



**CENTRAL TEXAS
Regional Mobility Authority**

Regular Meeting of the Board of Directors

9:00 a.m.
Wednesday, May 31, 2017

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.

Consent Agenda

*See **Notes** at the end of this agenda.*

3. Adopt a written compliance program as required by 43 TAC § 10.51.
4. Approve Work Authorization No. 15 with Kapsch TrafficCom USA for toll system integration services related to the Manor Expressway (290E) Phase III Project.
5. Approve Personal Services Agreement with Neal Spelce for Communications Support Services.

Regular Items

Items to discuss, consider, and take appropriate action.

6. Approve the minutes from the April 26, 2017 Regular Board meeting and from the May 15, 2017 Board Workshop meeting.

7. Accept the financial statements for April 2017.
8. Presentation of the draft budget for Fiscal Year 2017-2018.
9. Discuss and take appropriate action to rescind primacy for the east to south direct connector on the Manor Expressway (290E) Phase III Project.
10. Discuss and consider authorizing the procurement of a contractor for miscellaneous work related to the MoPac Improvement Project.

Briefings and Reports

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

11. Executive Director Report.
 - A. Texas 85th Legislature Update.
 - B. Interoperability with Kansas Turnpike Authority.
 - C. Commissioner Shea's meeting regarding urban cable.
12. 183 North Delivery Model Update.
13. MoPac Improvement Project Monthly Report.

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:

14. Discuss acquisition of one or more parcels or interests in real property needed for the Bergstrom Expressway (183 South) Project and related legal issues, pursuant to §551.072 (Deliberation Regarding Real Property) and §551.071 (Consultation With Attorney).
15. 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).
16. Discuss legal issues relating to procurement and financing of Mobility Authority transportation projects, as authorized by §551.071 (Consultation with Attorney).
17. Discuss personnel matters as authorized by §551.074 (Personnel Matters).

Reconvene in Open Session.

18. Authorize negotiation and execution of a contract to purchase the following described parcel or property interests for the 183 South (Bergstrom Expressway) Project:
 - A. Parcel 157 of the 183 South (Bergstrom Expressway) Project, a fee taking of 0.163 acres, from 0.527 acres of real estate, **owned by Dr. William Selman and Claire Selman**, and located between Vargas Road and Thompson Lane, on Bastrop Highway, Austin TX 78741.
 - B. Parcel 158 of the 183 South (Bergstrom Expressway) Project, a fee taking of 0.035 acres, from 4.477 acres of real estate, **owned by Cactus Rose OH Delta, LLC.**, and located at 436 Bastrop Highway, Austin TX 78741.

Regular Items

Items to discuss, consider, and take appropriate action.

19. 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.

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

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.

*Mobility Authority Board Meeting Agenda
Wednesday, May 31, 2017*

(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.

(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

May 31, 2017
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

May 31, 2017
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

May 31, 2017
AGENDA ITEM #3

Adopt a written compliance program as required by 43 TAC § 10.51.

Strategic Plan Relevance: Regional Mobility
Department: Law
Contact: Geoff Petrov, General Counsel
Associated Costs: N/A
Funding Source: N/A
Action Requested: Consider and act on draft resolution

Summary:

Pursuant to 43 TAC § 10.51, the Mobility Authority's internal ethics and compliance program must be in writing, must provide certain standards and procedures that Mobility Authority Board members, employees and agents are expected to follow. The proposed internal compliance and ethics program documents the Mobility Authority's ethics policies and procedures and satisfies all other requirements of 43 TAC § 10.51.

Backup provided: Draft Resolution
Draft Internal Ethics and Compliance Program

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

RESOLUTION NO. 17-0XX

ADOPTING AN INTERNAL ETHICS AND COMPLIANCE PROGRAM

WHEREAS, the Mobility Authority is required to have a written internal ethics and compliance program that provides certain compliance standards and procedures as specified by 43 Tex. Admin. Code §10.51; and

WHEREAS, the internal compliance program attached hereto as Exhibit A satisfies the requirements of 43 Tex. Admin. Code §10.51.

NOW, THEREFORE, BE IT RESOLVED that the Board hereby approves and adopts the internal ethics and compliance program attached hereto as Exhibit A.

Adopted by the Board of Directors of the Central Texas Regional Mobility Authority on the 31st day of May 2017.

Submitted and reviewed by:

Approved:

Geoffrey S. Petrov, General Counsel

Ray A. Wilkerson
Chairman, Board of Directors

Exhibit A

INTERNAL ETHICS AND COMPLIANCE PROGRAM

The Central Texas Regional Mobility Authority (“Mobility Authority”) has established an Internal Ethics and Compliance Program (“Program”). The Executive Director and the Deputy Executive Director are charged with monitoring compliance within the organization and taking appropriate action in response to compliance related complaints. These employees, along with the Chief Financial Officer are responsible for oversight of financial reports and establishing and maintaining an adequate internal control structure with appropriate checks and balances.

The Mobility Authority has taken all possible steps to avoid the delegation of substantial discretionary authority to individuals whom the organization knows or should know, have previously engaged in illegal activities. The Mobility Authority will perform criminal background checks on all final applicants for the positions of Executive Director, Chief Financial Officer, General Counsel, and any positions involving the disbursement of Agency funds or the handling of cash, checks or credit cards; negotiable documents and materials; or highly confidential or sensitive information. All applicants admitting a felony conviction on their application materials shall also be subject to a criminal background check. Additionally, the Mobility Authority may, at its discretion, perform criminal background checks on applicants for any other position. The Executive Director shall be responsible for periodically assessing risk of criminal misconduct within the organization.

The Mobility Authority shall take all steps to ensure that compliance standards are effectively communicated to all employees by requiring participation in training and by distributing information that explains the requirements of this Program. A copy of the Program, including any amendments and all related documents will be included in the Employee Handbook. Training will be held during orientation and periodically thereafter. An employee who violates any provision of the Program is subject to disciplinary action up to and including termination. All employees shall perform their official duties in a lawful, professional, and ethical manner; practice responsible stewardship of organizational resources, and report any conduct or activity that they believe to be in violation of this Program. If an employee has a concern about the legitimacy or appropriateness of any employee act, he/she should promptly discuss the matter with his/her manager or with the Human Resources Manager. No employee who, in good faith, reports an alleged incident of noncompliance who participates in an investigation of an alleged incident of noncompliance shall be subjected to discrimination, reprisal or retaliation in any form because of having made such a report or participating in such an investigation.

The Mobility Authority Board of Directors will participate in periodic training in ethics and in the compliance program and ethical behavior generally.

The Mobility Authority shall notify all agents of the organization regarding the Program, and its expectation of ethical behavior and compliance with the law from individuals and companies it does business with through distribution of written materials, electronic communication or verbal communication.

The Mobility Authority will conduct an independent annual external compliance audit and other risk evaluations to monitor compliance and assist in the reduction of identified problem areas.

Record Retention

The Mobility Authority is committed to proper maintenance and retention of records and shall comply with the retention schedule for local government records adopted by the Texas State Library and Archives Commission. If the Texas State Library and Archives Commission adopts a new record retention schedule, or revises an existing record retention schedule, that applies to a record maintained by the Mobility Authority, the Executive Director shall ensure that the Mobility Authority complies with the new or revised retention schedule.

Fraud

Fraud is broadly defined, and may include any type of intentional deception for the purpose of personal or business gain or damage to an individual or organization. Examples of fraud include lying on an employment application, falsifying records, or providing false receipts for reimbursement from the Mobility Authority. Employees shall not knowingly make false or misleading statements, oral or written, in the course of the conducting of the Mobility Authority business. Employees shall not disclose confidential or sensitive organizational business information without prior written authorization.

Equal Opportunity Employment

The Mobility Authority is an equal opportunity employer. This means that decisions regarding the hiring, promotion and compensation of candidates and employees will be made without regard to race, color, religion, national origin, gender (including pregnancy), sexual orientation, age, disability or any other status protected by law.

Management will make decisions regarding the hiring, promotion and compensation of a candidate (whether internal or external) and employee solely upon the basis of the individual's work record, performance history and qualifications for the job for which he/she is being considered.

Sexual Harassment and Sexual Misconduct

All Mobility Authority employees have the right to work in an environment free from any type of unlawful discrimination or harassment based on race, color, religion, national origin, gender (including pregnancy), sexual orientation, age, disability or any other status protected by law. This includes freedom from sexual harassment in the workplace.

Harassment based on any of the above is considered a form of illegal discrimination. The Mobility Authority will not tolerate any form of harassment in the workplace. An employee who believes there has been an incident of harassment shall comply with Workplace Harassment Policy in the Employee Handbook.

Conflicts of Interest

Conflict of interest is a situation in which one's private interest (most often financial in nature) conflict with or raises a reasonable question of conflict with their job-related duties and responsibilities. All employees and other individuals or entities that do business with the Mobility

Authority shall comply with the conflict of interest requirements in the Policy Code and the Employee Handbook.

Local public officials (including members of governing bodies or another officer, whether elected, appointed, paid, or unpaid, of any district including a transit authority or district), as well as certain other employees involved with contracting, are subject to the conflict of interest provisions in Chapter 171 of the Texas Local Government Code. Chapter 171 established the standard for determining when a local official has a conflict of interest that would affect their ability to discuss, decide, or vote on a particular item. Other state and federal laws may be applicable to officials and employees in particular situations.

Personal Use of Organization's Property

Property owned or leased by or provided to the Mobility Authority may only be used for official purposes as authorized by the Board of Directors and the Executive Director. Any misuse or unauthorized use of Mobility Authority property, including information system resources, is subject to disciplinary action. Misuse of official property may also result in criminal prosecution.

Gifts and Honoraria

Employees must not solicit or accept gifts, loans, other compensation, unusual favor or hospitality (other than reasonable tips earned by employees in direct customer service positions) which could influence or even have the *appearance* of influencing them in the performance of their duties.

Under Local Government Code Chapter 176, a local government officer must disclose a vendor's offer of gifts to the officer or the officer's family member worth \$250 or more using the Conflict of Interest Form approved by the Texas Ethics Commission. The form requires disclosure even if the officer refuses the gift. An officer commits a class C misdemeanor if the officer knowingly violates the disclosure requirement.



CENTRAL TEXAS
Regional Mobility Authority

May 31, 2017
AGENDA ITEM #4

Approve Work Authorization No. 15 with Kapsch TrafficCom USA for toll system integration services related to the Manor Expressway (290E) Phase III project

Strategic Plan Relevance: Regional Mobility
Department: Toll Operations
Contact: Tim Reilly, Director of Toll Operations
Associated Costs: \$1,735,364.18 (not to exceed)
Funding Source: Reimbursed with Project Funds
Action Requested: Consider and act on draft resolution

Summary:

Under this proposed work authorization, Kapsch TrafficCom USA (formerly Schneider Electric) will provide tolls systems integration services related to project activities required to assist the Mobility Authority in the development of the Manor Expressway (290E) Phase III project. These efforts will include, but not be limited to: design, procurement, installation, testing, and integration of a complete and fully operational toll collection system and intelligent transportation system.

Backup Provided: Work Authorization No. 15
Fee Estimate
Draft Resolution

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

RESOLUTION NO. 17-0XX

**APPROVING A WORK AUTHORIZATION NO. 15 WITH
KAPSCH TRAFFICOM USA FOR TOLL SYSTEMS INTEGRATION SERVICES
FOR THE MANOR EXPRESSWAY (290E) PHASE III PROJECT**

WHEREAS, the Central Texas Regional Mobility Authority (“Mobility Authority”) entered into a contract with Caseta Technologies, Inc. dated April 27, 2005, for the design, procurement, and installation of a toll collection system on the Authority’s turnpike system (the “Contract”); and

WHEREAS, Kapsch TrafficCom USA (formerly Schneider Electric Mobility NA) is the successor in interest to the Contract with Caseta Technologies, Inc., and all rights and obligations of Caseta Technologies, Inc. under the Contract are now the rights and obligations of Kapsch TrafficCom USA (“Kapsch”); and

WHEREAS, the Executive Director and Kapsch have discussed and agreed to a proposed work authorization for Kapsch to provide toll system integration services and intelligent transportation system services for development of the Manor Expressway (290E) Phase III project (the “Project”); and

WHEREAS, the Executive Director recommends that the Board approve proposed Work Authorization No. 15, a copy of which is attached to this resolution as Exhibit A.

NOW THEREFORE, BE IT RESOLVED that the proposed work authorization with Kapsch for toll system integration services and intelligent transportation system services for the Project is hereby approved; and

BE IT FURTHER RESOLVED that the Board authorizes the Executive Director to finalize and execute the proposed Work Authorization No. 15 with Kapsch in the form or substantially the same form as Exhibit A.

Adopted by the Board of Directors of the Central Texas Regional Mobility Authority on the 31st day of May 2017.

Submitted and reviewed by:

Approved:

Geoff Petrov, General Counsel

Ray A. Wilkerson
Chairman, Board of Directors

Exhibit A

CENTRAL TEXAS REGIONAL MOBILITY AUTHORITY

WORK AUTHORIZATION

WORK AUTHORIZATION NO. 15

**TOLL COLLECTION AND INTELLIGENT TRANSPORTATION
SYSTEMS IMPLEMENTATION**

Manor Expressway (290E) Phase III Project

THIS WORK AUTHORIZATION is made this, ____ day of May, 2017, pursuant to the terms and conditions of Article 1 of the GENERAL PROVISIONS, Attachment A to the original Contract for Toll System Implementation, dated April 27, 2005 (the Contract) entered into by and between the Central Texas Regional Mobility Authority (the "Mobility Authority"), and Kapsch TrafficCom USA Inc., a.k.a. Schneider Electric Mobility NA (the Contractor).

PART I. The Contractor will perform toll collection and traffic management system integration services generally described in the Scope of Work attached hereto as **Attachment A** and illustrated in the Project Layout attached hereto as **Attachment B**. The Contractor's duties and responsibilities to coordinate with the CTRMA's contracted designer and roadway contractor is detailed in the Responsibilities Matrix attached hereto as **Attachment C**. The Contractor's duties are further described in the CTRMA Fixed Price Tolling Standard attached hereto as **Attachment D**.

PART II. The maximum amount payable under this Work Authorization No. 15 is \$ 1,735,364.18. This amount is based generally upon the estimated fees set forth in Schedule 1 of the Contract, as superseded by the fee schedule set forth in **Attachment E** hereto which is incorporated herein and made a part of this Work Authorization.

PART III. Payment to the Contractor for the services established under this Work Authorization shall be made in accordance with Article 12 of the Contract, and **Attachment A**, Article 1 of the GENERAL PROVISIONS.

PART IV. This Work Authorization shall become effective on the date of execution by the parties hereto and shall terminate one (1) year after final acceptance, unless extended by a supplemental Work Authorization as provided in **Attachment A**, Article 1 of the GENERAL PROVISIONS. The work shall be performed in accordance with the Project Schedule and Milestones as set forth in **Attachment F**.

PART V. This Work Authorization No. 15 does not waive any of the parties' responsibilities and obligations provided under the Contract, and except as specifically modified by this Work Authorization, all such responsibilities and obligations remain in full force and effect.

IN WITNESS WHEREOF, this Work Authorization No. 15 is executed in duplicate counterparts and hereby accepted and acknowledged below.

THE CONTRACTOR:

Signature

Date

Typed/Printed Name and Title

CENTRAL TEXAS REGIONAL MOBILITY AUTHORITY

Executed for and approved by the Central Texas Regional Mobility Authority 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.

Signature

Date

Typed/Printed Name and Title

LIST OF ATTACHMENTS

- Attachment A Scope of Work
- Attachment B Project Layout
- Attachment C Toll Facility Responsibility Matrix
- Attachment D Fixed Price Tolling Standards
- Attachment E Fee Schedule/Budget
- Attachment F Project Schedule and Milestones

ATTACHMENT A

CENTRAL TEXAS REGIONAL MOBILITY AUTHORITY
**TOLL COLLECTION AND INTELLIGENT TRANSPORTATION SYSTEMS
IMPLEMENTATION**
Manor Expressway (290E) Phase III Project

SCOPE OF WORK for SYSTEMS INTEGRATOR

A1.0 General

A1.01. Background

The Capital Area Metropolitan Planning Organization (CAMPO) approved the implementation of the proposed Toll Implementation Plan to construct additional capacity on various segments of highway network in the CAMPO Long-Range Plan as toll road facilities in conjunction with plans for development of the Central Texas Turnpike Project. Several of the toll road segments are in various stages of project development, design or construction by the Mobility Authority. It is intended that these proposed segments will be implemented by the Mobility Authority as parts of the Turnpike System.

The Manor Expressway (290E) Phase III project (“Project”) includes the construction of two (2) tolled direct connectors (SH 130 SB to 290E WB and SH 130 NB to 290E WB) and one (1) non-tolled direct connector (290E EB to SH 130 SB) at the 290E/SH130 interchange. In addition, ramp improvements/modifications on 290E and SH130 are required as a part of the project. Construction is expected to begin in 2018 with an open-to-traffic date anticipated for 2020. The Toll Collection System (TCS) for the Manor Expressway (290E) Phase III project will be all Electronic Toll Collection (ETC). Additionally, the Project will require the implementation of an Intelligent Transportation System (ITS). The ITS will be designed as an extension of the existing CTRMA ITS network. An ITS conceptual plan is required to confirm all components required for the proposed extension under this WA are addressed properly. This necessitates the timely completion of a complete ITS Plan.

A1.02. Summary Scope of Work

The Scope of Work for Work Authorization No. 15 includes, but is not limited to, procurement, installation, testing, and implementation of a complete and fully operational Toll Collection System (TCS) and Intelligent Transportation System (ITS). Services will also include communications and system interfaces design, coordination, and project interface activities to facilitate the design and construction of the infrastructure facilities by others on the Project.

This Work Authorization authorizes the SI to establish and maintain relationships with a wide variety of third parties, and to coordinate the designs for the proposed TCS and ITS, with the entire Project to ensure that the construction of the system infrastructure facilities will be fully compatible and will meet the Mobility Authority’s requirements. In this role, the SI will work closely with the Mobility Authority, TxDOT, and various designers and roadway contractors in developing the required complete TCS, ITS, and network infrastructure.

A2.0 General Description – Toll Road Infrastructure and Site

The Project includes the construction of two tolled direct connectors (SH 130 SB to 290E WB and SH 130 NB to 290E WB) and one non-tolled direct connector (290E EB to SH 130 SB) at the 290E/SH130 interchange and ramp improvements/modifications on 290E and SH130. The proposed improvements are to be designed with allowance for the ultimate planned improvements to SH130 including frontage roads, ramps and additional mainlines. In the event the non-tolled direct connector (290E EB to SH 130 SB) becomes tolled, the SI shall perform work necessary, in accordance with this Work Authorization, to facilitate the collection of additional tolls. Fee for this additional scope can be found in *Attachment E – Fee Estimate*.

The existing Manor Expressway is a toll facility owned and operated by the CTRMA. The highway consists of three tolled main lanes in east and west directions separated by a grass median. Three lane non-tolled frontage roads, owned and operated by the Texas Department of Transportation (TxDOT), parallel the main lanes in each direction.

The existing SH 130 is a toll facility owned and operated by TxDOT. SH 130 consists of two tolled main lanes in each direction, north and south, separated by a wide grassy median. The median on SH 130 is reserved for future expansion of the main lanes as well as potential transit through the corridor.

Table 1: Gantry Locations and Lane Counts

Approximate Station Location	Direction of Travel	No. of Lanes	No. of Shoulders (6' or greater)	Gantry Type	Comments
109+00	290EB - 130SB DC	2	1	Direct Connector	Preliminary schematic typical sections include one 4-foot and one 8-foot shoulder.
113+00 ¹	130NB – 290WB DC	2	1	Ramp	Preliminary schematic typical sections include one 4-foot and one 8-foot shoulder.
TOTAL		2	1		

¹ Potential future gantry location.

Refer to the Manor Expressway (290E) Phase III Project Layout included as *ATTACHMENT B – Project Layout* for the general project layout.

A3.0 General Requirements

A3.01. General Requirements - Toll Collection System (TCS)

The TCS for the Project, will be an expansion of the TCS which has been designed and implemented for the 183A Toll Road and the Manor Expressway Projects, using automatic vehicle identification and classification technology, a Video Capture System (VCS) with an integrated camera and triggering system to capture referenced digital images of license plates, a Digital Video Auditing System (DVAS), and a Remote Online

Management System (ROMS). It is required that the TCS be interoperable with the other Texas ETC systems.

The Mobility Authority contracts with the members of the Texas Statewide Interoperability Agreement for CSC services for its customers. The Pay By Mail (PBM) Processing Center is located in a separate facility, and is being administered by a third party under contract to the Mobility Authority.

Expansion of the Mobility Authority's TCS to serve the Project will include coordination and design of appropriate interfaces with the IOPHub and PBM Processing Center. Appropriate communications links between the various toll facilities on the Project and the Mobility Authority's Administrative Offices, the Mobility Authority's TMC, the IOPHub, and the PBM Processing Center are part of the requirements of the design/implementation work.

A3.02. General Requirements - Intelligent Transportation System

The proposed field network will consist of a fiber optic communication network that facilitates communication to various ITS field devices along the Project back to the Mobility Authority's TMC. The ITS devices to be installed on the Project network include 2 closed circuit television (CCTV) cameras and 5 radar vehicle sensing detectors (RVSD).

The general locations, layouts, and implementation schedule for the ITS for the Manor Expressway (290E) Phase III project, as currently proposed, are based on the latest information currently available, and they are intended for informational purposes only. The locations are subject to change, and it should be anticipated that refinements and adjustment to the locations and layouts indicated will be required as designs for the ITS are further developed.

For Advanced Transportation Management System (ATMS) implementation, the SI is proposing to utilize the Kapsch proprietary ATMS.

The proposed ITS network for the Manor Expressway (290E) Phase III project should be fully integrated with both the Mobility Authority and TxDOT TMC software. TxDOT will have a dedicated connection to Mobility Authority, and will be provided bandwidth on the Mobility Authority's network sufficient to allow for shared video and data between the two agencies' systems. The terms of device and data sharing on the Manor Expressway (290E) Phase III project is outlined in the existing "Agreement for Sharing Intelligent Transportation Systems (ITS) Data", a user agreement specifically between TxDOT and the Mobility Authority. Specifically, it addresses the use of TxDOT's Center-to-Center protocol and an application programming interface (API) for access to the Mobility Authority's traffic database.

The SI shall design and install a system that is compatible with the Austin Regional ITS Architecture for both control of devices and reception of images and data. The proposed system shall be an extension of field devices to the already existing TxDOT Austin District System. The database administrator at the TxDOT Austin District TMC will add the new device addresses to the already functioning tables.

All duct banks will be designed, constructed and implemented in accordance with guidelines included in the *Austin District Guidelines for Developing Freeway Corridor Traffic Management System*.

