85%	1,179,052
Road Operations and Maintenance				
Roadway Maintenance	1,800,000	1,961,479	108.97%	672,983
Landscape Maintenance	110,000	108,103	98.28%	240,107
Signal & Illumination Maint	20,000	141,816	709.08%	88,952
Maintenance Supplies-Roadway	30,000	68,483	228.28%	384
Tools & Equipment Expense	250	517	206.92%	227
Gasoline	6,000	3,151	52.52%	2,436
Repair & Maintenance-Vehicles	1,500	7,845	522.98%	2,618
Roadway Operations	-	521	-	-
Electricity - Roadways	160,000	150,355	93.97%	138,659
Total Road Operations and Maintenance	2,127,750	2,442,270	114.78%	1,146,368

Central Texas Regional Mobility Authority
Income Statement - Unaudited
All Operating Departments

Account Name	Budget Amount FY 2016	Actual Year to Date 6/30/2016	Percent of Budget	Actual PY to Date 6/30/2015
Toll Processing and Collection Expense				
Image Processing	4,527,740	1,710,456	37.78%	2,301,253
Tag Collection Fees	2,823,744	3,461,031	122.57%	2,536,231
Court Enforcement Costs	30,000	17,682	58.94%	25,180
DMV Lookup Fees	4,000	2,071	51.76%	3,540
Total Toll Processing and Collections	7,385,484	5,191,239	70.29%	4,866,204
Toll Operations Expense				
Facility maintenance	-	825	-	216
Generator Maintenance	10,000	5,512	55.12%	20,227
Generator Fuel	6,000	1,291	21.51%	1,537
Fire and Burglar Alarm	500	493	98.70%	493
Elevator Maintenance	2,800	2,530	90.35%	3,178
Refuse	800	887	110.85%	878
Pest Control	1,600	3,074	192.14%	2,444
Custodial	2,000	1,313	65.63%	3,331
Telecommunications	80,000	76,931	96.16%	87,583
Water	8,000	14,558	181.97%	4,359
Electricity	-	-	-	10,166
ETC spare parts expense	-	-	-	130,000
Repair & Maintenance Toll Equip	500,000	365,029	73.01%	-
Law Enforcement	265,225	223,947	84.44%	210,204
ETC Maintenance Contract	1,368,000	1,368,324	100.02%	1,251,683
ETC Development	-	-	-	53,830
ETC Testing	70,000	-	-	-
Total Toll Operations	2,314,925	2,064,714	89.19%	1,780,129
Total Operations and Maintenance	13,079,159	11,685,401	89.34%	8,971,753
Other Expenses				
Special Projects and Contingencies				
HERO	1,400,000	1,240,543	88.61%	1,284,867
Special Projects	200,000	737,879	368.94%	1,299,948
Other Contractual Svcs	130,000	49,008	37.70%	65,288
Contingency	165,000	21,342	12.93%	9,889
Total Special Projects and Contingencies	1,895,000	2,048,772	108.11%	2,659,992

Central Texas Regional Mobility Authority
Income Statement - Unaudited
All Operating Departments

Account Name	Budget Amount FY 2016	Actual Year to Date 6/30/2016	Percent of Budget	Actual PY to Date 6/30/2015
Non Cash Expenses				
Amortization Expense	275,000	383,230	139.36%	266,652
Amort Expense - Refund Savings	1,030,000	1,027,860	99.79%	1,027,860
Dep Exp- Furniture & Fixtures	5,000	1,472	29.43%	-
Dep Expense - Equipment	15,000	9,403	62.68%	7,499
Dep Expense - Autos & Trucks	10,000	5,380	53.80%	6,898
Dep Expense-Buildng & Toll Fac	200,000	177,115	88.56%	177,115
Dep Expense-Highways & Bridges	20,000,000	16,937,625	84.69%	16,613,084
Dep Expense-Communic Equip	250,000	196,115	78.45%	196,115
Dep Expense-Toll Equipment	3,000,000	2,754,225	91.81%	2,742,838
Dep Expense - Signs	350,000	325,893	93.11%	322,371
Dep Expense-Land Improvemts	900,000	884,934	98.33%	874,985
Depreciation Expense-Computers	28,000	16,311	58.25%	24,943
Total Non Cash Expenses	26,063,000	22,719,562	87.17%	22,260,361
Total Other Expenses	27,958,000	24,768,334	88.59%	24,920,353
Non Operating Expenses				
Non Operating Expense				
Bond issuance expense	200,000	1,302,015	651.01%	213,508
Interest Expense	44,660,046	39,770,567	89.05%	41,288,903
Community Initiatives	65,000	35,000	53.85%	46,000
Total Non Operating Expense	44,925,046	41,107,582	91.50%	41,548,411
Total Expenses	\$ 92,137,194	\$ 83,447,568	90.57%	\$ 80,492,340
Net Income	\$ (26,344,361)	\$ 92,722,451		\$ 89,776,119

Central Texas Regional Mobility Authority
Balance Sheet - Unaudited

	as of 6/30/2016	as of 6/30/2015	
	Assets		
Current Assets			
Cash			
Regions Operating Account	\$ 538,639	\$ 639,631	
Cash In TexSTAR	682,683	681,177	
Regions Payroll Account	51,248	57,869	
Restricted Cash			
Fidelity Govt MMA	322,436,464	258,267,216	
Restricted Cash-TexStar	15,608,165	6,618,997	
Overpayments account	124,201	92,162	
Total Cash and Cash Equivalents	339,441,401	266,357,052	
Accounts Receivable			
Accounts Receivable	14,485	507,864	
Due From TTA	288,299	563,453	
Due From NTTA	456,082	344,536	
Due From HCTRA	414,778	321,976	
Due From TxDOT	40,662,021	6,151,439	
Interest Receivable	490,450	65,161	
Total Receivables	42,326,114	7,954,429	
Short Term Investments			
Agencies	207,424,361	28,711,384	
Total Short Term Investments	207,424,361	28,711,384	
Total Current Assets	589,191,876	303,022,865	
Total Construction In Progress	318,384,362	148,849,290	
Fixed Assets (Net of Depreciation)			
Computers	40,271	56,582	
Computer Software	1,144,931	927,169	
Furniture and Fixtures	31,638	-	
Equipment	(6,031)	3,372	
Autos and Trucks	20,820	575	
Buildings and Toll Facilities	5,467,653	5,655,663	
Highways and Bridges	621,939,034	605,382,493	
Communication Equipment	218,422	375,887	
Toll Equipment	17,256,695	19,876,927	
Signs	11,256,356	11,441,376	
Land Improvements	11,508,873	12,194,822	
Right of Way	86,849,829	85,152,004	
Leasehold Improvements	161,791	179,893	
Total Fixed Assets	755,890,284	741,246,763	
Other Assets			
Intangible Assets-Net	86,990,357	12,900,423	
2005 Bond Insurance Costs	4,714,974	4,928,482	
Prepaid Insurance	54,433	23,130	
Prepaid Expenses	53,168	-	
Total Other Assets	91,812,933	17,852,036	
Total Assets	\$ 1,755,279,455	\$ 1,210,970,954	

Central Texas Regional Mobility Authority
Balance Sheet - Unaudited

	as of 6/30/2016		as of 6/30/2015
	Liabilities		
Current Liabilities			
Accounts Payable	\$ 10,192,581		\$ 7,977,315
Construction Payable-Maha Loop	528,747		3,722,760
Overpayments	126,467		94,079
Interest Payable	18,055,434		19,857,781
TCDRS Payable	49,279		44,208
Medical Reimbursement Payable	1,560		-
Deferred Compensation Payable	-		10,429
Due to Other Entities	775,589		593,317
Total Current Liabilities	29,729,657		32,299,890
Long Term Liabilities			
Accrued Vac & Sick Leave Payable	189,089		189,089
Total Long Term Payables	189,089		189,089
Bonds Payable			
Senior Lien Revenue Bonds:			
Senior Lien Revenue Bonds 2010	64,554,920		111,721,308
Senior Lien Revenue Bonds 2011	13,573,672		308,686,175
Senior Refunding Bonds 2013	147,880,000		182,555,000
Senior Lien Revenue Bonds 2015	298,790,000		-
Senior Lien Put Bnd 2015	68,785,000		-
Senior Lien Refunding Revenue Bonds 2016	358,303,000		-
Sn Lien Rev Bnd Prem/Disc 2010	-		53,171
Sn Lien Rev Bnd Prem/Disc 2011	-		(3,411,871)
Sn Lien Rev Bnd Prem/Disc 2013	12,051,755		14,186,173
Sn Lien Revenue Bnd Prem 2015	23,170,358		-
Sn Lien Put Bnd Prem 2015	7,453,215		-
Senior lien premium 2016 revenue bonds	60,689,988		-
Total Senior Lien Revenue Bonds	1,055,251,908		613,789,957
Sub Lien Revenue Bonds:			
Subordinated Lien Bond 2011	70,000,000		70,000,000
Sub Refunding Bnds 2013	102,030,000		102,530,000
Sub Lien Bond 2011 Prem/Disc	(1,691,060)		(1,789,041)
Sub Refunding 2013 Prem/Disc	2,814,720		3,301,782
Tot Sub Lien Revenue Bonds	173,153,660		174,042,742
Other Obligations			
TIFIA Note 2015	51,130		-
SIB Loan 2015	5,701,479		-
State Highway Fund Loan 2015	5,701,479		-
2011 Regions Draw Down Note	-		1,730,258
2013 American Bank Loan	5,300,000		5,300,000
Total Other Obligations	16,754,087		7,030,258
Total Long Term Liabilities	1,245,348,745		795,052,045
Total Liabilities	1,275,078,402		827,351,935
	Net Assets		
Contributed Capital	35,847,060		35,847,060
Net Assets Beginning	351,631,542		263,492,792
Current Year Operations	92,722,451		84,279,166
Total Net Assets	480,201,053		383,619,018
Total Liabilities and Net Assets	\$ 1,755,279,455		\$ 1,210,970,954

Central Texas Regional Mobility Authority
Statement of Cash Flows - FY 2016 - Unaudited
as of June 30, 2016

Cash flows from operating activities:

Receipts from toll fees	\$64,825,064
Receipts from other fees	51,221
Payments to vendors	(11,052,012)
Payments to employees	(3,819,517)
Net cash flows provided by (used in) operating activities	<u>50,004,756</u>

Cash flows from capital and related financing activities:

Proceeds from bonds	397,509,306
Receipts from Department of Transportation	93,298,381
Payments on principal	(37,392,320)
Payments on interest	(44,984,784)
Acquisitions of construction in progress	(208,752,028)
Net cash flows provided by (used in) capital and related financing activities	<u>200,767,061</u>

Cash flows from investing activities:

Interest income	1,025,126
Purchase of investments	(251,082,404)
Proceeds from sale or maturity of investments	63,379,136
Net cash flows provided by (used in) investing activities	<u>(186,678,142)</u>

Net increase (decrease) in cash and cash equivalents 64,093,674

Cash and cash equivalents at beginning of period	<u>259,056,878</u>
Cash and cash equivalents at end of June	<u>\$323,150,552</u>

Reconciliation of change in net assets to net cash provided by operating activities:

Operating income	<u>\$20,707,889</u>
Adjustments to reconcile change in net assets to net cash provided by operating activities:	
Depreciation and amortization	21,308,472
Changes in assets and liabilities:	
Decrease in accounts receivable	564,185
(Increase) decrease in prepaid expenses and other assets	(84,471)
(Decrease) increase in accounts payable	5,886,730
Increase (decrease) in accrued expenses	210,862
(Increase) in deferred inflow of resources	1,411,090
Total adjustments	<u>29,296,867</u>
Net cash flows provided by (used in) operating activities	<u>\$50,004,756</u>

Reconciliation of cash and cash equivalents:

Unrestricted cash and cash equivalents	\$714,089
Restricted cash and cash equivalents	<u>322,436,464</u>
Total	<u>\$323,150,553</u>

INVESTMENTS by FUND

		Balance June 30, 2016		
Renewal & Replacement Fund				
TexSTAR	503,406.71		TexSTAR	16,290,857.02
Regions Sweep	188,252.56		CD's	-
Agencies		691,659.27	Regions Sweep	316,022,523.76
TxDOT Grant Fund			Agencies	207,423,972.99
TexSTAR	82,417.82			
Regions Sweep	3,457,825.49			\$ 539,737,353.77
CD's				
Agencies		3,540,243.31		
Senior Debt Service Reserve Fund				
TexSTAR	591,643.84			
Regions Sweep	24,960,013.13			
Agencies	53,964,864.77	79,516,521.74		
Senior Debt Service Reserve 2015				
Regions Sweep	-	-		
2010 Senior Lien DSF				
Regions Sweep	880,375.36			
TexSTAR	-	880,375.36		
2011 Debt Service Acct				
Regions Sweep	749,790.34	749,790.34		
2013 Sr Debt Service Acct				
Regions Sweep	5,795,589.30	5,795,589.30		
2013 Sub Debt Service Account				
Regions Sweep	2,801,267.79	2,801,267.79		
2015 Sr Capitalized Interest				
Regions Sweep	75,487,117.51	75,487,117.51		
2015A Debt Service Account				
Regions Sweep	3.30	3.30		
2015B Debt Service Account				
Regions Sweep	1,719,927.34	1,719,927.34		
2011 Sub Debt DSRF				
Regions Sweep	7,071,592.52			
CD's		7,071,592.52		
2011 Sub DSF				
Regions Sweep	3,483,382.91	3,483,382.91		
Operating Fund				
TexSTAR	682,683.20			
TexSTAR-Trustee	1,248,299.89			
Regions Sweep	26,190.00	1,957,173.09		
Revenue Fund				
Regions Sweep	3,588,399.34	3,588,399.34		
General Fund				
TexSTAR	53.78			
Regions Sweep	30,715,446.22			
Agencies	4,415,592.50	35,131,092.50		
2013 Sub Debt Service Reserve Fund				
Regions Sweep	8,465,973.44			
Agencies		8,465,973.44		
MoPac Construction Fund				
Regions Sweep	65,237,213.61	65,237,213.61		
2011 Sub Debt Project fund				
TexSTAR	4,182,249.19			
Agencies				
Regions Sweep	6,832,173.80	11,014,422.99		
2015B Project Account				
Regions Sweep	19,730,263.06			
Agencies	20,274,296.34	40,004,559.40		
2015A Project Account				
TexSTAR	9,000,102.59			
Regions Sweep	7,381,498.87			
Agencies	128,769,219.38	145,150,820.84		
2015 TIFIA Project Account				
Regions Sweep	50,189.26	50,189.26		
2015 State Highway Fund Project Account				
Regions Sweep	3,957,123.61	3,957,123.61		
2015 SIB Project Account				
Regions Sweep	42,902.89	42,902.89		
2016 Sr Lien Rev Refunding Cost of Issuance				
Regions Sweep	66,115.88	66,115.88		
2016 Sr Lien Rev Refunding Debt Service Account				
Regions Sweep	1,453,753.13	1,453,753.13		
2011 Sr Financial Assistance Fund				
Regions Sweep	35,289,287.55	35,289,287.55		
2011 Senior Lien Project Fund				
Regions Sweep	27.39			
Agencies		27.39		
Developer Deposits				
Regions Sweep	100,038.37	100,038.37		
45SW Trust Account Hays County				
Regions Sweep	76,711.55	76,711.55		
45SW Trust Account Travis County				
Regions Sweep	6,414,078.24	6,414,078.24		
		\$ 539,737,353.77		

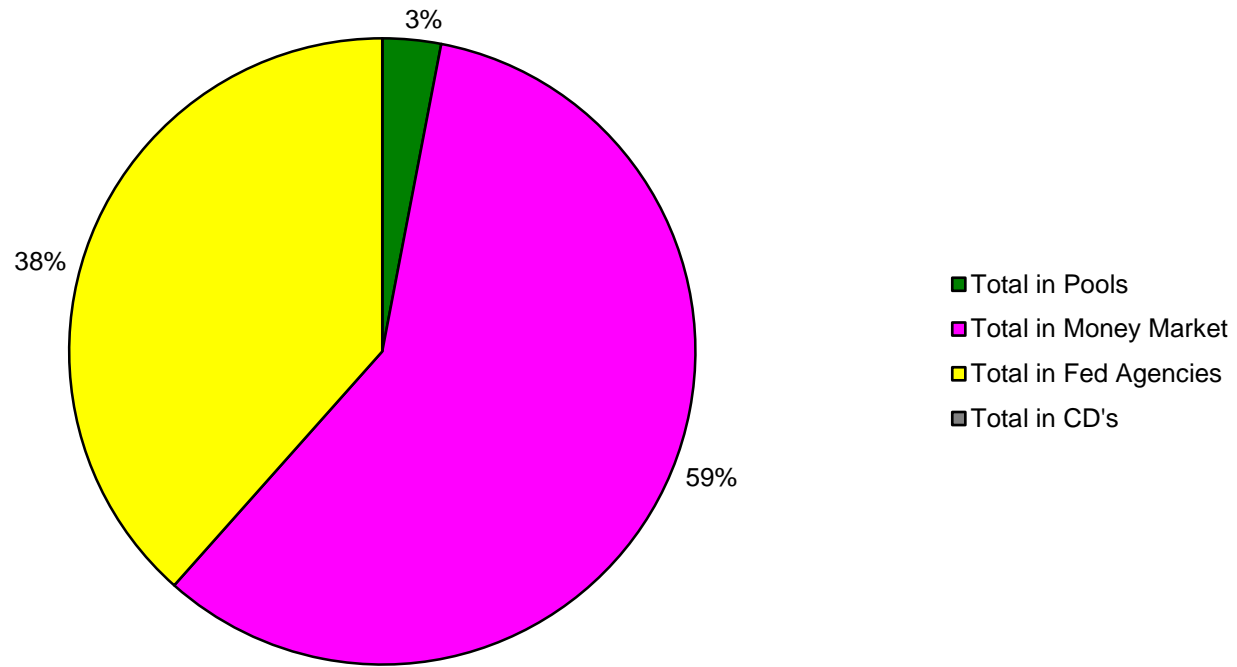
CTRMA INVESTMENT REPORT

	Month Ending 6/30/16					Rate June	
	Balance 6/1/2016	Additions	Discount Amortization	Accrued Interest	Withdrawals		Balance 6/30/2016
Amount in Trustee TexStar							
2011 Sub Lien Construction Fund	4,180,899.59			1,349.60		4,182,249.19	0.393%
General Fund	53.78					53.78	0.393%
Trustee Operating Fund	1,474,704.51	1,373,013.10		582.28	1,600,000.00	1,248,299.89	0.393%
Renewal and Replacement	503,244.26			162.45		503,406.71	0.393%
TxDOT Grant Fund	82,391.23			26.59		82,417.82	0.393%
Senior Lien Debt Service Reserve Fund	591,443.94			199.90		591,643.84	0.393%
2015A Sr Ln Project Subaccount	0.00	9,000,000.00		102.59		9,000,102.59	
	6,832,737.31	10,373,013.10		2,423.41	1,600,000.00	15,608,173.82	
Amount in TexStar Operating Fund	1,082,471.50	1,600,000.00		211.70	2,000,000.00	682,683.20	0.393%
Regions Sweep Money Market Fund							
Operating Fund	73,012.46	1,326,190.00		0.64	1,373,013.10	26,190.00	0.100%
45SW Trust Account Travis County	6,711,221.79			585.24	297,728.79	6,414,078.24	0.100%
45SW Trust Account Hays County	76,704.65			6.90		76,711.55	0.100%
2015A Project Account	6,232,808.99	10,255,000.00		158,124.07	9,264,434.19	7,381,498.87	0.100%
2015B Project Account	19,728,587.28			1,675.78		19,730,263.06	0.100%
2015D State Highway Fund Project Acct	25,002.19	5,657,000.00		2.12	1,724,880.70	3,957,123.61	0.100%
2015C TIFIA Project Account	50,185.00			4.26		50,189.26	0.100%
2015E SIB Project Account	25,001.37	5,657,000.00		1.97	5,639,100.45	42,902.89	0.100%
2011 Sub Lien Project Acct	9,837,309.43			838.02	3,005,973.65	6,832,173.80	0.100%
2011 Senior Lien Project Acct	99,227.96			8.43	99,209.00	27.39	0.100%
Developer Deposits	100,029.87			8.50		100,038.37	0.100%
2011 Sr Financial Assistance Fund	32,286,545.41	3,000,000.00		2,742.14		35,289,287.55	0.100%
2010 Senior DSF	2,106,640.83			161.61	1,226,427.08	880,375.36	0.100%
2011 Senior Lien Debt Service Acct	8,204,629.26	2,454,707.83		666.29	9,910,213.04	749,790.34	0.100%
2011 Sub Debt Service Fund	2,120,712.74	1,362,500.00		170.17		3,483,382.91	0.100%
2013 Senior Lien Debt Service Acct	4,829,982.93	965,235.82		370.55		5,795,589.30	0.100%
2013 Subordinate Debt Service Acct	2,334,437.13	466,651.57		179.09		2,801,267.79	0.100%
2015 Sr Capitalized Interest	75,480,706.84			6,410.67		75,487,117.51	0.100%
2015A Debt Service Acct	3.30					3.30	0.100%
2015B Debt Service Acct	1,433,216.34	286,601.05		109.95		1,719,927.34	0.100%
2016 Sr Lien Rev Refunding Cost of Issuance	0.00	1,220,738.97			1,154,623.09	66,115.88	0.100%
2016 Sr Lien Rev Refunding Debt Service Account	0.00	1,453,753.13				1,453,753.13	0.100%
TxDOT Grant Fund	3,457,022.29			803.20		3,457,825.49	0.100%
Renewal and Replacement	188,229.72			22.84		188,252.56	0.100%
Revenue Fund	2,228,769.10	7,652,389.56		209.32	6,292,968.64	3,588,399.34	0.100%
General Fund	27,982,088.47	4,110,056.44		24,341.13	1,401,039.82	30,715,446.22	0.100%
2011 Sub Debt Service Reserve Fund	7,070,991.97			600.55		7,071,592.52	0.100%
Senior Lien Debt Service Reserve Fund	27,262,405.53	100,000.00		52,315.43	2,454,707.83	24,960,013.13	0.100%
2013 Sub Debt Service Reserve Fund	8,465,254.48			718.96		8,465,973.44	0.100%
MoPac Managed Lane Construction Fund	66,410,767.89			5,652.99	1,179,207.17	65,237,213.61	0.100%
	314,821,495.22	45,967,824.37	0.00	256,730.82	45,023,526.55	316,022,523.76	
Amount in Fed Agencies and Treasuries							
Amortized Principal	217,737,975.45		(57,598.51)		10,256,403.95	207,423,972.99	
	217,737,975.45	0.00	(57,598.51)	0.00	10,256,403.95	207,423,972.99	
Certificates of Deposit						0.00	
Total in Pools	7,915,208.81	11,973,013.10		2,635.11	3,600,000.00	16,290,857.02	
Total in Money Market	314,821,495.22	45,967,824.37		256,730.82	45,023,526.55	316,022,523.76	
Total in Fed Agencies	217,737,975.45		(57,598.51)		10,256,403.95	207,423,972.99	
Total Invested	540,474,679.48	57,940,837.47	(57,598.51)	259,365.93	58,879,930.50	539,737,353.77	

All Investments in the portfolio are in compliance with the CTRMA's Investment policy.

William Chapman, CFO

Allocation of Funds



Amount of investments As of June 30, 2016

Agency	CUSIP #	COST	Book Value	Market Value	Yield to Maturity	Purchased	Matures	FUND
Farmer Mac	31315PV55	2,501,200.00	2,500,400.00	2,504,075.00	0.7751%	3/11/2015	2/23/2017	Senior DSRF
Federal Farm Credit	3133ECA79	4,959,250.00	4,976,229.17	5,000,100.00	1.2155%	3/11/2015	3/19/2018	Senior DSRF
Northeast Texas ISD	659155HX6	2,534,600.00	2,502,883.33	2,502,675.00	0.6010%	8/3/2015	8/1/2016	Senior DSRF
Federal Farm Credit	3133EE4K3	24,928,346.00	24,949,919.25	25,020,750.00	0.7200%	1/13/2016	7/21/2017	Senior DSRF
Federal Home loan Bank	3130A5K57	MATURED	MATURED	MATURED	0.3300%	2/5/2016	6/30/2016	2015A Sr Project
Federal Farm Credit	3133EFSG3	10,057,749.23	10,047,871.05	10,071,400.00	0.8421%	2/8/2016	3/14/2018	2015B Sr Project
Federal Home loan Bank	313378QK0	10,253,642.07	10,226,425.29	10,277,000.00	1.0369%	2/8/2016	3/8/2019	2015B Sr Project
Federal Home loan Bank	3030A3J70	5,001,836.28	5,000,969.87	17,009,180.00	0.5781%	2/9/2016	11/23/2016	2015A Sr Project
Federal Home loan Bank	3030A3J70	12,005,994.72	12,002,497.80		0.5580%	2/23/2016	11/23/2016	2015A Sr Project
Freddie Mac	3137EADF3	16,124,658.17	16,083,442.59	16,092,000.00	0.6259%	2/9/2016	11/23/2016	2015A Sr Project
Freddie Mac	3134G4Z84	9,850,343.91	9,838,850.63	9,861,250.00	0.8097%	2/18/2016	10/10/2017	2015A Sr Project
Federal Farm Credit	3133ECKC7	8,000,866.72	8,000,590.95	8,004,640.00	0.6400%	2/23/2016	3/28/2017	2015A Sr Project
Federal Home loan Bank	3130A2T97	8,270,315.03	8,270,157.55	8,273,225.30	0.4922%	3/30/2016	9/28/2016	2015A Sr Project
Federal Home loan Bank	3030A62S5	6,984,310.89	6,987,584.45	7,011,270.00	0.9053%	3/14/2016	8/28/2017	2015A Sr Project
Fannie MAE	3035G0GY3	8,037,563.20	8,024,630.05	8,036,160.00	0.7122%	3/14/2016	1/30/2017	2015A Sr Project
Fannie MAE	3135G0JA2	8,031,624.00	8,023,541.44	8,035,440.00	0.9023%	3/14/2016	4/27/2017	2015A Sr Project
Federal Home loan Bank	3030A7JU0	CALLED	CALLED	CALLED	0.7103%	3/30/2016	3/30/2017	2015A Sr Project
Federal Home loan Bank	303370SZ2	14,536,023.18	14,472,462.47	14,516,902.50	0.9023%	3/7/2016	9/8/2017	2015A Sr Project
Federal Home loan Bank	3030A5QL6	8,000,900.56	8,000,675.42	8,015,920.00	0.7913%	3/4/2016	6/30/2017	2015A Sr Project
Freddie Mac	3137EADT3	8,013,462.84	8,009,131.16	8,019,120.00	0.6999%	3/4/2016	2/22/2017	2015A Sr Project
Federal Home loan Bank	313379FW4	8,027,415.64	8,021,138.23	8,013,280.00	0.7098%	3/30/2016	6/9/2017	2015A Sr Project
Federal Home loan Bank	3030A6SW8	10,039,900.00	10,035,437.50	10,051,700.00	0.7616%	4/11/2016	12/19/2016	Senior DSRF
Federal Home loan Bank	3030A6SW8	4,417,556.00	4,415,592.50	4,422,748.00	0.7616%	4/11/2016	12/19/2016	General
Federal Home loan Bank	313371PV2	8,058,893.21	8,033,546.77	8,039,920.00	0.4985%	4/12/2016	12/9/2016	2015A Sr Project
Federal Home loan Bank	3130A7T62	8,999,994.24	8,999,995.52	9,006,300.00	0.5501%	4/18/2016	1/18/2017	Senior DSRF
		207,636,445.89	207,423,972.99	207,785,055.80				

Agency	CUSIP #	COST	Cumulative Amortization	6/30/2016 Book Value	Maturity Value	Interest Income June 30, 2016		
						Accrued Interest	Amortization	Interest Earned
Farmer Mac	31315PV55	2,501,200.00	800.00	2,500,400.00	2,500,000.00	1,666.67	(50.00)	1,616.67
Federal Farm Credit	3133ECA79	4,959,250.00	(16,979.17)	4,976,229.17	5,000,000.00	3,916.67	1,131.94	5,048.61
Northeast Texas ISD	659155HX6	2,534,600.00	31,716.67	2,502,883.33	2,500,000.00	4,166.67	(2,883.33)	1,283.34
Federal Farm Credit	3133EE4K3	24,928,346.00	(21,573.25)	24,949,919.25	25,000,000.00	15,000.00	3,852.37	18,852.37
Federal Home loan Bank	3130A5K57	MATURED	MATURED	MATURED	1,255,000.00	425.50	87.43	512.93
Federal Farm Credit	3133EFSG3	10,057,749.23	9,878.18	10,047,871.05	10,000,000.00	9,166.67	(2,279.58)	6,887.09
Federal Home loan Bank	313378QK0	10,253,642.07	27,216.78	10,226,425.29	10,000,000.00	15,625.00	(6,861.37)	8,763.63
Federal Home loan Bank	3030A3J70	5,001,836.28	866.41	5,000,969.87	5,000,000.00	2,604.17	(193.97)	2,410.20
Federal Home loan Bank	3030A3J70	12,005,994.72	3,496.92	12,002,497.80	12,000,000.00	6,250.00	(499.56)	5,750.44
Freddie Mac	3137EADF3	16,124,658.17	41,215.58	16,083,442.59	16,000,000.00	16,666.67	(7,585.69)	9,080.98
Freddie Mac	3134G4Z84	9,850,343.91	11,493.28	9,838,850.63	9,800,000.00	9,187.50	(2,428.16)	6,759.34
Federal Farm Credit	3133ECKC7	8,000,866.72	275.77	8,000,590.95	8,000,000.00	4,333.33	(65.66)	4,267.67
Federal Home loan Bank	3130A2T97	8,270,315.03	157.49	8,270,157.55	8,270,000.00	3,445.83	(52.50)	3,393.33
Federal Home loan Bank	3030A62S5	6,984,310.89	(3,273.55)	6,987,584.45	7,000,000.00	4,375.00	818.39	5,193.39
Fannie MAE	3035G0GY3	8,037,563.20	12,933.15	8,024,630.05	8,000,000.00	10,000.00	(3,233.29)	6,766.71
Fannie MAE	3135G0JA2	8,031,624.00	8,082.56	8,023,541.44	8,000,000.00	7,500.00	(2,354.14)	5,145.86
Federal Home loan Bank	3030A7JU0	CALLED	CALLED	CALLED	9,000,000.00	5,925.00	(87.40)	5,837.60
Federal Home loan Bank	303370SZ2	14,536,023.18	63,560.71	14,472,462.47	14,250,000.00	26,718.75	(15,890.18)	10,828.57
Federal Home loan Bank	3030A5QL6	8,000,900.56	225.14	8,000,675.42	8,000,000.00	10,666.67	(56.28)	10,610.39
Freddie Mac	3137EADT3	8,013,462.84	4,331.68	8,009,131.16	8,000,000.00	5,833.33	(1,160.27)	4,673.06
Federal Home loan Bank	313379FW4	8,027,415.64	6,277.41	8,021,138.23	8,000,000.00	6,666.67	(1,921.66)	4,745.01
Federal Home loan Bank	3030A6SW8	10,039,900.00	4,462.50	10,035,437.50	10,000,000.00	25,000.00	(2,231.25)	22,768.75
Federal Home loan Bank	3030A6SW8	4,417,556.00	1,963.50	4,415,592.50	4,400,000.00	11,000.00	(981.75)	10,018.25
Federal Home loan Bank	313371PV2	8,058,893.21	25,346.44	8,033,546.77	8,000,000.00	13,000.00	(12,673.22)	326.78
Federal Home loan Bank	3130A7T62	8,999,994.24	(1.28)	8,999,995.52	9,000,000.00	4,125.00	0.64	4,125.64
		207,636,445.89	212,472.92	207,423,972.99	216,975,000.00	223,265.10	(57,598.51)	165,666.61

June 30, 2016

Certificates of Deposit Outstanding

Bank	CUSIP #	COST	Yield to Maturity	Purchased	Matures	June 30, 2016 Interest	FUND
		- <u> </u>				\$ - <u> </u>	

Travis County Escrow account					
Balance		Accrued		Balance	
6/1/2016	Additions	Interest	Withdrawals	6/30/2016	
\$ 3,006,654.20		\$ 255.36	\$ 2,592,969.53	\$ 413,940.03	



Monthly Newsletter - June 2016

Performance

As of June 30, 2016

Current Invested Balance	\$5,286,667,625.92
Weighted Average Maturity (1)	48 Days
Weighted Average Maturity (2)	115 Days
Net Asset Value	1.000167
Total Number of Participants	810
Management Fee on Invested Balance	0.05%*
Interest Distributed	\$1,995,509.43
Management Fee Collected	\$225,097.85
% of Portfolio Invested Beyond 1 Year	8.37%
Standard & Poor's Current Rating	AAAm

June Averages

Average Invested Balance	\$5,492,467,594.13
Average Monthly Yield, on a simple basis	0.3927%
Average Weighted Average Maturity (1)*	47 Days
Average Weighted Average Maturity (2)*	111 Days

Definition of Weighted Average Maturity (1) & (2)

- (1) This weighted average maturity calculation uses the SEC Rule 2a-7 definition for stated maturity for any floating rate instrument held in the portfolio to determine the weighted average maturity for the pool. This Rule specifies that a variable rate instrument to be paid in 397 calendar days or less shall be deemed to have a maturity equal to the period remaining until the next readjustment of the interest rate.
- (2) This weighted average maturity calculation uses the final maturity of any floating rate instruments held in the portfolio to calculate the weighted average maturity for the pool.

* The maximum management fee authorized for the TexSTAR Cash Reserve Fund is 12 basis points. This fee may be waived in full or in part in the discretion of the TexSTAR co-administrators at any time as provided for in the TexSTAR Information Statement.

Rates reflect historical information and are not an indication of future performance.

New Participants

We would like to welcome the following entities who joined the TexSTAR program in June:

- ★ Canadian River Municipal Water Authority
 - ★ Harris County Redevelopment Authority
- ★ Greater Houston TIRZ 24
 - ★ Timpson ISD

Economic Commentary

At the beginning of the quarter, oil prices stabilized, pressure on China receded and the Federal Reserve (Fed) remained dovish on future rate hikes. Towards the end of the quarter, the U.K.'s vote to leave the EU was a surprise resulting in a spike in market volatility with risk assets selling off in favor of safe haven assets. Global stocks plunged, the British pound nosedived to its lowest levels against the U.S. dollar since 1985 and Treasuries rallied across the board. Within about a week, the market stabilized and regained some of its losses as equity markets finished the quarter slightly positive. The oil market delivered strong second quarter performance as prices continued to rise, briefly touching \$50 a barrel, a result of both an increase in demand and decrease in global supply. The yield on the two-year U.S. Treasury note ended the quarter at 0.58% which is 14 basis points lower since the beginning of the quarter and 30 bps lower since May month end. Throughout the quarter, the market probability for additional Fed rate hikes increased. The April FOMC minutes surprised the markets with its hawkish tone driven by stronger than expected retail sales, housing and consumer price data and propelled expectations higher for a potential hike this summer. The momentum was cut short with the release of the weak May non-farm payroll numbers along with the concerns over the U.K. referendum and resulted in the Fed's decision to keep rates on hold in June. The vote by the U.K. to leave the EU dealt the final blow in which the market ultimately priced out any chance of a Fed rate hike in 2016. Negative rates across the globe continued to draw investors to the U.S. markets in search of higher yields.

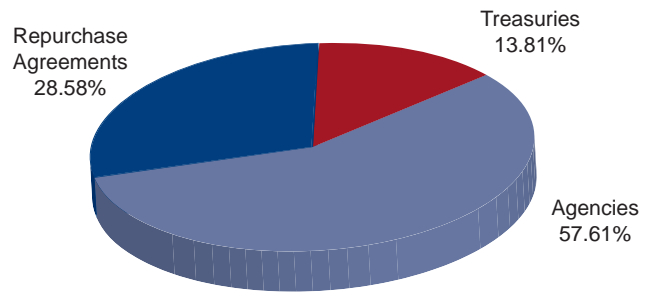
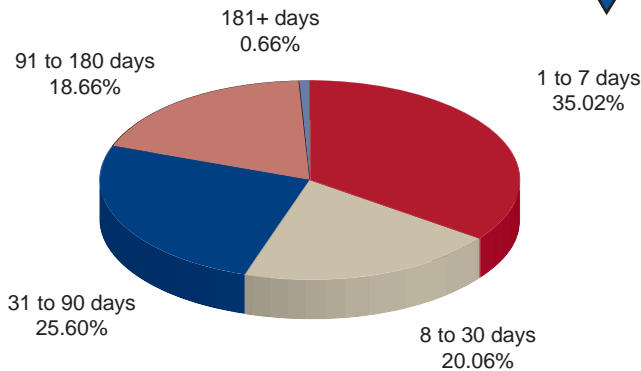
It's clear that global growth is slow. World trade growth is contracting and labor productivity is falling in both the developed and emerging markets. The demographics of aging populations in the developed markets further contribute to lower growth forecasts and leverage is rising in an attempt to create growth. The surprise Brexit vote created an enormous amount of uncertainty in its wake. In the short run, the extraordinary accommodation that is being provided by the central banks, in aggregate, is helping to stave off the next recession and provide a backdrop for the extended sub-trend recovery to continue. A recent pickup in growth in the U.S., firming energy prices and the stabilization of Chinese economic and financial data has eased near-term risks. The probability of recession has increased from 5% to 25% and it may grow as high as 40%. While one off events, such as Brexit, may continue to create market volatility, it is expected that these will be met with effective policy responses. Expectations are that a Fed rate hike is off the table at this point and that US dollar strengthening will tighten financial conditions. Further response is anticipated from central banks as they continue to be committed to doing whatever it takes to stimulate growth.

This information is an excerpt from an economic report dated June 2016 provided to TexSTAR by JP Morgan Asset Management, Inc., the investment manager of the TexSTAR pool.

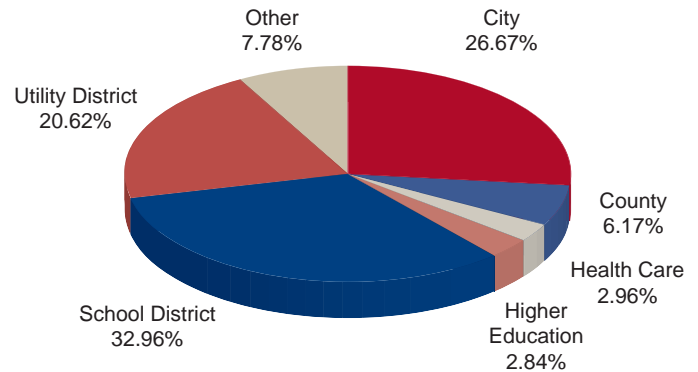
For more information about TexSTAR, please visit our web site at www.texstar.org.

Information at a Glance

Portfolio by Type of Investment As of June 30, 2016



Portfolio by Maturity As of June 30, 2016



Distribution of Participants by Type As of June 30, 2016

Historical Program Information

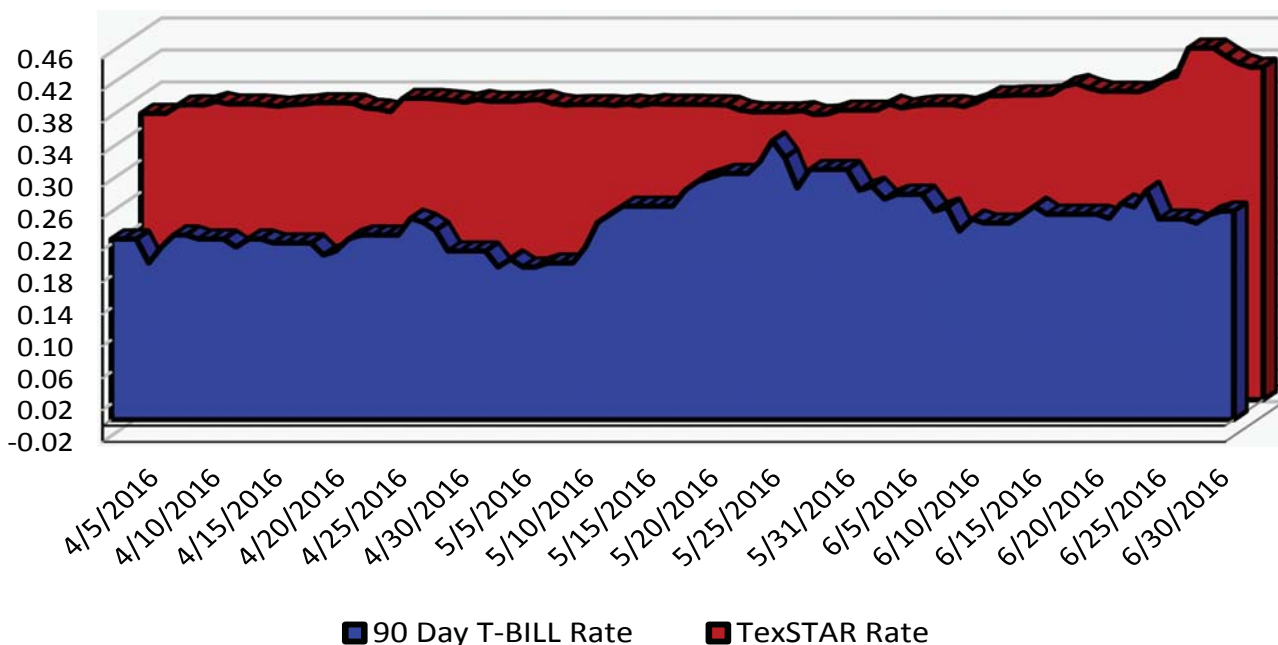
Month	Average Rate	Book Value	Market Value	Net Asset Value	WAM (1)*	WAM (2)*	Number of Participants
Jun 16	0.3927%	\$5,286,667,625.92	\$5,287,554,140.45	1.000167	47	111	810
May 16	0.3664%	5,716,887,504.32	5,717,379,585.85	1.000086	48	111	807
Apr 16	0.3696%	5,540,251,067.80	5,541,072,494.98	1.000144	46	106	805
Mar 16	0.3450%	5,594,793,523.15	5,595,290,113.49	1.000088	45	86	803
Feb 16	0.3147%	6,329,887,983.78	6,330,019,653.99	1.000020	46	85	797
Jan 16	0.2713%	5,856,455,946.61	5,856,245,669.97	0.999964	41	79	797
Dec 15	0.1868%	5,077,006,074.74	5,076,619,261.50	0.999915	45	75	797
Nov 15	0.1155%	4,985,405,721.88	4,985,138,368.79	0.999946	48	80	797
Oct 15	0.1099%	5,137,746,592.55	5,138,104,083.30	1.000066	45	72	796
Sep 15	0.0994%	5,171,964,839.33	5,172,390,234.79	1.000082	46	62	796
Aug 15	0.0823%	5,444,712,315.25	5,444,863,919.29	1.000027	47	60	796
Jul 15	0.0722%	5,191,663,669.11	5,192,008,905.67	1.000063	50	63	795

Portfolio Asset Summary as of June 30, 2016

	Book Value	Market Value
Uninvested Balance	\$ (11,363.95)	\$ (11,363.95)
Accrual of Interest Income	1,128,137.96	1,128,137.96
Interest and Management Fees Payable	(2,058,427.21)	(2,058,427.21)
Payable for Investment Purchased	0.00	0.00
Repurchase Agreement	1,511,337,999.72	1,511,337,999.72
Government Securities	3,776,271,279.40	3,777,157,793.93
Total	\$ 5,286,667,625.92	\$ 5,287,554,140.45

Market value of collateral supporting the Repurchase Agreements is at least 102% of the Book Value. The portfolio is managed by J.P. Morgan Chase & Co. and the assets are safekept in a separate custodial account at the Federal Reserve Bank in the name of TexSTAR. The only source of payment to the Participants are the assets of TexSTAR. There is no secondary source of payment for the pool such as insurance or guarantee. Should you require a copy of the portfolio, please contact TexSTAR Participant Services.

TexSTAR versus 90-Day Treasury Bill



This material is for information purposes only. This information does not represent an offer to buy or sell a security. The above rate information is obtained from sources that are believed to be reliable; however, its accuracy or completeness June be subject to change. The TexSTAR management fee may be waived in full or in part at the discretion of the TexSTAR co-administrators and the TexSTAR rate for the period shown reflects waiver of fees. This table represents historical investment performance/return to the customer, net of fees, and is not an indication of future performance. An investment in the security is not insured or guaranteed by the Federal Deposit Insurance Corporation or any other government agency. Although the issuer seeks to preserve the value of an investment at \$1.00 per share, it is possible to lose money by investing in the security. Information about these and other program details are in the fund's Information Statement which should be read carefully before investing. The yield on the 90-Day Treasury Bill ("T-Bill Yield") is shown for comparative purposes only. When comparing the investment returns of the TexSTAR pool to the T-Bill Yield, you should know that the TexSTAR pool consist of allocations of specific diversified securities as detailed in the respective Information Statements. The T-Bill Yield is taken from Bloomberg Finance L.P. and represents the daily closing yield on the then current 90-day T-Bill.

Daily Summary for June 2016

Date	Mny Mkt Fund Equiv. [SEC Std.]	Daily Allocation Factor	TexSTAR Invested Balance	Market Value Per Share	WAM Days (1)*	WAM Days (2)*
6/1/2016	0.3650%	0.000009999	\$5,707,725,891.12	1.000092	46	107
6/2/2016	0.3676%	0.000010071	\$5,718,120,505.52	1.000098	45	106
6/3/2016	0.3691%	0.000010112	\$5,703,347,570.08	1.000130	44	104
6/4/2016	0.3691%	0.000010112	\$5,703,347,570.08	1.000130	44	104
6/5/2016	0.3691%	0.000010112	\$5,703,347,570.08	1.000130	44	104
6/6/2016	0.3668%	0.000010049	\$5,713,540,724.85	1.000146	45	103
6/7/2016	0.3720%	0.000010193	\$5,715,222,544.35	1.000144	44	103
6/8/2016	0.3804%	0.000010421	\$5,630,401,050.06	1.000142	46	106
6/9/2016	0.3802%	0.000010417	\$5,597,926,338.87	1.000134	47	107
6/10/2016	0.3812%	0.000010444	\$5,610,155,642.05	1.000137	45	105
6/11/2016	0.3812%	0.000010444	\$5,610,155,642.05	1.000137	45	105
6/12/2016	0.3812%	0.000010444	\$5,610,155,642.05	1.000137	45	105
6/13/2016	0.3827%	0.000010484	\$5,563,894,490.97	1.000147	46	111
6/14/2016	0.3921%	0.000010743	\$5,470,805,273.59	1.000139	49	115
6/15/2016	0.3955%	0.000010836	\$5,447,058,230.10	1.000150	50	117
6/16/2016	0.3897%	0.000010678	\$5,425,301,318.42	1.000157	49	117
6/17/2016	0.3858%	0.000010569	\$5,391,495,679.34	1.000165	48	115
6/18/2016	0.3858%	0.000010569	\$5,391,495,679.34	1.000165	48	115
6/19/2016	0.3858%	0.000010569	\$5,391,495,679.34	1.000165	48	115
6/20/2016	0.3852%	0.000010554	\$5,431,995,257.51	1.000157	47	114
6/21/2016	0.3904%	0.000010695	\$5,435,065,787.05	1.000156	47	113
6/22/2016	0.4002%	0.000010964	\$5,364,868,508.90	1.000142	51	118
6/23/2016	0.4045%	0.000011082	\$5,325,293,020.14	1.000106	52	119
6/24/2016	0.4398%	0.000012050	\$5,298,310,479.06	1.000143	48	116
6/25/2016	0.4398%	0.000012050	\$5,298,310,479.06	1.000143	48	116
6/26/2016	0.4398%	0.000012050	\$5,298,310,479.06	1.000143	48	116
6/27/2016	0.4296%	0.000011771	\$5,246,501,881.75	1.000150	48	116
6/28/2016	0.4207%	0.000011526	\$5,312,714,756.74	1.000173	46	108
6/29/2016	0.4158%	0.000011393	\$5,370,996,506.35	1.000170	45	106
6/30/2016	0.4161%	0.000011399	\$5,286,667,625.92	1.000167	48	115
Average	0.3927%	0.000010760	\$5,492,467,594.13		47	111

TexSTAR Participant Services
FirstSouthwest, A Division of Hilltop Securities
1201 Elm Street, Suite 3500
Dallas, Texas 75270



TexSTAR Board Members

<i>William Chapman</i>	<i>Central Texas Regional Mobility Authority</i>	<i>Governing Board President</i>
<i>Nell Lange</i>	<i>City of Frisco</i>	<i>Governing Board Vice President</i>
<i>Kenneth Huewitt</i>	<i>Houston ISD</i>	<i>Governing Board Treasurer</i>
<i>David Medanich</i>	<i>FirstSouthwest / Hilltop Securities</i>	<i>Governing Board Secretary</i>
<i>Jennifer Novak</i>	<i>J.P. Morgan Asset Management</i>	<i>Governing Board Asst. Sec./Treas.</i>
<i>Eric Cannon</i>	<i>City of Allen</i>	<i>Advisory Board</i>
<i>Nicole Conley</i>	<i>Austin ISD</i>	<i>Advisory Board</i>
<i>Monte Mercer</i>	<i>North Central TX Council of Government</i>	<i>Advisory Board</i>
<i>Stephen Fortenberry</i>	<i>Plano ISD</i>	<i>Advisory Board</i>
<i>Becky Brooks</i>	<i>Government Resource Associates, LLC</i>	<i>Advisory Board</i>

For more information contact TexSTAR Participant Services ★ 1-800-TEX-STAR ★ www.texstar.org



J.P.Morgan
Asset Management



**CENTRAL TEXAS
Regional Mobility Authority**

July 27, 2016
AGENDA ITEM #5

Approve an Interlocal Agreement with the Texas Department of Transportation to co-locate personnel for the purposes of serving Pay-by-Mail customers of both Agencies

Strategic Plan Relevance: Innovation
Department: Operations
Contact: Tim Reilly, Director of Operations
Associated Costs: None
Funding Source: N/A
Action Requested: Consider and act on draft resolution

Summary:

To better serve the public, the Texas Department of Transportation and the Central Texas Regional Mobility Authority would like to co-locate our combined Pay-by-Mail services at the TxTag Customer Service Center located at 12719 Burnet Road, Austin, Texas 78727 to allow customers to resolve both TxTag and CTRMA toll inquiries (bills and questions) in one location. In addition, the Texas Department of Transportation may want to co-locate with the Central Texas Regional Mobility Authority at an additional mutually agreed upon location to resolve both TxTag and CTRMA toll inquiries in one location.

Backup provided: Draft resolution
Draft ILA

**GENERAL MEETING OF THE BOARD OF DIRECTORS
OF THE
CENTRAL TEXAS REGIONAL MOBILITY AUTHORITY**

RESOLUTION NO. 16-0XX

**APPROVING AN INTERLOCAL AGREEMENT WITH THE
TEXAS DEPARTMENT OF TRANSPORTATION TO CO-LOCATE PERSONNEL FOR
THE PURPOSES OF SERVING PAY-BY-MAIL CUSTOMERS OF BOTH AGENCIES**

WHEREAS, the Executive Director has developed a proposed interlocal agreement between the Texas Department of Transportation (“TXDOT”) and the Mobility Authority to co-locate personnel for the purposes of serving Pay-By-Mail customers of both agencies; and

WHEREAS, TXDOT shall house one or more Mobility Authority representatives at the TxTAG Customer Service Center, located at 12719 Burnet Rd. Austin, TX 78727 to provide customer service to customers who have a question or issue related to toll and related charges by the Mobility Authority for use of Mobility Authority toll roads; and

WHEREAS, the proposed interlocal agreement will provide the Mobility Authority and TXDOT’s Toll Operations Division an opportunity to better serve their customers efficiently and effectively as well as providing a co-location to customers; and

WHEREAS, the Executive Director recommends approval of the proposed interlocal agreement with TXDOT.

NOW THEREFORE, BE IT RESOLVED that the proposed interlocal agreement is hereby approved; and

BE IT FURTHER RESOLVED that the Executive Director is authorized and directed to finalize and execute for the Mobility Authority the interlocal agreement in the form or substantially the same form as Exhibit A hereto.

Adopted by the Board of Directors of the Central Texas Regional Mobility Authority on the 27th day of July, 2016.

Submitted and reviewed by:

Approved:

Geoffrey Petrov, General Counsel

Ray A. Wilkerson
Chairman, Board of Directors

Exhibit A

Interlocal Agreement

Contract Services Transmittal Form

<p>From: Toll Operations Division - 87 (District/Division/Office)</p>	<p>Contact Person: Payman Dargahi Phone No.: 512-874-9675</p>
<p>Subject: Co-location at the TxTag Customer Service Center</p>	
<p>Other Entity Central Texas Regional Mobility Authority</p>	<p>Contract Maximum Amount Payable \$0</p>
<p>Are any federal funds used in this contract? No If yes, what kind of federal funds. N/A</p>	
<p>Was the standard interlocal or amendment format modified? Yes _____ No <u>X</u>_____ If modified, date of Contract Services approval: <u>N/A</u>_____ Modifications made are as follows: N/A</p>	

THE STATE OF TEXAS §

THE COUNTY OF TRAVIS §

INTERLOCAL AGREEMENT

THIS CONTRACT is entered into by the Contracting Parties under Government Code, Chapter 791.

I. CONTRACTING PARTIES:

The Texas Department of Transportation	TxDOT
Central Texas Regional Mobility Authority	Local Government

II. PURPOSE: _ To better serve the public, the Texas Department of Transportation would like to co-locate with the Central Texas Regional Mobility Authority (CTRMA) at the TxTag Customer Service Center located at 12719 Burnet Road, Austin, Texas 78727 to allow customers to resolve both TxTag and CTRMA toll inquiries (bills and questions) in one location. In addition, the Texas Department of Transportation may want to co-locate with the Central Texas Regional Mobility Authority at a mutually agreed upon location to resolve both TxTag and CTRMA toll inquiries in one location.

III. STATEMENT OF SERVICES TO BE PERFORMED: TxDOT will undertake and carry out services described in **Attachment A**, Scope of Services.

IV. CONTRACT PAYMENT: The total amount of this contract shall not exceed \$_0_____ and shall conform to the provisions of **Attachment B**, Budget. Payments shall be billed monthly.

V. TERM OF CONTRACT: This contract begins when fully executed by both parties and terminates on _December 31, 2018_ or when otherwise terminated as provided in this Agreement.

VI. LEGAL AUTHORITY:

THE PARTIES certify that the services provided under this contract are services that are properly within the legal authority of the Contracting Parties.

The governing body, by resolution or ordinance, dated _____, has authorized the Local Government to obtain the services described in **Attachment A**.

This contract incorporates the provisions of **Attachment A**, Scope of Services, **Attachment B**, Budget, **Attachment C**, General Terms and Conditions, **Attachment D**, Resolution or Ordinance and **Attachment E**, Location Map Showing Project.

_____**CENTRAL TEXAS REGIONAL MOBILITY AUTHORITY**_____ (**Name of Local Government**)

By _____ Date _____
AUTHORIZED SIGNATURE

TYPED OR PRINTED NAME AND TITLE

Title _____

FOR THE STATE OF TEXAS

Executed for the Executive Director and approved for the Texas Transportation Commission for the purpose and effect of activating and/or carrying out the orders, established policies or work programs heretofore approved and authorized by the Texas Transportation Commission.

By _____ Date _____
Kenneth Stewart
Director of Contract Services

ATTACHMENT A

Scope of Services

- I. This agreement will be in full force and effect when approved by each party. It is understood by the Parties that this document will be revisited as necessary by mutual agreement to ensure that it reflects the current agreements and understandings of the participating Parties.
- II. The purpose of this agreement is to provide improved customer service to TxTAG customers with the convenience of having two toll entities with two respective back-office systems, in one location. TxDOT shall house one or more employees of the Local Government at the TxTAG Customer Service Center, located at 12719 Burnet Road, Austin, Texas 78727 in order to provide customer service to customers' with inquiries on the Local Government's back-office system. The Local Government will be responding to billing issues and any and all inquiries with their own equipment and back-office system operating during the same office hours as TxDOT's services, Monday through Friday. This service will allow TxDOT's Toll Operations Division to better serve its customers by allowing for more efficient and effective customer service, as well as providing a co-location to customers.
- III. The Local Government employee(s) will not be granted access to or use of any TxDOT equipment or back-office system.

ATTACHMENT B

Budget

No funds shall be exchanged under this agreement.

ATTACHMENT C

General Terms and Conditions

Article 1. Amendments

This contract may only be amended by written agreement executed by both parties before the contract is terminated.

Article 2. Conflicts Between Agreements

If the terms of this contract conflict with the terms of any other contract between the parties, the most recent contract shall prevail.

Article 3. Disputes

TxDOT shall be responsible for the settlement of all contractual and administrative issues arising out of procurements entered in support of contract services.

Article 4. Ownership of Equipment

Except to the extent that a specific provision of this contract states to the contrary, all equipment purchased by TxDOT under this contract shall be owned by TxDOT.

Article 5. Termination

This contract terminates at the end of the contract term, when all services and obligations contained in this contract have been satisfactorily completed, by mutual written agreement, or 30 days after either party gives notice to the other party, whichever occurs first.

Article 6. Gratuities

Any person who is doing business with or who reasonably speaking may do business with TxDOT under this contract may not make any offer of benefits, gifts, or favors to employees of TxDOT. The only exceptions allowed are ordinary business lunches and items that have received the advanced written approval of the Executive Director of the Texas Department of Transportation.

Article 7. Responsibilities of the Parties

Each party acknowledges that it is not an agent, servant, or employee of the other party. Each party is responsible for its own acts and deeds and for those of its agents, servants, or employees.

Article 8. Compliance with Laws

The parties shall comply with all federal, state, and local laws, statutes, ordinances, rules, and regulations and with the orders and decrees of any courts or administrative bodies or tribunals in any manner affecting the performance of this agreement.

Article 9. State Auditor's Provision

The state auditor may conduct an audit or investigation of any entity receiving funds from TxDOT directly under the contract or indirectly through a subcontract under the contract. Acceptance of funds directly under the contract or indirectly through a subcontract under this contract acts as acceptance of the authority of the state auditor, under the direction of the legislative audit committee, to conduct an audit or investigation in connection with those funds. An entity that is the subject of an audit or investigation must provide the state auditor with access to any information the state auditor considers relevant to the investigation or audit.

Article 10. Signatory Warranty

Each signatory warrants that the signatory has necessary authority to execute this agreement on behalf of the entity represented.

Article 11. Notices

All notices to either party shall be delivered personally or sent by certified U.S. mail, postage prepaid, addressed to that party at the following address:

Local Government:	Central Texas Regional Mobility Authority 3300 North Interstate 35 Frontage Road #300 Austin, Texas 78705
TxDOT:	Director of Contract Services 125 East 11 th Street Austin, Texas 78701

All notices shall be deemed given on the date delivered in person or deposited in the mail. Either party may change the above address by sending written notice of the change to the other party. Either party may request in writing that notices shall be delivered personally or by certified U.S. mail, and that request shall be carried out by the other party.

ATTACHMENT D
Resolution or Ordinance

ATTACHMENT E

Location Maps Showing Project





**CENTRAL TEXAS
Regional Mobility Authority**

July 27, 2016
AGENDA ITEM #6

Approve an interlocal agreement with the Texas Department of Transportation for off-site materials, independent assurance, and skid and permeability testing.

Strategic Plan Relevance: Regional Mobility
Department: Engineering
Contact: Justin Word P.E., Director of Engineering
Associated Costs: Not to exceed \$ 1,800,000
Funding Source: Capital Project Funds
Action Requested: Consider and act on draft resolution

Summary:

This resolution approves a new agreement with the Texas Department of Transportation to provide materials inspection and testing, independent assurance testing, and permeability testing of hot mix asphalt services to the CTRMA on an "as requested" basis for CTRMA transportation projects. The current agreement with TxDOT for these services expires October 30, 2016. The new agreement will be effective through October 31, 2018.

Backup provided: Draft Resolution for Board Consideration;
Draft Interlocal Agreement

**GENERAL MEETING OF THE BOARD OF DIRECTORS
OF THE
CENTRAL TEXAS REGIONAL MOBILITY AUTHORITY**

RESOLUTION NO. 16-0XX

**APPROVING AN INTERLOCAL AGREEMENT WITH THE
TEXAS DEPARTMENT OF TRANSPORTATION FOR OFF-SITE MATERIALS,
INDEPENDENT ASSURANCE, & SKID & PERMEABILITY TESTING**

WHEREAS, by Resolution No. 13-059, the Board of Directors approved an interlocal agreement with the Texas Department of Transportation (“TXDOT”) under which TXDOT provided independent inspection and testing services for materials used in constructing the Mobility Authority’s transportation projects; and

WHEREAS, TXDOT has continued to provide materials inspection and testing services for Mobility Authority transportation projects under interlocal agreements between the Mobility Authority and TxDOT, with the current such interlocal agreement to expire on October 31, 2016; and

WHEREAS, the Executive Director recommends that the Mobility Authority continue to obtain materials inspection and testing services from TxDOT as needed for the Mobility Authority's transportation projects.

NOW THEREFORE, BE IT RESOLVED that the proposed interlocal agreement is approved and the Executive Director is hereby authorized to finalize and execute an interlocal agreement on behalf of the Mobility Authority in substantially the form attached hereto as Exhibit A.

Adopted by the Board of Directors of the Central Texas Regional Mobility Authority on the 27th day of July 2016.

Submitted and reviewed by:

Approved:

Geoffrey Petrov, General Counsel

Ray A. Wilkerson
Chairman, Board of Directors

Exhibit A

**GENERAL MEETING OF THE BOARD OF DIRECTORS
OF THE
CENTRAL TEXAS REGIONAL MOBILITY AUTHORITY**

RESOLUTION NO. 16-0XX

**APPROVING AN INTERLOCAL AGREEMENT WITH THE
TEXAS DEPARTMENT OF TRANSPORTATION FOR OFF-SITE MATERIALS,
INDEPENDENT ASSURANCE, & SKID & PERMEABILITY TESTING**

WHEREAS, by Resolution No. 13-059, the Board of Directors approved an interlocal agreement with the Texas Department of Transportation (“TXDOT”) under which TXDOT provided independent inspection and testing services for materials used in constructing the Mobility Authority’s transportation projects; and

WHEREAS, TXDOT has continued to provide materials inspection and testing services for Mobility Authority transportation projects under interlocal agreements between the Mobility Authority and TxDOT, with the current such interlocal agreement to expire on October 31, 2016; and

WHEREAS, the Executive Director recommends that the Mobility Authority continue to obtain materials inspection and testing services from TxDOT as needed for the Mobility Authority's transportation projects.

NOW THEREFORE, BE IT RESOLVED that the proposed interlocal agreement is approved and the Executive Director is hereby authorized to finalize and execute an interlocal agreement on behalf of the Mobility Authority in substantially the form attached hereto as Exhibit A.

Adopted by the Board of Directors of the Central Texas Regional Mobility Authority on the 27th day of July 2016.

Submitted and reviewed by:

Approved:

Geoffrey Petrov, General Counsel

Ray A. Wilkerson
Chairman, Board of Directors

Exhibit A

Interlocal Agreement

Contract Services Transmittal Form

<p>From: Construction Division - 46</p>	<p>Contact Person: Hubert Stewart Phone No.:(512) 461-2561</p>
<p>Subject: Material Inspection Testing</p>	
<p>Other Entity - Central Texas Regional Mobility Authority</p>	<p>Contract Maximum Amount Payable \$1,800,000</p>
<p>Are any federal funds used in this contract? No</p> <p>If yes, what kind of federal funds.</p>	
<p>Was the standard interlocal or amendment format modified? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p> <p>If modified, date of Contract Services approval: TBD _____</p> <p>Modifications made are as follows: Added independent assurance testing and sampling services to the scope.</p>	

THE STATE OF TEXAS §

THE COUNTY OF TRAVIS §

INTERLOCAL AGREEMENT

THIS CONTRACT is entered into by the Contracting Parties under Government Code, Chapter 791.

I. CONTRACTING PARTIES:

The Texas Department of Transportation	TxDOT
Central Texas Regional Mobility Authority	Local Government

II. PURPOSE: Perform material inspection and testing services.

III. STATEMENT OF SERVICES TO BE PERFORMED: TxDOT will undertake and carry out services described in **Attachment A**, Scope of Services.

IV. CONTRACT PAYMENT: The total amount of this contract shall not exceed \$1,800,000 and shall conform to the provisions of **Attachment B**, Budget. Payments shall be billed monthly.

V. TERM OF CONTRACT: This contract begins when fully executed by both parties and terminates on 10/31/2018 or when otherwise terminated as provided in this Agreement.

VI. LEGAL AUTHORITY:

THE PARTIES certify that the services provided under this contract are services that are properly within the legal authority of the Contracting Parties.

The governing body, by resolution or ordinance, dated _____, has authorized the Local Government to obtain the services described in **Attachment A**.

This contract incorporates the provisions of **Attachment A**, Scope of Services, **Attachment B**, Budget, **Attachment C**, General Terms and Conditions, **Attachment D**, Resolution or Ordinance and **Attachment E**, Location Map Showing Project.

CENTRAL TEXAS REGIONAL MOBILITY AUTHORITY

By _____ Date _____
Authorized Signature

Type or Printed Name and Title

Title _____

FOR THE STATE OF TEXAS

Executed for the Executive Director and approved for the Texas Transportation Commission for the purpose and effect of activating and/or carrying out the orders, established policies or work programs heretofore approved and authorized by the Texas Transportation Commission.

By _____ Date _____
Kenneth Stewart
Director of Contract Services

ATTACHMENT A

Scope of Services

The Texas Department of Transportation (TxDOT) agrees to perform material inspection and testing services as requested by the Local Government, and subject to the terms set forth below. Material inspection and testing services to be performed by TxDOT consists of the following:

- Various inspected materials fabricated off-site (structural steel bridge components, pre-cast concrete stressed/non-stressed products, and miscellaneous fabricated products).
- Independent assurance testing and sampling services
- Other materials inspection and testing as agreed upon in writing by TxDOT and the Local Government.

Inspections will be performed in compliance with the specifications and instructions supplied by the Local Government and are subject to the terms and conditions described below. Written inspection or test reports will be provided to the Local Government in accordance with TxDOT's existing policies as inspection and testing services are performed by TxDOT.

Prior to the commencement of material inspection and testing services or independent assurance testing and sampling services, the Local Government shall provide TxDOT with a single point of contact for this scope of services. TxDOT will direct all invoices, test reports, questions and other issues to this point of contact. The Local Government shall provide an email address to which invoices will be sent. The Local Government shall provide written notification of a change to the point of contact.

INSPECTED MATERIALS

The Local Government will provide TxDOT a list of the materials requiring inspection. Estimated quantities of each material will also be provided. The types of products and the extent of the inspections will be as agreed upon prior to commencement of any inspections. The level of inspection and documentation furnished for Local Government inspections will be as provided for typical TxDOT projects.

TxDOT will only perform inspection services for the Local Government at structural steel fabrication plants, commercial precast prestressed and non-stressed concrete products plants, and other miscellaneous fabrication plants where TxDOT routinely provides such inspection and testing services for its own highway materials or for others. Out-of-state inspections for Local Government will be performed only when TxDOT has employees scheduled to conduct inspections for TxDOT projects at the requested locations, unless agreed upon otherwise. All out-of-state inspections will require reimbursement of the additional costs for travel (airfare, lodging, per diem, vehicle rentals, and other miscellaneous costs). Reimbursement will be requested through invoices from TxDOT.

TxDOT reserves the right to prioritize or reschedule any inspection and testing services according to the following:

- Inspection and testing services may be cancelled or deferred due to unavailability of TxDOT personnel to perform the necessary inspection
- Inspections for the Local Government will be given lower priority than inspections performed by TxDOT for TxDOT projects
- Inspections for the Local Government may be rescheduled to coincide with the inspection of products for TxDOT projects.

The Local Government and its fabricators will abide by the Nonconformance Report (NCR) process utilized by TxDOT for disposition of products that do not meet the requirements of the Local Government's specifications provided.

INDEPENDENT ASSURANCE

The Local Government will provide TxDOT a list of the elements of the Local Government's Independent Assurance Program, including all equipment and personnel requiring evaluation and verification. The types of products and the extent of the sampling and testing procedures will be as agreed upon prior to commencement of any evaluation or verification by TxDOT. The level of evaluation, verification and documentation furnished for the Local Government will be as required for similar TxDOT projects. The Local Government will compensate TxDOT for all direct costs of salaries and related expenses incurred by TxDOT in providing independent assurance services.

WORK REQUESTSFabrication Inspection

A minimum of two (2) weeks prior to TxDOT performing any inspections, the Local Government will submit Work Requests to TxDOT. Submit one Work Request per Fabricator and include the following:

- Project information (i.e. contract number, CSJ, etc.)
- Work description
- Type and estimated quantity of material(s) to be inspected
- Fabricator information (Name, contact person, phone number, physical location)
- Desired date of inspection
- Name, title, signature, and telephone number of the Local Government's authorized representative.
- Specification Item or Special Specification to be used for inspection
- List of the Local Government's amendments to Specification Item
- Local Governments Special Specifications
- Complete set of necessary design drawings, material specifications, and shop drawing files in Adobe .pdf format to perform inspection of the material.