A4.0 General Description – Equipment and Installation

A4.01. Equipment and Installation – Toll Collection System

For all TCS field installations on the various segments of the Project, the SI will be required to provide and install the toll equipment systems and hardware for a complete, tested, and operating TCS under this Work Authorization. The principle items of work and primary components of the TCS at each toll location will include, but are not limited to:

- Furnish and install Lane-side equipment and ancillary devices.
- Furnish and install ETC lane components, including automatic vehicle detection system (AVDS), automatic vehicle classification (AVC), VCS, and automatic vehicle identification (AVI) systems and hardware. Saw cut pavement for any in-pavement sensors.
- Furnish and install all ETC lane equipment wiring and cable, hardware, mounts, and fasteners required to attach the ETC equipment to the gantries provided by others.
- Furnish and install ROMS monitoring for all ETC site equipment (i.e. Lane-side equipment, AVDS, AVC, AVI, VCS, HVAC, generators, power, communications equipment, etc.).
- Furnish and install a fault tolerant, single mode fiber optic IP-based communication system including fiber optic cables, terminations, switches, routers, firewalls, hubs, patch panels, and other network devices.
- Furnish and install master ground system connected to the master ground bus bar provided by others.
- Furnish and install backup electrical power including emergency generators, fuel tanks, and automatic transfer switches.
- Furnish and install UPS, including wiring and cable, hardware, and ROMS interface.
- Furnish and install Toll Equipment Cabinet (TEC), with HVAC for appropriate environmental protection and climate controls for electronic equipment.
- Furnish and install site surveillance cameras and security systems and communications to monitor each Toll Equipment Cabinet and gantry.
- Provide power from the electrical service to the toll locations.
- Prepare and submit all required documents to acquire Federal Communication Commission (FCC) Licensing.
- Provide complete testing, certification and acceptance of all systems for complete, fully operational TCS, furnished and installed.

The procurement, fabrication and installation of all gantries, conduit, ground boxes and toll related infrastructure for the TCS will be completed by others. It is the responsibility of the SI, nevertheless, to work closely with the Mobility Authority, TxDOT, and the various designers and roadway contractors to establish the precise locations for each of the tolling related infrastructure, conduit, ground boxes, pads, access walkways and loop stub-outs and to provide the Roadway Contractor(s) with detailed installation information for the TCS equipment at each location.

A4.02. Equipment and Installation – Intelligent Transportation System

For all ITS field installations on the various segments of the Project, the SI will be responsible for the final ITS design, and the purchase and installation of the ITS equipment for a complete, tested, and operational system under this Work Authorization. The principle items of work and primary components of the system at each location will include, but are not limited to:

- Furnish and install the fiber optic cabling required for the ITS.
- Furnish and install CCTV cameras, communications, and equipment enclosures.
- Furnish and install the DMS, communications, and equipment enclosures.
- Furnish and install RVSD, communications, and equipment enclosures.
- Connect to the existing communication hub at the US 290/SH130 interchange.
- Provide complete testing, certification and acceptance of all systems for complete, fully operational ITS, furnished and installed.

Elements of the ITS infrastructure will be the responsibility of others. Nevertheless, it is the responsibility of the SI to work closely with the Mobility Authority and the various designers and roadway contractors to establish the precise locations for the elements above and to provide the Roadway Contractor(s) with detailed information as needed.

A5.0 Coordination and Project Interface

The SI is to participate in the process for coordination which will enable the contractors and designers of the Project to obtain specific, detailed information regarding the proposed system components, which includes the TCS and ITS, in order to complete the design/construction of the appropriate infrastructure. The SI will be responsible for maintaining relationships with a wide variety of third parties, including designers, roadway contractors, and various suppliers. In this role, the SI will work closely with the Mobility Authority and TxDOT in developing the required network. The work related to this Work Authorization No. 15 generally will include, but not be limited to:

- Provide design input and detailed information, including toll system component details, dimensions, layout configurations, locations and specific technical requirements for elements of the proposed TCS and ITS.
- Prepare construction/installation guidelines for various components of the Mobility Authority's TCS and ITS.
- Review of construction documents prepared by others.
- Attend and participate in coordination meetings as determined by project schedule and/or as requested by the Mobility Authority. This includes attending design coordination meetings, construction meetings, and issue resolution meetings as necessary to resolve outstanding comments.
- Provide "over the shoulder" reviews, as necessary.
- Submit Installation Plan and Installation Drawings to the Mobility Authority for review and approval.
- Provide input in the development of the project schedule as it relates to the installation and testing of the TCS and ITS. The SI shall review the project baseline schedule prepared by the Roadway contractor for acceptance.

All infrastructure facilities for the Project will be provided by others as indicated in **Section A6.0 and Section A7.0** hereof. The SI shall fully coordinate the designs for the TCS and ITS with others and provide the required details and technical requirements to ensure that the construction of the toll system infrastructure facilities will be fully compatible and meet the requirements for the two systems.

The SI is responsible for coordinating with others and for providing all necessary details, system requirements, and reviews of construction documents to ensure that the gantries are located and configured to properly accommodate the SI's own system components as required to meet the Mobility Authority TCS performance and accuracy requirements.

Prior to deploying any toll collection equipment or technology, the SI shall certify to the Mobility Authority that the technology complies with the most current interoperability rules.

A6.0 Work by Others – Civil/Roadway Construction

A6.01. Civil/Roadway Construction - Toll Collection System

The Mobility Authority, through its roadway construction contracts, will provide jointed concrete pavement in each of the areas designated for toll collection facilities. The pavement will be reinforced with glass fiber reinforced polymer (GFRP) bars, if required. Transverse joints and longitudinal joints will be placed at positions equal to lane widths and as shown on the Mobility Authority details. Power and communication lines to support the wide area network (WAN) will be provided by others and terminated at a TEC enclosure in an area within 500 feet of the gantry. The SI is responsible for the communication links between the Host, IOPHub, PBM Processing Center, the Mobility Authority's TMC, TxDOT's TMC, and all toll facilities via a communication trunk line and WAN.

Except as may be expressly indicated elsewhere, all toll system infrastructure required for the TCS at the designated toll locations will be provided and installed by others. The principle items of work and primary components of the TCS infrastructure to be provided by others at each location shall include, but are not limited to:

- GFRP bar reinforced pavement section.
- Retaining walls and coping details.
- Drainage features.
- Civil site work, including grading, access driveways, and fencing.
- All toll gantry procurement and installation, including foundations and gantry structures.
- TEC concrete foundation slab
- Conduit and ground boxes providing connections between the TEC's and the ETC lane equipment installations. NOTE: It is the responsibility of the SI to coordinate with the Roadway Contractor(s) for the placement and installation of these elements to ensure that the construction is acceptable for the TCS as designed.
- Gantry and TEC enclosure lightning protection air terminals, down conductors. TEC system will be consolidated at the TEC and connected to the service ground per NEC. Equipment connection to the ground electrode for the TEC enclosure master ground bus bar will be provided by others.
- Power and WAN communication services up to the location of the TEC enclosures.
- Provide, install, and incorporate natural gas lines, if available. NOTE: SI is to coordinate and provide generator requirements including locations for gas feeds for the emergency generators.
- Concrete foundations for emergency generators and associated fuel tanks.
- All signing, pavement markings, traffic barriers and other roadway appurtenances required at each location.

Refer to the Fixed Price Tolling Standards that were issued by the Mobility Authority on November 2015, which is included as *ATTACHMENT D – Fixed Price Tolling Standards*.

A6.02. Civil/Roadway Construction - Intelligent Transportation System

Except as may be expressly indicated elsewhere, all ITS infrastructure required will be provided and installed by others. The principle items of work and primary components of the ITS infrastructure to be provided by others shall include, but are not limited to:

- ITS layouts
- Duct bank
- Conduits – each conduit to have dedicated pull string, continuous between ground boxes/vaults and stub-ups.
- Electrical services
- Grounding circuits
- Support structures and associated foundations

A7.0 Toll Facilities Responsibility Matrix

For this work authorization, the SI is responsible for design and coordination of the various aspects of the TCS, and ITS, as identified in *ATTACHMENT C - Toll Facilities Responsibility Matrix*, and shall work with the Mobility Authority, TxDOT, roadway designers and contractors, and others as described herein.

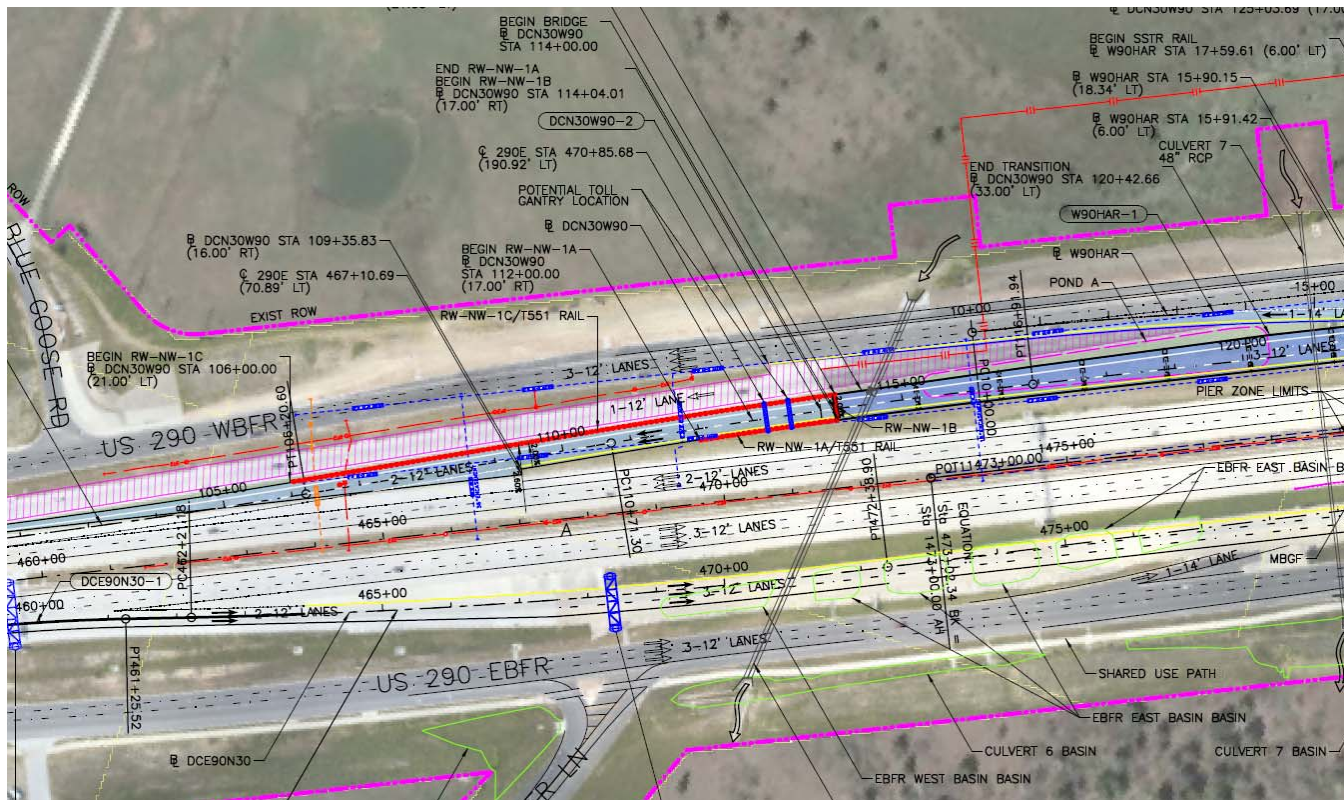
A8.0 Project Schedule

The Project Schedule shall be developed to incorporate the milestone dates established for this Work Authorization No. 15 as presented in *ATTACHMENT F – Project Schedule and Milestones*.

ATTACHMENT B

PROJECT LAYOUT Manor Expressway (290E) Phase III Project Toll Gantry Location

Toll Gantry Location* – WB 290E to NB SH130



* Toll Gantry Locations are approximate and subject to change

**ATTACHMENT – C
TOLL FACILITY RESPONSIBILITY MATRIX
CTRMA - Fixed Priced Tolling Projects**

Responsibility Assignment Legend							
Primary Responsibility: P	Support Responsibility: S		Coordination Responsibility Only: C			No Responsibility: N	
Element/Task/Component/ Sub-system	Designer/Contractor			Systems Integrator (SI)			Comments Other Responsibility/Information
	Design	Procure	Install/ Construct	Design	Procure	Install / Construct	
GENERAL REQUIREMENTS							
Schedule	P	P	P	S	C	S	Contractor must accommodate and incorporate the SI scheduled activities into the Contractor schedule. All schedule changes or updates which impact the SI tasks must be agreed to by the SI prior to submittal to the Mobility Authority. A weekly schedule must be distributed and incorporate any SI updates or changes.
Request for Early Opening	P	P	P	S	S	S	SI must be able to match schedule request for early opening to conform to requirements in construction contract documents.
Design Package – Installation and Electrical Design and Plans	P	P	P	C	N	C	Designer to incorporate all SI requirements and specifications into Structural and Electrical Design Packages. SI to provide approval prior to issuance of Released For Construction (RFC) plans.
Grading	P	P	P	C	N	C	
Drainage	P	P	P	C	N	C	No culverts or pipes under tolling zones.
Utilities/Electrical Services	P	P	P	S	C	C	SI to provide specific power requirements for the Toll System. Designer to incorporate into toll facilities design. Contractor to construct power utilities interface, and all power infrastructure.
Traffic Control/Safe work zone	P	P	P	S	N	C	SI to provide Contractor detailed lane closure requirements and schedule for installation and testing.
Signing	P	P	P	C	N	N	All toll signing must be coordinated with and approved by the Mobility Authority. If toll price signs utilize changeable electronic signs, the Contractor will provide the static sign and the SI will provide the electronic insert.
Striping	P	P	P	S	N	C	SI to coordinate striping with pavement loop locations.
Lighting	P	P	P	S	C	S	Roadway and toll location lighting designed by Designer and Provided by contractor. SI to provide lighting requirements in vicinity of toll locations and locations of other Toll System equipment. Designer to confirm that lighting does not obstruct

ATTACHMENT – C
TOLL FACILITY RESPONSIBILITY MATRIX
CTRMA - Fixed Priced Tolling Projects

Responsibility Assignment Legend							
Primary Responsibility: P	Support Responsibility: S		Coordination Responsibility Only: C			No Responsibility: N	
Element/Task/Component/ Sub-system	Designer/Contractor			Systems Integrator (SI)			Comments Other Responsibility/Information
	Design	Procure	Install/ Construct	Design	Procure	Install / Construct	
							toll related signing or impede the Toll System.
Landscaping	P	P	P	C	N	N	
Fencing/Guardrail/Bollards/Concrete Barrier	P	P	P	S	C	C	SI to provide requirements for specific equipment clearances for Toll System. Designer to incorporate into roadway design. SI to confirm that design plans meet requirements.
TOLL SYSTEM: LOCATIONS, LAYOUTS, STRUCTURES, MOUNTS/BRACKETS							
Locations and Layouts	P	P	P	S	C	C	SI to provide specific locations for the Toll System, SI to provide requirements for specific lane and facility layouts. Designer to incorporate into Design Packages. SI to review and approve.
Gantries/Foundation/Trusses/Junction boxes/Conduits/Grounding	P	P	P	S	C	S	SI to provide requirements for conduits (for SI installed power and communications cables, including specific requirement for below ground conduits for the loops), junction boxes, and power needs for the Toll System. Designer to incorporate into structural design, including electrical grounding, bonding. Contractor to provide and install junction boxes and conduit pull strings and bell ends for all conduits including conduits going up gantry columns. The Contractor will require SI to sign off on belowground conduits for the loops prior to installation of special pavement structure.
Equipment Mounts on Equipment Brackets/Frames	S	N	C	P	P	P	SI to procure and install all Toll System equipment, and related cable & wiring, including communications from roadside cabinets to the equipment mounted on the gantries. SI to provide requirements for all brackets to designer and frames needed to attach SI procured equipment to Contractor provided truss.
Equipment Brackets/Frames on Gantries	P	P	P	S	N	C	Contractor to provide and install all brackets and frames needed to attach all SI procured equipment. SI to provide locations for installation to the designer. SI to provide requirements for hanger and orientation of hanger mount to gantries.
Pavement structure, including special	P	P	P	S	N	C	SI to provide requirements for special pavement

ATTACHMENT – C
TOLL FACILITY RESPONSIBILITY MATRIX
CTRMA - Fixed Priced Tolling Projects

Responsibility Assignment Legend							
Primary Responsibility: P	Support Responsibility: S		Coordination Responsibility Only: C			No Responsibility: N	
Element/Task/Component/ Sub-system	Designer/Contractor			Systems Integrator (SI)			Comments Other Responsibility/Information
	Design	Procure	Install/ Construct	Design	Procure	Install / Construct	
nonferrous zones and conduit stub-outs for in-pavement sensors/loops							structure at toll gantry areas. SI shall coordinate joint spacing to avoid conflicts with loop placement and sign off on riser locations before concrete pour. Designer to assure ferrous objects (i.e. rebar, grates, pipes, etc.) are not in toll revenue collection detection system(s) zone of influence. Contractor to locate loop risers after pavement is poured.
EQUIPMENT CABINETS							
Toll Equipment Cabinets	C	N	S	P	P	P	SI to provide size and number of cabinets needed for Toll System. Designer shall incorporate location into site grading and drainage. SI to procure and install environmentally controlled cabinets. The environmentally controlled enclosures provided by SI must comply with the America Society of Heating, Refrigeration, and Air Conditioning Engineers: Thermal Guidelines for Data Processing Environments. Contractor to provide traffic control devices and safe working conditions for SI during installation of all toll equipment.
Toll Equipment Cabinets Site (TEC) and Roadside Equipment Cabinet Base Slabs	P	P	P	S	N	C	SI to provide requirements for specific equipment weight and anchorages for cabinets to the Designer. Designer to incorporate into Roadway Design. Contractor to install slabs with conduit plumbing.
Facility Security and Security Communications at Toll System locations	C	N	C	P	P	P	SI to provide security communications for all toll system equipment. Designer to incorporate into the Roadway Design. Contractor to provide physical security fence as required by SI around TEC/generators and auxiliary fuel tanks.
TOLL SUB-SYSTEMS							
Automatic Vehicle Identification (AVI) Antennas and Readers	N	N	S	P	P	P	SI to provide AVI System Mounts, Wiring and Cables. SI will perform all AVI system installation and terminations, and to make the connections to the electronics in the cabinets.
Automatic Vehicle Classification and	N	N	S	P	P	P	SI to connect and terminate AVC and/or AVD System mounted on the gantries and/or installed in

**ATTACHMENT – C
TOLL FACILITY RESPONSIBILITY MATRIX
CTRMA - Fixed Priced Tolling Projects**

Responsibility Assignment Legend							
Primary Responsibility: P	Support Responsibility: S		Coordination Responsibility Only: C			No Responsibility: N	
Element/Task/Component/ Sub-system	Designer/Contractor			Systems Integrator (SI)			Comments Other Responsibility/Information
	Design	Procure	Install/ Construct	Design	Procure	Install / Construct	
Detection (AVC) and (AVD)							the pavement to the electronics in the cabinets.
In-Pavement Sensors/Loops	N	N	S	P	P	P	SI to saw cut pavement, procure, install, and seal pavement sensors with approved sealant. Designer to assure ferrous objects (i.e. rebar, grates, etc.) are not in toll revenue collection detection system(s) zone of influence.
Video Capture Sub-System (VCS/VES) Cameras, Illumination, Sensors and Servers	N	N	S	P	P	P	SI to provide, install, terminate all Video Capture Sub-System (VCS/VES) equipment.
In-Lane Processing Servers and Electronics	N	N	N	P	P	P	SI to provide, install, connect, and terminate all electronics in the cabinet and assures proper communications to the devices on the gantry and/or in the pavement.
POWER DISTRIBUTION SUB-SYSTEM							
Metered power service at each location:	P	P	P	C	N	C	SI to provide power requirements and special requirements for construction of utilities near each Toll System. Designer should incorporate requirements into roadway design. Contractor to provide and install necessary conductors, ducts & junction/pull boxes, bell ends/pull strings and disconnect switch/fuse at the meter.
Power service at each toll location:	C	N	C	P	P	P	The SI shall provide and install all other wiring, switches, surge protection/suppression, etc. for power from the meter for the Toll System equipment. SI will terminate all power wiring from ATS at Toll System
Generators & Automatic Transfer Switches (ATS)	S	N	C	P	P	P	SI to provide generators, ATS, generator cabinets, wiring, connect and terminate all power at the Toll System sites.
Generator Power Source is Natural Gas	P	P	P	S	N	C	If natural gas is available, the Designer shall incorporate the gas lines into the roadway design. Contractor shall provide and install gas lines for incorporation into generator systems. SI to coordinate and provide generator requirements including location for gas feed including location of

**ATTACHMENT – C
TOLL FACILITY RESPONSIBILITY MATRIX
CTRMA - Fixed Priced Tolling Projects**

Responsibility Assignment Legend							
Primary Responsibility: P	Support Responsibility: S		Coordination Responsibility Only: C			No Responsibility: N	
Element/Task/Component/ Sub-system	Designer/Contractor			Systems Integrator (SI)			Comments Other Responsibility/Information
	Design	Procure	Install/ Construct	Design	Procure	Install / Construct	
							gas cut-off valve adjacent to Toll Pad. SI to install feed from generator to cut-off valve.
Generator Power Source is propane or diesel	S	S	S	P	P	P	The SI shall provide and install the propane/diesel tank for the generator if natural gas is not a viable option for the project. If propane is used, contractor will provide pad and conduit feed from the pad to the cut-off valve. Feeder line cut-off valve to be no further than 10' from the toll pad.
Uninterruptible Power Supplies (UPS)	S	N	C	P	P	P	SI to provide and install Uninterruptible Power Supply Systems (UPS) in the cabinets. UPS will be required for the Toll System,
Lightning Protection & Grounding	P	P	P	S	C	C	SI to provide specific requirements for equipment lightning protection and grounding. Designer should incorporate into plans. Contractor to furnish and install required lightning protection and grounding.
COMMUNICATIONS SUB-SYSTEMS							
Conduits/Ducts & Junction/Pull Boxes/Outlets	P	P	P	S	C	S	SI to provide specific Communications design requirements including location of long-radius sweep conduit bends. Designer to incorporate into the roadway design and contractor to install including conduits, junction boxes and bell ends with pull strings. The Contractor shall verify that all duct banks and conduits are clear/proofoed and have pull strings prior to the beginning of the Toll System installation.
Fiber Optic cabling in conduits for Toll System	S	S	S	P	P	P	SI to provide fiber requirements for Toll System. Designer to incorporate into design of backbone and laterals. SI to furnish and install along the corridor from communication hub to cabinets.
Toll Hardware in Cabinets	C	N	C	P	P	P	SI to provide and install all toll hardware within the cabinets. Equipment must be installed in a clean and organized manner and must not be affected by the environmental controls. The SI must provide and install the redundant environmental controls.