Independent Assurance

A minimum of two (2) weeks prior to TxDOT providing independent assurance services, the Local Government will submit Work Requests to TxDOT. Submit one Work Request and include the following:

- Project information (i.e. contract number, CSJ, etc.)
- Work description
- List of equipment or personnel requiring evaluation and verification
- Desired date of completion or comparison
- Name, title, signature, and telephone number of the Local Government's authorized representative.

Incomplete Work Requests will not be accepted. E-mail completed Work Requests, with attachments, as an Adobe .pdf format to CST_Structuralcorrespondence@txdot.gov and include and include "Work Request" in the subject line

TEST REPORTS

TxDOT will send test reports and pertinent information to the Local Government's designated point of contact for services performed as attachments to invoices for services.

ATTACHMENT B

Budget

Texas Department of Transportation Inspection & Testing Rates

TxDOT will only perform inspection and testing services outlined in Attachment A.

Charges will be based on rates in effect at the time inspection and testing services are performed.

Current Inspection and Testing Rates are published at:

http://ftp.dot.state.tx.us/pub/txdot-info/cst/inspection_testing.pdf

Invoices will be sent to the Local Government on a weekly basis. Payments are due within 30 days of date of invoice and will be mailed to the following address:

Texas Department of Transportation

P. O. Box 149001

Austin, Texas 78714-9001

ATTACHMENT C

General Terms and Conditions

Article 1. Amendments

This contract may only be amended by written agreement executed by both parties before the contract is terminated.

Article 2. Conflicts Between Agreements

If the terms of this contract conflict with the terms of any other contract between the parties, the most recent contract shall prevail.

Article 3. Disputes

TxDOT shall be responsible for the settlement of all contractual and administrative issues arising out of procurements entered in support of contract services.

Article 4. Ownership of Equipment

Except to the extent that a specific provision of this contract states to the contrary, all equipment purchased by TxDOT under this contract shall be owned by TxDOT.

Article 5. Termination

This contract terminates at the end of the contract term, when all services and obligations contained in this contract have been satisfactorily completed, by mutual written agreement, or 30 days after either party gives notice to the other party, whichever occurs first.

Article 6. Gratuities

Any person who is doing business with or who reasonably speaking may do business with TxDOT under this contract may not make any offer of benefits, gifts, or favors to employees of TxDOT. The only exceptions allowed are ordinary business lunches and items that have received the advanced written approval of the Executive Director of the Texas Department of Transportation.

Article 7. Responsibilities of the Parties

Each party acknowledges that it is not an agent, servant, or employee of the other party. Each party is responsible for its own acts and deeds and for those of its agents, servants, or employees.

Article 8. Compliance with Laws

The parties shall comply with all federal, state, and local laws, statutes, ordinances, rules, and regulations and with the orders and decrees of any courts or administrative bodies or tribunals in any manner affecting the performance of this agreement.

Article 9. State Auditor's Provision

The state auditor may conduct an audit or investigation of any entity receiving funds from TxDOT directly under the contract or indirectly through a subcontract under the contract. Acceptance of funds directly under the contract or indirectly through a subcontract under this contract acts as acceptance of the authority of the state auditor, under the direction of the legislative audit committee, to conduct an audit or investigation in connection with those funds. An entity that is the subject of an audit or investigation must provide the state auditor with access to any information the state auditor considers relevant to the investigation or audit.

Article 10. Signatory Warranty

Each signatory warrants that the signatory has necessary authority to execute this agreement on behalf of the entity represented.

Article 11. Notices

All notices to either party shall be delivered personally or sent by certified U.S. mail, postage prepaid, addressed to that party at the following address:

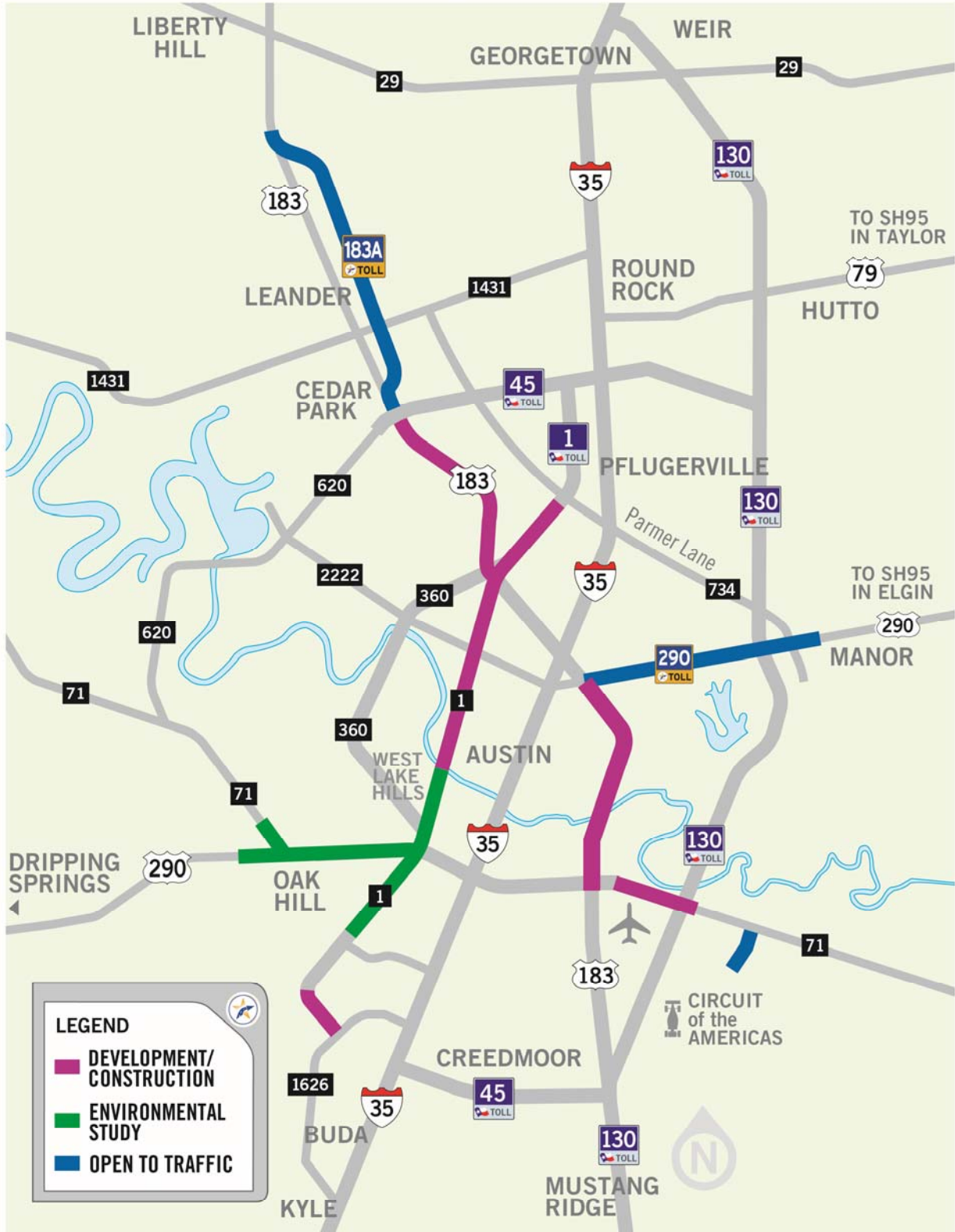
Local Government:	Central Texas Regional Mobility Authority Attention: Ginny Burcham, Maintenance Director 3300 North IH-35, Suite 300 Austin, TX 78705
TxDOT:	Texas Department of Transportation Attention: Director, Contract Services 125 East 11 th Street Austin, TX 78701-2483

All notices shall be deemed given on the date delivered in person or deposited in the mail. Either party may change the above address by sending written notice of the change to the other party. Either party may request in writing that notices shall be delivered personally or by certified U.S. mail, and that request shall be carried out by the other party.

ATTACHMENT D
Resolution or Ordinance

ATTACHMENT E
Location Maps Showing Project

ATTACHMENT E Projects Location Map





**CENTRAL TEXAS
Regional Mobility Authority**

July 27, 2016
AGENDA ITEM #7

Approve a contract with CP&Y to provide design services for the 290E/SH130 Direct Connectors Project.

Strategic Plan Relevance: Regional Mobility
Department: Engineering
Contact: Justin Word P.E., Director of Engineering
Associated Costs: \$8,113,696
Funding Source: Revenue Bonds
Action Requested: Consider and act on draft resolution

Summary:

At the March 30, 2016 Board Meeting, the Board approved the selection of CP&Y and authorized the CTRMA to commence negotiations and enter into a contract for engineering design services for the 290 East / SH 130 Direct Connectors Project.

This contract provides for preliminary and final PS&E design of three (3) direct connectors at the 290 East / SH 130 Interchange and ramp improvements. The proposed improvements shall be designed with allowance for the ultimate planned improvements to SH 130 including frontage roads, ramps, and additional main lanes.

Backup provided: Draft Resolution for Board Consideration;
Draft Contract

**GENERAL MEETING OF THE BOARD OF DIRECTORS
OF THE
CENTRAL TEXAS REGIONAL MOBILITY AUTHORITY**

RESOLUTION NO. 16-0XX

**APPROVING A CONTRACT AND WORK AUTHORIZATION NO. 1
FOR CP&Y INC. TO PROVIDE DESIGN SERVICES
FOR THE 290E/SH 130 DIRECT CONNECTORS PROJECT**

WHEREAS, by Resolution No. 16-019 dated March 30, 2016, the Board of Directors authorized the Executive Director to negotiate a professional engineering services contract with CP&Y Inc. for the design of one or more direct connectors at the intersection of SH 130 and the Manor Expressway; and

WHEREAS, the Executive Director and CP&Y have discussed and agreed to a proposed contract and Work Authorization No. 1 for CP&Y to preliminary and final PS&E design of three (3) direct connectors at the 290 East / SH 130 Interchange and ramp improvements; and

WHEREAS, the Executive Director recommends that the Board approve the proposed contract in substantially the form attached hereto as Exhibit A.

NOW THEREFORE, BE IT RESOLVED that the proposed contract and Work Authorization No. 1 with CP&Y is hereby approved.

BE IT FURTHER RESOLVED that the Executive Director is hereby authorized to finalize and execute contract and Work Authorization No. 1 on behalf of the Mobility Authority in substantially the form attached hereto as Exhibit A.

Adopted by the Board of Directors of the Central Texas Regional Mobility Authority on the 27th day of July, 2016.

Submitted and reviewed by:

Approved:

Geoffrey Petrov, General Counsel

Ray A. Wilkerson
Chairman, Board of Directors

Exhibit A

CONTRACT FOR ENGINEERING SERVICES
Cost Plus Fixed Fee,
Unit Cost, Lump Sum, or Specified Rate
Specific Deliverable with Work Authorizations

THIS CONTRACT FOR ENGINEERING SERVICES (the "Contract") is made by and between the Central Texas Regional Mobility Authority, 3300 N. I-35, Suite 300, Austin, Texas 78705, hereinafter called "Mobility Authority," and CP&Y, Inc., having its principal business address at 13809 Research Blvd, Suite 300, Austin, TX 78750 hereinafter called "Engineer," for the purpose of contracting for engineering services.

WITNESSETH

WHEREAS, the Mobility Authority desires to contract for engineering services generally described as transportation and engineering design services; and,

WHEREAS, pursuant to a qualifications-based selection conducted in accordance with the Professional Services Procurement Act (Tex. Gov't Code Sec. 2254.001, et. seq.), the Mobility Authority has selected the Engineer to provide the needed services; and

WHEREAS, the Engineer has agreed to provide the services subject to the terms and conditions hereinafter set forth.

NOW, THEREFORE, the Mobility Authority and the Engineer, in consideration of the mutual covenants and agreements herein contained, do hereby mutually agree as follows.

AGREEMENT

ARTICLE 1
SCOPE OF SERVICES

The Engineer will furnish items and perform those services for fulfillment of the Contract as identified in Exhibit B of the Attachment B - Work Authorization(s) (the "Services"). All Services provided by the Engineer shall comply with the terms and conditions of this Contract and any Work Authorizations issued pursuant hereto, and shall conform to standard engineering practices and applicable rules and regulations of the Texas Engineering Practices Act and the rules of the Texas Board of Professional Engineers.

ARTICLE 2
COMPENSATION

Compensation for the Engineer's Services and other aspects of the mutual obligations concerning the Engineer's Services and payment therefore are as follows:

A. Basis for Compensation. Subject to the terms of a Work Authorization issued pursuant to Article 4 below (including any maximum amount to be paid as stated therein), the Mobility Authority agrees to pay, and the Engineer agrees to accept as full and sufficient

compensation and reimbursement for the performance of all Services as set forth in this Agreement, hourly rates for the staff working on the assignment computed as follows:

$$\text{Direct Labor Cost} \times (1.0 + \text{OH Rate}) \times (1.0 + \text{Profit (\%)})$$

where Direct Labor Cost equals salary divided by 2080; OH Rate equals the Engineer's most recent auditable overhead rate under 48 C.F.R. Part 31, Federal Acquisition Regulations (FAR 31) or otherwise approved overhead rate pursuant to subarticle 2.B; and Profit (%) reflects a ten percent (10%) profit. The range of Direct Labor Costs for the classifications of employees working for the Mobility Authority as of the effective date of this Agreement is reflected in Attachment A. Revisions to Direct Labor Cost ranges for employee classifications and the auditable overhead rate may be proposed no more frequently than once per calendar year, and are subject to the written approval of the Executive Director or his designee. No increase shall be made to the specified profit percentage. The first adjustment to the auditable overhead rate shall be considered no earlier than one year after the execution of this contract. All adjustments shall be agreed to in writing by the Mobility Authority prior to implementation, and the Mobility Authority shall have the right to review and/or audit the Engineer's Direct Labor Costs and auditable overhead rates upon written request. Once approved, the range of Direct Labor Costs and auditable overhead rate will be used going forward until the next annual adjustment is approved. Changes to the auditable overhead rate will not be applied retroactively to Direct Labor Costs incurred in the previous year. If the Engineer or a sub consultant of the Engineer does not have a Far 31 overhead rate, they may submit, for Mobility Authority approval, alternate documentation supporting an appropriate auditable overhead rate. If an auditable overhead rate is not submitted or available, fixed hourly rates must be submitted per subarticle 2.I. During the term of this Agreement the Engineer shall provide to the Executive Director or his designee, prior to requesting any adjustment to its auditable overhead rate, a copy of the report establishing a new FAR rate for the Engineer.

The payment of the hourly rates and allowed costs shall constitute full payment for all Services, liaisons, products, materials, and equipment required to deliver the Services.

B. Limitations on Rates Utilized. The Engineer represents that at all times, subject to the limitations on timing and approval in subarticle 2.A, throughout the term of this Contract that it shall not use an auditable overhead rate that exceeds the rate determined in accordance with FAR 31 (or successor regulations); and shall be based on actual salary amounts for the individuals performing the work; that the Direct Labor Costs shall not exceed the ranges reflected in Attachment A and shall be based on actual salary amounts for the individuals performing the work.

C. Expenses. As indicated above, and subject to the terms of any Work Authorization, the compensation computed in accordance with subarticles 2.A. and B. is anticipated by the Mobility Authority and the Engineer to be full and sufficient compensation and reimbursement for the Services, and includes all customary out-of-pocket expenses anticipated to result from the Engineer's performance under the Contract that are included in the computation of the auditable overhead rate, such as office supplies, telecommunications systems, postage, general photocopying, computer hardware/software and service charges, and similar costs. To the extent not otherwise included in the Engineer's auditable overhead rate, non-reimbursable expenses shall also include all tolls incurred by Engineer or any of its sub consultants in connection with the

performance of the Services. Notwithstanding the foregoing, the Engineer shall be entitled to reimbursement for reasonable out-of-pocket expenses actually incurred by the Engineer that are necessary for the performance of its duties under this Contract and which are not included in the auditable overhead rate, said expenses being limited to travel costs (at rates which may not exceed those applicable to Mobility Authority employees), printing costs, automobile expenses being reimbursed at the federal mileage rates for travel originating from the office of the Engineer employee or sub consultant, and other expenses directly approved, in advance, by the Executive Director or his designee. Except for automobile expenses paid at the federal mileage rate and travel paid at state approved rates (if available), all such reimbursement shall be at one-hundred percent (100%) of the actual cost thereof paid by the Engineer to unaffiliated entities; provided, however, that aggregate amounts in excess of \$2,000 for which the Engineer intends to seek reimbursement pursuant to this subarticle 2.C. must be approved in advance and in writing by the Executive Director or his designee, except when such advance approval is impractical due to a bona fide emergency situation. Except as otherwise authorized in a validly issued Work Authorization, and only then to the extent reimbursable by the Texas Department of Transportation (“TxDOT”) under the terms of any form of financial assistance agreement, the Mobility Authority shall not reimburse the Engineer for travel, lodging, and similar expenses incurred by the Engineer to bring additional staff to its local office or to otherwise reassign personnel to provide basic engineering support of the Engineer’s performance of the Services, provided, however, that the Mobility Authority shall reimburse, but only in accordance with the terms of this subarticle 2.C., such costs incurred by the Engineer to bring to its local office or the Mobility Authority’s facilities, with advance approval by the Executive Director or his designee, staff with specialized skills or expertise required for the Services and not customarily available from a staff providing general consulting civil engineering services of the type described in this agreement.

Engineer acknowledges that all expenses and costs paid or reimbursed by the Mobility Authority using federal or state funds shall be paid or reimbursed in accordance with, and subject to, applicable policies of the Mobility Authority and other applicable state and federal laws, including the applicable requirements of OMB Circular A-87, which may reduce the amount of expenses and costs reimbursed to less than what was actually incurred.

D. Non-compensable Time. Time spent by the Engineer’s employees or sub consultants to perform services or functions capable of being carried out by other, subordinate personnel with a lower hourly rate shall be billed at a rate equivalent to that of the applicable qualified subordinate personnel. Time spent by the Engineer’s personnel or sub consultants in an administrative or supervisory capacity not related to the performance of the Services shall not be compensable. Time spent on work that is in excess of what would reasonably be considered appropriate for the performance of such Services shall not be compensable.

E. Effect of Payments. No payment by the Mobility Authority shall relieve the Engineer of its obligation to deliver timely the Services required under this Contract. If after approving or paying for any service, product or other deliverable, the Mobility Authority determines that said service, product or deliverable does not satisfy the requirements of this Contract, the Mobility Authority may reject same and, if the Engineer fails to correct or cure same within a reasonable period of time and at no additional cost to the Mobility Authority, the Engineer shall return any compensation received therefore. In addition to all other rights provided in this

Contract, the Mobility Authority shall have the right to offset any amounts owed by the Engineer pursuant to the terms of this Contract upon providing the Engineer prior written notice thereof.

F. No Adjustments to Direct Labor Costs and Auditable Overhead Rate. Except as otherwise expressly provided in subarticle 2.A. above, the Mobility Authority and the Engineer shall not make adjustments to the Direct Labor Costs or the auditable overhead rate during the term of this Contract. The Mobility Authority and the Engineer do not anticipate that any services, work, deliverables or expenses of any nature shall be undertaken or incurred by the Engineer on behalf of the Mobility Authority that constitute “Extra Work” or otherwise fall outside the terms of this Contract. Unless the parties otherwise expressly agree in writing to the contrary, all work of any nature undertaken by the Engineer or its sub consultants during the term of this Contract on behalf of the Mobility Authority shall be conclusively presumed to have been undertaken under, and be subject to, the terms of this Contract.

G. Commercial Pricing. Federal Acquisition Regulations allow for payment of direct auditable expenditures and commercial pricing of certain products. The Engineer may engage in commercial pricing when legally permissible, not in contravention of federal regulations, and subject to express approval by the Board of Directors.

H. Taxes. All payments to be made by the Mobility Authority to the Engineer pursuant to this Contract are inclusive of federal, state, or other taxes, if any, however designated, levied, or based. The Mobility Authority acknowledges and represents that it is a tax-exempt entity under Sections 151.309, *et seq.*, of the Texas Tax Code. The Engineer shall take all reasonable steps to acquire all goods and services subject to reimbursement by the Mobility Authority under this Contract on a tax-free basis pursuant to the Mobility Authority’s tax-exempt status described in subarticle 2.H. This provision applies only to the extent the Mobility Authority’s tax exempt status can reasonably be extended to purchases made directly by the Engineer.

I. Compensation of Sub Consultants. It is anticipated that the Engineer may utilize the services of sub consultants to respond to certain assignments under this Contract. The selection and services to be assigned to sub consultants must be approved in advance by the Executive Director or his designee. All sub consultants providing services under this Contract shall be subject to, and compensated or reimbursed in accordance with, all requirements of Article 2, provided that each sub consultant shall utilize (i) its own Direct Labor Costs and (ii) if available, its own auditable overhead rate. For sub consultants that do not have auditable overhead rates computed in accordance with 48 C.F.R. Part 31, the Engineer shall provide a schedule of sub consultant billing rates or alternative overhead rate pursuant to subarticle 2.B for the Mobility Authority’s review and written approval by the Executive Director or his designee (including any periodic adjustments thereto).

ARTICLE 3 PAYMENT REQUIREMENTS

A. Monthly Invoices. The Engineer shall request payment for Services rendered and costs incurred by submitting the original and one copy of an itemized invoice in a form acceptable to the Mobility Authority. The Engineer is authorized to submit requests for payment no more

frequently than monthly and no later than one-hundred and twenty (120) days after costs are incurred.

B. Form of Invoices. The invoice shall show: (1) the Work Authorization number for each Work Authorization included in the billing; (2) the total amount earned to the date of submission; and (3) the amount due and payable as of the date of the current billing statement for each Work Authorization. The invoice shall indicate if the work has been completed or if the billing is for partial completion of the work. The invoice shall be in a form provided or approved by the Mobility Authority.

C. Thirty Day Payments. Upon receipt of an invoice that complies with all invoice requirements set forth in this Article, the Mobility Authority shall make a good faith effort to pay the amount, which is due and payable within thirty (30) days, provided that if all or a portion of the Services reflected in the invoice are to be reimbursed by TxDOT through a financial assistance agreement between TxDOT and the Mobility Authority, the Mobility Authority shall make a good faith effort to pay such amounts within thirty (30) days of receipt of such payments from TxDOT.

D. Withholding Payments. The Mobility Authority reserves the right to withhold payment of the Engineer's invoice in the event of any of the following: (1) if a dispute over the work or costs thereof is not resolved within a thirty (30) day period following receipt of the invoice; (2) pending verification of satisfactory work performed; or (3) if required reports (including third-party verifications, if any) are not received.

E. Invoice and Progress Report Submittal Process. The protocol for invoice and progress report submittal, review, and approval will be as follows:

- (1) A progress report shall be submitted to Mobility Authority at least once each calendar month including, but not limited to, the following items:
 - Summary of activities for the period;
 - Anticipated activities next period; and
 - Updated project schedule.
- (2) In the event that invoices are not submitted on a monthly basis, a monthly submittal of the progress report information will be required nevertheless;
- (3) The Mobility Authority and/or the GEC Manager (as defined below) will review the invoices for supporting documentation, compliance with the Contract, and consistency with the submitted progress report;
- (4) The invoice will either be recommended for approval by Mobility Authority and/or GEC Manager, or the Mobility Authority and/or GEC Manager will return it to the Engineer for required correction; and
- (5) Upon satisfactory review and approval of the invoice, the Mobility Authority will submit it to the Mobility Authority CFO for payment.

F. Audit. The Mobility Authority shall have the right to examine the books and records of the Engineer for the purpose of checking the amount of work performed by the Engineer.

The Engineer shall maintain all books, documents, papers, accounting records and other evidence pertaining to cost incurred and shall make such materials available at its office during the Contract period and for four (4) years from the date of final payment under this Contract or until any pending litigation has been completely and fully resolved and the Mobility authority approves of the destruction of records, whichever occurs last. The Mobility Authority or any of its duly authorized representatives, TxDOT, the Federal Highway Administration (“FHWA”), the United States Department of Transportation Office of Inspector General and the Comptroller General shall have access to any and all books, documents, papers and records of the Engineer which are directly pertinent to this Contract for the purpose of making audits, examinations, excerpts and transcriptions.

ARTICLE 4 WORK AUTHORIZATIONS

A. Use. Services performed shall be in strict accordance with the scope, schedule, and budget set forth in each Work Authorization issued pursuant to this Contract, and no Services shall be performed which are not the subject of a validly issued Work Authorization. The Mobility Authority will issue Work Authorizations using the form attached as Attachment B to authorize all work under this Contract. No work shall begin on the activity until the Work Authorization is approved and fully executed. All work must be completed on or before the completion date specified in the Work Authorization.

B. Contents. Each Work Authorization shall include: (1) types of Services to be performed and a full description of the work required to perform those Services; (2) a full description of general administration tasks exclusive to that Work Authorization; (3) a work schedule (including beginning and ending dates) with milestones; (4) the basis of payment whether cost plus fixed fee, unit cost, lump sum, or specified rate; (5) a Work Authorization budget as described in subarticle C below; and (6) DBE Requirements. The Engineer is not to include additional Contract terms and conditions in the Work Authorization.

C. Work Authorization Budget. A Work Authorization budget shall be prepared by the Engineer and shall set forth in detail the following: (1) the computation of the estimated cost of the work as described in the Work Authorization; (2) the estimated time (hours/days) required to complete the work using the fees set forth in Attachment A; (3) a work plan that includes a list of the work to be performed; and (4) a maximum cost (not-to-exceed) amount or unit or lump sum cost and the total cost or price of the Work Authorization.

D. No Guaranteed Work. Work Authorizations will be issued at the sole discretion of the Mobility Authority. While it is the Mobility Authority's intent to issue Work Authorizations hereunder, the Engineer shall have no cause of action conditioned upon the lack or number of Work Authorizations issued.

E. Incorporation into Contract. Each Work Authorization shall be signed by both parties and become a part of the Contract. No Work Authorization will waive the Mobility Authority's or the Engineer's responsibilities and obligations established in this Contract. The

Engineer shall promptly notify the Mobility Authority of any event that will affect completion of the Work Authorization in accordance with the terms thereof.

F. Supplemental Work Authorizations. Before additional work may be performed or additional costs incurred beyond those authorized in a Work Authorization, a change in a Work Authorization shall be enacted by a written Supplemental Work Authorization in the form identified and attached hereto as Attachment C. Supplemental Work Authorizations, if required, must be executed by both parties within the period of performance specified in the Work Authorization. The Engineer shall allow adequate time for review and approval of the Supplemental Work Authorization by the Mobility Authority.

(1) **Notice.** If the Engineer is of the opinion that any assigned work is beyond the scope of this Contract and constitutes additional work beyond the Services to be provided under this Contract, it shall promptly notify the Mobility Authority and submit written justification presenting the facts of the work and demonstrating how the work constitutes supplementary work.

(2) **Changes in Scope.** Changes that would modify the scope of the work authorized in a Work Authorization must be enacted by a written Supplemental Work Authorization. If the change in scope affects the amount payable under the Work Authorization, the Engineer shall prepare a revised Work Authorization budget for the Mobility Authority's approval. The Mobility Authority shall analyze the proposed justification, work hour estimate and cost. Upon approval of the need, the Mobility Authority shall negotiate the Supplemental Agreement scope with the Engineer, and then process the final Supplemental, subject to final written approval by the Mobility Authority.

(3) **Limitation of Liability.** The Mobility Authority shall not be responsible for actions by the Engineer or any costs incurred by the Engineer relating to additional work not directly associated with or prior to the execution of a Supplemental Work Authorization.

G. Deliverables. Upon satisfactory completion of the Work Authorization, the Engineer shall submit the deliverables as specified in the executed Work Authorization to the Mobility Authority for review and acceptance.

ARTICLE 5 SCHEDULE

A. Progress meetings. As required and detailed in the Work Authorizations, the Engineer shall from time to time during the progress of the work confer with the Mobility Authority. The Engineer shall prepare and present such information as may be pertinent and

necessary or as may be requested by the Mobility Authority in order to evaluate features of the work.

B. Conferences. At the request of the Mobility Authority or the Engineer and as required and detailed in the Work Authorizations, conferences shall be provided at the Engineer's office, the office of the Mobility Authority, or at other locations designated by the Mobility Authority. These conferences shall also include evaluation of the Engineer's Services and work when requested by the Mobility Authority.

C. Audits. If federal or state funds are used to reimburse costs incurred under this Contract, the work and all reimbursements will be subject to periodic review by the U. S. Department of Transportation and TxDOT.

D. Reports. The Engineer shall promptly advise the Mobility Authority in writing of events that have a significant impact upon the progress of a Work Authorization, including:

(1) problems, delays, adverse conditions that will materially affect the ability to meet the time schedules and goals, or preclude the attainment of project work units by established time periods; this disclosure will be accompanied by a statement of the action taken or contemplated, and any Mobility Authority or federal assistance needed to resolve the situation; and

(2) favorable developments or events that enable meeting the work schedule goals sooner than anticipated.

E. Corrective Action. Should the Mobility Authority determine that the progress of work does not satisfy the milestone schedule set forth in a Work Authorization, the Mobility Authority shall review the work schedule with the Engineer to determine the nature of corrective action needed.

F. More Time Needed. If the Engineer determines or reasonably anticipates that the work authorized in a Work Authorization cannot be completed within the work schedule contained therein, the Engineer shall promptly notify the Mobility Authority and shall follow the procedure set forth in the Work Authorization. The Mobility Authority may, at its sole discretion, modify the work schedule to incorporate an extension of time.

ARTICLE 6 SUSPENSION OF WORK AUTHORIZATION

A. Notice. Should the Mobility Authority desire to suspend a Work Authorization but not terminate the Contract, the Mobility Authority may verbally notify the Engineer followed by written confirmation, giving fifteen (15) days prior notice. Both parties may waive the fifteen (15) day notice requirement in writing.

B. Reinstatement. A Work Authorization may be reinstated and resumed in full force and effect within sixty (60) days of receipt of written notice from the Mobility Authority to resume the work. Both parties may waive the sixty (60) day notice in writing.

C. Limitation of Liability. The Mobility Authority shall have no liability for work performed or costs incurred prior to the date authorized by the Mobility Authority to begin work, during periods when work is suspended, or after the completion of the Contract or Work Authorization.

ARTICLE 7 CHANGES IN WORK

A. Work Previously Submitted as Satisfactory. If the Engineer has submitted work in accordance with the terms of this Contract and Work Authorization(s) but the Mobility Authority requests changes to the completed work or parts thereof which involve changes to the original scope of services or character of work under the Contract and Work Authorization(s), the Engineer shall make such revisions as requested and as directed by the Mobility Authority provided the work is reflected in a Supplemental Work Authorization.

B. Work Does Not Comply with Contract. If the Engineer submits work that does not comply with the terms of this Contract or Work Authorization(s), the Mobility Authority shall instruct the Engineer to make such revision as is necessary to bring the work into compliance with the Contract or Work Authorization(s). No additional compensation shall be paid for this work.

C. Errors/Omissions. The Engineer shall make revisions to the work authorized in this Contract or Work Authorization(s) that are necessary to correct errors or omissions appearing therein, when required to do so by the Mobility Authority. No additional compensation shall be paid for this work.

ARTICLE 8 OWNERSHIP OF DATA

A. Work for Hire. All services provided under this Contract are considered work for hire and, as such, all data, basic sketches, charts, calculations, plans, specifications, and other documents created or collected under the terms of this Contract are the property of the Mobility Authority.

B. Disposition of Documents. All documents prepared by the Engineer and all documents furnished to the Engineer by the Mobility Authority shall be delivered to the Mobility Authority upon request by the Mobility Authority. The Engineer, at its own expense, may retain copies of such documents or any other data which it has furnished the Mobility Authority under this Contract, but further use of the data is subject to express written permission by the Mobility Authority.

C. Release of Design Plan. The Engineer (1) will not release any roadway design plan created or collected under this Contract except to its subproviders as necessary to complete the Contract; (2) shall include a provision in all subcontracts which acknowledges the Mobility Authority's ownership of the design plan and prohibits its use for any use other than the project identified in this Contract; and (3) is responsible for any improper use of the design plan by its employees, officers, or subproviders, including costs, damages, or other liability resulting from improper use. Neither the Engineer nor any subprovider may charge a fee for any portion of the design plan created by the Mobility Authority.

ARTICLE 9 PUBLIC INFORMATION AND CONFIDENTIALITY

A. Public Information. The Mobility Authority will comply with Government Code, Chapter 552, the Public Information Act, in the release of information produced under this Contract.

B. Confidentiality. The Engineer shall not disclose information obtained from the Mobility Authority under this Contract without the express written consent of the Mobility Authority.

ARTICLE 10 PERSONNEL, EQUIPMENT AND MATERIAL

A. Engineer Resources. The Engineer shall furnish and maintain quarters for the performance of all Services, in addition to providing adequate and sufficient personnel and equipment to perform the Services required under the Contract. The Engineer certifies that it presently has adequate qualified personnel in its employment for performance of the Services required under this Contract, or it will be able to obtain such personnel from sources other than the Mobility Authority.

B. Removal of Contractor Employee. All employees of the Engineer assigned to this Contract shall have such knowledge and experience as will enable them to perform the duties assigned to them. The Mobility Authority may instruct the Engineer to remove any employee from association with work authorized in this Contract if, in the sole opinion of the Mobility Authority, the work of that employee does not comply with the terms of this Contract or if the conduct of that employee becomes detrimental to the work.

C. Replacement of Key Personnel. The Engineer must notify the Mobility Authority in writing as soon as possible, but no later than three (3) business days after a Key Personnel, specified in Attachment D, is removed from association with this Contract, giving the reason for removal.

D. Mobility Authority Approval of Replacement Personnel. The Engineer may not replace Key Personnel, as designated in the applicable Work Authorization, without prior consent of the Mobility Authority. The Mobility Authority must be satisfied that the Key Personnel

replacement is qualified to provide the authorized services. If the Mobility Authority determines that the Key Personnel replacement is not acceptable, the Engineer may not use that person in that capacity and shall replace him or her with one satisfactory to the Mobility Authority within thirty (30) days.

E. Ownership of Acquired Property. Except to the extent that a specific provision of this Contract states to the contrary, the Mobility Authority shall own all intellectual property acquired or developed under this Contract and all equipment purchased by the Engineer or its subcontractors under this Contract. All intellectual property and equipment owned by the Mobility Authority shall be delivered to the Mobility Authority when the Contract or applicable Work Authorization terminates, or when it is no longer needed for work performed under this Contract, whichever occurs first.

ARTICLE 11 SUBCONTRACTING

A. Prior Approval. The Engineer shall not assign, subcontract or transfer any portion of professional services related to the work under this Contract unless specified in an executed Work Authorization or otherwise without prior written approval from the Mobility Authority.

B. DBE Compliance. The Engineer's subcontracting program shall comply with the requirements of Exhibit E of the Work Authorization (DBE Requirements).

C. Required Provisions. All subcontracts for professional services shall include the provisions included in this Contract and any provisions required by law. The Engineer is authorized to pay subproviders in accordance with the terms of the subcontract, and the basis of payment may differ from the basis of payment by the Mobility Authority to the Engineer.

D. Prior Review. Subcontracts for professional services in excess of \$25,000 may be reviewed by the Mobility Authority, in its sole discretion, prior to performance of work thereunder.

E. Engineer Responsibilities. No subcontract shall relieve the Engineer of any of its responsibilities under this Contract and of any liability for work performed under this Contract, even if performed by a subcontractor, sub consultant, or other third party performing work for or on behalf of the Engineer.

F. Invoice Approval and Processing. All sub consultants shall prepare and submit their invoices on the same billing cycle and format as the Engineer (so as to be included in invoices submitted by the Engineer), and in the event that the cycles are not concurrent, a detailed explanation will be submitted to the Mobility Authority.

ARTICLE 12 INSPECTION OF WORK

A. Review Rights. The Mobility Authority, TxDOT, and the U. S. Department of Transportation, when federal funds are involved, and any of their authorized representatives shall

have the right at all reasonable times to review or otherwise evaluate the work performed hereunder and the premises in which it is being performed.

B. Reasonable Access. If any review or evaluation is made on the premises of the Engineer or a subprovider, the Engineer shall provide and require its subproviders to provide all reasonable facilities and assistance for the safety and convenience of the Mobility Authority, state or federal representatives in the performance of their duties.

ARTICLE 13 SUBMISSION OF REPORTS

All applicable study reports shall be submitted in preliminary form for approval by the Mobility Authority before a final report is issued. The Mobility Authority's comments on the Engineer's preliminary report must be addressed in the final report.

ARTICLE 14 VIOLATION OF CONTRACT TERMS

A. Increased Costs. Violation of contract terms, breach of contract, or default by the Engineer shall be grounds for termination of the Contract, and any increased or additional cost incurred by the Mobility Authority arising from the Engineer's default, breach of contract or violation of contract terms shall be paid by the Engineer.

B. Remedies. This Contract shall not be considered as specifying the exclusive remedy for any default, but all remedies existing at law and in equity may be availed of by either party and shall be cumulative.

C. Excusable Delays. Except with respect to defaults of subproviders, the Engineer shall not be in default by reason of any failure in performance of this Contract in accordance with its terms (including any failure to progress in the performance of the work) if such failure arises out of causes beyond the control and without the default or negligence of the Engineer. Such causes may include, but are not restricted to, acts of God or the public enemy, acts of the Government in either its sovereign or contractual capacity, fires, floods, epidemics, quarantine restrictions, strikes, freight embargoes, and unusually severe weather.

ARTICLE 15 TERMINATION

A. Causes. The Contract may be terminated by any of the following conditions:

- (1) by mutual agreement and consent, in writing from both parties;
- (2) by the Mobility Authority by notice in writing to the Engineer as a consequence of failure by the Engineer to perform the Services set forth herein in a satisfactory manner or if the Engineer violates the provisions of Article 22, Gratuities, or Exhibit E, DBE Requirements;

(3) by either party, upon the failure of the other party to fulfill its obligations as set forth herein, following thirty (30) days written notice and opportunity to cure;

(4) by the Mobility Authority in its sole discretion, not subject to the mutual consent of the Engineer, by giving thirty (30) days written notice of termination to the Engineer;
or

(5) by satisfactory completion of all services and obligations described herein.

B. Measurement. Should the Mobility Authority terminate this Contract as herein provided, no fees other than fees due and payable at the time of termination shall thereafter be paid to the Engineer. In determining the value of the work performed by the Engineer prior to termination, the Mobility Authority shall be the sole judge. Compensation for work at termination will be based on a percentage of the work completed at that time. Should the Mobility Authority terminate this Contract under paragraph A (3) or (4) above, the Engineer shall not incur costs during the thirty-day notice period in excess of the amount incurred during the preceding thirty (30) days and only as necessary to terminate the work in progress.

C. Value of Completed Work. If the Engineer defaults in the performance of this Contract or if the Mobility Authority terminates this Contract for fault on the part of the Engineer, the Mobility Authority will give consideration to the following when calculating the value of the completed work: (1) the actual costs incurred (not to exceed the rates set forth in the applicable Work Authorization) by the Engineer in performing the work to the date of default; (2) the amount of work required which was satisfactorily completed to date of default; (3) the value of the work which is usable to the Mobility Authority; (4) the cost to the Mobility Authority of employing another firm to complete the required work; (5) the time required to employ another firm to complete the work; (6) delays in opening a revenue generating project and costs (including lost revenues) resulting therefrom; and (7) other factors which affect the value to the Mobility Authority of the work performed.

D. Calculation of Payments. The Mobility Authority shall use the fee structure established by the applicable Work Authorization in determining the value of the work performed up to the time of termination. In the event that a cost plus fixed fee basis of payment is utilized in a Work Authorization, any portion of the fixed fee not previously paid in the partial payments shall not be included in the final payment.

E. Surviving Requirements. The termination of this Contract and payment of an amount in settlement as prescribed above shall extinguish the rights, duties, and obligations of the Mobility Authority and the Engineer under this Contract, except for those provisions that establish responsibilities that extend beyond the Contract period, including without limitation the provisions of Article 17.

F. Payment of Additional Costs. If termination of this Contract is due to the failure of the Engineer to fulfill its Contract obligations, the Mobility Authority may take over the project

and prosecute the work to completion, and the Engineer shall be liable to the Mobility Authority for any additional cost to the Mobility Authority.

ARTICLE 16 COMPLIANCE WITH LAWS

The Engineer shall comply with all applicable federal, state and local laws, statutes, codes, ordinances, rules and regulations, and the orders and decrees of any court, or administrative bodies or tribunals in any manner affecting the performance of this Contract, including, without limitation, worker's compensation laws, minimum and maximum salary and wage statutes and regulations, nondiscrimination, licensing laws and regulations, the Mobility Authority's enabling legislation (Chapter 370 of the Texas Transportation Code), and all amendments and modifications to any of the foregoing, if any. When required, the Engineer shall furnish the Mobility Authority with satisfactory proof of its compliance therewith.

ARTICLE 17 INDEMNIFICATION

THE ENGINEER SHALL INDEMNIFY AND HOLD HARMLESS THE MOBILITY AUTHORITY AND ITS OFFICERS, DIRECTORS, EMPLOYEES, CONSULTANTS, AND AGENTS (WHICH, FOR THE PURPOSES OF THIS AGREEMENT, SHALL INCLUDE THE MOBILITY AUTHORITY'S GEC, GENERAL COUNSEL, BOND COUNSEL, FINANCIAL ADVISORS, TRAFFIC AND REVENUE ENGINEERING CONSULTANTS, TOLL OPERATIONS/COLLECTIONS FIRMS, AND UNDERWRITERS) FROM ANY CLAIMS, COSTS, OR LIABILITIES OF ANY TYPE OR NATURE AND BY OR TO ANY PERSONS WHOMSOEVER, TO THE EXTENT CAUSED BY THE NEGLIGENT ACTS, ERRORS, OR OMISSIONS OF THE ENGINEER OR ITS OFFICERS, DIRECTORS, EMPLOYEES, AND AGENTS WITH RESPECT TO THE ENGINEER'S PERFORMANCE OF THE WORK TO BE ACCOMPLISHED UNDER THIS AGREEMENT. IN SUCH EVENT, THE ENGINEER SHALL ALSO INDEMNIFY AND HOLD HARMLESS THE MOBILITY AUTHORITY, ITS OFFICERS, DIRECTORS, EMPLOYEES, CONSULTANTS, AND AGENTS (AS DEFINED ABOVE) FROM ANY AND ALL REASONABLE AND NECESSARY EXPENSES, INCLUDING REASONABLE ATTORNEYS' FEES, INCURRED BY THE AUTHORITY IN LITIGATING OR OTHERWISE RESISTING SAID CLAIMS, COSTS OR LIABILITIES. IN THE EVENT THE MOBILITY AUTHORITY, ITS OFFICERS, DIRECTORS, EMPLOYEES, CONSULTANTS, AND AGENTS (AS DEFINED ABOVE), IS/ARE FOUND TO BE PARTIALLY AT FAULT, THE ENGINEER SHALL, NEVERTHELESS, INDEMNIFY THE MOBILITY AUTHORITY FROM AND AGAINST THE PERCENTAGE OF FAULT ATTRIBUTABLE TO THE ENGINEER OR ITS OFFICERS, DIRECTORS, EMPLOYEES, AND AGENTS OR TO THEIR CONDUCT.

ARTICLE 18 ROLE OF GENERAL ENGINEERING CONSULTANT

The Mobility Authority will utilize a General Engineering Consultant (“GEC”) to assist in its management of this Contract. The GEC is an independent contractor and is authorized by the Mobility Authority to provide the management and technical direction for this Contract on behalf of the Mobility Authority. All the technical and administrative provisions of the Contract shall be managed by the GEC, and the Engineer shall comply with all of the GEC’s directives that are within the purview of the Contract. Decisions concerning Contract amendments and adjustments, such as time extensions and Supplemental Work Authorizations, shall be made by the Mobility Authority; however, requests for such amendments or adjustments shall be made through the GEC, who shall forward such requests to the Mobility Authority with its comments and recommendations.

Should any dispute arise between the General Engineering Consultant and the Engineer, concerning the conduct of this Contract, either party may request a resolution of said dispute by the Executive Director of the Mobility Authority or his designee, whose decision shall be final. The parties shall first try to resolve the dispute at the lowest level practical. In the event that an agreement cannot be reached, the Engineer may schedule a meeting with the GEC Program Manager. If an agreement cannot be reached at this level, then a meeting will be scheduled with the Mobility Authority and the GEC Program Manager, so the Engineer can present its case. The Mobility Authority’s decision in the matter will be final. In no case will the Engineer go directly to the Mobility Authority with a dispute unless the Engineer believes that the GEC is violating, or is directing the Engineer to take an action which would violate, any laws or similar provisions described in Article 16 or any ethical obligations owed to the Mobility Authority.

ARTICLE 19 ENGINEER’S RESPONSIBILITY

A. Accuracy. The Engineer shall have total responsibility for the accuracy and completeness of the documents prepared under this Work Authorization and shall check all such material accordingly. The documents will be reviewed by the Mobility Authority’s GEC, as defined in Article 18 above, for conformity with the Mobility Authority’s procedures and the terms of the Contract, as well as coordination with adjacent contracts. Review by the GEC does not include detailed review or checking of designs or major components and related details or the accuracy with which such designs are depicted in the plans. The responsibility for accuracy and completeness of such items shall remain solely that of the Engineer. The Engineer shall promptly make necessary revisions or corrections resulting from its errors, omissions, or negligent acts without compensation.

B. Errors and Omissions. The Engineer's responsibility for all questions arising from design errors and/or omissions will be determined by the Mobility Authority. The Engineer shall not be relieved of the responsibility for subsequent correction of any such errors or omissions or for clarification of any ambiguities until after the construction phase of the project has been completed. In the event that the Mobility Authority discovers a possible design error or omission, the Mobility Authority shall notify the Engineer and seek to involve the Engineer in determining the most effective solution with respect to time and cost, provided that the Mobility Authority shall ultimately determine the solution that is chosen.

C. Seal. The responsible Engineer shall sign, seal and date all appropriate engineering submissions to the Mobility Authority in accordance with the Texas Engineering Practice Act and the rules of the Texas Board of Professional Engineers.

D. Resealing of Documents. Once the work has been sealed and accepted by the Mobility Authority, the Mobility Authority, as the owner, will notify the Engineer, in writing, of the possibility that a Mobility Authority engineer, as a second engineer, may find it necessary to alter, complete, correct, revise or add to the work. If necessary, the second engineer will affix his seal to any work altered, completed, corrected, revised or added. The second engineer will then become responsible for any alterations, additions or deletions to the original design including any effect or impacts of those changes on the original engineer's design.

ARTICLE 20 NONCOLLUSION

A. Warranty. The Engineer warrants that it has not employed or retained any company or person, other than a bona fide employee working solely for the Engineer, to solicit or secure this Contract and that it has not paid or agreed to pay any company or engineer any fee, commission, percentage, brokerage fee, gifts, or any other consideration, contingent upon or resulting from the award or making of this Contract.

B. Liability. For breach or violation of this warranty, the Mobility Authority shall have the right to annul this Contract without liability or, in its discretion, to deduct from the Contract compensation, or otherwise recover, the full amount of such fee, commission, percentage, brokerage fee, gift or contingent fee.

ARTICLE 21 INSURANCE

Prior to beginning the services designated in this Agreement, the Engineer shall obtain and furnish certificates to the Mobility Authority for the following minimum amounts of insurance:

A. Workers' Compensation Insurance. In accordance with the laws of the State of Texas and employer's liability coverage with a limit of not less than \$1,000,000.

B. Comprehensive General Liability Insurance. With limits not less than \$1,000,000 for bodily injury, including those resulting in death, and \$1,000,000 for property damage on account of any one occurrence, with an aggregate limit of \$1,000,000.

C. Comprehensive Automobile Liability Insurance. Applying to owned, non-owned, and hired automobiles in an amount not less than \$1,000,000 for bodily injury, including death, to any one person, and \$1,000,000 on account on any one occurrence, and \$1,000,000 for property damage on account of any one occurrence. This policy shall not contain any limitation with respect to a radius of operation for any vehicle covered and shall not exclude from the

coverage of the policy any vehicle to be used in connection with the performance of the Engineer's obligations under this Agreement.

D. Excess Liability Insurance. In an amount of \$5,000,000 per occurrence and aggregate.

E. Valuable Papers Insurance. In an amount sufficient to assure the full restoration of any plans, drawings, field notes, logs, test reports, diaries, or other similar data or materials relating to the services provided under this Agreement in the event of their loss or destruction, until such time as the work has been delivered to the Mobility Authority.

F. Architects and/or Engineers Professional Liability insurance. Engineer shall provide and maintain professional liability coverage, with limits not less than \$5,000,000 per claim and \$5,000,000 aggregate. The professional liability coverage shall protect against any negligent act, error or omission arising out of design or engineering activities, including environmental related activities, with respect to the project, including coverage for negligent acts, errors or omissions by any member of the Engineer and its subcontractors and subconsultants (including, but not limited to design subcontractors and subconsultants) of any tier. The policy must provide that coverage extends a minimum of three (3) years beyond the Engineer's completion of the services.

G. General for All Insurance. The Engineer shall promptly, upon execution of this Agreement, furnish certificates of insurance to the Mobility Authority indicating compliance with the above requirements. Certificates shall indicate the name of the insured, the name of the insurance company, the name of the agency/agent, the policy number, the term of coverage, and the limits of coverage.

All policies are to be written through companies (a) authorized to transact that class of insurance in the State of Texas; (b) rated (i), with respect to the companies providing the insurance under subarticles 21.a. through d., above, by A. M. Best Company as "A-X" or better (or the equivalent rating by another nationally recognized rating service) and (ii) with respect to the company providing the insurance under subarticle 21.e., a rating by A. M. Best Company or similar rating service satisfactory to the Mobility Authority and/or its insurance consultant; and (c) otherwise acceptable to the Mobility Authority.

All policies are to be written through companies authorized to transact that class of insurance in the State of Texas. Such insurance shall be maintained in full force and effect during the life of this Agreement or for a longer term as may be otherwise provided for hereunder. Insurance furnished under subarticles 21.a., b., c., d. and f., above, shall name the Mobility Authority as additional insured and shall protect the Mobility Authority, its officers, employees, and directors, agents, and representatives from claims for damages for bodily injury and death and for damages to property arising in any manner from the negligent or willful acts or failures to act by the Engineer, its officers, employees, directors, agents, and representatives in the performance of the services rendered under this Agreement. Certificates shall also indicate that the contractual liability assumed in Article 17, above, is included.

The insurance carrier shall include in each of the insurance policies required under subsections 21.a., b., c., d., e., and f., the following statement: "This policy will not be canceled

or materially changed during the period of coverage without at least thirty (30) days prior written notice addressed to the Central Texas Regional Mobility Authority, 3300 N. IH-35, Suite 300, Austin, Texas 78705, Attn: Executive Director”

H. Subproviders. In the event a subprovider selected by the Engineer to perform work associated with this Contract is unable to secure insurance coverage in the amounts set forth in subarticles 21.b., d., and f. . above, Engineer may provide to the Mobility Authority an explanation of coverages that a subprovider does possess, why those coverages are adequate to cover the potential exposure for the work to be performed by the subprovider, and an acknowledgement that the Engineer remains liable for the work performed under the contract, including that performed by the subprovider. The Mobility Authority may decide, in its sole discretion, whether to accept the coverages available to the subprovider

ARTICLE 22 GRATUITIES

A. Employees Not to Benefit. Mobility Authority policy mandates that employees of the Mobility Authority shall not accept any benefit, gift or favor from any person doing business with or who reasonably speaking may do business with the Mobility Authority under this Contract. The only exceptions allowed are ordinary business lunches and items that have received the advance written approval of the Executive Director of the Mobility Authority.

B. Liability. Any person doing business with or who reasonably speaking may do business with the Mobility Authority under this Contract may not make any offer of benefits, gifts or favors to Mobility Authority employees, except as mentioned above. Failure on the part of the Engineer to adhere to this policy may result in the termination of this Contract.

ARTICLE 23 DISADVANTAGED BUSINESS ENTERPRISE REQUIREMENTS

The Engineer agrees to comply with the requirements set forth in Exhibit E, DBE Requirements, of the Work Authorization and the assigned goal established by the Mobility Authority.

ARTICLE 24 MAINTENANCE, RETENTION AND AUDIT OF RECORDS

A. Retention Period. The Engineer shall maintain all books, documents, papers, accounting records and other evidence pertaining to costs incurred and services provided (hereinafter called the Records). The Engineer shall make the Records available at its office during the Contract period and for four years from the date of final payment under this Contract, until completion of all audits, or until pending litigation has been completely and fully resolved, whichever occurs last.

B. Availability. The Mobility Authority shall have the exclusive right to examine the books and records of the Engineer for the purpose of checking the amount of work performed by

the Engineer. The Engineer shall maintain all books, documents, papers, accounting records and other evidence pertaining to cost incurred and shall make such materials available at its office during the contract period and for four (4) years from the date of final payment under this Contract or until pending litigation has been completely and fully resolved, whichever occurs last. The Mobility Authority or any of its duly authorized representatives, the Texas Department of Transportation (“TxDOT”), the Federal Highway Administration (“FHWA”), the United States Department of Transportation Office of Inspector General and the Comptroller General shall have access to any and all books, documents, papers and records of the Engineer which are directly pertinent to this Contract for the purpose of making audits, examinations, excerpts and transcriptions.

ARTICLE 25 CIVIL RIGHTS COMPLIANCE

A. Compliance with Regulations. The Engineer shall comply with the regulations of the Department of Transportation, Title 49, Code of Federal Regulations, Parts 21, 24, 26 and 60 as they relate to nondiscrimination; also Executive Order 11246 titled Equal Employment Opportunity as amended by Executive Order 11375.

B. Nondiscrimination. The Engineer, with regard to the work performed by it during the Contract, shall not discriminate on the grounds of race, color, sex, or national origin in the selection and retention of subcontractors, including procurement of materials and leases of equipment.

C. Solicitations for Subcontracts, Including Procurement of Materials and Equipment. In all solicitations either by competitive bidding or negotiation made by the Engineer for work to be performed under a subcontract, including procurement of materials or leases of equipment, each potential subcontractor or supplier shall be notified by the Engineer of the Engineer’s obligations under this Contract and the Regulations relative to nondiscrimination on the grounds of race, color, sex, or national origin.

D. Information and Reports. The Engineer shall provide all information and reports required by the Regulations, or directives issued pursuant thereto, and shall permit access to its books, records, accounts, other sources of information, and facilities as may be determined by the Mobility Authority or the FHWA to be pertinent to ascertain compliance with such Regulations or directives. Where any information required of the Engineer is in the exclusive possession of another who fails or refuses to furnish this information, the Engineer shall so certify to the Mobility Authority or the FHWA, as appropriate, and shall set forth what efforts it has made to obtain the information.

E. Sanctions for Noncompliance. In the event of the Engineer's noncompliance with the nondiscrimination provisions of this Contract, the Mobility Authority shall impose such Contract sanctions as it or the FHWA may determine to be appropriate, including, but not limited to:

- (1) withholding of payments to the Engineer under the Contract until the

Engineer complies; and/or

- (2) cancellation, termination, or suspension of the Contract, in whole or in part.

F. Incorporation of Provisions: The Engineer shall include the provisions of Article 25A through E in every subcontract, including procurement of materials and leases of equipment, unless exempt by the Regulations or directives issued pursuant thereto. The Engineer shall take such action with respect to any subcontract or procurement as the Mobility Authority or the FHWA may direct as a means of enforcing such provisions including sanctions for noncompliance provided, however, that in the event the Engineer becomes involved in, or is threatened with, litigation with a subcontractor or supplier as a result of such direction, the Engineer may request the Mobility Authority to enter into such litigation to protect the interests of the Mobility Authority; and, in addition, the Engineer may request the United States to enter into such litigation to protect the interests of the United States.

ARTICLE 26 PATENT RIGHTS

The Mobility Authority and the U. S. Department of Transportation shall have the royalty free, nonexclusive and irrevocable right to use and to authorize others to use any patents developed by the Engineer under this Contract.

ARTICLE 27 DISPUTES

A. Disputes Not Related to Contract Services. The Engineer shall be responsible for the settlement of all contractual and administrative issues arising out of any procurement made by the Engineer in support of the services authorized herein.

B. Disputes Concerning Work or Cost. The Executive Director of the Mobility Authority shall decide all questions, difficulties and dispute of any nature whatsoever that may arise under or by reason of this Contract, and his decision upon all claims, questions and disputes shall be final. The Engineer shall comply with the provisions of Article 18 in proceeding with such disputes.

ARTICLE 28 SUCCESSORS AND ASSIGNS

The Engineer and the Mobility Authority do each hereby bind themselves, their successors, executors, administrators and assigns to each other party of this Contract and to the successors, executors, administrators and assigns of such other party in respect to all covenants of this Contract. The Engineer shall not assign, subcontract or transfer its interest in this Contract without the prior written consent of the Mobility Authority.

**ARTICLE 29
SEVERABILITY**

In the event any one or more of the provisions contained in this Contract shall for any reason, be held to be invalid, illegal, or unenforceable in any respect, such invalidity, illegality, or unenforceability shall not affect any other provision thereof and this Contract shall be construed as if such invalid, illegal, or unenforceable provision had never been contained herein.

**ARTICLE 30
PRIOR CONTRACTS SUPERSEDED**

This Contract, including all attachments, constitutes the sole agreement of the parties hereto for the services authorized herein and supersedes any prior understandings or written or oral contracts between the parties respecting the subject matter defined herein.

**ARTICLE 31
CONFLICT OF INTEREST**

A. Representation by Engineer. The undersigned Engineer represents that such firm has no conflict of interest that would in any way interfere with its or its employees' performance of services for the Mobility Authority or which in any way conflicts with the interests of the Mobility Authority. The Mobility Authority shall exercise reasonable care and diligence to prevent any actions or conditions that could result in a conflict with the Mobility Authority's interests.

B. Environmental Disclosure. If the Engineer will prepare an environmental impact statement or an environmental assessment under this Contract, the Engineer certifies by executing this Contract that it has no financial or other interest in the outcome of the project on which the environmental impact statement or environmental assessment is prepared.

**ARTICLE 32
ENTIRETY OF AGREEMENT**

This writing, including attachments and addenda, if any, embodies the entire agreement and understanding between the parties hereto, and there are no agreements and understandings, oral or written, with reference to the subject matter hereof that are not merged herein and superseded hereby. No alteration, change or modification of the terms of the Contract shall be valid unless made in writing signed by both parties hereto.

**ARTICLE 33
SIGNATORY WARRANTY**

The undersigned signatory for the Engineer hereby represents and warrants that he or she is an officer of the organization for which he or she has executed this Contract and that he or she has full and complete Mobility Authority authorization to enter into this Contract on behalf of the

firm. These representations and warranties are made for the purpose of inducing the Mobility Authority to enter into this Contract.

ARTICLE 34 NOTICES

A notice, demand, request, report, and other communication required or permitted under this Contract, or which any party may desire to give, shall be in writing and shall be deemed to have been given on the sooner to occur of (i) receipt by the party to whom the notice is hand-delivered, with a written receipt of notice provided by the receiving party, or (ii) two days after deposit in a regularly maintained express mail receptacle of the United States Postal Service, postage prepaid, or registered or certified mail, return receipt requested, express mail delivery, addressed to such party at their address set forth below, or to such other address as a party may from time to time designate under this article, or (iii) receipt of an electronic mail transmission (attaching scanned documents in a format such as .pdf or .tif) for which confirmation of receipt by the other party has been obtained by the sending party:

In the case of the Engineer:

Robin Handel, P.E.
Vice President
CP&Y
13809 Research Blvd, Suite 300
Austin, TX 78750

Email: RHANDDEL@cpyi.com

In the case of the Mobility Authority:

Mike Heiligenstein, Executive Director
Central Texas Regional Mobility Authority
3300 North IH 35, Suite 300
Austin, TX 78705

Email: mstein@ctrma.org

with a copy to:

Justin Word, Director of Engineering
Central Texas Regional Mobility Authority
3300 North IH 35, Suite 300
Austin, TX 78705

Email: jword@ctrma.org

A party may change the information provided in this article for notification purposes by providing notice to the other party of the new information and the effective date of the change.

**ARTICLE 35
BUSINESS DAYS AND DAYS**

For purposes of this Contract, “business days” shall mean any day the Mobility Authority is open for business and “days” shall mean calendar days.

**ARTICLE 36
INCORPORATION OF PROVISIONS**

Attachments A through D are attached hereto and incorporated into this Contract as if fully set forth herein.

**ARTICLE 37
PRIORITY OF DOCUMENTS/ORDER OF PRECEDENCE**

This Contract, and each of the Attachments (together, the “Contract Documents”), are an essential part of the agreement between the Mobility Authority and the Engineer, and a requirement occurring in one is as binding as though occurring in all. The Contract Documents are intended to be complementary and to describe and provide for a complete Contract. In the event of any conflict among the Contract Documents or between the Contract Documents and other documents, the order of precedence shall be as set forth below:

- A. Supplemental Work Authorizations;
- B. Work Authorizations;
- C. Contract Amendments;
- D. This Contract.

Additional details and more stringent requirements contained in a lower priority document will control unless the requirements of the lower priority document present an actual conflict with the requirements of the higher level document. Notwithstanding the order of precedence among Contract Documents set forth in this Article 37, in the event of a conflict within a Contract Document or set of Contract Documents with the same order of priority (including within documents referenced therein), the Mobility Authority shall have the right to determine, in its sole discretion, which provision applies.

IN WITNESS WHEREOF, the **Mobility Authority** and the **Engineer** have executed this Contract in duplicate.

THE ENGINEER

**CENTRAL TEXAS REGIONAL
MOBILITY AUTHORITY**

(Signature)
James J. Roohms, P.E.
(Printed Name)
COO, Senior Vice President
(Title)

(Date)

(Signature)
Mike Heiligenstein
(Printed Name)
Executive Director
(Title)

(Date)

Attachments and Exhibits to Contract for Engineering Services

Attachments	Title
A	Rate Schedule
B	Work Authorization No. 1
C	Supplemental Work Authorization
D	Key Personnel

ATTACHMENT A

Rate Schedule

THIS PAGE IS LEFT BLANK

**ATTACHMENT A - Rate Schedule
SPECIFIED RATE PAYMENT BASIS
AND
LUMP SUM PAYMENT BASIS**

PRIME NAME: [CP&Y, Inc.](#)

Direct Labor

Labor/Staff Classification	Negotiated Hourly Base Rate	Contract Rate
Principal	\$80.00	\$255.27
Senior Project Manager	\$73.00	\$232.93
Project Manager	\$70.00	\$223.36
Senior Engineer	\$60.00	\$191.45
Project Engineer	\$48.00	\$153.16
Design Engineer	\$40.50	\$129.23
EIT	\$33.00	\$105.30
Senior Engineer Specialist	\$48.00	\$153.16
Senior Engineer Tech	\$38.00	\$121.25
Engineer Tech	\$30.00	\$95.73
CADD Tech	\$25.00	\$79.77
Admin/Clerical	\$27.00	\$86.15
		\$0.00
		\$0.00
		\$0.00
		\$0.00
Audited Overhead Rate:	190.08%	
Negotiated Profit Rate:	10%	

**ATTACHMENT A - Rate Schedule
SPECIFIED RATE PAYMENT BASIS
AND
LUMP SUM PAYMENT BASIS**

SUBPROVIDER NAME: [HDR Engineering, Inc.](#)

Direct Labor

Labor/Staff Classification	Negotiated Hourly Base Rate	Contract Rate
Principal	\$82.00	\$232.65
Senior Project Manager	\$78.00	\$221.30
Project Manager	\$72.00	\$204.28
Senior Engineer	\$68.00	\$192.93
Project Engineer	\$55.00	\$156.05
Design Engineer	\$48.00	\$136.19
EIT	\$36.00	\$102.14
Senior Engineer Tech	\$33.00	\$93.63
Engineer Tech	\$26.00	\$73.77
Admin/Clerical	\$29.00	\$82.28
		\$0.00
		\$0.00
Audited Overhead Rate:	157.93%	
Negotiated Profit Rate:	10%	

**ATTACHMENT A - Rate Schedule
SPECIFIED RATE PAYMENT BASIS
AND
LUMP SUM PAYMENT BASIS**

SUBPROVIDER NAME: [K Friese & Associates, Inc.](#)

Direct Labor

Labor/Staff Classification	Negotiated Hourly Base Rate	Contract Rate
Principal	\$66.00	\$191.29
Senior Project Manager	\$75.00	\$217.37
Project Manager	\$65.00	\$188.39
Senior Engineer	\$58.00	\$168.10
Project Engineer	\$42.00	\$121.73
Design Engineer	\$37.00	\$107.24
EIT	\$31.00	\$89.85
Senior Engineering Tech	\$30.00	\$86.95
Admin/Clerical	\$25.00	\$72.46
		\$0.00
		\$0.00
Audited Overhead Rate:	163.48%	
Negotiated Profit Rate:	10%	

**ATTACHMENT A - Rate Schedule
SPECIFIED RATE PAYMENT BASIS
AND
LUMP SUM PAYMENT BASIS**

SUBPROVIDER NAME: [P.E. Structural Consultants, Inc.](#)

Direct Labor

Labor/Staff Classification	Negotiated Hourly Base Rate	Contract Rate
Principal	\$68.50	\$194.55
Senior QC Engineer	\$55.00	\$156.21
Senior Engineer/Project Manager	\$51.50	\$146.27
Project Engineer	\$40.00	\$113.61
Design Engineer	\$36.25	\$102.96
EIT	\$30.75	\$87.34
Senior Engineer Tech (CAD Mgr)	\$41.50	\$117.87
Engineer Tech	\$30.00	\$85.21
Junior Engineer Tech	\$20.00	\$56.80
Admin/Clerical	\$18.00	\$51.12
Audited Overhead Rate:	158.20%	
Negotiated Profit Rate:	10%	

**ATTACHMENT A - Rate Schedule
SPECIFIED RATE PAYMENT BASIS
AND
LUMP SUM PAYMENT BASIS**

SUBPROVIDER NAME: [Corsair Consulting, LLC](#)

Direct Labor

Labor/Staff Classification	Negotiated Hourly Base Rate	Contract Rate
Project Manager	\$75.00	\$212.85
Senior Engineer	\$54.00	\$153.25
Project Engineer	\$46.00	\$130.55
Design Engineer	\$37.00	\$105.01
EIT	\$32.00	\$90.82
Senior Engineer Tech	\$32.00	\$90.82
Engineer Tech	\$25.00	\$70.95
Admin/Clerical	\$19.00	\$53.92
		\$0.00
		\$0.00
		\$0.00
		\$0.00
Audited Overhead Rate:	158.00%	
Negotiated Profit Rate:	10%	

**ATTACHMENT A - Rate Schedule
SPECIFIED RATE PAYMENT BASIS
AND
LUMP SUM PAYMENT BASIS**

SUBPROVIDER NAME: [Maldonado-Burkett Intelligent Transportation Systems, LLP](#)

Direct Labor

Labor/Staff Classification	Negotiated Hourly Base Rate	Contract Rate
Project Manager	\$90.00	\$253.07
Senior Engineer	\$80.00	\$224.95
Project Engineer	\$70.00	\$196.84
Design Engineer	\$60.00	\$168.72
EIT	\$43.00	\$120.91
Senior Engineer Tech	\$53.00	\$149.03
Engineer Tech	\$40.00	\$112.48
Administrative Supervisor	\$30.00	\$84.36
		\$0.00
		\$0.00
		\$0.00
Audited Overhead Rate:	155.63%	
Negotiated Profit Rate:	10%	

**ATTACHMENT A - Rate Schedule
SPECIFIED RATE PAYMENT BASIS
AND
LUMP SUM PAYMENT BASIS**

SUBPROVIDER NAME: Inland Geodetics, LLC	
Direct Labor	Contract Rate
Surveying Services (SS)	
RPLS - Project Manager	\$136.00
Registered Professional Land Surveyor	\$132.00
Licensed State Land Surveyor	\$132.00
Survey Technician	\$98.00
2 - Person Survey Crew (Includes GPS and Robotic Total Stations. Mileage not included.)	\$138.00
3 - Person Survey Crew (Includes GPS and Robotic Total Stations. Mileage not included.)	\$160.00
4 - Person Survey Crew (Includes GPS and Robotic Total Stations. Mileage not included.)	\$183.00
Additional Crewmember	\$42.00
GPS Field Operator & Vehicle	\$118.00
Clerical Support	\$54.00
Contract hourly rates include labor, overhead, and profit.	