**ATTACHMENT – C
TOLL FACILITY RESPONSIBILITY MATRIX
CTRMA - Fixed Priced Tolling Projects**

Responsibility Assignment Legend								
Primary Responsibility: P	Support Responsibility: S			Coordination Responsibility Only: C			No Responsibility: N	
Element/Task/Component/ Sub-system	Designer/Contractor			Systems Integrator (SI)			Comments Other Responsibility/Information	
	Design	Procure	Install/ Construct	Design	Procure	Install / Construct		
Routers	C	N	C	P	P	P	SI to provide, install and configure the routers for connection from hub locations to the Mobility Authority's Traffic Management Center. (TMC)	
Hubs	N	N	C	P	P	P	If applicable.	
Switches	N	N	C	P	P	P	SI to provide, install and configure the switches for connection from hub locations to the Mobility Authority's Traffic Management Center. (TMC)	
Firewalls	N	N	C	P	P	P	SI to provide, install and configure the necessary firewall for the toll system	
Patch/Distribution Panels	N	N	C	P	P	P	SI to provide and install all the necessary patch and distribution panels to provide Fault Tolerant Single Mode Fiber Optic IP-Based Communication System.	
Corridor Communications System	S	N	C	P	P	P	SI to provide Fault Tolerant Single Mode Fiber Optic IP-Based Communication System for Toll Revenue Collection Systems.	
Corridor Communications Conduits	P	P	P	C	N	S	Designer to design for any branch off existing duct bank system including conduit, ground boxes and terminations. Contractor to furnish and install.	
Corridor to Traffic Management Center(TMC)	N	N	N	P	P	P	SI to provide Fault Tolerant IP-Based Communication System to the TMC for Toll Revenue Collection Systems.	
Data/Communications Service to each Tolling Location	N	N	N	P	P	P	SI to install any power and communications cable required to interface between the TEC and the service provider's POI. Contractor responsible for conduit, ground boxes and infrastructure terminations.	
SYSTEMS SERVERS AND SPACE								
Toll Collection Systems Computer(s)	N	N	N	P	P	P		
Support Equipment at CTRMA Offices	N	N	N	P	P	P	SI to provide data and power wiring schematics, equipment rack/cabinet requirement, and elevations, layouts, floor plans, air flow diagrams,	

ATTACHMENT – C
TOLL FACILITY RESPONSIBILITY MATRIX
CTRMA - Fixed Priced Tolling Projects

Responsibility Assignment Legend							
Primary Responsibility: P	Support Responsibility: S		Coordination Responsibility Only: C			No Responsibility: N	
Element/Task/Component/ Sub-system	Designer/Contractor			Systems Integrator (SI)			Comments Other Responsibility/Information
	Design	Procure	Install/ Construct	Design	Procure	Install / Construct	
							and environmental controls load calculations, electrical power distribution, including grounding, bonding, lightning protection, panel boards, TVSS, circuit breakers conduit, conductors, j-boxes, receptacles.
Systems Servers & Workstations	N	N	C	P	P	P	SI to provide, install and configure all system servers and workstations required at the TMC to support the operations and management of the Project.
Federal Communication Commission License Preparation and Submission	C	N	N	P	P	P	SI to provide all information necessary to acquire FCC Licensing to the Mobility Authority.
DUCT BANK & INTELLIGENT TRANSPORTATION SYSTEMS (ITS) – TXDOT OWNED							
Duct Bank Adjustment & ITS relocations design	P	P	P	N	N	N	Designer is responsible for the design of any necessary ITS relocations including, foundations, conduits, electrical services, grounding circuits, and support structures. Contractor responsible for notifying designer of adjustments needed to any existing duct bank manholes and providing new junction/boxes and manholes if in conflict with the project. Coordination with TxDOT will be required. SI responsible for adjustments to 290E fiber.
Duct Bank Adjustments/new connections	P	P	P	S	N	C	Designer is responsible for designing all manhole adjustments and new manhole ties. Contractor responsible to furnish/install.
Fiber optic cables	N	N	N	P	P	P	Any adjustments to existing 290E cables are SI responsibility.

**ATTACHMENT – C
TOLL FACILITY RESPONSIBILITY MATRIX
CTRMA - Fixed Priced Tolling Projects**

Responsibility Assignment Legend							
Primary Responsibility: P	Support Responsibility: S			Coordination Responsibility Only: C			No Responsibility: N
Element/Task/Component/ Sub-system	Designer/Contractor			Systems Integrator (SI)			Comments Other Responsibility/Information
	Design	Procure	Install/ Construct	Design	Procure	Install / Construct	
Relocation of existing CCTV & DMS foundations, conduits, grounding, camera poles, and electrical services	P	P	P	C	N	C	Designer is responsible for designing the relocation of any existing CCTV and DMS structures and services impacted by the Project Design, including communications and power. Contractor shall be responsible for relocating aforementioned structures/services. Damaged or inoperable equipment shall be moved but not repaired. Coordinate with TxDOT in regards to proper storage of existing devices until time of reinstall.
Relocation of RVSD Stations	P	P	P	C	C	C	Contractor to coordinate with SI for relocation of CTRMA devices and infrastructure related to RVSD.
Relocation of vehicle detector foundations, conduits, loops, grounding, vehicle detector support structures, and electrical services	P	P	P	C	N	C	Designer to coordinate with TxDOT regarding any existing vehicle detectors/loops within the pavement to determine if they will need to be replaced/relocated. The Contractor will replace/relocate detectors/loops unless TxDOT prefers to do the work. Any damaged detectors/loops that are to remain must be replaced by the Contractor. Coordinate with TxDOT in regards to proper storage of existing devices until time of reinstall.

**ATTACHMENT – C
TOLL FACILITY RESPONSIBILITY MATRIX
CTRMA - Fixed Priced Tolling Projects**

Responsibility Assignment Legend							
Primary Responsibility: P	Support Responsibility: S		Coordination Responsibility Only: C			No Responsibility: N	
Element/Task/Component/ Sub-system	Designer/Contractor			Systems Integrator (SI)			Comments Other Responsibility/Information
	Design	Procure	Install/ Construct	Design	Procure	Install / Construct	
DUCT BANK & INTELLIGENT TRANSPORTATION SYSTEMS (ITS) – PROPOSED							
Duct Bank	P	P	P	S	N	C	Designer responsible for the design of any new duct bank.
Conduit/Ducts & Junction/Pull Boxes/Outlets	P	P	P	S	C	S	
CCTV Poles and foundations	P	P	P	S	N	C	CCTV poles shop drawing to be reviewed by SI prior to release for fabrication. Design to provide all elements of lightning protection as noted in TxDOT CCTV Pole details. Drilled shafts for CCTV pole to be confirmed in the field by SI prior to being set.
RVSD Poles and foundations	P	P	P	S	N	C	RVSD poles shop drawing to be reviewed by SI prior to release for fabrication.
DMS Support Structures	P	P	P	S	N	C	DMS support structure shop drawings to be reviewed by SI prior to release for fabrication. Designer to provide all elements of lightning protection as noted in TxDOT DMS details.
Fiber Optic Cable	N	N	S	P	P	P	
CCTV Cameras and control equipment	N	N	S	P	P	P	
RVSD and control equipment	N	N	S	P	P	P	
DMS and control equipment	N	N	S	P	P	P	
Metered power service at each location	P	P	P	C	N	C	ITS devices that cannot be pulled off a toll power panel (Generator Backup) will require a dedicated service drop. SI to provide a list of ITS devices which can be fed from proposed or existing toll power panels.

ATTACHMENT D

**Fixed Price Tolling Guidelines
Manor Expressway (290E) Phase III Project**



**CENTRAL TEXAS
Regional Mobility Authority**

FIXED PRICE TOLLING GUIDELINES
2 - 4 LANES

ISSUED: APRIL 2015

GENERAL NOTES

- 1 REFERENCE SHEET: THE SYSTEM INTEGRATOR SHALL PROVIDE A SUMMARY STATION AND OFFSET TABLE FOR ALL OF THE FOLLOWING FOR EACH GANTRY LOCATION:
 AVDS & AVC ENTRY, MIDDLE, EXIT, AND AXLE CONDUIT RISERS (IF NECESSARY)
 AVDS & AVC ENTRY, MIDDLE, EXIT, AND AXLE LOOPS (IF NECESSARY)
- 2 REFERENCE SHEET: THE DESIGN BUILDER SHALL PROVIDE A SUMMARY STATION AND OFFSET TABLE FOR ALL OF THE FOLLOWING FOR EACH GANTRY LOCATION:
 GANTRY COLUMNS & TRUSSES
 PAVEMENT SECTION JOINTS (JOINTS SHALL BE DESIGNED SO THAT NO LOOP CROSSES ANY JOINT)
- 3 TXDOT ELECTRICAL DETAIL SHEETS SHALL APPLY.
- 4 NATIONAL ELECTRIC CODE (NEC), NFPA 780, NESC REQUIREMENTS SHALL APPLY
- 5 TXDOT ITEM 618 SHALL GOVERN FOR ALL CONDUIT REQUIREMENTS
- 6 TXDOT ITEM 620 SHALL GOVERN FOR ALL ELECTRICAL CONDUCTOR REQUIREMENTS
- 7 TXDOT ITEM 624 SHALL GOVERN FOR ALL GROUND BOXES. HS-20 LOAD RATING REQUIREMENTS SHALL GOVERN IN ALL LOCATIONS SUBJECT TO TRAFFIC LOADING.
- 8 TXDOT ITEM 628 SHALL GOVERN FOR ALL ELECTRICAL SERVICES. THE DESIGN BUILDER SHALL CONTACT RESPECTIVE UTILITY FOR LOCATION OF ELECTRICAL SERVICE.
- 9 SITE CONDITIONS MAY REQUIRE MODIFICATION TO THE JCP TO EXISTING PAVEMENT TRANSITION.
- 10 DETAILS ARE SUBJECT TO REVISIONS PERIODICALLY AS REQUIRED BY SYSTEM INTEGRATOR TECHNOLOGIES.

INTERIM REVIEW ONLY
 Document incomplete: not intended for permit, bidding or construction.
 Engineer: KRIS Z. KEITH
 P.E. Serial No.: 93753
 Date: 26-MAY-2015

HNTB HNTB Corporation
 The HNTB Companies
 Engineers Architects Planners
 TBPE FIRM REGISTRATION NO.: 420


 CENTRAL TEXAS
 Regional Mobility Authority

**FIXED PRICE
 TOLLING GUIDELINES
 GENERAL NOTES**

GN-1

DESIGNED BY:	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.	SHEET NO.
	6		3
DRAWN BY:	STATE	DIST.	COUNTY
DW	TEXAS	AUS	
CHECKED BY:	CONT.	SECT.	JOB HIGHWAY NO.
KK			

- | | | | |
|----------------------------------|-------------------------------------|--------------------------------|------------------------------|
| GROUND/PULL BOX | <input checked="" type="checkbox"/> | CONDUIT | ----- |
| GENERATOR | <input type="checkbox"/> GEN | PROPANE TANK (250 GALLON TANK) | <input type="checkbox"/> LP |
| COMMUNICATIONS | <input type="checkbox"/> C | ENCASED CONDUIT | ----- |
| ELECTRICAL SERVICE | <input type="checkbox"/> P | BLACK VINYL FENCE (6' TALL) | ----- X ----- |
| SUPPORTING COLUMN | <input type="checkbox"/> O | TOLL ELECTRONICS CABINET | <input type="checkbox"/> TEC |
| JUNCTION BOX | <input type="checkbox"/> J | | |
| DISCONNECT SWITCH | <input type="checkbox"/> DS | | |
| AUTOMATIC TRANSFER SWITCH | <input type="checkbox"/> ATS | | |
| AUTO VEHICLE CLASSIFICATION LOOP | <input type="checkbox"/> E | | |
| AUTO VEHICLE DETECTION LOOP | <input type="checkbox"/> D | | |

INTERIM REVIEW ONLY
 Document incomplete: not intended for permit, bidding or construction.
 Engineer: KRIS Z. KEITH
 P.E. Serial No.: 93753
 Date: 26-MAY-2015

HNTB
 HNTB Corporation
 The HNTB Companies
 Engineers Architects Planners
 TBPE FIRM REGISTRATION NO.: 420

CENTRAL TEXAS
 Regional Mobility Authority

FIXED PRICE
 TOLLING GUIDELINES
 SYMBOLS USED

S-1

DESIGNED BY:	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		SHEET NO.
	6			5
DRAWN BY:	STATE	DIST.	COUNTY	
DW	TEXAS	AUS		
CHECKED BY:	CONT.	SECT.	JOB	HIGHWAY NO.
KK				

TERMS & CONDITIONS

THE CENTRAL TEXAS REGIONAL MOBILITY AUTHORITY (HEREINAFTER REFERRED TO AS MOBILITY AUTHORITY) IS COMMITTED TO PROVIDING ELECTRONIC ACCESS TO FILES OF STANDARDS. MOBILITY AUTHORITY MAKES EVERY REASONABLE EFFORT TO DO SO IN A CROSS-PLATFORM AND COMPLEX MULTI-PROTOCOL ENVIRONMENT. MOBILITY AUTHORITY DOES NOT POSSESS A STAFF THAT IS AVAILABLE TO PROVIDE TECHNICAL SUPPORT TO OUTSIDE PARTIES WHO AVAIL THEMSELVES OF CAD FILES THAT ARE PROVIDED. IT IS IMPORTANT, THEREFORE, THAT ALL POTENTIAL USERS OF THESE FILES READ THE FOLLOWING DISCLAIMER AND ACCEPT ITS TERMS AS A PREREQUISITE TO THE USE OF THE FILES.

IF THE RECEIVER PROCEEDS, THE RECEIVER AGREES TO THE FOLLOWING TERMS AND CONDITIONS:

1. MOBILITY AUTHORITY MAKES NO WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, WITH RESPECT TO THE FILE(S) WHICH ARE THE SUBJECT OF THIS AGREEMENT, AND SPECIFICALLY MAKES NO WARRANTY THAT SAID FILE(S) SHALL BE MARKETABLE OR FIT FOR ANY PARTICULAR PURPOSE. FURTHERMORE, ANY DESCRIPTION OF SAID FILE(S) SHALL NOT BE DEEMED TO CREATE AN EXPRESS WARRANTY THAT SUCH FILES SHALL CONFORM TO SAID DESCRIPTION.
2. RECEIVER ASSUMES ALL RISK AND LIABILITY FOR ANY LOSSES, DAMAGES, CLAIMS OR EXPENSES RESULTING FROM THE USE OR POSSESSION OF ANY FILE(S) FURNISHED BY MOBILITY AUTHORITY PURSUANT TO THIS AGREEMENT.
3. RECEIVER AGREES TO INDEMNIFY, DEFEND AND HOLD HARMLESS MOBILITY AUTHORITY, ITS OFFICERS, AGENTS, AND EMPLOYEES FROM AND AGAINST ANY AND ALL CLAIMS, SUITS, LOSSES, DAMAGES OR COSTS, INCLUDING REASONABLE ATTORNEY'S FEES, ARISING FROM OR BY REASON OF RECEIVERS; USE OR POSSESSION WITH RESPECT TO ANY OF THE FILE(S) FURNISHED BY MOBILITY AUTHORITY PURSUANT TO THIS AGREEMENT, AND SUCH INDEMNIFICATION SHALL SURVIVE ACCEPTANCE OF SAID FILE(S) BY RECEIVER.
4. ALL DESIGN FILE STANDARDS ARE AVAILABLE IN MICROSTATION DRAWING FILES (*.DGN). RECEIVER AGREES THAT MOBILITY AUTHORITY CANNOT BE HELD RESPONSIBLE FOR PROBLEMS ARISING FROM FILES WHICH HAVE BEEN CONVERTED FOR USE IN NON-NATIVE APPLICATIONS (E.G. MICROSTATION DESIGN FILES TO AUTOCAD).
5. MICROSTATION (*.DGN) FILENAMES THAT HAVE A COMPANION PDF ICON CAN BE VIEWED IN ADOBE ACROBAT READER BY CLICKING ON THE PDF ICON. THIS READER CAN BE USED TO PRINT THESE PDF FILES. RECEIVER AGREES THAT MOBILITY AUTHORITY ASSUMES NO RESPONSIBILITIES FOR PRINTING WITH ADOBE. ALSO, RECEIVER AGREES THAT MOBILITY AUTHORITY CANNOT BE HELD RESPONSIBLE FOR ANY PROBLEMS ARISING WITH THE PRINTING OF A PDF FILE.
6. RECEIVER AGREES THAT MOBILITY AUTHORITY CANNOT PROVIDE THE FILES IN OTHER FILE FORMATS OR COMPRESSED FORMATS, AND AGREES TO ACCEPT THE FILES IN THE FORMAT PROVIDED.
7. SINCE REVISIONS OR ADDITIONS TO THE DESIGN FILE STANDARDS MAY OCCUR AT ANY TIME, THE RECEIVER AGREES TO INDEMNIFY, DEFEND AND HOLD HARMLESS MOBILITY AUTHORITY, ITS OFFICERS, AGENTS, EMPLOYEES, AND CONSULTANTS FROM AND AGAINST ANY AND ALL CLAIMS, SUITS, LOSSES, DAMAGES OR COSTS, INCLUDING REASONABLE ATTORNEY'S FEES, ARISING FROM THE USE OF OUTDATED DESIGN FILE STANDARDS, SUCH INDEMNIFICATION SHALL SURVIVE ACCEPTANCE OF SAID FILE(S) BY RECEIVER.
8. THE DESIGN FILES STANDARDS ARE COPYRIGHTED BY MOBILITY AUTHORITY AND MAY NOT BE RESOLD.
9. THESE TERMS AND CONDITIONS CONSTITUTE THE COMPLETE AND FINAL AGREEMENT OF THE PARTIES HERETO. RECEIVER ACCEPTS THE AFOREMENTIONED TERMS AND CONDITIONS.

INTERIM REVIEW ONLY
Document incomplete: not intended for
permit, bidding or construction.
Engineer: KRIS Z. KEITH
P.E. Serial No.: 93753
Date: 26-MAY-2015

HNTB HNTB Corporation
The HNTB Companies
Engineers Architects Planners
TBPE FIRM REGISTRATION NO.: 420

 CENTRAL TEXAS
Regional Mobility Authority

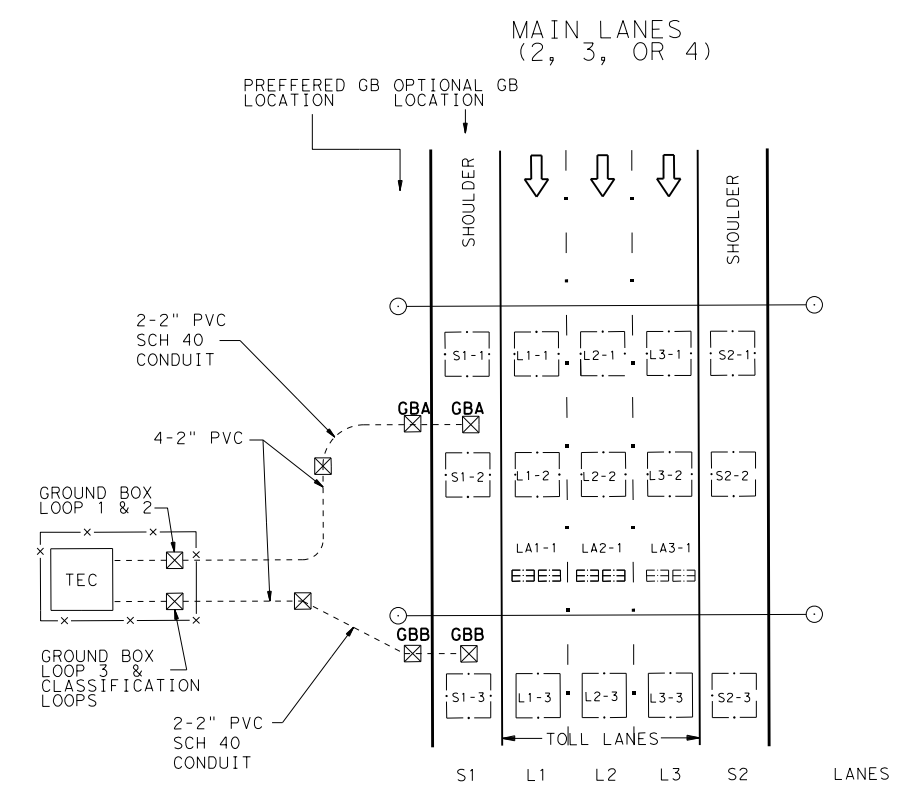
**FIXED PRICE
TOLLING GUIDELINES
TERMS AND
CONDITIONS**

TC-1

DESIGNED BY:	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.	SHEET NO.
	6		6
DRAWN BY:	STATE	DIST.	COUNTY
DW	TEXAS	AUS	
CHECKED BY:	CONT.	SECT.	JOB HIGHWAY NO.
KK			

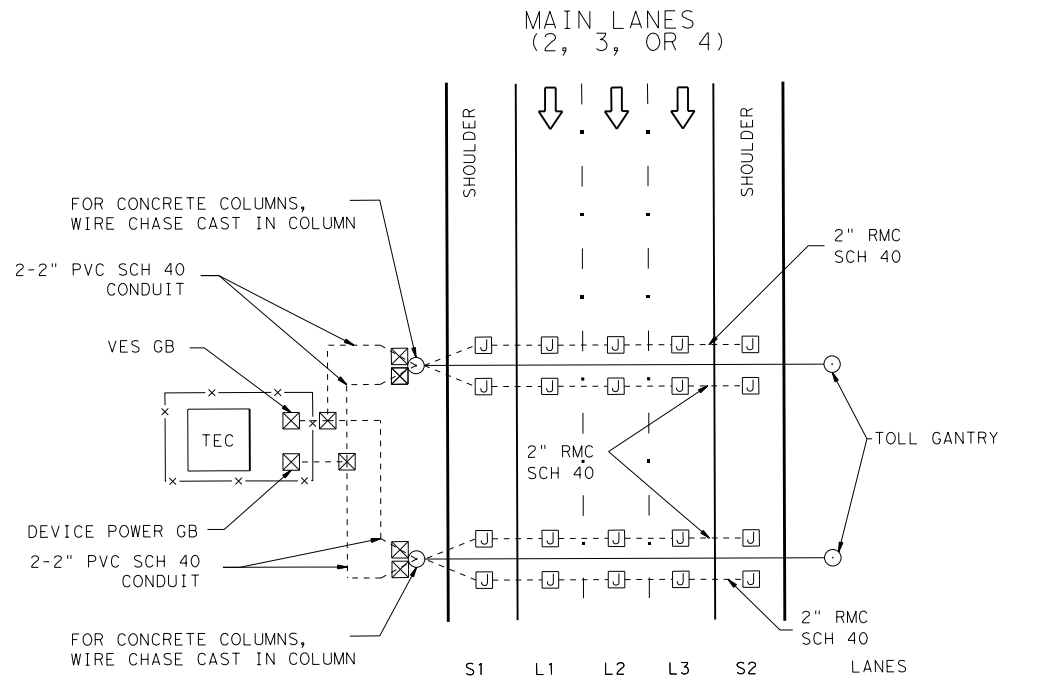
Scale: 1:10
Plotted on: \$DATE\$

Pen Table: \\ousw00\pmwor\k\Jobs\46837*CTRMA\Loop*1*ML\Project Development\Design\CAD Files\Plot\MOPAC*11X17.dgn
Design Filename: \\ousw00\pmwor\k\Jobs\46837*CTRMA\183A Operations and Maintenance\Tolling\New Fixed Price Tolling Standards\TypTcConfig*rev.dgn