**ATTACHMENT A - Rate Schedule
SPECIFIED RATE PAYMENT BASIS
AND
LUMP SUM PAYMENT BASIS**

SUBPROVIDER NAME: Surveying and Mapping, Inc.	
Direct Labor	Contract Rate
Surveying Services (SS)	
RPLS - Project Manager	\$187.00
RPLS - Task Leader	\$177.00
Senior Survey Technician (Must be Surveyor in Training (SIT), or have a minimum of five year's Surveying experience)	\$120.00
Survey Technician	\$100.00
1 - Person Survey Crew (Includes GPS and Robotic Total Stations. Mileage not included.)	\$110.00
2 - Person Survey Crew (Includes GPS and Robotic Total Stations. Mileage not included.)	\$165.00
3 - Person Survey Crew (Includes GPS and Robotic Total Stations. Mileage not included.)	\$195.00
4 - Person Survey Crew (Includes GPS and Robotic Total Stations. Mileage not included.)	\$215.00
Flagger	\$45.00
Abstractor (Property Deed Researcher, Courthouse or Internet research)	\$75.00
Admin/Clerical	\$75.00
Mobile Mapping Services	
Mobile Mapping Project Manager	\$142.00
Mobile Project Coordinator	\$137.45
Mobile Mapping LiDAR Processing Technician	\$120.50
Mobile Mapping Field Acquisition Specialist	\$126.25
Aerial Mapping Services	
Aerial Project Coordinator	\$142.00
Certified Photogrammetrist	\$137.45
Analytical Triangulation Specialist	\$96.74
Aerial Mapping Technician	\$92.48
Orthophoto Specialist	\$94.62
Mapping Editor	\$87.95
Aerial Office Technician	\$77.02
SUE / Utility Coordination Services	
SUE / UC Project Manager	\$187.00
Senior Engineer - PE	\$177.00
Engineer-In-Training	\$120.00
Senior Engineer Tech	\$105.00
Engineer Tech	\$90.00
Senior CADD Operator	\$105.00
CADD Operator	\$85.00
Senior Utilities Coordinator	\$155.00
Utilities Coordinator	\$124.00
Field Coordinator	\$115.00
Utility Inspector	\$95.00
Contract hourly rates include labor, overhead, and profit.	

**ATTACHMENT A - Rate Schedule
Unit Cost Basis**

SUBPROVIDER NAME: [Corsair Consulting, LLC](#)

Services to be Provided	Test Code	Unit	Cost
Field Drilling Services			
1. Drilling Rig Mobilization/Demobilization (No more than one per project, regardless the number of drill holes)			
a. Truck Mounted Rig		each	\$ 700.00
b. Marsh Buggy Mounted Rig		each	\$ 1,200.00
2. Soil Boring (Drilling with truck mounted rig, logging, recovering undisturbed core sample and grouting of borehole):			
a. With Texas Cone Penetration Test (TCP) every 5 feet interval, (0' - 50')		feet	\$ 30.00
b. With Texas Cone Penetration Test (TCP) every 5 feet interval, (50' -100')		feet	\$ 35.00
c. With Texas Cone Penetration Test (TCP) every 5 feet interval, (100' -150')		feet	\$ 40.00
d. Without Texas Cone Penetration Test (TCP) < 60'		feet	\$ 27.00
e. Without Texas Cone Penetration Test (TCP) > 60'		feet	\$ 30.00
f. Augering		feet	\$ 15.00
g. Drilling & Sampling - Soft Rock-Carbide Bit		feet	\$ 21.00
h. Drilling & Sampling - Hard Rock-Diamond Bit		feet	\$ 26.00
3. Surcharge for Drilling using Marsh Buggy		feet	\$ 6.00
4. Piezometer - 2" (includes all materials, including cap)			
a. In existing boring		feet	\$ 22.00
b. In new land wash boring		feet	\$ 30.00
c. Steel Manhole Cover for Piezometer		each	\$ 400.00
5. Underground Utility Clearance for Boring Location		hr	\$ 75.00
6. 3-Man Crew (Driller, logger & helper) travel to/from job site, per day		hr	\$ 180.00
7. n/a - intentionally left blank			
8. Pavement Coring for Soil Boring Access (up to 6-in diameter):			
a. Up to 10 inches thickness		inch	\$ 130.00
b. Additional thickness over 10 inches		inch-each	\$ 15.00
9. Vehicle Charge		hour	\$ 9.00
10. Traffic Control -(Per TMUTCD)			
a) Traffic Signs		day	\$ 450.00
b) Crash Truck w/attenuator		day	\$ 950.00
c) Certified Flagman		hr	\$ 60.00
d) Flashing Arrow Board		day	\$ 55.00
11. Traffic Control - Off Duty Police Officer		hr	\$ 55.00
12. Dozer for Site Clearing for Soil Boring Access		day	\$ 1,750.00
13. Non-Destructive Deflection Testing			
a. Equipment Mobilization		per mile	\$ 4.25
b. Dynaflect		day	\$ 1,850.00
c. Falling Weight Deflection (FWD)		day	\$ 2,250.00
d. Heavy Weight Deflection (HWD)		day	\$ 2,650.00
* The cost of mobilization/demobilization for water boring (including floating equipment and support boat) will be per quotation per job site.			
Geotechnical Lab Testing Services			
Unconfined Compressive Strength (Soil)	ASTM D2166	each	\$ 60.00
One Dimensional Consolidation Properties of Soil	ASTM D2435	each	\$ 350.00
Direct Shear Test of Soils Under Consolidated Drained Conditions	ASTM D3080	set of 3	\$ 500.00

**ATTACHMENT A - Rate Schedule
Unit Cost Basis**

Permeability of Silt and Clays	ASTM D5084	each	\$ 300.00
Determination of Moisture Content in Soils	TEX-103-E	each	\$ 8.00
Determination of Soil Constants Including:			
Liquid Limit of Soils (LL)	TEX-104-E	each	\$ 38.00
Plasticity Index (PI)	TEX-106-E	each	\$ 38.00
Plastic Limit of Soils (PL)	TEX-105-E	each	\$ 38.00
Bar Linear Shrinkage for Soils	TEX-107-E	each	\$ 35.00
Determining the Specific Gravity of Soils	TEX-108-E	per test	\$ 50.00
Determination of Particle Size Analysis of Soils Text (Part I) - Retained +40	TEX-110-E	each	\$ 45.00
Determination of Particle Size Analysis of Soils Text (Part II) - Hyrometer Analysis	TEX-110-E	each	\$ 115.00
Amount of Minus No. 200 Sieve Material of Soils	TEX-111-E	each	\$ 35.00
Laboratory Compaction Characteristics and Moisture-Density Relationship of Base Materials Includes: Liquid Limit and Plastic Limit	TEX-113-E	per test	\$ 180.00
Laboratory Compaction Characteristics and Moisture-Density Relationship of Subgrade, Embankment Soils, and Backfill Material (Part I)	TEX-114-E	per test	\$ 170.00
Laboratory Compaction Characteristics and Moisture-Density Relationship of Subgrade, Embankment Soils, and Backfill Material (Part II)	TEX-114-E	per test	\$ 170.00
Laboratory Compaction Characteristics and Moisture-Density Relationship of Subgrade, Embankment Soils, and Backfill Material (Part III)	TEX-114-E	per test	\$ 170.00
Ball Mill method for Determining the Disintegration of Flexible Base Material	TEX-116-E	per test	\$ 140.00
Triaxial Compression for Disturbed Soils and Base Materials (Part I) Includes: LL,PL, Gradation, and MD Curve	TEX-117-E	per test	\$ 1,250.00
Triaxial Compression for Disturbed Soils and Base Materials (Part II) Includes: LL,PL, Gradation, and MD Curve	TEX-117-E	per test	\$ 1,250.00
Soil-Cement Testing (Part I) (Includes Tex-113-E)	TEX-120-E	per series	\$ 250.00
Soil-Cement Compressive Strength, (Part II)	TEX-120-E	per test	\$ 200.00
Soil-Lime Testing (Part I) (Includes Tex-113-E)	TEX-121-E	per series	\$ 350.00
Soil-Lime Compressive Strength, (Part II)	TEX-121-E	per test	\$ 150.00
ASTM D4767 (single-stage) (includes moisture, PI, -200 and unit weight)/each	TEX-131-E	per test	\$ 350.00
Consolidated Undrained Triaxial Compression Test for Undisturbed Soils (CU) or ASTM D4767 (multi-stage) (includes moisture, PI, -200 and unit weight)/each	TEX-131-E	per test	\$ 1,000.00
Unconfined Compressive Strength (Rock)		each	\$ 60.00
Determination of Sulfate content		each	\$ 120.00
Resilient Moduouls Testing (3-points)		each	\$ 1,650.00
Bentonite for backfilling of bore holes		linear foot	\$ 10.00

Unit costs billed should correspond to the fiscal or calendar year, if applicable, in which the work was done. If unit costs by year are included, the unit costs for the last year shown apply to all later years. If only one set of unit cost figures is included, with no year designation, the unit costs shown apply to all later years.

Documentation of hours worked is not required.

**ATTACHMENT A - Rate Schedule
Unit Cost Basis**

SUBPROVIDER NAME: [Surveying and Mapping, Inc.](#)

Services to be Provided	Test Code	Unit	Cost
SUE Services			
Level C and D. Includes labor and equipment for records research, CADD, and mapping.	N/A	LF	\$ 0.75
Level B (Designation). Includes labor and equipment for records research, designating, engineering, surveying, and CADD.	N/A	LF	\$ 1.50
Level A (Location, Test Holes). Includes labor and equipment for vacuum excavation, engineering, surveying, and CADD.			
0 to 5 ft.	N/A	each	\$ 1,125.00
> 5 to 8 ft.	N/A	each	\$ 1,460.00
> 8 to 13 ft.	N/A	each	\$ 1,875.00
> 13 to 20 ft.	N/A	each	\$ 2,450.00
> 20 ft.	N/A	per vertical foot	\$ 225.00

Unit costs billed should correspond to the fiscal or calendar year, if applicable, in which the work was done. If unit costs by year are included, the unit costs for the last year shown apply to all later years. If only one set of unit cost figures is included, with no year designation, the unit costs shown apply to all later years.

Documentation of hours worked is not required.

**ATTACHMENT A - Rate Schedule
Unit Cost Basis**

SUBPROVIDER NAME: [HDR Engineering, Inc.](#)

Services to be Provided	Test Code	Unit	Cost
Field Drilling Services			
24-Hour Automated Tube Counts - Volume (per direction)	N/A	per counter/day	\$ 130.00
24-Hour Automated Tube Counts - Bi-directional	N/A	per counter/day	\$ 140.00
24-Hour Automated Tube Counts - Urban Freeway Main Lanes (per direction)	N/A	per counter/day	\$ 240.00
24-Hour Automated Tube Counts - Speed or Class	N/A	per counter/day	\$ 150.00
Intersection Turning Movement Counts	N/A	per counter/hour/day	\$ 50.00
Turning Movement Count (12-hour Manual) Minor Intersection	N/A	each	\$ 550.00
Turning Movement Count (12-hour Manual) Major Intersection	N/A	each	\$ 1,100.00
2-hour Turning Movement Count, Minor Intersection, Weekday	N/A	each	\$ 100.00
2-hour Turning Movement Count, Major Intersection, Weekday	N/A	each	\$ 200.00
2-hour Turning Movement Count, Minor Intersection, Weekend	N/A	each	\$ 150.00
2-hour Turning Movement Count, Major Intersection, Weekend	N/A	each	\$ 300.00
Speed Survey (2hr per location)	N/A	per location	\$ 130.00
Intersection Diagrams / Sketches	N/A	per intersection	\$ 50.00
Intersection Photography	N/A	per intersection	\$ 30.00
Video Origin & Destination (capture)	N/A	per camera /per lane/per hour	\$ 350.00
GPS Bluetooth Travel Time Runs	N/A	hourly	\$ 65.00
24-Hour Classification Counts	N/A	per counter/day	\$ 150.00

Unit costs billed should correspond to the fiscal or calendar year, if applicable, in which the work was done. If unit costs by year are included, the unit costs for the last year shown apply to all later years. If only one set of unit cost figures is included, with no year designation, the unit costs shown apply to all later years.

Documentation of hours worked is not required.

ATTACHMENT A - Rate Schedule

Other Direct Expenses

All Rates Shown Apply To Prime Provider and All Sub-Providers

OTHER DIRECT EXPENSES				
ODE Description	Unit	Max Rate	Fixed/Max	ODE Rate
Lodging/Hotel - Taxes and Fees	day/person	Current State Rate	M	-
Lodging/Hotel (Taxes/fees not included)	day/person	Current State Rate	M	-
Meals (Excluding alcohol & tips) (Overnight stay required)	day/person	Current State Rate	M	-
Mileage	mile	Current State Rate	F	-
Rental Car Fuel	day		M	\$ 40.00
SUV or ATV Rental (Includes taxes and fees; Insurance costs will not be reimbursed)	day		M	\$ 100.00
Construction Truck (Includes operation, and maintenance costs; Insurance costs will not be reimbursed)	day		F	\$ 80.00
Construction Truck (Includes operation, and maintenance costs; Insurance costs will not be reimbursed)	month		F	\$ 1,200.00
Construction Truck 4X4 (Includes operation and maintenance costs; Insurance costs will not be reimbursed)	day		M	\$ 125.00
Construction Truck 4x4 (Includes operation and maintenance costs; Insurance costs will not be reimbursed)	month		M	\$ 1,600.00
Rental Car Fuel	gallon		M	\$ 4.00
Rental Car (Includes taxes and fees; Insurance costs will not be reimbursed)	day		M	\$ 55.00
Air Travel - In State - Short Notice (Coach)	Rd Trip/person		M	\$ 550.00
Air Travel - In State - 2+ Wks Notice (Coach)	Rd Trip/person	Coach Fare	M	\$ 400.00
Air Travel - Out of State - 2+ Wks Notice (Coach)	Rd Trip/person		M	\$ 650.00
Air Travel - Out of State - Short Notice (Coach)	Rd Trip/person		M	\$ 700.00
Air Travel (Use with Indefinite Deliverable Contracts)	Rd Trip/person	Coach Fare	M	\$ 475.00
Oversize, special handling or extra baggage airline fees (with advance coordination with TxDOT)	each	Current Airline Rate	M	\$ 100.00
Taxi/Cab fare	each/person		M	\$ 25.00
Parking	day		M	\$ 20.00
Standard Postage	letter	Current Postal Rate	F	-
Certified Letter Return Receipt	each	Current Postal Rate	F	-
Overnight Mail - letter size	each	Current Postal Rate	M	-
Overnight Mail - oversized box	each		M	\$ 35.00
Materials and Shipping	per package		M	\$ 30.00
Courier Services	each		M	\$ 30.00
Photocopies B/W (11" X 17")	each		F	\$ 0.20
Photocopies B/W (8 1/2" X 11")	each		F	\$ 0.10
Photocopies Color (11" X 17")	each		F	\$ 1.20
Photocopies Color (8 1/2" X 11")	each		F	\$ 0.65
Cardstock Color (8 1/2" X 11")	each		F	\$ 1.00
Digital Ortho Plotting	sheet		F	\$ 1.50
Plots (B/W on Bond)	per sq. ft.		F	\$ 0.50
Plots (Color on Bond)	per sq. ft.		F	\$ 1.00
Plots (Color on Photographic Paper)	per sq. ft.		F	\$ 4.00
Color Graphics on Foam Board	square foot		F	\$ 4.00
Presentation Boards 30" X 40" Color Mounted	each		M	\$ 60.66
Report Printing	each		M	\$ 25.00
Report Binding and tabbing	each		F	\$ 4.25
Drawing Binders (variable depth for 11" X 17" paper)	each		M	\$ 8.00
Notebooks	each		M	\$ 5.00
Reproduction of CD/DVD	each		M	\$ 3.00
CDs	each		F	\$ 1.00
4" X 6" Digital Color Print	picture		F	\$ 0.25

ATTACHMENT A - Rate Schedule

Newspaper Advertisement	per publication		M	\$ 2,800.00
Court Reporter	page		M	\$ -
Court Reporter (Public Meetings, Hearings & Transcription)	day		M	\$ 500.00
Translator (English to Spanish, other language as appropriate, or Sign Language) for Public Involvement	event		M	\$ 500.00
Translator (English to Spanish, other language as appropriate, or Sign Language)	hour		M	\$ 100.00
Written Translation Services	word		F	\$ 0.16
Custodian for Public Involvement	hour/custodian		M	\$ 25.00
Sound Technician for Public Involvement	event		M	\$ 250.00
Public Involvement Facility Rental (estimate)	4 hours		M	\$ 750.00
Public involvement Facility Rental (estimate)	8 hours		M	\$ 3,000.00
Public Involvement Facility Rental (estimate)	hour		M	\$ 200.00
Public Involvement Facility Rental	event		M	\$ 1,600.00
Audio - Equipment Rental	each		M	\$ 150.00
Audio - Visual Equipment Rental	event		M	\$ 250.00
Public Involvement Graphic Artist	event		F	\$ 60.00
Professional Narrator for Public Involvement	event		F	\$ 100.00
Professional Narrator for Public Involvement	hour		F	\$ 100.00
Property Record Fees (Courthouse and Courthouse Direct Record Fees)	Per Parcel		M	\$ 24.00
Public Notices - Mass Mailing (500 pieces)	per mailing		M	\$ -
Public Notices - Mass Mailing/with Self Addressed Return Envelope (500 pieces)	per mailing	#N/A	M	-
Electronic Message Signs	day		M	\$ 150.00
Transearch Count-Level Database with counties in neighboring states' BEA's (BEA level beyond TX borders)(Cost is per Unit with Maximum Total Cost per contract not to exceed \$250,000)	per Unit		M	\$ 5,000.00
FEMA FIS (Manual)	each		M	\$ 5.00
FEMA FIS Backup Data Request	each		M	\$ 300.00
FEMA Map Revision Submittal (CLOMR/LOMR) (Submittal Fee Only)	each		M	\$ 8,250.00
FEMA Model/Floodplain Hardcopy	each		M	\$ 250.00
Railroad - Flagger (Service provided by RR)	hour	Actual Cost	M	\$ -
Railroad - Insurance in addition to STD Minimum Required (Minimum coverage of \$1 Million required by RR.)	each	Actual Cost	M	-
Railroad - Permit [Note: Read and then delete this note. Most railroad companies charge a fee of \$500 for the permit to access their property.]	each	Actual Cost	M	\$ -
Railroad - Safety Training (If required - Heavy Rail Safety Training Certificate, includes classroom training and employee certification card.)	Per Person	Actual Cost	M	\$ -
Traffic Control Services, Arrow Boards and Attenuator trucks - Large Project (Includes labor, equipment and fuel)	day		M	\$ 3,000.00
Traffic Control Services, Arrow Boards and Attenuator trucks - Medium Project (Includes labor, equipment and fuel)	day		M	\$ 2,350.00
Traffic Control Services, Arrow Boards and Attenuator trucks - Small Project (Includes labor, equipment and fuel)	day		M	\$ 1,500.00
Attenuator trucks - (Lane/Shoulder Closure) (Includes labor, equipment and fuel)	day		M	\$ 950.00
Attenuator trucks - (No Lane Closure) (Includes labor, equipment and fuel)	day		M	\$ 500.00
Environmental Field Supplies (lathes, stakes, flagging, spray paint, etc.)	day		M	\$ 45.00
Specialized locating equipment (Sonde, beacon, rodder, etc.)	day		M	\$ 50.00
Pavement coring	each		M	\$ 250.00
Flashing Arrow Board	day		M	\$ 500.00
Portable Message Board	day		M	\$ 200.00
Law Enforcement/Uniform Officer (including vehicle)	hour		M	\$ 55.00
Required Permit Fees (non- railroad)	each		M	\$ 75.00

ATTACHMENT A - Rate Schedule

NDT Testing Supplies	each	#N/A	M	-
Shelby Tubes Transportation Box	each	#N/A	M	-
Boat with Motor	day		M	\$ 400.00
Bulldozer Rental	each	#N/A	M	\$ 1,350.00
Fathometer	day		M	\$ 90.00
Backhoe Rental	day		M	\$ 1,200.00
Map, Tapes, and Supplies	each		F	\$ 3.50
Rental Equipment - Gasoline Powered Auger	day		M	\$ 60.00
Underwater Diving Equipment Rental (Tanks, Boats, Trailers, etc.)	each	#N/A	M	-
ManLift Equipment Rental or Bridge Inspection Equipment Rental	each	#N/A	M	-
Barge Rental for Off Shore Driling	each	#N/A	M	\$ 50,000.00
Mobilization and Demobilization Barge for Submerged Areas	each	#N/A	M	\$ 20,000.00
Mobilization and Demobilization of Drilling Rig (Trips over 100 miles from base)	each	#N/A	M	\$ 1,000.00
GPS Receiver (rates applied to actual time GPS units are in use)	hour		M	\$ 25.00
GPS RTK (rates applied to actual time GPS units are in use)	hour		F	\$ 25.00
GPS Static (rates applied to actual time GPS units are in use)	hour		F	\$ 25.00
Map Records	sheet		M	\$ 4.00
Deed Copies	sheet		F	\$ 2.00
Certified Deed Copies	sheet		F	\$ 10.00
Historical Aerial Images	unit		M	\$ 90.00
Aerial Photographs (1" = 500' scale)	each		M	\$ 24.00
Type II ROW Monument - Excavated/Drilled, rocks, rocky soil. 2-4 inch depth (includes crew time, equipment, materials, rentals, & labor). Brass Marker supplied by TxDOT	each		F	\$ 275.00
Type II ROW Monument - Poured 2-3 Feet (includes One Call, crew time, equipment, materials, rentals, labor). Brass Marker supplied by TxDOT	each		F	\$ 475.00
Survey Boundary Taxes (If this line item is billed, a Tax Resale Certificate is required)	each	#N/A	M	-
Topographics	per sq. ft.		F	\$ 4.00
Wood Core Boxes (Applies to large projects and long term storage)	each	#N/A	M	-
Terrestrial Laser Scanner (rates applied to actual time scanner unit is in use)	hour		F	\$ 90.00
Ground Target (includes paint, panel material, etc.)	each		F	\$ 25.00
Ground Penetrating Radar (equipment only)	day		F	\$ 400.00
LiDAR Mobile Mapping System (Includes Vehicle Operator, LiDAR Technician, and fuel) (Does not include travel to project.)	day			\$ 7,200.00
Mobilization for Helicopter and Aerial Sensors (Includes Aircraft, Pilot, Sensor Operator, and fuel) (Does not include travel to project.)	project			\$ 25,000.00
Helicopter Equipment LiDAR - Project Flight Miles (On project flight miles)	per mile		F	\$ 60.00
Helicopter Equipment LiDAR - Transit Miles (including turn, maneuver miles and local airport to project)	per mile		F	\$ 15.00
Mobilization for Fixed Wing Aircraft and Aerial Sensors (Includes Aircraft, Pilot, Sensor Operator, and fuel) (Does not include travel to project.)	project			\$ 25,000.00
Fixed Wing Airborne LiDAR - Project Flight Miles (On project flight miles)	per mile		F	\$ 20.00
Fixed Wing Airborne LiDAR - Transit Miles (including turn, maneuver miles and local airport to project)	per mile		F	\$ 8.00
Aerial Photography - Airborne GPS/IMU Data collection/Processing	Per Project		F	\$ 2,250.00
Aerial Photography - Project Flight Miles (On project flight miles)	Per Mile		F	\$ 35.00
Aerial Photography - Transit miles (including turn, maneuver miles and local airport to project)	Per Mile		F	\$ 8.00
Photo Lab Service - Black and White Processing (film, development, scanning)	Per Frame		F	\$ 19.00
Photo Lab Service - Color Infrared Processing (film, development, scanning)	Per Frame		F	\$ 27.00
Photo Lab Service - Color Processing (film, development, scanning)	Per Frame		F	\$ 35.00
Photo Lab Service - Digital image processing	Per Frame		F	\$ 27.00

ATTACHMENT A - Rate Schedule

Photo Lab Service - Enlargements, Lamination, Mounting	per sq. ft.		F	\$ 6.00
Photo Processing Technician	hour		F	\$ 98.17
Lidar Workstation	hour		F	\$ 25.00

ATTACHMENT B

**WORK AUTHORIZATION
WORK AUTHORIZATION NO. 01
CONTRACT FOR ENGINEERING SERVICES**

THIS WORK AUTHORIZATION is made pursuant to the terms and conditions of Article 4 of the Contract for Engineering Services (the Contract) entered into by and between the Central Texas Regional Mobility Authority (the Mobility Authority) and CP&Y, Inc., (the Engineer) dated _____.

PART I. The Engineer will perform engineering services generally described as plans, specifications and estimates for the south to west, north to west and east to south direct connectors and associated interchange improvements at 290E and SH130, Manor Expressway Phase III Project, in accordance with the project description attached hereto in Exhibit B and made a part of this Work Authorization. The responsibilities of the Mobility Authority and the Engineer as well as the work schedule are further detailed in Exhibits A, B, and C which are attached hereto and made a part of the Work Authorization.

PART II. The maximum amount payable under this Work Authorization is \$7,055,388.00 and the method of payment is Lump Sum. This amount is based upon the Engineer's estimated Work Authorization costs included in Exhibit D, Fee Schedule/Budget, which is attached and made a part of this Work Authorization. DBE participation shall be tracked and documented as detailed in Exhibits E, F, and G.

PART III. Payment to the Engineer for the services established under this Work Authorization shall be made in accordance with the appropriate sections of the Contract.

PART IV. This Work Authorization shall become effective on the date of final acceptance of the parties hereto and shall terminate upon completion of the work, unless extended by a supplemental Work Authorization as provided in Article 4 of the Contract.

PART V. This Work Authorization does not waive the parties' responsibilities and obligations provided under the Contract.

IN WITNESS WHEREOF, this Work Authorization is executed in duplicate counterparts and hereby accepted and acknowledged below.

THE ENGINEER

**CENTRAL TEXAS REGIONAL MOBILITY
AUTHORITY**

(Signature)
James J. Roohms, P.E.
(Printed Name)
COO, Senior Vice President
(Title)

(Signature)
Mike Heiligenstein
Executive Director

(Date)

(Date)

LIST OF EXHIBITS

Exhibits	Title
A	Services to Be Provided by the Mobility Authority
B	Services to Be Provided by the Engineer
C	Work Schedule
D	Fee Schedule/Budget
E	DBE Participation Forms (E-1 through E-7)
F	Disadvantaged Business Enterprise (DBE) for Federal Funded Professional or Technical Services Contracts – See Exhibit E Instructions
G	Disadvantaged Business Enterprise (DBE) for Race-Neutral Professional or Technical Services Contracts – See Exhibit E Instructions

EXHIBIT A

SERVICES TO BE PROVIDED BY THE MOBILITY AUTHORITY

The Mobility Authority shall perform and provide the following in a timely manner so as not to delay the Services to be provided by the Engineer:

1. Authorize the Engineer in writing of notice to proceed.
2. Render reviews, decisions and approval as promptly as necessary to allow for the expeditious performance of the Services to be provided by the Engineer.
3. Provide timely review and decisions in response to the Engineer's request for information and/or required submittals and deliverables, in order for the Engineer to maintain the agreed-upon work schedule.
4. Maintain the Project's Website.
5. Provide the Engineer with relevant data available to the Mobility Authority related to people, agencies and organizations interested in the proposed project.
6. Provide the Project's pavement design for both proposed and temporary conditions.
7. Provide the existing schematic designs for 290E and SH130.
8. Prepare the Project's environmental studies.
9. Provide available project data relevant to the Project including but not limited to as-built plans, preliminary cost estimates, existing ROW plans, CADD files, reports, studies, traffic data/volumes, etc.
10. Provide direction of the Project aesthetic theme for the Engineer's development of the aesthetic details.
11. Lead and coordinate necessary public involvement activities with support from the Engineer.
12. Provide a Project Manager responsible for coordinating with the Engineer.
13. Interface with local, regional, State and Federal agencies or other entities on behalf of the Engineer.
14. Secure all required permits and agreements with supporting documentation provided by the Engineer.
15. Provide information related to the Mobility Authority's Green Roads Program.
16. Provide information related to tolling requirements and system integration.
17. Provide value engineering facilitator and support staff if required.
18. Lead the Project bid process.

EXHIBIT B
SERVICES TO BE PROVIDED BY THE ENGINEER

THIS PAGE IS LEFT BLANK

EXHIBIT B
Services to be Provided by the Engineer
Manor Expressway Phase III Project

The Design Consultant Engineer (“Engineer”), shall be responsible for the work described in this Scope of Services (“Services”) for the Manor Expressway Phase III Project (“Project”). The Engineer will coordinate with Mobility Authority Staff and their GEC, herein referred to as the “Mobility Authority”.

The Engineer will work at the direction and supervision of the Mobility Authority to provide the Services. The Mobility Authority expects the Engineer to work cooperatively and collaboratively through all aspects and phases of preliminary and final PS&E design and in its dealings with TxDOT, subcontractors, engineers, legal counsel, consultants, governmental entities, utilities, businesses, property owners, and the general public.

The Engineer will report to the Mobility Authority’s Project Manager, the GEC’s Project Manager and staff, and keep them informed of the design progress, especially issues that would affect the project schedule and delivery. The Engineer shall be available for weekly progress meetings with the Mobility Authority, if scheduled. The Engineer will also be responsible for coordinating with all other members of their project team to verify that all deliverables meet the established schedule and quality requirements.

The Engineer will be expected to deliver a final set of construction plans and bid documents suitable for construction bidding. The Project design involves the construction of three (3) direct connectors at the 290E/SH130 Interchange (South SH130 to West 290E, East 290E to South SH130, and North SH130 to West 290E) and ramp improvements/modifications on 290E and SH130. The proposed improvements shall be designed with allowance for the ultimate planned improvements to SH130 including frontage roads, ramps, and additional main lanes.

The Mobility Authority is taking lead on design and construction for the Project, but the Project will be fully coordinated with TxDOT and will be required to meet all standard requirements for a TxDOT project including: Local Government Projects Policy Manual, Pavement Design Guide, Project Development Process Manual, PS&E Preparation Manual, Roadway Design Manual, TxDOT MUTCD and others.

MAJOR WORK ELEMENTS

Data Collection/Preliminary Design

Perform research and obtain historical project information including as-built plans, environmental documents, existing utility locations, signalization plans and timing, hydraulic and hydrologic data, geotechnical studies and boring logs, and others. Perform field surveys that will assist with preliminary design including geotechnical survey, design survey, SUE, traffic counts and others.

The Services will include Preliminary Design for the Project. Major tasks include: Environmental (evaluate compliance and planning documents and understand environmental permits, issues and commitments, preparation of exhibits and information if a re-evaluation

EXHIBIT B
Services to be Provided by the Engineer
Manor Expressway Phase III Project

should be necessary), Drainage (hydrologic studies, preliminary hydraulic analysis/design), Traffic Evaluation (traffic count evaluation, traffic modeling, reports and recommendations), Stakeholder coordination and assistance with public involvement (presentation support, reporting support), and Preliminary Design including: geometric alignments, bridge type/size/location studies, preliminary structural design for bridges and retaining walls, cross-section development, intersection design/configuration, preliminary traffic control plans, traffic operations study, determination of aesthetic theme, Storm Water Pollution Prevention Plan (SW3P), identify potential utility conflicts, establish preliminary illumination locations, and cost estimates. Design will need to prioritize introduction of sustainability features into the project design and the bid documents should incorporate sustainability requirements for construction methods and materials.

Final Design

Final Design Services will include continuation of stakeholder coordination and assistance with public involvement, finalization of reports and studies, and final design and the preparation of the PS&E documents for the Project. Major design tasks include: Roadway (geometry, retaining walls, earthwork, plan production), Drainage (H&H studies, culvert and storm drain, detention design and coordination), Structures (bridges, walls, miscellaneous drainage structures, foundations), Traffic (pavement markings, small and large signs, overhead sign structures, signalization, illumination, toll facility infrastructure coordination, ITS system duct bank coordination), Miscellaneous (traffic control plans, guardrail, landscape planting and hardscape), support during the bidding process and any other incidental items necessary for the proposed project.

The Engineer shall coordinate with the Mobility Authority prior to a particular task being started and will not begin any work until Notice to Proceed has been issued.

EXHIBIT B
Services to be Provided by the Engineer
Manor Expressway Phase III Project

1. DATA COLLECTION / PRELIMINARY DESIGN

1.1. Environmental Document Review/Coordination

Major elements of work include the following: The Engineer will review the environmental commitments and innovations included in the past environmental documents for the SH130 Project and the 290E (Manor Expressway Project) and the Mobility Authority's Green Roads Program. The Project is anticipated to be completed under a Reevaluation Consultation Checklist (RCC) under one of the previous environmental documents. Preparing the RCC and coordination with TxDOT is not included in the scope of this contract as this effort will be performed by others. The Engineer will coordinate with TxDOT and the Mobility Authority to assess the required actions that may be associated with design modifications (if any) that result from preliminary design and final design phases. The Engineer will provide information, exhibits, and tables as necessary to assist in the preparation of the RCC.

1.2. Public Involvement Assistance

The Engineer will provide support for various meetings (including MAPO's), coordination, and communication with the public and other agencies as requested by the Mobility Authority. Support will include attending meetings, producing displays, providing information for website and information sheet development.

1.3. Data Collection

The Engineer shall collect, review and evaluate data described including: Available "as-built plans", existing schematics, right-of-way maps, SUE mapping, existing cross sections, existing planimetric mapping, Environmental Documents (State EA), driveway permits, utility permits, draft toll systems facility/ITS infrastructure guidelines and plans, etc. The Engineer is responsible for any adjustments to electronic files received by others, as described above, in order to verify that the position of all files are on the exact same georeferenced coordinate system as the Project's Control.

The Engineer will perform sufficient field investigations to gather information for the development of the construction plans. Drainage, signing, structures, ITS and toll infrastructure elements shall be field verified.

1.4. Geotechnical Investigation

1.4.1. General Requirements

1.4.1.1. Perform geotechnical investigations and testing according to TxDOT's Geotechnical Manual (latest edition) and TxDOT's Test Methods, or ASTM Standards if no corresponding TxDOT Methods exist. Supplement existing boring logs performed by others with new borings for the design of bridge substructures, retaining walls, and sign structure foundations. All proposed boring locations shall be identified by the Engineer and shown on a boring layout, reviewed and approved by the Mobility Authority prior to performing geotechnical investigations.

1.4.1.2. The Engineer shall be responsible for arranging for utility locations prior to

EXHIBIT B
Services to be Provided by the Engineer
Manor Expressway Phase III Project

drilling borings.

- 1.4.1.3. Provide a traffic control plan in accordance with TxDOT Standards for all work to be performed adjacent to traffic.
- 1.4.1.4. Record GPS coordinates of each bore hole using hand-held GPS unit utilizing project survey control. Bore holes will be marked for surveying of ground elevations and coordinates in order to locate in the plans.
- 1.4.1.5. Backfill borings, less than 20 feet with cuttings from the boring or gravel. Patch pavements with cold mix asphalt or concrete (match existing paving surface of affected road or drive. All borings with depths greater than or equal to 20 feet must be plugged with a non-shrink grout from the bottom of the hole to within three (3) feet of the surface. The remainder of the hole must be backfilled with cuttings from the boring or gravel. All borings must be backfilled or plugged within four (4) days of completion of the drilling operations. Voids may be filled with gravel.

1.4.2. Pavement Design

- 1.4.2.1. Review the Pavement Design Report and existing boring logs performed by others and make recommendations for adjustments if deemed beneficial or warranted.

1.4.3. Bridges

- 1.4.3.1. Supplement existing boring and boring logs performed by others as necessary to complete the bridge design. Bridge borings shall be drilled to a minimum depth of 50' below top of existing ground.
- 1.4.3.2. Analyze subsurface conditions and Texas Cone Penetrometer Test results for each bridge location.
- 1.4.3.3. Develop recommendations for suitable foundation type, allowable bearing and skin friction resistance in the soil profile encountered, and minimum required penetration depths for each bridge location. Provide final tip elevations recommendations as they relate to possible axial design loads.
- 1.4.3.4. Perform laboratory testing to include: USCS Soil Classification, Atterberg limits, particle size analysis (D50 and D95), moisture content and unconfined compression tests.
- 1.4.3.5. At bridge locations, for each bent and abutment provide soil parameters and other necessary data so that the structural engineer can determine point-of-fixity. Also included necessary data for lateral analysis of drilled shafts.
- 1.4.3.6. Identify potential drilled shaft construction problems related to groundwater, caving soils, very hard rock layers or karst features.

1.4.4. Retaining Walls

- 1.4.4.1. Supplement existing boring and boring logs performed by others as necessary to complete the retaining wall design. Retaining wall borings shall be drilled to a minimum depth of 20' below the bottom of proposed walls.
- 1.4.4.2. Perform laboratory testing to characterize the uniformity and strength for the

EXHIBIT B
Services to be Provided by the Engineer
Manor Expressway Phase III Project

soils that will be supporting MSE walls and soil and rock conditions for design of drilled shaft walls. Laboratory testing will include: USCS Soil Classification, Atterberg limits, particle size analysis, moisture content, soil consolidation, consolidated drained direct shear test and unconfined compression tests.

- 1.4.4.3.** Analyze the bearing, overturning, eccentricity and sliding resistance of the foundation soils at each wall location.
- 1.4.4.4.** Analyze the stability of each wall for rotational stability with respect to deep-seated shearing movements by performing slope stability analyses.
- 1.4.4.5.** Analyze settlement of retaining walls.
- 1.4.4.6.** Analyze global stability of retaining walls
- 1.4.4.7.** Compare anticipated wall applied bearing pressures with the allowable bearing resistance to determine whether or not the foundation soils need to be strengthened to support the walls.
- 1.4.4.8.** For spread footing walls, recommend the design soil lateral earth pressure and provide bearing capacity, sliding and slope stability analyses and evaluate the settlement of the wall.

1.4.5. Geotechnical Report

The Engineer will prepare a draft geotechnical report that will present recommendations for the design of the bridge foundations, retaining wall foundations, and sign structures including:

- 1.4.5.1.** Site vicinity and geology map.
- 1.4.5.2.** Generalized subsurface conditions, as well as groundwater conditions encountered during drilling operations.
- 1.4.5.3.** Engineering and construction considerations, structural fill requirements and earthwork recommendations.
- 1.4.5.4.** Wincore Version 3.1 logs in English units, laboratory test results, and plan of borings with station and offset and top of hole elevations.
- 1.4.5.5.** Recommended foundation type, minimum embedment, allowable end bearing and skin friction resistance in the founding material encountered.
- 1.4.5.6.** Soil parameters and other data provided to structural engineers for use in determining point-of-fixity of bridge foundations for bridge column design and lateral analysis of drilled shafts.
- 1.4.5.7.** Recommended bearing and sliding resistance for design of MSE walls. Where the allowable bearing resistance is likely to be exceeded by the walls bearing pressure, recommendations for increasing wall anchor lengths or improving the foundation soils will be presented to provide adequate bearing capacity. Develop parameters for RW(MSE)DD standard sheet.
- 1.4.5.8.** Rotational stability analyses and settlement analyses results for each retaining wall location. At wall locations where stability and/or settlement may be of concern the Engineer shall develop conceptual approaches to improve the rotational stability and/or settlement. Upon review by the Mobility Authority

EXHIBIT B
Services to be Provided by the Engineer
Manor Expressway Phase III Project

the Engineer will further develop the selected concept.

- 1.4.5.9.** Identification of potential foundation construction problems with recommendations to mitigate or avoid the problems.
- 1.4.5.10.** Existing boring logs performed by others will be presented in the appendix to supplement the new borings for bridge structures, retaining walls and sign and toll gantry structures. The intent is to have one report for the limits of this project. The Engineer assumes no liability for the accuracy of borings performed by others.
- 1.4.5.11.** Minimum side slope and slope stability recommendations for storm water detention basins.
- 1.4.5.12.** Calculated D50 and D95 soil size within potential scour locations for scour analysis computations.
- 1.4.5.13.** Recommended bearing and sliding resistance of the spread footing walls. Where the allowable bearing resistance is likely to be exceeded by the wall pressure, improving the foundation soil will be presented to provide adequate bearing capacity.
- 1.4.5.14.** Provide recommendations for backfill material and drainage for retaining walls.
- 1.4.5.15.** Geophysical study results will be included with the draft geotechnical report.

1.4.6. Deliverables

- 1.4.6.1.** Submit three (3) draft copies of the geotechnical report for review and comment to the Mobility Authority in *.pdf and hard copy formats. One draft copy of the geotechnical report shall also be kept on file with the Engineer for future reference.

1.5. Surveying

The Engineer shall coordinate survey requirements with the Mobility Authority. If data is needed outside of the limits of the apparent ROW, the Engineer will obtain written right of entry (ROE) from respective property owners or their authorized representatives and any tenants. The Engineer will contact affected land owners from which ROE has been obtained prior to commencing any work on private property. The Engineer anticipates that the Mobility Authority will handle problems regarding any and all refusal to grant ROE or communication with land owners who are hostile with respect to the completion of this scope of services. The Engineer will document any interactions with land owners while performing the work. Gaining ROE from all land owners in a timely manner, if applicable, will be critical to the success and efficiency in meeting deadlines for this project. If ROE is required for other tasks – the ROE request should include those other tasks even if performed by a different firm.

1.5.1. Project Control

Utilize the TxDOT-Austin District VRS network to establish up to twenty (20) primary horizontal and vertical control points. Primary control points (5/8” iron rods with “INLAND Control” plastic caps) will be set for horizontal and vertical control in a location that will likely be undisturbed by construction or State

EXHIBIT B
Services to be Provided by the Engineer
Manor Expressway Phase III Project

maintenance. This project will be placed on the horizontal and vertical datum [NAD83/93/NAVD88 values (Texas State Plane, Central Zone)] with the surface adjustment factor of 1.00011. Elevations will be derived from GPS observations using Geoid 2012A model. Secondary control points (5/8" iron rods with "INLAND Control" plastic caps) will be set and tied to primary control as needed. A benchmark system shall be established for additional vertical control on approx. 1000 foot intervals. Digital levels will be run through all survey control points to confirm the established elevations.

The Engineer shall set up to 30 targets along the existing roadway within the below described design survey limits (1.5.2.1 and 1.5.2.2) to be set as control for the Airborne LiDAR and imagery collection. The horizontal and vertical values for these targets will be based on the project control (to be established and provided by Engineer) and positioned using a minimum of two (2) RTK vectors from the project control set.

1.5.2. Topographic Survey and Asbuilt

Supplemental design survey within the Project limits as necessary including the following:

- 1.5.2.1.** Within the apparent existing ROW lines of SH130 from approximately 2,400' south of Blue Bluff Road to 2,800' north of FM734 with the following cross flights centered on SH130:
 - 1,900' at Blue Bluff Road
 - 3,700' at the Cap Metro Rail crossing
 - 2,800' at FM734
- 1.5.2.2.** Airborne LiDAR of the roadway and out to the project boundaries is to be collected in the limits described in section 1.5.2.1. Calibrate and merge airborne LiDAR data with field survey data into one point cloud for mapping and extraction purposes. Imagery will be collected during the airborne LiDAR acquisition as well so orthophotos can be made for the entire project area.
- 1.5.2.3.** In support of the LiDAR operations, the Engineer will utilize conventional or GPS survey methods to collect supplemental design survey data within the above described design survey limits that may be obscured to LiDAR data collection. The estimated length of this supplemental survey along the longitudinal edge of pavement is 16,000 linear feet. In such areas, conventional survey methods will be utilized to collect cross-sections and break lines at approximate 50-foot intervals within the above described project limits. Major grade-break lines necessary to produce a one-foot interval contour DTM will be collected, as well as any visible improvements including driveways (with type noted), driveway pipes, drop inlets and drainage structures (noting size, material and flowline elevation), edge of pavement, edge (shoulder) line, crown (physical centerline), guardrail, fences, signs (with text) and mailboxes, visible utilities and visible evidence of underground utilities. Collect 1"=50' planimetric features of the entire project area to TxDOT specifications.

EXHIBIT B
Services to be Provided by the Engineer
Manor Expressway Phase III Project

- 1.5.2.4.** Collect design survey data and cross sections for four (4) cross-culverts. Six (6) cross sections at each cross-culvert will be located at the upstream and downstream headwalls, upstream and downstream right-of-way, and 100 feet beyond the upstream and downstream right-of-way. Cross-culvert locations are at the following locations:
- Culvert 6 – approximately 150 feet east of Decker Lane on 290E
 - Culvert 7 – approximately 900 feet east of Decker Lane on 290E
 - Culvert 10B – approximately 1900 feet north of 290E on SH130
 - Culvert 10E – approximately 1200 feet south of 290E on SH130
- 1.5.2.5.** Collect design survey data for the existing bridge structures from conventional survey methods to supplement the airborne LiDAR data within the above described design survey limits or as directed. Bridge structure components to be collected will include, but not limited to, corners of the bridge deck, two (2) points along the toe of each bridge rail within each span, bridge abutments caps, backwalls and wingwalls, interior bent caps, outside low chord elevations, and column locations (noting size, location, and material) only
- 1.5.2.6.** The surveyor will collect sample data of the entire project to “ground truth” the LiDAR deliverables as a QA/QC task. This sample will have cross sectional information of both earthen and improved entities within the project limits. This sample will be approx. a 10% random sample or a cross section at approximately 1000-foot intervals, or as directed, throughout the project.
- 1.5.2.7.** Stake the location of up to seventy (70) geotechnical soil borings using X, Y and Z coordinates to be provided by the Mobility Authority. The Surveyor will then locate the seventy (70) drilled soil borings as placed and drilled by the geotechnical consultant.
- 1.5.2.8.** Collect supplemental design survey data along the SH130 bridges over the CapMetro RailRoad ROW. In such areas low chords and top of rail shots only shall be collected and included in the appended 2D planimetric file. Collecting DTM breaklines and including these bridge details in the appended 3D DTM or TIN file is outside of this scope of services.
- 1.5.2.9.** Provide temporary signs, traffic control, flags, safety equipment, etc. to perform the survey task described hereon
- 1.5.2.10.** Control traffic in and near surveying operations adequately to comply with the latest edition of the Texas Manual on Uniform Traffic Control Devices. In the event field personnel must divert traffic or close traveled lanes, the Engineer shall prepare a Traffic Control Plan for approval by the Mobility Authority prior to commencement of field work. A copy of the approved plans shall be in the possession of field personnel on the job site at all times and shall be made available to Mobility Authority personnel upon request. The Mobility Authority shall be contacted prior to any work in the Project ROW.
- 1.5.2.11.** Merge and append the LiDAR data and the supplemental design survey data to the original aerial mapping file, as provided by the State, to create a seamless 2D, DTM and TIN file. Bridge data may be in a separate .dgn file. Survey

EXHIBIT B
Services to be Provided by the Engineer
Manor Expressway Phase III Project

data to be obtained by the Engineer will be developed and delivered in 2D Microstation format. The 3D Microstation file will also be supplied showing all spot points and break lines. The DTM will be compatible with GEOPAK and Microstation and all level symbology, location, and formats will comply with Mobility Authority's Microstation Graphic File Format prior to delivery. If any AutoCAD to Microstation conversions have taken place, it will be the Surveyors responsibility to verify all such formatting is maintained.

1.5.2.12. The Engineer shall perform an as built survey of new construction (interim project) at the intersection of the SBFR of SH130 for 800 feet north of the 290 WB intersection. Additionally, the Engineer will survey a portion of the WBFR of US290 from the SBWB DC of SH130 for 3500 feet westerly thereof to the entry ramp near Blue Goose Road. This task will be performed after Aerial LiDAR operations.

1.5.2.13. The Engineer shall depict the record right-of-way (ROW) within the project files. The Engineer shall perform sufficient field work to verify the ROW site conditions.

1.5.3. Design Survey Deliverables:

1.5.3.1. Merged and unmerged 2D dgn (V8) file with planimetrics including survey control and bench marks

1.5.3.2. Merged and unmerged 3D MicroStation (V8) file with spot points and break lines clearly delineated on separate levels. Provide combined TIN file.

1.5.3.3. 2D dgn of re-established project horizontal and vertical control verified and provided by the surveyor.

1.5.3.4. ASCII text file containing the survey data points

1.5.3.5. GEOPAK file and field book copies

1.5.3.6. Calibrated .las files of the LiDAR data

1.5.3.7. Calibration reports

1.5.3.8. Ortho photography

1.6. Subsurface Utility Engineering and Utility Coordination

1.6.1. Project Overview

For the purposes of this Section, the project encompasses an area described by the following:

Along Highway 290E, from a point 2000' east of the centerline intersection with Harris Branch Parkway, approximately 3300' northeast to a point 250' southwest of the centerline intersection of 290E and SH130, extending the width between the westbound 290E frontage road and mainlane centerline as well as the full northwest and southwest corners of the 290E and SH130 interchange.

Along SH130, from a point 300' north of the centerline intersection of SH130 and FM 734 (E. Parmer Lane), approximately 4300' south to the centerline intersection of SH130 and 290E, extending the width between the southbound SH130 frontage

EXHIBIT B
Services to be Provided by the Engineer
Manor Expressway Phase III Project

road and the mainlane centerline

Along SH130, from the centerline intersection of SH130 and 290E, approximately 4900' south and southeast to a point 2250' north of the centerline intersection of SH130 and Blue Bluff, for a width of 550' centered on the SH130 centerline.

Along SH130, from a point 2250' north of the centerline intersection of SH130 and Blue Bluff, approximately 2250' south and southeast to the centerline intersection of SH130 and Blue Bluff Road, for a width of 275' west of the SH130 centerline.

1.6.2. Definitions

Utility Quality Levels are defined in cumulative order (least to greatest) as follows:

- 1.6.2.1.** Quality Level D Existing Records: Utilities are plotted from review of available existing records.
- 1.6.2.2.** Quality Level C – Surface Visible Feature Survey: Quality Level D information from existing records is correlated with surveyed surface-visible features. It includes Quality Level D information.
- 1.6.2.3.** Quality Level B - Designate: Two-dimensional horizontal mapping. This information is obtained through the application and interpretation of appropriate non-destructive surface geophysical methods. Utility indications are referenced to established survey control. It incorporates Quality Levels C and D information to produce Quality Level B.
- 1.6.2.4.** Quality Level A - Locate (Test Hole): Three-dimensional mapping and other characterization data. This information is obtained through exposing utility facilities through test holes and measuring and recording (to appropriate survey control) utility/environment data. It incorporates Quality Levels B, C and D information to produce Quality Level A.

1.6.3. Designate (Quality Level B)

Designate means to indicate the horizontal location of underground utilities by the application and interpretation of appropriate non-destructive surface geophysical techniques and reference to established survey control. Designate (Quality Level B) Services are inclusive of Quality Levels C and D.

- 1.6.3.1.** Compile "As Built" information from plans, plats and other location data as provided by the utility owners.
- 1.6.3.2.** Designate, record, and mark the horizontal location of all existing utility facilities and their service laterals to proposed ROW using non-destructive surface geophysical techniques. No storm sewer facilities are to be designated unless authorized by the Mobility Authority. A non-water base paint, utilizing the APWA color code scheme, shall be used on all surface markings of underground utilities. It is estimated 51,000 LF of Level B designation may be required for the Project.
- 1.6.3.3.** Correlate utility owner records with designating data and resolve discrepancies using professional judgment. A color-coded composite utility facility plan with

EXHIBIT B
Services to be Provided by the Engineer
Manor Expressway Phase III Project

utility owner names, quality levels, line sizes and subsurface utility locate (test hole) locations, shall be prepared and delivered to the Utility Authority. It is understood by both the Engineer and the Utility Authority that the line sizes of designated utility facilities detailed on the deliverable are from the best available records and that an actual line size is normally determined from a test hole vacuum excavation. A note will be placed on the quality level B deliverable that states "line sizes are from best available records".

- 1.6.3.4.** Determine and inform the Mobility Authority of the approximate utility depths at critical locations as determined by the Mobility Authority. This depth indication is understood by both the Engineer and the Mobility Authority to be approximate only and is not intended to be used preparing the right of way and construction plans.
- 1.6.3.5.** Provide a monthly summary of work completed and in process with adequate detail to verify compliance with agreed work schedule.
- 1.6.3.6.** Clearly identify all utilities that were discovered from quality levels C and D investigation, but cannot be depicted in quality level B standards. These utilities must have a unique line style and symbology in the designate (Quality Level B) deliverable.
- 1.6.3.7.** This information will be provided in the latest version of AutoCAD or Microstation, as requested by the Mobility Authority. The electronic file will be delivered on CD, DVD or Newforma File Transfer as requested by the Mobility Authority.
- 1.6.3.8.** A hard copy of the quality level B information will be provided in 22" x 34" format and will be signed, sealed and dated by the Engineer.

1.6.4. Subsurface Utility Locate (Test Hole) Service (Quality Level A)

Locate means to obtain precise horizontal and vertical position, material type, condition, size and other data that may be obtainable about the utility facility and its surrounding environment through exposure by non-destructive excavation techniques that maintains the integrity of the utility facility.

- 1.6.4.1.** Review requested test hole locations and advise the Mobility Authority in the development of an appropriate locate (30 test holes) work plan relative to the existing utility infrastructure and proposed highway design elements.
- 1.6.4.2.** Coordinate with utility owner inspectors as may be required by law or utility owner policy.
- 1.6.4.3.** Neatly cut and remove existing pavement material, such that the cut not to exceed 0.10 square meters (1.076 square feet) unless unusual circumstances exist.
- 1.6.4.4.** Measure and record the following data on an appropriately formatted test hole data sheet that has been sealed and dated by the Engineer:
 - Elevation of top and/or bottom of utility tied to the datum of the furnished plan.
 - Identify a minimum of two benchmarks utilized. Elevations shall be within

EXHIBIT B
Services to be Provided by the Engineer
Manor Expressway Phase III Project

- an accuracy of 15mm (.591 inches) of utilized benchmarks.
 - Elevation of existing grade over utility at test hole location.
 - Horizontal location referenced to project coordinate datum.
 - Outside diameter of pipe or width of duct banks and configuration of non-encased multi-conduit systems.
 - Utility facility material(s).
 - Utility facility condition.
 - Pavement thickness and type.
 - Coating/Wrapping information and condition.
 - Unusual circumstances or field conditions.
- 1.6.4.5.** Excavate test holes in such a manner as to prevent any damage to wrappings, coatings, cathodic protection or other protective coverings and features. Water excavation will only be utilized with written approval from the Mobility Authority.
- 1.6.4.6.** Be responsible for any damage to the utility during the locating process. In the event of damage, the Engineer shall stop work, notify the appropriate utility facility owner, and appropriate regulatory agencies. The regulatory agencies include, but are not limited to the Railroad Commission of Texas and the Texas Commission on Environmental Quality. The Engineer shall not resume work until the utility facility owner has determined the corrective action to be taken. The Engineer shall be liable for all costs involved in the repair or replacement of the utility facility.
- 1.6.4.7.** Back fill all excavations with appropriate material, compact backfill by mechanical means, and restore pavement and surface material.
- 1.6.4.8.** Furnish and install an above ground marker directly above center line of the utility facility.
- 1.6.4.9.** Provide complete restoration of work site and landscape to equal or better condition than before excavation. If a work site and landscape is not appropriately restored, the Engineer shall return to correct the condition at no extra charge to the Mobility Authority.
- 1.6.4.10.** Plot utility location position information to scale and provide a comprehensive utility plan sign and sealed by the responsible Engineer. This information shall be provided in the latest version of the CAD format used by the Mobility Authority. The electronic file will be delivered on CD or via Newforma File Transfer. When requested by the Mobility Authority, the SUE information must be over laid on the Mobility Authority's design plans.
- 1.6.4.11.** Return plans, profiles, and test hole data sheets to the Mobility Authority. If requested, conduct a review of the findings with the Mobility Authority.

1.6.5. Utility Adjustment Coordination

Utility Adjustment Coordination shall include utility coordination meetings with individual utility companies, communication and coordination with utilities, and preparation of utility agreement assemblies including utility agreements, joint use

EXHIBIT B
Services to be Provided by the Engineer
Manor Expressway Phase III Project

agreements, notice of proposed installation and advanced funding agreements.

Utility(ies) or utility(ies) shall mean (1) a public, private, cooperative, municipal and/or government line, facility or system used for the carriage, transmission and/or distribution of cable television, electric power, telephone, telegraph, water, gas, oil, petroleum products, steam, chemicals, hydrocarbons, telecommunications, sewage, storm water not connected with the drainage of the Project, and similar substances that directly or indirectly serve the public, and/or (2) a Private Pipeline. The term "Utility" or "utility" specifically excludes (a) storm water facilities connected to the drainage of the project, (b) ITS, and (c) street lights and traffic signals.

1.6.5.1. The Engineer shall coordinate all activities with the Mobility Authority, or their designee, to facilitate the orderly progress and timely completion of the Mobility Authority design phase. The Engineer shall be responsible for the following:

- **Work Plan.** Coordinate a work plan including a list of the proposed meetings and coordination activities, and related tasks to be performed, a schedule and an estimate. The work plan must satisfy the requirements of the project and must be approved by the Mobility Authority prior to commencing work.
- **Orientation.** Prepare and present, in collaboration with Mobility Authority staff, instruction and orientation sessions as required by the Mobility Authority. The instruction shall introduce the subsurface utility engineering process, demonstrate the technology and facilitate the preparation of work orders, billings, and contract related documentation.
- **Initial Project Meeting.** Attend an initial meeting and an on-site inspection (when appropriate) to establish familiarity with existing conditions, project requirements and prepare a written report of the meeting.
- **External Communications.** The Engineer shall coordinate all activities with the Mobility Authority and its consultants or other contractors or representatives, as authorized by the Mobility Authority. Also, the Engineer shall provide the Mobility Authority copies of diaries, correspondence and other documentation of work-related communications between the Engineer, utility owners and other outside entities when requested by the Mobility Authority.
- **Progress Meetings.** The Engineer shall implement a schedule of periodic meetings with each utility company and owner or owner's representatives for coordination purposes. Such meetings shall commence as early as possible in the design process and shall continue until completion of the project. The Engineer shall notify the Mobility Authority at least two (2) business days in advance of each meeting to allow the Mobility Authority the opportunity to participate in the meeting. The Engineer shall provide and produce meeting minutes of all meetings with said utility companies, owners or owners' representatives within seven (7) business days. The

EXHIBIT B
Services to be Provided by the Engineer
Manor Expressway Phase III Project

frequency of such meetings shall be appropriate to the matters under discussion with each utility owner.

- 1.6.5.2.** As required the Engineer shall coordinate with the local utilities committees to present a foot print of the Mobility Authority's projects with represented utility companies and owners. The Engineer shall also coordinate with any other utility committees which may include county, city, or other officials, if needed.
- 1.6.5.3.** The Engineer shall provide initial project notification letters to all affected utility companies, owners, and other concerned parties, if needed.
- 1.6.5.4.** The Engineer shall provide the Mobility Authority and all affected utility companies and owners a Utility Contact List for each project with all information such as: (a) Owner's Name; (b) Contact Person; (c) Telephone Numbers; (d) Emergency Contact Number; (e) E-mail addresses; (f) as well as all pertinent information concerning their respective affected utilities and facilities, including but not limited to: size, number of poles, material, and other information which readily identifies the utilities companies' facilities.
- 1.6.5.5.** The Engineer shall advise utility companies and owners of the general characteristics of the Project and provide an illustration of the project footprint for mark-up of the utility facility locations that occupy the project area.

1.6.6. Utility Agreements For Utility Adjustments

The Engineer shall coordinate which utilities conflict with highway construction or the "Utility Accommodation Rules" (UAR), and make the utility company aware of these conflicts. The Engineer shall assist the utility companies in the preparation of required agreements associated with the funding of adjustments and the occupation of State right of way. It is assumed that no utility agreements will be required for the construction of this project. If determined to be necessary, these services will be handled under task 2.6, Special Design per Mobility Authority Request.

1.6.7. General Requirements

- 1.6.7.1.** The Engineer shall determine the location of all existing utilities including ITS and toll infrastructure within the project area, as described above, using Quality Level B standards. The Engineer shall compile "As-Built" information from plans, plats and other location data as provided by utility owners. A color-coded composite utility facility plan with utility owner names, quality levels and line sizes will be prepared and delivered to the GEC. It is understood by both the Engineer and the GEC that the line sizes of utility facilities detailed on the deliverable are from the best available records and that an actual line size is normally determined from a test hole vacuum excavation. All above ground appurtenance locations must be included in the deliverable to the GEC. This information will be provided in the latest version of Microstation or Geopak used by the Mobility Authority. The electronic file will be delivered on CD. A hard copy is required and must be signed, sealed and dated by the Engineer.

EXHIBIT B
Services to be Provided by the Engineer
Manor Expressway Phase III Project

- 1.6.7.2.** The Engineer shall maintain and update a Utility Conflict List to include phone log and all correspondence to the utility owners. The Engineer shall provide the most current copy of the conflict list to the GEC at each milestone submittal, and shall be responsible for coordination with utility companies to resolve conflicts. The Utility Conflict List shall identify the owner of the facility, the contact person (with address and telephone number), location of conflict (station and offset), type of facility, expected clearance date, status, effect on construction and type of adjustment necessary.
- 1.6.7.3.** After identifying potential conflicting utilities, and in coordination with the GEC, the Engineer shall arrange for and attend utility meetings with all utility owners and other interested parties or agencies that are identified to be within the proposed project's area. The purpose of this meeting is to verify that all utility owners and area entities are aware of the scope and relevant details of the proposed project. The Engineer shall be responsible for writing and documenting the meeting minutes and other follow-up work with utility owners, if necessary.
- 1.6.7.4.** The Engineer shall determine prior to the 30% milestone submittal if Quality Level A and B Subsurface Utility Engineering (SUE) will be required for this project.
- 1.6.7.5.** The Engineer shall coordinate with the utility companies. The Engineer shall attend meetings at the 30% Design submittal with the various utility companies to discuss potential conflicts.
- 1.6.7.6.** The Engineer shall incorporate existing utility survey and SUE work into the preliminary design for presentation at a utility coordination meeting.
- 1.6.7.7.** Contact One-Call to facilitate the location of existing buried utilities. Tie the surface features of existing utilities within the project limits as marked by One-Call.

1.7. Preliminary Design and Incorporation of Innovative and Sustainable Components

The Engineer shall update project specific geometric and drainage criteria and summarize all design criteria and standards in a revised Design Summary Report (DSR). The Engineer will furnish copies of this report to the Mobility Authority for review and approval prior to preliminary design. The Engineer shall review the current approved Schematic and check all design values to verify conformance with the design criteria established in the approved DSR. The Engineer shall notify the Mobility Authority if elements of the schematic do not meet the specified Design Criteria.

1.7.1. The Engineer shall proceed with preliminary design as follows:

- 1.7.1.1.** The Engineer shall refine the horizontal and vertical alignment elements of the Schematic for conformance to the proposed design criteria.
- 1.7.1.2.** The Engineer shall incorporate components of the Mobility Authority's Green Roads Program and provide recommendations to the Mobility Authority for incorporation of innovative and sustainable components to the project.
- 1.7.1.3.** Determine vertical clearances at grade separations and overpasses, taking into

EXHIBIT B
Services to be Provided by the Engineer
Manor Expressway Phase III Project

account the appropriate super-elevation rate.

- 1.7.1.4.** Schematic refinements shall include changes to cross sections and geometry to optimize and finalize bridge limits and span arrangements, retaining wall limits, location of overhead sign structures and toll gantries (if included), development of feasible construction sequence, and cost saving measures to reduce construction cost.
- 1.7.1.5.** The Engineer shall develop a preliminary schematic layout.
- 1.7.1.6.** Coordinate any modifications to the Schematic with the Mobility Authority and TxDOT.
- 1.7.1.7.** The Engineer will coordinate with the Mobility Authority in identifying proposed bridges and retaining walls that would provide an opportunity for applying an aesthetics theme or Green Roads approach. The Engineer shall prepare an exhibit to show what aesthetic/sustainable features could be applied at each specific location for review and approval by the Mobility Authority.
- 1.7.1.8.** Notify the Mobility Authority of any additional ROW needs or access easements.
- 1.7.1.9.** Notify the Mobility Authority of any modifications to the Schematic that may have an impact on the environmental documents.
- 1.7.1.10.** The Engineer shall prepare an updated preliminary cost estimate for discussion.
- 1.7.1.11.** Develop updated proposed Cross-Sections. The cross-sections should illustrate utilities at their existing location.

1.7.2. Deliverables:

- 1.7.2.1.** Submit ten (10) copies of a Schematic layout illustrating the modified typical sections, horizontal and vertical geometry, retaining wall locations, bridge limits and bent locations in *.pdf, CADD, and hard copy formats.
- 1.7.2.2.** Submit ten (10) 11x17 copies of the proposed design cross-sections including utilities based on the proposed assignments in *.pdf, CADD, and hard copy formats.
- 1.7.2.3.** Submit ten (10) copies of the preliminary cost estimate in both electronic and hard copy formats.
- 1.7.2.4.** Provide exhibits indicating locations of sustainability and aesthetic improvements in *.pdf, CADD, and hard copy formats.

1.8. Roadway Design

1.8.1. Basic Plan Sheets

- 1.8.1.1.** Prepare the preliminary PS&E Title Sheet for a local letting by the Mobility Authority.
- 1.8.1.2.** Prepare preliminary Project Layout Sheets at a scale of 1"=200' that clearly indicates the limits of the entire project.

1.8.2. Roadway Plans & Geometry

- 1.8.2.1.** Develop preliminary Proposed Typical Sections Sheets for the Project

EXHIBIT B
Services to be Provided by the Engineer
Manor Expressway Phase III Project

mainlanes, direct connectors, ramps, and frontage roads where work will be performed.

- 1.8.2.2. Develop preliminary Existing Typical Sections Sheets depicting the existing conditions of the project roadways.

1.8.3. Grading and Details

- 1.8.3.1. The Engineer will develop a preliminary Open Roads 3D DGN and DTM to model the proposed direct connectors and approaches.
- 1.8.3.2. The Engineer will cut preliminary Design Cross Sections from the Open Roads DTM at 100-foot stations at a minimum stretching across the entire ROW of the Project as necessary for the determination of cut and fill quantities and limits of disturbance.

1.9. Drainage Design

- 1.9.1. Review existing Drainage Analyses/Reports.

1.9.2. Hydraulic Report: Engineer will perform all drainage design with a specific hydrologic and hydraulic study. The Engineer will design and construct the outfalls to avoid any adverse impacts for the Ultimate Design (includes all eight direct connectors). The offsite hydrology may be modeled utilizing HEC-HMS. The cross-culverts shall be modeled using HEC-RAS or FHWA HY-8. The criteria below are meant to clarify and supplement but not supersede the TxDOT Hydraulic Design Manual. Should any apparent conflicts arise, the Engineer should consult the Mobility Authority for clarification.

- 1.9.2.1. Obtain and review best available hydrologic and hydraulic models. When appropriate these will be used to develop existing and proposed conditions models.
- 1.9.2.2. Identify all existing drainage outfalls within the limits of the project. Delineate drainage area boundaries for each drainage outfall including any area outside the limits of the project that drain to the outfall. Existing storm drain systems will be located and analyzed to the extent necessary for this study. Measure the existing impervious cover within each drainage area and compute the time of concentration and runoff curve number for each drainage area.
- 1.9.2.3. Compute existing condition flows at all outfalls draining into receiving streams. Utilize 24-Hour rainfall depths in the Atlas of Depth-Duration Frequency of Precipitation Annual Maxima for Texas (USGS/TxDOT Report 2004-5041) and rainfall distributions employed in the most recent FEMA studies of the watersheds of interest to compute discharges for 2, 5, 10, 25, 50, 100 year rainfall frequencies.
- 1.9.2.4. Delineate proposed condition drainage area boundaries. Include areas that are outside the project that drain to the proposed outfalls. Coordinate the drainage area delineation with adjacent projects, if applicable. Measure the proposed condition impervious cover within each drainage area and compute the runoff

EXHIBIT B
Services to be Provided by the Engineer
Manor Expressway Phase III Project

curve number and the proposed condition time of concentration. Existing land use condition will be assumed for drainage areas outside the proposed ROW unless there is knowledge of any planned development. The Engineer shall coordinate with the Mobility Authority to obtain any information pertaining to any planned developments adjacent to the Project Corridor. If it is determined that a planned development is eminent and will utilize any part of the Project drainage conveyance system within the Project ROW, then the proposed build out conditions of the development shall be used in calculating runoff. Preliminary proposed condition storm drains will be located and sized.

- 1.9.2.5.** Compute proposed condition flows at all proposed outfalls draining into receiving streams. Utilize rainfall data as defined in Paragraph 2 above.
- 1.9.2.6.** Determine hydrologic impacts from the proposed project by comparing the existing and proposed flow rates at each outfall, taking into account the hydrographs from upstream watersheds.
- 1.9.2.7.** For non-FEMA regulated outfalls, the primary criterion for no adverse impact is no more than one foot accumulative increase in water surface elevation of the 100-year rainfall frequency and no additional structures or significant properties in the 100-year rainfall frequency area of inundation. Engineer should use HY-8 or HEC-RAS or equivalent modeling approach to evaluate changes in water surface elevation. The community floodplain administrator will be notified of the project in accordance with TxDOT Hydraulic Design Manual Impacts of the 2, 5, 10, 25, 50-year events should also be evaluated. Engineer will evaluate (on a case by case basis) structures or properties that could potentially be impacted by comparing levels of the structures or properties with the water surface elevations. Engineer will present results of impact analysis to the Mobility Authority.
- 1.9.2.8.** Determine mitigation alternatives if the proposed project could have an adverse impact. The mitigation alternatives may include storm water detention basins and/or adjustments to proposed drainage area boundaries, possible adjustment to roadway profiles and adjustment of preliminary storm drains to accommodate required mitigation alternatives. Mitigation alternatives will be coordinated with the Mobility Authority.
- 1.9.2.9.** If detention is chosen as the alternative for mitigation, the design of the pond will achieve mitigation of impacts for 2, 5, 10, 25, 50, and 100 year rainfall events for the ultimate design and future development of 290E. In the case where two adjacent drainage areas discharge to the same watercourse, an adverse impact is determined, and it would be difficult to provide detention for one of the areas, the detention pond for the other area could be sized such that the combined proposed flow from both areas does not result in adverse impacts. Consideration should be made on the stream reach that does not receive detention to verify no adverse impact. Distance downstream for these confluences would be determined on a case by case basis. Engineer will provide proper documentation of such situations to the satisfaction of the

EXHIBIT B
Services to be Provided by the Engineer
Manor Expressway Phase III Project

Mobility Authority.

1.9.2.10. It is assumed that eight (8) new detention basins will be required for the project. The eight locations assumed include:

- Two (2) ponds along 290E west of the intersection with SH130. The design and capacity of the existing detention basins located along 290E will be reviewed to determine if use of these basins for proposed detention is feasible
- Two (2) ponds along SH130 north of the intersection with 290E
- Two (2) ponds along SH130 south of the intersection with 290E
- Two (2) ponds along 290E east of the intersection with SH130

1.9.2.11. The Engineer will provide support for the Mobility Authority coordination for any approvals and permits required.

1.9.2.12. Submit a report that discusses the pertinent site information, analysis assumptions, hydrologic and hydraulic analyses, and the proposed design of any mitigation measures. Report should include a table that lists existing flows, proposed flows without mitigation, and proposed flows with mitigation (if mitigation proposed). A draft report with recommended mitigation measures will be submitted at the Initial Design Submittal.

1.9.3. Storm Water Pollution Prevention Plan (SW3P)

Temporary storm water management devices will be needed to minimize the sediment runoff during construction of this project. The Engineer will consider any and all applicable BMPs including: non-disturbance area delineation (preserving existing vegetation), temporary and permanent seeding or sodding, erosion control blankets, diversion dikes or swales, temporary mulch, silt fence, sand bags, rock filter dams, sediment traps, and construction exits, etc. The Engineer shall provide information to support the environmental document.

1.9.4. Deliverables

1.9.4.1. Electronic version of the validated Project Specified Unit Hydrograph Model

1.9.4.2. Electronic versions of the H&H Models (HEC-RAS, HEC-HMS) and applicable data and maps

1.9.4.3. Electronic version of the preliminary Hydraulic Report in both *.doc and *.pdf Formats

1.9.4.4. Electronic versions of the Storm Drainage Model (Geopak Drainage), applicable data and maps

1.10. Structural Design

All bridge design shall be in conformance with the latest edition of the State's *LRFD Bridge Design Manual*, *Bridge Project Development Manual*, *Bridge Detailer's Manual*, and *AASHTO LRFD Bridge Design Specifications*.

1.10.1. Bridge Foundation Design Study: The Engineer shall coordinate with the geotechnical task lead to evaluate whether alternative foundation designs that may be beneficial to the project. The study should include the options considered, the cost associated with the various options, benefits and drawbacks and final

EXHIBIT B
Services to be Provided by the Engineer
Manor Expressway Phase III Project

recommendations.

- 1.10.2.** The Engineer shall prepare a Bridge Type and Cost report that documents the analyses comparing costs for each bridge length versus pavement/embankment/retaining walls, to determine optimum bridge lengths and submit the report to the GEC. The Mobility Authority will approve this analysis prior to preparation of the bridge layouts.
- 1.10.3.** Preliminary Bridge Layout & Typical Sections: The Engineer shall prepare preliminary bridge layout plans, elevations, and typical sections for the bridge types listed below in the Estimated Bridge Limits Table.
- 1.10.4.** The preliminary development of bridge layouts includes preliminary development of bridge geometry.

Estimated Bridge Limits Table

Bridge	Approx. Length	Approx. Width	Estimated # of Spans
SH130 SB to 290E WB Direct Connector		Varies	
SH130 NB to 290E WB Direct Connector		38'	
290E EB to SH130 SB Direct Connector		38'	

1.11. Retaining Wall Design

- 1.11.1.** The Engineer shall determine if walls are required and verify the need for and length of the retaining walls.
- 1.11.2.** The Engineer shall prepare a Retaining Wall Type and Cost report that documents the analyses comparing costs for each wall type and submit the report to the GEC. The Mobility Authority will approve this analysis prior to preparation of the retaining wall layouts.

1.12. Signing, Markings and Signalization

- 1.12.1.** Review the Preliminary Signage Schematic and make revisions as needed to reflect modifications made to the Schematic (if any). Provide justification for deletion of any large guide sign. Also, provide justification for the inclusion of any new larger. Justifications shall be reviewed and approved by the Mobility Authority prior to design.
- 1.12.2.** Include proposed pavement markings on the Preliminary Schematic.

1.13. Traffic Control Plan

- 1.13.1.** The Engineer shall prepare a conceptual Traffic Control Plan/Sequence of Construction Layout that defines the main phases of construction. This layout will be developed in conjunction with the geometric refinements and the preliminary design cross section. Commitments included in the Environmental Assessment

EXHIBIT B
Services to be Provided by the Engineer
Manor Expressway Phase III Project

shall be taken into account if applicable during the development of the conceptual layout.

- 1.13.2.** The Engineer will define lane closure requirements and develop a conceptual Lane Rental plan for review and approval of the Mobility Authority. Proposed project milestones will be developed for review and approval of the Mobility Authority. Lane Rental and Project Milestones approved by the Mobility Authority will be incorporated into the Traffic Control Narrative and General Notes.
- 1.13.3.** The Engineer shall develop a preliminary construction schedule for the major phases of work.
- 1.13.4.** The Engineer will participate in one Constructability workshop to review the Traffic Control Plan.
- 1.13.5.** The Engineer will analyze the impacts to mainlane traffic volumes on both SH130 and 290E for each phase of the TCP. The Engineer will provide the results of this analysis to the Mobility Authority for use in a toll revenue impact analysis. It is anticipated that this analysis will be required in discussions with both the Mobility Authority and TxDOT in securing approval of the conceptual TCP and proposed lane closures.

1.14. Intelligent Transportation Systems (ITS)

- 1.14.1.** The Engineer shall coordinate with the Mobility Authority's Director of Operations and TxDOT to obtain information related to the existing infrastructure.
- 1.14.2.** The Engineer shall prepare an ITS Layout that defines the locations through field verification of duct banks, ground boxes, conduit systems, DMS signs, traffic detection devices, CCTV cameras, etc. to be used for design purposes as well as included in the plans for the contractor's information. The design should be in accordance with TxDOT's existing Concept of Operations (CONOPS) for the area.
- 1.14.3.** Existing duct bank and conduit systems shall be included in the design cross sections where appropriate.
- 1.14.4.** The existing ITS infrastructure should be avoided, but if unavoidable, any needed modifications should be coordinated through the Mobility Authority and TxDOT.
- 1.14.5.** Prepare a report justifying the equipment used on the project with cost justification.

1.15. Illumination

- 1.15.1.** The Engineer shall prepare a conceptual Illumination Layout based on 3D model of the roadway using AGI 32 to determine photometric characteristics that defines the safety lighting locations needed.
- 1.15.2.** Prepare a report summarizing the lighting design justifying the recommendations.
- 1.15.3.** The Engineer shall perform lighting warrant studies for full interchange lighting and safety lighting.
- 1.15.4.** Assess the need FAA clearance of high mast lighting locations due to a number of airports in the area.
- 1.15.5.** The Mobility Authority's goal is to provide an average illuminance level of between 0.6- and 0.8-foot candles on the roadway pavement. Illumination uniformity shall comply with the AASHTO Roadway Illumination Design Guide

EXHIBIT B
Services to be Provided by the Engineer
Manor Expressway Phase III Project

requirements.

- 1.15.6.** Engineer shall design for LED luminaires that conform to TxDOT DMS 11011 shall be used at all proposed conventional lighting locations.
- 1.15.7.** The Engineer shall coordinate with utility providers to establish preliminary service pole locations if existing services are not feasible.
- 1.15.8.** The Engineer will design the illumination modifications and additions for 290E to be consistent with the existing components utilized on the 290E.
- 1.15.9.** The Engineer will design the illumination modifications and additions for SH130 to be consistent with the existing components utilized on SH130.

1.16. Toll Facilities Infrastructure

- 1.16.1.** The Engineer shall coordinate with the Mobility Authority to obtain details and directives for the Toll Facilities Infrastructure Design.
- 1.16.2.** The Engineer shall include all preliminary civil infrastructure elements required for tolling facilities to the design plans on the Preliminary Schematic.
- 1.16.3.** The Engineer shall coordinate with the Mobility Authority's System Integrator (SI) to determine infrastructure required at each tolling site.

1.17. Traffic Operations Modeling

The Engineer shall conduct traffic modeling and analysis to support the interchange design effort. The Engineer shall review, collect, and analyze traffic data (including percent trucks, design hourly volume, and directional distribution), existing roadway features (including weaving sections, merge sections, diverge sections, number of lanes, and intersection geometry), traffic flow patterns, and signal operations.

- 1.17.1.** Collect peak hour turning movement counts (AM (7:00-9:00) and PM (4:00-6:00)) at the following intersections:
 - 1.17.1.1.** Parmer Ln. at SH130 (diamond)
 - 1.17.1.2.** Harris Branch Pkwy. at 290E (diamond)
 - 1.17.1.3.** 290E at SH130 (box diamond)
 - 1.17.1.4.** Blue Bluff Rd. at SH130 (partial diamond)
- 1.17.2. Mainlanes** Collect 24-hour bi-directional traffic counts (With Vehicle Classification) at the following locations:
 - 1.17.2.1.** SH130, north of Parmer Ln. ramps
 - 1.17.2.2.** 290E, west of Giles Ln./Johnny Morris Rd. ramps
 - 1.17.2.3.** 290E, east of SH130 ramps
 - 1.17.2.4.** SH130, south of Blue Bluff Rd. ramps
- 1.17.3. Ramps** Collect 24-hour bi-directional traffic counts at the following locations:
 - 1.17.3.1.** SH130
 - Parmer Ln. (3)
 - 290E (3)

EXHIBIT B
Services to be Provided by the Engineer
Manor Expressway Phase III Project

- Blue Bluff Rd. (3)
- 1.17.3.2. 290E**
- Giles Ln./Johnny Morris Rd., east of Giles Ln./Johnny Morris Rd. (2)
 - Harris Branch Pkwy. (3)
 - EB-to-NB DC (with vehicle classification)
 - SH130 (3)

1.17.4. Frontage Roads Collect 24-hour bi-directional traffic counts at the following locations:

1.17.4.1. Parmer Ln., west of SH130

1.17.4.2. Parmer Ln., east of SH130

1.17.4.3. SH130 SBFR to WB 290E RT ramp

1.17.4.4. 290E, between Giles Ln./Johnny Morris Rd. and Harris Branch Pkwy. ramps

1.17.4.5. 290E, between SH130 ramps and Parmer Ln.

1.17.4.6. Blue Bluff Rd., west of SH130

1.17.4.7. Blue Bluff Rd., east of SH130

1.17.5. Conduct a field review of the existing roadways, within the study area limits, to note and verify lane configurations, roadway geometrics and observe existing traffic operations on the study area network to note operational problems and existing traffic patterns to calibrate AM and PM existing models.

1.17.6. Obtain existing traffic signal timing and phasing information from the operating agency.

1.17.7. Code and calibrate existing AM and PM peak Vissim models.

1.17.8. Develop Opening Year volumes for the AM peak and PM peak hours. The volume forecasts will be based on TxDOT historical traffic counts, CAMPO 2040 travel demand model outputs, and information provided by Mobility Authority. Traffic projections will be made for the 290E and SH130 main lanes and ramps in the study area and the intersections listed for data collection.

1.17.9. Using the existing calibrated traffic model as the base, code AM and PM peak hour Vissim models to reflect transportation network configurations associated with the proposed roadway improvements. Two (2) scenarios shall be modeled as listed below for Opening Year traffic volume conditions:

1.17.9.1. Construction of 3 new DCs at the interchange of 290E and SH130

1.17.9.2. Construction of 3 new DCs at the interchange of 290E at SH130 and frontage road improvements south of 290E.

1.17.10. Summarize results of the analysis in a technical memorandum. The results will include intersection analysis, weaving analysis, and merge/diverge analysis to support the roadway design

1.18. Miscellaneous

1.18.1. The Engineer shall prepare a Construction Cost Estimate. A copy shall be submitted to the Mobility Authority in Microsoft Excel format.

EXHIBIT B
Services to be Provided by the Engineer
Manor Expressway Phase III Project

- 1.18.2. Determine locations and extent of Preliminary Landscape Plantings and Hardscape Plans based upon aesthetics and landscaping elements included in Manor Expressway.
- 1.18.3. The Engineer shall prepare preliminary aesthetic details for bridge and retaining wall elements. The Engineer will develop details with guidance and direction of the Mobility Authority on the aesthetic theme. Engineer shall incorporate aesthetic elements into the project that match those on SH130 and or Manor Expressway. The Mobility Authority will provide the aesthetic guidelines for the Engineer to incorporate into the final design.
- 1.18.4. All team members involved in the preparation of engineering plans, studies and reports shall have established QA/QC procedures and shall conform to those procedures during the life of the Project. To verify that adequate procedures will be employed to provide quality products, the Engineer will submit for approval for their proposed QA/QC Plan to be used on this project. The Mobility Authority will provide independent QA/QC audits to verify project compliance with this plan. The Engineer shall have a Quality Control Plan in effect during the entire time work is being performed under this project.

1.19. Coordination, Meetings & Invoicing

- 1.19.1. The Engineer will participate and attend up to six (6) project workshops with specialty consultants, TxDOT, and the Mobility Authority to establish the project issues, concerns, and objectives of the Project that will influence the configuration of the proposed Project and further define the Scope of Services to be provided by the Engineer.
- 1.19.2. The Engineer will participate and attend bi-weekly design coordination meetings with the Mobility Authority. The Engineer shall also conduct periodic meetings with the Engineer's internal team of sub-consultants.
- 1.19.3. The Engineer will participate and attend monthly design coordination meetings with the TxDOT.
- 1.19.4. The Engineer shall attend up to a total of eight (8) Stakeholder meetings (e.g. Cap Metro, Toll Operations Division, City of Austin, City of Manor, and Travis County, etc.) and provide support for the development of exhibits when requested by the Mobility Authority.
- 1.19.5. The Engineer shall prepare project development protocols for: communication, file naming, and documentation. The Engineer shall submit, for Mobility Authority review and approval, the file structure and naming schemes proposed to be used for Project computer generated drawings and plans.
- 1.19.6. Follow invoice procedures as described in the Contract.

2. FINAL DESIGN

2.1. Stakeholder Coordination and Public Involvement Assistance

The Engineer will continue to provide support for various meetings, coordination, and communication with the public and other agencies as requested by the Mobility Authority.

EXHIBIT B
Services to be Provided by the Engineer
Manor Expressway Phase III Project

Support will include providing information for website and information sheet development.

2.2. Data Collection

The Engineer shall complete and finalize any remaining data collection efforts.

2.3. Geotechnical Investigation

2.3.1. The Engineer will respond to Mobility Authority comments and prepare a final geotechnical report that will present recommendations for the design of the bridge foundations, retaining wall foundations, sign structures, culverts and toll gantry foundations (if needed).

2.3.2. Deliverables

2.3.2.1. Submit three (3) final copies of geotechnical report that incorporate review comments. One (1) additional final copy of the geotechnical report that incorporates review comments shall also be kept on file with the Engineer for future reference.

2.3.2.2. Provide signed and sealed sheets of boring logs for insertion into the construction plan set.

2.3.2.3. Coordinate with Engineer and review and verify conformance with recommendations provided in the geotechnical report.

2.3.2.4. Provide electronic copies of Soil Boring locations in MicroStation dgn file.

2.3.2.5. Provide complete soil boring data files in Wincore format.

2.4. Supplemental Surveying

2.4.1. No work performed.

2.5. Utility Coordination and Design

2.5.1. The Engineer shall coordinate with the utility companies including TxDOT and the Mobility Authority related to the ITS/Tolling infrastructure. The Engineer shall attend meetings at the 60% Design and Pre-Final submittals with the various utility companies to discuss potential conflicts.

2.5.2. The Engineer shall evaluate and accommodate reasonable changes to plans as necessary or as requested by the Mobility Authority to avoid utility conflicts.

2.5.3. Illustrate existing and proposed utility locations on Roadway Plan sheets.

2.5.4. Show existing utility locations in the proposed cross sections with each submittal.

2.5.5. Illustrate existing and proposed (where applicable) utility crossings on Roadway Profile sheets.

2.5.6. Review all utility designs prepared by others for conflicts with construction plans.

2.6. Special Design Per Mobility Authority Request

At the request of the Mobility Authority, the Engineer may be required to produce special design details which are not included in the current schematic or specifically scoped effort. The Engineer shall initiate these efforts after obtaining Mobility Authority approval and shall consider these efforts as part of the Project scope. Budget for these extra tasks shall be allocated and tracked separately from other scoped items.

EXHIBIT B
Services to be Provided by the Engineer
Manor Expressway Phase III Project

2.7. Final Roadway Design

2.7.1. Basic Plan Sheets

- 2.7.1.1.** Prepare the final PS&E Title Sheet.
- 2.7.1.2.** Complete the detailed Index of Sheets that identifies each sheet location in the plan set, as well as its corresponding sheet number. The Engineer will update the Index of Sheets throughout the submittal process to allow for easier reference during the review process.
- 2.7.1.3.** Prepare final Project Layout Sheets at a scale of 1"=200' that clearly indicates the limits of the entire project.
- 2.7.1.4.** Prepare Survey Control Sheets that clearly indicate the benchmark locations and associated control information. These sheets will later be sealed by a RPLS for submittal.

2.7.2. Roadway Plans & Geometry

The Engineer will:

- 2.7.2.1.** Develop final Proposed Typical Sections Sheets for the Project mainlanes, direct connectors, ramps, and frontage roads to which work will be completed.
- 2.7.2.2.** Complete final Existing Typical Sections Sheets depicting the existing conditions of the project roadways.
- 2.7.2.3.** Complete Roadway Plan and Profile sheets. Drawings will be prepared at a scale of 1"=100' H and 1"=10' V for the following elements:
 - Southbound SH130 to westbound 290E direct connector.
 - Northbound SH130 to westbound 290E direct connector.
 - Eastbound 290E to southbound SH130 direct connector.
 - Westbound 290E exit ramp to Harris Branch Pkwy.
 - Southbound SH130 exit ramp north of 290E.
 - Southbound SH130 exit ramp to Blue Bluff Rd.
 - Northbound SH130 entrance ramp from Blue Bluff Rd.
- 2.7.2.4.** Prepare Intersection details showing spot elevations and contours. Drawings will be prepared at a scale of 1"=100' H and 1"=10' V.
- 2.7.2.5.** Develop Ramp Gore Layouts at the intersection of each ramp with its adjacent roadways. These layouts will show proposed grading, as well as station, offsets, curb radius and curb locations. Drawings will be prepared at a scale of 1" = 40'
- 2.7.2.6.** Develop miscellaneous grading details. These layouts will show proposed grading, as well as station, offsets, curb radius and curb locations. Drawings will be prepared at a scale of 1" = 40'.
- 2.7.2.7.** Prepare Horizontal Alignment Data Sheets depicting the horizontal geometric information for the project roadways to be included in the construction plan set.
- 2.7.2.8.** Prepared Miscellaneous Curve Data Sheets depicting the horizontal geometric information for roadway curves that are not concentric to roadway alignments.

EXHIBIT B
Services to be Provided by the Engineer
Manor Expressway Phase III Project

- 2.7.2.9. Develop Superelevation Data Sheets to be included in the PS&E set. These sheets will define the pavement cross slopes for individual roadway alignments and describe transition locations and values. Profile graphs will be required as backup documentation to illustrate there will be no ponding issues created within superelevation transition zones.
- 2.7.2.10. Prepare Removal Layouts showing the locations for the removal of pavement, structures and other miscellaneous items. Drawings will be prepared at a scale of 1"=100'.

2.7.3. Grading and Details

- 2.7.3.1. The Engineer will complete the Open Roads 3D DGN and DTM to model the proposed project elements.
- 2.7.3.2. Prepare Design Cross Sections at 50-foot stations along the mainlanes, direct connectors, ramps, frontage roads and other locations as necessary for the determination of cut and fill quantities and limits of construction. No cross sections will be needed at bridge locations. Cross sections shall display existing or proposed storm sewer and utility elements, including the existing ITS conduit system.
- 2.7.3.3. Develop Miscellaneous Roadway Detail sheets for the project. The sheets will depict details required that are not defined in TxDOT standard detail sheets. When possible Statewide TxDOT or Austin District standards will be used for the project development.

2.8. Drainage Design

2.8.1. Hydraulic Report:

Refine the hydrologic and hydraulic studies performed in the preliminary phase, which will include:

- 2.8.1.1. Identify any new or relevant data.
- 2.8.1.2. Verify validity of previous hydrologic studies.
- 2.8.1.3. Review previous studies, reports, and plans.
- 2.8.1.4. Revise the Hydraulic Report as needed.

2.8.2. Bridge and Culvert Plan Sheets

- 2.8.2.1. Hydraulic Data Sheets: The Engineer will prepare hydraulic data sheets for bridges over creeks and any culvert within the project if applicable.
- 2.8.2.2. External Drainage Area Maps: The Engineer will finalize previously determined drainage areas from the hydrologic analysis and prepare exterior drainage area map sheets at a scale of 1"=200' or a scale acceptable to the Mobility Authority. The Engineer will show structure locations and, for large drainage basins, will indicate pertinent hydraulic information on these sheets.
- 2.8.2.3. Culvert layouts: The Engineer will prepare culvert plan and profile layouts at

EXHIBIT B
Services to be Provided by the Engineer
Manor Expressway Phase III Project

a scale of 1"=40'H and 1"=20'V that will depict culvert geometry for reconstruction or lengthening, as well as the applicable hydraulic information.

2.8.3. Storm Drain Plan Sheets

The Engineer will address the required project storm drain systems as follows:

- 2.8.3.1. Storm Drain Computations:** The Engineer will analyze and design any modifications to existing or proposed storm drain systems. Computations and design information will be presented on the appropriate plan sheets.
- 2.8.3.2. Interior Drainage Area Maps:** The Engineer will prepare interior drainage area map plan sheets at an appropriate scale for any drainage areas that are modified. These maps will depict drainage area boundaries and flow direction arrows. Each drainage area will be identified with a unique number corresponding to run-off information from the calculation sheets.
- 2.8.3.3. Drainage Plan and Profile Sheets:** The Engineer will prepare drainage plan and profile sheets depicting locations of inlets, manholes, storm drains, culverts, utilities, channel improvements, ditch locations, cross-sections and flowlines as required. These sheets will be prepared at a scale of 1"=100'. Storm drain profiles will be prepared at a scale of 1"=100' H and 1"=10' V. Enclosed storm drain plans and profiles will show pipe size and type, inverts, slope, existing and proposed ground lines above the pipe, pertinent hydraulic information, and locations and sizes of inlets and junctions. The design storm HGL shall be clearly plotted and depicted on the Drainage Plan and Profile Sheets.
- 2.8.3.4. Detention Ponds Layouts and Details:** The Engineer will prepare detention pond layouts and details depicting the grading, inlet and outlet structure locations, cross-sections, flowlines, and additional details for the ponds. These sheets will be prepared at a scale of 1" =40'.
- 2.8.3.5. Ditch Layout Schedule:** The Engineer will prepare a tabular ditch layout schedule that depicts pertinent information about the roadside ditch geometry and design based on normal depth computations. This table will include station, offset, flow line elevation, ditch lining material, as well as ditch bottom width. The tables will be shown on the drainage plan sheets.
- 2.8.3.6. Channel Layouts:** The Engineer will prepare culvert layouts depicting all pertinent channel information including alignment, profile, grading, section details, channel lining material, hydraulic computations and HGL.
- 2.8.3.7. Drainage Detail Sheets:** The Engineer shall use TxDOT standard details where practical. The Engineer shall provide drainage design details for "non-standard" drainage structures in instances where TxDOT standard details cannot be utilized.
- 2.8.3.8. Temporary Drainage Facilities:** The Engineer will develop temporary drainage facilities necessary to allow staged construction of the project. The Engineer will design required temporary drainage structures for a 5-year frequency event, and include structure size, flow line elevations and approximate

EXHIBIT B
Services to be Provided by the Engineer
Manor Expressway Phase III Project

structure location in the traffic control plan sheets. The Engineer will evaluate temporary drainage ditches between temporary drainage structures and outfall locations and designate a typical ditch section in the plans along with plan notes for the contractor to maintain positive drainage for these temporary ditches.

- 2.8.3.9. Trench Protection Determination:** The Engineer will identify storm drain and culvert construction areas that will require trench protection or special shoring and indicate this information on the plans.

2.8.4. Storm Water Pollution Prevention Plan (SW3P)

- 2.8.4.1. Erosion and Sediment Control Plans:** Temporary storm water management devices will be needed to minimize the sediment runoff during construction of this project. The Engineer will develop a temporary erosion and sediment control plan for the length of the project that complements the design and construction phasing of the project, and will include notes that indicate the contractor is responsible for detailed sequencing of the devices. The Engineer will consider the following design components: non-disturbance area delineation (preserving existing vegetation), temporary and permanent seeding or sodding, erosion control blankets, diversion dikes or swales, temporary mulch, silt fence, sand bags, rock filter dams, sediment traps, and construction exits. Permanent erosion control measures will be included on these sheets if needed.
- 2.8.4.2. SW3P:** The Engineer will prepare SW3P summary plan sheet(s) in accordance with Texas Pollution Discharge Elimination System (TPDES) regulations and TxDOT practices. The Engineer will use TxDOT SW3P text sheet(s) to summarize erosion and sediment control measures.
- 2.8.4.3. Erosion and Sediment Control Details:** The Engineer will prepare Erosion and sediment control details for any related items that are not covered by TxDOT standard details. Compost Manufactured Topsoil (CMT) will be utilized wherever possible for erosion control.
- 2.8.4.4. Environmental Issues, Permits and Commitments:** The Engineer will update the EPIC sheet as necessary and include in the final plans.

2.8.5. Deliverables

- 2.8.5.1.** Electronic version of the hydrologic model
- 2.8.5.2.** Electronic versions of the hydraulic model(s)
- 2.8.5.3.** Electronic version of the Hydrologic Report in both *.doc and *.pdf Formats
- 2.8.5.4.** Three (3) 8 ½”x 11” Bound Paper copies of the Hydrologic Report
- 2.8.5.5.** Electronic version of the Storm Drainage Model, applicable data and maps
- 2.8.5.6.** PS&E Sheets
- Offsite Drainage Area Maps and Calculations
 - Onsite Drainage Area Maps

EXHIBIT B
Services to be Provided by the Engineer
Manor Expressway Phase III Project

- Storm Sewer Plan and Profile Sheets
- Culvert Hydraulic Data Sheets
- Culvert Layout Sheets
- EPIC Sheet
- SW3P
- SW3P Layouts
- Drainage and Environmental Mitigation Details

2.9. Structural Design

All bridge design shall be in conformance with the latest edition of the State's *LRFD Bridge Design Manual, Bridge Project Development Manual, Bridge Detailer's Manual,* and *AASHTO LRFD Bridge Design Specifications (HL 93 Loading)*.

- 2.9.1.** The Engineer shall incorporate, into the final design of the bridge elements, aesthetic design features and details as determined in the preliminary engineering phase.
- 2.9.2.** Bridge Layouts: The Engineer shall finalize Bridge Layout plans, elevations and typical sections.
- 2.9.3.** The Engineer shall generate final design calculations and final detail drawings for the Project structures. Structural design calculations and final detail drawings will be in accordance with standard requirements of TxDOT. The Engineer's designer and checker shall both check calculations and sign the front page of each individual calculation package. The Engineer shall submit structural design calculations and quantity calculations for review at the Final submittal. The Engineer shall coordinate interim over the shoulder reviews at the request of the Mobility Authority and GEC.
- 2.9.4.** The Engineer shall develop a Boring Log Key map layout indicating locations of geotechnical boring.
- 2.9.5.** Boring Log Elevations: The Engineer will include boring logs for each geotechnical borings on separate sheets.
- 2.9.6.** Estimated Quantities and Bearing Seat Elevations: The Engineer shall provide bridge quantity summaries at 60%, Pre-Final and Final Plan submittals. The bridge elevations shall be limited to bearing seat elevations only.
- 2.9.7.** Abutment details and calculations shall be provided for custom abutments.
- 2.9.8.** Interior Bent details and calculations shall be provided for custom interior bent details (caps and columns).
- 2.9.9.** Footings: Details and calculations shall be provided for footing elements.
- 2.9.10.** Framing Plan: For steel girder design, this effort includes design of steel girders and field splices.
- 2.9.11.** Slab Plan: The slab plan includes the development of prestressed beam designs.
- 2.9.12.** Foundation Design: Details for foundation layouts and calculations shall be provided for foundation elements
- 2.9.13.** Drainage Details: The Engineer shall provide details for concealed drainage for

EXHIBIT B
Services to be Provided by the Engineer
Manor Expressway Phase III Project

bridge deck scuppers. Drainage slots in bridge rails shall not be used for the mainlane structures. These sheets will be developed with combined details for use on various structures.

- 2.9.14.** Aesthetic Design: The Engineer shall finalize detailed drawings for aesthetic features compatible with the project aesthetic theme.
- 2.9.15.** Miscellaneous Details: The details shall include Structural Details for aesthetics. These sheets will be developed with combined details for use on various structures.
- 2.9.16.** Standard Details: The Engineer will use the latest TxDOT standard details for beams, diaphragms, railings, expansion joints, riprap, etc. wherever possible. Prepare any project-specific modified standards necessary for inclusion in the PS&E package. Sign, seal and date all project-specific modified standards.
- 2.9.17.** Specifications: The Engineer will develop specifications as needed for bridge structures.

2.10. Retaining Wall Design

The Engineer shall provide layouts (scale Max:1"=40' and Min: 1"=100'), elevations, quantity estimates, summary of quantities, typical cross sections, and structural details of all retaining walls within the project.

- 2.10.1.** The Engineer shall determine if walls are required and verify the need for and length of the retaining walls. The Engineer shall make proposals to the Mobility Authority regarding most suitable wall type for each application.
- 2.10.2.** Engineer will prepare Retaining Wall Key Map depicting the various wall locations. Soil boring locations will also be depicted on these sheets.
- 2.10.3.** Engineer will prepare retaining wall layout sheets showing plan and profile of retaining walls. Engineer will provide associated details in plan and profile views. Engineer shall provide soil boring profiles on separate plan sheets.
- 2.10.4.** Engineer will prepare structural details for soil nail walls if used.
- 2.10.5.** Engineer will identify temporary shoring needs and prepare layouts as necessary.
- 2.10.6.** Engineer will prepare Retaining Wall Typical Sections sheets.
- 2.10.7.** Engineer will prepare Retaining Wall Horizontal Alignment Data Sheets depicting the horizontal geometric information for the project retaining walls to be included in the construction plan set.
- 2.10.8.** Prepare Layout Plan which includes:
 - 2.10.8.1.** Designation of reference line
 - 2.10.8.2.** Beginning and ending retaining wall stations
 - 2.10.8.3.** Offset from reference line
 - 2.10.8.4.** Horizontal curve data
 - 2.10.8.5.** Total length of wall
 - 2.10.8.6.** Indicate face of wall
 - 2.10.8.7.** All wall dimensions and alignment relations (alignment data as necessary)
 - 2.10.8.8.** Soil core hole locations
- 2.10.9.** Prepare Elevation Plan:
 - 2.10.9.1.** Top of wall elevations

EXHIBIT B
Services to be Provided by the Engineer
Manor Expressway Phase III Project

- 2.10.9.2. Existing and finished ground line elevations
 - 2.10.9.3. Limits of measurement for payment
 - 2.10.10. Type, limits and anchorage details of railing (If applicable)
 - 2.10.11. Provide details related to the interface of retaining wall at bridge abutments.
 - 2.10.12. Provide all boring logs utilized within their design. Borings shall be shown on wall plans at actual location with log information. Separate logs shall be submitted to the GEC for records purposes.
 - 2.10.13. The Engineer shall finalize detailed drawings for aesthetic features compatible with the project aesthetic theme.
 - 2.10.14. The Engineer will assemble the necessary retaining wall standard details.
- 2.11. Signing, Markings and Signalization**
- 2.11.1. The Engineer shall prepare layouts, specifications, and details for striping, pavement markings, and signing. Layouts will be prepared at a scale of 1" = 100' and will depict striping, delineator, pavement markings and small and large signs. The Engineer shall coordinate with the GEC (and other Engineers as required) for overall temporary and final signing strategies including toll signing and placement of signs outside contract limits. The Engineer shall provide the following information on signing and pavement marking layouts:
 - 2.11.1.1. Roadway layout.
 - 2.11.1.2. Center line with station numbering.
 - 2.11.1.3. ROW lines.
 - 2.11.1.4. Designation of arrow used on exit direction signs.
 - 2.11.1.5. Culverts and other structures that present a hazard to traffic.
 - 2.11.1.6. Existing signs to remain, to be removed, or to be relocated.
 - 2.11.1.7. Proposed signs (illustrated and numbered).
 - 2.11.1.8. Existing overhead sign bridges to remain, to be revised, removed or relocated.
 - 2.11.1.9. Proposed overhead sign bridges including toll signing, indicating location by plan.
 - 2.11.1.10. The Engineer shall detail permanent pavement markings and channelization devices on plan sheets. Pavement marking plans shall accommodate toll gantry areas within the limits of the Project. The Engineer shall coordinate with the Mobility Authority (and Toll System Integrator if necessary) for overall temporary, interim, and final pavement marking strategies. Pavement markings shall be selected from the latest TxDOT standards.
 - 2.11.1.11. Proposed markings (illustrated and quantified) which include pavement markings, object markings and delineation.
 - 2.11.1.12. The location of interchanges, mainlanes, grade separations, direct connectors and ramps.
 - 2.11.1.13. The number of lanes in each section of proposed highway and the location of changes in numbers of lanes.
 - 2.11.1.14. Direction of traffic flow on all roadways

EXHIBIT B
Services to be Provided by the Engineer
Manor Expressway Phase III Project

- 2.11.2. Small Sign Detail: Engineer shall provide detail sheets for non-standard small signs. These sheets shall show the overall dimension of the signs by determining letter size and spacing.
- 2.11.3. Large Sign Details: Engineer shall provide detail sheets for all large guide signs. These sheets shall show dimensions, layout of text, directional arrows and shields, borders and colors.
- 2.11.4. Overhead Sign Structures Elevations: Engineer shall provide overhead sign structure elevations including walkway and electrical service conduit for future ITS facilities.
- 2.11.5. Overhead Sign Structure Details: Engineer shall provide overhead sign structure details which incorporate project aesthetic theme. Sign foundation will require special design.
- 2.11.6. Traffic Signal Plans: Design of traffic signals are not anticipated in this Project.

2.12. Traffic Control Plan

- 2.12.1. Prepare Detailed Traffic Control Plan Sheets at a scale of 1"=100'. This plan will describe the maintenance of traffic and sequence of work for each phase of the proposed construction. Detour alignments, location of work areas, temporary paving, temporary shoring, signing, adjustments to operations of the traffic signals, barricades and other details will be required to describe the traffic control plan. Any adjustments to the operations of the traffic signals will be coordinated through the City of Austin. The Engineer will verify that proper drainage can be maintained during each phase of construction.
- 2.12.2. Prepare Traffic Control Typical Sections for each stage of the construction sequence to clearly delineate the position of the existing traffic with respect to the proposed construction. Temporary traffic barriers and pavement markings will also be shown and dimensioned.
- 2.12.3. Develop TCP Overview Plans for each stage of traffic control. These plans will include advance warning signs for the Project on existing roadways being impacted approaching the construction and will act as key maps for each phase of TCP and shall be developed at a 1"=400' scale.
- 2.12.4. Prepare a detailed Sequence of Construction narrative and submit it to the Mobility Authority for review. The Engineer will revise and incorporate the narrative into the plans. The narrative will include a phase-by-phase, step-by-step written account of the proposed activities throughout the construction process. This is intended to be a narrative account of the activities shown in the Traffic Control Plan layouts.
- 2.12.5. Prepare Detour Layout Sheets showing plan & profiles where required to define the geometry for detours required in the Traffic Control Plans. Detour layouts will be prepared at a scale of 1"=100' H and 1"=10' V. The Engineer will provide the pavement design section for temporary detours.

EXHIBIT B
Services to be Provided by the Engineer
Manor Expressway Phase III Project

- 2.12.6. Develop Traffic Control Details for items not covered by TxDOT standard drawings.
- 2.12.7. Attend one Safety Review Meeting to present the proposed traffic handling scheme to the Mobility Authority, TxDOT and TOD. The Engineer will incorporate the comments from the review into the traffic control plans.
- 2.12.8. Prepare an Engineer's Opinion of Construction Schedule to determine an approximate duration for each phase of construction. The schedule will be prepared using Microsoft Project or SureTrak and delivered at 90% and Final submittals.
- 2.12.9. Update analysis performed under 1.13.6 for discussions with Mobility Authority, TxDOT, and TOD to secure approval of proposed TCP and lane closures.
- 2.12.10. Road Closure Layouts: The Engineer shall prepare temporary road closure layouts where required for beam hanging operations and other short term road closures. The Engineer will be required to coordinate with the appropriate entities for any proposed road closures prior to including the road closure in the plans.
- 2.12.11. Advanced Signing Layouts. The Engineer shall provide a detailed layout and arrangement of construction signs, construction pavement marking, traffic control devices (including temporary signals and signal heads). The TCP shall include locations of portable changeable message sign devices at all key locations both within the project limits, and outside the right-of-way for each phase of construction.

2.13. Intelligent Transportation Systems (ITS)

- 2.13.1. The Engineer shall develop final ITS Layout for Mobility Authority review and approval if required. The Engineer shall coordinate with the Mobility Authority and its System's Integrator to obtain additional details and directives for the ITS Design.
- 2.13.2. The Engineer shall provide plans for the infrastructure and power required for the ITS system. Plans shall include duct bank, ground boxes, conduit, electric cables and meter, traffic monitoring device structure, structures for CCTV cameras, and foundations for cabinets. The Engineer shall include all applicable standards, specifications, details and estimates for the system in the plan set. .

2.14. Illumination

- 2.14.1. The Engineer shall design safety lighting at ramp merge locations, auxiliary lanes, and other locations as required. The Engineer shall provide lighting calculation exhibit(s) for the illumination design.
- 2.14.2. The illumination design documents will be prepared by the Engineer for the Project as a single set of illumination plans and incorporate them into the PS&E package. The Engineer shall coordinate and provide plans drawings, at a scale of 1" = 100', showing the locations of all components of the illumination system. The Engineer shall include all applicable standards, specifications, details and estimates for the system in the plan set.

EXHIBIT B
Services to be Provided by the Engineer
Manor Expressway Phase III Project

2.15. Toll Facilities Infrastructure Design

The Toll Facilities Infrastructure design shall be covered under additional services 3.0.

2.16. Miscellaneous

- 2.16.1.** Milestone submittals. The Engineer shall produce 30%, 60%, pre-final and final submittals.
- 2.16.2.** The Engineer shall develop landscape planting and hardscape plans as determined during the preliminary design and as coordinated with the Mobility Authority. It is assumed that the Project may require minor modifications of existing landscape and hardscape facilities at the 290E/SH130 interchange. This task shall include landscape planting and hardscape plans specifications and estimate quantities for incorporation into the plan set.
- 2.16.3.** The Engineer will tabulate quantities and prepare Summary Sheets at the 60%, Pre-Final and Final submittals for the following: Traffic Control (per phase), Earthwork, Roadway, Drainage related items including inlets, manholes, and storm drain pipes, Retaining Walls, Bridges, Pavement Markings, Small / Large Signs, Erosion Control and SW3P, Signals, Illumination, ITS, and Toll Facilities infrastructure.
- 2.16.4.** The Engineer shall develop Exhibit A documents for use in coordination with Cap Metro RR and assist the Mobility Authority in the coordination efforts and development of the Agreement with Cap Metro.
- 2.16.5.** Standards, Specifications and Estimate
 - 2.16.5.1.** Download the appropriate TxDOT Standards from the State's web site. The Engineer will revise and seal any Standard that requires modification. All other standards will have their title blocks filled out with the applicable project data and printed for inclusion in the final plan set. The Engineer will utilize Austin District Standards where applicable.
 - 2.16.5.2.** The Engineer shall provide (signed and sealed) any necessary details required to supplement standard details.
 - 2.16.5.3.** Prepare a tabulation of applicable Specifications, Special Specifications and Special Provisions for submission with the pre-final and final PS&E package.
 - 2.16.5.4.** Prepare General Notes utilizing TxDOT most recent version for inclusion in the pre-final and final plan set.
 - 2.16.5.5.** Prepare a Construction Cost Estimate at the 60%, Pre-Final and Final PS&E submittal, and supply a copy to the Mobility Authority in Microsoft Excel format.
- 2.16.6.** Prior to each milestone submittal (30%, 60%, Pre-Final and Final), the Engineer shall conduct a review in accordance with the QA/QC procedures outlined in the Engineer's Quality Control Plan.
- 2.16.7.** Final Design plans, calculations, and cost estimates prepared by Engineer are to be thoroughly reviewed and checked before submittal to the Mobility Authority for review. The Engineer has total responsibility for the accuracy and

EXHIBIT B
Services to be Provided by the Engineer
Manor Expressway Phase III Project

completeness of the plans and related designs prepared under this project and shall check all such material accordingly. The plans will be reviewed by the Mobility Authority and TxDOT for conformity with the Mobility Authority's procedures and the terms of the project. The Mobility Authority will provide independent QA/QC audits to verify project compliance with this plan. The Engineer shall have a Quality Control Plan in effect during the entire time work is being performed under this project.

2.16.8. The Engineer will submit a pdf electronic copy and two (2) 11" X 17" paper copies at the, 60%, and Pre-Final submittal. Final PS&E submittal shall include two (2) 11" X 17" paper copies in addition to the signed, sealed and dated 11" x 17" Final Hard Copy and pdf electronic copy including electronic copies of all supporting documentation, CAD files and paperwork.

2.17. Coordination, Meetings & Invoicing

2.17.1. The Engineer will participate and attend up to six (6) project workshops with specialty consultants, TxDOT, and the Mobility Authority to establish the project issues, concerns, and objectives of the Project that will influence the location and configuration of the proposed Project and further define the Scope of Services to be provided by the Engineer.

2.17.2. The Engineer will participate and attend bi-weekly design coordination meetings and production meetings with the Mobility Authority. The Engineer shall also conduct periodic meetings with the Engineer's internal team of sub-consultants.

2.17.3. The Engineer will participate and attend monthly design coordination meetings with TxDOT.

2.17.4. The Engineer shall attend up to a total of six (6) Stakeholder meetings (e.g. Cap Metro, Toll Operations Division, City of Austin, City of Manor, and Travis County, etc.) and provide support for the development of exhibits when requested by the Mobility Authority.

2.17.5. The Engineer will participate in the submittal review process and attend comment resolution meetings for the various submittal milestones. The Engineer will respond to reviewer comments in tabular format for each submittal with explanations included for any items in disagreement. The Engineer will then attend a comment resolution meeting following each submittal to discuss and resolve review comments.

2.17.6. Follow invoice procedures as described in the Contract.

2.17.7. The Engineer shall provide assistance to the Mobility Authority during the bidding process including development of bid tabulations.

2.17.8. The Engineer shall attend a scheduled pre-bid meeting.

EXHIBIT C

WORK SCHEDULE

Engineer shall perform the Services and deliver the related Documents (if any) according to the following schedule:

Services defined herein are expected to be substantially complete within fourteen (14) months from the date this Work Authorization becomes effective. This Work Authorization will not expire until all tasks associated with the Scope of Services are complete. This does not preclude the rights of the Parties provided under Article 15 of the Contract.

EXHIBIT D

FEE SCHEDULE/BUDGET

	CP&Y, Inc.	HDR Engineering, Inc.	K. Friese & Associates, Inc.	P.E. Structural Consultants, Inc.	Corsair Consulting, LLC	Maldonado-Burkett ITS, LLP	Inland Geodetics, LLC	Surveying and Mapping, LLC	TOTAL
1.0 PRELIMINARY DESIGN									
1.1 - ENVIRONMENTAL DOCUMENT REVIEW/COORDINATION	\$ 24,104								\$ 24,104
1.2 - PUBLIC INVOLVEMENT COORDINATION	\$ 43,504			\$ -					\$ 43,504
1.3 - DATA COLLECTION	\$ 16,637			\$ 2,674					\$ 19,311
1.4 - GEOTECHNICAL INVESTIGATION	\$ 15,894			\$ 439	\$ 157,495				\$ 173,828
1.4A - GEOTECHNICAL DRILLING / TESTS					\$ 268,294				\$ 268,294
1.5 - SURVEYING	\$ 9,975						\$ 100,438	\$ 186,199	\$ 296,612
1.6 - SUBSURFACE UTILITY ENGINEERING AND UTILITY COORDINATION	\$ 15,728							\$ 67,273	\$ 83,001
1.6A - SUE LOCATION SERVICES								\$ 136,205	\$ 136,205
1.7 - PRELIMINARY DESIGN	\$ 206,691		\$ 1,159	\$ 861					\$ 208,711
1.8 - ROADWAY DESIGN	\$ 105,346								\$ 105,346
1.9 - DRAINAGE DESIGN	\$ 7,664		\$ 47,156						\$ 54,820
1.10 - STRUCTURAL DESIGN	\$ 445,147	\$ 21,676							\$ 466,823
1.11 - RETAINING WALL DESIGN	\$ 21,640								\$ 21,640
1.12 - SIGNING, MARKINGS AND SIGNALIZATION	\$ 31,264								\$ 31,264
1.13 - TRAFFIC CONTROL PLAN	\$ 19,139	\$ 116,293							\$ 135,432
1.14 - INTELLIGENT TRANSPORTATION SYSTEMS (ITS)	\$ 7,406					\$ 33,294			\$ 40,700
1.15 - ILLUMINATION	\$ 5,986					\$ 39,311			\$ 45,297
1.16 - TOLL FACILITIES INFRASTRUCTURE DESIGN	\$ 10,370			\$ 2,874		\$ 14,217			\$ 27,461
1.17 - TRAFFIC OPERATIONS MODELING	\$ 11,602	\$ 75,289							\$ 86,891
1.18 - MISCELLANEOUS	\$ 39,790	\$ 23,980		\$ 2,195		\$ 8,357			\$ 74,322
1.19 - COORDINATION, MEETINGS & INVOICING	\$ 124,369	\$ 25,524	\$ 14,051	\$ 17,098	\$ 8,310	\$ 10,910			\$ 200,262
1.0 PRELIMINARY DESIGN - SUB TOTAL	\$ 1,162,256	\$ 262,762	\$ 62,366	\$ 26,141	\$ 434,099	\$ 106,089	\$ 100,438	\$ 389,677	\$ 2,543,828
2.0 FINAL DESIGN									
2.1 - PUBLIC INVOLVEMENT & STAKEHOLDER COORDINATION	\$ 44,305			\$ 4,953					\$ 49,258
2.2 - DATA COLLECTION	\$ 7,932			\$ 6,165					\$ 14,097
2.3 - GEOTECHNICAL INVESTIGATION	\$ 5,265			\$ 974	\$ 16,660				\$ 22,899
2.4 - SURVEYING	\$ 2,923								\$ 2,923
2.5 - UTILITY COORDINATION AND DESIGN	\$ 24,123								\$ 24,123
2.6 - SPECIAL DESIGN PER MOBILITY AUTHORITY REQUEST	\$ 199,994								\$ 199,994
2.7 - FINAL ROADWAY DESIGN	\$ 433,179								\$ 433,179
2.8 - DRAINAGE DESIGN	\$ 17,231		\$ 82,243	\$ 50,672					\$ 150,146
2.9 - STRUCTURAL DESIGN	\$ 1,617,831			\$ 31,436					\$ 1,649,267
2.10 - RETAINING WALL DESIGN	\$ 240,948			\$ 17,203					\$ 258,151
2.11 - SIGNING, MARKINGS AND SIGNALIZATION	\$ 163,417			\$ 64,779					\$ 228,196
2.12 - TRAFFIC CONTROL PLAN	\$ 30,160	\$ 262,428							\$ 292,588
2.13 - INTELLIGENT TRANSPORTATION SYSTEMS	\$ 6,576					\$ 26,939			\$ 33,515
2.14 - ILLUMINATION	\$ 6,216					\$ 32,323			\$ 38,539
2.15 - TOLL FACILITY DESIGN	\$ -					\$ -			\$ -
2.16 - MISCELLANEOUS	\$ 291,784	\$ 138,683	\$ 21,395	\$ 69,146	\$ 9,700	\$ 32,601			\$ 563,309
2.17 - COORDINATION, MEETINGS & INVOICING	\$ 219,791	\$ 35,363	\$ 27,209	\$ 26,878	\$ 8,741	\$ 25,982			\$ 343,964
2.0 FINAL DESIGN - SUB TOTAL	\$ 3,311,675	\$ 436,474	\$ 130,847	\$ 272,206	\$ 35,101	\$ 117,845	\$ -	\$ -	\$ 4,304,148
OTHER DIRECT EXPENSES	\$ 10,810	\$ 21,505	\$ 966	\$ 1,974	\$ 66,975	\$ 2,610	\$ 19,610	\$ 82,962	\$ 207,412
SUB TOTAL - ENGINEERING DESIGN SERVICES	\$ 4,484,741	\$ 720,741	\$ 194,179	\$ 300,321	\$ 536,175	\$ 226,544	\$ 120,048	\$ 472,639	\$ 7,055,388
PERCENTAGE	63.6%	10.2%	2.8%	4.3%	7.6%	3.2%	1.7%	6.7%	100.0%
DBE %			2.8%	4.3%	7.6%	3.2%	1.7%		19.5%

EXHIBIT E

INSTRUCTIONS DBE PARTICIPATION

The following pages contain seven (7) different forms (Forms E-1 through E-7) covering participation of DBE providers and subproviders. The correct form to use is determined by whether or not a DBE goal has been set for the contract. The following pages contain separate reporting forms for federally funded DBE participation. **Select the forms that are appropriate for your contract and delete the rest along with these instructions from the Work Authorization.**

Federally Funded Contracts
<p>Exhibit F, Disadvantaged Business Enterprise (DBE) for Federal-Aid Professional or Technical Services Contracts</p> <ul style="list-style-type: none">◆ This provision is applicable to federally funded contracts with assigned DBE goals.◆ The appropriate forms for this provision are Forms E-1, E-2, E-3, E-4, E-5, E-6 and E-7. Examples of each form required is included in the contract. The native forms that will need to be submitted can be downloaded from the Mobility Authority's website.◆ Note: a completed Form E-2 will be required with each Work Authorization, if a DBE will be performing work. If a non-DBE subprovider is used, insert N/A (not applicable) on the line provided on the Form E-2.◆ Form E-4 must be submitted monthly to the Mobility Authority even if there is no invoice being submitted or subcontracting to report.◆ Form E-4 must be submitted with each invoice to the appropriate agency contact for payment.
<p>Exhibit G, Disadvantaged Business Enterprise (DBE) for Race Neutral Professional or Technical Services Contracts</p> <ul style="list-style-type: none">◆ This provision is applicable to federally funded contracts with no DBE goal assigned.◆ If no subcontractors will be used, the appropriate forms for this provision are E-3 and E-5 forms. Examples of each form required is included in the contract. The native forms that will need to be submitted can be downloaded from the Mobility Authority's website.◆ Note: If subcontractors are used, the required forms would be Forms E-1, E-2, E-3, E-4, E-5, E-6 and E-7. A copy of each form required is in the contract.◆ Form E-4 must be submitted monthly to the Mobility Authority even if there is no invoice being submitted or subcontracting to report.◆ Form E-4 must be submitted with each invoice to the appropriate agency contact for payment.
<p>Form E-4, Texas Department of Transportation/Mobility Authority Subprovider Monitoring System for Federally Funded Contracts. This is a DBE Monthly Progress Report.</p> <ul style="list-style-type: none">◆ Required for all federally funded contracts.◆ This form is required monthly and must be submitted to the Mobility Authority even if there is no invoice being submitted or subcontracting to report.◆ This form must be submitted with each invoice to the appropriate agency contact for payment.
<p>Form E-7, Federal Subprovider and Supplier Information Required for all federally funded contracts.</p>

FORM E-1

**Central Texas Regional Mobility Authority
Subprovider Monitoring System
Commitment Worksheet**

Contract #: 16290E22704E Assigned Goal: 10% Federally Funded X State Funded _____

Prime Provider: CP&Y, Inc. Total Contract Amount: \$7,055,388.00

Prime Provider Info: DBE ___ HUB X Both ___

Vendor ID #: 17517204149 DBE/HUB Expiration Date: HUB – 08/31/2016

(First 11 Digits Only)

If no subproviders are used on this contract, please indicate by placing "N/A" on the 1st line under Subproviders.

Subprovider(s) (List All)	Type of Work	Vendor ID # (First 11 Digits Only)	D=DBE H=HUB	Expiration Date	\$ Amount or % of Work *
HDR Engineering, Inc.	Traffic Control, Traffic, Landscape	14706805687	n/a		\$720,741 (10.2%)
K. Friese & Associates, Inc.	Drainage	14813046878	H D	5/29/18	\$194,179 (2.8%)
P.E. Structural Consultants, Inc.	Structural	18105688628	H D	5/22/18	\$300,321 (4.3%)
Corsair Consulting, LLC	Geotechnical	14546874299	H D	1/29/17	\$536,175 (7.6%)
Maldonado-Burkett ITS, LLP	Illumination, ITS	12614763394	H D	1/27/17	\$226,544 (3.2%)
Inland Geodetics, LLC	Survey	12040216991	H D	10/24/18	\$120,048 (1.7%)
Surveying and Mapping, LLC	Survey, SUE	17427049741	n/a		\$472,639 (6.7%)
Subprovider(s) Contract or % of Work* Totals					\$2,570,647 (36.4%)

*For Work Authorization Contracts, indicate the % of work to be performed by each subprovider.

Total DBE or HUB Commitment Dollars \$ 1,377,267.00

Total DBE or HUB Commitment Percentages of Contract 19.5 %
(Commitment Dollars and Percentages are for Subproviders only)



FORM E-2
Disadvantaged Business Enterprise (DBE) Program
Commitment Agreement Form

This commitment is subject to the award and receipt of a signed contract from the Texas Department of Transportation for the subject project.

Project #: Manor Expressway Phase III Project		County:		Contract-CSJ:	
Items of work to be performed (attach a list of work items if more room is required):					
Bid Item #	Item Description	Unit of Measure	Unit Price	Quantity	Total Per Item
1.0	Preliminary Design				\$62,366
2.0	Final Design				\$130,847
	Other Direct Expenses				\$966
Total					\$194,179

Add
Ro

The contractor certifies by signature on this agreement that subcontracts will be executed between the prime contractor and the DBE subcontractors as listed on the agreement form. If a DBE Subcontractor is unable to perform the work as listed on this agreement form, the prime contractor will follow the substitution/replacement approval process as outlined in the Contract DBE Special Provision.

IMPORTANT: The signatures of the prime contractor and the DBE, and the total commitment amount must always be on the same page.

Prime Contractor: CP&Y, Inc.		Name/Title (please print): Robin Handel, P.E. / Vice President	
Address: 13809 Research Blvd, Suite 300, Austin, TX 78750		Signature:	
Phone: 512-349-0700	Fax: 512-349-0727		
E-mail: rhandel@cpyi.com			
DBE: K. Friese & Associates, Inc.		Name/Title (please print):	
Vendor No.:14813046878		Signature:	
Address: 1120 S. Capital of Texas Highway, CityView 2, Suite			
Phone: 512-338-1704	Fax: 512-338-1784		
E-mail: VMcEvoy@kfriese.com		Date:	
Subcontractor (if the DBE will be a second tier sub):		Name/Title (please print):	
Address:		Signature:	
Phone:	Fax:		
E-mail:			

The Texas Department of Transportation maintains the information collected through this form. With few exceptions, you are entitled on request to be informed about the information that we collect about you. Under §§552.021 and 552.023 of the Texas Government Code, you also are entitled to receive and review the information. Under §559.004 of the Government Code, you are also entitled to have us correct information about you that is incorrect.



FORM E-2
Disadvantaged Business Enterprise (DBE) Program
Commitment Agreement Form

This commitment is subject to the award and receipt of a signed contract from the Texas Department of Transportation for the subject project.

Project #: Manor Expressway Phase III Project		County: Travis		Contract-CSJ:	
Items of work to be performed (attach a list of work items if more room is required):					
Bid Item #	Item Description	Unit of Measure	Unit Price	Quantity	Total Per Item
1.0	Preliminary Design				\$26,141
2.0	Final Design				\$272,906
	Other Direct Expenses				\$1,974
Total					\$300,321

Add
Ro

The contractor certifies by signature on this agreement that subcontracts will be executed between the prime contractor and the DBE subcontractors as listed on the agreement form. If a DBE Subcontractor is unable to perform the work as listed on this agreement form, the prime contractor will follow the substitution/replacement approval process as outlined in the Contract DBE Special Provision.

IMPORTANT: The signatures of the prime contractor and the DBE, and the total commitment amount must always be on the same page.

Prime Contractor: CP&Y, Inc.		Name/Title (please print): Robin Handel, P.E. / Vice President	
Address: 13809 Research Blvd, Suite 300, Austin, TX 78750		Signature:	
Phone: 512-349-0700	Fax: 512-349-0727		
E-mail: rhandel@cpyi.com			
DBE: P.E. Structural Consultants, Inc.		Name/Title (please print):	
Vendor No.:18105688628		Signature:	
Address: 8436 Spicewood Springs Road, Austin, TX 78759			
Phone: 512-250-5200	Fax: 512-250-5222		
E-mail: lpowell@pestructural.com		Date:	
Subcontractor (if the DBE will be a second tier sub):		Name/Title (please print):	
Address:		Signature:	
Phone:	Fax:		
E-mail:			

The Texas Department of Transportation maintains the information collected through this form. With few exceptions, you are entitled on request to be informed about the information that we collect about you. Under §§552.021 and 552.023 of the Texas Government Code, you also are entitled to receive and review the information. Under §559.004 of the Government Code, you are also entitled to have us correct information about you that is incorrect.



FORM E-2
Disadvantaged Business Enterprise (DBE) Program
Commitment Agreement Form

This commitment is subject to the award and receipt of a signed contract from the Texas Department of Transportation for the subject project.

Project #: Manor Expressway Phase III Project		County: Travis		Contract-CSJ:	
Items of work to be performed (attach a list of work items if more room is required):					
Bid Item #	Item Description	Unit of Measure	Unit Price	Quantity	Total Per Item
1.0	Preliminary Design				\$434,099
2.0	Final Design				\$35,101
	Other Direct Expenses				\$66,975
Total					\$536,175

Add
Ro

The contractor certifies by signature on this agreement that subcontracts will be executed between the prime contractor and the DBE subcontractors as listed on the agreement form. If a DBE Subcontractor is unable to perform the work as listed on this agreement form, the prime contractor will follow the substitution/replacement approval process as outlined in the Contract DBE Special Provision.

IMPORTANT: The signatures of the prime contractor and the DBE, and the total commitment amount must always be on the same page.

Prime Contractor: CP&Y, Inc.		Name/Title (please print): Robin Handel, P.E. / Vice President	
Address: 13809 Research Blvd, Suite 300, Austin, TX 78750		Signature:	
Phone: 512-349-0700	Fax: 512-349-0727		
E-mail: rhandel@cpyi.com			
DBE: Corsair Consulting, LLC		Name/Title (please print):	
Vendor No.: 14546874299		Signature:	
Address: 16800 Joe Barbee Dr., Pflugerville, TX 78660			
Phone: 512-342-8877	Fax: 512-565-9356		
E-mail: clintharris@corsairus.com		Date:	
Subcontractor (if the DBE will be a second tier sub):		Name/Title (please print):	
Address:		Signature:	
Phone:	Fax:		
E-mail:			

The Texas Department of Transportation maintains the information collected through this form. With few exceptions, you are entitled on request to be informed about the information that we collect about you. Under §§552.021 and 552.023 of the Texas Government Code, you also are entitled to receive and review the information. Under §559.004 of the Government Code, you are also entitled to have us correct information about you that is incorrect.



FORM E-2
Disadvantaged Business Enterprise (DBE) Program
Commitment Agreement Form

Form SMS.4901
 (Rev. 06/08)
 Page 1 of 1

This commitment is subject to the award and receipt of a signed contract from the Texas Department of Transportation for the subject project.

Project #: Manor Expressway Phase III Project		County: Travis		Contract-CSJ:	
Items of work to be performed (attach a list of work items if more room is required):					
Bid Item #	Item Description	Unit of Measure	Unit Price	Quantity	Total Per Item
1.0	Preliminary Design				\$106,089
2.0	Final Design				\$117,845
	Other Direct Expenses				\$2,610
Total					\$226,544

Add
Ro

The contractor certifies by signature on this agreement that subcontracts will be executed between the prime contractor and the DBE subcontractors as listed on the agreement form. If a DBE Subcontractor is unable to perform the work as listed on this agreement form, the prime contractor will follow the substitution/replacement approval process as outlined in the Contract DBE Special Provision.

IMPORTANT: The signatures of the prime contractor and the DBE, and the total commitment amount must always be on the same page.

Prime Contractor: CP&Y, Inc.		Name/Title (please print): Robin Handel, P.E. / Vice President	
Address: 13809 Research Blvd, Suite 300, Austin, TX 78750		Signature:	
Phone: 512-349-0700	Fax: 512-349-0727		
E-mail: rhandel@cpyi.com			
DBE: Maldonado-Burkett ITS, LLP		Name/Title (please print):	
Vendor No.: 12614763394		Signature:	
Address: 2205 Western Trails Blvd., Suite B, Austin, TX 78745			
Phone: 512-916-1386	Fax:		
E-mail: karl@mbitsgroup.com		Date:	
Subcontractor (if the DBE will be a second tier sub):		Name/Title (please print):	
Address:		Signature:	
Phone:	Fax:		
E-mail:			

The Texas Department of Transportation maintains the information collected through this form. With few exceptions, you are entitled on request to be informed about the information that we collect about you. Under §§552.021 and 552.023 of the Texas Government Code, you also are entitled to receive and review the information. Under §559.004 of the Government Code, you are also entitled to have us correct information about you that is incorrect.



FORM E-2
Disadvantaged Business Enterprise (DBE) Program
Commitment Agreement Form

Form SMS.4901
 (Rev. 06/08)
 Page 1 of 1

This commitment is subject to the award and receipt of a signed contract from the Texas Department of Transportation for the subject project.

Project #: Manor Expressway Phase III Project		County: Travis		Contract-CSJ:	
Items of work to be performed (attach a list of work items if more room is required):					
Bid Item #	Item Description	Unit of Measure	Unit Price	Quantity	Total Per Item
1.0	Preliminary Design				\$100,438
	Other Direct Expenses				\$19,610
Total					\$120,048

Add
Ro

The contractor certifies by signature on this agreement that subcontracts will be executed between the prime contractor and the DBE subcontractors as listed on the agreement form. If a DBE Subcontractor is unable to perform the work as listed on this agreement form, the prime contractor will follow the substitution/replacement approval process as outlined in the Contract DBE Special Provision.

IMPORTANT: The signatures of the prime contractor and the DBE, and the total commitment amount must always be on the same page.

Prime Contractor: CP&Y, Inc.		Name/Title (please print): Robin Handel, P.E. / Vice President	
Address: 13809 Research Blvd, Suite 300, Austin, TX 78750		Signature:	
Phone: 512-349-0700	Fax: 512-349-0727		
E-mail: rhandel@cpyi.com		Date:	
DBE: Inland Geodetics, LLC		Name/Title (please print):	
Vendor No.: 12040216991		Signature:	
Address: 1504 Chisholm Trail Rd., Suite 103, Round Rock, TX 78681			
Phone: 512-238-1200	Fax: 512-238-1251	Date:	
E-mail: Steve@inland-geo.com			
Subcontractor (if the DBE will be a second tier sub):		Name/Title (please print):	
Address:		Signature:	
Phone:	Fax:		
E-mail:		Date:	

The Texas Department of Transportation maintains the information collected through this form. With few exceptions, you are entitled on request to be informed about the information that we collect about you. Under §§552.021 and 552.023 of the Texas Government Code, you also are entitled to receive and review the information. Under §559.004 of the Government Code, you are also entitled to have us correct information about you that is incorrect.

To ensure prompt and efficient handling of your project file we are requesting that all commitments to be presented to the Office of Civil Rights, using this basic format.

FORM E-3



**DBE Prime Contractor
To Non-DBE Subcontractors**

Form SMS.4902
(Rev. 05/08)
Page 1 of 1

Project: _____

Contract CSJ: _____

County: _____

District: _____

Letting Date: _____

For Month of (Mo./Yr.): _____

Contractor: _____

Contract Amount: _____

Name of Non-DBE Subcontractor	\$ Amount Paid This Period	Total \$ Amount Paid to Date

Send this report to the District DBE Coordinator. Report is due within 15 days following the end of each calendar month.

Signature: _____ Date: _____
 _____ Company Official

The Texas Department of Transportation maintains the information collected through this form. With few exceptions, you are entitled on request to be informed about the information that is collected about you. Under §§552.021 and 552.023 of the Texas Government Code, you also are entitled to receive and review the information. Under §559.004 of the Government Code, you are also entitled to have us correct information about you that is incorrect.

FORM E-4



**TxDOT Department of Transportation
DBE Monthly Progress Report**

Form SMS. 4903
(Rev. 07/08)
Page 1 of 1

Project: Manor Expressway Phase III

Contract CSJ: _____

County: Travis

District: Austin

Letting Date: _____

For Month of (Mo./Yr.): _____

Contractor: _____

Contract Amount: \$7,055,388.00

DBE Goal: 10%

DBE Goal Dollars: \$705,539

Vendor Number	Name of DBE Sub/Supplier	* RC or RN	** DBE \$ Amt Paid for Work Performed this Period (X)	*** \$ Amt Paid to Non-DBE 2nd Tier Subs and Haulers (Y)	Amt Paid to DBEs to Date (X-Y)	For TxDOT use Only
14813046878	K. Friese & Associates, Inc.					
18105688628	P.E. Structural Consultants, Inc.					
14546874299	Corsair Consulting, LLC					
12614763394	Maldonado-Burkett ITS, LLP					
12040216991	Inland Geodetics, LLC					

* Race Conscious or Race Neutral.

Goal/commitment progress report amount and/or race-neutral amount. **Do not subtract non-DBE second-tier subcontracts and haulers from this column.

*** Report amount of payment DBE subcontractors paid to non-DBE subcontractors/haulers.

If using a non-DBE hauling firm that leases from DBE truck owner-operators, payments made to each owner-operator must be reported separately.

Any changes to the DBE commitments approved by the department must be reported to the area engineer.*

Submissions of this report for periods of negative DBE activity is required. This report is required until all DBE subcontracting or material supply activity is completed.

I hereby certify that the above is a true and correct statement of the amounts paid to the DBE firms listed above.

Signature: _____

Date: _____

This report must be sent to the area engineer's office within 15 days following the end of the calendar month.

The Texas Department of Transportation maintains the information collected through this form. With few exceptions, you are entitled on request to be informed about the information that is collected about you. Under §§552.021 and 552.023 of the Texas Government Code, you also are entitled to receive and review the information. Under §559.004 of the Government Code, you are also entitled to have us correct information about you that is incorrect.

FORM E-5

**Central Texas Regional Mobility Authority Subprovider Monitoring System for Federally Funded Contracts
Progress Assessment Report for month of (Mo./Yr.) _____/_____**

Contract #: 16290E22704E

Original Contract Amount: \$7,055,388.00

Date of Execution: _____

Approved Supplemental Agreements: _____

Prime Provider: CP&Y, Inc.

Total Contract Amount: \$7,055,388.00

Work Authorization No. 1

Work Authorization Amount: \$7,055,388.00

If no subproviders are used on this contract, please indicate by placing "N/A" on the 1st line under Subproviders.

DBE	All Subproviders	Category of Work	Total Subprovider Amount	% Total Contract Amount	Amount Paid This Period	Amount Paid To Date	Subcontract Balance Remaining
X	K. Friese & Associates, Inc.	Engineering	\$194,179	2.8%			
X	P.E. Structural Consultants, Inc.	Engineering	\$300,321	4.3%			
X	Corsair Consulting, LLC	Engineering	\$536,175	7.6%			
X	Maldonado-Burkett ITS, LLP	Engineering	\$226,544	3.2%			
X	Inland Geodetics, LLC	Surveying	\$120,048	1.7%			
	HDR Engineering, Inc.	Engineering	\$720,741	10.2%			
	Surveying & Mapping, LLC	Surveying	\$472,639	6.7%			

Fill out Progress Assessment Report with each estimate/invoice submitted, *for all subcontracts*, and forward as follows:

1 Copy with Invoice - Contract Manager/Managing Office

1 Copy – CTRMA DBE Liaison, c/o Atkins, _____, Austin, Texas

I hereby certify that the above is a true and correct statement of the amounts paid to the firms listed above.