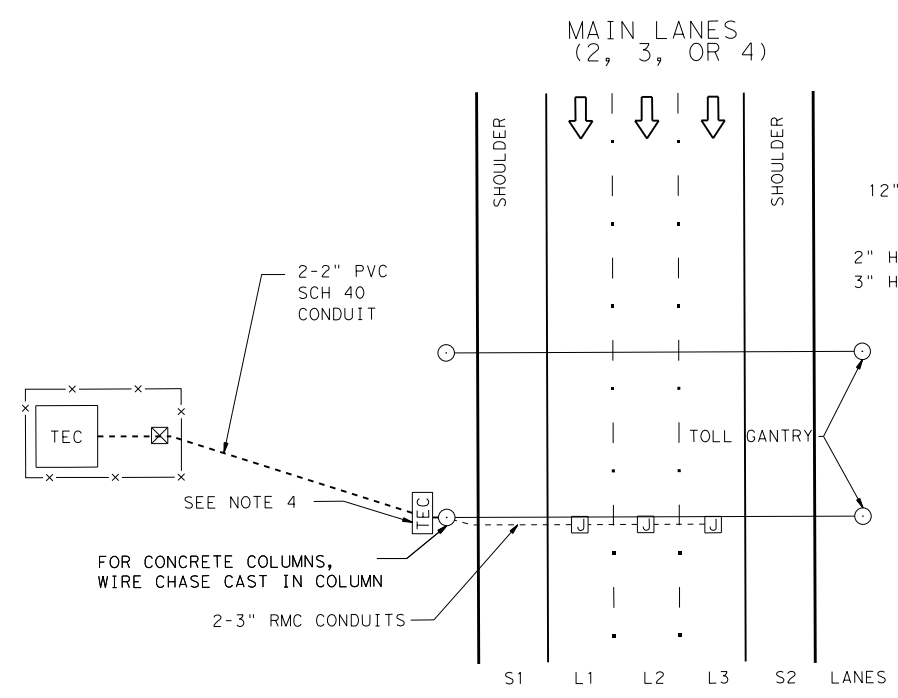
DETAIL C-1
MAINLANE VEHICLE DETECTION SCHEMATIC

NOTE: LOOP QUANTITY AND LOCATION TO BE SPECIFIED BY SYSTEM INTEGRATOR



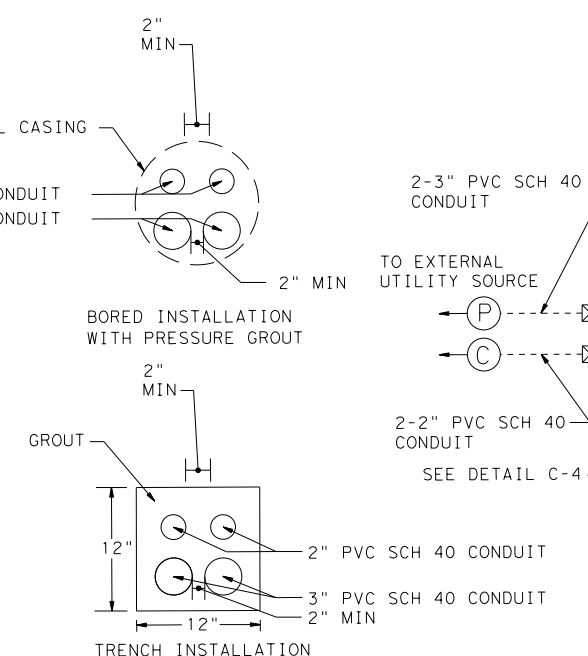
DETAIL C-2
VES CONFIGURATION

NOTE: LOCATE JUNCTION BOXES ON STRUCTURE OVER VES CAMERA

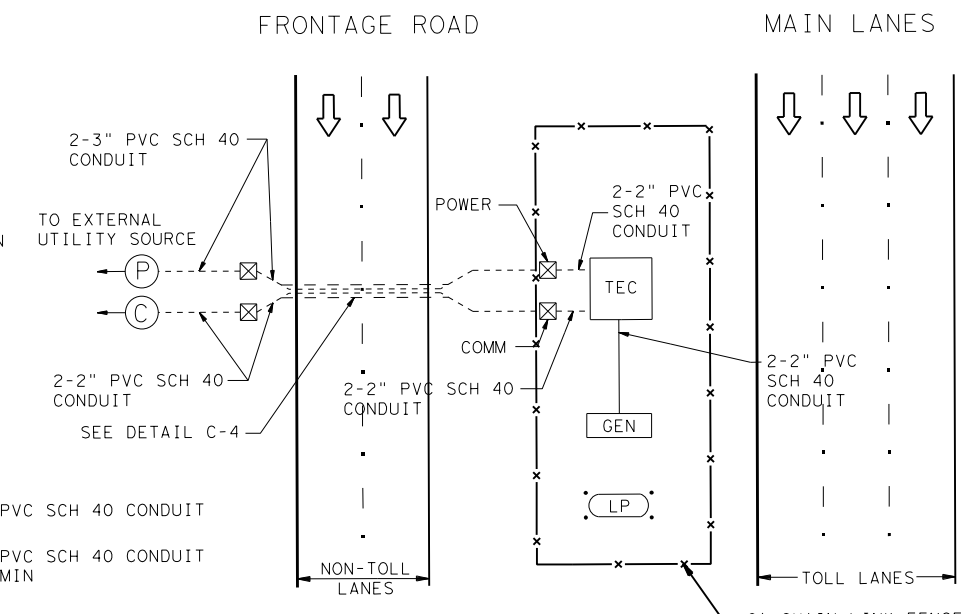


DETAIL C-3
AVI READER CONFIGURATION
SEE NOTE 7

NOTE: LOCATE JUNCTION BOXES ON STRUCTURE NEAR AVI ANTENNA



DETAIL C-4
CONDUIT ENCASUREMENT
SEE NOTE 7



DETAIL C-5
UTILITY POWER, BACKUP POWER, &
TELECOMMUNICATIONS SCHEMATIC

- NOTES:
- 1) BORES SHALL BE PLACED AS SHOWN IN PLANS OR AS DIRECTED BY THE ENGINEER.
 - 2) RETAINING WALL SECTIONS SHALL REQUIRE 4-4" SCH 80 PVC CONDUITS FROM ROADWAY SHOULDER PULL BOX TO A PULL BOX LOCATED ON THE GROUND AT FACE OF RETAINING WALL.
 - 3) DETAIL C1: MAXIMUM CABLE LENGTH FROM S1-1 AND S1-3 TO TEC SHALL NOT EXCEED 300'
 - 4) TEC TO BE MOUNTED ON COLUMN FOR STANDARD TXDOT STEEL COLUMNS. TEC TO BE MOUNTED ON CONCRETE PAD ADJACENT TO COLUMN FOR AESTHETIC COLUMNS. DESIGN BUILDER TO VERIFY LOCATION WITH MOBILITY AUTHORITY AND SYSTEM INTEGRATOR.
 - 5) FOR DETAILS OF TOLL COLLECTION SYSTEMS CONFIGURATION, COORDINATE WITH SYSTEM INTEGRATOR.
 - 6) GROUND BOXES LOCATED IN PAVEMENT SHALL BE PRECAST CONCRETE HS-20 LOAD RATED WITH REMOVABLE BOLTED COVER. NO FERROUS MATERIAL ALLOWED FOR GROUND BOXES.
 - 7) PROVIDE A MINIMUM OF 2' CLEARANCE BETWEEN TOP OF GROUT AND/OR CASING, AND BOTTOM OF PAVEMENT AND/OR CONCRETE STRUCTURE.
 - 8) SYSTEM INTEGRATOR OR MOBILITY AUTHORITY MUST APPROVE OF ALL DESIGN DRAWINGS.
 - 9) WIRES RUNNING IN COLUMNS SHALL EITHER BE IN THE COLUMN IN RECESSED CHASE OR IN CONDUIT FOR TRUSS COLUMNS.
 - 10) ALL GROUND/PULL BOX SIZES AND MODELS MUST BE APPROVED BY THE MOBILITY AUTHORITY OR SYSTEMS INTEGRATOR.
 - 11) FOR 2 MAIN LANES, REMOVE L3 FOR 4 MAIN LANES, ADD L4

INTERIM REVIEW ONLY
Document incomplete: not intended for permit, bidding or construction.
Engineer: KRIS Z. KEITH
P.E. Serial No.: 93753
Date: 26-MAY-2015

NOT TO SCALE

HNTB HNTB Corporation
The HNTB Companies
Engineers Architects Planners
TBPE FIRM REGISTRATION NO.: 420

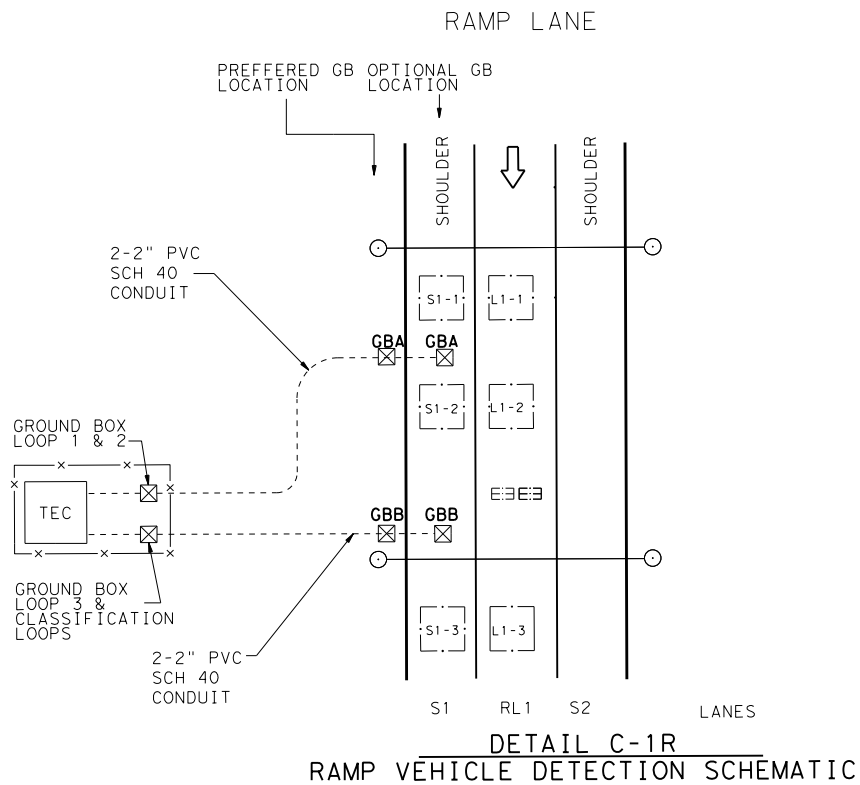
CENTRAL TEXAS
Regional Mobility Authority

**FIXED PRICE TOLLING GUIDELINES
EXAMPLE ETC CONFIGURATION
(MAIN LANES)**

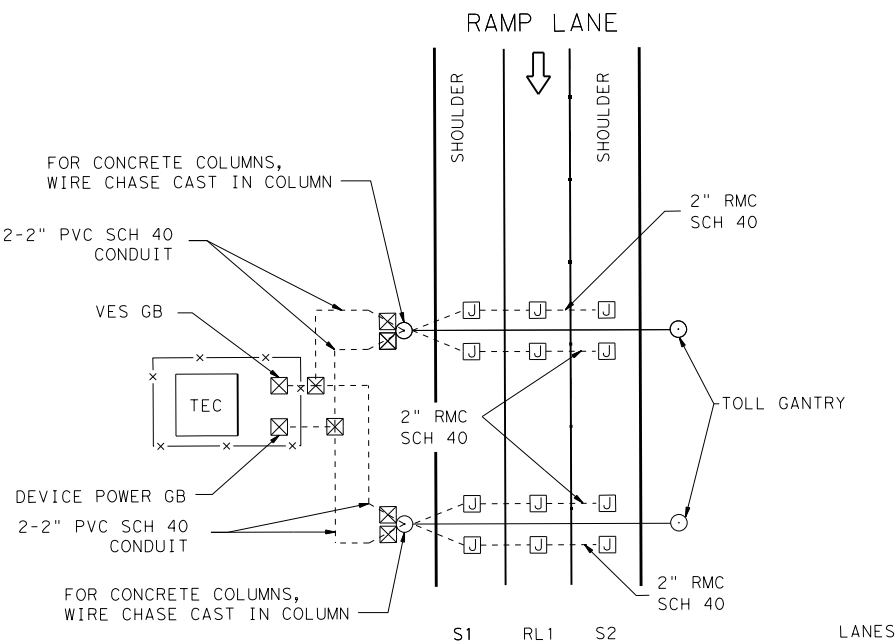
ETC-2

DESIGNED BY:	FED. RD. DIST. NO. 6	FEDERAL AID PROJECT NO.	SHEET NO. 8
DRAWN BY:	STATE TEXAS	DIST. AUS	COUNTY
CHECKED BY:	CONTRACTOR	SECTION	JOB
	KK		HIGHWAY NO.

Scale: 1:10
 Plotted on: \$DATE\$\$\$\$\$\$
 Pen Table: \\ousw00\pmwork\Jobs\46837*CTRMALoop1\ML\Project Development\Design\CAD Files\Plot\MOPAC*11X17.dgn
 Design Filename: \\ousw00\pmwork\Jobs\46837*CTRMALoop1\ML\Project Development\Design\CAD Files\183A Operations and Maintenance\Tolling\New Fixed Price Tolling Standards\TypETCConfig*rev.dgn

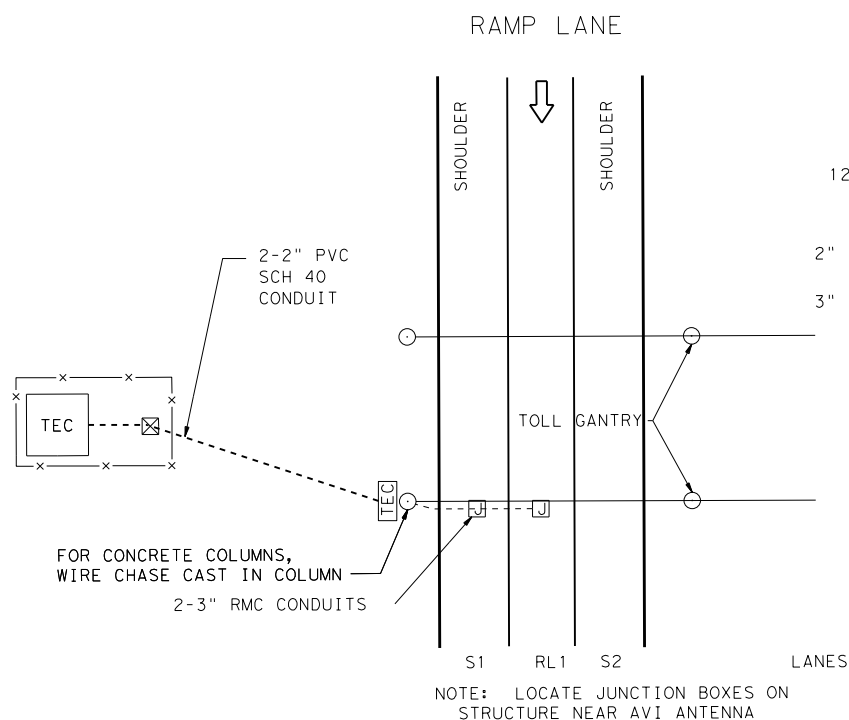


NOTE: LOOP QUANTITY AND LOCATION TO BE SPECIFIED BY SYSTEM INTEGRATOR

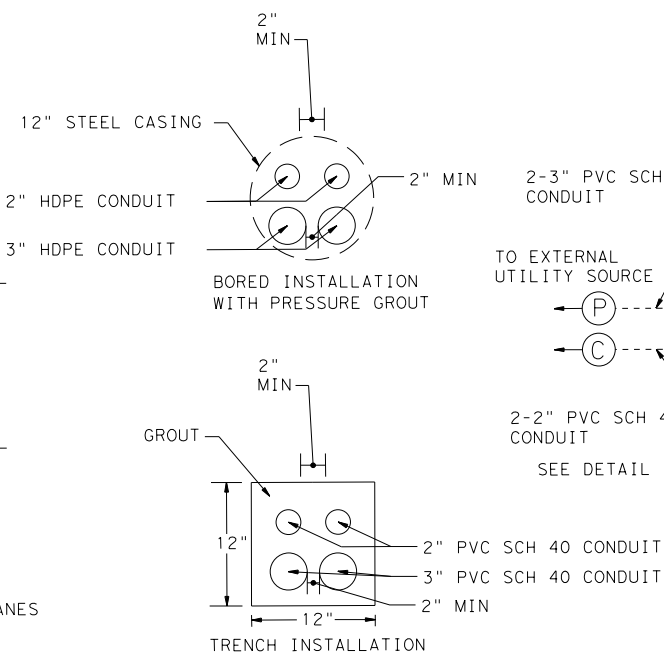


DETAIL C-2R
VES CONFIGURATION

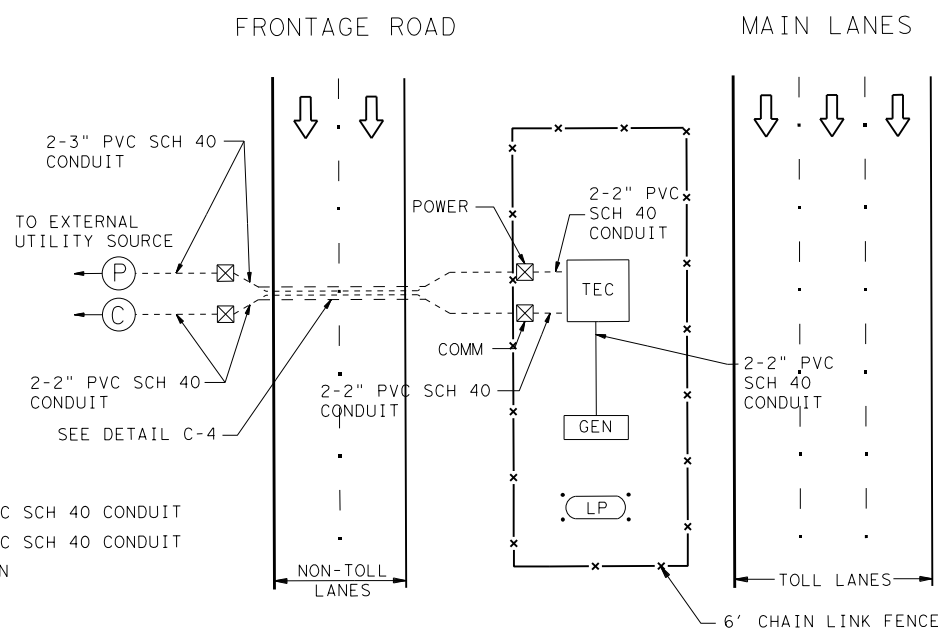
- NOTES:**
- 1) BORES SHALL BE PLACED AS SHOWN IN PLANS OR AS DIRECTED BY THE ENGINEER.
 - 2) RETAINING WALL SECTIONS SHALL REQUIRE 4-4" SCH 80 PVC CONDUITS FROM ROADWAY SHOULDER PULL BOX TO A PULL BOX LOCATED ON THE GROUND AT FACE OF RETAINING WALL.
 - 3) **DETAIL C1:** MAXIMUM CABLE LENGTH FROM S1-1 AND S1-3 TO TEC SHALL NOT EXCEED 300'
 - 4) TEC TO BE MOUNTED ON COLUMN FOR STANDARD TXDOT STEEL COLUMNS. TEC TO BE MOUNTED ON CONCRETE PAD ADJACENT TO COLUMN FOR AESTHETIC COLUMNS. DESIGN BUILDER TO VERIFY LOCATION WITH MOBILITY AUTHORITY AND SYSTEM INTEGRATOR.
 - 5) FOR DETAILS OF TOLL COLLECTION SYSTEMS CONFIGURATION, COORDINATE WITH SYSTEM INTEGRATOR.
 - 6) GROUND BOXES LOCATED IN PAVEMENT SHALL BE PRECAST CONCRETE HS-20 LOAD RATED WITH REMOVABLE BOLTED COVER. NO FERROUS MATERIAL ALLOWED FOR GROUND BOXES.
 - 7) PROVIDE A MINIMUM OF 2' CLEARANCE BETWEEN TOP OF GROUT AND/OR CASING, AND BOTTOM OF PAVEMENT AND/OR CONCRETE STRUCTURE.
 - 8) SYSTEM INTEGRATOR OR MOBILITY AUTHORITY MUST APPROVE OF ALL DESIGN DRAWINGS.
 - 9) WIRES RUNNING IN COLUMNS SHALL EITHER BE IN THE COLUMN IN RECESSED CHASE OR IN CONDUIT FOR TRUSS COLUMNS.
 - 10) ALL GROUND/PULL BOX SIZES AND MODELS MUST BE APPROVED BY THE MOBILITY AUTHORITY OR SYSTEMS INTEGRATOR.



DETAIL C-3R
AVI READER CONFIGURATION
SEE NOTE 7



DETAIL C-4R
CONDUIT ENCASEMENT
(SEE NOTE 7)



DETAIL C-5R
UTILITY POWER, BACKUP POWER, & TELECOMMUNICATIONS SCHEMATIC

INTERIM REVIEW ONLY
 Document incomplete: not intended for permit, bidding or construction.
 Engineer: KRIS Z. KEITH
 P.E. Serial No.: 93753
 Date: 26-MAY-2015

NOT TO SCALE

HNTB HNTB Corporation
 The HNTB Companies
 Engineers Architects Planners
 TBPE FIRM REGISTRATION NO.: 420

CENTRAL TEXAS
 Regional Mobility Authority

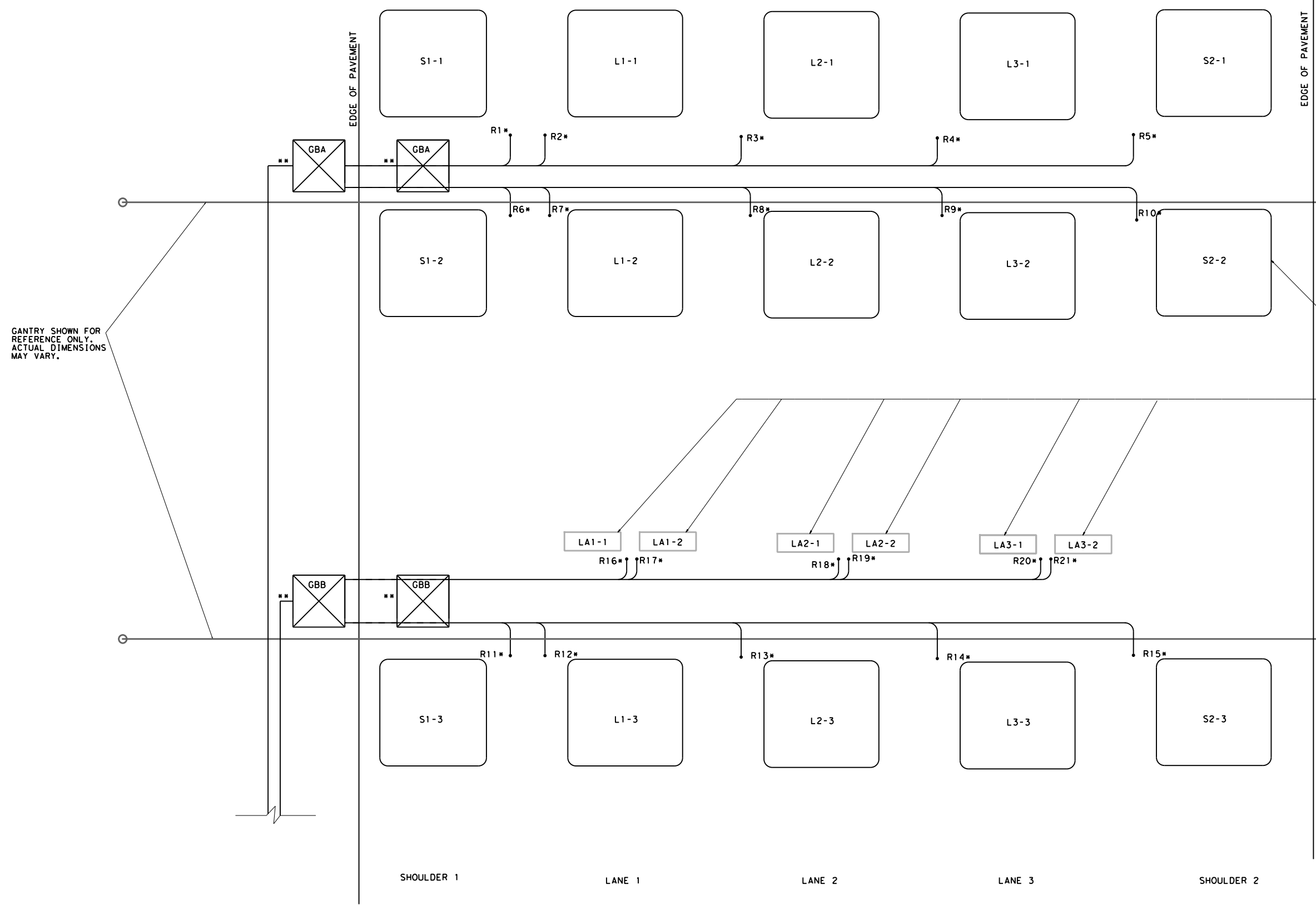
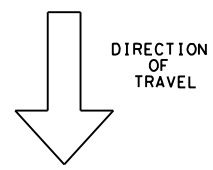
**FIXED PRICE
 TOLLING GUIDELINES
 EXAMPLE ETC CONFIGURATION
 (RAMPS)**

ETC-3

DESIGNED BY:	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.	SHEET NO.
	6		9
DRAWN BY:	STATE	DIST.	COUNTY
DW	TEXAS	AUS	
CHECKED BY:	CONT.	SECT.	JOB
KK			HIGHWAY NO.