Robin Handel, P.E.

 Print Name - Company Official /DBE Liaison Officer
rhandel@cpyi.com

 Email

 Signature

512-349-0700

 Phone
512-349-0727

 Fax

FORM E-7

Federal Subprovider and Supplier Information

The Provider shall indicate below the name, address and phone number of all successful and unsuccessful subproviders and/or suppliers that provided proposals/quotes for this contract prior to execution. You may reproduce this form if additional space is needed.

Name	Address	Phone Number
HDR Engineering, Inc.	4401 West Gate Blvd., Suite 400 Austin, TX 78745	512-912-5100
K. Friese & Associates, Inc.	1120 S. Capital of Texas Highway CityView 2, Suite 100, Austin, TX 78746	512-338-1704
P.E. Structural Consultants, Inc.	8436 Spicewood Springs Road, Austin, TX 78759	512-250-5200
Corsair Consulting, LLC	16800 Joe Barbee Dr. Pflugerville, TX 78660	512-342-8877
Maldonado-Burkett ITS, LLP	2205 Western Trails Blvd., Suite B, Austin, TX 78745	512-916-1386
Inland Geodetics, LLC	1504 Chisholm Trail Rd., Suite 103, Round Rock, TX 78681	512-238-1200
Surveying and Mapping, LLC	4801 Southwest Parkway, Building Two, Suite 100, Austin, Texas 78735	512-447-0575

The information must be provided and returned with the contract.

Signature

Date

Robin Handel, P.E.
Printed Name

rhandel@cpyi.com
Email

512-349-0700
Phone#

EXHIBIT F

Disadvantaged Business Enterprise (DBE) for Federal-Aid Professional or Technical Services Contracts Special Provision

- 1) **PURPOSE.** The purpose of this attachment is to carry out the U.S. Department of Transportation's ("DOT") policy of ensuring nondiscrimination in the award and administration of DOT assisted contracts and creating a level playing field on which firms owned and controlled by minority or socially and economically disadvantaged individuals can compete fairly for DOT assisted contracts.
- 2) **POLICY.** It is the policy of the DOT, the Central Texas Regional Mobility Authority (the "Mobility Authority") and the Texas Department of Transportation (the "Department") that Disadvantaged Business Enterprises (DBEs) as defined in 49 CFR Part 26, Subpart A and the Department's Disadvantaged Business Enterprise Program ("DBE Program"), shall have the opportunity to participate in the performance of contracts financed in whole or in part with Federal funds. The Mobility Authority and the Department previously entered into a Memorandum of Understanding Regarding the Adoption of the Texas Department of Transportation's Federally-Approved Disadvantaged Business Opportunity Program by the Central Texas Regional Mobility Authority (the "MOU") dated effective February 1, 2007. The MOU provides that the Mobility Authority has adopted the Department's DBE Program with the consent of the Federal Highway Administration for contracts financed in whole or in part with Federal funds. Consequently, the Disadvantaged Business Enterprise requirements of 49 CFR Part 26, and the Department's DBE Program, apply to this contract as follows:
 - a. The Provider will offer Disadvantaged Business Enterprises, as defined in 49 CFR Part 26, Subpart A and the Department's DBE Program, the opportunity to compete fairly for contracts and subcontracts financed in whole or in part with Federal funds. In this regard, the Provider shall make a good faith effort to meet the Disadvantaged Business Enterprise goal for this contract.
 - b. The Provider and any subprovider(s) shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The Provider shall carry out applicable requirements of 49 CFR Part 26 in the award and administration of DOT assisted contracts. The requirements of this Special Provision shall be physically included in any subcontract.
 - c. When submitting the contract for execution by the Mobility Authority, the Provider must complete and furnish Form E-1 which lists the commitments made to certified DBE subprovider(s) that are to meet the contract goal and Form E-2 which is a commitment agreement(s) containing the original signatures of the Provider and the proposed DBE(s). For Work Authorization Contracts, Form E-1 is required at the time of submitting the contract for execution by the Mobility Authority. Form E-2 will be required to be completed and attached with each work authorization number that is submitted for execution, if the DBE will be performing work. Any substitutions or changes to the DBE subcontract amount shall be subject to prior written approval by the Mobility Authority. If non-DBE subprovider is performing work, insert N/A (not applicable) on the line provided.
 - d. Failure to carry out the requirements set forth above shall constitute a material breach of this contract and may result; in termination of the contract by the Mobility Authority; in a deduction of the amount of DBE goal not accomplished by DBEs from the money due or to become due to the Provider, not as a penalty but as liquidated damages to the Mobility Authority; or such other remedy or remedies as the Mobility Authority deems appropriate.

3) **DEFINITIONS.**

- a. “Mobility Authority” means the Central Texas Regional Mobility Authority.
 - b. “Department” means the Texas Department of Transportation (TxDOT).
 - c. “Federal-Aid Contract” is any contract between the Mobility Authority and a Provider which is paid for in whole or in part with U. S. Department of Transportation (“DOT”) financial assistance.
 - d. “Provider” is any individual or company that provides professional or technical services.
 - e. “DBE Joint Venture” means an association of a DBE firm and one (1) or more other firm(s) to carry out a single business enterprise for profit for which purpose they combine their property, capital, efforts, skills and knowledge, and in which the DBE is responsible for a distinct, clearly defined portion of the work of the contract and whose share in the capital contribution, control, management, risks and profits of the joint venture are commensurate with its ownership interest.
 - f. “Disadvantaged Business Enterprise” or “DBE” means a firm certified as such by the Department in accordance with 49 CFR Part 26 and listed on the Department’s website under the Texas Unified Certification Program.
 - g. “Good Faith Effort” means efforts to achieve a DBE goal or other requirement of this Special Provision which, by their scope, intensity, and appropriateness to the objective, can reasonably be expected to fulfill the program requirement.
 - h. “Race-neutral DBE Participation” means any participation by a DBE through customary competitive procurement procedures.
 - i. “DBE Liaison” shall have the meaning set forth in Section 5.e. herein.
- 4) **PERCENTAGE GOAL.** The goal for Disadvantaged Business Enterprise participation in the work to be performed under this contract is 10% of the contract amount. This goal is established in accordance with the provisions of the MOU.
- 5) **PROVIDER’S RESPONSIBILITIES.** A DBE prime may receive credit toward the DBE goal for work performed by his-her own forces and work subcontracted to DBEs. A DBE prime must make a good faith effort to meet the goals. In the event a DBE prime subcontracts to a non-DBE, that information must be reported to the Mobility Authority on Form E-3.
- a. A Provider who cannot meet the contract goal, in whole or in part, shall document the “Good Faith Efforts” taken to obtain DBE participation. The following is a list of the types of actions that may be considered as good faith efforts. It is not intended to be a mandatory checklist, nor is it intended to be exclusive or exhaustive. Other factors or types of efforts may be relevant in appropriate cases.
 - (1) Soliciting through all reasonable and available means the interest of all certified DBEs who have the capability to perform the work of the contract. The solicitation must be done within sufficient time to

allow the DBEs to respond to it. Appropriate steps must be taken to follow up initial solicitations to determine, with certainty, if the DBEs are interested.

- (2) Selecting portions of the work to be performed by DBEs in order to increase the likelihood that the DBE goals will be achieved. This includes, where appropriate, breaking out contract work items into economically feasible units to facilitate DBE participation, even when the Provider might otherwise prefer to perform the work items with its own forces.
- (3) Providing interested DBEs with adequate information about the plans, specifications, and requirements of the contract in a timely manner to assist them in responding to a solicitation.
- (4) Negotiating in good faith with interested DBEs by making a portion of the work available to DBE subproviders and suppliers and selecting those portions of the work or material needs consistent with the available DBE subproviders and suppliers.
- (5) The ability or desire of the Provider to perform the work of a contract with its own organization does not relieve the Provider's responsibility to make a good faith effort. Additional costs involved in finding and using DBEs is not in itself sufficient reason for a Provider's failure to meet the contract DBE goal, as long as such costs are reasonable. Providers are not, however, required to accept higher quotes from DBEs if the price difference is excessive or unreasonable.
- (6) Not rejecting DBEs as being unqualified without sound reasons based on a thorough investigation of their capabilities.
- (7) Making efforts to assist interested DBEs in obtaining bonding, lines of credit, or insurance as required by the recipient or Provider.
- (8) Making efforts to assist interested DBEs in obtaining necessary equipment, supplies, materials or related assistance or services.
- (9) Effectively using the services of available minority/women community organizations; minority/women contractors' groups; local, state, and Federal minority/women business assistance offices; and other organizations as allowed on a case-by-case basis to provide assistance in the recruitment and placement of DBEs.
- (10) If the Department's Director of the Business Opportunity Programs Office or the Mobility Authority's DBE Liaison determines that the Provider has failed to meet the good faith effort requirements, the Provider will be given an opportunity for reconsideration by the Department or the Mobility Authority, as appropriate.

NOTE: The Provider must not cause or allow subproviders to bid their services.

- b. The preceding information shall be submitted directly to the Chair of the Consultant Selection Team responsible for the project.
- c. The Provider shall make all reasonable efforts to honor commitments to DBE subproviders named in the commitment submitted under Section 2.c. of this attachment. Where the Provider terminates or removes a DBE

subprovider named in the initial commitment, the Provider must demonstrate on a case-by-case basis to the satisfaction of the Mobility Authority that the originally designated DBE was not able or willing to perform.

- d. The Provider shall make a good faith effort to replace a DBE subprovider that is unable or unwilling to perform successfully with another DBE, to the extent needed to meet the contract goal. The Provider shall submit a completed Form E-2 for the substitute firm(s). Any substitution of DBEs shall be subject to prior written approval by the Mobility Authority. The Mobility Authority may request a statement from the firm being replaced concerning its replacement prior to approving the substitution.
- e. The Provider shall designate a DBE liaison officer (“DBE Liaison”) who will administer the DBE program and who will be responsible for maintenance of records of efforts and contacts made to subcontract with DBEs.
- f. Providers are encouraged to investigate the services offered by banks owned and controlled by disadvantaged individuals and to make use of these banks where feasible.

6) **ELIGIBILITY OF DBEs.**

- a. The Department certifies the eligibility of DBEs, DBE joint ventures and DBE truck-owner operators to perform DBE subcontract work on DOT financially assisted contracts. Under the terms of the MOU, only DBEs certified as eligible to participate on Department roadway construction projects and listed on the Department’s website under the Texas Unified Certification Program are eligible to participate on Mobility Authority roadway construction projects.
- b. This certification will be accomplished through the use of the appropriate certification schedule contained in the Department’s DBE program and adopted by the Mobility Authority under the terms of the MOU.
- c. The Department publishes a Directory of Disadvantaged Business Enterprises containing the names of firms that have been certified to be eligible to participate as DBEs on DOT financially assisted contracts. The directory is available from the Department’s Business Opportunity Programs Office. The Texas Unified Certification Program DBE Directory can be found on the Internet at: http://www.dot.state.tx.us/services/business_opportunity_programs/tucp_dbe_directory.htm .
- d. Only DBE firms certified at the time the contract is signed or at the time the commitments are submitted are eligible to be used in the information furnished by the Provider as required under Section 2.c. and 5.d. above. For purposes of the DBE goal on this contract, DBEs will only be allowed to perform work in the categories of work for which they were certified.

- 7) **DETERMINATION OF DBE PARTICIPATION.** A firm must be an eligible DBE and perform a professional or technical function relating to the project. Once a firm is determined to be an eligible DBE, the total amount paid to the DBE for work performed with his/her own forces is counted toward the DBE goal. When a DBE subcontracts part of the work of its contract to another firm, the value of the subcontracted work may be counted toward DBE goals only if the subprovider is itself a DBE. Work that a DBE subcontracts to a non-DBE firm does not count toward DBE goals.

A DBE subprovider may subcontract no more than 70% of a federal aid contract. The DBE subprovider shall perform not less than 30% of the value of the contract work with assistance of employees employed and paid directly by the DBE; and equipment owned or rented directly by the DBE. DBE subproviders must perform a commercially useful function required in the contract in order for payments to be credited toward meeting the

contract goal. A DBE performs a commercially useful function when it is responsible for executing the work of the contract and is carrying out its responsibilities by actually performing, managing, and supervising the work involved. To perform a commercially useful function, the DBE must also be responsible, with respect to materials and supplies used on the contract, for negotiating price, determining quality and quantity, ordering the material, and installing (where applicable) and paying for the material itself. When a DBE is presumed not to be performing a commercially useful function, the DBE may present evidence to rebut this presumption.

A Provider may count toward its DBE goal a portion of the total value of the contract amount paid to a DBE joint venture equal to the distinct, clearly defined portion of the work of the contract performed by the DBE.

Proof of payment, such as copies of canceled checks, properly identifying the Mobility Authority's contract number or project number may be required to substantiate the payment, as deemed necessary by the Mobility Authority.

8) **RECORDS AND REPORTS.**

- a. After submission of the initial commitment reported (Form E-1), required by Section 2.c. of this attachment, the Provider shall submit Monthly Progress Assessment Reports (Forms E-4 and E-5), after contract work begins, on DBE involvement to meet the goal and for race-neutral participation. One copy of each report is to be sent monthly to the Mobility Authority as provided in Section 8.b. below and should also be submitted with the Provider's invoice. **Only actual payments made to subproviders are to be reported. These reports will be required until all subprovider activity is completed.** The Mobility Authority may verify the amounts being reported as paid to DBEs by requesting copies of canceled checks paid to DBEs on a random basis.
- b. DBE subproviders should be identified on the report by name, type of work being performed, the amount of actual payment made to each during the billing period, cumulative payment amount and percentage of the total contract amount. These reports will be due within fifteen (15) days after the end of a calendar month. Reports are required even when no DBE activity has occurred in a billing period.
- c. All such records must be retained for a period of four (4) years following final payment or until any investigation, audit, examination, or other review undertaken during the four (4) years is completed, and shall be available at reasonable times and places for inspection by authorized representatives of the Mobility Authority, the Department or the DOT.
- d. Prior to receiving final payment, the Provider shall submit a Final Report (Form E-6), detailing the DBE payments. The Final Report is to be sent to the Mobility Authority and one (1) copy is to be submitted with the Provider's final invoice. If the DBE goal requirement is not met, documentation of the good faith efforts made to meet the goal must be submitted with the Final Report.

- 9) **COMPLIANCE OF PROVIDER.** To ensure that DBE requirements of this DOT-assisted contract are complied with, the Mobility Authority and/or the Department will monitor the Provider's efforts to involve DBEs during the performance of this contract. This will be accomplished by a review of DBE Monthly Progress Reports (Form E-4), submitted to the Mobility Authority by the Provider indicating his progress in achieving the DBE contract goal, and by compliance reviews conducted by the Mobility Authority or the Department. The DBE Monthly Progress Report (Form E-4) must be submitted at a minimum monthly to the Mobility Authority, in addition to with each invoice to the appropriate agency contact.

The Provider shall receive credit toward the DBE goal based on actual payments to the DBE subproviders with the following exceptions and only if the arrangement is consistent with standard industry practice. The Provider shall immediately contact the Mobility Authority in writing if he/she withholds or reduces payment to any DBE subprovider.

- (1) A DBE firm is paid but does not assume contractual responsibility for performing the service;
- (2) A DBE firm does not perform a commercially useful function;
- (3) Payment is made to a DBE that cannot be linked by an invoice or canceled check to the contract under which credit is claimed;
- (4) Payment is made to a broker or a firm with a brokering-type operation; or
- (5) Partial credit is allowed, in the amount of the fee or commission provided the fee or commission does not exceed that customarily allowed for similar services, for a bona fide service, such as professional, technical, consultant, or managerial services, and assistance in the procurement of essential personnel, facilities, equipment, materials, or supplies required for performance of the contract.

A Provider's failure to comply with the requirements of this Special Provision shall constitute a material breach of this contract. In such a case, the Mobility Authority reserves the right to terminate the contract; to deduct the amount of DBE goal not accomplished by DBEs from the money due or to become due the Provider, not as a penalty but as liquidated damages to the Mobility Authority; or such other remedy or remedies as the Mobility Authority deems appropriate.

EXHIBIT G

Disadvantaged Business Enterprise (DBE) for Race-Neutral Professional or Technical Services Contracts Special Provision

It is the policy of the DOT, the Central Texas Regional Mobility Authority (the "Mobility Authority") and the Texas Department of Transportation (the "Department") that Disadvantaged Business Enterprises (DBEs) as defined in 49 CFR Part 26, Subpart A and the Department's Disadvantaged Business Enterprise Program ("DBE Program"), shall have the opportunity to participate in the performance of contracts financed in whole or in part with Federal funds and it is the DOT's policy that a maximum feasible portion of the Department's and the Mobility Authority's overall DBE goal be met using race-neutral means. The Mobility Authority and the Department previously entered into a Memorandum of Understanding Regarding the Adoption of the Texas Department of Transportation's Federally-Approved Disadvantaged Business Opportunity Program by the Central Texas Regional Mobility Authority (the "MOU") dated effective February 1, 2007. The MOU provides that the CTRMA has adopted the Department's DBE Program with the consent of the Federal Highway Administration for contracts financed in whole or in part with Federal funds. Consequently, if there is no DBE goal, the DBE requirements of 49 CFR Part 26, apply to this contract as follows:

The Provider will offer DBEs as defined in 49 CFR Part 26, Subpart A, the opportunity to compete fairly for contracts and subcontracts financed in whole or in part with federal funds. Race-Neutral DBE participation on projects with no DBE goal should be reported on the Form E-3. Payments to DBEs reported on Form E-3 are subject to the following requirements:

DETERMINATION OF DBE PARTICIPATION.

A firm must be an eligible DBE and perform a professional or technical function relating to the project. Once a firm is determined to be an eligible DBE, the total amount paid to the DBE for work performed with his/her own forces must be reported as race-neutral DBE participation. When a DBE subcontracts part of the work of its contract to another firm, the value of the subcontracted work should not be reported unless the subcontractor is itself a DBE.

A DBE subprovider may subcontract no more than 70% of a federal aid contract. The DBE subprovider shall perform not less than 30% of the value of the contract work with assistance of employees employed and paid directly by the DBE; and equipment owned or rented directly by the DBE. DBE subproviders must perform a commercially useful function required in the contract. A DBE performs a commercially useful function when it is responsible for execution of the work of the contract and is carrying out its responsibilities by actually performing, managing, and supervising the work involved. To perform a commercially useful function, the DBE must also be responsible, with respect to materials and supplies used on the contract, for negotiating price, determining quality and quantity, ordering the material, and installing (where applicable) and paying for the material itself. When a DBE is presumed not to be performing a commercially useful function, the DBE may present evidence to rebut this presumption.

A Provider must report a portion of the total value of the contract amount paid to a DBE joint venture equal to the distinct, clearly defined portion of the work of the contract performed by the DBE.

Proof of payment, such as copies of canceled checks, properly identifying the Mobility Authority's contract number or project number may be required to substantiate the payment, as deemed necessary by the Mobility Authority.

The Provider and any subprovider shall not discriminate on the basis of race, color, national origin or sex in the award and performance of contracts. These requirements shall be physically included in any subcontract.

Failure to carry out the requirements set forth above shall constitute a material breach of this contract and, may result in termination of the contract by the Mobility Authority or other such remedy as the Mobility Authority deems appropriate.

ATTACHMENT C

**SUPPLEMENTAL WORK AUTHORIZATION NO. ____
TO WORK AUTHORIZATION NO. ____
CONTRACT FOR ENGINEERING SERVICES**

THIS SUPPLEMENTAL WORK AUTHORIZATION is made pursuant to the terms and conditions of Article 4 of the Contract for Engineering Services (the Contract) entered into by and between the Central Texas Regional Mobility Authority (the Mobility Authority) and _____ (the Engineer) dated _____.

The following terms and conditions of Work Authorization No. ____ are hereby amended as follows:

This Supplemental Work Authorization shall become effective on the date of final execution of the parties hereto. All other terms and conditions of Work Authorization No. ____ not hereby amended are to remain in full force and effect.

IN WITNESS WHEREOF, this Supplemental Work Authorization is executed in duplicate counterparts and hereby accepted and acknowledged below.

THE ENGINEER

**CENTRAL TEXAS REGIONAL
MOBILITY AUTHORITY**

(Signature)

(Printed Name)

(Title)

(Date)

(Signature)

Mike Heiligenstein

Executive Director

(Date)

ATTACHMENT D

KEY PERSONNEL

<u>Title</u>	<u>Engineer Employee</u>
Project Manager	Robin Handel
Deputy Project Manager/Lead Structural Engineer	Tom Ashcraft
Lead Roadway Engineer	Paul Schrader
Lead Drainage Engineer	Vicki McEvoy
ITS/Infrastructure Engineer	Karl Burkett
Traffic Engineer	Benedict Patrick



**CENTRAL TEXAS
Regional Mobility Authority**

Meeting Date: July 27, 2016
AGENDA ITEM #8

Approve a Memorandum of Agreement with
Capital Metro and Capital Area Metropolitan
Planning Organization to implement the Park and
Ride Initiative

Strategic Plan Relevance: Regional Mobility
Department: Engineering
Contact: Justin Word, P.E., Director of Engineering
Associated Costs: N/A
Funding Source: N/A
Action Requested: Consider and act on draft resolution

Summary:

A proposed Memorandum of Agreement (MOA) between the Mobility Authority, Capital Metro, and Capital Area Metropolitan Planning Organization has been developed related to the Park and Ride Initiative. The proposed Park and Ride Initiative focuses on identifying and developing a program of Park and Ride facilities that will operate on existing and planned Mobility Authority project corridors. The MOA will identify the roles and responsibilities of each agency in advancing this Initiative.

The Executive Director is requesting authorization to execute the MOA between the Mobility Authority, Capital Metro, and Capital Area Metropolitan Planning Organization.

Backup provided: Draft Memorandum of Agreement
Draft Resolution for Board Consideration

**GENERAL MEETING OF THE BOARD OF DIRECTORS
OF THE
CENTRAL TEXAS REGIONAL MOBILITY AUTHORITY**

RESOLUTION NO. 16-0XX

**APPROVING A MEMORANDUM OF AGREEMENT WITH
CAPITAL METRO AND THE CAPITAL AREA METROPOLITAN PLANNING
ORGANIZATION TO IMPLEMENT A PARK AND RIDE INITIATIVE**

WHEREAS, the Central Texas Mobility Authority's (Mobility Authority) mission is to implement innovative, multi-modal transportation solutions that mitigate congestion and create transportation choices that enhance the quality of life and the economic vitality in the Central Texas metropolitan region ("Central Texas"); and

WHEREAS, Capital Metro serves as the largest provider for the Central Texas area's public transportation, including commuter rail, bus rapid transit, express bus operations, local bus operations, rideshare programs, and paratransit services (collectively referred to as the "Services"); and

WHEREAS, the Capital Area Metropolitan Planning Organization ("CAMPO") produces and maintains both the Long-Range Transportation Plan and the Transportation Improvement Program for the 6-County region, including those activities involving Capital Metro and the Mobility Authority; and

WHEREAS, the Mobility Authority is advancing a program of projects that include managed/express lane elements, that shall provide reliable travel times and travel time savings to users; and

WHEREAS, these managed/express lanes are free to use for Capital Metro Services as specified under Section 370.177(a-1), Transportation Code and in Section 301.004 of the CTRMA Policy Code; and

WHEREAS, the Mobility Authority, Capital Metro and CAMPO seek to develop a Park and Ride Initiative to coordinate the integration of Park and Ride ("P&R") facilities to serve transit vehicles using the managed/express lane projects; and

WHEREAS, the Mobility Authority, Capital Metro and CAMPO have discussed and developed a proposed Memorandum of Agreement related to the Park and Ride Initiative to identify and develop a program of P&R facilities that will operate on existing and planned Mobility Authority project corridors; and

WHEREAS, the Memorandum of Agreement identifies the roles and responsibilities of each agency to allow them to cooperate and coordinate with each other to (i) avoid overlap or duplication of efforts, (ii) plan, develop, and construct P&R facilities in an efficient manner in

order to minimize costs while maximizing mobility, and (iii) allow projects to proceed in a timely and cost efficient manner; and

WHEREAS, the Executive Director recommends approval of the proposed Memorandum of Agreement in the form or substantially the same form attached hereto as Exhibit A.

NOW THEREFORE, BE IT RESOLVED that the proposed Memorandum of Agreement is hereby approved; and

BE IT FURTHER RESOLVED that the Executive Director is directed and authorized to finalize and execute for the Mobility Authority the proposed Memorandum of Agreement in the form or substantially the same form attached hereto as Exhibit A.

Adopted by the Board of Directors of the Central Texas Regional Mobility Authority on the 27th day of July, 2016.

Submitted and reviewed by:

Approved:

Geoffrey Petrov, General Counsel

Ray A. Wilkerson
Chairman, Board of Directors

Exhibit A

**MEMORANDUM OF AGREEMENT
PARK AND RIDE INITIATIVE**

**CENTRAL TEXAS REGIONAL MOBILITY AUTHORITY,
CAPITAL METROPOLITAN TRANSPORTATION AUTHORITY,
AND CAPITAL AREA METROPOLITAN PLANNING ORGANIZATION**

THIS MEMORANDUM OF AGREEMENT (the “Agreement”) is made by and between the Central Texas Regional Mobility Authority (the “CTRMA”), the Capital Metropolitan Transportation Authority (“Capital Metro”), and the Capital Area Metropolitan Planning Organization (“CAMPO”). (Collectively referred to as the “Parties”)

The Parties hereto agree to the following regarding the planning and development of Park and Ride (P&R) facilities that will benefit transit vehicles exclusively to provide transportation to members of the public using the managed/express lane projects being developed by the CTRMA.

WITNESSETH

WHEREAS, the CTRMA’s mission is to implement innovative, multi-modal transportation solutions that mitigate congestion and create transportation choices that enhance the quality of life and the economic vitality in the Central Texas metropolitan region (“Central Texas”); and

WHEREAS, Capital Metro serves as the largest provider for the Central Texas area’s public transportation, including commuter rail, bus rapid transit, express bus operations, local bus operations, rideshare programs, and paratransit services (collectively referred to as the “Services”); and

WHEREAS, CAMPO produces and maintains both the Long-Range Transportation Plan and the Transportation Improvement Program for the 6-County region, including those activities involving Capital Metro and the CTRMA; and

WHEREAS, the CTRMA is advancing a program of projects that include managed/express lane elements, that shall provide reliable travel times and travel time savings to users; and

WHEREAS, these managed/express lanes are free to use for Capital Metro Services as specified under Section 370.177(a-1), Transportation Code and in Section 301.004 of the CTRMA Policy Code; and

WHEREAS, the Parties seek to coordinate the integration of P&R facilities to serve transit vehicles using the managed/express lane projects; and

WHEREAS, the Parties desire to cooperate and coordinate with each other to (i) avoid overlap or duplication of efforts, (ii) plan, develop, and construct P&R facilities in an efficient manner in order to minimize costs while maximizing mobility to all Parties, and (iii) allow the Parties to proceed with projects in a timely and cost efficient manner; and

WHEREAS, the agreement proposed by the Parties is more particularly described in the Roles and Responsibilities Section of this Agreement; and the initial listing of potential P&R Projects to be evaluated are identified as attachments to this Agreement; and

WHEREAS, the Parties represent that they have the authority to enter into this Agreement and the Parties intend to comply with the Interlocal Cooperation Act, Texas Government Code Section 791.001, et seq.

NOW, THEREFORE, the Parties, in consideration of the mutual covenants and agreements herein contained, do hereby mutually agree as follows:

I. Purpose

The purpose of this Agreement is to memorialize the responsibilities of the Parties regarding the planning for and the development of a P&R Initiative throughout Central Texas and to solidify the mutual relationship in developing a P&R Initiative between all Parties.

II. Description and Background

The CTRMA, Capital Metro, and CAMPO are major partners in the development of mobility solutions for the people of Austin and the surrounding metropolitan area. All Parties have worked collaboratively over the past several years in coordinating their respective projects and creating opportunities to improve mobility. Over the past two years, the Parties have identified the need to intensify their collaboration efforts and to focus on the strategic implementation of P&R facilities that will be located in optimal locations to access the managed/express lane projects being implemented by the CTRMA, to provide convenient access and travel time savings to Capital Metro customers, and addresses the planning needs of Central Texas identified by CAMPO. The P&R Initiative is a joint effort by all Parties to address mobility solutions in Central Texas. The CTRMA project corridors related to this agreement include the North MoPac Improvement Project, the South MoPac Improvement Project, US 183 North, US 183 South, SH 71 East, the Manor Expressway, and the Oak Hill Parkway. The initial listing of potential P&R project locations to be evaluated under the conditions of this agreement, are included as attachments to this agreement.

III. Roles and Responsibilities

The Parties agree to the following roles and responsibilities regarding the planning and development of P&R facilities that will benefit from the use of managed/express lanes being developed by the CTRMA.

- 1) CAMPO roles and responsibilities are agreed as follows:
 - a) Assist with the CTRMA and Capital Metro in the identification, evaluation, selection, and advancement of each P&R project; and
 - b) Include P&R projects identified in this effort in the development of the CAMPO Long-Range Transportation Plan and the Transportation Improvement Program; and amendments as needed; and
 - c) Work collaboratively with the CTRMA and Capital Metro to identify funding opportunities for P&R projects; and
 - d) Building on these efforts and other P&R projects in operation or being developed by Capital Metro and others, within their respective service areas, develop a Regional Park and Ride Plan for the 6-County CAMPO region.

- 2) Capital Metro roles and responsibilities are agreed as follows:
 - a) Coordinate with the CTRMA and CAMPO on P&R locations throughout Central Texas where transit services would benefit from the use of managed/express lane projects being undertaken by the CTRMA; and
 - b) Provide staff for project coordination on P&R site location, project development, and approval; and
 - c) Provide operating plans for each P&R location; and
 - d) Develop demand forecasting and service planning for each P&R location; and
 - e) Provide design standards and criteria for P&R facilities; and
 - f) Support public outreach for each P&R site location in conjunction with the CTRMA and CAMPO as appropriate; and
 - g) Serve as the liaison to the Federal Transit Administration as appropriate to maintain compliance with federal law and to retain project eligibility costs for federal funding support; and
 - h) Submit concepts and projects to CAMPO for inclusion in the region's long-range transportation plan and Transportation Improvement Program at the discretion of the Transportation Policy Board in accordance with a 3-C transportation planning process as specified in 23 CFR 450 and 49 CFR 613; and
 - i) Conduct operations and maintenance capacity analysis for each P&R location, and incorporate each approved P&R location into the Capital Metro operations and maintenance budget; and
 - j) Request Capital Metro board approval for all P&R locations as appropriate; and
 - k) Develop the branding logo and related marketing materials for the P&R Initiative; and
 - l) Provide Express Bus Service to each P&R location; and
 - m) Maintain operations and maintenance of each site after completion; and
 - n) Coordinate with CTRMA and CAMPO to develop and build upon this initial agreement by the development of a P&R guidelines document and corresponding policy to clearly link the P&R facility size, the managed/express lane travel time benefits, and the market assessment with a corresponding level of transit service for these P&R facilities.

- 3) The CTRMA roles and responsibilities are agreed as follows:
 - a) Coordinate with Capital Metro and CAMPO on P&R locations throughout Central Texas where transit services would benefit from the use of managed/express lane projects being undertaken by the CTRMA; and
 - b) Provide staff to lead efforts on P&R site location, project development, and approval; and
 - c) In coordination with local transit operators and/or local governments, provide site narratives, preliminary site assessments, existing conditions analysis, environmental studies, preliminary design, and other planning-level activities necessary to identify, select, and acquire property for each P&R location identified; and
 - d) In coordination with local transit operators and/or local governments, evaluate the proposed and future P&R locations for efficient travel and feasible connectivity between the points of origin and destination in relationship to the managed/express lane projects; and
 - e) Conduct public outreach for each P&R site location in conjunction with Capital Metro and CAMPO; and
 - f) Request CTRMA Board approval for all P&R locations as appropriate; and
 - g) Coordinate with CAMPO and submit concepts and projects for inclusion in the long-range Transportation Plan and Transportation Improvement Program at the discretion of the Transportation Policy Board in accordance with a 3-C transportation planning process as required under 23 CFR 450 and CFR 613; and
 - h) In coordination with local transit operators and/or local governments, lead the efforts to identify potential funding needs and alternative funding sources to advance the P&R Initiative.

- 4) Responsibilities for property acquisition, detailed design, and construction will be determined at a future time under a separate agreement when more specific information is available. Potential funding options for these efforts shall include, but not be limited to, federal and state grants, agency capital program budgeting, municipal bonding programs, and public private partnerships (P3 programs).

IV. Term

The term of this Agreement shall commence on the date on which all Parties have executed this Agreement and end upon completion of the P&R Initiative. This Agreement shall remain in full force and effect unless superseded by a supplemental agreement. Any party may withdraw from this Agreement upon ninety (90) days notice to the other parties.

V. Termination

Any party may terminate this Agreement in whole or in part if one or both of the other parties fail to comply with any term or condition of the Agreement. The terminating party shall notify the other parties of the decision to terminate this Agreement at least ninety (90) days before the effective date of termination. The non-defaulting party may

avoid termination by correcting the reasons for termination prior to the effective date of termination stated in the notice to the satisfaction of the terminating party.

VI. Appropriations

If any of the Parties fail to receive sufficient appropriation of funds or authorization to provide for the continuation of the Agreement, or if a lawful order issued in or for any fiscal year reduces the funds appropriated or authorized in such amounts as to preclude performing the services set out herein, the Agreement shall terminate upon the delivery of written notice to the other parties that funds are no longer available without any termination charges or other liability incurring to the terminating party.

VII. Administrative Approval

The Executive Director(s) of CTRMA and CAMPO and the President/CEO of Capital Metro will have the authority to negotiate and execute amendments to this Agreement without further action of their governing bodies, but only to the extent necessary to implement and further the clear intent of the Parties governing body, and not in such a way as would constitute a substantive modification of the terms and conditions hereof or otherwise violate Chapter 791 of the Texas Government Code. Any amendments that would constitute a substantive modification to the Agreement must be approved by the governing bodies of the Parties.

VIII. Miscellaneous

This Agreement represents the entire agreement between the CTRMA, Capital Metro, and CAMPO. Other agencies or municipalities may join into this MOA, as associated with future locations and in particular with the potential P&R projects included as an attachment to this agreement.

This Agreement supersedes all other agreements, understandings or commitments, written or oral, relative to the intent of this Agreement. Unless expressly provided for in this Agreement, this Agreement may not be amended or modified except pursuant to a mutual written agreement or supplemental written agreement executed by the CTRMA, Capital Metro, and CAMPO. This Agreement does not intend to, and nothing contained in this Agreement shall create any partnership, joint venture or other equity type agreement between the Parties. The Recitals set forth on Page 1 and 2 of this Agreement are incorporated herein for all purposes.

This Agreement shall be governed by and interpreted in accordance with the laws of the State of Texas.

Executed by:

CENTRAL TEXAS REGIONAL MOBILITY AUTHORITY

By: _____
Name: Mike Heiligenstein
Title: Executive Director

Date: _____

Approved as to form:

By: _____

Date: _____

Title: _____

CAPITAL METROPOLITAN TRANSPORTATION AUTHORITY

By: _____
Name: Linda Watson
Title: President/CEO

Date: _____

Approved as to form:

By: _____

Date: _____

Title: _____

CAPITAL AREA METROPOLITAN PLANNING ORGANIZATION

By: _____
Name: Ashby Johnson
Title: Executive Director

Date: _____

Approved as to form:

By: _____

Date: _____

Title: _____

Attachment 1
Initial List of Potential Park and Ride Projects

1. North Mopac Improvement Project
 - a. Howard Lane

2. South Mopac Improvement Project
 - a. Escarpment Drive

 - b. South Bay Lane

 - c. Slaughter Lane

3. US 183 North
 - a. US 183 & 620

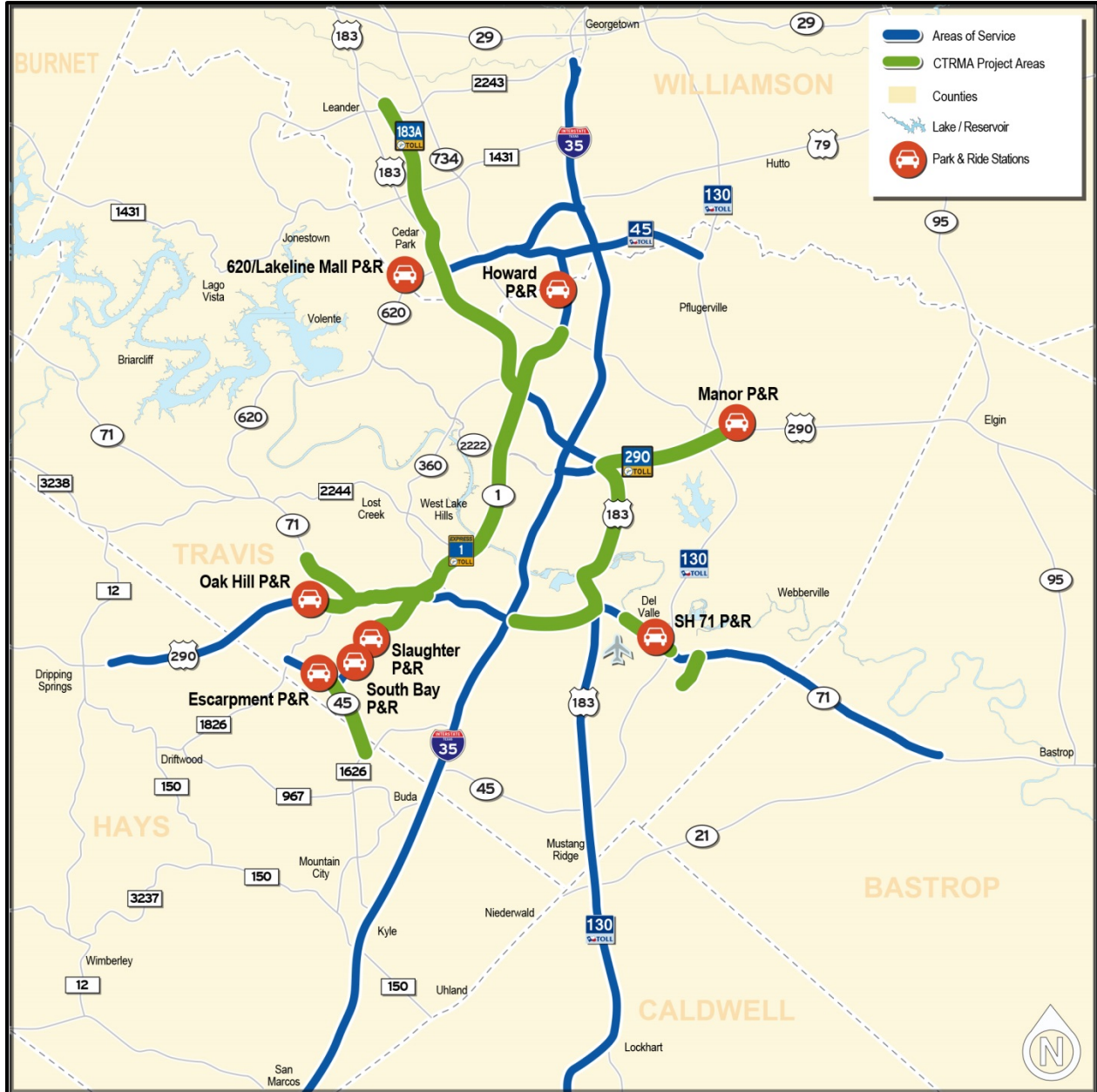
4. US 183 South
 - a. No P&R projects identified

5. SH 71 East
 - a. SH 71 (at SH 130 Toll)

6. Manor Expressway
 - a. US 290 (at SH 130 Toll)

7. Oak Hill Parkway
 - a. Oak Hill P&R (near ACC Pinnacle Campus)

Attachment 2 Map of Potential Park and Ride Projects





**CENTRAL TEXAS
Regional Mobility Authority**

July 27, 2016
AGENDA ITEM #9

Authorize the Issuance, Sale and Delivery of Central Texas
Regional Mobility Authority Senior Lien Revenue Bonds,
Series 2016A, in Accordance with Specified Parameters

Department: Finance
Contact: Bill Chapman, Chief Financial Officer
Action Requested: Consider and act on draft resolution

Summary:

Seeking Board approval to issue System revenue bonds to finance the design and construction of 290E direct connectors to SH 130.

Backup provided: Draft Resolution
Supplemental Indenture

GENERAL MEETING OF THE BOARD OF DIRECTORS
OF THE
CENTRAL TEXAS REGIONAL MOBILITY AUTHORITY

RESOLUTION NO. 16-_____

RESOLUTION AUTHORIZING THE ISSUANCE, SALE AND DELIVERY OF CENTRAL TEXAS REGIONAL MOBILITY AUTHORITY SENIOR LIEN REVENUE BONDS, SERIES 2016A (THE “SERIES 2016A BONDS”), IN ACCORDANCE WITH SPECIFIED PARAMETERS; APPROVING THE FORM OF, AND AUTHORIZING THE EXECUTION AND DELIVERY OF, THE EIGHTEENTH SUPPLEMENTAL TRUST INDENTURE; APPOINTING AUTHORIZED OFFICERS TO AUTHORIZE, APPROVE AND DETERMINE CERTAIN TERMS AND PROVISIONS OF THE SERIES 2016A BONDS; APPROVING AND AUTHORIZING THE TERMS AND CONDITIONS OF A BOND PURCHASE CONTRACT PERTAINING TO THE SERIES 2016A BONDS AND THE EXECUTION AND DELIVERY OF SUCH PURCHASE CONTRACT; APPROVING THE PREPARATION OF A PRELIMINARY OFFICIAL STATEMENT AND AN OFFICIAL STATEMENT IN CONNECTION WITH THE OFFERING AND SALE OF THE SERIES 2016A BONDS; AUTHORIZING THE EXECUTION AND DELIVERY OF ANY AND ALL DOCUMENTS, CERTIFICATES, AGREEMENTS, CLOSING INSTRUCTIONS, AND INSTRUMENTS NECESSARY OR DESIRABLE TO BE EXECUTED AND DELIVERED IN CONNECTION WITH THE FOREGOING AND ENACTING OTHER PROVISIONS RELATING TO THE SUBJECT;

WHEREAS, the Central Texas Regional Mobility Authority (the “Authority”) has been created and organized pursuant to and in accordance with the provisions of Chapter 361, Texas Transportation Code, and operates pursuant to the Constitution and laws of the State, including, particularly, Chapter 370, Texas Transportation Code (the “Act”), for the purposes of constructing, maintaining and operating transportation projects, including turnpike projects, in Travis and Williamson Counties, Texas; and

WHEREAS, pursuant to the Act, the Authority is authorized to: (i) study, evaluate, design, finance, acquire, construct, maintain, repair and operate transportation projects (as defined in the Act), individually or as a system (as defined in the Act); (ii) issue bonds, certificates, notes or other obligations payable from the revenues of a transportation project or system, including tolls, fees, fares or other charges, to pay all or part of the cost of a transportation project and to refund any bonds previously issued for a transportation project; and (iii) impose tolls, fees, fares or other charges for the use of each of its transportation projects and the different parts or sections of each of its transportation projects; and

WHEREAS, pursuant to the Act and other applicable laws, the Authority is authorized to issue revenue bonds, notes, certificates or other obligations for the purposes of (i) financing all or a portion of the cost of the acquisition, construction, improvement, extension or expansion of one or more turnpike projects (as defined in the Act), (ii) refunding, defeasing and redeeming any such obligations previously issued by the Authority and (iii) paying the expenses of issuing such revenue bonds, notes, certificates or other obligations; and

WHEREAS, the Authority has previously executed and delivered that certain Master Trust Indenture (the “Master Indenture”), between the Authority and Regions Bank, as successor in trust to JPMorgan Chase Bank, National Association, as trustee (the “Trustee”), providing for the issuance from time to time by the Authority of one or more series of its revenue obligations (collectively, the “Obligations”), as supplemented by that certain (i) First Supplemental Trust Indenture (the “First Supplement”), Second Supplemental Trust Indenture (the “Second Supplement”), and Third Supplemental Trust Indenture (the “Third Supplement”), each between the Authority and the Trustee and dated as of February 1, 2005; (ii) Fourth Supplemental Trust Indenture (the “Fourth Supplement”), between the Authority and the Trustee and dated as of May 1, 2009; (iii) Fifth Supplemental Trust Indenture (the “Fifth Supplement”) and Sixth Supplemental Trust Indenture (the “Sixth Supplement”), each between the Authority and the Trustee and dated as of March 1, 2010; (iv) Seventh Supplemental Trust Indenture (the “Seventh Supplement”), between the Authority and the Trustee and dated as of August 1, 2010; (v) Eighth Supplemental Trust Indenture (the “Eighth Supplement”) and the Ninth Supplemental Trust Indenture (the “Ninth Supplement”), each between the Authority and the Trustee and dated as of June 1, 2011; (vi) Tenth Supplemental Trust Indenture (the “Tenth Supplement”) and Eleventh Supplemental Trust Indenture (the “Eleventh Supplement”), each between the Authority and the Trustee and dated as of May 1, 2013; (vii) Twelfth Supplemental Trust Indenture (the “Twelfth Supplement”), Thirteenth Supplemental Trust Indenture (the “Thirteenth Supplement”), Fourteenth Supplemental Trust Indenture (the “Fourteenth Supplement”) and Fifteenth Supplemental Trust Indenture (the “Fifteenth Supplement”), each between the Authority and the Trustee and dated as of November 1, 2015; (viii) Sixteenth Supplemental Trust Indenture (the “Sixteenth Supplement”), between the Authority and the Trustee and dated as of June 1, 2016; and (ix) Seventeenth Supplemental Trust Indenture (the “Seventeenth Supplement”) between the Authority and the Trustee and dated as of August 1, 2016, which is expected to be delivered and effective August 9, 2016 (the Master Indenture, as supplemented by the First Supplement, the Second Supplement, the Third Supplement, the Fourth Supplement, the Fifth Supplement, the Sixth Supplement, the Seventh Supplement, the Eighth Supplement, the Ninth Supplement, the Tenth Supplement, the Eleventh Supplement, the Twelfth Supplement, the Thirteenth Supplement, the Fourteenth Supplement, the Fifteenth Supplement, the Sixteenth Supplement and the Seventeenth Supplement, is referred to herein as the “Indenture”); and

WHEREAS, Sections 301, 302, 706 and 1002 of the Master Indenture authorize the Authority and the Trustee to execute and deliver supplemental indentures authorizing the issuance of Obligations, including Additional Senior Lien Obligations, and to include in such supplemental indentures the terms of such Additional Senior Lien Obligations and any other matters and things relative to the issuance of such Obligations which are not inconsistent with or in conflict with the Indenture, to add to the covenants of the Authority, and to pledge other moneys, securities or funds as part of the Trust Estate; and

WHEREAS, pursuant to the Act and Chapter 1371, Texas Government Code, as amended, the Board of Directors (the “Board”) of the Authority has determined to issue its Additional Senior Lien Obligations designated as its Senior Lien Revenue Bonds, Series 2016A (the “Series 2016A Bonds”), pursuant to the Master Indenture and an Eighteenth Supplemental Trust Indenture (the “Eighteenth Supplement”) for the purposes specified herein, all under and in accordance with the Constitution and the laws of the State; and

WHEREAS, the Board has been presented with and examined the proposed form of the Eighteenth Supplement and the Board finds that the form and substance of such document are satisfactory and the recitals and findings contained therein are true, correct and complete, and hereby adopts and incorporates by reference such recitals and findings as if set forth in full in this Resolution, and finds that it is in the best interest of the public and the Authority to issue the Series 2016A Bonds and to authorize the execution and delivery of such documents; and

WHEREAS, the Board now desires to appoint one or more officers of the Authority to act on behalf of the Authority to determine the final terms and conditions of the Series 2016A Bonds, as provided herein, and to make such determinations and findings as may be required by the Eighteenth Supplement and to carry out the purposes of this Resolution and execute an Award Certificate (as defined herein) setting forth such determinations and authorizing and approving all other matters relating to the issuance, sale and delivery of the Series 2016A Bonds; and

WHEREAS, the Board desires to authorize the execution and delivery of the Eighteenth Supplement providing for the issuance of and setting forth the terms and provisions relating to the Series 2016A Bonds to be issued as Additional Senior Lien Obligations, and the pledge and security therefor, in the substantially final form of the Eighteenth Supplement; and

WHEREAS, the 2016A Senior Lien Bonds shall be issued as Additional Senior Lien Obligations and Long-Term Obligations pursuant to and in accordance with the provisions of the Master Indenture and the Eighteenth Supplement; and

WHEREAS, the Board now desires to approve, ratify and confirm the preparation and distribution of a preliminary official statement and an official statement relating to the offering and sale of the Series 2016A Bonds; and

WHEREAS, the Board desires to provide for the issuance of the Series 2016A Bonds in accordance with the requirements of the Master Indenture and the Eighteenth Supplement, and to authorize the execution and delivery of the Eighteenth Supplement and such certificates, agreements, instruction letters and other instruments as may be necessary or desirable in connection therewith; and

WHEREAS, the Board desires to authorize the execution and delivery of a Bond Purchase Contract (the "Purchase Contract"), between the Authority and Jefferies LLC (the "Underwriters' Representative"), acting for and on behalf of itself and the syndicate of underwriters named therein (collectively, the "Underwriters") relating to the Series 2016A Bonds;

NOW, THEREFORE, BE IT RESOLVED BY THE BOARD OF DIRECTORS OF THE CENTRAL TEXAS REGIONAL MOBILITY AUTHORITY THAT:

ARTICLE I

FINDINGS AND DETERMINATIONS

Section 1.1. Findings and Determinations. (a) The findings and determinations set forth in the preamble hereof are hereby incorporated herein for all purposes as though such findings and determinations were set forth in full herein. Capitalized terms used herein and not otherwise defined herein shall have the meanings assigned thereto in the Master Indenture and the Eighteenth Supplement.

(b) The Board has found and determined that the Series 2016A Bonds may be issued as Additional Senior Lien Obligations and as Current Interest Bonds and Long-Term Obligations in accordance with the Master Indenture.

(c) It is officially found, determined and declared that the meeting at which this Resolution has been adopted was open to the public and public notice of the time, place and subject matter of the public business to be considered and acted upon at said meeting, including this Resolution was given, all as required by the applicable provisions of Chapter 551, Texas Government Code, as amended.

(d) The Board hereby finds and determines that the issuance of the Series 2016A Bonds is in the best interest of the Authority.

ARTICLE II

ISSUANCE OF SERIES 2016A BONDS; APPROVAL OF DOCUMENTS

Section 2.1. Issuance, Execution and Delivery of Series 2016A Bonds; Approval of Eighteenth Supplement. The Authority hereby authorizes, approves and directs the issuance of the Series 2016A Bonds in accordance with the terms of this Resolution, the Award Certificate, the Master Indenture and the Eighteenth Supplement, a draft of which was presented to the Authority and its counsel, the form, terms and provisions of such Eighteenth Supplement being hereby authorized and approved with such changes as may be approved by the Authorized Officer (as defined herein), such approval to be evidenced by the execution thereof. The Authorized Officer is hereby authorized to execute the Eighteenth Supplement and the Secretary is hereby authorized to attest the signature of the Authorized Officer.

Section 2.2. The Issuance of the Series 2016A Bonds. The issuance, execution and delivery of the Series 2016A Bonds, which shall be issued in the aggregate principal amount and bearing interest in accordance with the terms of the Eighteenth Supplement, all as determined by the Authorized Officer and set forth in the Award Certificate, to provide funds to (i) make a deposit to a reserve fund, (ii) pay the Costs of improvements and extensions to the 290 East Project (as defined in the Eighth Supplement), including, without limitation, the design and construction of one or more direct connectors at the State Highway 130 interchange, (iii) pay capitalized interest with respect to the Series 2016A Bonds, and (iv) pay the costs of issuance for the Series 2016A Bonds, all pursuant to and in accordance with the Master Indenture and the Eighteenth Supplement, are hereby authorized and approved.

Section 2.3. Execution and Delivery of Series 2016A Bonds. The Chairman of the Board is hereby authorized and directed to execute and the Secretary of the Board is hereby authorized and directed to attest the signature of the Chairman of the Board and to affix the Authority's seal to the Series 2016A Bonds and to cause the Trustee to authenticate and deliver the Series 2016 Bonds to the Representative (as defined herein) or its designee against payment therefor in accordance with and subject to the terms and provisions of the Master Indenture and the Eighteenth Supplement.

ARTICLE III

APPOINTMENT OF AUTHORIZED OFFICER; DELEGATION OF AUTHORITY

Section 3.1. Appointment of Authorized Officer. The Board hereby appoints the Chairman of the Board, the Executive Director and the Chief Financial Officer, severally and each of them, to act as an authorized officer (the "Authorized Officer") on behalf of the Board and to perform all acts authorized and required of an Authorized Officer set forth in this Resolution and the Eighteenth Supplement, respectively. The Authorized Officer is hereby authorized and directed to execute an Award Certificate setting forth the information authorized to be stated therein pursuant to this Resolution and required to be stated therein pursuant to the Eighteenth Supplement.

Section 3.2. Delegation of Authority. (a)The Board hereby authorizes and directs that the Authorized Officer act on behalf of the Authority to determine all final terms and conditions of the Series 2016A Bonds, the dated date for the Eighteenth Supplement, the dated date for the Series 2016A Bonds, the aggregate principal amount of Series 2016 Bonds to be issued, the prices at which the Series 2016A Bonds will be sold, any different or additional designation or title of the Series 2016A Bonds, the principal amounts and maturity dates therefor, the per annum interest rates for the Series 2016A Bonds, the redemption provisions and dates for the Series 2016A Bonds, the final forms of the Series 2016A Bonds, and such other terms and provisions that shall be applicable to the Series 2016A Bonds, to approve the form and substance of a purchase contract providing for the sale of the Series 2016A Bonds, to authorize and approve the forms of a preliminary official statement and a final official statement and to make such findings and determinations as are otherwise authorized herein or as may be required by the Eighteenth Supplement to carry out the purposes of this Resolution and to execute an award certificate (the "Award Certificate") setting forth such determinations, such other matters as authorized herein, and authorizing and approving all other matters relating to the issuance, sale and delivery of the Series 2016A Bonds; provided, that the following conditions can be satisfied:

- (i) the aggregate principal amount of the Series 2016A Bonds to be issued shall not exceed \$70,000,000;
- (ii) the Series 2016A Bonds shall not bear interest at a rate greater than the maximum rate allowed by Chapter 1204, Texas Government Code, as amended; and
- (iii) the Series 2016A Bonds shall mature not later than January 1, 2053;

all based on bond market conditions and available rates for the Series 2016A Bonds on the date of sale of the Series 2016A Bonds.

The Series 2016A Bonds may be issued as one or more series as specified in the Award Certificate.

Section 3.3. Limitation on Delegation of Authority. The authority granted to the Authorized Officer under Article III of this Resolution shall expire at 5:00 p.m. Central Time on July 15, 2017, unless otherwise extended by the Board by separate Resolution. Any Series 2016A Bonds, with respect to which an Award Certificate is executed prior to 5:00 p.m. Central Time on July 15, 2017, may be delivered to the initial purchaser thereof after such date.

ARTICLE IV

APPROVAL OF SALE OF SERIES 2016A BONDS

Section 4.1. Approval of Sale of Series 2016A Bonds. The sale of the Series 2016A Bonds to Jefferies LLC, as Underwriters Representative, acting on behalf of itself and the Underwriters, in the aggregate principal amounts, bearing interest at the rates and at the prices set forth in the Purchase Contract, as determined by the Authorized Officer on the date of sale of the Series 2016A Bonds, is hereby authorized and approved. The Authorized Officer is hereby authorized and directed to execute and deliver the Purchase Contract on behalf of the Authority providing for the sale of the Series 2016A Bonds to the Underwriters in such form as determined by the Authorized Officer, to be dated as of the date of its execution and delivery, by and among the Authority and the Underwriters. The Authorized Officer is hereby authorized and directed to approve the final terms and provisions of the Purchase Contract and to approve and to execute and deliver such Purchase Contract on behalf of the Authority, such approval to be conclusively evidenced by the execution thereof.

Section 4.2. Sale on Best Terms Available. The Series 2016A Bonds shall be sold to the Underwriters at the prices, bearing interest at the rates and having such other terms and provisions, that, based on then current market conditions, result in the best terms reasonably available and advantageous to the Authority, as is determined by the Authorized Officer on the date of sale of the Series 2016A Bonds. The Authorized Officer is hereby authorized and directed to make such findings in the Award Certificates regarding the terms of the sale of the Series 2016A Bonds and the benefit of such sale of the Series 2016A Bonds to the Authority.

ARTICLE V

APPROVAL OF OFFICIAL STATEMENT

Section 5.1. Approval of Official Statement. The Authorized Officer is hereby authorized and directed to authorize and approve the form and substance of the Preliminary Official Statement prepared in connection with the public offering of the Series 2016A Bonds, together with any addenda, supplement or amendment thereto (the "Preliminary Official Statement"), and the preparation, use and distribution of the Preliminary Official Statement in the marketing of the Series 2016A Bonds. The Authorized Officer is authorized to "deem final"

the Preliminary Official Statement as of its date (except for the omission of pricing and related information) within the meaning and for the purposes of paragraph (b)(1) of Rule 15c2-12 under the Securities Exchange Act of 1934, as amended. The Authorized Officer is hereby further authorized and directed to use and distribute or authorize the use and distribution of, a final official statement and any addenda, supplement or amendment thereto (the “Official Statement”). The use thereof by the Underwriters in the public offering and sale of the Series 2016A Bonds is hereby authorized and approved. The Chairman of the Board is hereby authorized and directed to execute and the Authorized Officer to deliver the Official Statement to the Underwriters in number and in accordance with the terms of the Purchase Contract. The Secretary of the Board is hereby authorized and directed to include and maintain copies of the Preliminary Official Statement and the Official Statement in the permanent records of the Authority.

ARTICLE VI

USE AND APPLICATION OF PROCEEDS; LETTERS OF INSTRUCTION; POWER TO REVISE DOCUMENTS

Section 6.1. Use and Application of Proceeds; Letters of Instruction. The proceeds from the sale of the Series 2016A Bonds shall be used for the respective purposes set forth in and in accordance with the terms and provisions of the Eighteenth Supplement and the Award Certificate. The deposit and application of the proceeds from the sale of the Series 2016A Bonds shall be set forth in Letters of Instruction of the Authority executed by the Authorized Officer.

Section 6.2. Execution and Delivery of Other Documents. The Authorized Officer is hereby authorized and directed to execute and deliver such other documents and agreements, including amendments, modifications, supplements or consents to existing agreements (including any agreements with the Texas Department of Transportation and the United States Department of Transportation), assignments, certificates, instruments, releases, financing statements, written requests, filings with the Internal Revenue Service and letters of instruction, whether or not mentioned herein, as may be necessary or convenient to carry out or assist in carrying out the purposes of this Resolution and to comply with the requirements of the Indenture, the Eighteenth Supplement, the Award Certificate, and the Purchase Contract.

Section 6.3. Power to Revise Form of Documents. Notwithstanding any other provision of this Resolution, the Authorized Officer is hereby authorized to make or approve such revisions in the form of the documents presented at this meeting and any other document, certificate or agreement pertaining to the issuance and delivery of the Series 2016A Bonds in accordance with the terms of the Master Indenture and the Eighteenth Supplement as, in the judgment of such person, may be necessary or convenient to carry out or assist in carrying out the purposes of this Resolution, such approval to be evidenced by the execution thereof.

ARTICLE VII

APPROVAL AND RATIFICATION OF CERTAIN ACTIONS

Section 7.1. Approval of Submission to the Attorney General of Texas. The Authority’s Bond Counsel is hereby authorized and directed to submit to the Attorney General,

for his approval, a transcript of the legal proceedings relating to the issuance, sale and delivery of the Series 2016A Bonds as required by law, and to the Comptroller of Public Accounts of the State of Texas (the "Comptroller") for registration. In connection with the submission of the record of proceedings for the Series 2016A Bonds to the Attorney General of the State of Texas for examination and approval of such Series 2016A Bonds, the Authorized Officer is hereby authorized and directed to issue one or more checks of the Authority payable to the Attorney General of the State of Texas as a nonrefundable examination fee in the amount required by Chapter 1202, Texas Government Code. The Initial Series 2016A Bonds shall be delivered to the Trustee for delivery to the Underwriters Representative against payment therefor and upon satisfaction of the requirements of the Indenture, the Eighteenth Supplement and the Purchase Contract. Upon satisfaction of such requirements, the Trustee shall cancel the Initial Series 2016A Bonds and authenticate and deliver for the account of the Underwriters definitive Series 2016A Bonds, registered in the name of Cede & Co., as nominee of The Depository Trust Company.

Section 7.2. Certification of the Minutes and Records. The Secretary and any Assistant Secretary of the Board are each hereby severally authorized to certify and authenticate minutes and other records on behalf of the Authority for the issuance of the Series 2016A Bonds and for all other Authority activities.

Section 7.3. Ratifying Other Actions. All other actions taken or to be taken by the Executive Director, the Chief Financial Officer, the Authorized Officer and the Authority's staff in connection with the issuance of the Series 2016A Bonds are hereby approved, ratified and confirmed.

Section 7.4. Authority to Invest Funds. The Executive Director and the Chief Financial Officer are each hereby severally authorized to undertake all appropriate actions and to execute such documents, agreements or instruments as they deem necessary or desirable under the Master Indenture and the Eighteenth Supplement with respect to the investment of proceeds of the Series 2016A Bonds and other funds of the Authority.

Section 7.5. Federal Tax Considerations. In addition to any other authority provided under this Resolution, each Authorized Officer is hereby further expressly authorized, acting for and on behalf of the Authority, to determine and designate in the Award Certificate for the Series 2016A Bonds whether such bonds will be issued as taxable bonds or tax-exempt bonds for federal income tax purposes and to make all appropriate elections under the Internal Revenue Code of 1986, as amended. Each Authorized Officer is hereby further expressly authorized and empowered from time to time and at any time to perform all such acts and things deemed necessary or desirable and to execute and deliver any agreements, certificates, documents or other instruments, whether or not herein mentioned, to carry out the terms and provisions of this section, including but not limited to, the preparation and making of any filings with the Internal Revenue Service.

ARTICLE VIII

GENERAL PROVISIONS

Section 8.1. Changes to Resolution. The Executive Director, the Chief Financial Officer and the Authorized Officer, and either of them, singly and individually, are hereby authorized to make such changes to the text of this Resolution as may be necessary or desirable to carry out the purposes hereof or to comply with the requirements of the Attorney General of Texas in connection with the issuance of the Series 2016A Bonds herein authorized.

Section 8.2. Effective Date. This Resolution shall be in full force and effect from and upon its adoption.

Adopted, passed and approved by the Board of Directors of the Central Texas Regional Mobility Authority on the _____ day of July, 2016.

Submitted and reviewed by:

Approved:

Geoffrey Petrov, General Counsel

Ray Wilkerson
Chairman, Board of Directors

EIGHTEENTH SUPPLEMENTAL TRUST INDENTURE

BETWEEN

CENTRAL TEXAS REGIONAL MOBILITY AUTHORITY

AND

REGIONS BANK, TRUSTEE

AUTHORIZING

SENIOR LIEN REVENUE BONDS, SERIES 2016A

Dated as of _____ 1, 2016

TABLE OF CONTENTS

Page

**ARTICLE I.
DEFINITIONS AND STATUTORY AUTHORITY**

Section 1.1.	Supplemental Indenture	2
Section 1.2.	Definitions.....	2
Section 1.3.	Authority for This Supplemental Indenture.....	7
Section 1.4.	Rules of Construction	7
Section 1.5.	Interpretation.....	7
Section 1.6.	Indenture to Remain in Force	7
Section 1.7.	Successors and Assigns.....	7
Section 1.8.	Separability Clause	7
Section 1.9.	Benefits of Supplemental Indenture.....	7
Section 1.10.	Governing Law	7
Section 1.11.	Miscellaneous	7

**ARTICLE II.
AUTHORIZATION AND TERMS OF 2016A Bonds**

Section 2.1.	Authorization, Principal Amounts, Designation of Series, Terms and Provisions to Apply.....	8
Section 2.2.	Purposes	8
Section 2.3.	Pledge; Limited Obligations	8
Section 2.4.	Date, Denomination, Numbers, and Letters.....	9
Section 2.5.	Interest Payment Dates, Interest Rates and Maturity Dates of the Series 2016A Bonds	9
Section 2.6.	Paying Agent; Method and Place of Payment	10
Section 2.7.	Securities Depository; Book-Entry System	10
Section 2.8.	Redemption Prices and Terms	12
Section 2.9.	Notice of Redemption	12

**ARTICLE III.
ACCOUNTS; APPLICATION OF PROCEEDS**

Section 3.1.	Establishment of 290 East 2016 Project Account.....	12
Section 3.2.	290 East 2016A SR LIEN Project Subaccount.....	12
Section 3.3.	Capitalized Interest Subaccount 290 East 2016A Senior Lien Project.....	13
Section 3.4.	Debt Service Account 2016A Senior Lien.....	13
Section 3.5.	Bond Proceeds Clearance Fund; Costs of Issuance Fund; Initial Deposits	14
Section 3.6.	Senior Lien Debt Service Reserve Requirement	14
Section 3.7.	2005 TxDOT Grant Fund.....	14

**ARTICLE IV.
FORMS OF BONDS**

Section 4.1.	Form of Series 2016A Bonds.....	15
Section 4.2.	Initial Series 2016A Bonds	15
Section 4.3.	Additional Provisions Regarding Bonds.....	15

**ARTICLE V.
TAX MATTERS; REBATE**

Section 5.1.	Federal Income Tax Exclusion	15
Section 5.2.	2016A Senior Lien Rebate Account	18

**ARTICLE VI.
CONTINUING DISCLOSURE**

Section 6.1.	Definitions.....	20
Section 6.2.	Annual Reports	20
Section 6.3.	Event Notices	20
Section 6.4.	Limitations, Disclaimers and Amendments	22

**ARTICLE VII.
OTHER MATTERS**

Section 7.1.	Execution in Several Counterparts.....	23
Section 7.2.	Designation as System Project.....	23

- EXHIBIT A – Form of Series 2016A Senior Lien Bond
- EXHIBIT B – Form of Requisition
- EXHIBIT C – Continuing Disclosure

EIGHTEENTH SUPPLEMENTAL TRUST INDENTURE

THIS EIGHTEENTH SUPPLEMENTAL TRUST INDENTURE, dated as of _____ 1, 2016 (this “Supplemental Indenture” or “Eighteenth Supplemental Indenture”), is made by and between the CENTRAL TEXAS REGIONAL MOBILITY AUTHORITY (together with any successor to its rights, duties, and obligations hereunder, the “Authority”), a body politic and corporate and a political subdivision of the State of Texas (the “State”) duly created, organized and existing under the laws of the State, and REGIONS BANK, an Alabama state banking corporation, as successor in trust to JPMorgan Chase Bank, National Association, as trustee (together with any successor trustee hereunder, the “Trustee”). Capitalized terms used herein and not otherwise defined shall have the meaning as provided in Section 1.2 of this Supplemental Indenture.

RECITALS

WHEREAS, the Authority has been created and organized pursuant to and in accordance with the provisions of Chapter 361, Texas Transportation Code, and operates pursuant to the Constitution and laws of the State, including, particularly, Chapter 370, Texas Transportation Code, as amended (the “Act”), for the purposes of constructing, maintaining and operating transportation projects in Travis and Williamson Counties, Texas; and

WHEREAS, pursuant to the Act, the Authority is authorized to: (i) study, evaluate, design, finance, acquire, construct, maintain, repair and operate transportation projects (as defined in the Act), individually or as a system (as defined in the Act); and (ii) issue bonds, certificates, notes or other obligations payable from the revenues of a transportation project or system, including tolls, fees, fares or other charges, to pay all or part of the cost of a transportation project and to refund any bonds previously issued for a transportation project; and (iii) impose tolls, fees, fares or other charges for the use of each of its transportation projects and the different parts or sections of each of its transportation projects; and

WHEREAS, pursuant to the Act and other applicable laws, the Authority is authorized to issue revenue bonds, notes, certificates or other obligations as hereinafter provided, and to enter into this Supplemental Indenture; and

WHEREAS, the Authority and the Trustee have executed and delivered the Master Indenture, providing for the issuance from time to time by the Authority of one or more series of its revenue obligations (collectively, the “Obligations”); and

WHEREAS, Section 1002 of the Master Indenture authorizes the Authority and the Trustee to execute and deliver a supplemental indenture, authorizing Obligations of a Series, to include any other matters and things relative to such Obligations which are not inconsistent with or contrary to the Master Indenture, to add to the covenants of the Authority, and to pledge other moneys, securities or funds as part of the Trust Estate; and

WHEREAS, pursuant to the authority granted in the Act and Chapter 1371, Texas Government Code, as amended, the Authority has determined to authorize the issuance of its Senior Lien Revenue Bonds, Series 2016A (the “Series 2016A Bonds”), pursuant to the Master Indenture and this Supplemental Indenture for the purpose of providing funds (i) to pay a portion

of the Costs of improvements and extensions to the 290 East Project, including without limitation, the design and construction of one or more direct connectors at the State Highway 130 interchange, and (ii) for the other purposes specified herein; and

WHEREAS, the Board hereby finds and determines that the issuance of the Series 2016A Bonds is in the best interest of the Authority; and

WHEREAS, pursuant to the Bond Resolution, the Authority has authorized the Authorized Officer to make such findings and determinations as may be required in connection with the issuance of the Series 2016A Bonds and to set forth such findings and determinations in the Award Certificate; and

WHEREAS, the execution and delivery of this Supplemental Indenture and the issuance of the Series 2016A Bonds have been in all respects duly and validly authorized by the Bond Resolution; and

WHEREAS, the Trustee has accepted the trusts created by the Master Indenture and this Supplemental Indenture and in evidence thereof has joined in the execution and delivery hereof; and

WHEREAS, except as provided herein, all acts and conditions and things required by the laws of the State to happen, exist and be performed precedent to execution and delivery of this Supplemental Indenture have happened, exist and have been performed as so required in order to make the Indenture, as supplemented by this Supplemental Indenture, a valid, binding and legal instrument for the security of the Series 2016A Bonds and a valid and binding agreement in accordance with its terms;

NOW, THEREFORE, in consideration of the premises, the acceptance by the Trustee of the trusts hereby created, the purchase and acceptance of the Series 2016A Bonds by the holders thereof, and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, and for the further purpose of fixing and declaring the terms and conditions upon which the Series 2016A Bonds are to be issued, authenticated, delivered and accepted by the holders thereof, the Authority and the Trustee do hereby mutually covenant and agree, for the equal and proportionate benefit of the respective Holders from time to time of the Obligations, including the Series 2016A Bonds, as follows:

ARTICLE I.

DEFINITIONS AND STATUTORY AUTHORITY

Section 1.1. Supplemental Indenture. This Supplemental Indenture is supplemental to the Master Indenture and is adopted in accordance with Article III and Article X thereof.

Section 1.2. Definitions.

Unless the context shall require otherwise, all defined terms contained in the Master Indenture shall have the same meanings in this Supplemental Indenture (other than in the Bond Form) as such defined terms are given in Section 101 of the Master Indenture.

As used in this Supplemental Indenture (other than in the Bond Form), unless the context shall otherwise require, the following terms shall have the following respective meanings:

“Arbitrage Analyst” shall mean any nationally recognized firm of certified public accountants or any other nationally recognized firm or Person approved by the Authority and expert in the area of verification of arbitrage calculations related to tax-exempt bonds.

“Authorized Denomination” shall mean, with respect to Series 2016A Bonds, \$5,000 principal amount or any integral multiple thereof.

“Authorized Officer” shall mean the Chairman of the Board of Directors of the Authority, the Executive Director of the Authority and the Chief Financial Officer of the Authority, severally and each of them, as provided in the Bond Resolution.

“Award Certificate” shall mean the Award Certificate executed and delivered by an Authorized Officer pursuant to Section 2.1 hereof in connection with initial issuance and delivery of the Series 2016A Bonds authorized to be issued hereunder.

“Bond Form” shall mean the Form of Series 2016A Bond attached hereto as Exhibit A, with such changes and modifications as shall be appropriate to conform to the terms of the Award Certificate.

“Bond Proceeds Clearance Fund SR LIEN 2016A” shall mean the “Bond Proceeds Clearance Fund Senior Lien 2016A” established pursuant to Section 3.5(a) hereof, and any Accounts established therein pursuant to a Letter of Instructions signed by an Authorized Officer.

“Bond Proceeds Funded Account” shall mean the Account by that name established pursuant to the Twelfth Supplemental Indenture as part of the Senior Lien Debt Service Reserve Fund.

“Bond Resolution” shall mean Resolution No. 16-___, adopted by the Board of Directors of the Authority on July ___, 2016.

“Bond Year” shall mean each one-year period that ends at the close of business on the day that is each anniversary of the Issuance Date and on the date of final maturity of the Series 2016A Bonds. The last Bond Year may be a short period.

“CAP I Subaccount SR LIEN 2016A DSA” shall mean the “Capitalized Interest Subaccount 2016A Senior Lien Debt Service Account” established in Section 3.4 hereof as part of the Debt Service Account 2016A SR LIEN.

“CAP I Subaccount SR LIEN 2016A Project” shall mean the “Capitalized Interest Subaccount 290 East 2016A Senior Lien Project” established in Section 3.3 hereof as part of the 290 East Project 2016A SR LIEN Project Subaccount.

“Capitalized Interest Period” shall mean, for each portion of the improvements and extensions to the 290 East Project financed with the proceeds of the Series 2016A Bonds with a

separate placed-in-service date, the period commencing on the Issuance Date and ending on the date that is the later of (i) three years from the Issuance Date and (ii) one year after the applicable portion of the improvements and extensions to the 290 East Project financed with the proceeds of the Series 2016A Bonds (A) has reached a degree of completion which would permit its operation at substantially its design level and (B) is, in fact, in operation at such level.

“Code” shall mean the Internal Revenue Code of 1986, as amended.

“COI 2016A Fund SR LIEN” shall mean the “2016A Costs of Issuance Fund Senior Lien” established pursuant to Section 3.5(b) hereof.

“Computation Date” shall mean each Installment Computation Date and the Final Computation Date.

“Debt Service Account 2016A SR LIEN” shall mean the “Debt Service Account 2016A Senior Lien” established in Section 3.4 hereof as part of the Senior Lien Debt Service Fund and any subaccounts established therein pursuant to this Supplemental Indenture or a Letter of Instructions signed by an Authorized Officer.

“Depository Participant” shall mean a broker, dealer, bank, other financial institution or any other Person for whom from time to time a Securities Depository effects book-entry transfers and pledges of securities deposited with such Securities Depository.

“Designated Payment/Transfer Office” shall mean, initially, the office of the Trustee located in Houston, Texas, or such other office designated by the Trustee from time to time as the place of payment and transfer of registration of ownership of the Series 2016A Bonds.

“DTC” shall mean The Depository Trust Company, its successors and assigns.

“Eighth Supplemental Indenture” shall mean the Eighth Supplemental Trust Indenture, dated June 1, 2011, between the Authority and the Trustee.

“Final Computation Date” shall mean the date on which the last bond of the Series 2016A Bonds is discharged.

“First Supplemental Indenture” shall mean the First Supplemental Trust Indenture, dated as of February 1, 2005, between the Authority and the Trustee.

“Indenture” shall mean the Master Indenture, as amended or supplemented (i) by each Supplemental Indenture (as defined in the Master Indenture) heretofore executed and delivered by the Authority and the Trustee in accordance with the terms of the Master Indenture, prior to the date of this Eighteenth Supplemental Indenture; (ii) by this Eighteenth Supplemental Indenture; and (iii) hereafter from time to time in accordance with the terms of the Master Indenture.

“Initial Series 2016A Bonds” shall mean the Initial Series 2016A Bonds, as described in Section 2.4 hereof.

“Installment Computation Date” shall mean the last day of the fifth Bond Year and each succeeding fifth Bond Year.

“Interest Payment Date” shall mean, with respect to the Series 2016A Bonds, each July 1 and January 1, commencing on the date specified in the Award Certificate.

“Issuance Date” shall mean the date of initial issuance and delivery of the Series 2016A Bonds to the Underwriters, or the representative thereof, against payment therefor.

“Letter of Representations” shall mean that certain Blanket Issuer Letter of Representations between the Authority and DTC, as the Securities Depository.

“Master Indenture” shall mean the Master Trust Indenture, dated as of February 1, 2005, between the Authority and the Trustee, without regard to supplements and amendments thereto.

“Official Statement” shall mean the Authority’s final official statement prepared in connection with the public offering and sale of the Series 2016A Bonds, together with any addenda, supplements and amendments thereto.

“Purchase Contract” shall mean the Bond Purchase Contract between the Authority and the respective Underwriters providing for the purchase of the Series 2016A Bonds by the Underwriters.

“Rebate Amount” shall mean that amount, as of each respective Computation Date, described in section 1.148-3(b) of the Regulations and generally means the excess as of any date of the future value of all receipts on nonpurpose investments over the future value of all payments on nonpurpose investments all as determined in accordance with section 1.148-3 of the Regulations.

“Record Date” shall mean with respect to the Series 2016A Bonds, the fifteenth (15th) calendar day of the month preceding each Interest Payment Date.

“Regulations” shall mean the applicable proposed, temporary or final Treasury Regulations promulgated under the Code or, to the extent applicable to the Code, under the Internal Revenue Code of 1954, as such regulations may be amended or supplemented from time to time.

“Revenue Funded Account” shall mean the Account by that name established pursuant to the Twelfth Supplemental Indenture as part of the Senior Lien Debt Service Reserve Fund.

“Securities Depository” shall mean The Depository Trust Company, a limited purpose trust company organized under the laws of the State of New York, and any successor Securities Depository appointed pursuant to Section 913 of the Master Indenture and Section 2.7 of this Supplemental Indenture.

“Senior Lien Debt Service Reserve Requirement” shall mean an amount equal to the least of (i) the maximum Annual Debt Service on all Outstanding Senior Lien Obligations, (ii) 1.25 times the Average Annual Debt Service on all Outstanding Senior Lien Obligations, or (iii) ten

percent (10%) of the aggregate amount of the Outstanding Senior Lien Obligations, as determined on the date each Series of Senior Lien Obligations is issued.

“Series 2016A Bonds” shall mean the Authority’s Senior Lien Revenue Bonds, Series 2016A, authorized pursuant to this Supplemental Indenture and designated as such in the Award Certificate.

“Special Payment Date” shall mean the date that is fifteen (15) days after the Special Record Date.

“Special Record Date” shall mean the new record date for interest payment established in the event of a nonpayment of interest on a scheduled payment date, and for thirty (30) days thereafter.

“Springing Lien Account” shall have the meaning given to such term in the Twelfth Supplemental Indenture.

“Springing Lien Obligation” shall have the meaning given to such term in the Twelfth Supplemental Indenture.

“Stated Maturity” shall mean the date on which a Series 2016A Bond is scheduled to mature, as set forth in the Award Certificate.

“Supplemental Indenture” or “Eighteenth Supplemental Indenture” shall mean this Eighteenth Supplemental Trust Indenture by and between the Authority and the Trustee, dated as of the date first above written, together with any amendments hereto.

“Treasury” shall mean the United States Department of the Treasury, or any successor department or agency to the obligations thereof.

“Twelfth Supplemental Indenture” shall mean the Twelfth Supplemental Trust Indenture, dated as of November 1, 2015, between the Authority and the Trustee.

“290 East 2016 Project Account” shall mean the account by that name established pursuant to Section 3.1 hereof as part of the Construction Fund.

“290 East 2016A SR LIEN Project Subaccount” shall mean the “290 East 2016A Senior Lien Project Subaccount” established pursuant to Section 3.2 hereof as part of the 290 East 2016 Project Account.

“2016A Senior Lien Rebate Account” shall mean the account by that name established pursuant to Section 5.2 hereof and such subaccounts as may be established therein pursuant to a Letter of Instructions signed by an Authorized Officer.

“Underwriters” shall mean the underwriters named in the Purchase Contract.

Section 1.3. Authority for This Supplemental Indenture. This Supplemental Indenture is adopted pursuant to the provisions of the Act and the Master Indenture, particularly Section 1002(a) of the Master Indenture.

Section 1.4. Rules of Construction.

(a) For all purposes of this Supplemental Indenture unless the context requires otherwise, all references to designated Articles, Sections and other subdivisions are to the articles, sections and other subdivisions of this Supplemental Indenture.

(b) Except where the context otherwise requires, terms defined in this Supplemental Indenture to impart the singular number shall be considered to include the plural number and vice versa.

(c) Unless the context requires otherwise, words of the masculine gender shall be construed to include correlative words of the feminine and neuter genders and vice versa.

(d) This Supplemental Indenture and all the terms and provisions hereof shall be liberally construed to effectuate the purposes set forth herein and to sustain the validity of this Supplemental Indenture and the Master Indenture which it supplements.

Section 1.5. Interpretation. The Table of Contents, titles and headings of the Articles and Sections of this Supplemental Indenture have been inserted for convenience of reference only and are not to be considered a part hereof and shall not in any way modify or restrict the terms or provisions hereof.

Section 1.6. Indenture to Remain in Force. Except as amended by this Supplemental Indenture, the Indenture shall remain in full force and effect as to the matters covered therein.

Section 1.7. Successors and Assigns. All covenants and agreements in this Supplemental Indenture by the Authority and the Trustee shall bind their respective successors and assigns, whether so expressed or not.

Section 1.8. Separability Clause. In case any provision in this Supplemental Indenture shall be determined to be invalid, illegal or unenforceable, the validity, legality and enforceability of the remaining provisions shall not in any way be affected or impaired thereby.

Section 1.9. Benefits of Supplemental Indenture. Subject to the terms of the Master Indenture and the terms hereof, nothing in this Supplemental Indenture or in the Series 2016A Bonds, express or implied, shall give to any Person, other than the parties hereto, their successors hereunder, and the Holders of Series 2016A Bonds, any benefit or any legal or equitable right, remedy or claim under this Supplemental Indenture.

Section 1.10. Governing Law. This Supplemental Indenture shall be construed in accordance with and governed by the laws of the State.

Section 1.11. Miscellaneous. Every “request,” “order,” “demand,” “application,” “notice,” “statement,” “certificate,” “consent,” “instruction,” or similar action hereunder shall,

unless the form thereof is specifically provided herein, be in writing, and in the case of the Authority signed by an Authorized Representative or Authorized Officer of the Authority or in the case of any other Person signed by its President or Vice President, or other officer serving in similar capacities specifically authorized to execute such writing on behalf of any other Person, as the case may be.

ARTICLE II.

AUTHORIZATION AND TERMS OF 2016A BONDS

Section 2.1. Authorization, Principal Amounts, Designation of Series, Terms and Provisions to Apply.

(a) In accordance with and subject to the terms, conditions and limitations established in the Indenture and this Supplemental Indenture, the Series 2016A Bonds are hereby authorized to be issued pursuant to and in accordance with the provisions of the Bond Resolution, the Master Indenture, Chapter 1371, Texas Government Code, as amended, and the Act. The Authorized Officer shall determine the aggregate principal amount of Series 2016A Bonds to be issued for the purposes identified in Section 2.2 of this Supplemental Indenture and shall make such findings as required by law, as authorized by the Bond Resolution or as otherwise deemed appropriate by the Authorized Officer, all of which shall be set forth in the Award Certificate. The terms of the Series 2016A Bonds shall be as set forth in the Master Indenture, this Supplemental Indenture and the Award Certificate. All terms and provisions of the Award Certificate relating to the Series 2016A Bonds shall be deemed to be incorporated into and shall become a part of this Eighteenth Supplemental Indenture.

(b) The Authorized Officer shall determine and shall set forth in the Award Certificate the aggregate principal amount of Series 2016A Bonds to be issued, the maturity dates, the per annum interest rates, the redemption provisions and any other terms and provisions determined by the Authorized Officer as necessary or desirable with respect to the terms of the Series 2016A Bonds.

Section 2.2. Purposes. The Series 2016A Bonds are issued in accordance with Section 302(a) of the Master Indenture for the purpose of providing funds to: (i) pay a portion of the Costs of the improvements and extensions to the 290 East Project, including, without limitation, the design and construction of one or more direct connectors at the State Highway 130 interchange; (ii) pay capitalized interest on the Series 2016A Bonds; (iii) make a deposit to the Senior Lien Debt Service Reserve Fund; and (iv) pay certain costs of issuance for the Series 2016A Bonds, all under and in accordance with the Constitution and the laws of the State.

Section 2.3. Pledge; Limited Obligations.

(a) The Series 2016A Bonds are designated as Senior Lien Obligations, Current Interest Bonds and as Long-Term Obligations under the Master Indenture.

(b) The Series 2016A Bonds shall be limited obligations of the Authority constituting Senior Lien Obligations payable from and secured solely by a first lien on, pledge of and security interest in the Trust Estate; provided, that the interest of the Series 2016A Bonds in the

Construction Fund shall be limited to amounts on deposit in the 290 East 2016A SR LIEN Project Subaccount. The Series 2016A Bonds, as Senior Lien Obligations, shall constitute a valid claim of the Holder thereof against the Trust Estate, which is pledged to secure the payment of the principal of, redemption premium, if any, and interest on the Series 2016A Bonds. The Series 2016A Bonds shall not constitute a general obligation of the Authority and under no circumstances shall the Series 2016A Bonds be payable from, nor shall the Holder thereof have any rightful claim to, any income, revenues, funds or assets of the Authority other than those pledged hereunder and under the Master Indenture as security for the payment of the Senior Lien Obligations.

NONE OF THE STATE OF TEXAS OR ANY OTHER AGENCY OR POLITICAL SUBDIVISION OF THE STATE OF TEXAS OTHER THAN THE AUTHORITY IS OBLIGATED TO PAY THE PRINCIPAL OF, PREMIUM, IF ANY, OR INTEREST ON THE SERIES 2016A BONDS. THE SERIES 2016A BONDS ARE PAYABLE SOLELY FROM THE TRUST ESTATE AND CERTAIN FUNDS CREATED UNDER THE INDENTURE. NEITHER THE FAITH AND CREDIT NOR THE TAXING POWER OF THE STATE OF TEXAS OR ANY POLITICAL SUBDIVISION THEREOF IS PLEDGED TO THE PAYMENT OF THE PRINCIPAL OF, PREMIUM, IF ANY, OR INTEREST ON THE SERIES 2016A BONDS. THE AUTHORITY HAS NO TAXING POWER.

NO RECOURSE UNDER THE SERIES 2016A BONDS SHALL BE HAD AGAINST ANY PAST, PRESENT OR FUTURE OFFICER OF THE AUTHORITY. THE SERIES 2016A BONDS SHALL NEVER BE PAID IN WHOLE OR IN PART OUT OF ANY FUNDS RAISED OR TO BE RAISED BY TAXATION OR OUT OF ANY OTHER REVENUES OF THE AUTHORITY, EXCEPT THOSE REVENUES ASSIGNED BY THE INDENTURE.

By its purchase and acceptance of the Series 2016A Bonds, each holder thereof acknowledges that, the Authority has previously issued and there is currently outstanding, and the Authority has reserved the right pursuant to the Master Indenture to issue in the future, one or more series of Subordinate Lien Obligations that, upon the occurrence of an Event of Default described in Section 801(d) of the Master Indenture, will be deemed to be and will automatically become a Senior Lien Obligation in accordance with the provisions of the Supplemental Indenture (as defined in the Master Indenture) authorizing such Subordinate Lien Obligations.

Section 2.4. Date, Denomination, Numbers, and Letters.

(a) The Series 2016A Bonds shall be dated as provided in the Award Certificate and shall be issued in Authorized Denominations.

(b) Unless the Authority shall direct otherwise, each Series 2016A Bond shall be lettered and numbered separately from A-1 upward. The Series 2016A Bonds registered by the Comptroller of Public Accounts of the State of Texas (the "Initial Series 2016A Bonds") shall be lettered and numbered separately from AT-1 upward.

Section 2.5. Interest Payment Dates, Interest Rates and Maturity Dates of the Series 2016A Bonds.

(a) The Series 2016A Bonds shall bear interest from the later of the Issuance Date or the most recent Interest Payment Date to which interest has been paid or provided for until the principal of such Series 2016A Bonds has been paid or provided for either at Stated Maturity or the prior redemption thereof. Interest on the Series 2016A Bonds shall be calculated on the basis of a 360-day year composed of twelve 30-day months and shall be payable on each Interest Payment Date.

(b) The Series 2016A Bonds shall mature on January 1 in the years, in the respective principal amounts and shall bear interest at the per annum rates set forth in the Award Certificate.

Section 2.6. Paying Agent; Method and Place of Payment.

(a) The Trustee is hereby appointed as Paying Agent for the Series 2016A Bonds.

(b) The principal of the Series 2016A Bonds shall be payable on the due date thereof (whether at Stated Maturity or, if applicable, prior redemption date) upon the presentation and surrender thereof at the Designated Payment/Transfer Office.

(c) Interest payable on each Series 2016A Bond shall be paid by check dated as of the Interest Payment Date and mailed by the Trustee to the Holder in whose name such Series 2016A Bond is registered at the close of business on the Record Date, by mail, first class postage prepaid, to the address of the Holder as it appears in the registration books kept by the Trustee, or such other customary banking arrangements acceptable to the Trustee and the Person to whom interest is to be paid; provided, however, that such Person shall bear all risk and expenses of such other customary banking arrangements. In the event of nonpayment of interest on a scheduled Interest Payment Date, and for 30 days thereafter, a new record date for such interest payment (defined in Section 1.2 hereof as a “Special Record Date”) will be established by the Trustee, if and when funds for the payment of such interest have been received from the Authority. Notice of the Special Record Date and of the scheduled payment date of the past due interest (defined in Section 1.2 hereof as the “Special Payment Date,” which shall be 15 days after the Special Record Date) shall be sent at least five Business Days prior to the Special Record Date by United States mail, first class postage prepaid, to the address of each Holder of a Series 2016A Bond appearing on the books of the Trustee at the close business on the last Business Day preceding the date of mailing of such notice.

Section 2.7. Securities Depository; Book-Entry System.

(a) Pursuant to Section 913 of the Master Indenture, the Authority hereby appoints The Depository Trust Company (“DTC”) as Securities Depository for the Series 2016A Bonds. In accordance with the Letter of Representations, the Authority shall cause the Series 2016A Bonds to be registered in the name of Cede & Co., as nominee for DTC, and to be delivered by the Underwriters to DTC on the Issuance Date.

(b) With respect to 2016A Bonds registered in the registration books maintained by the Trustee in the name of Cede & Co., or a nominee of any successor Securities Depository, pursuant to Section 913 of the Master Indenture, the Authority and the Trustee shall have no responsibility or obligation to any Depository Participant or to any Person on behalf of whom

such Depository Participant holds an interest in Series 2016A Bonds. The Authority and the Trustee may treat and consider the Holder of any Series 2016A Bond as the absolute owner of such Series 2016A Bond for the purpose of payment of the principal of, premium, if any, and interest on such Series 2016A Bond, for the purpose of giving notices of redemption and other matters with respect to such Series 2016A Bond, for the purpose of registering transfers and exchanges with respect to such Series 2016A Bond, and for all other purposes whatsoever. The Trustee shall pay the principal of, premium, if any, and interest on the Series 2016A Bonds only to or upon the order of the respective Holders of the Series 2016A Bonds and all such payments shall be valid and effective with respect to such payments to the extent of the sum or sums so paid. The Authority and the Trustee shall have no responsibility or obligation with respect to (i) the accuracy of the records of DTC, any successor Securities Depository or any Depository Participant with respect to any ownership interest in Series 2016A Bonds, (ii) the delivery to any Depository Participant or any other Person, other than a Holder of a Series 2016A Bond as shown in the registration books for Obligations required to be kept and maintained pursuant to the Master Indenture, of any notice with respect to the Series 2016A Bonds, including any notice of redemption, or (iii) the payment to any Depository Participant or any other Person, other than a Holder of a Series 2016A Bond, of any amount with respect to any Series 2016A Bond. The rights of Depository Participants and Persons on behalf of whom any Depository Participant holds a beneficial interest in Series 2016A Bonds shall be limited to those established by law and agreements between such Depository Participants and other Persons and the applicable Securities Depository.

(c) In the event that either (i) the Securities Depository that is, directly or through a nominee, the Holder of all of the Outstanding 2016A Bonds notifies the Trustee and the Authority that it is no longer willing or able to discharge its responsibilities as a Securities Depository or (ii) the Authority determines that continuance of the existing book-entry system for ownership of interests in the Series 2016A Bonds is not in the best interest of such owners of beneficial interests in the Series 2016A Bonds, then the Authority shall direct the Securities Depository to terminate the existing book-entry system for ownership of interests in the Series 2016A Bonds. Upon such termination, the Authority shall promptly select a substitute Securities Depository (and shall notify the Trustee in writing of such selection) to provide a system of book-entry ownership of beneficial interests in the Series 2016A Bonds, if one is available satisfactory to the Authority, and the ownership of all 2016A Bonds shall be transferred on the registration books for the Series 2016A Bonds to such successor Securities Depository, or its nominee. In the alternative, the Authority may direct the Trustee to, and if the Authority fails to promptly designate a successor Securities Depository the Trustee, without further direction, shall, notify the Depository Participants, through the Securities Depository for the Series 2016A Bonds, of the availability of 2016A Bonds registered in the names of such Persons as are owners of beneficial interests in the Series 2016A Bonds and, upon surrender to the Trustee of the Outstanding 2016A Bonds held by the Securities Depository, accompanied by registration instructions from the Securities Depository, the Trustee shall, at the expense of the transferees, cause to be printed and authenticated 2016A Bonds, in Authorized Denominations, to the owners of beneficial interests in the Series 2016A Bonds as of the date of the termination of the existing book-entry ownership system for the Series 2016A Bonds. Neither the Authority nor the Trustee shall be liable for any delay in delivery of such instructions and may conclusively rely on, and shall be protected in relying upon, such instructions. So long as the Authority has designated a

Securities Depository to provide a system of book-entry ownership of the Series 2016A Bonds, all of the Series 2016A Bonds must be held under such book-entry system.

(d) Notwithstanding any other provisions in Article II hereof, the Authority and the Trustee may, but shall not be required to, enter into separate agreements with one or more Securities Depositories which may provide for alternative or additional provisions with respect to the delivery of notices, payment of interest and/or principal, or any other matters.

Section 2.8. Redemption Prices and Terms. The Series 2016A Bonds shall be subject to redemption prior to Stated Maturity only as provided in the Award Certificate for the Series 2016A Bonds and in this Supplemental Indenture.

Section 2.9. Notice of Redemption.

(a) Unless otherwise specified herein or in the Award Certificate, the terms and provisions of Article IV of the Master Indenture relating to the selection of Obligations for redemption and the giving of notice therefor shall apply to the Series 2016A Bonds. In addition, if the Series 2016A Bonds are registered in the name of the nominee of the Securities Depository, the Trustee shall deliver notice of such redemption to the Securities Depository at the times and in the manner required by the operational procedures of such Securities Depository in order to timely effect the redemption of such Series 2016A Bonds.

(b) Any notice mailed or transmitted as provided in this Section shall be conclusively presumed to have been duly given, whether or not the registered owner of such Series 2016A Bonds receives the notice.

ARTICLE III.

ACCOUNTS; APPLICATION OF PROCEEDS

Section 3.1. Establishment of 290 East 2016 Project Account.

(a) Pursuant to the provisions of Section 504(c) of the Master Indenture, there is hereby established within the Construction Fund the “290 East 2016 Project Account.”

(b) All amounts on deposit in the 290 East 2016 Project Account shall be applied to the payment of the Costs of improvements and extensions to the 290 East Project, including, without limitation, the design and construction of one or more direct connectors at the State Highway 130 interchange, in accordance with and subject to the provisions of Section 519 of the Master Indenture and this Eighteenth Supplemental Indenture.

Section 3.2. 290 East 2016A SR LIEN Project Subaccount.

(a) There is hereby established within the 290 East 2016 Project Account a subaccount designated “290 East 2016A Senior Lien Project Subaccount” (“290 East 2016A SR LIEN Project Subaccount”).

(b) On the Issuance Date, a portion of the proceeds of the Series 2016A Bonds shall be deposited to the 290 East 2016A SR LIEN Project Subaccount, as directed in a Letter of Instructions of the Authority.

(c) Amounts on deposit in the 290 East 2016A SR LIEN Project Subaccount (other than amounts on deposit in the CAP I Subaccount SR LIEN 2016A Project) shall be used for the purpose of paying a portion of the Costs of improvements and extensions to the 290 East Project, including, without limitation, the design and construction of one or more direct connectors at the State Highway 130 interchange, in accordance with and subject to the provisions of Section 519 of the Master Indenture and this Eighteenth Supplemental Indenture.

(d) The Authority shall submit written requisition requests in the form of Exhibit B to this Supplemental Indenture to request disbursements from the 290 East 2016A SR LIEN Project Subaccount in accordance with Section 519 of the Master Indenture.

Section 3.3. Capitalized Interest Subaccount 290 East 2016A Senior Lien Project.

(a) There is hereby established within the 290 East 2016A SR LIEN Project Subaccount the “Capitalized Interest Subaccount 290 East 2016A Senior Lien Project” (“CAP I Subaccount SR LIEN 2016A Project”). On the Issuance Date, a portion of the proceeds of the Series 2016A Bonds shall be deposited to the CAP I Subaccount SR LIEN 2016A Project, as directed in a Letter of Instructions of the Authority.

(b) Amounts on deposit in the CAP I Subaccount 2016A SR LIEN Project shall be used to pay interest accrued during each Capitalized Interest Period on the Series 2016A Bonds. On or prior to each Interest Payment Date for the Series 2016A Bonds, the Trustee shall transfer to the CAP I Subaccount SR LIEN 2016A DSA, after giving effect to the amount, if any, on deposit therein, the amount required to pay accrued but unpaid interest accrued during each Capitalized Interest Period on the Series 2016A Bonds on such Interest Payment Date.

(c) Any amount remaining in the CAP I Subaccount 2016A SR LIEN Project after the Interest Payment Date occurring immediately after the end of the final Capitalized Interest Period shall be transferred to the 290 East 2016 2016A SR LIEN Project Subaccount.

Section 3.4. Debt Service Account 2016A Senior Lien.

(a) There is hereby established within the Senior Lien Debt Service Fund an account designated “Debt Service Account 2016A Senior Lien” (“Debt Service Account 2016A SR LIEN”). Moneys on deposit in the Debt Service Account 2016A SR LIEN shall be used to pay debt service on the Series 2016A Bonds when due.

(b) There is hereby established within the Debt Service Account 2016A SR LIEN a subaccount designated “Capitalized Interest Subaccount 2016A Senior Lien Debt Service Account” (“CAP I Subaccount SR LIEN 2016A DSA”). Amounts on deposit in the CAP I Subaccount SR LIEN 2016A DSA shall be used to pay interest on the Series 2016A Bonds during the applicable Capitalized Interest Period.

(c) On or prior to each Interest Payment Date with respect to the Series 2016A Bonds, the Trustee shall deposit to the Debt Service Account 2016A SR LIEN from Revenues, after giving effect to the any amounts on deposit in the CAP I Subaccount SR LIEN 2016A DSA, an amount sufficient to pay debt service then due on the Series 2016A Bonds.

Section 3.5. Bond Proceeds Clearance Fund; Costs of Issuance Fund; Initial Deposits.

(a) The Trustee is hereby authorized and directed to establish a special temporary Fund designated “Bonds Proceeds Clearance Fund Senior Lien 2016A” (the “Bond Proceeds Clearance Fund SR LIEN 2016A”). On the Issuance Date, the proceeds from the sale of the Series 2016A Bonds shall be deposited to the Bond Proceeds Clearance Fund SR LIEN 2016A and shall be applied and disbursed as set forth in a Letter of Instructions signed by an Authorized Officer. The Trustee shall create within the Bond Proceeds Clearance Fund SR LIEN 2016A such accounts as shall be authorized in a Letter of Instructions signed by an Authorized Officer and deposit the proceeds of the Series 2016A Bonds as shall be directed in such Letter of Instructions. The Bond Proceeds Clearance Fund SR LIEN 2016A shall be closed upon disbursement of all amounts deposited thereto.

(b) There is hereby established with the Trustee the “2016A Costs of Issuance Fund Senior Lien” (“COI 2016A Fund SR LIEN”), relating to the Series 2016A Bonds. There shall be deposited to the COI 2016A Fund SR LIEN from the proceeds of the Series 2016A Bonds deposited to the Bond Proceeds Clearance Fund SR LIEN 2016A, together with other lawfully available funds of the Authority, if any, the amounts set forth in a Letter of Instructions from the Authority. Such amounts shall be disbursed as set forth in a Letter of Instructions from the Authority. Amounts remaining in the COI 2016A Fund SR LIEN on the date which is 90 days after the Issuance Date of the Series 2016A Bonds shall be transferred to the Debt Service Account 2016A SR LIEN. Following such transfer, the COI 2016A Fund SR LIEN shall be closed.

Section 3.6. Senior Lien Debt Service Reserve Requirement. The Senior Lien Debt Service Reserve Requirement established in the First Supplemental Indenture is hereby confirmed and reestablished with respect to the Series 2016A Bonds as if set forth in full in this Supplemental Indenture. The provisions of Sections 3.9 and 3.10 of the Twelfth Supplemental Indenture relating to the establishment and operation of certain Accounts within the Senior Lien Debt Service Reserve Fund (including, but not limited to, the Bond Proceeds Funded Account, the Revenue Funded Account and the Springing Lien Account) are hereby ratified and affirmed, shall apply to and benefit the 2016 Bonds and Springing Lien Obligations generally, and shall survive the payment or defeasance of any Senior Lien Obligations issued pursuant to the Twelfth Supplemental Indenture.

Section 3.7. 2005 TxDOT Grant Fund. The 2005 TxDOT Grant Fund, established and created pursuant to the First Supplemental Indenture, is hereby reestablished, recreated and affirmed. The 2005 TxDOT Grant Fund shall be established with, and held and maintained by, the Trustee in accordance with the provisions of the Indenture and this Section 3.7. Until transferred in accordance with this Section 3.7, amounts on deposit in the 2005 TxDOT Grant Fund shall be invested by the Trustee in accordance with the provisions of the Indenture. Interest earned from the investment of any amounts in the 2005 TxDOT Grant Fund or any

profits realized from any Permitted Investment of amounts in the 2005 TxDOT Grant Fund shall remain in such Fund. Amounts on deposit in the 2005 TxDOT Grant Fund shall be transferred by the Trustee from time to time in accordance with a Letter of Instruction from the Authority to the Operating Fund or the Senior Lien Debt Service Fund.

ARTICLE IV.

FORMS OF BONDS

Section 4.1. Form of Series 2016A Bonds. The form of the Series 2016A Bonds, including any Series 2016A Bonds issued in exchange or replacement for any other Series 2016A Bond or portion thereof, including the form of the Trustee's Authentication Certificate, the Registration Certificate of the Comptroller of Public Accounts of the State of Texas with respect to Initial Series 2016A Bonds and the Form of Assignment, shall be substantially as set forth in Exhibit A hereto, with such omissions, insertions, and variations as permitted or required by the Master Indenture, this Supplemental Indenture and the Award Certificate.

Section 4.2. Initial Series 2016A Bonds. The Initial Series 2016A Bonds, as described in Section 2.4, may be in the form of a single Series 2016A Bond representing the entire principal amount of Series 2016A Bonds, payable in stated installments to the order of the representative of the Underwriters or its designee, executed by the manual or facsimile signature of the Chairman of the Board of Directors of the Authority and attested by manual or facsimile signature of the Secretary of the Board of Directors of the Authority, approved by the Attorney General of Texas, and registered and manually signed by the Comptroller of Public Accounts of the State of Texas.

Section 4.3. Additional Provisions Regarding Bonds.

(a) The Series 2016A Bonds may have such letters, numbers, or other marks of identification (including identifying numbers and letters of the Committee on Uniform Securities Identification Procedures of the American Bankers Association) and such legends and endorsements (including any reproduction of an opinion of bond counsel) thereon as, consistent herewith, may be determined by the officers executing the Series 2016A Bonds, as evidenced by their execution thereof.

(b) The definitive Series 2016A Bonds shall be typewritten, printed, lithographed, or engraved and may be produced by any combination of such methods or produced in any other similar manner, all as determined by the officers executing such 2016A Bonds, as evidenced by their execution thereof.

(c) The Initial Series 2016A Bonds submitted to the Attorney General of the State of Texas may be typewritten or photocopied or otherwise produced or reproduced.

ARTICLE V.

TAX MATTERS; REBATE

Section 5.1. Federal Income Tax Exclusion.

(a) General. The Authority intends that the interest on the Series 2016A Bonds be excludable from gross income for federal income tax purposes pursuant to sections 103 and 141 through 150 of the Code and the applicable Regulations. The Authority covenants and agrees not to take any action, or knowingly omit to take any action within its control, that if taken or omitted, respectively, would (i) cause the interest on the Series 2016A Bonds to be includable in gross income, as defined in section 61 of the Code, for federal income tax purposes or (ii) result in the violation of or failure to satisfy any provision of section 103 and 141 through 150 of the Code and the applicable Regulations. In particular, the Authority covenants and agrees to comply with each requirement of this Section 5.1; provided, however, that the Authority shall not be required to comply with any particular requirement of this Section 5.1 if the Authority has received a Counsel's Opinion that (i) such noncompliance will not adversely affect the exclusion from gross income for federal income tax purposes of interest on the Series 2016A Bonds or (ii) that compliance with some other requirement set forth in this Section 5.1 will satisfy the applicable requirements of the Code and the Regulations, in which case compliance with such other requirement specified in such Counsel's Opinion shall constitute compliance with the corresponding requirement specified in this Section 5.1

(b) No Private Use or Payment and No Private Loan Financing. The Authority covenants and agrees that it will make such use of the proceeds of the Series 2016A Bonds including interest or other investment income derived from Series 2016A Bond proceeds, regulate the use of property financed, directly or indirectly, with such proceeds, and take such other and further action as may be required so that the Series 2016A Bonds will not be "private activity bonds" within the meaning of section 141 of the Code and the Regulations promulgated thereunder. Moreover, the Authority will certify, through an authorized officer, employee or agent, that, based upon all facts and estimates known or reasonably expected to be in existence on the date the Series 2016A Bonds are delivered, the proceeds of the Series 2016A Bonds will not be used in a manner that would cause the Series 2016A Bonds to be "private activity bonds" within the meaning of section 141 of the Code and the Regulations promulgated thereunder.

(c) No Federal Guarantee. The Authority covenants and agrees not to take any action, or knowingly omit to take any action, within its control, that, if taken or omitted, respectively, would cause the Series 2016A Bonds to be "federally guaranteed" within the meaning of section 149(b) of the Code and the Regulations promulgated thereunder, except as permitted by section 149(b)(3) of the Code and such Regulations.

(d) No Hedge Bonds. The Authority covenants and agrees not to take any action or knowingly omit to take any action, within its control, that, if taken or omitted, respectively, would cause the Series 2016A Bonds to be "hedge bonds" within the meaning of section 149(g) of the Code and the Regulations promulgated thereunder.

(e) No Arbitrage. The Authority covenants and agrees that it will make such use of the proceeds of the Series 2016A Bonds including interest or other investment income derived from Series 2016A Bond proceeds, regulate investments of proceeds of the Series 2016A Bonds, and take such other and further action as may be required so that the Series 2016A Bonds will not be "arbitrage bonds" within the meaning of section 148(a) of the Code and the applicable Regulations promulgated thereunder. Moreover, the Authority will certify, through an authorized officer, employee or agent that, based upon all facts and estimates known or

reasonably expected to be in existence on the date the Series 2016A Bonds are delivered, the Authority will reasonably expect that the proceeds of the Series 2016A Bonds will not be used in a manner that would cause the Series 2016A Bonds to be “arbitrage bonds” within the meaning of section 148(a) of the Code and the applicable Regulations.

(f) Arbitrage Rebate. If the Authority does not qualify for an exception to the requirements of section 148(f) of the Code relating to the required rebate to the United States, the Authority will take all necessary steps to comply with the requirement that certain amounts earned by the Authority on the investment of the “gross proceeds” of the Series 2016A Bonds (within the meaning of section 148(f)(6)(B) of the Code) be rebated to the federal government. Specifically, the Authority will (i) maintain records regarding the investment of the gross proceeds of the Series 2016A Bonds as may be required to calculate the amount earned on the investment of the gross proceeds of the Series 2016A Bonds separately from records of amounts on deposit in the funds and accounts of the Authority allocable to other bond issues of the Authority or moneys that do not represent gross proceeds of any bonds of the Authority, (ii) determine at such times as are required by applicable Regulations, the amount earned from the investment of the gross proceeds of the Series 2016A Bonds that is required to be rebated to the federal government, and (iii) pay, not less often than every fifth anniversary date of the delivery of the Series 2016A Bonds or on such other dates as may be permitted under applicable Regulations, all amounts required to be rebated to the federal government. Further, the Authority will not indirectly pay any amount otherwise payable to the federal government pursuant to the foregoing requirements to any person other than the federal government by entering into any investment arrangement with respect to the gross proceeds of the Series 2016A Bonds that might result in a reduction in the amount required to be paid to the federal government because such arrangement results in a smaller profit or a larger loss than would have resulted if the arrangement had been at arm’s length and had the yield on the issue not been relevant to either party.

(g) Information Reporting. The Authority covenants and agrees to file or cause to be filed with the Secretary of the Treasury, not later than the 15th day of the second calendar month after the close of the calendar quarter in which the Series 2016A Bonds are issued, an information statement concerning the Series 2016A Bonds, all under and in accordance with section 149(e) of the Code and the applicable Regulations.

(h) Registration. The Series 2016A Bonds will be issued in registered form.

(i) Record Retention. The Authority will retain all pertinent and material records relating to the use and expenditure of the proceeds of the Series 2016A Bonds until three years after the last Series 2016A Bond is redeemed, or such shorter period as authorized by subsequent guidance issued by the Department of the Treasury, if applicable. All records will be kept in a manner that ensures their complete access throughout the retention period. For this purpose, it is acceptable that such records are kept either as hardcopy books and records or in an electronic storage and retrieval system, provided that such electronic system includes reasonable controls and quality assurance programs that assure the ability of the Authority to retrieve and reproduce such books and records in the event of an examination of the Series 2016A Bonds by the Internal Revenue Service.

(j) Deliberate Actions. The Authority will not take a deliberate action (as defined in section 1.141-2(d)(3) of the Regulations) that causes the Series 2016A Bonds to fail to meet any requirement of section 141 of the Code after the issue date of the Series 2016A Bonds unless an appropriate remedial action is permitted by section 1.141-12 of the Regulations, the Authority takes such action, and a Counsel's Opinion is obtained that such remedial action cures any failure to meet the requirements of section 141 of the Code.

(k) Continuing Obligation. Notwithstanding any other provision of this Supplemental Indenture, the Authority's obligations under the covenants and provisions of this Section 5.1 shall survive the defeasance and discharge of the Series 2016A Bonds for as long as such matters are relevant to the exclusion from gross income of interest on the Series 2016A Bonds for federal income tax purposes.

Section 5.2. 2016A Senior Lien Rebate Account.

(a) There is hereby established within the Rebate Fund, but not as part of the Trust Estate, a special account designated "2016A Senior Lien Rebate Account." Amounts deposited to the 2016A Senior Lien Rebate Account shall be applied to the payment of the Rebate Amount pursuant to a Letter of Instructions from the Authority. The 2016A Senior Lien Rebate Account and amounts on deposit therein are not security for the Series 2016A Bonds and are not part of the Trust Estate.

(b) The Authority will deliver to the Trustee, within fifty-five days after each Computation Date:

(i) a statement, signed by an officer of the Authority, stating the Rebate Amount as of such Computation Date; and

(ii) (1) if such Computation Date is an Installment Computation Date, an amount that, together with any amount then held for the credit of the 2016A Senior Lien Rebate Account, is equal to at least ninety percent (90%) of the Rebate Amount as of such Installment Computation Date, less any "previous rebate payments" (determined in accordance with section 1.148-3(f)(1) of the Regulations), made to the United States of America or (2) if such Computation Date is the Final Computation Date, an amount that, together with any amount then held for the credit of the 2016A Senior Lien Rebate Account, is equal to the Rebate Amount as of such Final Computation Date, less any "previous rebate payments" (determined in accordance with section 1.148-3(f)(1) of the Regulations) made to the United States of America; and

(iii) an Internal Revenue Service Form 8038-T properly signed and completed as of such Computation Date.

(c) Not later than 60 days after each Computation Date, the Trustee shall withdraw from the 2016A Senior Lien Rebate Account and remit to the United States of America the Rebate Amount required to be paid on such respective dates to the United States of America in accordance with written instructions from the Authority, which shall be in compliance with sections 1.148-1 through 1.148-8 of the Regulations or any successor regulation. Each payment required to be made to the United States of America pursuant to this Section shall be submitted

to the Internal Revenue Service Center, Ogden, Utah 84201-0027 or such other address as provided by law or regulation and shall be accompanied by Internal Revenue Service Form 8038-T properly completed by the Authority with respect to the Series 2016A Bonds.

(d) If the Authority discovers or is notified as of any date that any amount required to be paid to the United States of America pursuant to this Section 5.2 has not been paid as required or that any payment paid to the United States of America pursuant to this Section 5.2 will have failed to satisfy any requirement of section 148(f) of the Code or 1.148-3 of the Regulations (whether or not such failure will be due to any default by the Authority or the Trustee), the Authority will (1) deliver to the Trustee (for deposit to the 2016A Senior Lien Rebate Account) and cause the Trustee to pay to the United States of America from the 2016A Senior Lien Rebate Account (A) the Rebate Amount that the Authority failed to pay, plus any interest specified in section 1.148-3(h)(2) of the Regulations, if such correction payment is delivered to and received by the Trustee within 175 days after such discovery or notice, or (B) if such correction payment is not delivered to and received by the Trustee within 175 days after such discovery or notice, the amount determined in accordance with clause (A) of this subparagraph plus the fifty percent penalty required by section 1.148-3(h)(1) of the Regulations , and (2) deliver to the Trustee an Internal Revenue Service Form 8038-T completed as of such date. If such Rebate Amount, together with any penalty and/or interest due, is not paid to the United States of America in the amount and manner and by the time specified in the Regulations the Authority will take such steps as are necessary to prevent the Series 2016A Bonds from becoming “arbitrage bonds,” within the meaning of section 148 of the Code.

(e) The Authority will retain calculations, made in preparing the statements described in this Section 5.2, whether prepared by the Authority or the Arbitrage Analyst, for at least three years after the later of the final maturity of the Series 2016A Bonds or the first date on which no 2016A Bonds are outstanding.

(f) The Authority will not indirectly pay any amount otherwise payable to the federal government pursuant to the foregoing requirements to any person other than the federal government by entering into any investment arrangement with respect to the gross proceeds of the Series 2016A Bonds that is not purchased at fair market value or includes terms that the Authority would not have included if the Series 2016A Bonds were not subject to section 148(f) of the Code.

(g) Notwithstanding the foregoing, the Authority will not be required to perform the obligations set forth in this Section 5.2 (except for the obligation to retain accounting records as described in Section 5.2) if the Authority has not earned any rebatable arbitrage and, therefore, is not subject to the rebate obligation set forth in section 148(f) of the Code. To the extent that the Authority will not be required to perform such obligations, the Authority will send written notice to the Trustee within fifty-five (55) days after the applicable Computation Date.

ARTICLE VI.

CONTINUING DISCLOSURE

Section 6.1. Definitions. As used in this Article, the following terms have the meanings assigned to such terms below:

“MSRB” means the Municipal Securities Rulemaking Board.

“Rule” means SEC Rule 15c2 12, as amended from time to time.

“SEC” means the United States Securities and Exchange Commission.

Section 6.2. Annual Reports.

(a) The Authority shall provide annually to the MSRB, in an electronic format as prescribed by the MSRB, within six (6) months after the end of each fiscal year, financial information and operating data with respect to the Authority and the System of the general type included in the final Official Statement, being the information described in Exhibit C hereto. Any financial statements so to be provided shall be (i) prepared in accordance with the accounting principles described in Exhibit C hereto, and (ii) audited, if the Authority commissions an audit of such statements and the audit is completed within the period during which they must be provided. If the audit of such financial statements is not complete within such period, then the Authority shall provide notice that audited financial statements are not available and shall provide unaudited financial statements for the applicable fiscal year to the MSRB. Thereafter, when and if audited financial statements become available, the Authority shall provide such audited financial statements as required to the MSRB. In addition to the annual information described above, the Authority will provide certain information on a quarterly basis, as described in Exhibit C hereto.

(b) If the Authority changes its fiscal year, it will notify the MSRB of the change (and of the date of the new fiscal year end) prior to the next date by which the Authority otherwise would be required to provide financial information and operating data pursuant to this Section.

(c) The financial information and operating data to be provided pursuant to this Section may be set forth in full in one or more documents or may be included by specific reference to any document (including an official statement or other offering document, if it is available from the MSRB) that theretofore has been provided to the MSRB or filed with the SEC.

Section 6.3. Event Notices.

(a) As used in this Section, the term “obligated person” shall mean any person, including the Authority, who is either generally or through an enterprise, fund, or account of such person committed by contract or other arrangement to support payment of all or part of the obligations on the Series 2016A Bonds (other than providers of municipal bond insurance, letters of credit, or other liquidity facilities). The Authority shall provide notice of any of the following events with respect to the Series 2016A Bonds to the MSRB, in an electronic format as prescribed by the MSRB, in a timely manner and not more than 10 business days after the occurrence of the event:

(i) principal and interest payment delinquencies;

- (ii) nonpayment related defaults, if material;
- (iii) unscheduled draws on debt service reserves reflecting financial difficulties;
- (iv) unscheduled draws on credit enhancements reflecting financial difficulties;
- (v) substitution of credit or liquidity providers, or their failure to perform;
- (vi) adverse tax opinions, the issuance by the Internal Revenue Service of proposed or final determinations of taxability, Notices of Proposed Issue (IRS Form 5701-TEB) or other material notices or determinations with respect to the tax status of the Series 2016A Bonds, or other material events affecting the tax status of the Series 2016A Bonds;
- (vii) modifications to rights of Owners, if material;
- (viii) bond calls, if material and tender offers;
- (ix) defeasances;
- (x) release, substitution, or sale of property securing repayment of the Series 2016A Bonds, if material;
- (xi) rating changes;
- (xii) bankruptcy, insolvency, receivership, or similar event of any obligated person, which shall occur as described below;
- (xiii) the consummation of a merger, consolidation, or acquisition involving an obligated person or the sale of all or substantially all of the assets of the obligated person, other than in the ordinary course of business, the entry into of a definitive agreement to undertake such an action or the termination of a definitive agreement relating to any such actions, other than pursuant to its terms, if material; and
- (xiv) appointment of a successor or additional Trustee or the change of name of a Trustee, if material.

For these purposes, any event described in the immediately preceding clause (xii) is considered to occur when any of the following occur: the appointment of a receiver, fiscal agent, or similar officer for an obligated person in a proceeding under the United States Bankruptcy Code or in any other proceeding under state or federal law in which a court or governmental authority has assumed jurisdiction over substantially all of the assets or business of the obligated person, or if such jurisdiction has been assumed by leaving the existing governing body and officials or officers in possession but subject to the supervision and orders of a court or governmental authority, or the entry of an order confirming a plan of reorganization,

arrangement, or liquidation by a court or governmental authority having supervision or jurisdiction over substantially all of the assets or business of the obligated person.

The Authority shall notify the MSRB, in a timely manner, of any failure by the Authority to provide financial information or operating data in accordance with Section 6.2 of this Supplemental Indenture by the time required by such Section.

All documents provided to the MSRB shall be accompanied by identifying information as prescribed by the MSRB.

Section 6.4. Limitations, Disclaimers and Amendments. The Authority shall be obligated to observe and perform the covenants specified in this Article for so long as, but only for so long as, the Authority remains an “obligated person” with respect to the Series 2016A Bonds within the meaning of the Rule, except that the Authority in any event will give notice of any deposit of funds that causes 2016A Bonds no longer to be Outstanding.

(a) The provisions of this Article are for the sole benefit of the Holders and beneficial owners of the Series 2016A Bonds, and nothing in this Article, express or implied, shall give any benefit or any legal or equitable right, remedy, or claim hereunder to any other person. The Authority undertakes to provide only the financial information, operating data, financial statements, and notices which it has expressly agreed to provide pursuant to this Article and does not hereby undertake to provide any other information that may be relevant or material to a complete presentation of the Authority’s financial results, condition, or prospects or hereby undertake to update any information provided in accordance with this Article or otherwise, except as expressly provided herein. The Authority does not make any representation or warranty concerning such information or its usefulness to a decision to invest in or sell 2016A Bonds at any future date.

UNDER NO CIRCUMSTANCES SHALL THE AUTHORITY BE LIABLE TO THE HOLDER OR BENEFICIAL OWNER OF ANY 2016A Bonds OR ANY OTHER PERSON, IN CONTRACT OR TORT, FOR DAMAGES RESULTING IN WHOLE OR IN PART FROM ANY BREACH BY THE AUTHORITY, WHETHER NEGLIGENT OR WITHOUT FAULT ON ITS PART, OF ANY COVENANT SPECIFIED IN THIS ARTICLE, BUT EVERY RIGHT AND REMEDY OF ANY SUCH PERSON, IN CONTRACT OR TORT, FOR OR ON ACCOUNT OF ANY SUCH BREACH SHALL BE LIMITED TO AN ACTION FOR MANDAMUS OR SPECIFIC PERFORMANCE.

(b) No default by the Authority in observing or performing its obligations under this Article shall comprise a breach of or default under the Indenture for purposes of any other provisions of this Supplemental Indenture.

(c) Nothing in this Article is intended or shall act to disclaim, waive, or otherwise limit the duties of the Authority under federal and state securities laws.

(d) The provisions of this Article may be amended by the Authority from time to time to adapt to changed circumstances that arise from a change in legal requirements, a change in law, or a change in the identity, nature or status of the Authority, or type of business or operations conducted by the Authority, but only if (1) the provisions of this Article, as so

amended, would have permitted an underwriter to purchase or sell 2016A Bonds in the primary offering of the Series 2016A Bonds in compliance with the Rule, taking into account any amendments or interpretations of the Rule to the date of such amendment, as well as such changed circumstances, and (2) either (a) the Holders of a majority in aggregate principal amount (or any greater amount required by any other provisions of this Supplemental Indenture that authorizes such an amendment) of the Outstanding 2016A Bonds consent to such amendment or (b) a person that is unaffiliated with the Authority (such as nationally recognized bond counsel) determines that such amendment will not materially impair the interests of the Holders and beneficial owners of the Series 2016A Bonds. If the Authority so amends the provisions of this Article, it shall include with any amended financial information or operating data next provided in accordance with Section 6.2 an explanation, in narrative form, of the reasons for the amendment and of the impact of any change in the type of financial information or operating data so provided.

ARTICLE VII.

OTHER MATTERS

Section 7.1. Execution in Several Counterparts. This Supplemental Indenture may be simultaneously executed in several counterparts, all of which shall constitute one and the same instrument and each of which shall be, and shall be deemed to be, an original.

Section 7.2. Designation as System Project. The designation of the 290 East Project, together with all improvements and extensions thereto constructed with the proceeds of the Series 2016A Bonds, as a System Project is ratified and reaffirmed.

[Execution Pages Follow]

IN WITNESS WHEREOF, the Authority and the Trustee have caused this Supplemental Indenture to be signed and attested on their behalf by their duly authorized representatives, all as of the date first hereinabove written.

CENTRAL TEXAS REGIONAL MOBILITY
AUTHORITY

By _____
Chairman

Attest:

Secretary

REGIONS BANK, Trustee

By _____
Authorized Officer

EXHIBIT A

I. FORM OF SERIES 2016A SENIOR LIEN BOND

UNITED STATES OF AMERICA
STATE OF TEXAS

**CENTRAL TEXAS REGIONAL MOBILITY AUTHORITY
SENIOR LIEN REVENUE BOND
SERIES 2016A**

REGISTERED

REGISTERED

No. _____

\$ _____

**INTEREST
RATE**

**STATED
MATURITY DATE**

ISSUANCE DATE

CUSIP NO.

_____, 2016

The CENTRAL TEXAS REGIONAL MOBILITY AUTHORITY (herein called the “Authority”), a body politic and corporate and a public and a political subdivision of the State of Texas, organized and existing under and by virtue of the laws of the State of Texas, FOR VALUE RECEIVED, hereby promises to pay to

or registered assigns, but solely from the sources and in the manner hereinafter provided, on the Stated Maturity Date specified above, the sum of

_____ DOLLARS

unless this Bond shall have been sooner called for redemption and the payment of the principal hereof shall have been paid or provision for such payment shall have been made, and to pay interest on the unpaid principal amount hereof from the later of the Issuance Date or the most recent interest payment date to which interest has been paid or provided for, at the interest rate per annum set forth above, calculated on the basis of a 360-day year composed of twelve 30-day months, such interest to be paid semiannually on each January 1 and July 1 commencing _____ 1, 2017, until this Bond shall be paid or provided for. Payment of principal of and interest on this Bond shall be made in lawful currency of the United States of America.

Capitalized terms appearing herein and not otherwise defined have the meanings assigned to them in the Master Indenture, the Eighteenth Supplement and the Award Certificate, as each such term is defined below.

The principal of this Bond shall be payable without exchange or collection charges upon presentation and surrender of this Bond, at the designated payment/transfer office of Regions Bank, as trustee and paying agent (such bank and any successor in such capacity being referred to as the "Trustee"), in Houston, Texas, or at such other location as may be designated by the Trustee (the "Designated Payment/Transfer Office"), or, with respect to a successor trustee, at the Designated Payment/Transfer Office of such successor. Interest on this Bond shall be paid by check dated as of the interest payment date and mailed to the person in whose name such Bond is registered on the 15th day of the month (whether or not a business day) immediately preceding the applicable interest payment date (the "Record Date"), at the address of such Person as shown on the registration books for the Bonds kept by the Trustee, or such other customary banking arrangements acceptable to the Trustee, requested by, and at the risk and expense of, the person to whom interest is to be paid; provided, however, that in the event of nonpayment of interest on a scheduled interest payment date, and for 30 days thereafter, a new record date for such interest payment (a "Special Record Date") will be established by the Trustee, if and when funds for the payment of such interest have been received from the Authority. Notice of the Special Record Date and of the scheduled payment date of the past due interest (the "Special Payment Date," which shall be 15 days after the Special Record Date) shall be sent at least five business days prior to the Special Record Date by United States mail, first class postage prepaid, to the address of the Holder of this Bond appearing on the books of the Trustee at the close business on the last business day preceding the date of mailing of such notice.

If a date for the payment of principal of or interest on this Bond is a Saturday, Sunday, legal holiday, or a day on which banking institutions in the city in which the Authority or the Designated Payment/Transfer Office is located are authorized by law or executive order to close, then the date for such payment shall be the next succeeding business day, and payment on such date shall have the same force and effect as if made on the original date payment was due.

This is one of the Obligations of the Authority designated "Senior Lien Revenue Bonds, Series 2016A" (the "Series 2016A Senior Lien Bonds" or the "Bonds"), dated _____ 1, 2016, issued in the aggregate principal amount of \$_____ under and pursuant to and in accordance with the provisions of Chapter 370, Texas Transportation Code, as such may be amended from time to time (together with the laws of the State of Texas applicable to the Authority, collectively, the "Act"), and under and pursuant to a Master Trust Indenture (the "Master Indenture"), dated as of February 1, 2005, as supplemented by the First Supplemental Trust Indenture (the "First Supplement"), the Second Supplemental Trust Indenture (the "Second Supplement") and the Third Supplemental Trust Indenture (the "Third Supplement"), each dated as of February 1, 2005, and the Fourth Supplemental Trust Indenture (the "Fourth Supplement"), dated as of May 1, 2009, and the Fifth Supplemental Trust Indenture (the "Fifth Supplement") and the Sixth Supplemental Trust Indenture (the "Sixth Supplement"), each dated as of March 1, 2010, and the Seventh Supplemental Trust Indenture (the "Seventh Supplement"), dated as of August 1, 2010, and the Eighth Supplemental Trust Indenture (the "Eighth Supplement") and the Ninth Supplemental Trust Indenture (the "Ninth Supplement"), each dated as of June 1, 2011, and the Tenth Supplemental Trust Indenture (the "Tenth Supplement"), and the Eleventh Supplemental Trust Indenture (the "Eleventh Supplement"), each dated as of May 1, 2013, and the Twelfth Supplemental Trust Indenture (the "Twelfth Supplement"), the Thirteenth Supplemental Trust Indenture (the "Thirteenth Supplement"), the Fourteenth Supplemental Trust Indenture (the "Fourteenth Supplement") and the Fifteenth Supplemental Trust Indenture (the

“Fifteenth Supplement”), each dated as of November 1, 2015, and the Sixteenth Supplemental Trust Indenture (the “Sixteenth Supplement”), dated as of June 1, 2016, and the Seventeenth Supplemental Trust Indenture (the “Seventeenth Supplement”), dated as of August 1, 2016, and the Eighteenth Supplemental Trust Indenture (the “Eighteenth Supplement” and, together with the First Supplement, the Second Supplement, the Third Supplement, the Fourth Supplement, the Fifth Supplement, the Sixth Supplement, the Seventh Supplement, the Eighth Supplement, the Ninth Supplement, the Tenth Supplement, the Eleventh Supplement, the Twelfth Supplement, the Thirteenth Supplement, the Fourteenth Supplement, the Fifteenth Supplement, the Sixteenth Supplement, the Seventh Supplement and the Master Indenture, the “Indenture”), dated as of _____ 1, 2016, and each between the Trustee and the Authority, and the Award Certificate dated as of _____, 2016 (the “Award Certificate”), executed by an Authorized Officer of the Authority. As provided in the Indenture, Obligations may be issued from time to time pursuant to a supplemental indenture, in one or more series, in various principal amounts, maturing at different times, bearing interest at different rates and subject to the provisions thereof, may otherwise vary.

The Bonds are limited obligations of the Authority constituting Senior Lien Obligations payable from and secured solely by a first lien on, pledge of and security interest in the Trust Estate. The Bonds, as Senior Lien Obligations, constitute a valid claim of the Holder thereof against the Trust Estate, which is pledged to secure the payment of the principal of, redemption premium, if any, and interest on the Bonds. The Bonds shall not constitute a general obligation of the Authority and under no circumstances shall the Bonds be payable from, nor shall the Holder thereof have any rightful claim to, any income, revenues, funds or assets of the Authority other than those pledged under the Indenture as security for the payment of the Senior Lien Obligations.

NONE OF THE STATE OF TEXAS OR ANY OTHER AGENCY OR POLITICAL SUBDIVISION OF THE STATE OF TEXAS OTHER THAN THE AUTHORITY IS OBLIGATED TO PAY THE PRINCIPAL OF, PREMIUM, IF ANY, OR INTEREST ON THIS BOND. THIS BOND IS PAYABLE SOLELY FROM THE TRUST ESTATE AND CERTAIN FUNDS CREATED UNDER THE INDENTURE. NEITHER THE FAITH AND CREDIT NOR THE TAXING POWER OF THE STATE OF TEXAS OR ANY POLITICAL SUBDIVISION THEREOF IS PLEDGED TO THE PAYMENT OF THE PRINCIPAL OF, PREMIUM, IF ANY, OR INTEREST ON THIS BOND. THE AUTHORITY HAS NO TAXING POWER.

NO RECOURSE UNDER THIS BOND SHALL BE HAD AGAINST ANY PAST, PRESENT OR FUTURE OFFICER OF THE AUTHORITY. THIS BOND SHALL NEVER BE PAID IN WHOLE OR IN PART OUT OF ANY FUNDS RAISED OR TO BE RAISED BY TAXATION OR OUT OF ANY OTHER REVENUES OF THE AUTHORITY EXCEPT THOSE REVENUES ASSIGNED BY THE INDENTURE.

The Bonds are being issued pursuant to the Indenture to provide funds to (i) pay a portion of the Costs of the improvements and extensions to the 290 East Project, including without limitation, the design and construction of one or more direct connectors at the State Highway 130 interchange; (ii) pay capitalized interest on the Bonds; (iii) make a deposit to the Senior Lien Debt Service Reserve Fund; and (iv) pay certain costs of issuance for the Bonds. Copies of the

Indenture and the Award Certificate are on file at the office of the Authority and at the Designated Payment/Transfer Office and reference to the Award Certificate and the Indenture and any and all supplements thereto and modifications and amendments thereof and to the Act is made for a description of the pledges, assignments in trust, and covenants securing the Bonds; the nature, extent, and manner of enforcement of such pledges, assignments in trust, and covenants; the rights and remedies of the Holders of the Bonds with respect thereto; the terms and conditions upon which the Bonds are issued and may be issued thereunder; and other matters, to all of which the owner of this Bond assents by the acceptance of this Bond. To the extent of any conflict between the terms and provisions of this Bond and the Indenture, the terms and provisions of the Indenture shall govern and control.

The Authority reserves the right in the Indenture to issue other Obligations of the Authority for other projects and further reserves the right to issue Obligations that are payable from and secured by the Trust Estate that are on a parity with or junior and subordinate to the Bonds, all as provided in the Indenture.

The Holder of this Bond shall have no right to enforce the provisions of the Indenture, or to institute any action with respect to any Event of Default, or to institute, appear in, or defend any suit or other proceeding with respect thereto, except as provided in the Indenture.

This Bond is transferable, as provided in the Indenture, only upon the books of the Authority kept for that purpose at the Designated Payment/Transfer Office of the Trustee, by the registered owner hereof in person, or by his duly authorized attorney, upon surrender of this Bond together with a written instrument of transfer satisfactory to the Trustee duly executed by the registered owner or his duly authorized attorney, and thereupon, a new Bond or Bonds in the same aggregate principal amount shall be issued to the transferee in exchange herefor as provided in the Indenture, and upon payment of the charges therein prescribed. The Authority and the Trustee may deem and treat the person in whose name this Bond is registered as the absolute owner hereof for the purpose of receiving payment of, or on account of, the principal, redemption price or purchase price hereof and interest due hereon and for all other purposes.

The Bonds are issuable only in fully registered form, without coupons, in principal denominations of \$5,000 or any integral multiple thereof.

The Bonds are subject to redemption prior to stated maturity as set forth in the Eighteenth Supplement and the Award Certificate.

It is hereby certified and recited that all conditions, acts, and things required by law and the Indenture to exist, to have happened, and to have been performed precedent to and in the issuance of this Bond, exist, have happened, and have been performed and that the issuance of this Bond and the series of Bonds of which it is a part are duly authorized by the laws of the State of Texas.

This Bond shall not be entitled to any benefit under the Indenture or be valid or become obligatory for any purpose until this Bond shall have been authenticated by the execution by the Trustee of the Trustee's Certificate or, in lieu thereof, the execution by the Comptroller of Public Accounts of the State of Texas of the Comptroller's Registration Certificate hereon.

IN WITNESS WHEREOF, the CENTRAL TEXAS REGIONAL MOBILITY AUTHORITY has caused this Bond to be executed in its name and on its behalf by the manual or facsimile signature of its duly authorized representative, and its corporate seal to be affixed hereto, and attested by the manual or facsimile signature of its Secretary.

CENTRAL TEXAS REGIONAL MOBILITY
AUTHORITY

By _____
Chairman

Attest:

Secretary

(SEAL)

*[FORM OF COMPTROLLER'S REGISTRATION
CERTIFICATE TO APPEAR ON INITIAL SERIES 2016A SENIOR LIEN BOND ONLY]*

STATE COMPTROLLER'S REGISTRATION CERTIFICATE

OFFICE OF COMPTROLLER

Register No. _____

STATE OF TEXAS

I HEREBY CERTIFY that there is on file and of record in my office a certificate of the Attorney General of the State of Texas approving this Bond and certifying that this Bond and the proceedings for the issuance thereof have been examined by him as required by law, and that he finds that this Bond has been issued in accordance with law and that it is a valid and binding limited obligation of the Central Texas Regional Mobility Authority, payable from the revenues and other funds pledged to its payment by and in the proceedings authorizing the same, and I do further certify that this Bond has this day been registered by me as Comptroller.

WITNESS MY HAND AND SEAL OF OFFICE this _____.

Comptroller of Public Accounts
of the State of Texas

(SEAL)

*[FORM OF TRUSTEE'S CERTIFICATE OF AUTHENTICATION
TO APPEAR ON EACH BOND OTHER THAN INITIAL SERIES 2016A SENIOR LIEN BOND]*

TRUSTEE'S CERTIFICATE OF AUTHENTICATION

This is to certify that the initial Bonds of this Series were approved by the Attorney General of the State of Texas and registered by the Comptroller of Public Accounts of the State of Texas, and that this Bond is one of the Bonds delivered pursuant to the within-mentioned Indenture.

Date of Authentication:

REGIONS BANK, Trustee

By

Authorized Officer

*[FORM OF ASSIGNMENT
TO APPEAR ON EACH BOND]*

ASSIGNMENT

For value received, the undersigned sells, assigns, and transfers unto _____ the within Bond and does hereby irrevocably constitute and appoint _____ attorney to transfer the said Bond on the books kept for registration of the within Bond, with full power of substitution in the premises.

Dated: _____

NOTICE: The signature(s) on this assignment must correspond in every particular with the name(s) of the registered owner(s) appearing on the face of the within Bond.