Scale: 1:40,000
 Pen Table: \\ousw00\pmwork\Jobs\46837*CTRNA\Loop*1.ML\Project Development\Design\CAD Files\Plot\MOPAC*11X17.dwg
 Design Filename: \\ousw00\pmwork\Jobs\46837*CTRNA\183A Operations and Maintenance\Tolling\New Fixed Price Tolling Standards\GroundBoxPlacementConduit.rvt

SAMPLE LOOP LAYOUT



- GENERAL NOTES:
- 1) THE NUMBER AND LOCATION OF LOOPS AND RISERS TO BE SPECIFIED BY SYSTEM INTEGRATOR.
 - 2) NOT TO BE USED FOR LOOP PLACEMENT MARK RISER LOCATION TO BE VERIFIED BY ENGINEER.
 - 3) PVC SEE DETAIL A2 "CONDUIT RISER DETAIL LOOP TAIL TO GROUND BOX CONDUIT TRENCH DETAIL."
 - 4) ADDITIONAL GBC'S MAY BE REQUIRED. COORDINATE NUMBER AND LOCATION WITH SYSTEMS INTEGRATOR.
 - 5) FOR 2 MAIN LANES, REMOVE L3. FOR 4 MAIN LANES, ADD L4.
 - 6) ALL GROUND BOX SIZES AND MODELS MUST BE APPROVED BY THE MOBILITY AUTHORITY OR SYSTEMS INTEGRATOR.
- * SEE DETAIL A3 ON CONDUIT RISER DETAIL SHEET. RISER LOCATIONS TO BE SPECIFIED BY SYSTEMS INTEGRATOR.
- ** SEE DETAIL A1, A4, ON CONDUIT RISER DETAIL SHEET. PREFERRED LOCATION FOR GROUND BOXES IS OUTSIDE OF PAVEMENT. IF INSUFFICIENT ROOM IS AVAILABLE OUTSIDE OF PAVEMENT, GROUND BOX SHALL BE HS-20 TRAFFIC RATED. IF GROUND BOX IS IN PAVEMENT, IT MUST BE NON-FERROUS.

AUTO VEHICLE DETECTION (AVDS) (LOOP FRAMING)

AUTO VEHICLE CLASSIFICATION (AVC)

INTERIM REVIEW ONLY
 Document incomplete: not intended for permit, bidding or construction.
 Engineer: KRIS Z. KEITH
 P.E. Serial No.: 93753
 Date: 26-MAY-2015

NOT TO SCALE

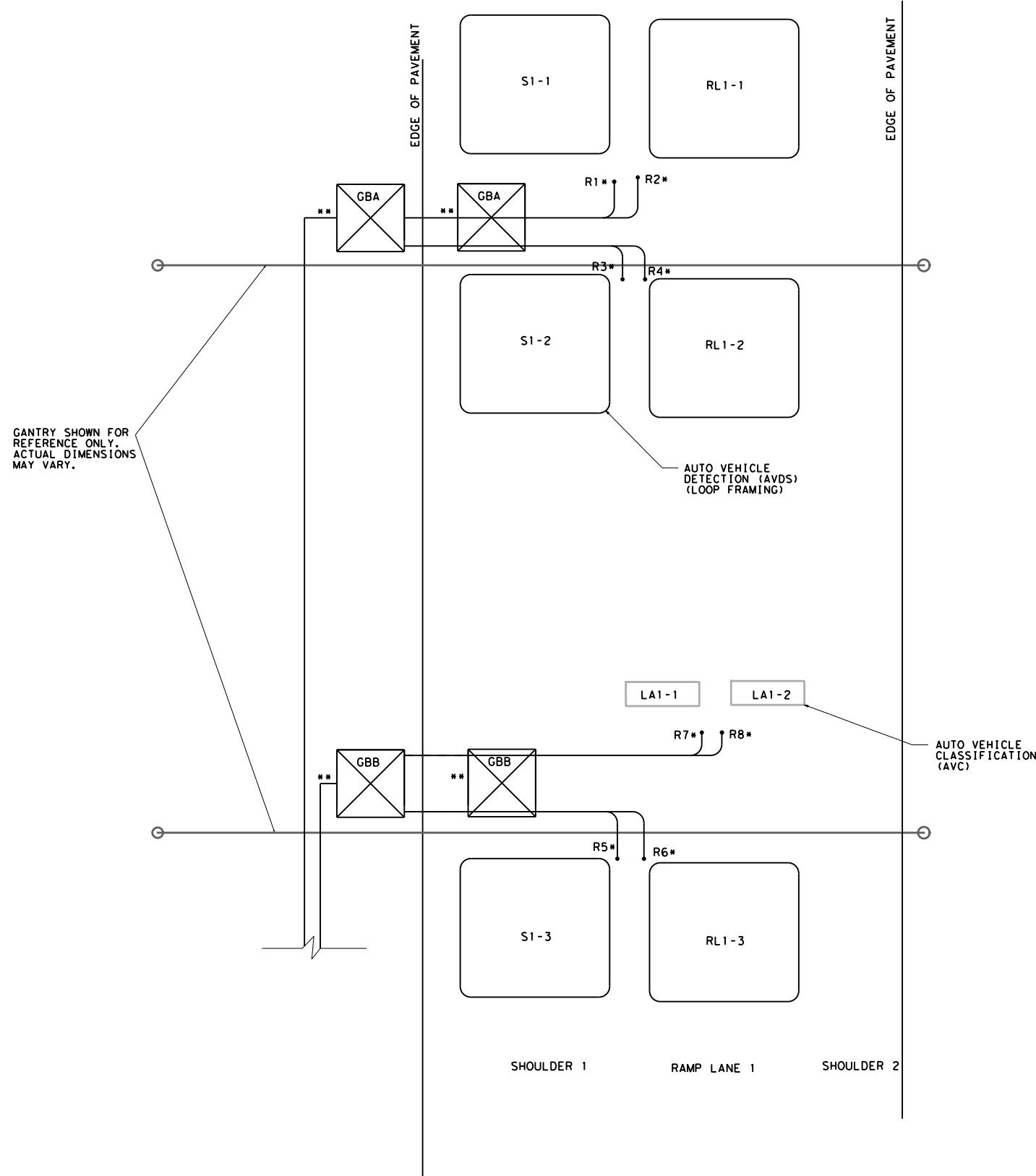
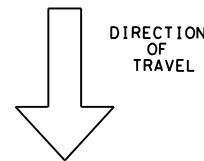
HNTB HNTB Corporation
 The HNTB Companies
 Engineers Architects Planners
 TBPE FIRM REGISTRATION NO.: 420

CENTRAL TEXAS
 Regional Mobility Authority

FIXED PRICE TOLLING GUIDELINES GROUND BOX PLACEMENT AND CONDUIT RISER LOCATION (MAIN LANES) P2-ML

DESIGNED BY:	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.	SHEET NO.
	6		13
DRAWN BY:	STATE	DIST.	COUNTY
DW	TEXAS	AUS	
CHECKED BY:	CONT.	SECT.	JOB HIGHWAY NO.
KK			

SAMPLE LOOP LAYOUT



GANTRY SHOWN FOR REFERENCE ONLY. ACTUAL DIMENSIONS MAY VARY.

GENERAL NOTES:

- 1) THE NUMBER AND LOCATION OF LOOPS AND RISERS TO BE SPECIFIED BY SYSTEM INTEGRATOR.
- 2) NOT TO BE USED FOR LOOP PLACEMENT MARK RISER LOCATION TO BE VERIFIED BY ENGINEER.
- 3) PVC SEE DETAIL A2 "CONDUIT RISER DETAIL LOOP TAIL TO GROUND BOX CONDUIT TRENCH DETAIL."
- 4) ADDITIONAL GBC'S MAY BE REQUIRED. COORDINATE NUMBER AND LOCATION WITH SYSTEMS INTEGRATOR.
- 5) ALL GROUND/PULL BOX SIZES AND MODELS MUST BE APPROVED BY THE MOBILITY AUTHORITY OR SYSTEMS INTEGRATOR.

* SEE DETAIL A3 ON CONDUIT RISER DETAIL SHEET. RISER LOCATIONS TO BE SPECIFIED BY SYSTEMS INTEGRATOR.

** SEE DETAIL A1, A4, ON CONDUIT RISER DETAIL SHEET. PREFERRED LOCATION FOR GROUND BOXES IS OUTSIDE OF PAVEMENT. IF INSUFFICIENT ROOM IS AVAILABLE OUTSIDE OF PAVEMENT, GROUND BOX SHALL BE HS-20 TRAFFIC RATED. IF GROUND BOX IS IN PAVEMENT, IT MUST BE NON-FERROUS.

INTERIM REVIEW ONLY

Document incomplete: not intended for permit, bidding or construction.

Engineer: KRIS Z. KEITH

P.E. Serial No.: 93753

Date: 26-MAY-2015

NOT TO SCALE

HNTB Corporation

The HNTB Companies

Engineers Architects Planners

TBPE FIRM REGISTRATION NO.: 420

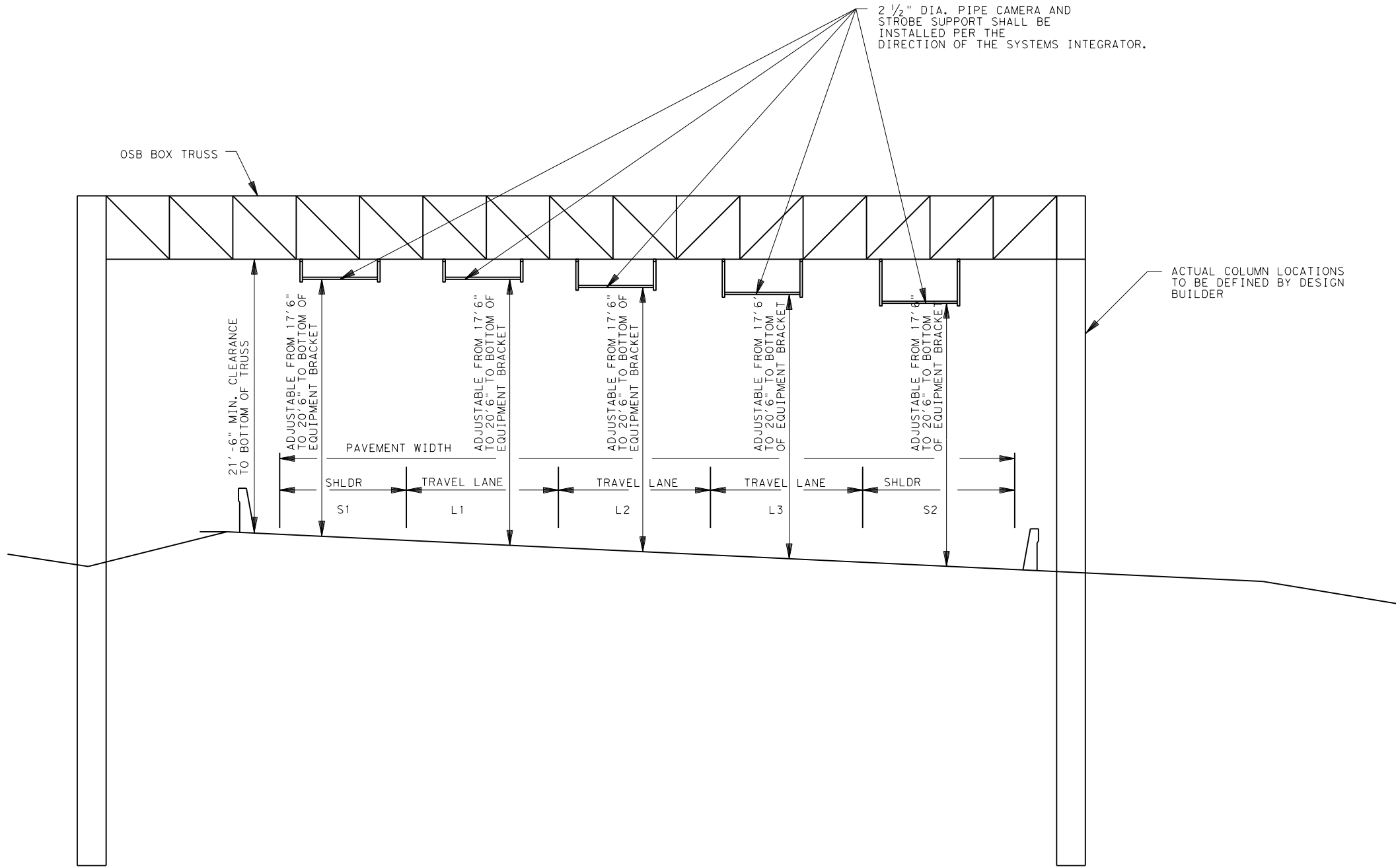
CENTRAL TEXAS
Regional Mobility Authority

FIXED PRICE TOLLING GUIDELINES GROUND BOX PLACEMENT AND CONDUIT RISER LOCATION (RAMPS)

P2-RMP

DESIGNED BY:	FED. RD. DIV. NO.:	FEDERAL AID PROJECT NO.:	SHEET NO.:
	6		14
DRAWN BY:	STATE:	DIST.:	COUNTY:
DW	TEXAS	AUS	
CHECKED BY:	CONT.:	SECT.:	JOB:
KK			HIGHWAY NO.:

Pen Table: \\ousw00\pmwork\Jobs\46837*CTRMA\Loop*1*ML\Project Development\Design\CAD Files\Plot\MOPAC*11*17.dwg
Design File name: \\ousw00\pmwork\Jobs\46837*CTRMA\183A Operations and Maintenance\Tolling\New Fixed Price Tolling Standards\GroundBoxPlacementConduit*RRmp\$tdgnon: \$DATE\$



NOTES

1. TWO (2) BRACKETS ARE REQUIRED FOR EACH LOCATION SHOWN. BRACKETS SHALL BE ADJUSTABLE TO ALLOW FOR POSITIONING IN ACCORDANCE WITH THE SYSTEMS INTEGRATOR'S SPECIFICATIONS. DESIGN BUILDER MUST COORDINATE INITIAL PLACEMENT LOCATION WITH THE SYSTEMS INTEGRATOR.
2. WALKWAYS ARE REQUIRED TO BE INSTALLED ON ALL GANTRY TRUSSES. LADDERS ARE REQUIRED TO BE INSTALLED ON ALL GANTRY COLUMNS.
3. FOR 2 MAIN LANES, REMOVE L3. FOR 4 MAIN LANES, ADD L4.

QUANTITY OF BRACKETS:
2 LANES = 16 BRACKETS
3 LANES = 20 BRACKETS
4 LANES = 24 BRACKETS

INTERIM REVIEW ONLY
Document incomplete: not intended for permit, bidding or construction.
Engineer: KRIS Z. KEITH
P.E. Serial No.: 93753
Date: 26-MAY-2015

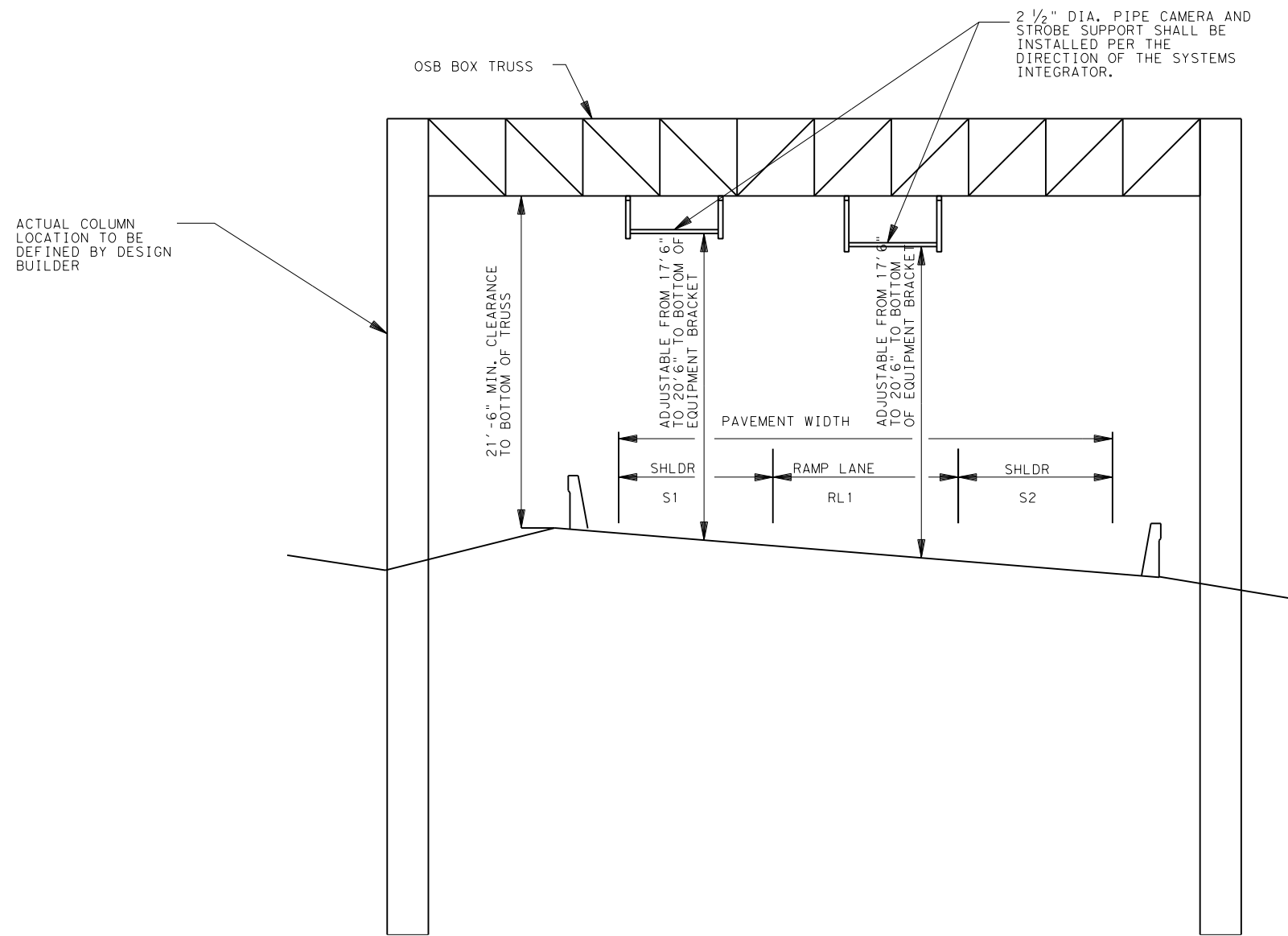
NOT TO SCALE

HNTB HNTB Corporation
The HNTB Companies
Engineers Architects Planners
TBPE FIRM REGISTRATION NO.: 420

 CENTRAL TEXAS
Regional Mobility Authority

FIXED PRICE TOLLING GUIDELINES
MAINLANE GANTRY CROSS-LANE TANGENT ELEVATION VIEW

DESIGNED BY:		FED. RD. DIV. NO.:		FEDERAL AID PROJECT NO.:		SHEET NO.:	
DW		6				15	
DRAWN BY:		STATE:	DIST.:	COUNTY:			
KK		TEXAS	AUS				
CHECKED BY:		CONT.:	SECT.:	JOB:		HIGHWAY NO.:	
KK							



- NOTES**
1. TWO (2) BRACKETS ARE REQUIRED FOR EACH LOCATION SHOWN. BRACKETS SHALL BE ADJUSTABLE TO ALLOW FOR POSITIONING IN ACCORDANCE WITH THE SYSTEMS INTEGRATOR'S SPECIFICATIONS. DESIGN BUILDER MUST COORDINATE INITIAL PLACEMENT LOCATION WITH THE SYSTEMS INTEGRATOR.
 2. WALKWAYS ARE REQUIRED TO BE INSTALLED ON ALL GANTRY TRUSSES. LADDERS ARE REQUIRED TO BE INSTALLED ON ALL GANTRY COLUMNS.

QUANTITY OF BRACKETS:
1 RAMP LANE = 8 BRACKETS

INTERIM REVIEW ONLY
Document incomplete: not intended for permit, bidding or construction.
Engineer: KRIS Z. KEITH
P.E. Serial No.: 93753
Date: 26-MAY-2015

NOT TO SCALE

HNTB HNTB Corporation
The HNTB Companies
Engineers Architects Planners
TBPE FIRM REGISTRATION NO.: 420

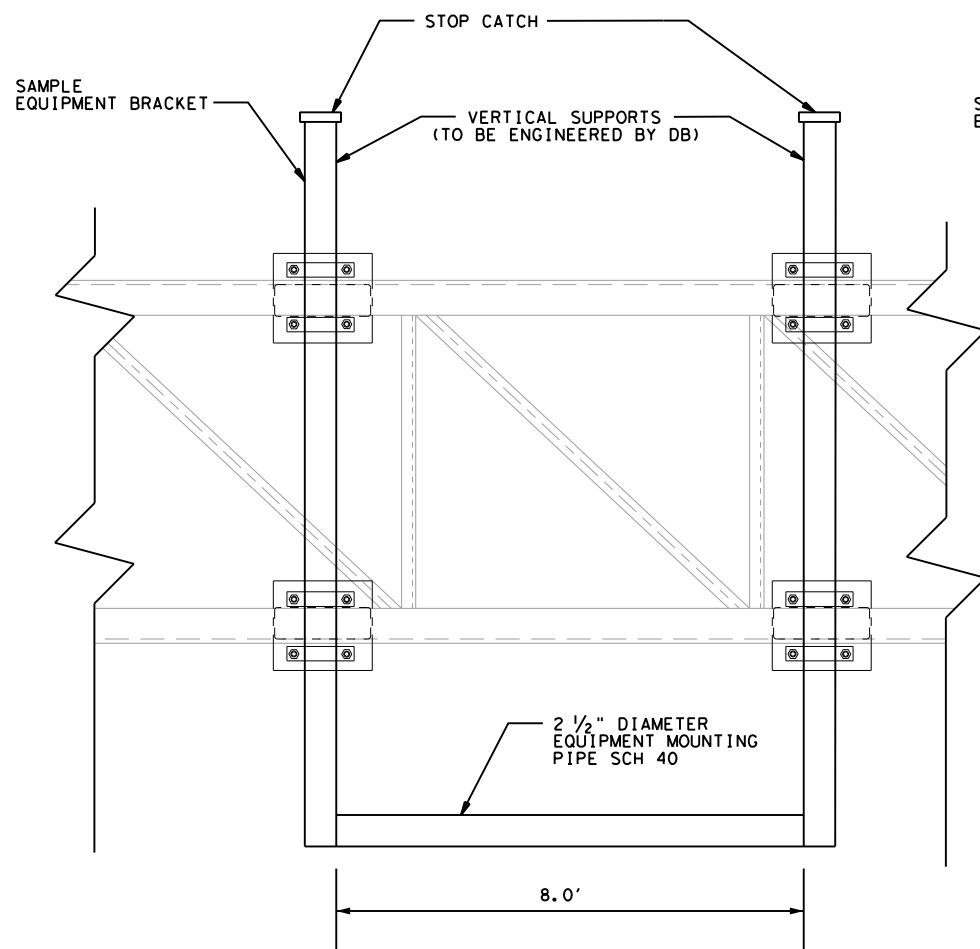


FIXED PRICE TOLLING GUIDELINES
RAMP CROSS-LANE TANGENT ELEVATION VIEW

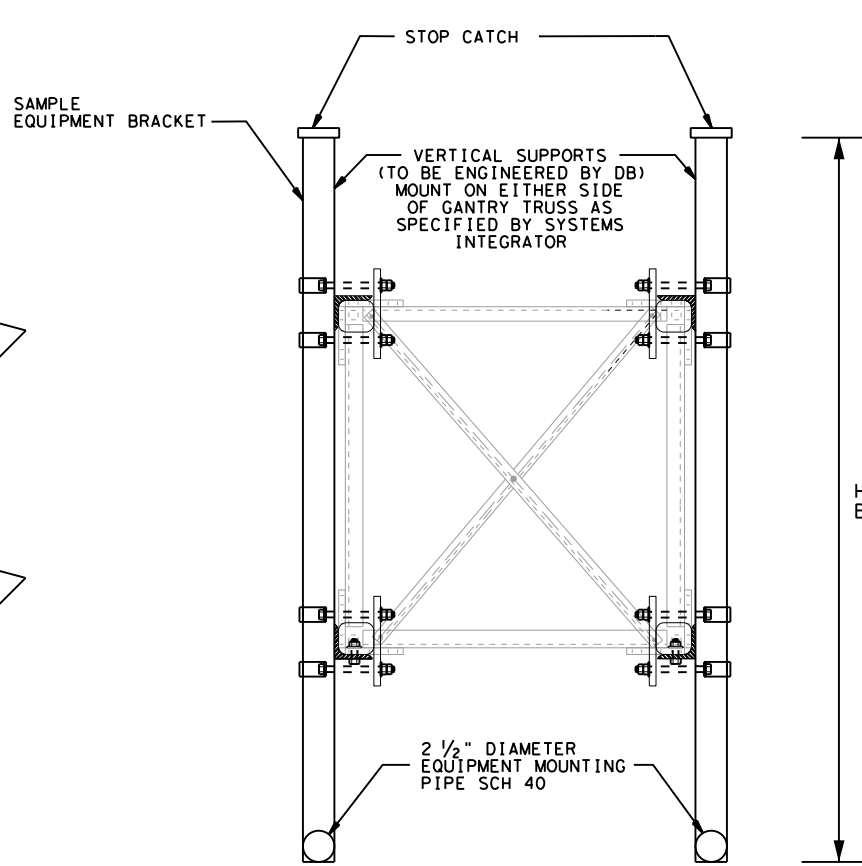
G2-RMP

DESIGNED BY:	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		SHEET NO.
	6			16
DRAWN BY:	STATE	DIST.	COUNTY	
DW	TEXAS	AUS		
CHECKED BY:	CONT.	SECT.	JOB	HIGHWAY NO.
KK				

Scale: 1:2
 Pen Table: \\ous00\pmwork\Jobs\46837*CTRMA\Loop*1*ML\Project Development\Design\CAD Files\PIOT\MOPAC*11X17.dwg
 Design File Name: \\ous00\pmwork\Jobs\46837*CTRMA\183A Operations and Maintenance\Tolling New Fixed Price Tolling Standards\MIP\MiscGantryDetail\183A.dwg
 \$DATE\$\$\$\$\$



ELEVATION TOLL GANTRY BRACKET



CROSS SECTION OF TOLL GANTRY BRACKET

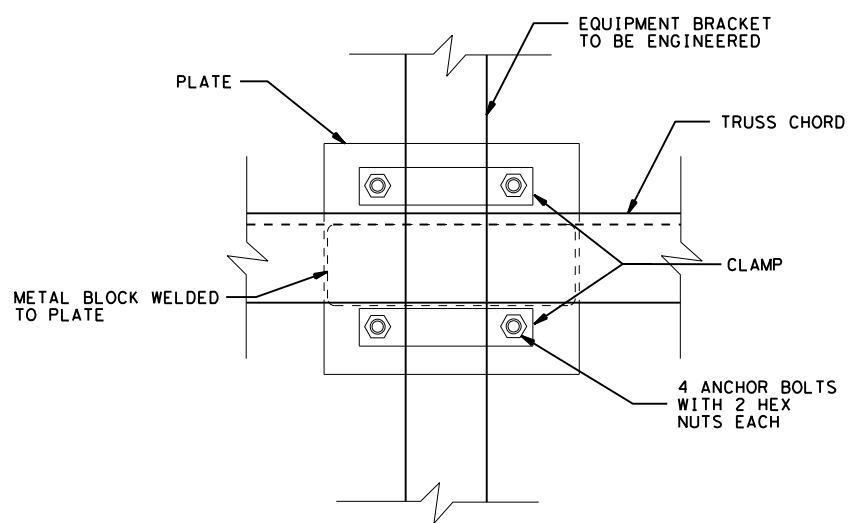
HEIGHT TO BE SPECIFIED BY SYSTEMS INTEGRATOR

GENERAL NOTES:

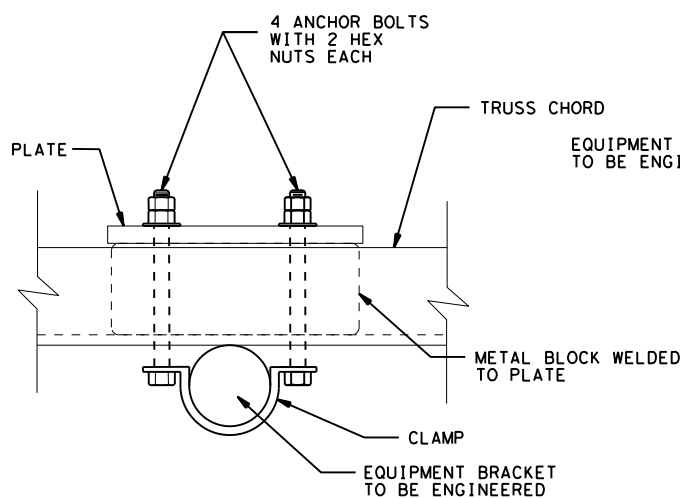
- 1) THESE DETAILS ARE FOR USE WITH TXDOT STANDARD OVERHEAD SIGN BRIDGE (OSB) OR CANTILEVER OVERHEAD SIGN SUPPORT (COSS).
- 2) FOR CONNECTION DETAILS NOT SHOWN SEE OVERHEAD SIGN BRIDGE TRUSS DETAILS (OSBC) OR CANTILEVER OVERHEAD SIGN SUPPORT DETAILS (COSSD).
- 3) MATERIALS SHALL BE COMPATIBLE WITH THE REQUIREMENTS OF THE ASSOCIATED REFERENCE SIGN BRIDGE STANDARDS.
- 4) QUANTITY OF EQUIPMENT BRACKETS AND LOCATION TO BE SPECIFIED BY SYSTEM INTEGRATOR.
- 5) DESIGN OF EQUIPMENT BRACKET AND CONNECTION TO OVERHEAD TRUSS TO BE PROVIDED BY DESIGN BUILDER. AVI ANTENNA AND CAMERA MOUNTING HARDWARE AND CONNECTION DETAILS TO BE PROVIDED BY SYSTEM INTEGRATOR.
- 6) SHOP DRAWINGS FOR AVI ANTENNA AND VES CAMERA SUPPORT SHALL BE PROVIDED FOR ENGINEER'S REVIEW.
- 7) DESIGNER BUILDER TO SPECIFY APPROPRIATE, SPAN, ICE LOADING, AND WIND ZONE. TRUSS DYNAMIC RESPONSE AND DEFLECTION SHALL BE COMPATIBLE WITH TOLL SYSTEM REQUIREMENTS.
- 8) DESIGN OF OSB AND COSS COLUMNS, DRILLED SHAFTS, AND TRUSS TO COLUMN CONNECTION TO BE PROVIDED BY DESIGN BUILDER.
- 9) EQUIPMENT BRACKET AND ALL MOUNTING HARDWARE SHALL BE HOT DIP GALVANIZED.

INTERIM REVIEW ONLY
 Document incomplete: not intended for permit, bidding or construction.
 Engineer: KRIS Z. KEITH
 P.E. Serial No.: 93753
 Date: 26-MAY-2015

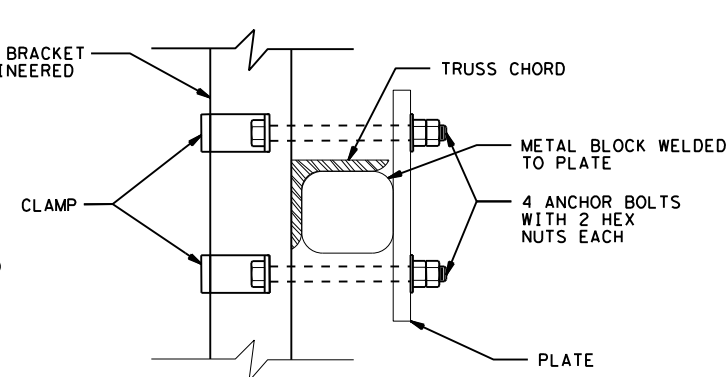
NOT TO SCALE



FRONT VIEW
 (TOP CHORD SHOWN, FLIP HORIZ. FOR BOTTOM CHORD)



TOP VIEW
 (TOP CHORD SHOWN, BOTTOM VIEW FOR BOTTOM CHORD)



SIDE VIEW
 (TOP CHORD SHOWN, FLIP HORIZ. FOR BOTTOM CHORD)

HNTB HNTB Corporation
 The HNTB Companies
 Engineers Architects Planners
 TBPE FIRM REGISTRATION NO.: 420

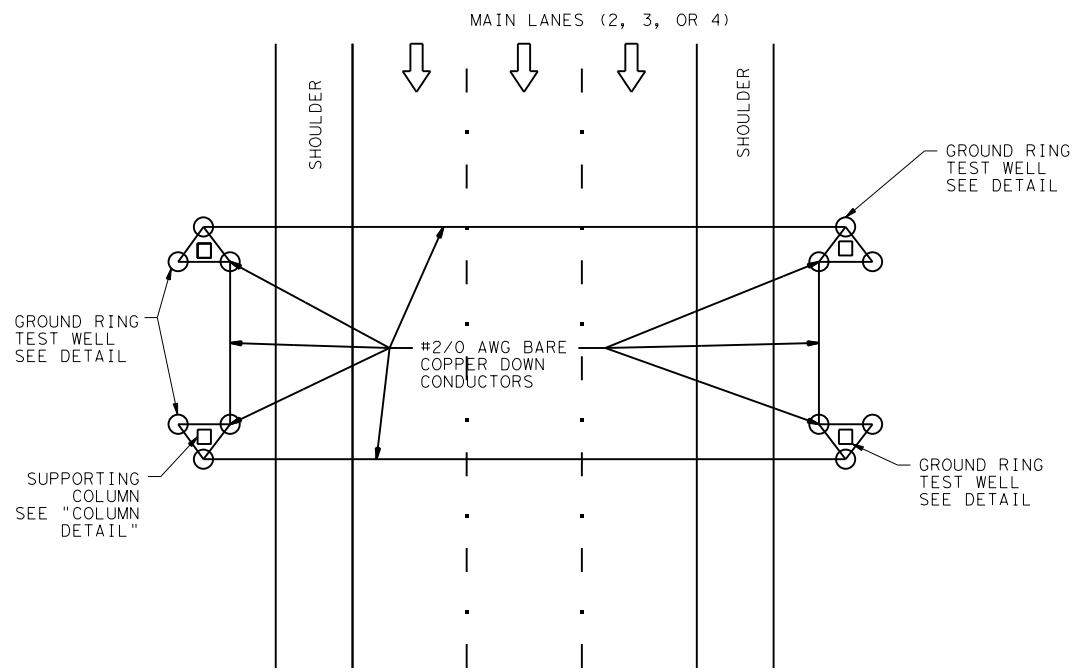
CENTRAL TEXAS
 Regional Mobility Authority

FIXED PRICE TOLLING GUIDELINES TOLL GANTRY MISCELLANEOUS DETAILS

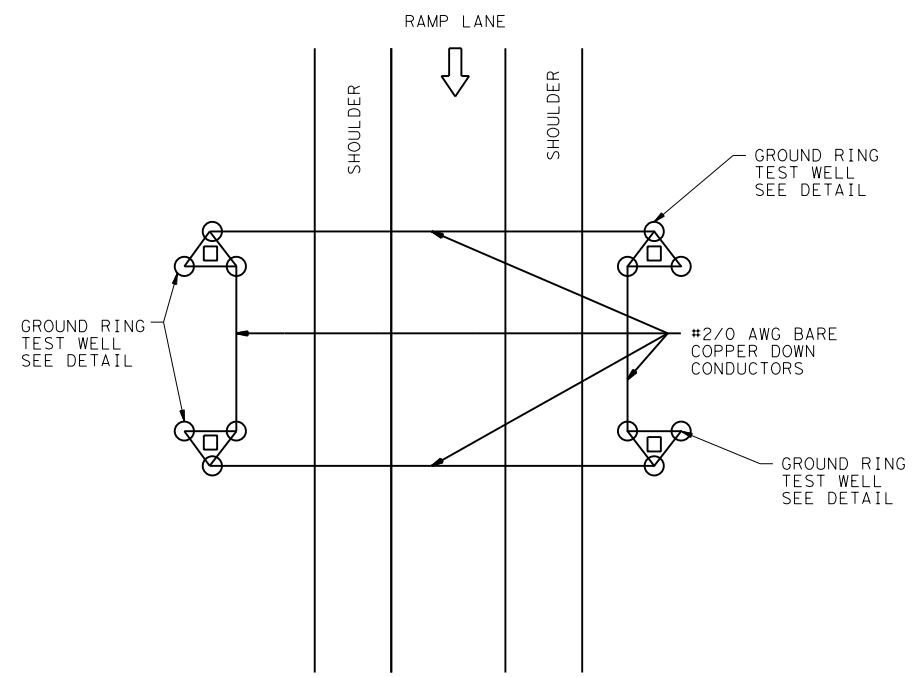
MG-1

DESIGNED BY:	FED. RD. DIV. NO. 6	FEDERAL AID PROJECT NO.	SHEET NO. 17
DRAWN BY:	STATE TEXAS	DIST. AUS	COUNTY
CHECKED BY:	CONT. KK	SECT.	JOB
			HIGHWAY NO.

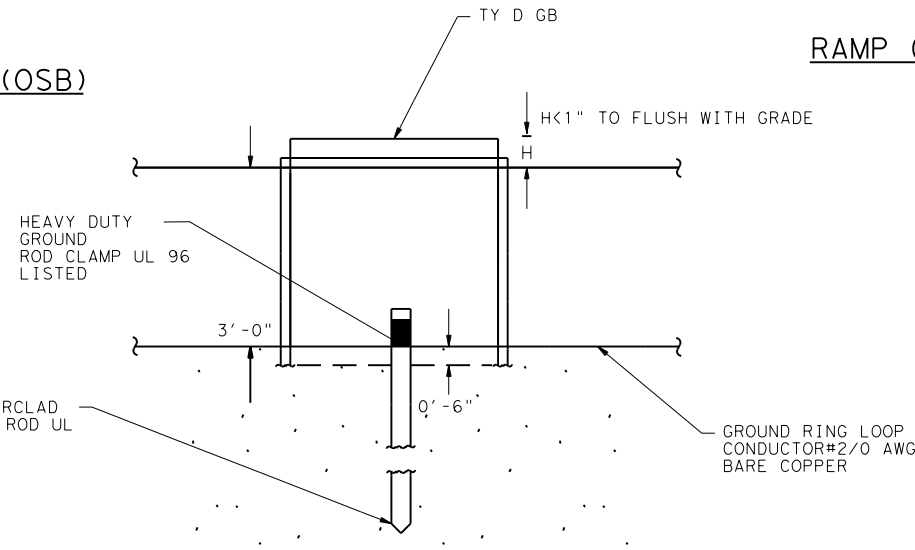
Pen Table: \\ousw00\pmwork\Jobs\46837*CTRMA\loop1\ML\Project Development\Design\CAD Files\PLOT\MOPAC*11X17.dwg
 Design File name: \\ousw00\pmwork\Jobs\46837*CTRMA\183A Operations and Maintenance\Tolling\New Fixed Price Tolling Standards\LightningProtectionSystem\Detail\LP-1.dwg
 Scale: 1:20



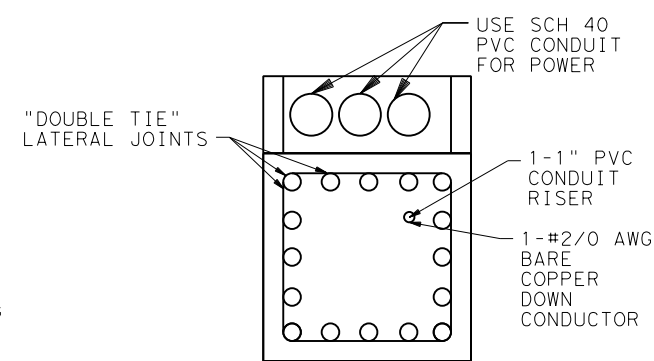
MAINLANE GROUND RING AERIAL VIEW (OSB)



RAMP GROUND RING AERIAL VIEW (OSB)



GROUND RING TEST WELL DETAIL

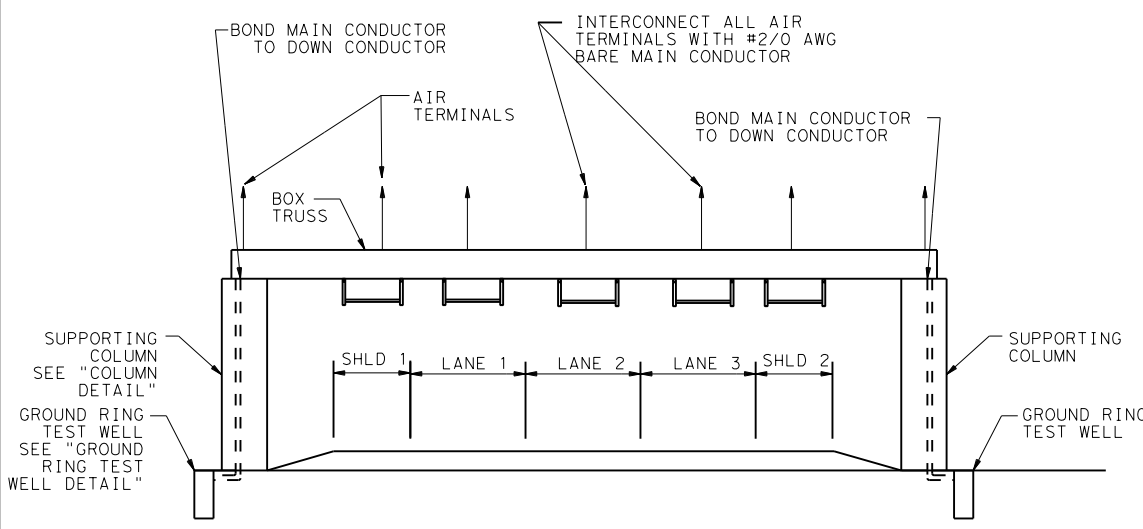


CONCRETE COLUMN DETAIL

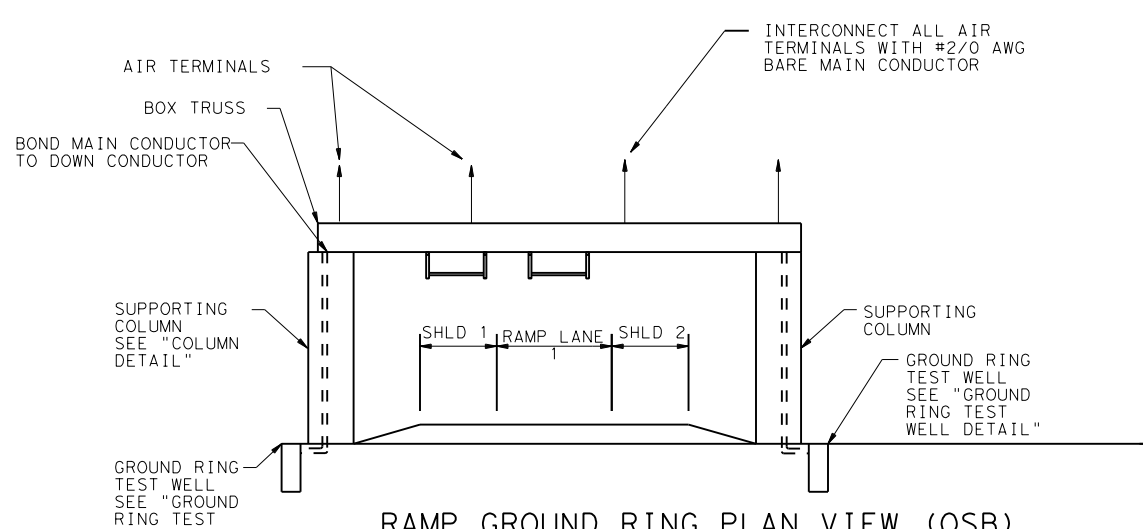
- NOTES:**
- LIGHTNING PROTECTION SYSTEM DESIGN (LPS) IS PROVIDED FOR INFORMATION ONLY. ULTIMATE LPS DESIGN SHALL COMPLY WITH NFPA 780 AND CURRENT NATIONAL ELECTRIC CODE (NEC).
 - ALL STRUCTURAL CONCRETE AND CONDUIT INSTALLATIONS SHALL COMPLY WITH ACI 318 CHAPTER 6.
 - LPS SHALL BE INSTALLED BY A UL LISTED INSTALLER.
 - LPS SHALL BE UL MASTER LABEL CERTIFIED.
 - ALL LPS MATERIALS SHALL MEET NFPA 780 CLASS II REQUIREMENTS.
 - ALL REBAR LATERAL ELEMENTS, LAP JOINTS, AND CONNECTIONS SHALL BE "DOUBLE TIED".
 - FOR DETAILS OF TOLL COLLECTION SYSTEMS CONFIGURATION, COORDINATE WITH SYSTEM INTEGRATOR.
 - AIR TERMINALS SHALL ACCOMMODATE A GUIDE EVERY 14'-0" CENTERED ON GANTRY TRUSS.
 - FOR 2 MAIN LANES, REMOVE LANE 3. FOR 4 MAIN LANES, ADD LANE 4.