Signature guaranteed by:

NOTICE: Signature must be guaranteed by an "eligible guarantor institution" meeting the requirements of the Trustee, which requirements will include membership or participation in STAMP or such other signature guaranty program as may be determined by the Trustee in addition to, or in substitution for, STAMP, all in accordance with the Securities Exchange Act of 1934, as amended.

II. Initial Series 2016A Bond

The Initial Series 2016A Bond shall be in substantially the same form as this Exhibit A above, except that:

(a) Immediately under the name of the Series 2016A Senior Lien Bond, the headings “INTEREST RATE” and “STATED MATURITY DATE” shall both be completed with the words “As Shown Below” and the “CUSIP NO.” shall be deleted;

(b) in the first paragraph:

the words “on the Maturity Date above, the sum of _____ DOLLARS” shall be deleted and the following will be inserted:

“on January 1 in the years, in the principal installments and bearing interest at the per annum rates set forth in the following schedule:

<u>Year</u>	<u>Principal Installment</u>	<u>Interest Rate</u>
-------------	------------------------------	----------------------

(information to be inserted from the Award Certificate)

EXHIBIT B

FORM OF REQUISITION

**CONSTRUCTION FUND
290 EAST 2016A SENIOR LIEN PROJECT SUBACCOUNT
CERTIFICATE AND REQUISITION FOR PAYMENT**

DATE: [Month], [Year]

DRAW REQUEST NO.: _____

DESCRIPTION SUMMARY¹	AMOUNT
	\$ _____
TOTAL AMOUNT REQUESTED	\$ _____

The Authority does hereby certify to the Trustee that: (i) each item submitted herewith is a proper charge against the 290 East 2016A Senior Lien Project Subaccount of the 290 East 2016 Project Account of the Construction Fund and has not been paid, (ii) such requisition contains no item representing payment on account of any retainage which the Authority is as of the date of this requisition not entitled to release, (iii) no default exists under the Indenture which has not been disclosed to the Trustee and the Authority will use its best efforts to cure any default if it exists and (iv) there has not been filed with or served upon the Authority legal notice of any lien, right to lien, attachment or other claim, which is valid in the opinion of counsel to the Authority and affects the right to receive payment of any of the moneys payable to any of the Persons, firms or corporations named herein which has not been released or will not be released simultaneously with such payment.

Please remit funds by wire transfer to the Authority [Wiring instructions for disbursement].

**CENTRAL TEXAS REGIONAL MOBILITY
AUTHORITY**

By: _____
Authorized Representative

¹ Attach appropriate information indicating the name of the Person, Firm or Corporation to whom payment is due, the amount to be paid and the purpose for which such obligation was incurred.

CERTIFICATION OF GENERAL ENGINEERING CONSULTANT

As General Engineering Consultant for the improvement and extension of the 290 East Project, we hereby certify the following in connection with 290 East 2016A Senior Lien Project Subaccount of the 290 East 2016 Project Account of the Construction Fund Certificate and Requisition for Payment Draw Request No. _____:

- (i) such requisition is approved;
- (ii) the amount requisitioned is due and has not previously been paid from the 290 East 2016 Project Account of the Construction Fund;
- (iii) insofar as the payment is to be made for work, material, supplies or equipment, the work has been performed and the materials, supplies or equipment have been installed as part of the improvement and extension of the 290 East Project or have been delivered at the site;
- (iv) all work material, supplies and equipment for which payment is to be made are, in our opinion, substantially in accordance with the plans and specifications or duly approved change orders; and

[If an item for payment includes real property:

- (v) acquisition of such property is necessary or advisable in connection with the construction or operation of the improvements and extensions of 290 East Project.]

as General Engineering Consultant

By: _____
Title: _____

EXHIBIT C

CONTINUING DISCLOSURE

DESCRIPTION OF ANNUAL DISCLOSURE OF FINANCIAL INFORMATION

The following information is referred to in Article VI of this Supplemental Indenture.

Annual Financial Information and Operating Data

The financial information and operating data with respect to the Authority and the System to be provided in accordance with such Article are as specified below:

1. All quantitative financial information and operating data with respect to the Authority and the System of the general type included in the Official Statement under the headings “AUTHORITY FINANCIAL INFORMATION – System Historical Cash Flow and Debt Service Coverage,” “– Toll Rates,” and “SCHEDULE I – DEBT SERVICE REQUIREMENTS,” and APPENDIX A – AUDITED FINANCIAL STATEMENTS OF THE AUTHORITY.”

2. In the annual filing for each Fiscal Year through the Substantial Completion (as defined in the Master Indenture) of the improvement and extension of the 290 East Project, the Authority will furnish a copy of the General Engineering Consultant’s construction progress report relating to the improvement and extension of the 290 East Project for the last quarter of the Fiscal Year.

3. In the annual filing, the Authority will also furnish a copy of each General Engineering Consultant’s annual report relating to its inspection of the System, which reports may be provided as one report prepared jointly by more than one General Engineering Consultant.

The authority will update and provide the foregoing information within six (6) months after the end of each Fiscal Year. In addition to the annual information described above, the Authority will furnish on a quarterly basis, within 60 days after the end of each quarter of the Fiscal Year, (i) through the Substantial Completion (as defined in the Master Indenture) of the improvement and extension of the 290 East Project, a copy of the General Engineering Consultant’s construction progress report relating to the improvement and extension of the 290 East Project for the previous quarter of the Fiscal Year, and (ii) unaudited information regarding the number of toll transactions for the System and the Revenues generated by such toll transactions for the previous quarter of the Fiscal Year.

Accounting Principles

The accounting principles referred to in such Article are the accounting principles described in the notes to the financial statements referred to in Paragraph 1 above.



**CENTRAL TEXAS
Regional Mobility Authority**

July 27, 2016
AGENDA ITEM #10

**Authorize reimbursement of financing
expenditures for 290E, Phase III.**

Department: Finance
Contact: Bill Chapman, Chief Financial Officer
Action Requested: Consider and act on draft resolution

Summary:

Seeking Board approval to allow the Mobility Authority to reimburse expenditures made for 290E Phase III from future bond proceeds.

Backup provided: Draft Resolution

**GENERAL MEETING OF THE BOARD OF DIRECTORS
OF THE
CENTRAL TEXAS REGIONAL MOBILITY AUTHORITY**

RESOLUTION NO. 16-0XX

**EXPRESSING INTENT TO FINANCE EXPENDITURES
TO BE INCURRED FOR THE 290E PROJECT**

WHEREAS, the Central Texas Regional Mobility Authority (the “Authority”) is a political subdivision of the State of Texas authorized to finance its activities by issuing obligations; and

WHEREAS, the Authority will make, or has made not more than 60 days prior to the date hereof, payments with respect to the acquisition, construction, reconstruction or renovation of the projects listed on Exhibit A attached hereto (the “Financed Project”); and

WHEREAS, the Authority has concluded that it does not currently desire to issue obligations to finance the costs associated with the Financed Project; and

WHEREAS, the Authority desires to reimburse itself for the costs associated with the Financed Project from the proceeds of obligations to be issued subsequent to the date hereof; and

WHEREAS, the Authority reasonably expects to issue obligations to reimburse itself for the costs associated with the Financed Project.

NOW, THEREFORE, be it resolved that:

Section 1. The Authority reasonably expects to reimburse itself for costs that have been or will be paid subsequent to the date that is 60 days prior to the date hereof and that are to be paid in connection with the acquisition, construction, reconstruction or renovation of the Financed Project from the proceeds of obligations to be issued subsequent to the date hereof.

Section 2. The Authority reasonably expects that the maximum principal amount of obligations issued to reimburse the Authority for the costs associated with the Financed Project will be \$130,000,000.

Adopted by the Board of Directors of the Central Texas Regional Mobility Authority on the 27th day of July, 2016.

Submitted and reviewed by:

Approved:

Geoffrey Petrov, General Counsel

Ray A. Wilkerson
Chairman, Board of Directors

EXHIBIT A

DESCRIPTION OF PROJECT

Purpose/Project

Amount

Highway improvements, for 290E Phase III
including but not limited to direct connects
between U.S. Highway 290E and State Highway 130.

\$130,000,000



**CENTRAL TEXAS
Regional Mobility Authority**

July 27, 2016
AGENDA ITEM #11

**Authorize reimbursement of financing
expenditures for 183A, Phase III.**

Department: Finance
Contact: Bill Chapman, Chief Financial Officer
Action Requested: Consider and act on draft resolution

Summary:

Seeking Board approval to allow the Mobility Authority to reimburse expenditures made for 183A Phase III from future bond proceeds.

Backup provided: Draft Resolution

**GENERAL MEETING OF THE BOARD OF DIRECTORS
OF THE
CENTRAL TEXAS REGIONAL MOBILITY AUTHORITY**

RESOLUTION NO. 16-0XX

**EXPRESSING INTENT TO FINANCE EXPENDITURES
TO BE INCURRED FOR THE 183A PROJECT**

WHEREAS, the Central Texas Regional Mobility Authority (the “Authority”) is a political subdivision of the State of Texas authorized to finance its activities by issuing obligations; and

WHEREAS, the Authority will make, or has made not more than 60 days prior to the date hereof, payments with respect to the acquisition, construction, reconstruction or renovation of the projects listed on Exhibit A attached hereto (the “Financed Project”); and

WHEREAS, the Authority has concluded that it does not currently desire to issue obligations to finance the costs associated with the Financed Project; and

WHEREAS, the Authority desires to reimburse itself for the costs associated with the Financed Project from the proceeds of obligations to be issued subsequent to the date hereof; and

WHEREAS, the Authority reasonably expects to issue obligations to reimburse itself for the costs associated with the Financed Project.

NOW, THEREFORE, be it resolved that:

Section 1. The Authority reasonably expects to reimburse itself for costs that have been or will be paid subsequent to the date that is 60 days prior to the date hereof and that are to be paid in connection with the acquisition, construction, reconstruction or renovation of the Financed Project from the proceeds of obligations to be issued subsequent to the date hereof.

Section 2. The Authority reasonably expects that the maximum principal amount of obligations issued to reimburse the Authority for the costs associated with the Financed Project will be \$120,000,000.

Adopted by the Board of Directors of the Central Texas Regional Mobility Authority on the 27th day of July, 2016.

Submitted and reviewed by:

Approved:

Geoffrey Petrov, General Counsel

Ray A. Wilkerson
Chairman, Board of Directors

EXHIBIT A

DESCRIPTION OF PROJECT

Purpose/Project

Amount

Highway improvements, for 183A Phase III including but not limited to improvements to and extension of the main lanes.

\$120,000,000



CENTRAL TEXAS
Regional Mobility Authority

July 27, 2016
AGENDA ITEM #12

Executive Session

Executive Session:

Discuss acquisition of one or more parcels or interests in real property needed for the 183 South Project and related legal issues, including consideration of the use of eminent domain to condemn property, pursuant to §551.072 (Deliberation Regarding Real Property; Closed Meeting) and §551.071 (Consultation with Attorney; Closed Meeting).



**CENTRAL TEXAS
Regional Mobility Authority**

July 27, 2016
AGENDA ITEM #13

Executive Session

Executive Session:

Discuss legal issues related to claims by or against the Mobility Authority; pending or contemplated litigation and any related settlement offers; or other matters as authorized by §551.071 (Consultation With Attorney).



**CENTRAL TEXAS
Regional Mobility Authority**

July 27, 2016
AGENDA ITEM #14

Executive Session

Executive Session:

Discuss legal issues relating to procurement and financing of Mobility Authority transportation projects, as authorized by §551.071 (Consultation With Attorney).



**CENTRAL TEXAS
Regional Mobility Authority**

July 27, 2016
AGENDA ITEM #15

Executive Session

Executive Session:

Discuss personnel matters as authorized by §551.074 (Personnel Matters).



**CENTRAL TEXAS
Regional Mobility Authority**

July 27, 2016
AGENDA ITEM #16

Discuss and consider authorizing the Executive Director to take any and all actions necessary to enforce the terms of the design-build contract with CH2M for the Mopac Improvement Project

Strategic Plan Relevance: Regional Mobility
Department: N/A
Contact: Jeff Dailey, Deputy Executive Director
Associated Costs: N/A
Funding Source: N/A
Action Requested: Consider and act on draft resolution

Summary:

The purpose of this resolution is to authorize the Executive Director to take and actions to necessary to enforce the terms of the Design Build Contract and Cure Agreement (approved February 2016) with CH2M. The Cure Agreement contemplated the completion of the Interim Milestone Work and the opening of the northern section of the Project to traffic by June 8, 2016. To date, the Interim Milestone Work is not completed.

Per the terms of the Design Build Contract and Cure Agreement, liquidated damages will be accrued and assessed until the the work is complete. Additionally, there is a default provision in the event that work does not progress per the approved plan.

CH2M reports that they are working to add workforce and sub consultant resources in an effort to get the work progress back on track. We intend to use all contractual mechanisms as needed to work with CH2M to complete the work northbound express lanes in August and open all lanes by the end of the year. Under consideration is the possibility of a global settlement should the northbound express lanes be opened to traffic in August.

Backup provided: Draft Resolution

**GENERAL MEETING OF THE BOARD OF DIRECTORS
OF THE
CENTRAL TEXAS REGIONAL MOBILITY AUTHORITY**

RESOLUTION NO. 16-XXX

**AUTHORIZING THE EXECUTIVE DIRECTOR TO TAKE ANY AND ALL ACTIONS
NECESSARY TO ENFORCE THE TERMS OF THE DESIGN/BUILD CONTRACT
WITH CH2MHILL FOR THE MOPAC IMPROVEMENT PROJECT**

WHEREAS, by Resolution No. 13-010 dated February 27, 2013, the Board of Directors (“Board”) of the Central Texas Mobility Authority (“Mobility Authority”) authorized the Executive Director to finalize and execute a design-build contract (the “Contract”) with CH2M Hill Engineers, Inc. (“CH2M”) for development of the MoPac Improvement Project (the “Project”); and

WHEREAS, by Resolution No. 16-005 dated February 16, 2016, the Board authorized the Executive Director to take all actions necessary to negotiate, execute and implement Amendment No. 1 to the Contract in order to implement a plan for completing the Project;

WHEREAS, to date, CH2M has failed to complete the Interim Milestone Work, which provides for opening of the northbound and southbound toll lanes, immediately north of 2222 to approximately Parmer Lane (the northern terminus), to tolled traffic for revenue generation;

WHEREAS, the Mobility Authority has accrued liquidated damages due to CH2M’s failure to timely deliver the Project by the Completion Deadline;

NOW, THEREFORE, BE IT RESOLVED that the Board hereby authorizes the Executive Director to take any and all actions necessary to enforce the terms of the Contract, as amended, including without limitation terms associated with the recovery schedule and actions authorized for the failure to comply therewith.

Adopted by the Board of Directors of the Central Texas Regional Mobility Authority on the 27th day of July, 2016.

Submitted and reviewed by:

Approved:

Geoffrey Petrov, General Counsel

Ray A. Wilkerson
Chairman, Board of Directors



**CENTRAL TEXAS
Regional Mobility Authority**

July 27, 2016
AGENDA ITEM #17

Consider amendmentS to the CTRMA Policy Code regarding the Executive Director's procurement and contracting authority

Strategic Plan Relevance: Regional Mobility
Department: N/A
Contact: Geoff Petrov, General Counsel
Associated Costs: N/A
Funding Source: N/A
Action Requested: Consider and act on draft resolution

Summary:

This item seeks amendments to Sections 101.038 and 101.040 of the CTRMA Policy Code regarding the Executive Director's procurement and contracting authority. In order to avoid delays in the commencement of procurement activities, it would be more efficient for the Executive Director to initiate procurements directly rather than seeking authorization at a Board Meeting. The proposed amendment requires the Executive Director to continue to conduct procurements in accordance with the procedures established in the Policy Code. Additionally, the Executive Director's contracting authority would be extended to include the execution of employment contracts. None of the proposed amendments would result in the expenditure of CTRMA funds without the prior approval of the Board.

Backup provided: Proposed draft policy amendment
Draft Resolution

**GENERAL MEETING OF THE BOARD OF DIRECTORS
OF THE
CENTRAL TEXAS REGIONAL MOBILITY AUTHORITY**

RESOLUTION NO. 16-XXX

AMENDING THE POLICY CODE TO

WHEREAS, by Resolution No. 12-016 dated February 29, 2012, the Board adopted the Mobility Authority Policy Code (“Policy Code”) as a non-substantive codification of all policy resolutions adopted by the Board since 2003; and

WHEREAS, subsequent to its initial adoption, the Board has amended the Policy Code from time to time in order to modify existing policies and incorporate new policies beneficial to the operation of the Central Texas Regional Mobility Authority; and

WHEREAS, the Executive Director recommends amending the Policy Code to allow for the initiation of procurements and execution of employment agreements, as set forth in the proposed amendment to Sections 101.038 and 101.040 attached hereto as Exhibit 1.

NOW, THEREFORE, BE IT RESOLVED that the Board hereby amends Sections 101.038 and 101.040 of the Policy Code, each to read in its entirety as set forth in Exhibit 1.

Adopted by the Board of Directors of the Central Texas Regional Mobility Authority on the 27th day of July, 2016.

Submitted and reviewed by:

Approved:

Geoffrey Petrov, General Counsel

Ray A. Wilkerson
Chairman, Board of Directors

EXHIBIT 1 TO RESOLUTION NO. 16-XXX

Article 3. ADMINISTRATION

Subchapter A. ADMINISTRATIVE STAFF

Administrators 101.037

- (a) The chief administrator of the authority shall be the executive director.
- (b) Other administrators may be appointed by the executive director with the consent of the board. All such administrators, except for the executive director, shall perform such duties and have such powers as may be assigned to them by the executive director or as set forth in board Resolutions.
- (c) Any administrator may be removed, with or without cause, at any time by the executive director.
- (d) All administrators will be reimbursed for expenses incurred in performance of their duties as approved by the executive director. Notwithstanding the foregoing, all expense reimbursements to the executive director shall be subject to the approval of the Executive Committee.

Executive Director 101.038

- (a) The executive director will be selected by the board and shall serve at the pleasure of the board, performing all duties assigned by the board and implementing all resolutions adopted by the board.
- (b) In addition, the executive director:
 - (1) shall be responsible for general management, hiring and termination of employees, and day-to-day operations of the authority;
 - (2) shall be responsible for preparing a draft of the Strategic Plan for the authority's operations, as described in Section 101.013;
 - (3) shall be responsible for preparing a draft of the authority's written Annual Report, as described in Section 101.013;
 - (4) at the invitation of a Commissioners Court of a county in the authority, shall appear, with representatives of the board, before the Commissioners Court to present the authority's Annual Report and respond to questions and receive comments regarding the Report or the authority's operations;
 - (5) may initiate procurements for goods and services, consulting and professional services, and construction services in accordance with the procedures established in this Policy Code, including soliciting proposals and advertising contracts for bids;
 - (6) may execute inter-agency and interlocal contracts, service contracts, and employment agreements provided that obligations assumed pursuant to such agreements are within limits specified in the most recent budget approved by the board;

(7) may execute contracts, contract supplements, contract change orders, and purchase orders not exceeding amounts established in Resolutions of the board; and

(8) shall have such obligations and authority as may be described in one or more Resolutions enacted from time to time by the board.

(c) The executive director may delegate the foregoing duties and responsibilities as the executive director deems appropriate, provided such delegation does not conflict with applicable law or any express direction of the board.

Interim Executive Director 101.039

The board may designate an interim executive director to perform the duties of the executive director during such times as the position of executive director is vacant. The interim executive director need not be an employee of the authority.

Termination of Employees 101.040

Employees of the authority shall be employees at will unless they are party to an employment agreement with the authority executed by the executive director or, in the case of an agreement with the executive director, executed by the chairman upon approval by the board. Employees may be terminated at any time, with or without cause, by the executive director subject to applicable law and the policies in place at the time of termination.

Article 3. ADMINISTRATION

Subchapter A. ADMINISTRATIVE STAFF

Administrators 101.037

- (a) The chief administrator of the authority shall be the executive director.
- (b) Other administrators may be appointed by the executive director with the consent of the board. All such administrators, except for the executive director, shall perform such duties and have such powers as may be assigned to them by the executive director or as set forth in board Resolutions.
- (c) Any administrator may be removed, with or without cause, at any time by the executive director.
- (d) All administrators will be reimbursed for expenses incurred in performance of their duties as approved by the executive director. Notwithstanding the foregoing, all expense reimbursements to the executive director shall be subject to the approval of the Executive Committee.

Executive Director 101.038

- (a) The executive director will be selected by the board and shall serve at the pleasure of the board, performing all duties assigned by the board and implementing all resolutions adopted by the board.
- (b) In addition, the executive director:
 - (1) shall be responsible for general management, hiring and termination of employees, and day-to-day operations of the authority;
 - (2) shall be responsible for preparing a draft of the Strategic Plan for the authority's operations, as described in Section 101.013;
 - (3) shall be responsible for preparing a draft of the authority's written Annual Report, as described in Section 101.013;
 - (4) at the invitation of a Commissioners Court of a county in the authority, shall appear, with representatives of the board, before the Commissioners Court to present the authority's Annual Report and respond to questions and receive comments regarding the Report or the authority's operations;
 - (5) may initiate procurement for goods and services, consulting and professional services, and construction services in accordance with the procedures established in this Policy Code including soliciting proposals and advertising contracts for bids;
 - (6) may execute inter-agency and interlocal contracts, ~~and~~ service contracts, and employment agreements provided that obligations assumed pursuant to such agreements are within limits specified in the most recent budget approved by the board;
 - (7) may execute contracts, contract supplements, contract change orders, and purchase orders not exceeding amounts established in Resolutions of the board; and

(87) shall have such obligations and authority as may be described in one or more Resolutions enacted from time to time by the board.

(c) The executive director may delegate the foregoing duties and responsibilities as the executive director deems appropriate, provided such delegation does not conflict with applicable law or any express direction of the board.

Interim Executive Director 101.039

The board may designate an interim executive director to perform the duties of the executive director during such times as the position of executive director is vacant. The interim executive director need not be an employee of the authority.

Termination of Employees 101.040

Employees of the authority shall be employees at will unless they are party to an employment agreement with the authority executed by the executive director or, in the case of an agreement with the executive director, executed by the chairman upon approval by the board. Employees may be terminated at any time, with or without cause, by the executive director subject to applicable law and the policies in place at the time of termination.



Award a contract for the construction of the SH 45
Southwest Project

CENTRAL TEXAS
Regional Mobility Authority

Strategic Plan Relevance: Regional Mobility
Department: Engineering
Contact: Justin Word, P.E., Director of Engineering
Associated Costs: Up to \$78,599,599.18
Funding Source: Project Funds
Action Requested: Consider and act on draft resolution

Summary:

On July 20, 2016, the Mobility Authority electronically received, via the project's CivCast website, three (3) bids for the construction of the SH 45 Southwest Project. The following bids were received:

Contractors	Base Bid	Alternate 1 (Asphalt Pavement)	Alternate 2 (Decomposed Granite Path)	Total with Alternates
McCarthy Building Companies, Inc.	\$78,599,599.16	(\$3,495,976.04)	(\$752,787.97)	\$74,350,835.16
Flatiron Constructors, Inc.	\$82,619,837.33	(\$4,195,527.91)	(\$459,550.57)	\$77,964,758.84
The Lane Construction Corporation	\$86,310,530.03	(\$4,535,769.20)	(\$633,264.69)	\$81,141,496.14

The bids have been reviewed by the GEC and legal counsel and the apparent low bid was found to be responsive, mathematically correct and materially balanced. Contingent upon concurrence from the Mobility Authority Board of Directors and TxDOT, the Executive Director recommends awarding the contract to the lowest responsive and responsible bidder, McCarthy Building Companies, Inc.

Backup provided: Draft Resolution for Board Consideration

**GENERAL MEETING OF THE BOARD OF DIRECTORS
OF THE
CENTRAL TEXAS REGIONAL MOBILITY AUTHORITY**

RESOLUTION NO. 16-0XX

AWARDING A CONSTRUCTION CONTRACT FOR THE SH 45 SW PROJECT

WHEREAS, by Resolution No. 16-040 dated June 15, 2016, the Board of Directors authorized the Executive Director to advertise, release bid documents, and review bids consistent with the Mobility Authority Procurement Policy for construction services for the SH 45 SW Project; and.

WHEREAS, the Mobility Authority received three bids, and after review by staff the apparent low bid was found to be responsive, mathematically correct, and materially balanced; and

WHEREAS, the Executive Director recommends awarding a construction contract to McCarthy Building Companies, Inc. as the low bidder.

NOW, THEREFORE, BE IT RESOLVED, that the Board of Directors authorizes the Executive Director to negotiate and execute on behalf of the Mobility Authority an agreement with McCarthy Building Companies, Inc. in an amount not to exceed \$ 78,599,599.18.

Adopted by the Board of Directors of the Central Texas Regional Mobility Authority on the 27th day of July, 2016.

Submitted and reviewed by:

Approved:

Geoffrey Petrov, General Counsel

Ray A. Wilkerson
Chairman, Board of Directors



Award a contract for Construction Engineering and Inspection services for the SH 45 Southwest Project

**CENTRAL TEXAS
Regional Mobility Authority**

Strategic Plan Relevance: Regional Mobility
Department: Engineering
Contact: Justin Word, P.E., Director of Engineering
Associated Costs: TBD
Funding Source: Project Funds
Action Requested: Consider and act on draft resolution

Summary:

On December 16, 2015, the Mobility Authority's Board of Directors authorized the issuance of a Request for Qualifications (RFQ) from teams interested in providing Construction Engineering and Inspection services necessary to implement the SH 45 Southwest project. The RFQ was issued on January 28, 2016. Seven responsive submittals and one non-responsive submittal were received by March 8, 2016 in response to the RFQ.

A Selection Committee composed of Mobility Authority staff and consultants evaluated the Proposals against the criteria provided in the RFQ.

Based on their RFQ evaluations, the Evaluation Committee seeks Board approval to award a professional services contract to provide Construction Engineering and Inspection services for the SH 45 Southwest project. The draft resolution further authorizes the Executive Director to negotiate on behalf of the Mobility Authority a professional services contract and work authorization.

Backup provided: Summary Presentations of Qualifications, Evaluation Process, Team Recommendation to be provided at the Board meeting; Draft Resolution for Board Consideration

**GENERAL MEETING OF THE BOARD OF DIRECTORS
OF THE
CENTRAL TEXAS REGIONAL MOBILITY AUTHORITY**

RESOLUTION NO. 16-0XX

**AWARD A PROFESSIONAL SERVICES CONTRACT TO PROVIDE
CONSTRUCTION ENGINEERING AND INSPECTION SERVICES
FOR THE SH 45 SW PROJECT**

WHEREAS, by Resolution No. 15-092 dated December 15, 2015, the Board of Directors authorized the Executive Director to procure construction engineering and inspection services for the SH 45 SW Project; and.

WHEREAS, in accordance with the Mobility Authority Procurement Policies and the request for qualifications for construction engineering and inspection services issued by the Mobility Authority (the "RFQ"), the Executive Director recommends selection of _____ based on the evaluation and selection criteria set forth in the RFQ.

NOW THEREFORE, BE IT RESOLVED that the Board of Directors hereby awards a professional services contract to provide construction engineering and inspection services for the SH 45 SW Project to _____; and

BE IT FURTHER RESOLVED, that the Board authorizes the Executive Director to negotiate on behalf of the Mobility Authority the contract awarded to _____ and an initial work authorization, consistent with _____'s responses to the RFQ, the RFQ, and the Mobility Authority's Procurement Policies, and as the Executive Director further determines is in the best interest of the Mobility Authority.

Adopted by the Board of Directors of the Central Texas Regional Mobility Authority on the 27th day of July, 2016.

Submitted and reviewed by:

Approved:

Geoffrey S. Petrov, General Counsel

Ray A. Wilkerson
Chairman, Board of Directors



**CENTRAL TEXAS
Regional Mobility Authority**

July 27, 2016
AGENDA ITEM #20

Award a contract for Independent Environmental Compliance Management services for the SH 45 Southwest Project

Strategic Plan Relevance: Regional Mobility
Department: Engineering
Contact: Justin Word, P.E., Director of Engineering
Associated Costs: TBD
Funding Source: Project Funds
Action Requested: Consider and act on draft resolution

Summary:

On October 28, 2015, the Mobility Authority's Board of Directors authorized the issuance of a Request for Qualifications (RFQ) from teams interested in providing Independent Environmental Compliance Management services necessary to implement the SH 45 Southwest project. The RFQ was issued on March 7, 2016. Eight responsive submittals were received by March 28, 2016 in response to the RFQ.

A Selection Committee composed of Mobility Authority staff, consultants and stakeholders evaluated the Proposals against the criteria provided in the RFQ. The committee reviewed and scored the responses and made a recommendation to short-list four firms to the Director of Engineering.

The Selection Committee then conducted interviews of the short-listed teams on April 18, 2016 and evaluated the teams based on their responses to a selected number of questions. Based on the interview evaluations, the Evaluation Committee seeks Board approval to award a professional services contract to provide Independent Environmental Compliance Management services for the SH 45 Southwest project. The draft resolution further authorizes the Executive Director to negotiate on behalf of the Mobility Authority a professional services contract and work authorization.

Backup provided: Summary Presentations of Qualifications, Evaluation Process, Team Recommendation to be provided at the Board meeting; Draft Resolution for Board Consideration

**GENERAL MEETING OF THE BOARD OF DIRECTORS
OF THE
CENTRAL TEXAS REGIONAL MOBILITY AUTHORITY**

RESOLUTION NO. 16-0XX

**AWARDING A CONTRACT FOR INDEPENDENT ENVIRONMENTAL
COMPLIANCE MANAGEMENT SERVICES FOR THE SH 45 SW PROJECT**

WHEREAS, by Resolution No. 15-075 dated October 28, 2015, the Board of Directors authorized the Executive Director to advertise, release bid documents, and review bids consistent with the Mobility Authority Procurement Policy for independent environmental compliance management services for the SH 45 SW Project; and.

WHEREAS, in accordance with the Mobility Authority Procurement Policies and the request for qualifications for independent environmental compliance management services issued by the Mobility Authority (the "RFQ), the Executive Director recommends selection of _____ based on the evaluation and selection criteria set forth in the RFQ.

NOW THEREFORE, BE IT RESOLVED that the Board of Directors hereby awards a professional services contract to provide independent environmental compliance management services for the SH 45 SW Project to _____; and

BE IT FURTHER RESOLVED, that the Board authorizes the Executive Director to negotiate on behalf of the Mobility Authority the contract awarded to _____ and an initial work authorization, consistent with _____'s responses to the RFQ, the RFQ, and the Mobility Authority's Procurement Policies, and as the Executive Director further determines is in the best interest of the Mobility Authority.

Adopted by the Board of Directors of the Central Texas Regional Mobility Authority on the 27th day of July, 2016.

Submitted and reviewed by:

Approved:

Geoffrey S. Petrov, General Counsel

Ray A. Wilkerson
Chairman, Board of Directors



**CENTRAL TEXAS
Regional Mobility Authority**

July 27, 2016
AGENDA ITEM #21

Consideration of the use of eminent domain to
condemn property

Strategic Plan Relevance: Regional Mobility
Department: Engineering / Law
Contact: Justin Word P.E., Director of Engineering
Geoff Petrov, General Counsel
Associated Costs: Not Applicable
Funding Source: Not Applicable
Action Requested: Consider and act on draft resolution

Summary:

The Mobility Authority must acquire utility easements, related property interests, or both (“Property”) from real estate that abuts or is near the existing 183 South Project right-of-way.

Each owner of a parcel or property interest identified has received an official written offer to purchase the Property for an amount determined by an independent, professional appraiser. The Mobility Authority or its agent is required to pay no less than the offer made for the Property. If, for any reason, a negotiation to acquire a parcel reaches an impasse, having this authorization to file a condemnation suit will minimize the risk of a possible delay and additional costs.

The parcels for your consideration and action at this meeting are:

- A. **Parcel E13A** of the 183 South (Bergstrom Expressway) Project, a 0.123 acre parcel of real estate, **owned by New Century Investment, LLC and Braker-Park, LP**, and located at 6000 FM 969 in Austin, TX 78724.

Backup provided: Draft Resolution; Parcel Survey; Easement Map

**GENERAL MEETING OF THE BOARD OF DIRECTORS
OF THE
CENTRAL TEXAS REGIONAL MOBILITY AUTHORITY**

RESOLUTION NO. 16-0XX

**RESOLUTION AUTHORIZING ACQUISITION OF PROPERTY RIGHTS
BY AGREEMENT OR CONDEMNATION OF CERTAIN PROPERTY IN
TRAVIS COUNTY FOR THE 183 SOUTH / BERGSTROM EXPRESSWAY
PROJECT (PARCEL E13A)**

WHEREAS, pursuant to and under the authority of Subchapter E, Chapter 370, Texas Transportation Code and other applicable law, the Central Texas Regional Mobility Authority (“Mobility Authority”) hereby finds and determines that to promote the public safety, to facilitate the safety and movement of traffic, and to preserve the financial investment of the public in its roadways and the roadways of the State of Texas, public convenience and necessity requires acquisition of a utility easement, as that utility easement is described by metes and bounds in Exhibit A to this Resolution (the “Property”), owned by New Century Investment, LLC and Braker-Park, LP (the “Owner”), located adjacent to the US Hwy 183S in Travis County, for the construction, reconstruction, maintaining, widening, straightening, lengthening, and operating of the US 183 South / Bergstrom Expressway Project (the “Project”), as a part of the improvements to the Project; and

WHEREAS, an independent, professional appraisal report of the Property has been submitted to the Mobility Authority or its agent, and an amount has been established to be just compensation for the property rights to be acquired; and

WHEREAS, the Executive Director of the Mobility Authority, through agents employed or contracted with the Mobility Authority, has transmitted an official written offer to the Owner, based on the amount determined to be just compensation, and has entered into good faith negotiations with the Owner of the Property to acquire the Property; and

WHEREAS, as of the date of this Resolution, the Executive Director and the Owner have failed to agree on the amount determined to be just compensation due to said Owner for the Property; and

NOW, THEREFORE, BE IT RESOLVED by the Board of Directors that the Executive Director is specifically authorized to negotiate and execute, if possible, an agreement to acquire the Property for consideration in an amount that does not exceed the official written offer previously transmitted to the Owner; and

BE IT FURTHER RESOLVED that the Executive Director is authorized and directed to negotiate an agreement to acquire the Property and all leasehold interests in the Property by agreement, subject to approval of the agreement and acquisition price by the Board of Directors; and

BE IT FURTHER RESOLVED that at such time as the Executive Director concludes that further negotiations with Owner to acquire the Property by agreement would be futile, the Executive Director or his designee is hereby authorized and directed to file or cause to be filed a suit in eminent domain to acquire the Property for the aforesaid purposes against the Owner and the owners of any interest in, and the holders of any lien secured by the Property described in the attached Exhibit A; and

BE IT FURTHER RESOLVED that the Executive Director or his designee is hereby authorized and directed to incur such expenses and to employ such experts as he shall deem necessary to assist in the prosecution of such suit in eminent domain, including, but not limited to, appraisers, engineers, and land use planners.

Adopted by the Board of Directors of the Central Texas Regional Mobility Authority on the 27th day of July, 2016.

Submitted and reviewed by:

Approved:

Geoffrey Petrov, General Counsel

Ray A. Wilkerson
Chairman, Board of Directors

Exhibit A

Field Notes for Parcel 13A WE

BEING 0.123 OF ONE ACRE (5372 S.F.) OF LAND, MORE OR LESS, OUT OF AND A PART OF THE JESSE C. TANNEHILL SURVEY No. 29, ABSTRACT No. 22 IN TRAVIS COUNTY, TEXAS, SAME BEING A PORTION OF LOT C, R.F. BEARDEN SUBDIVISION, RECORDED IN BOOK 85, PAGE 184C OF THE PLAT RECORDS OF TRAVIS COUNTY, TEXAS CONVEYED TO BRAKER-PARK LP BY GENERAL WARRANTY DEED WITH VENDOR'S LIEN EXECUTED ON SEPTEMBER 28, 2015, FILED FOR RECORD ON OCTOBER 7, 2015 AND RECORDED IN DOCUMENT 2015161780 OF THE OFFICIAL PUBLIC RECORDS OF TRAVIS COUNTY, TEXAS, SAID 0.123 OF ONE ACRE (5372 S.F.) OF LAND BEING MORE PARTICULARLY DESCRIBED BY METES AND BOUNDS AS FOLLOWS AND AS SHOWN ON THE ATTACHED SKETCH:

Beginning at a calculated point in the easterly right-of-way line of U. S. Highway 183 (known locally as Ed Bluestein Boulevard-ROW Varies), same being at a westerly corner of said Lot C, and a southwesterly corner of Lot B of said R.F. Bearden Subdivision, same also being a westerly corner of said Braker-Park LP tract, for the Point of Beginning and the most northerly corner of the herein described tract of land having grid coordinate (Texas State Plane, Central Zone, NAD 83(HARN) U.S. Feet, Surface Adjustment Factor of 1.00011) values of N=10077991.31 and E=3138901.57, from which a TxDOT Type I monument found at a corner in the easterly right-of-way line of U.S. Highway 183 bears North 11°35'16" East, a distance of 615.85 feet;

1. THENCE, South 78°02'57" East, leaving the easterly right-of-way line of U.S. Highway 183, with a northerly line of said Lot C, a southerly line of said Lot B and a northerly line of said Braker-Park LP tract, at a distance of 0.30 feet passing a 1/2 inch iron rod found, in all a distance of 15.00 feet to a calculated point for a northeasterly corner of the herein described tract of land, from which 1/2 inch iron rod found at a westerly corner of said Lot C and the most southerly corner of said Lot B, same being a northwesterly corner of said Braker-Park LP tract, bears South 78°02'57" East, a distance of 5.16 feet;

2. THENCE, South 11°35'16" West, a distance of 77.85 feet, leaving a northerly line of said Lot C, a southerly line of said Lot B and a northerly line of said Braker-Park LP tract, and crossing said Lot C and said Braker-Park LP tract, to a calculated point for a corner;

3. THENCE, South 38°08'58" East, a distance of 134.73 feet, to a calculated point for a corner;

4. THENCE, South 68°02'45" East, a distance of 118.39 feet, to a calculated point in a southeasterly line of said Braker-Park LP tract, for the most easterly corner of the herein described tract of land, from which a 1/2 inch iron rod found at a westerly corner of said Lot C and the most southerly corner of said Lot B, same being a northwesterly corner of said Braker-Park LP tract, bears North 21°57'54" East, a distance of 16.85 feet, North 52°00'54" East, a distance of 113.20 feet, North 37°40'49" West, a distance of 275.40 feet and South 51°57'52" West, a distance of 126.37 feet;

5. THENCE, South 21°57'54" West, a distance of 17.00 feet, with a southeasterly line of said Braker-Park LP tract, to a calculated point in a northerly line of the Water and Wastewater Easement recorded in Volume 10061, Page 369 of the Real

EXHIBIT "A"

Property Records of Travis County, Texas, for the most southerly corner of the herein described tract of land, from which a 1/2 inch iron rod found at a corner in the easterly right-of-way line of U.S. Highway 183 and in the northerly right-of-way line of FM 969 (R.O.W. varies) bears South 21°57'54" West, a distance of 20.00 feet to a 1/2 inch iron rod found at the most southerly corner of said Braker-Park LP tract and South 68°02'45" East, a distance of 124.91 feet;

6. THENCE, North 68°02'45" West, a distance of 118.92 feet, leaving a southeasterly line of said Braker-Park LP tract and crossing said Braker-Park LP tract, with the northerly line of said Water and Wastewater Easement, to a calculated point in the easterly right-of-way line of U.S. Highway 183, same being in a southwesterly line of said Lot C and in a southwesterly line of said Braker-Park LP tract, same also being the most westerly corner of said Water and Wastewater Easement, for a corner, from which a TxDOT Type I monument found in the easterly right-of-way line of U.S. Highway 183, at a southwesterly corner of said Braker-Park LP tract, bears South 38°08'58" East, a distance of 40.12 feet;

7. THENCE, North 38°08'58" West, a distance of 149.70 feet, with the easterly right-of-way line of U.S. Highway 183, same being a southwesterly line of said Lot C and a southwesterly line of said Braker-Park LP tract, to a TxDOT Type I monument found for the most westerly corner of the herein described tract of land;

8. THENCE, North 11°35'16" East, a distance of 84.90 feet, with the easterly right-of-way line of U.S. Highway 183, same being a northwesterly line of said Lot C and a northwesterly line of said Braker-Park LP tract, to the Point of Beginning and containing an area of 0.123 of one acre (5372 s.f.) of land, more or less.

I hereby declare that this survey was made on the ground, under my supervision, and that it substantially complies with the current Texas Society of Professional Surveyors standards.

David E Martinez

David Edward Martinez
Registered Professional Land Surveyor 5434

02/18/16
Date



MWM DesignGroup
305 East Huntland Drive, Suite 200
Austin, Texas, 78752 (512) 453-0767
TBPLS Firm Registration No. 10065600

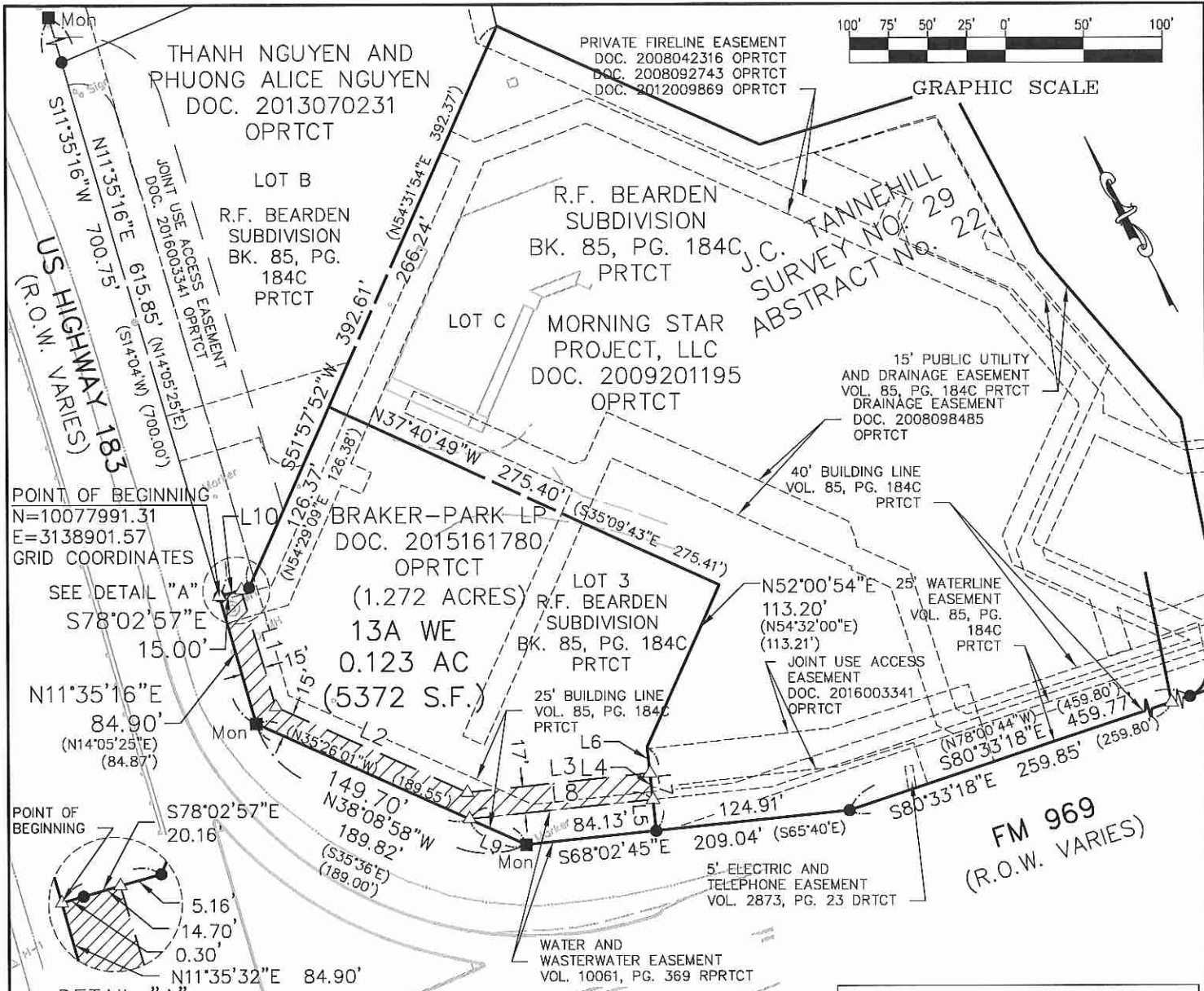
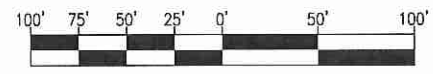
Bearing Basis: The bearings described herein are Texas State Plane, Central Zone, NAD 83(Harn), U.S. Feet. For surface coordinates multiply grid coordinates by the Surface Adjustment Factor of 1.00011. The reference points for this project are MWM control point 112, a cotton spindle in the centerline of sidewalk on the east side of Springdale Road approximately 85' east of Rockhurst Lane, having surface coordinate values of N=10088638.55, E=3138681.05 and MWM control point 141, a cotton gin spindle on the south side of Smith Road, approximately 920 feet east of U. S. Highway 183 centerline, at the 90 degree bend, having surface coordinate values of N= 10068786.90, E= 3136881.27, having a grid bearing of South 05°10'49" West and a surface distance of 19,933.07 feet.

FIELD NOTES REVIEWED

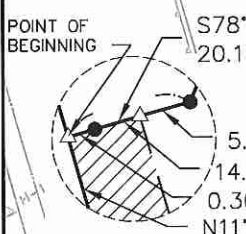
TCAD No.: 0213280712
City Grid: N24

By: _____
Date: _____
Signed: _____

EXHIBIT "A"



POINT OF BEGINNING
 N=10077991.31
 E=3138901.57
 GRID COORDINATES



DETAIL "A"
 N.T.S.

LEGEND:

- 1/2" IRON ROD FOUND
- △ CALCULATED POINT
- Mon ■ TxDOT TYPE I MONUMENT FOUND
- () INDICATES RECORD DATA
- PRCT PLAT RECORDS OF TRAVIS COUNTY, TEXAS
- RPRTCT REAL PROPERTY RECORDS OF TRAVIS COUNTY, TEXAS
- OPRTCT OFFICIAL PUBLIC RECORDS OF TRAVIS COUNTY, TEXAS

▨ AREA OF EASEMENT

TITLE REPORT REFERENCE:
 AUSTIN TITLE COMPANY
 3708 SPICEWOOD SPRINGS ROAD #100,
 AUSTIN, TEXAS 78759
 REF: GF No. AUT-13-671-AUT16000748SG

THIS SKETCH ACCOMPANIES A METES AND BOUNDS DESCRIPTION OF EQUAL DATE.

THE AREA BOUNDED BY LOT C IS CURRENTLY UNDER CONSTRUCTION.

ALL BEARINGS ARE BASED ON THE TEXAS STATE PLANE COORDINATE SYSTEM, CENTRAL ZONE, NAD83(HARN). ALL DISTANCES SHOWN HEREON ARE ADJUSTED TO SURFACE USING A SURFACE ADJUSTMENT FACTOR OF 1.00011. UNITS: U.S. FEET.



David E. Martinez
 02/18/16

LINE TABLE		
LINE	BEARING	LENGTH
L1	S11° 35' 16"W	77.85'
L2	S38° 08' 58"E	134.73'
L3	S68° 02' 45"E	118.39'
L4	S21° 57' 54"W	17.00'
L5	S21° 57' 54"W	20.00'
L6	N21° 57' 54"E	16.87'
L7	N21° 57' 54"E (S24°29'00"E)	53.87' (53.91')
L8	N68° 02' 45"W	118.92'
L9	S38° 08' 58"E	40.12'
L10	S78° 02' 57"E (S75°51'10"E)	20.16' (19.90')

mwm
Design Group

305 East Huntland Drive
 Suite 200
 Austin, Texas 78752
 p: 512.453.0767
 f: 512.453.1734

TBAE 1452
 TBPE F-1416
 TBPL5 10065600

SKETCH TO ACCOMPANY
 FIELD NOTES

TRAVIS COUNTY, TEXAS

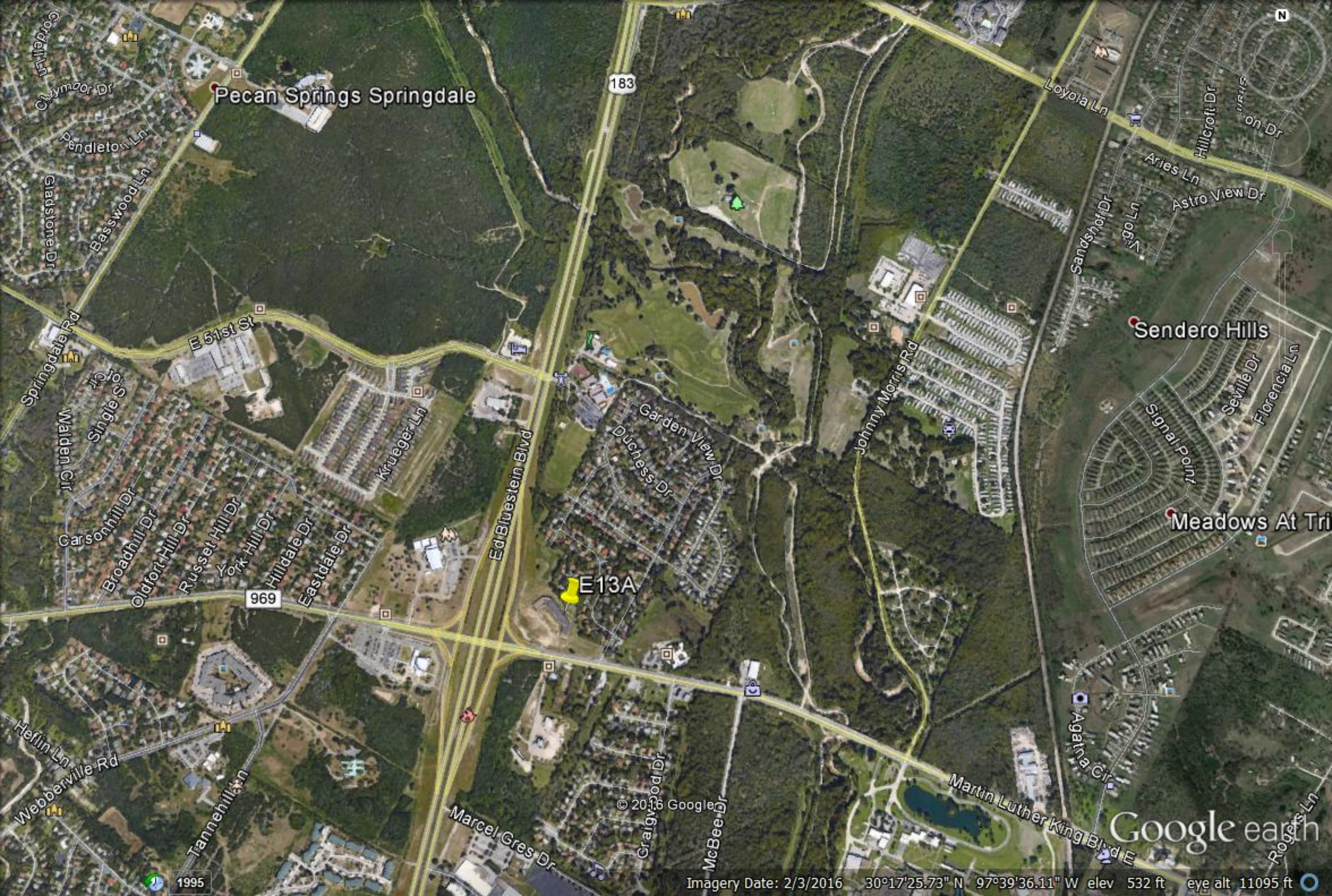
DATE: 18 FEB 16
 JOB NO: 658-01
 FILE: 13A_WE.dwg

3
 3 OF 3

Exhibit "A"



Parcel E13A – Approximately 5,372 Square Feet.



Pecan Springs Springdale

183

969

E13A

Sendero Hills

Meadows At Tri

© 2016 Google

Google earth

Imagery Date: 2/3/2016 30°17'25.73" N 97°39'36.11" W elev 532 ft eye alt 11095 ft

1995



**CENTRAL TEXAS
Regional Mobility Authority**

July 27, 2016
AGENDA ITEM #22

Authorize negotiation and execution of a contract to purchase Parcel 147AC of the 183 South (Bergstrom Expressway) Project.

Strategic Plan Relevance: Regional Mobility
Department: Engineering / Law
Contact: Justin Word P.E., Director of Engineering / Geoff Petrov, General Counsel
Associated Costs: Not Applicable
Funding Source: Not Applicable
Action Requested: Consider and act on draft resolution

Summary:

This agenda item will be discussed with the Board in executive session.

The Board may consider and take appropriate action in open session based on the discussion in executive session.

Backup provided: To be provided at the meeting.



**CENTRAL TEXAS
Regional Mobility Authority**

July 27 2016
AGENDA ITEM #23

Presentation on the July 19, 2016 Sale of
Subordinate Lien Revenue Refunding Bonds,
Series 2016.

Strategic Plan Relevance: Regional Mobility
Department: Finance
Contact: Bill Chapman, Chief Financial Officer
Associated Costs: N/A
Funding Source: N/A
Action Requested: Briefing and Board Discussion Only

Summary:

Presentation on the results of the bond sale activities conducted on July 19, 2016.



**CENTRAL TEXAS
Regional Mobility Authority**

July 27, 2016
AGENDA ITEM #24

Monthly briefing on the MoPac Improvement
Project

Strategic Plan Relevance: Regional Mobility
Department: Engineering
Contact: Jeff Dailey, P.E., Deputy Executive Director
Associated Costs: N/A
Funding Source: N/A
Action Requested: Briefing and Board Discussion Only

Summary:

The report is a construction status update of the MoPac Improvement Project.

Backup provided: Presentation only.



July 27, 2016
AGENDA ITEM #25

Oakhill Parkway Public Outreach.

**CENTRAL TEXAS
Regional Mobility Authority**

Strategic Plan Relevance: Regional Mobility
Department: Communications
Contact: Dee Anne Heath, Director of External Affairs
Associated Costs: N/A
Funding Source: N/A
Action Requested: Briefing and Board Discussion Only

Summary:

Update on public outreach process for the Oakhill Parkway Project and highlights of public activity engagement.

Backup provided: None



July 27, 2016
AGENDA ITEM #26

Executive Director's Report.

CENTRAL TEXAS
Regional Mobility Authority

Strategic Plan Relevance: Regional Mobility
Department: Executive
Contact: Mike Heiligenstein, Executive Director
Associated Costs: N/A
Funding Source: N/A
Action Requested: Briefing and Board Discussion Only

Summary:

Executive Director's Monthly Report

Backup provided: Executive Director's Report



PROJECT UPDATES

MoPac Improvement Project



- Daily labor counts regularly exceed 350.
- The contractor committed resources to implementation are still within the required bandwidths.
- The Mobility Authority, their GEC, and CH2M are negotiating a number of change orders to change the payment structure to lump sum versus time and material. The result was 11 Change Orders which have been recently presented to TxDOT and FHWA for formal review and comment regarding a “No Red Flags” determination. This is providing additional cost certainty to the project change orders.
- Permeable Friction Course paving (PFC) is 62% complete on the north end of the project.
- Toll Express Lane System Testing of the tolling zone near 2222 is complete; the project can open with the northbound, north end Express Lanes as soon as the right side shoulder widening, retaining wall, roadway drainage and PFC paving work is complete.
- Sound wall drilled shafts are 77% complete project wide, with sound wall panels at about 30% complete project wide.
- South end final paving plan development has recently begun with the contractor.

engineering team provided recommendations to lower cost, improve quality, and phase the project. The next step is for the Value Engineering Executive Committee to determine which Value Engineering design modifications will be incorporated into the project design.

- A Project Delivery and Phasing Workshop was conducted in June 2016. The Mobility Authority is coordinating with TxDOT to identify potential project funding, specifically funding for non-tolled elements such as the extension of the fourth general purpose lane.
- The project team continues community outreach with the Anderson Mill Limited District, Lakeline Mall management and other stakeholders regarding the proposed connection to RM 620 at Deerbrook Trail.

MoPac South Environmental Study



- A lawsuit was filed in February 2016 to stop the MoPac South project, as well as SH 45SW and the intersection improvements of MoPac and Slaughter Lane and LaCrosse Avenue. The filing of this lawsuit and the preparation of a formal response impacted the schedules for these projects. The Project team is evaluating options for a revised environmental schedule.

183 North Environmental Study



- A Value Engineering Study, as required by FHWA for major projects, was held in May. The value

SH 45SW Project



- The design is complete and the project was advertised for construction on June 28.

- Bids are due on July 20. The project team will present a low bidder at the July Board meeting.
- The Mobility Authority interviewed teams for an Independent Environmental Compliance Management consultant and will present a selection recommendation at this Board meeting.
- The project team conducted the procurement process for a Construction Engineering & Inspection consultant and will present a selection recommendation at this Board meeting.

183 South Project



- Alerts regarding lane closures and construction activity are regularly posted on the website and Twitter as well as emailed and sent via text to those who signed up for these services. In cases of larger closures, more advanced outreach has occurred; specifically to businesses and residents in the Springdale/Manor Rd. area where most of the current construction is occurring. Outreach has been conducted with Capital Metro regarding upcoming impacts to bus routes.
- Community outreach staff answer the 24/7 hotline. Questions have included asking for more project information, questions about tree removal, construction activity scheduling, and employment and contracting inquiries.
- The Community Outreach Team held the following meetings during June:
 - Agave Neighborhood Association -- June 8
 - Meet the Contactor event at Callahan's General Store -- June 11
 - Spanish Media Workshop -- June 27
 - Sound Walls workshop -- June 28
- Seven stakeholder meetings were held with property owners, businesses, developers, advocacy groups and community organizations.
- Finalized and disseminated the June e-newsletter -- June 28
- Community service activities:
 - Sponsorship of Winn Elementary School beautification efforts -- June

- Donation of 25 cubic yds. of mulch from to TreeFolks for tree protection in Dottie Jordan Park -- June 18
- Sponsorship of University Hills Neighborhood Ice Cream social -- June 30
- Sponsorship of Agave Neighborhood Independence Day celebration -- July 2
- Upcoming community outreach meetings include:
 - Springdale-Airport Neighborhood Association -- July 26
 - SH 71 Turnaround Neighborhood Meeting -- August 3
 - Business roundtable discussion -- Fall

- Weekly Coordination Meetings are held between the oversight team and Colorado River Constructors to successfully work through many of the design, right-of-way and utility challenges on this project.
- CRC is completing submittals for their 65% and 100% Design plans and Release for Construction (RFC) submittals. Early Release for Construction (ERC) are being processed to stay ahead of ongoing construction efforts. The oversight team continues to review each of these submittals to both ensure contract compliance and quality is being maintained.
- All of CRC project management plans have been approved and have received final approval from the Mobility Authority. The Project Management Plan was submitted to TxDOT/FHWA for their review and approval -- this document includes most of CRC's management plans.
- ROW Acquisition efforts to complete acquisition prior to the March 8, 2016 deadline as specified in the D/B contract are completed. All 12 of the land parcels and all 6 easements are available for construction.
- Utility coordination remains a key function of schedule success as CRC is working with 16 different utility companies in securing the necessary agreements for relocations. Currently the contractor has reached agreements (MUAAs) with 10 utility companies, with several of the remaining nearing completion.

- Through effort defined in the MUAAs and ILAs, much of the utility relocation design is staying ahead of construction. Oversight of the utility relocation and design schedules remain a key component to maintain the proposed project schedule.
- An InterLocal Agreement (ILA) between City of Austin Water and Wastewater and the Mobility Authority has been approved by both the Austin City Council and the Mobility Authority Board. This document has been executed by both parties.

Kellam Road, Phase I Project



Kellam Rd. open to traffic

- Key tasks to date include:
 - Continue installation of tree protection and erosion control devices
 - Continue clearing and grubbing activities
 - Completed asbestos removal on the Manor/Springdale bridge
 - Continue setting construction barrier and striping in the area of Manor/Springdale and Colorado River
 - Continued drainage work in area of Manor/Springdale
 - Begin work in the vicinity of the Colorado River
 - Utility relocation efforts started on the north end of the project
 - Purple Sage Drive is closed as utility relocation work continues in this area
- The project construction offices are nearing completion and should be in operation in early July 2016.

- Signal at Pearce began 30-day flash cycle May 25, and then was short-circuited during the 100-year Memorial flood. Investigating safe way to raise controller without creating a hazard for errant vehicles in the right of way; the City only wants to use one type of controller which limits options
- Contractor completed pond work; a joint inspection with the County was completed; there are two remaining non-conforming items, and the County would like some additional work completed as pay items.
- TDLR inspection occurred; minor sidewalk cracks need repair and grass runners on sidewalk need to be removed; contractor completed work; TDLR re-inspection to occur in July.

290 East Toll (Manor Expressway) Phase II



- CTMC is submitting final documentation to achieve Final Acceptance. Final Acceptance is anticipated in July 2016.

290 East Toll Interim Intersection Project

- The 290 East Toll/SH 130 Operational Interim Improvements construction began in April. We anticipate that the interim improvements could be open to traffic as early as summer 2016.

Oak Hill Parkway Project



- The design level schematics for both Alternatives A and C have been refined as a result of continued stakeholder outreach and public comment.
- The environmental study team has begun the robust analysis of our two proposed build alternatives and the no build, or 'do nothing', alternative against the latest phase of evaluation criteria. This process includes collecting and analyzing data and quantifying any potential impacts to the human and natural environment. The results of this analysis will indicate the preferred alternative. We anticipate the full Draft Environmental Impact Statement to be made available for public review and comment in early 2017. This will be followed by the partner agencies holding a public hearing to present the document, results of the study, and the preferred alternative to the public for comment.
- Rodriguez Transportation Group's team continues to submit technical reports to TxDOT for review; the final versions of these reports will be included in the Draft Environmental Impact Statement.
- Efforts with TxDOT and the City of Austin continue for potential off-site water detention facilities.
- Three informational project videos, each about 3 minutes long, were posted to the website on June 21. The first one features a general overview of the project and the problem we're trying to solve. The second and third videos explore the process we've followed to get to our two proposed build alternatives and the no build, or 'do nothing', alternative; as well as, how community input during this process has influenced the project. These videos are being promoted via social media advertising, print advertising in the Oak Hill Gazette, and e-newsletters.
- The project team held an Environmental Workshop on June 23. Over 50 members of the public attended and received an update on the

science and studies that have informed the project over the last eight months. A presentation on the preliminary results of the tree survey was also provided. The City of Austin arborist, Michael Embesi, gave a presentation about how to diminish the impacts of roadway construction on trees and opportunities for tree plantings and relocation. In addition, attendees participated in a discussion prioritizing landscaping components including types of trees to be planted, tree relocation possibilities, bike and pedestrian amenities, hardscapes, and areas for wildflowers and native grasses.

SH 71 Toll Lanes



- Coordination meetings between McCarthy and the Toll Integrator continue with a focus on construction now that the design is complete; toll system integrator installation work should begin in early June and continue into July.
- Emphasis is to complete the FM 973 interchange; all columns were completed and bridge beams placed; currently working on approach walls and bridge decking.
- The bridge beams were placed in both directions for the widened mainlane bridges over Presidential Blvd that will constitute the general purpose lanes; work in underway to complete the bridge decking.
- Efforts are underway to plan for fall community outreach events on tolling and the opening of the toll lanes to traffic.



**CENTRAL TEXAS
Regional Mobility Authority**

Strategic Plan Relevance: Regional Mobility
Department: N/A
Contact: David Armbrust, Board Member
Nikelle Meade, Board Member
Associated Costs: N/A
Funding Source: N/A
Action Requested: None.

Summary:

Wire One Austin, Presentation by Jared Ficklin regarding urban cable.

Backup provided: Board presentation
Wire One Austin: An Urban Cable Mass Transit Vision

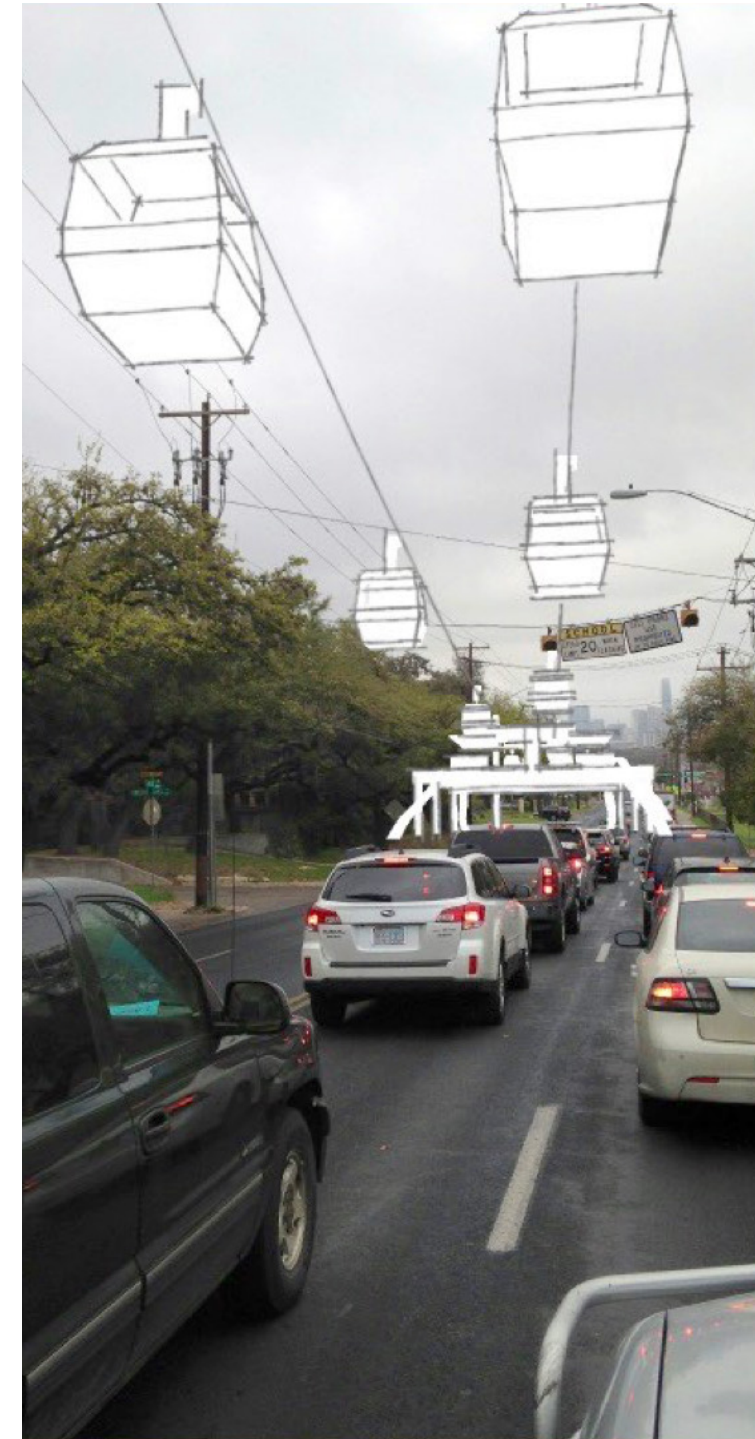


WIRE ONE AUSTIN

An Urban Cable Mass Transit Vision
Jared Ficklin, Co-Creator of The Wire
jared.ficklin@argodesign.com
512.576.8981

THE SHORT CASE FOR URBAN CABLE

South 1st is at capacity, the congestion point for a downtown commute now begins at Ben White. Urban Cable offers an affordable, culturally compatible way to add capacity.



AFFORDABLE

Cost similar or lower than the Red Line
Low cost per rider
Functions like an inexpensive subway

COMPATIBLE

A Mass Transit artery into downtown
Serves downtown commuters
Allows redeployment of bus lines
Predictable Trip Times
Easily included in multi-modal routing
Safe & easy for mobility impaired
Faster than bus

SUSTAINABLE

Removes cars from congestion points
Can be carbon negative
Pedestrian & Bike friendly

ADOPTABLE

Serves tourism
Predictable Trip Times
Safe & easy for mobility impaired
No schedule
Personal space
Climate controlled

URBAN CABLE HAS WORLDWIDE DEPLOYMENTS

Urban Cable has been used around the world including in the U.S. In the modern era there has been a surge in new deployments in Europe, Asia & South America that use Urban Cable as a form of Mass Transit across a wide variety of geography.

The same strengths that help urban cable bridge valleys or cross rivers at low cost are being recognized for their ability to bridge features of urbanization. Such as connecting walkable districts or opening up capacity in areas that are already at high density. A 22 lane freeway or natural greenbelts or rivers can be crossed for little or even no additional cost.

Mid-sized Cities with pre-automotive history are primed for the benefits. Especially those cities that have a dense core and are seeing the urbanization of the first suburbs. Or divided by rivers, freeways or pushed against waterfronts. Cities with need for a circulator at lower cost than subway.