INTERIM REVIEW ONLY
 Document incomplete: not intended for permit, bidding or construction.
 Engineer: FABIAN KALAPACH
 P.E. Serial No.: 58100
 Date: 26-MAY-2015

NOT TO SCALE



MAINLANE GROUND RING PLAN VIEW (OSB)



RAMP GROUND RING PLAN VIEW (OSB)

HNTB HNTB Corporation
 The HNTB Companies
 Engineers Architects Planners
 TBPE FIRM REGISTRATION NO.: 420

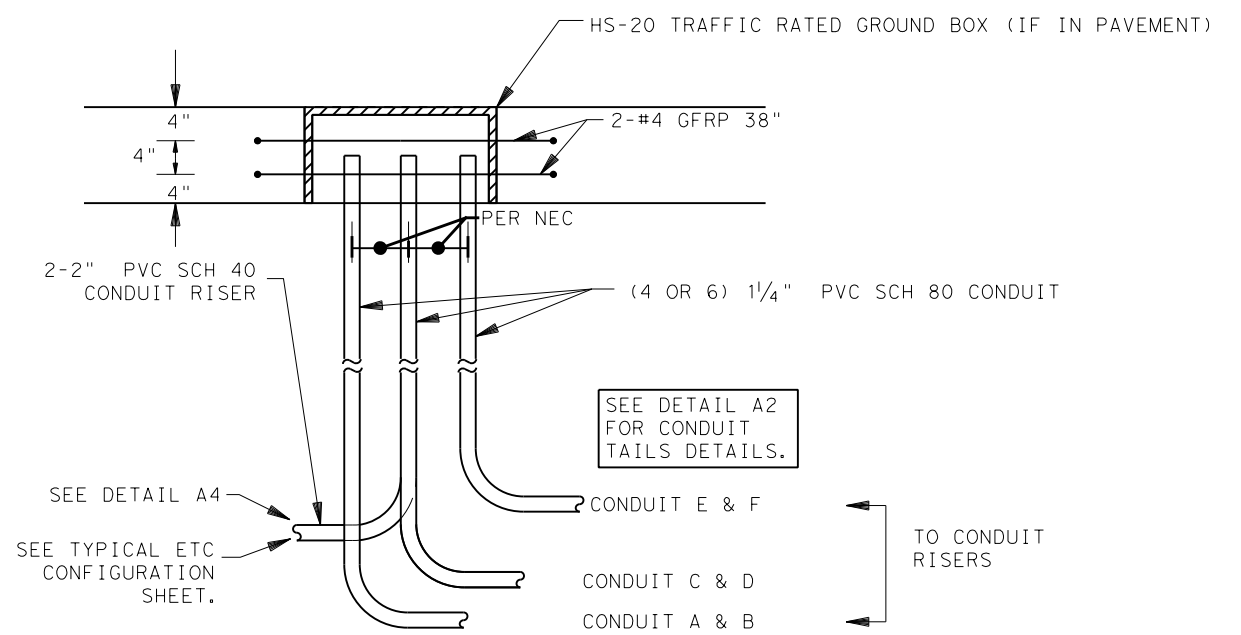
CENTRAL TEXAS Regional Mobility Authority

FIXED PRICE TOLLING GUIDELINES LIGHTNING PROTECTION SYSTEM DETAILS

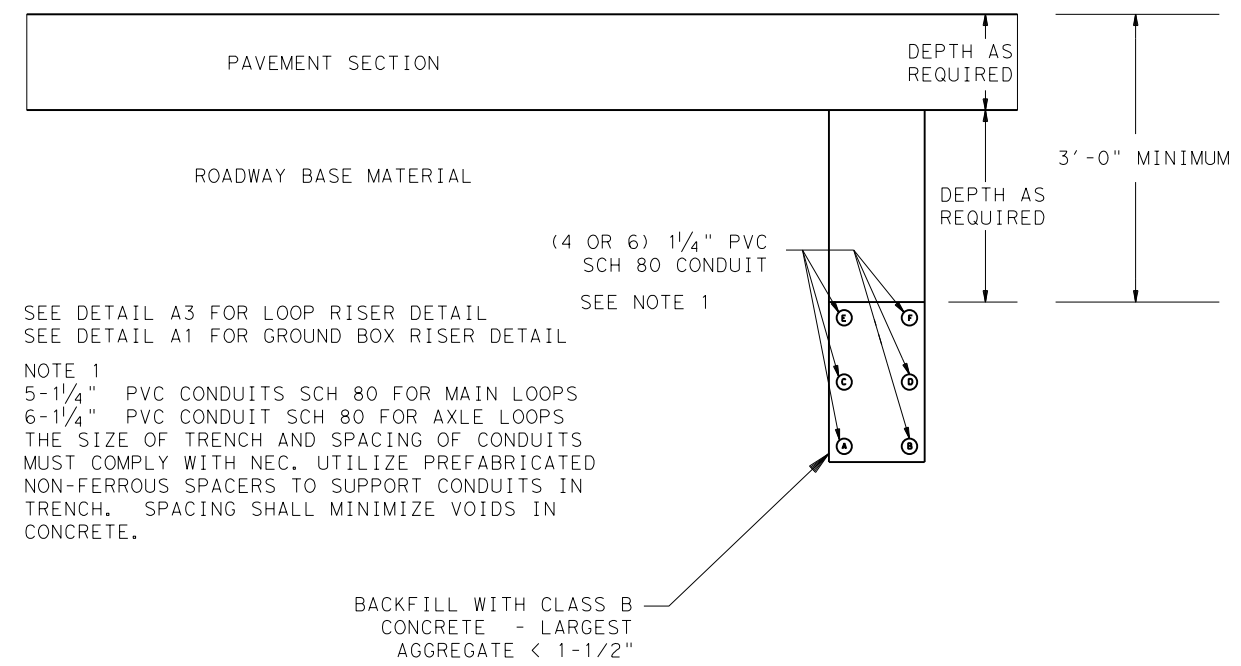
LP-1

DESIGNED BY:	FED. RD. DIV. NO.:	FEDERAL AID PROJECT NO.:	SHEET NO.:
DW	6		18
CHECKED BY:	STATE:	DIST.:	COUNTY:
KK	TEXAS	AUS.	
	CONT.	SECT.:	JOB:
			HIGHWAY NO.:

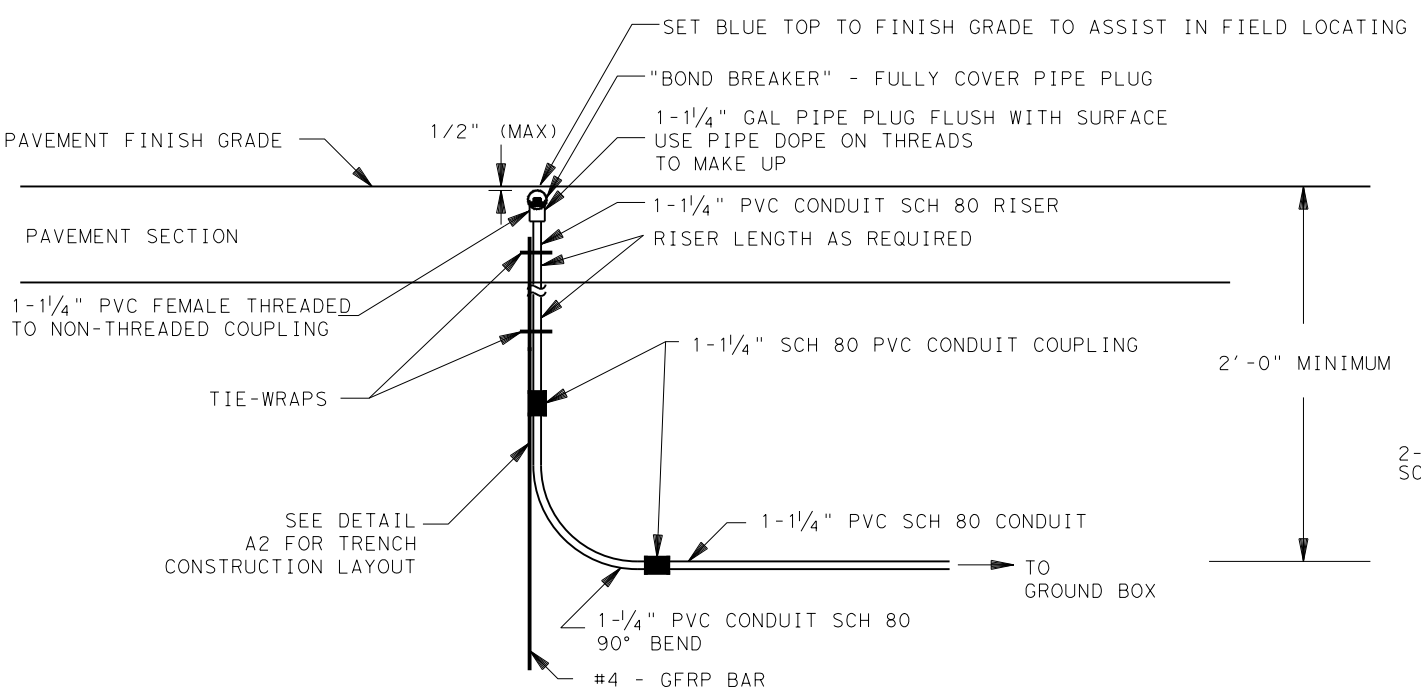
Scale: 1:2
 Pen Table: \\ousw00\pwwork\Jobs\6837*CTRNA\Loop*1.ML\Project Development\Design\CAD Files\Plot\MOFAC*11X17.dgn
 Design Filename: \\ousw00\pwwork\Jobs\6837*CTRNA\183A Operations and Maintenance\Tolling\New Fixed Price Tolling Standards\Conduit\RiserDetail.rvt
 Plot Date: 11/17/2015 11:17:00 AM
 Sheet: 19 of 19



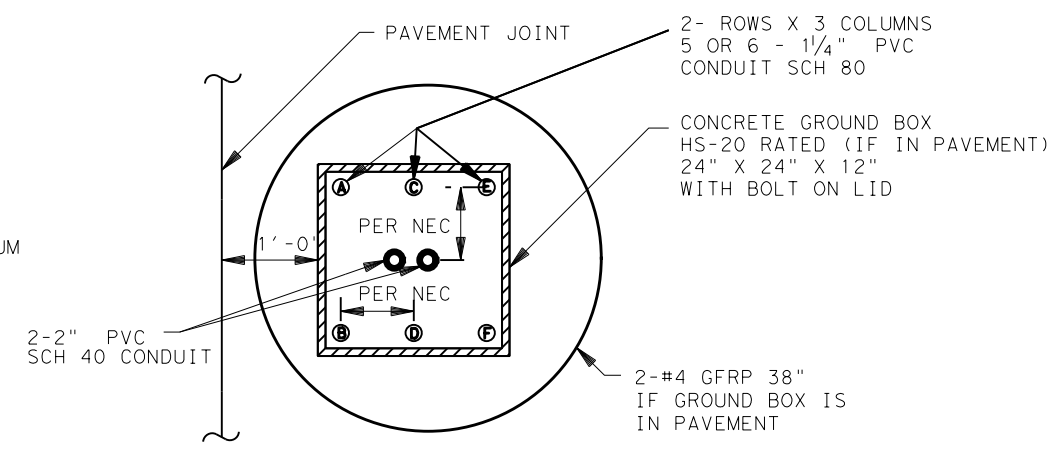
CONDUIT RISER DETAIL A1
 LOOP TAIL TO GROUND BOX
 CONDUIT TRENCH DETAIL



CONDUIT RISER DETAIL A2
 LOOP TAIL TO GROUND BOX
 CONDUIT TRENCH DETAIL



CONDUIT RISER DETAIL A3
 LOOP TAIL TO GROUND BOX
 CONDUIT LOOP RISER DETAIL



DETAIL A4

INTERIM REVIEW ONLY
 Document incomplete: not intended for permit, bidding or construction.
 Engineer: KRIS Z. KEITH
 P.E. Serial No.: 93753
 Date: 26-MAY-2015

NOT TO SCALE

HNTB HNTB Corporation
 The HNTB Companies
 Engineers Architects Planners
 TBPE FIRM REGISTRATION NO.: 420

CENTRAL TEXAS
 Regional Mobility Authority

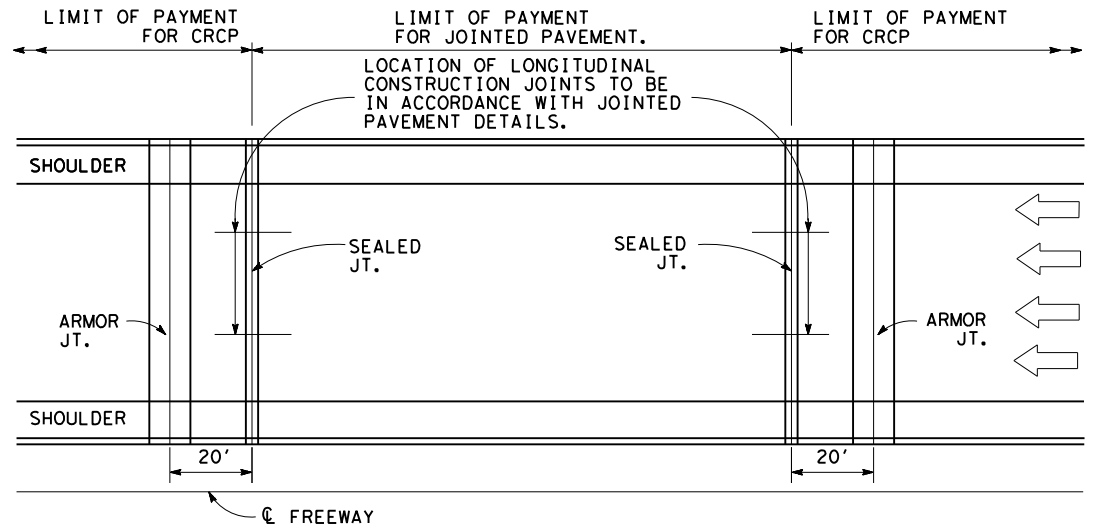
**FIXED PRICE
 TOLLING GUIDELINES
 CONDUIT RISER
 DETAILS**

A1-A4

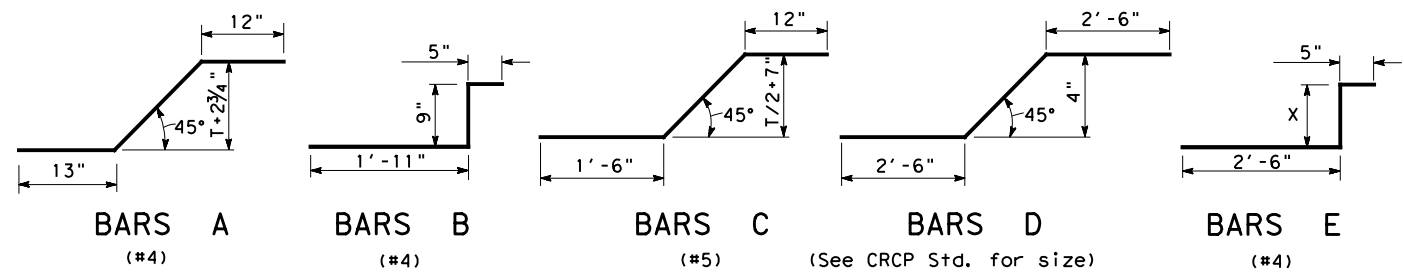
DESIGNED BY:	FED. RD. DIV. NO. 6	FEDERAL AID PROJECT NO.	SHEET NO. 19
DRAWN BY:	STATE TEXAS	DIST. AUS	COUNTY
CHECKED BY:	CONT. KK	SECT.	JOB
			HIGHWAY NO.

Scale: 1:230
Plotted on: \$DATE\$

Pen Table: \\ous00\pmor\k\Jobs\46837*CTRMA\Loop1\ML\Project Development\Design\CAD Files\Plot\MOPAC\1117.dgn
Design File Name: \\ous00\pmor\k\Jobs\46837*CTRMA\183A Operations and Maintenance\Tolling New Fixed Price Tolling Standards\TAJ-JCP.dgn

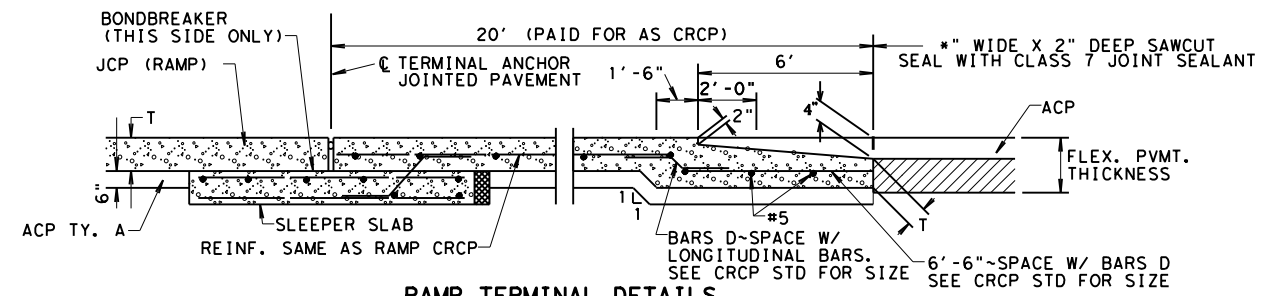


**TYPICAL FREEWAY LAYOUT
CONCRETE MEDIAN AND SHOULDERS**
(SHOWING 2 TERMINAL ANCHORS)

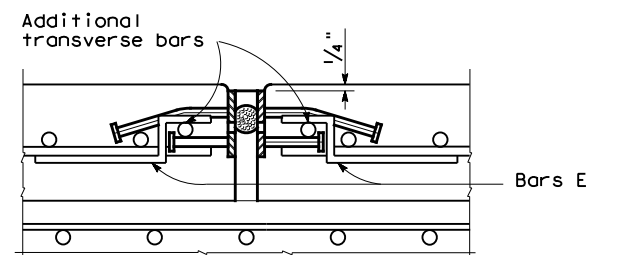


ESTIMATED QUANTITIES (FOR ONE TERMINAL ANCHOR)

ITEM	PAVEMENT THICKNESS (INCHES)								
	8	9	10	11	12	13	14	15	
SLEEPER SLAB	CONC (TERM ANCH)	0.37 CY/LF	0.37 CY/LF	0.37 CY/LF	0.37 CY/LF	0.37 CY/LF	0.37 CY/LF	0.37 CY/LF	0.37 CY/LF
	REINF STL (TERM ANCH)	49.0 LBS/LF	49.1 LBS/LF	49.2 LBS/LF	49.3 LBS/LF	49.5 LBS/LF	49.6 LBS/LF	49.7 LBS/LF	49.8 LBS/LF
	UNCL EXCAV (TERM ANCH)	0.19 CY/LF	0.19 CY/LF	0.19 CY/LF	0.19 CY/LF	0.19 CY/LF	0.19 CY/LF	0.19 CY/LF	0.19 CY/LF
SUPPORT SLAB	CONC (TERM ANCH)	0.07 CY/LF	0.07 CY/LF	0.07 CY/LF	0.07 CY/LF	0.07 CY/LF	0.07 CY/LF	0.07 CY/LF	0.07 CY/LF
	REINF STL (TERM ANCH)	7.3 LBS/LF	7.4 LBS/LF	7.5 LBS/LF	7.5 LBS/LF	7.6 LBS/LF	7.7 LBS/LF	7.8 LBS/LF	7.9 LBS/LF
	UNCL EXCAV (TERM ANCH)	0.03 CY/LF	0.03 CY/LF	0.03 CY/LF	0.03 CY/LF	0.03 CY/LF	0.03 CY/LF	0.03 CY/LF	0.03 CY/LF

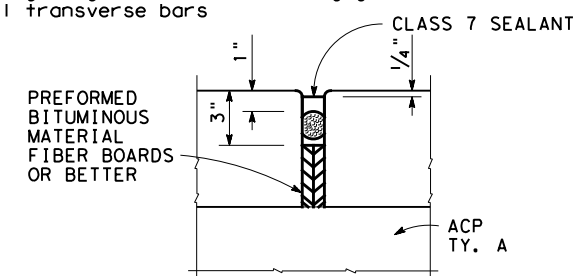


RAMP TERMINAL DETAILS



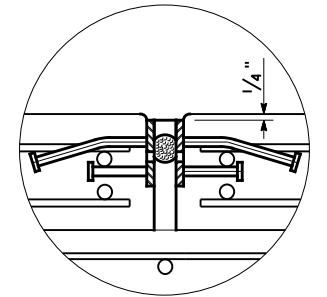
SINGLE LAYER REINFORCEMENT

Two additional transverse bars shall be placed to engage Nelson Studs when single layer of continuous steel is present. Bars E shall be placed along longitudinal bars to engage additional transverse bars.



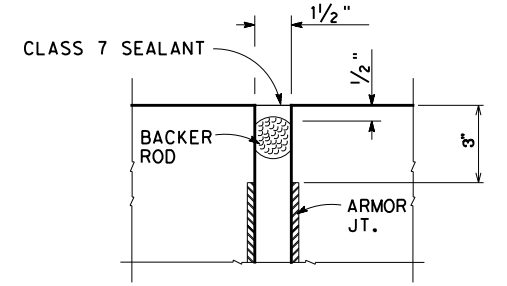
SEALED JOINT

1/4" to 3/8" radius tool to be used at concrete edge. Joint shall be cleaned prior to sealing.



OPTIONAL ARMOR JT DESIGN

Note: Armor Joint may be depressed by 1/4" across roadway for construction concerns. 1/4" to 3/8" radius tool to be used at concrete edge. Optional Armor Joint design shall not be used at abutment.



PLAN VIEW

TREATMENT OF VERTICAL EDGE

Vertical edge shall be sealed with backer rod and class 7 sealant flush with pavement edge. Horizontal limits of backer rod along the length of the armor joint shall be extended to the outside of pavement. Joint shall be cleaned prior to sealing.

NOTES:

POLYETHYLENE FOAM (6# DENSITY), SAW CUTS, EXPANSION JOINTS, AND EXPANSION JOINT MATERIALS SUBSIDIARY TO PERTINENT ITEM.