Venlo, Netherlands

The city center and an park area that hosts festivals are connected.



Barcelona, Spain

Two walkable museum districts are connected over a forested park.



Medellin, Columbia

Three lines connect exterior neighborhoods with city center transit lines. Hundreds of thousands of commuters ride Metro Cable daily.

KEY ATTRIBUTES

1,200 people per hour, per direction.
With expansion to 3,600 PPPHD possible.

Like 25 full busses stopping every hour



New capacity added to a route that commuters already use. A central route that can grow into a central circulator.

At last traffic count 30,000 cars a day use this route for a commute into & out of downtown. With the closure of MoPac this number has increased with drivers using South 1st as an alternative route.



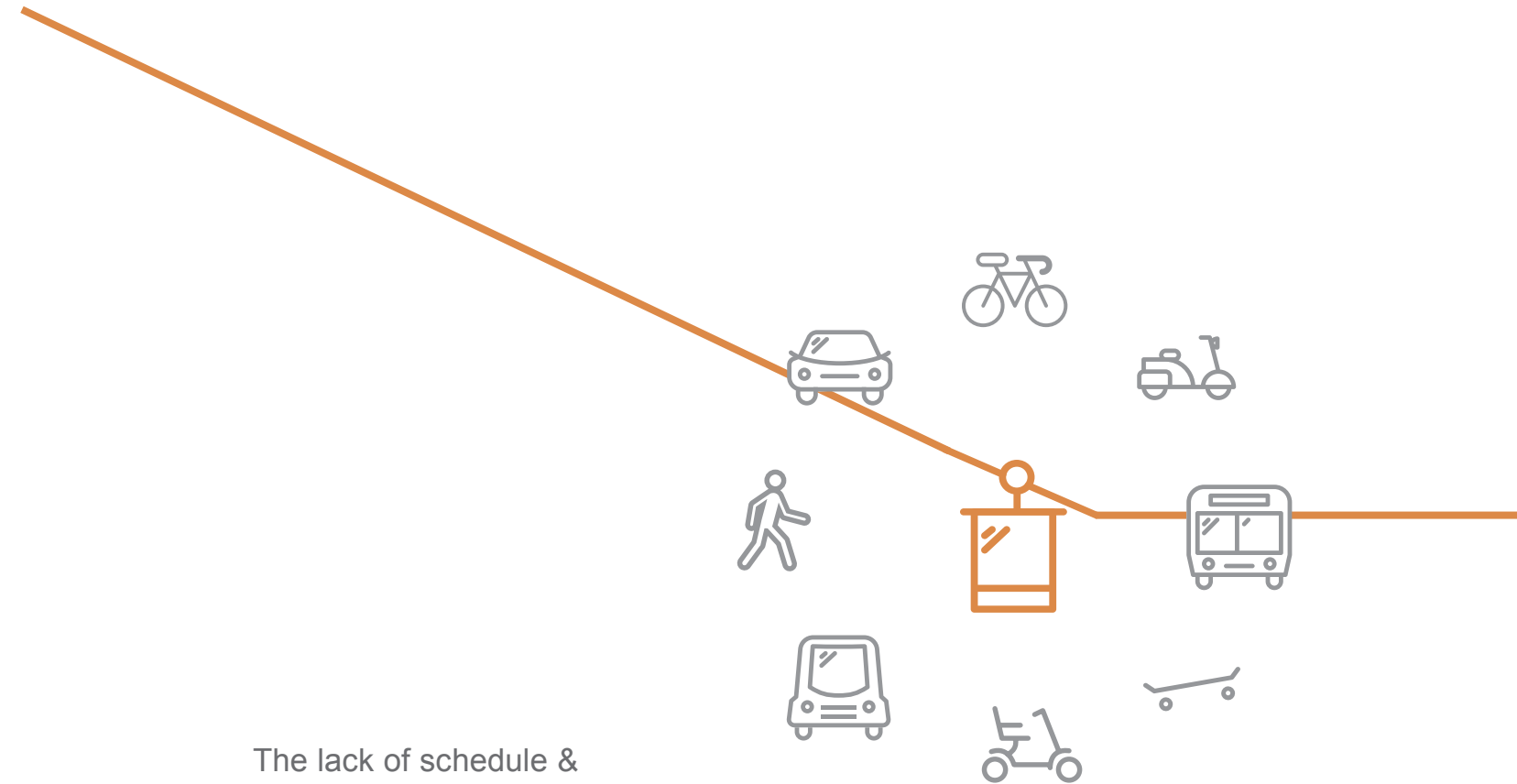
Wire One removes vehicle traffic from peak congestion, eliminates micro trips, parking search trips & services tourism. A meaningful impact on the entire Core.



A 30% to 50% takeover of vehicle trips is possible

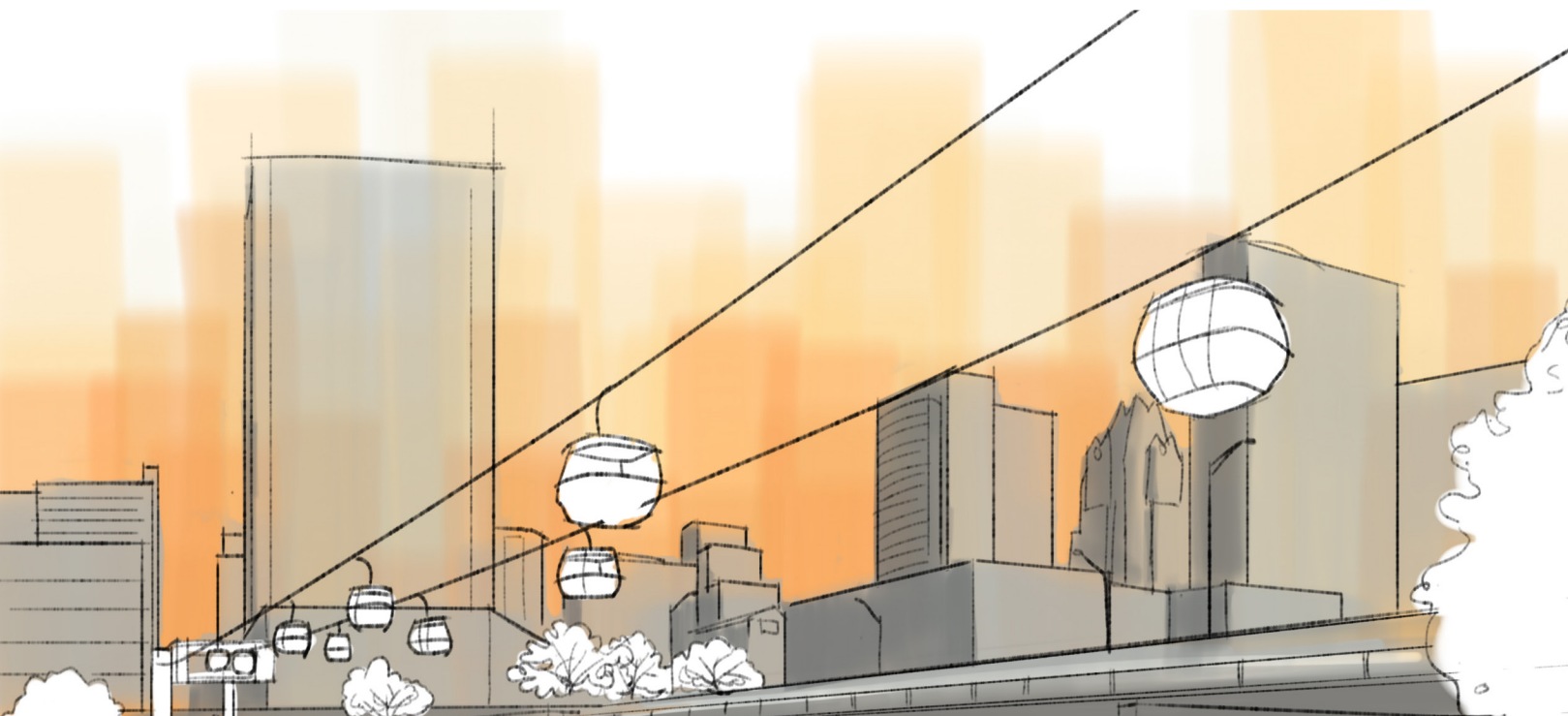
The lack of schedule & continuous operation encourages adoption without asking for cultural or demographic changes. Wire One is an amplifier for car share, biking & pedestrian travel. Wire One is an adaptable back bone for smart transit planning.

5% of residents living along South 1st commute without a car. Some bus commutes can take more than an hour.



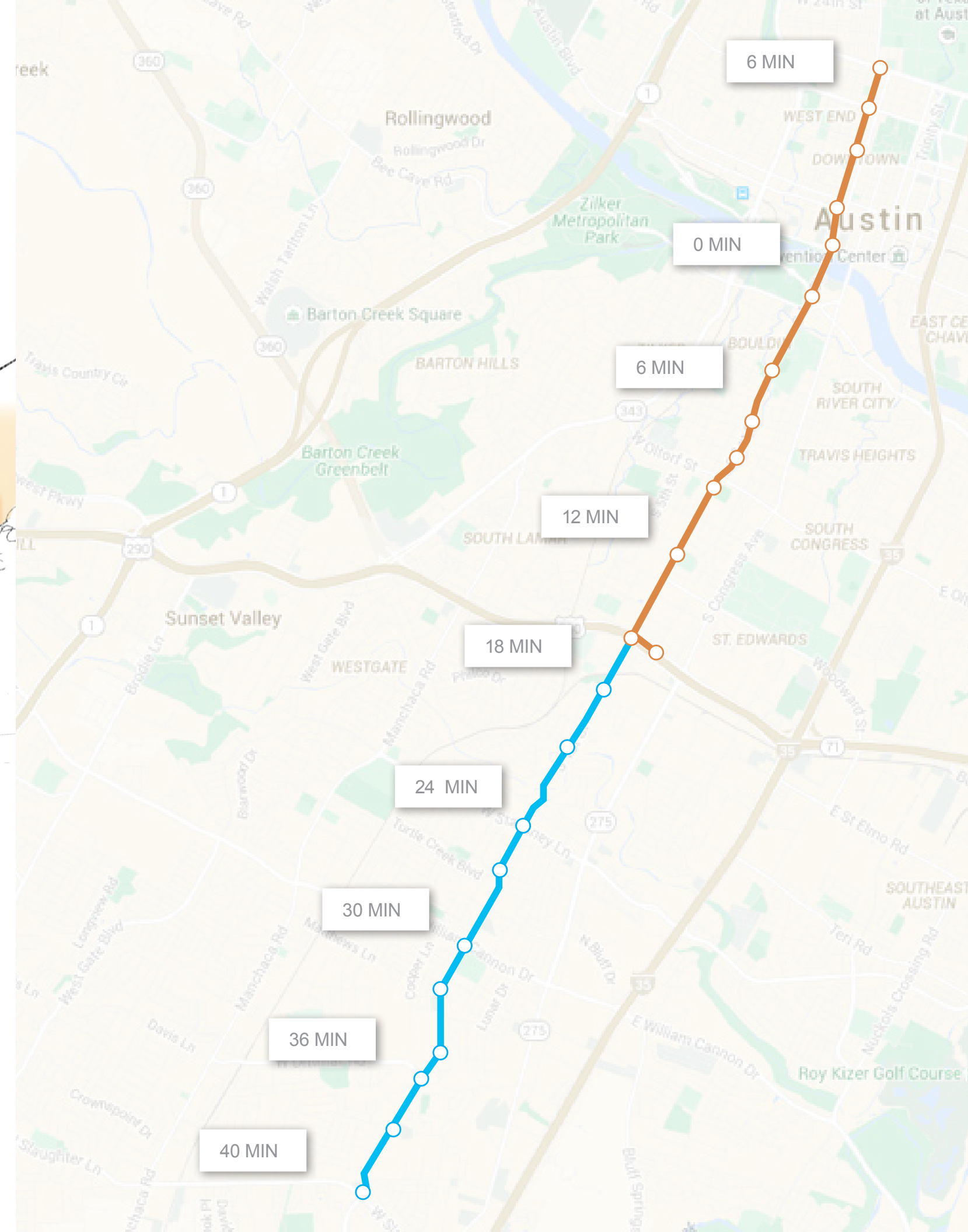
WIRE ONE OVERVIEW

Using High Speed Detachable Mono Cable



Target Capacity: 1,200 Persons Per Hour Per Direction
Expanded Capacity: 6,000 Persons Per Hour possible
19 hours per day run time

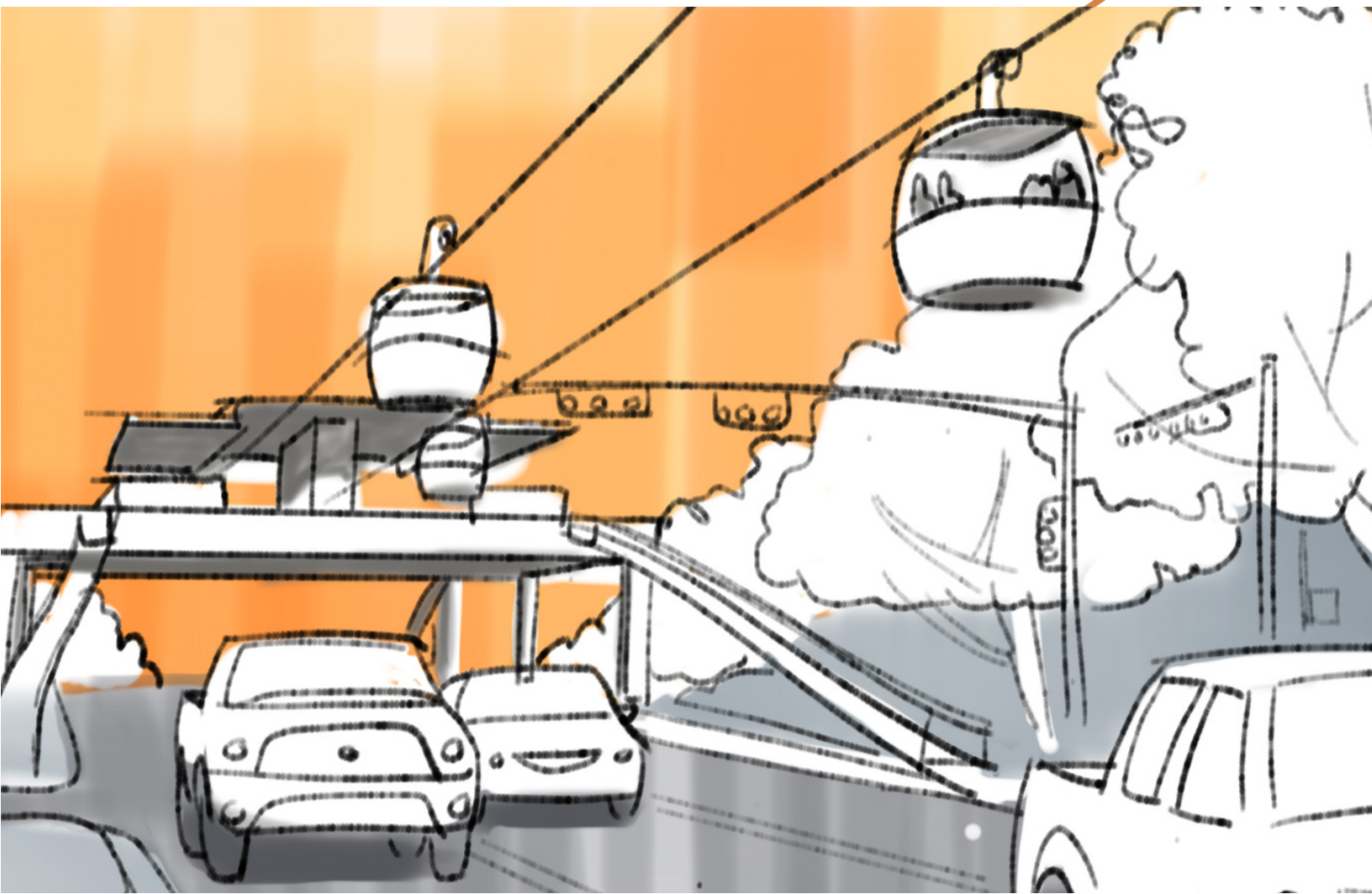
This map is an early draft. Locating stops is something that takes study.
But this is a good representation of what we could accomplish.



CAR PROFILE

Wire One would use 10 person cars similar to what is shown above except with added onboard climate control. Bicycles, strollers, scooters, walkers & wheelchairs can fit in the cabin.

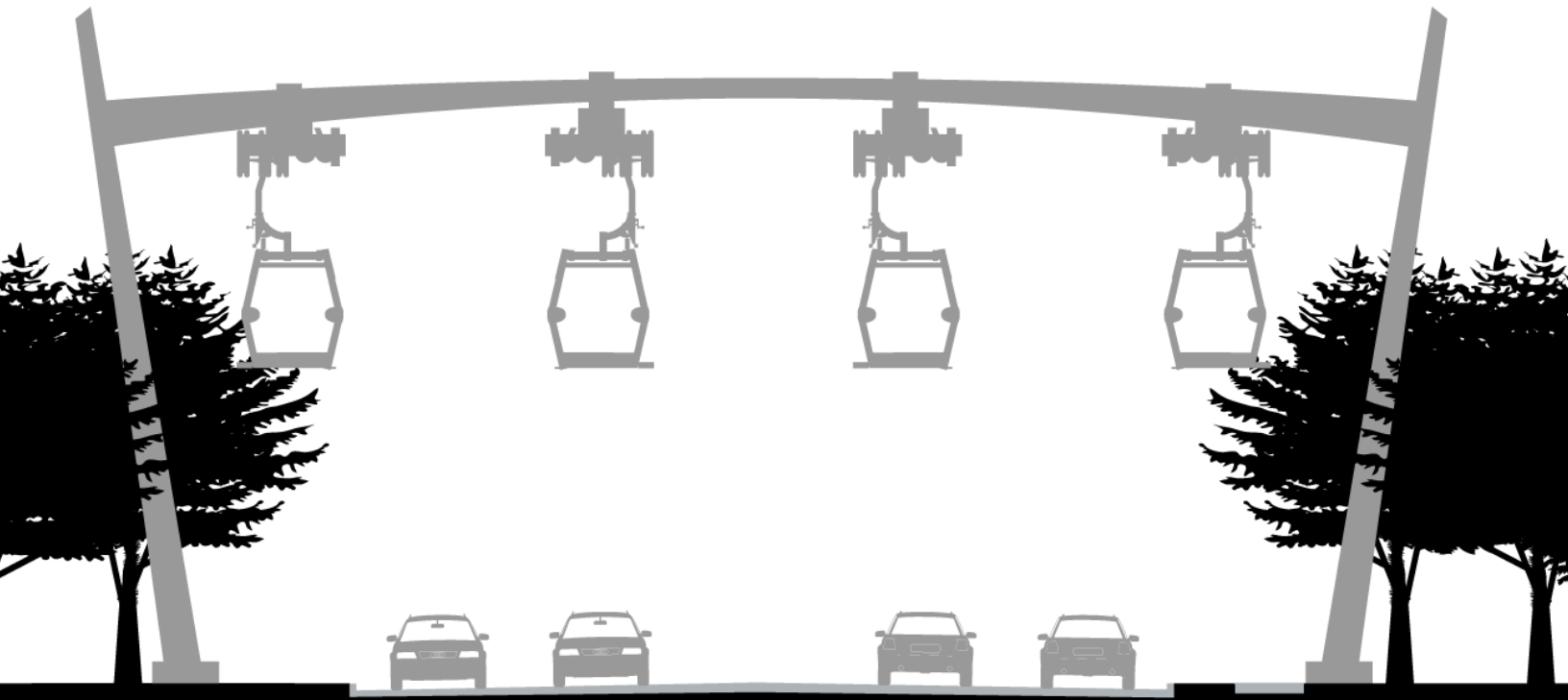
Cars would arrive at a station every few seconds. Boarding is across a flat level deck. There are station attendants to help monitor loading, but for the most part loading is continuous and does not require assistance.



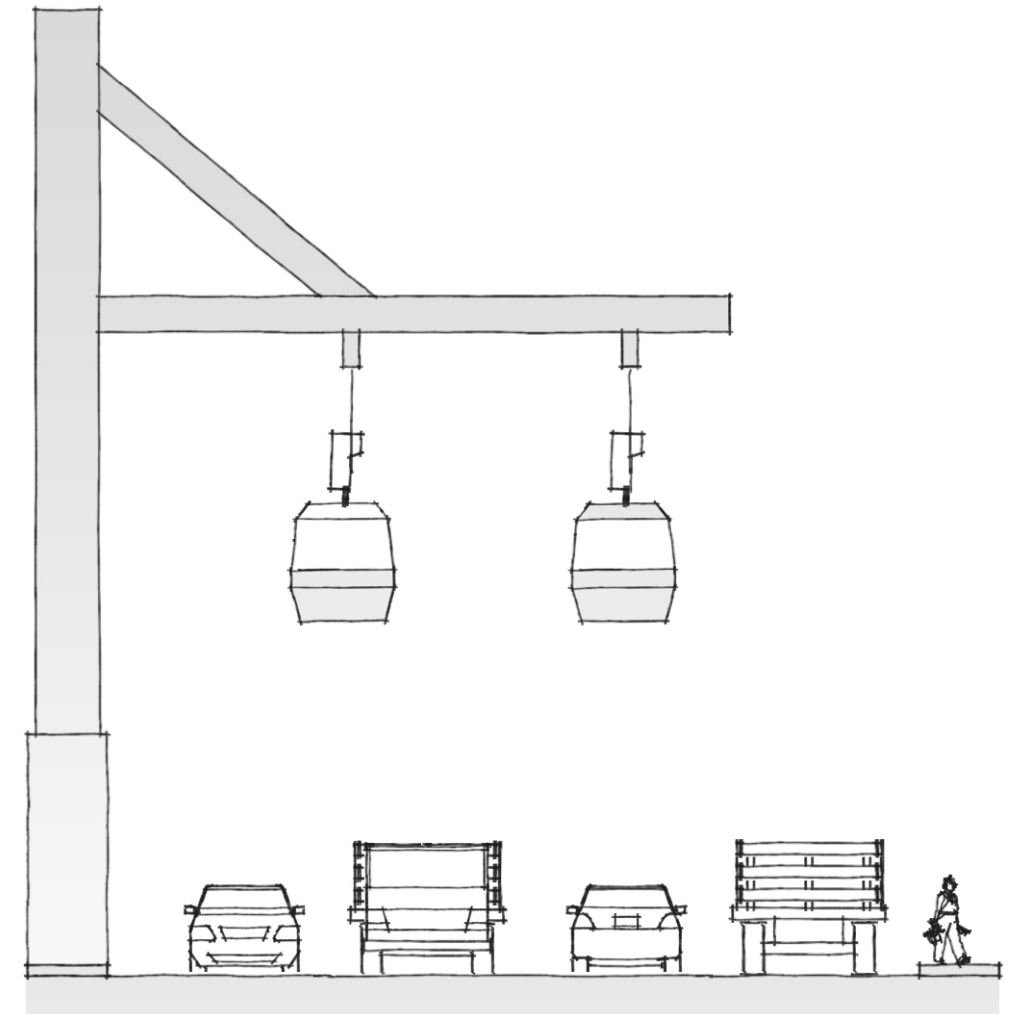
TOWER PROFILE

Wire One would use either cantilevered or bridged towers so the cars could use the eminent domain directly above south first.

This equipment is able to locate in the right of way beside the street without interrupting sidewalk service.

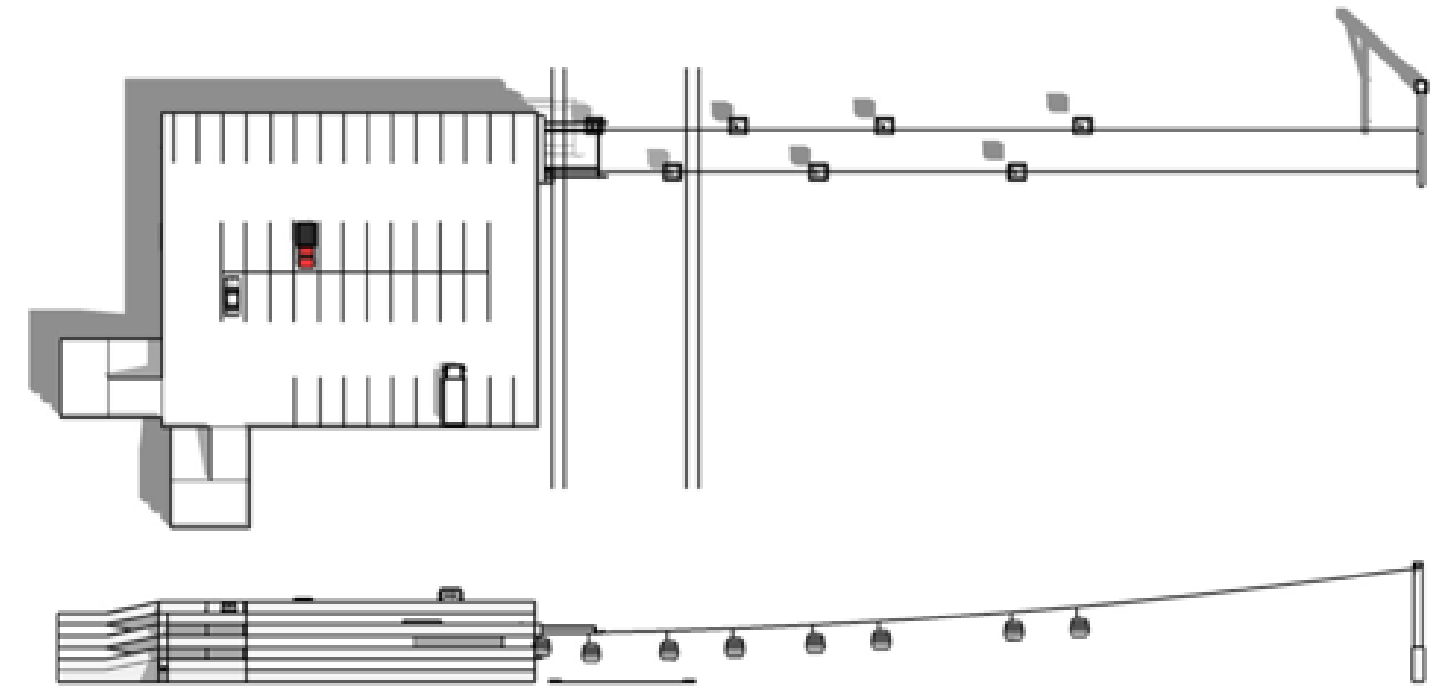


The tower bases themselves in most case are similar to what is used for freeway pylons or power service lines. Cars themselves require a small amount of horizontal clearance and vertical clearance is set by the route profile and safe transportation standards.



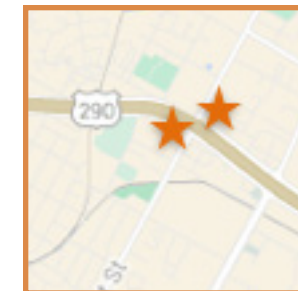
WIRE ONE PARK & FLY STATIONS

Urban Cable can be integrated into structures. For Wire One there are several areas that could be developed by public/private partnership into a combined retail and Park & Fly structure where there is retail and drive up parking on the ground floor with Urban Cable on the second story and garage parking above.

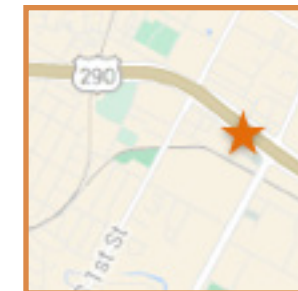


Park & Ride Station

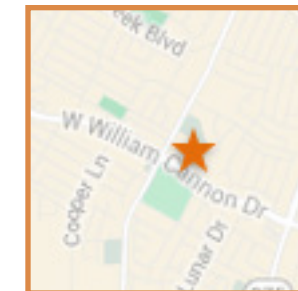
With no schedule the normal drive, park, walk to office commute remains nearly the same with only minutes on Wire One connecting parking with the final walk to the office.



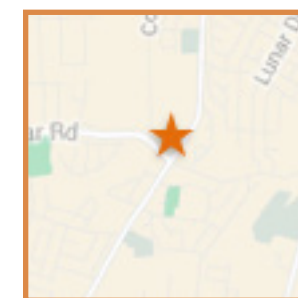
SW & NE Corner of Ben White & South 1st



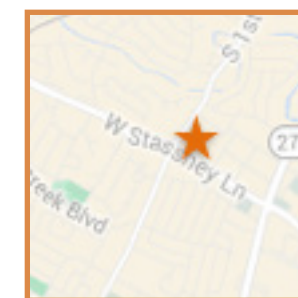
Overtop Ben White Bus Interchange



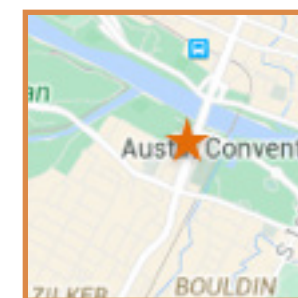
William Canon HEB Shopping Center



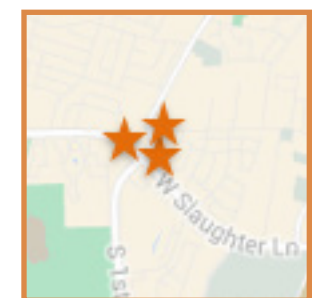
Dittmar & South 1st



Stassney & South 1st Retail Areas



Long Center

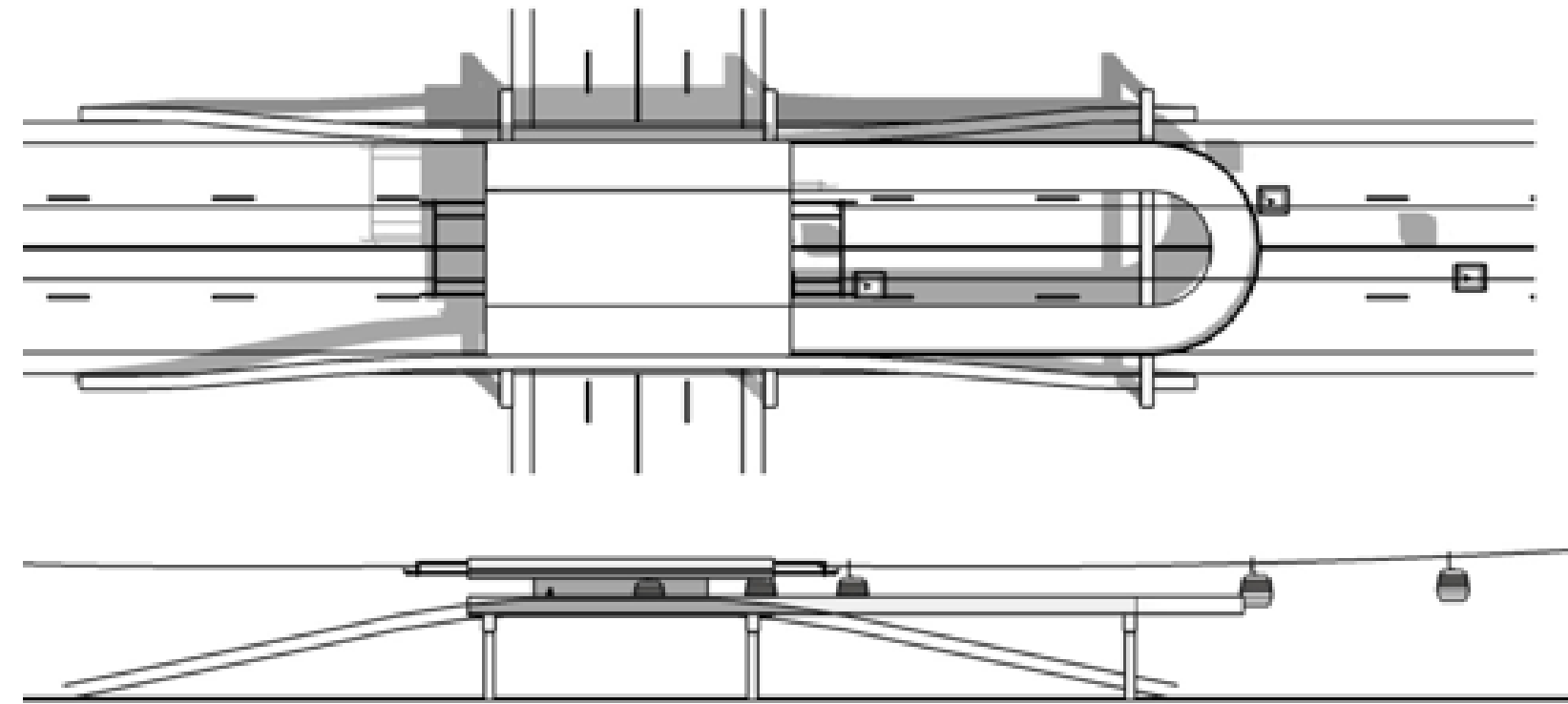


Slaughter Drainage, Red Barn or Car Wash

Examples of areas with Park & Fly potential & areas that have not undergone vertical development.

WIRE ONE PEDESTRIAN CENTERS

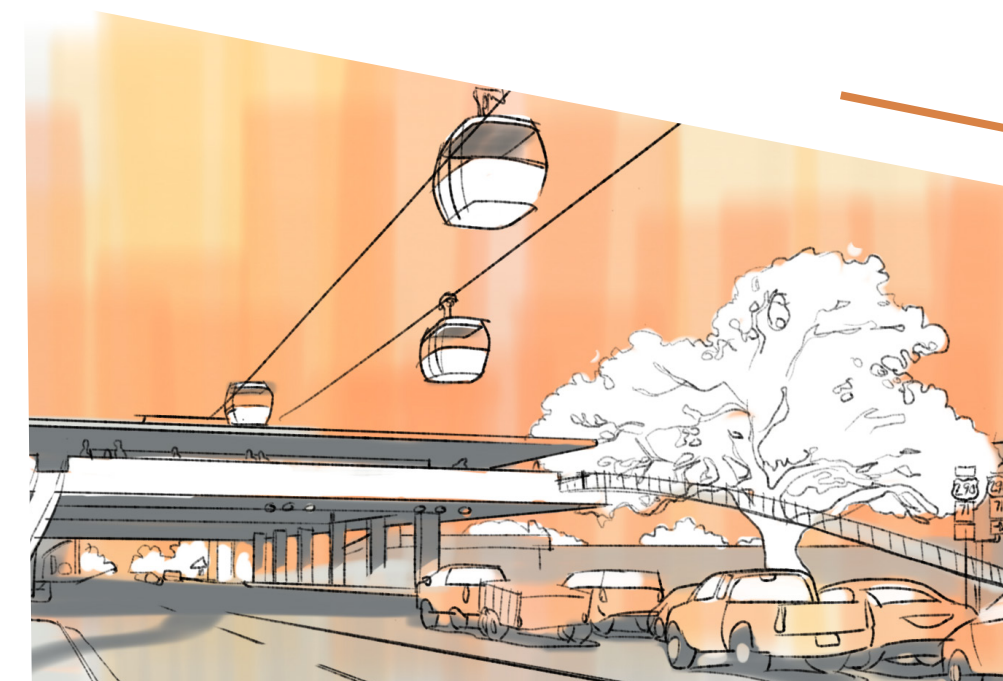
Urban Cable can locate over streets or intersections. Wire One would utilize these stations for local stops along South 1st. Such stations if designed correctly can also serve as pedestrian bridges. Ramps can be used for ADA as well as easy use for cycling.



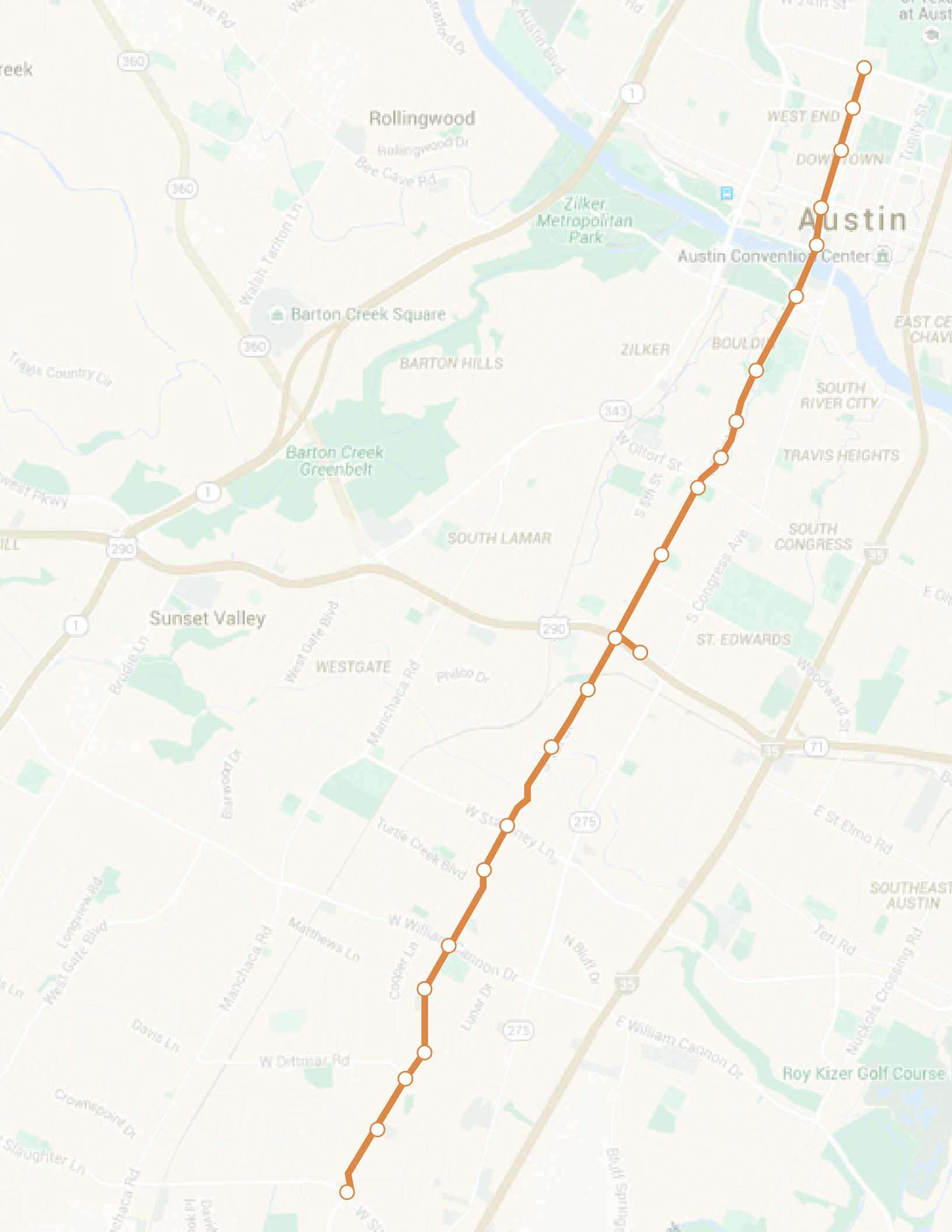
Elevated Station Type 2



A family with a stroller boarding a 6 person car in Zaragoza.



A cyclist boarding a 6 person car.



ROUTING WIRE ONE

Urban Cable offers low cost infill of Mass Transit without displacement. However Urban Cable lays out best in segments that are straight lines. There are cost savings when turns can be made at stops.

South 1st is less developed and has linear geography that favors Urban Cable. Wire One would be a back bone connecting Slaughter to South Campus adding capacity to a route heavily used by the central & southern core of Austin as the path into downtown.

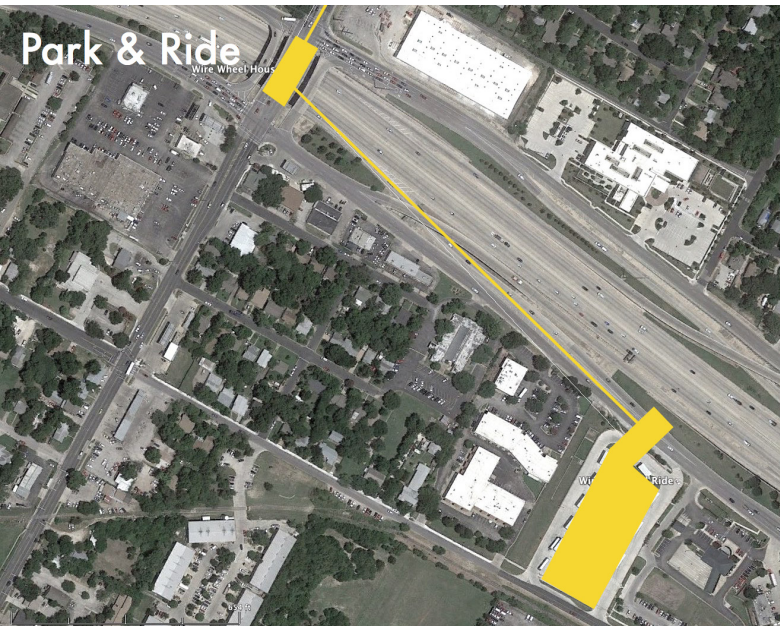
Wire One can cover bus service on South 1st and could be tied into the bus interchange allowing bus re-deployment throughout south Austin to better serve adoption of Transit. Car share can also enjoy routing advantages as services can drop riders at stations rather than add to the congestion on routes into downtown.

Future lines could be added running east west or Point to Point to create Park & Fly or numerous connected walkable districts.





THE 290 BUS INTERCHANGE PARK & FLY



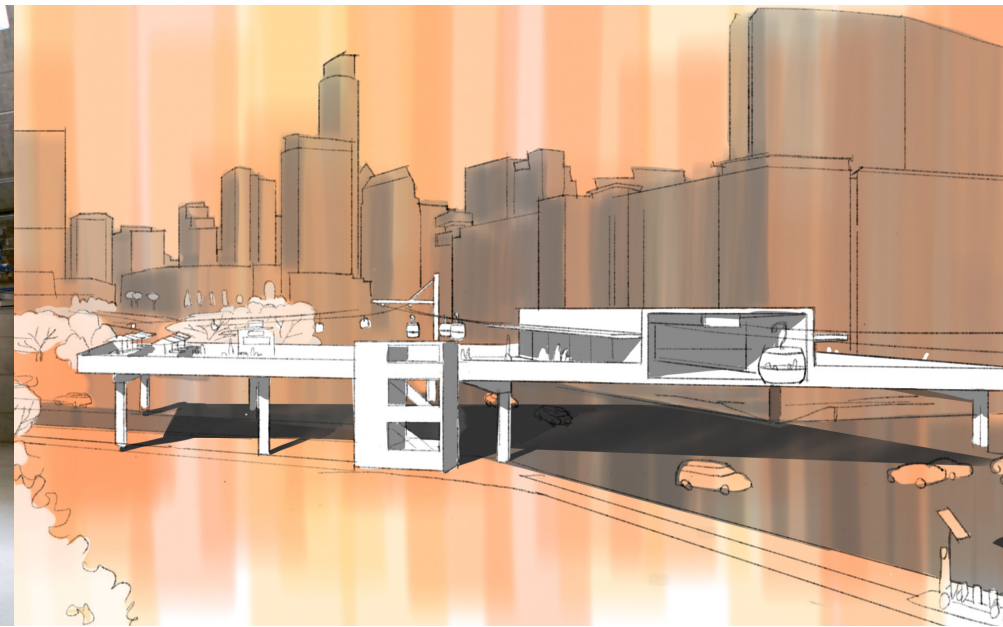
Wire One could overtop the main bus interchange on Ben White with a spur line or end line that connects to the Ben White Interchange. Passengers from buses could transfer to the Wire One into downtown and drivers could park above the bus interchange in order to avoid the wait into downtown or the average \$180 a month parking fees.



With the zoning in place this also a good location for the car service yard. This is where excess capacity is added and removed to a line as well as where cars can be pulled for cleaning and maintenance.

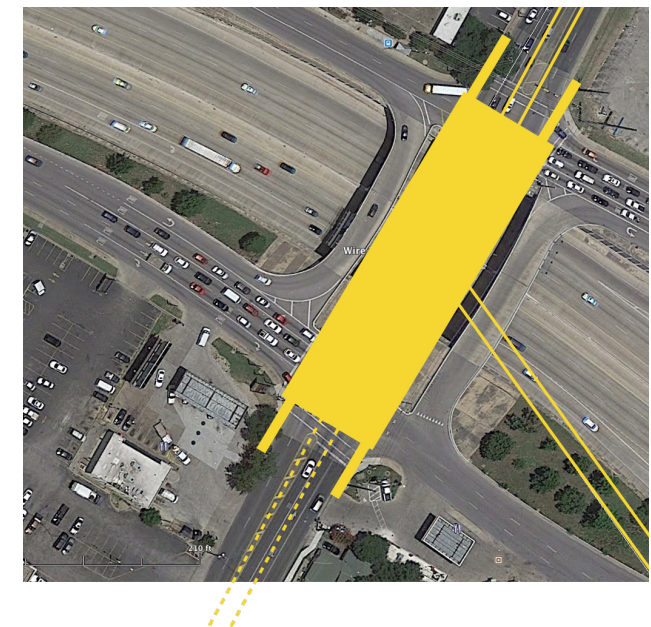


THE PALMER PEDESTRIAN CENTER



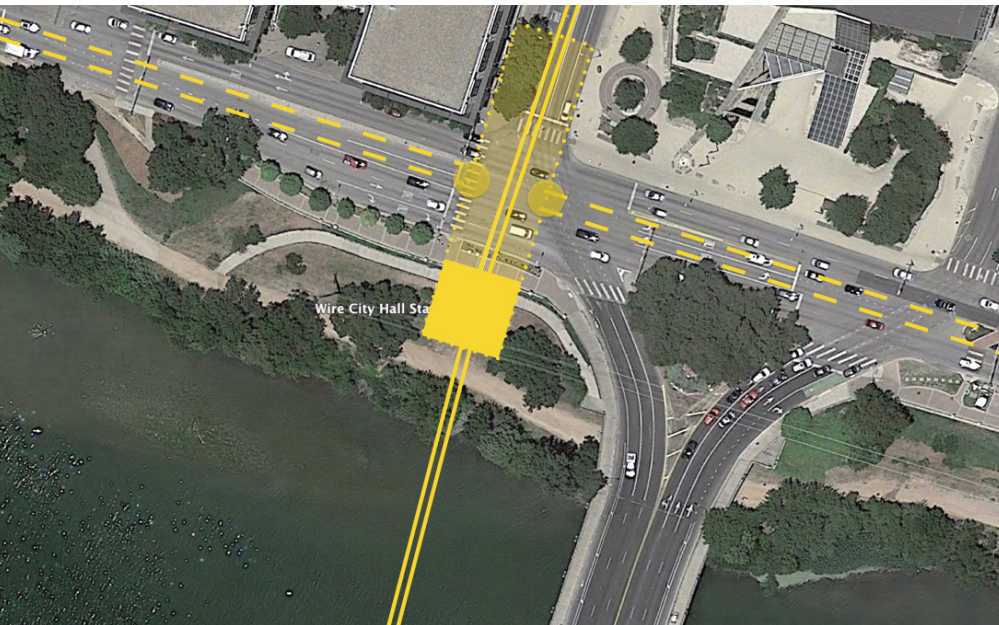
With its proximity to festivals & the Lady Bird Lake Hike & Bike this intersection is an ideal location to build up with a pedestrian center. The center would also allow ramps to bridge easily into one of the main entries for auditorium shores and the Long & Palmer Events Center.

The Pedestrian center could also serve the transfer crowds over the intersection as a large pedestrian bridge.e.





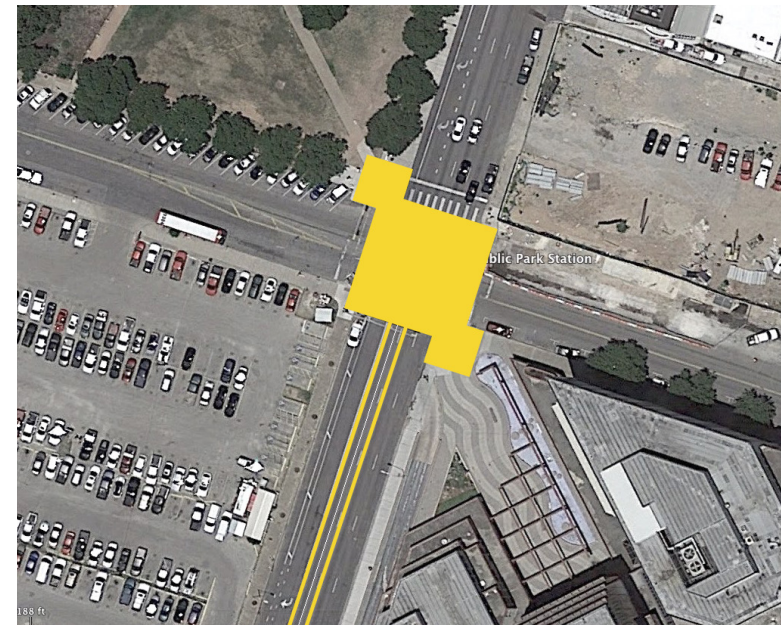
CITY HALL FUTURE INTERCHANGE



At City Hall Wire One shifts over the lake to line up with Guadalupe in order to provide downtown service without interrupting the Congress Avenue view of the capitol dome. This stop offers an opportunity to expand along Caesar Chavez. Starting as a pedestrian center and later becoming an interchange for a line that reaches from Airport to Zilker and the Grounds of ACL.



REPUBLIC SQUARE PARK



Of the Downtown Wire One stops this one is an important stop for tying into tourist activities. A major departure point for Zilker Shuttles during ACL and other activities.





Finally those neighborhoods have an important role in participating in the festival tourism of Austin.

The three pillars of commuters, neighborhood micro-trips and supporting tourism will lead to a better adoption for Wire One than rail or bus.

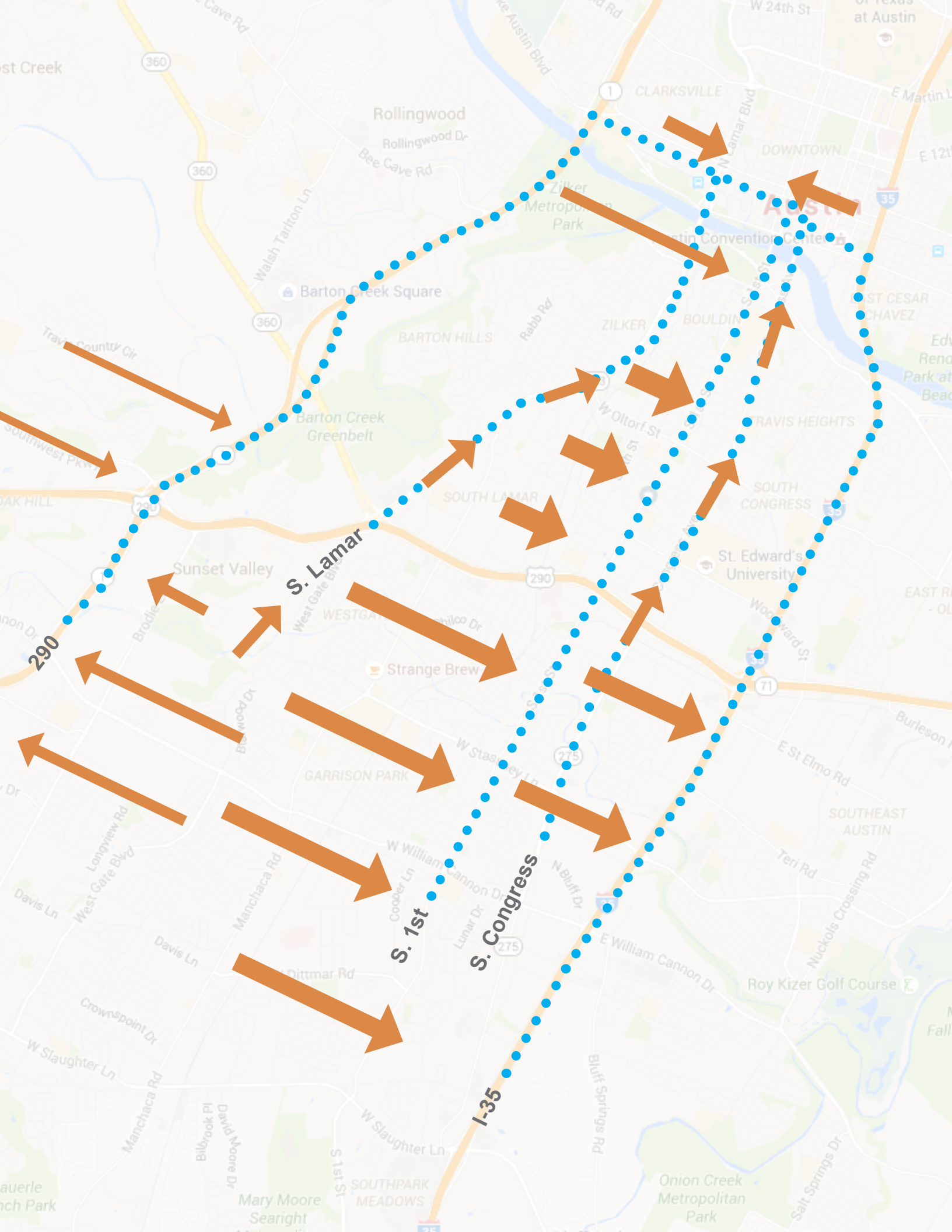
Last the continuous operation lends itself to easy inclusion in route planning software like that used by car share companies or integrations with multi-mode transportation systems & planning. The reach of Wire One will spread to anyone in South Austin planning a trip to Downtown or any destination along the line.

RIDERSHIP

Wire One fosters adoption by borrowing characteristics of the car culture discovered in research. Which is a lack of schedule & a greater availability of personal space. These are inherent in the continuous operation and smaller car design.

Ridership will also be boosted by the ability to locate Wire One on a route that commuters already plan around, South 1st. This makes adoption as an alternative to a car commute feasible. This makes the commuter a real source of ridership. Connecting walkable residential neighborhoods with a walkable downtown and the many shopping districts along South 1st will draw core ridership from the neighborhood micro-trips along Wire One.





CURRENT COMMUTING PATTERNS

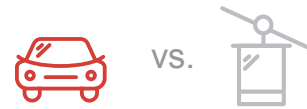
**95% BY
CAR & 5%
BY MODES
OTHER
THAN CAR**

Time is an important consideration.
These are the Google/Waze shortest
routes & commuters follow.



WIRE ONE MONO CABLE

Travel Times by Car at 8:40am. As timed by Google Maps from points to City Hall. They do not include time in Downtown Congestion. Parking Time or Time Walking to Work.



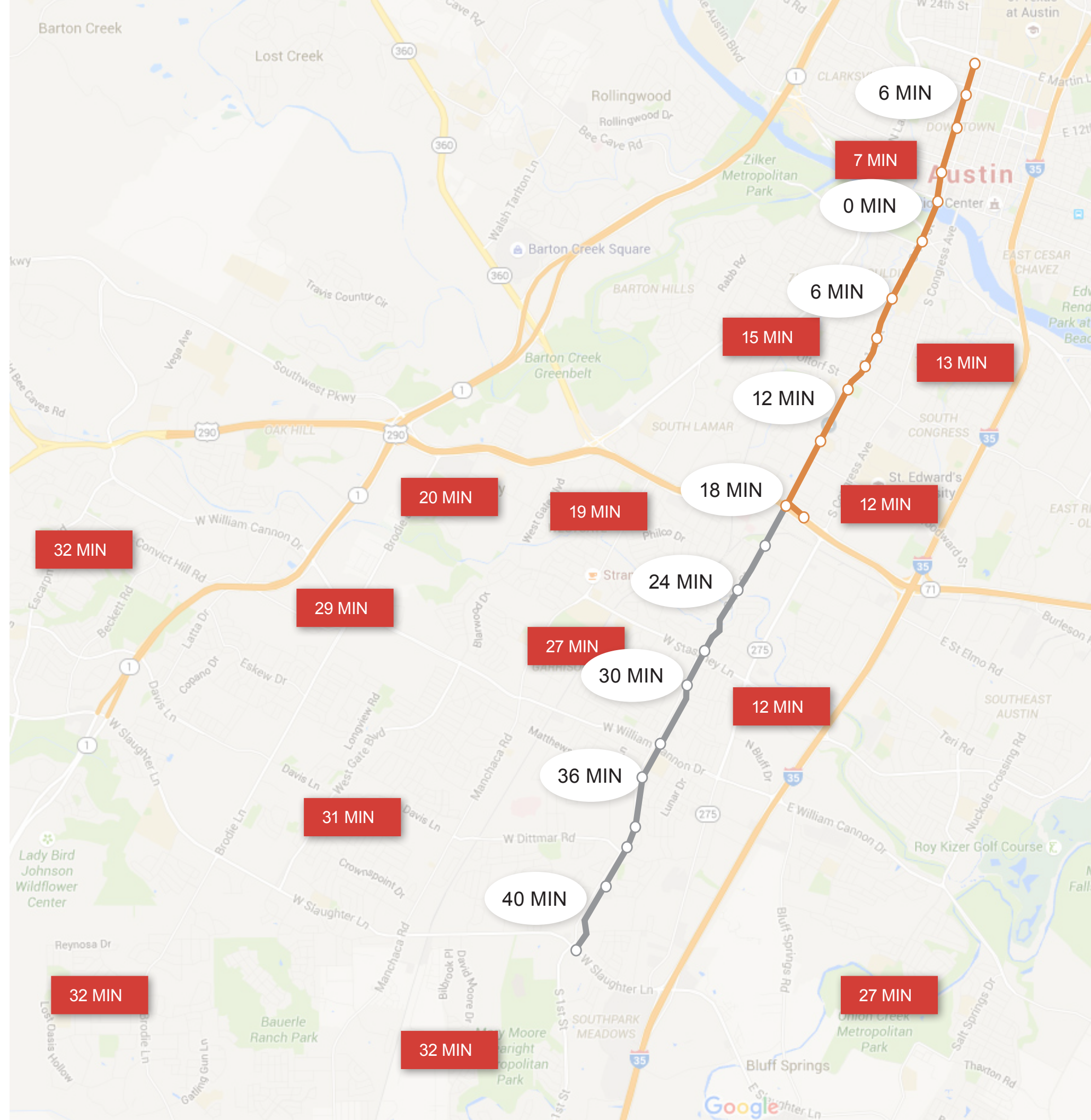
vs.



Car times to downtown



Wire One Commute times to downtown



WIRE ONE MONO CABLE

As timed by Google Maps from points to City Hall. They do not include time in Downtown Congestion. Parking Time or Time Walking to Work.

Bus schedules, transfers and the frequent trips into neighborhood routes is a major contributor to these times.



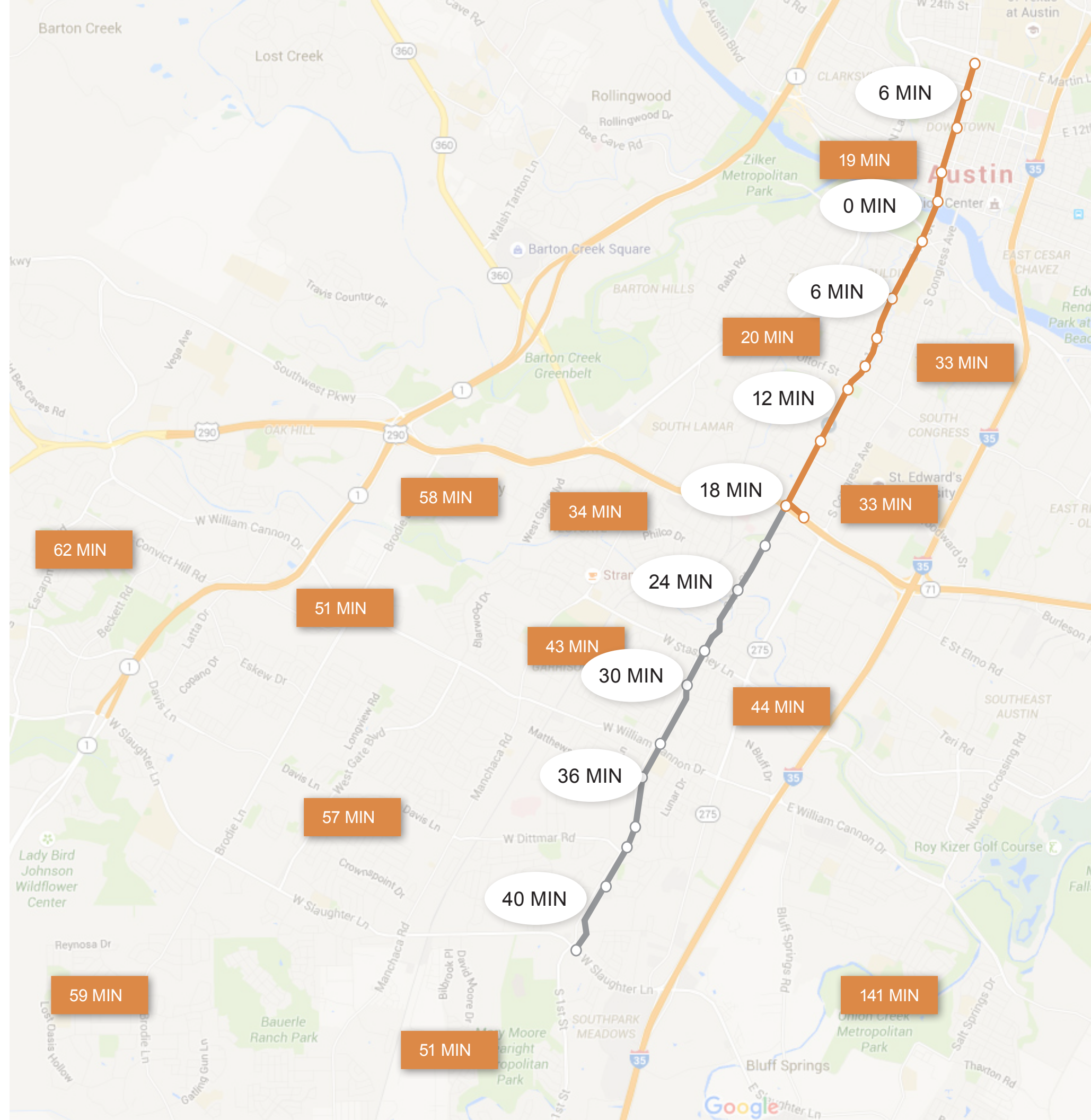
vs.



Bus times to downtown



Wire One Commute times to downtown

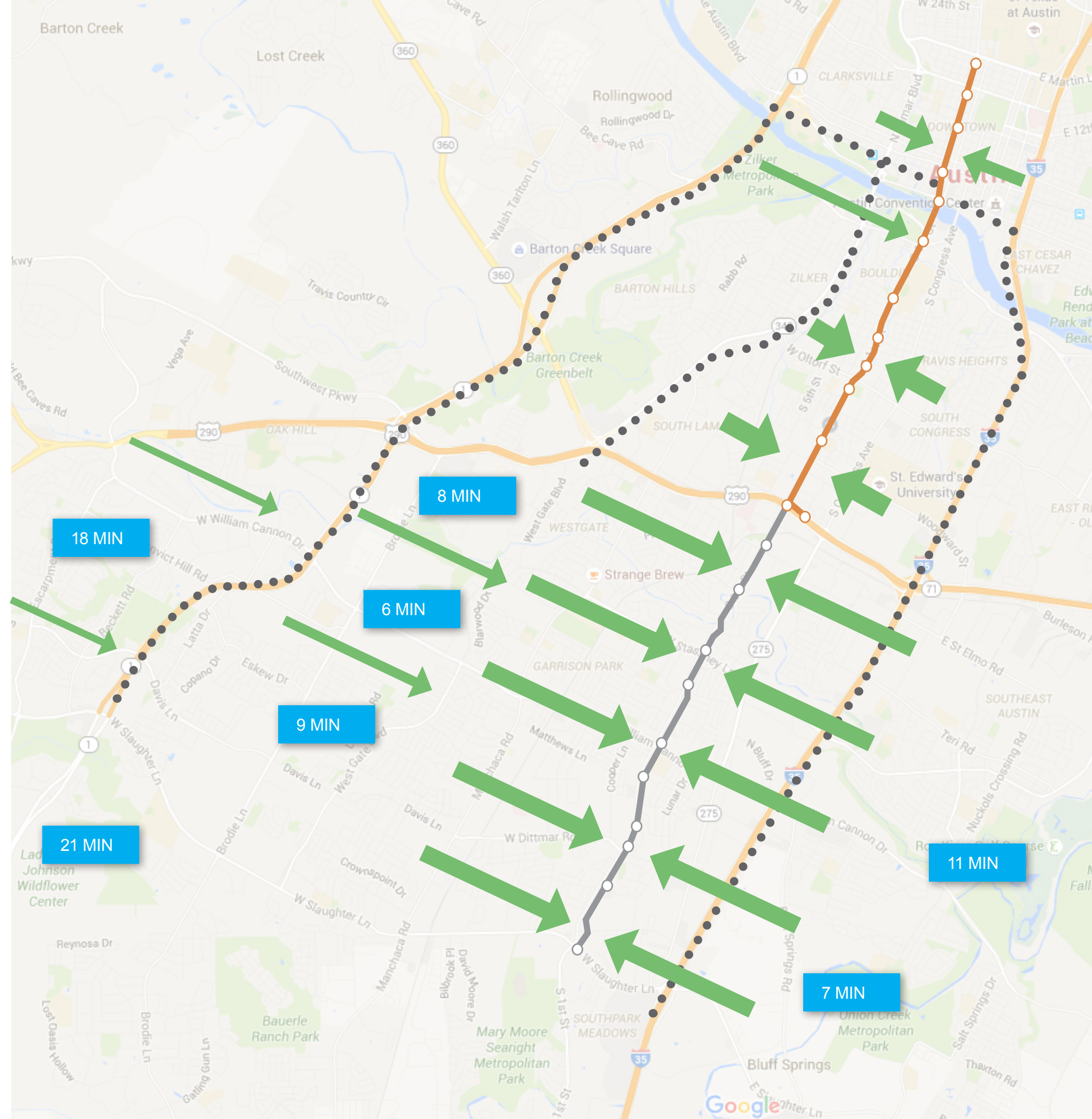


THE WIRE ONE SHIFT

Looking at travel times to South 1st you can see a potential for shift is large in first mile. Building Park & Fly or expanding bus schedule and direct routes begins to make Wire One a shorter commute than MoPac for more distant neighborhoods.

This could create a break over where cost and convenience line up and we begin having a meaningful impact on access to Downtown from the whole of South Austin.

 Car times to Park and Fly





EARLY ESTIMATES

System Phase I	not including Park & Fly	\$300 – \$400 Million
System Phase II	not including Park & Fly	\$200 – \$300 Million
Ridership Model A	75% capacity at peak 25% capacity off peak	5,913,000 per year
O+M		\$3 – \$6 Million
Cost per rider	75% capacity at peak 25% capacity off peak	\$0.51 - \$1.01 per rider

These are wide estimates based on formulas. Costing has enormous variability. More accurate cost would require study. Ridership estimates are at the initial 1,200 pphpd capacity.

Ridership also requires study. But capturing existing bus & tourism traffic will create an instant base of ridership. Commuters will also likely convert.

Beyond Land Use & fees there are financial opportunities in Urban Cable in advertising & naming rights. Emirates Airlines paid London \$56 million for 10 year naming rights.

Consider also the costs not incurred, namely crossing obstacles.

SAFETY, ENVIRONMENT & POLICY

Safety is engineered into Urban Cable. The manufacturers provide service contracts and a program maintenance schedule to ensure both uptime and safe operation. Urban Cable is designed around redundant systems like air travel. In the U.S. there are regulatory and engineering bodies governing safety and policy. In urban applications call boxes like used on college campuses are installed into cars to provide individual safety. Station attendants are required for operation.

Environmental impact is extremely low. The equipment footprint is low. The energy requirements are low. An entire 7 mile line can run off of only a few Kilowatt Hours of electricity provided by the grid. In Austin we can use wind or solar. When measured against reduced car trips Wire One could end up carbon negative. Climate control may impact that formula based on the approach taken. Current thinking is the safest most robust approach

is using small LCNG fueled generators to provide power and climate control. Battery & Ultra capacitor are other approaches with cost and reliability tradeoffs. Choosing an approach for climate controls requires study.

Urban Cable is impacted by winds. Wire One would run safely up to 50 mile per hour winds. In Central Texas we may experience outages due to extreme winds. But those occasions are short and are well predicted.

Urban Cable is quiet relative to transit. The noise from a running a line is less than that of cars or busses on a street. Riding Urban Cable is actually peaceful. Cell reception is typically excellent.

It is unknown how flyover of private property will be handled in the U.S. Therefore Wire One was envisioned to occupy public or City owned property. Flyover of private property is probably negotiated with the owner.





To learn more
or stay updated visit:
facebook.com/wireAustin