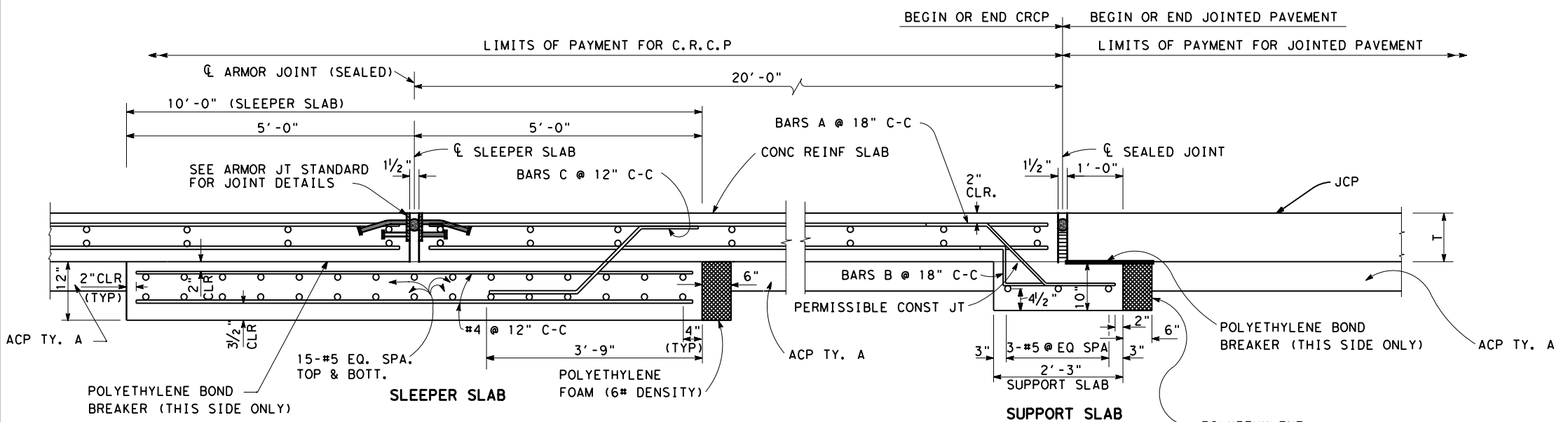
SUPPORT SLAB AND SLEEPER SLAB SHALL BE PAID FOR IN ACCORDANCE WITH SPECIAL SPECIFICATION ITEM "TERMINAL ANCHORAGE SYSTEM".

EXCAVATION OF A.C.P. IN VICINITY OF SLEEPER AND SUPPORT SLABS SUBSIDIARY TO PERTINENT ITEM.

SEE C.R.C.P. STANDARD FOR LOCATION OF REINFORCEMENT AND DETAILS. C.R.C.P. IN VICINITY OF SLEEPER AND SUPPORT SLAB TO BE PAID UNDER PERTINENT ITEM

JOINTED CONCRETE PAVEMENT (JCP) DETAILS ARE SHOWN ELSEWHERE IN THE PLANS.

DETAILS FOR PAVEMENT WIDTH, AND CROWN CROSS-SLOPE SHALL BE AS SHOWN ELSEWHERE ON THE PLANS.



SECTION THRU TERMINAL ANCHORAGE
(SHOWING ONE TERMINAL ANCHOR)

Texas Department of Transportation
Austin District Design

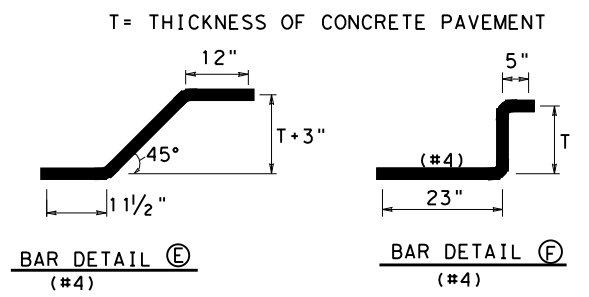
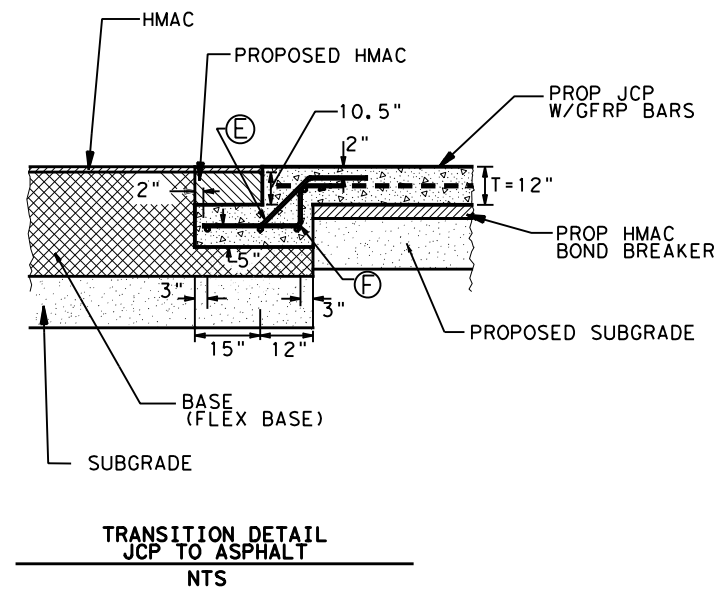
**TERMINAL ANCHOR
JOINT - JOINTED**

TAJ-1

Austin District Standard

© TXDOT 2006	DIST	FED REG	FEDERAL AID PROJECT	SHEET
REVISIONS	AUS	6		22
	COUNTY	CONTROL	SECT	JOB
				HIGHWAY

Pen Table: \\ousw00\pmwork\Jobs\46837*CTRNA\Loop1\ML\Project Development\Design\CAD Files\Plot\MPAC*11X17.dgn
 Design Filename: \\ousw00\pmwork\Jobs\46837*CTRNA\183A Operations and Maintenance\Tolling\New Fixed Price Tolling Standards\ Pavmt Jointing Plan Detail.dgn
 Scale: 1:5
 \$DATE\$\$\$\$\$\$



NOTE: STEEL REINFORCING ALLOWED FOR BARS E AND F AND SPACED AT 18" C-C

GENERAL NOTES

1. DESIGN-BUILDER TO COORDINATE WITH SYSTEM INTEGRATOR FOR ACTUAL JOINT LOCATIONS.
2. TRANSVERSE JOINT SPACINGS SHOWN ARE MEASURED ALONG THE OUTSIDE EDGE OF PAVEMENT. TRANSVERSE JOINTS SHALL BE RADIAL TO THE BASELINE.
3. PROVIDE BOTH MEMBRANE AND WET MAT CURING. PLACE MEMBRANE CURING IMMEDIATELY AFTER TEXTURING. PROVIDE WET MAT CURING IN ACCORDANCE WITH TXDOT ITEM 420, AFTER MEMBRANE CURING HAS BEEN APPLIED AND AS SOON AS PRACTICAL SO AS NOT TO DAMAGE THE SURFACE FINISH.
4. SAW JOINTS TO A DEPTH OF 3" OR THE PAVEMENT THICKNESS DIVIDED BY FOUR (4), WHICHEVER IS GREATER, AS SOON AS SAWING CAN BE ACCOMPLISHED WITH ONLY MINOR RAVELING AND COMPLETE SAWING BEFORE THE PAVEMENT BEGINS TO COOL. FOR EACH CONCRETE PLACEMENT INSTALL ONE OR MORE TEMPERATURE SENSORS, 1" BELOW THE SURFACE AND MONITOR TO INSURE TEMPERATURE REQUIREMENTS ARE MET.

INTERIM REVIEW ONLY	
Document incomplete: not intended for permit, bidding or construction.	
Engineer: KRIS Z. KEITH	
P.E. Serial No.: 93753	
Date: 26-MAY-2015	

NOT TO SCALE

HNTB HNTB Corporation
 The HNTB Companies
 Engineers Architects Planners
 TBPE FIRM REGISTRATION NO.: 420

CENTRAL TEXAS
 Regional Mobility Authority

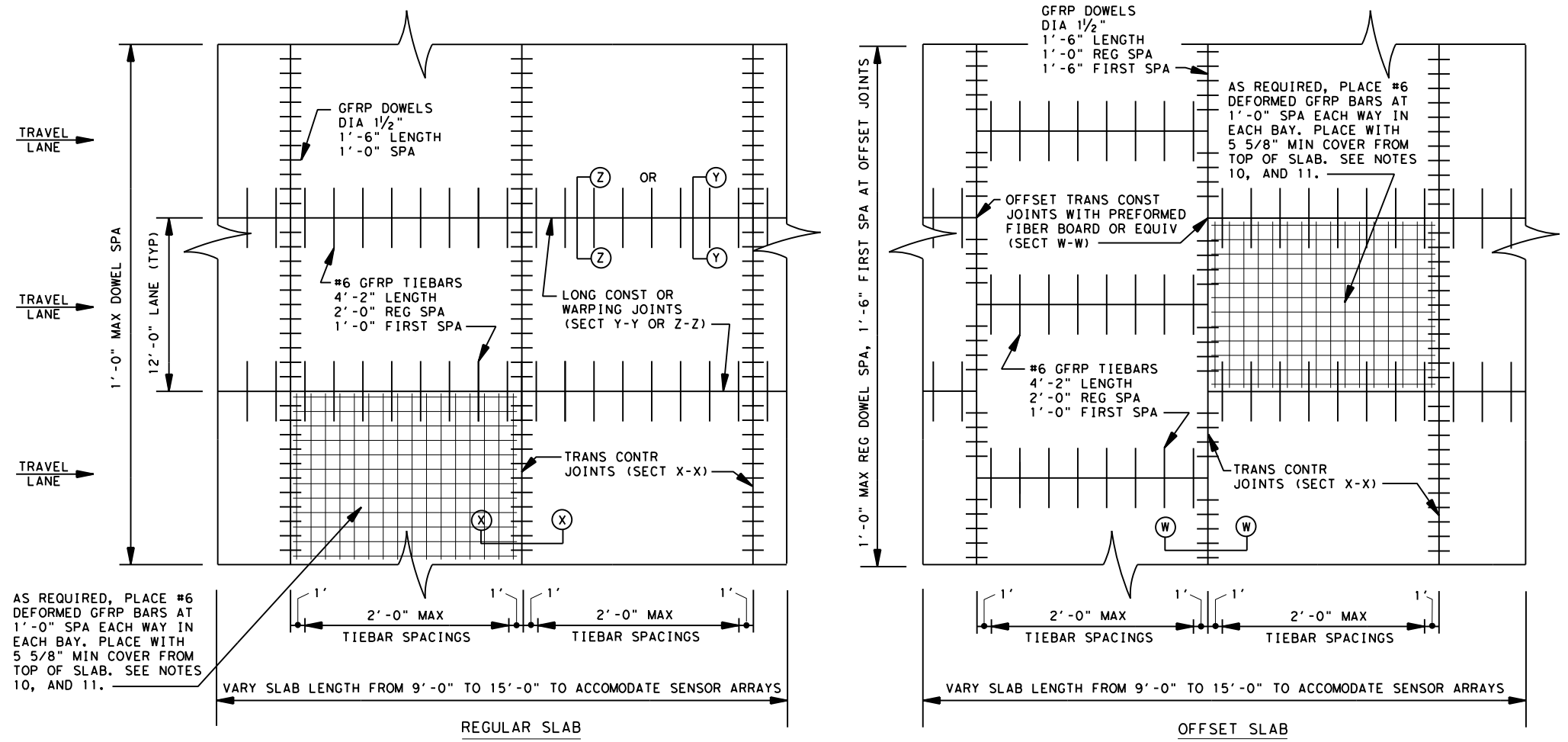
**FIXED PRICE
 TOLLING GUIDELINES
 CONCRETE TO ASPHALT
 TRANSITION DETAIL**

CATD-1

DESIGNED BY:	FED. RD. DIST. NO. 6	FEDERAL AID PROJECT NO.	SHEET NO. 23
DRAWN BY:	STATE TXAS	DIST. AUS	COUNTY
CHECKED BY:	CONT. KK	SECT.	JOB HIGHWAY NO.

Scale: 1:10.1207
 Plotted on: \$DATE\$

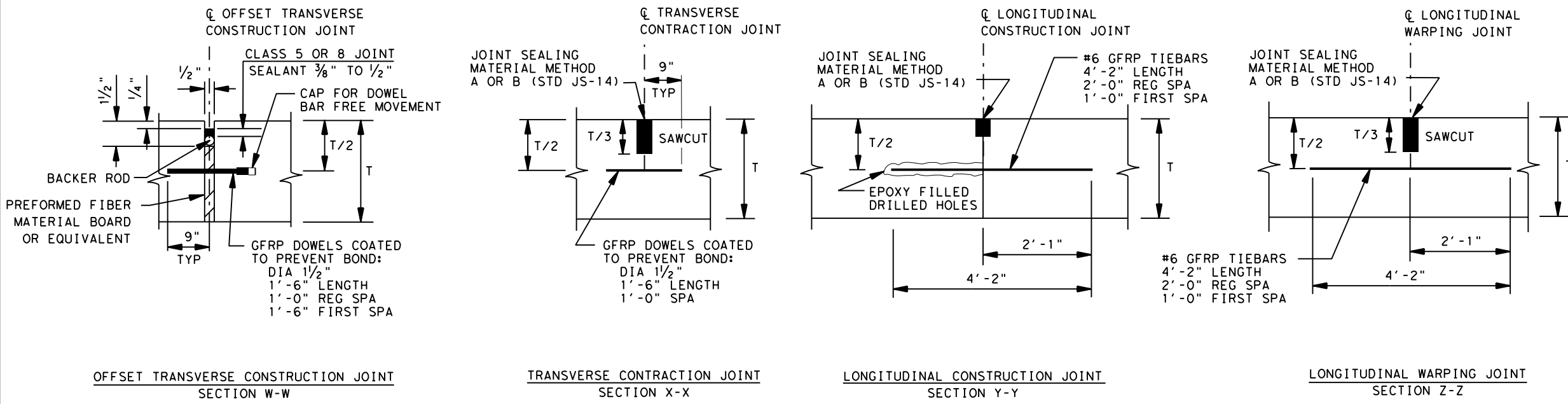
Pen Table: \\ous00\pmwork\Jobs\46837*CTRMA\Loop1\ML\Project Development\Design\CAD Files\PIofMOPAC\11171.dgn
 Design Filename: \\ous00\pmwork\Jobs\46837*CTRMA\183A Operations and Maintenance\Tolling\New Fixed Price Tolling Standards\JCQFRP*V8.dgn



- GENERAL NOTES**
- WHERE APPLICABLE, TERMINAL ANCHOR SLAB DETAILS OR OTHER ADJOINING PAVEMENT PLANS AND DETAILS ARE AS SHOWN ELSEWHERE IN THE PLANS.
 - DETAILS FOR PAVEMENT SLAB WIDTH, THICKNESS, AND CROWN CROSS-SLOPE ARE SHOWN ELSEWHERE ON THE PLANS.
 - THE DETAIL FOR THE JOINT SEALANT AND RESERVOIR SHALL BE AS SHOWN ON "CONCRETE PAVEMENT DETAIL, JOINT SEALS" STANDARD (JS-14).
 - FOR FURTHER INFORMATION REGARDING THE PLACEMENT OF CONCRETE AND REINFORCEMENT, REFER TO THE GOVERNING SPECIFICATIONS FOR "CONCRETE PAVEMENT" AND "GFRP REINFORCEMENT".
 - PAVEMENT WIDTH OF MORE THAN 16' SHALL HAVE A LONGITUDINAL JOINT (SECTION Z-Z OR Y-Y). THESE JOINTS SHALL BE LOCATED WITHIN 6" OF THE LANE LINE UNLESS THE JOINT LOCATION IS SHOWN ELSEWHERE ON THE PLANS.
 - SAW CUT DEPTH FOR LONGITUDINAL AND TRANSVERSE CONTRACTION JOINTS MAY BE ONE FOURTH THE SLAB THICKNESS WHEN CRUSHED LIMESTONE IS USED AS THE COARSE AGGREGATE.
 - CONCRETE SLABS WIDER THAN 100' WITHOUT A FREE JOINT, ARE NOT COVERED BY THIS STANDARD.
 - SLAB LENGTHS SHOWN FOR 12' LANE. LONGITUDINAL AND TRANSVERSE SLAB DIMENSIONS FOR OTHER LANE WIDTHS MUST NOT VARY MORE THAN 25% FROM EACH OTHER.
 - DOWEL BASKETS FOR GFRP BARS SHALL BE NON-FERROUS.
 - UNREINFORCED INTERIOR SLAB BAYS INTENDED FOR SUPPORT ON ROCK FOUNDATION OR OTHER SUITABLE SUBGRADE AS DETERMINED BY A GEOTECHNICAL ENGINEER. INSTALL INTERIOR GRID OF GFRP BARS IN EACH SLAB BAY UNLESS OTHER GUIDANCE PROVIDED BY GEOTECHNICAL ENGINEER AND CONCURRENCE HAS BEEN RECEIVED FROM THE MOBILITY AUTHORITY.
 - SUBGRADE TYPE AND DEPTH WILL BE SHOWN ELSEWHERE ON PLANS.

JOINED PAVEMENT DETAIL LAYOUT
 NOT TO SCALE

INTERIM REVIEW ONLY
 Document incomplete: not intended for permit, bidding or construction.
 Engineer: IAN ANDREW FRASER
 P.E. Serial No.: 88483
 Date: 26-MAY-2015



HNTB
 HNTB Corporation
 The HNTB Companies
 Engineers Architects Planners
 TBPE FIRM REGISTRATION NO.: 420

CENTRAL TEXAS
 Regional Mobility Authority

FIXED PRICE
TOLLING GUIDELINES

JOINED CONCRETE
PAVEMENT

JC-1

DESIGNED BY:	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.	SHEET NO.
	6		24
DRAWN BY:	STATE	DIST.	COUNTY
DW	TEXAS	AUS	
CHECKED BY:	CONT.	SECT.	JOB
KK			HIGHWAY NO.

ATTACHMENT E

FEE SCHEDULE/BUDGET
Manor Expressway (290E) Phase III Project

290 Phase III Pricing Submittal

PRICE SHEET						
CTRMA 290 Phase III						
Toll System Installation/Integration						
Task No.	Description	Qty	Unit	Unit Price (US \$'s)	Extended Price (US \$'s)	
	System Integration					
1	Toll Zone - Materials / Equipment	1	Lot	569,287.51	569,287.51	
2	Corridor Devices: Equip & Install	1	Lot	99,063.35	99,063.35	
3	Program Management	1	Lot	206,439.34	206,439.34	
4	System Design & Documentation	1	Lot	148,697.31	148,697.31	
5	NVDC	1	Lot	94,834.35	94,834.35	
6	System Integration/Testing	1	Lot	281,465.07	281,465.07	
7	Installation	1	Lot	268,112.65	268,112.65	
8	Fiber	1	Lot	54,922.45	54,922.45	
B	Bonding	1	LS	12,542.14	12,542.14	
TOTAL					1,735,364.18	

The Pricing shown above Excludes:

- All Recurring Data Communication Costs
- Lane Closures & MOT (if needed)
- Recurring 3rd-Party SW/HW Support Agreements & SW Licenses
- Spares Replenishment Costs
- System HW/SW Warranty/Maintenance Services & Support

Labor Hours

	TOTAL A&I HOURS (Excl's Optional Items & Warr/Maint)						
	Total Hrs	Program Management	System Design & Documentation	NVDC	System Integration/Testing	Installation	Fiber
Database Administrator	-						
Database Developer	600		200	40	280	80	
Software Engineer - Image Processing	-		-		-		
Software Engineer - Real Time / OCR	840		120	80	520	120	
Software Managers / Leads	400		160	80	120	40	
Software Programmer - Web/Middle Tier	480		80	40	320	40	
Documentation / Technical Writer / CAD	240		80		80	80	
Test / QA Manager	160			80	80		
Test Engineer	320			80	240		
Network / Systems Administrator	80			40	40		
System Engineer	280		80		80	80	40
Sr. Project Manager	-						
Project Manager	1,470	980	160		80	240	10
Field Tech Team Lead	195		40		40	115	
Field Technician	385		55		55	275	
Installation/Field Manager/Supervisors	109	40				69	
Software Support (Maint)	-						
Customer Service Representative/Operator	-						
Other (Exec/Sr Mgmt, Prog Dir, PA, Support)	254	71	68	31	-	80	4
TOTAL HOURS	5,812	1,091	1,043	471	1,935	1,218	54

ATTACHMENT F

PROJECT SCHEDULE AND MILESTONES
Manor Expressway (290E) Phase III Project
(Dates and Durations Subject to Change)

Task	Duration and/or Milestone Date
Begin Construction (Approximate)	2018
Construction Duration (Approximate)	2 years
Open to Traffic (Interim Milestone, Approximate)	2020
Open to Traffic (Full Project, Approximate)	2020

Note: Dates and construction duration are preliminary. Contractor is to review the project baseline schedule prepared by the contractor for acceptance, and provide input in the development of the project schedule as it relates to the installation and testing of the toll collection and intelligent transportation systems.



**CENTRAL TEXAS
Regional Mobility Authority**

May 31, 2017
AGENDA ITEM #5

Approve Personal Services Agreement with
Neal Spelce for Communications Support
Services

Strategic Plan Relevance:	Regional Mobility
Department:	Communications and Marketing
Contact:	Dee Anne Heath, Director of External Affairs
Associated Costs:	Not to exceed \$238,000
Funding Source:	Operating Fund
Board Action Required:	Consider and act on draft resolution

Summary:

Pursuant to Section 401.026 of the Mobility Authority Policy Code, the Executive Director must submit justification to the Board for entering into a single source contract. In order to maintain the continuity and level of expertise of the Communications and Marketing efforts, the Executive Director has determined that it is in the best interest of the Mobility Authority to contract directly with Neal Spelce (the Neal Spelce Company) as a single-sourced consultant for approximately two years.

Neal Spelce has been functioning as an integral part of the community and media outreach efforts for CTRMA. He has significant familiarity with the history of Central Texas and key stakeholders throughout the region and will help to develop an overall communications strategy to help educate Central Texans on CTRMA's role in transportation and quality of life solutions. (Approximate value of \$178,000)

In addition to the educational initiative, Neal Spelce has been critical to public outreach and media efforts for projects such as MoPac Improvement, 183 South and MoPac South. We anticipate continued community and media efforts on all three projects and his experience and expertise provide a consistent, respected and unique perspective. (Approximate value of \$60,000)

This agreement would be effective July 1, 2017 and extend through June 30, 2019 at which time we would re-assess communications needs consistent with the future needs of the Mobility Authority.

Backup Provided:	Draft Resolution Draft Personal Services Agreement
------------------	---

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

RESOLUTION NO. 17-0XX

**APPROVING A PERSONAL SERVICES AGREEMENT WITH NEAL SPELCE FOR
COMMUNICATION AND OUTREACH SERVICES**

WHEREAS, the Mobility Authority is currently developing comprehensive communications plans to help educate Central Texans about mobility solutions and how they can improve their quality of life; and

WHEREAS, Neal Spelce has extensive experience and knowledge of communities affected by congestion as well as communities affected by the MoPac Improvement Project, the 183 South Project, the MoPac South Project, the 183 North Project and the Oak Hill Parkway Project and has been a valued contributor to the Mobility Authority's communications and outreach efforts; and

WHEREAS, the Executive Director recommends continuing to engage Neal Spelce for communication and outreach services; and

WHEREAS, the Executive Director and Neal Spelce have agreed to a personal services agreement in an amount not to exceed \$238,000, including a monthly retainer of \$8,000, a copy of which is attached to this resolution as Exhibit A.

NOW THEREFORE, BE IT RESOLVED, that the Board authorizes the Executive Director to finalize and execute the proposed agreement with Neal Spelce in the form or substantially the same form as Exhibit A; and

BE IT FURTHER RESOLVED pursuant to Section 401.0061 of the Policy Code, the Board exempts this personal services agreement from any competitive bidding or competitive proposal requirements otherwise applicable under the Policy Code.

Adopted by the Board of Directors of the Central Texas Regional Mobility Authority on the 31st day of May 2017.

Submitted and reviewed by:

Approved:

Geoffrey Petrov, General Counsel

Ray A. Wilkerson
Chairman, Board of Directors

Exhibit A

PERSONAL SERVICES AGREEMENT

Date: July 1, 2017
To: Mike Heiligenstein, Executive Director
From: Neal Spelce, d/b/a The Neal Spelce Company
Re: FY 2018-2019 Working Arrangement

Scope of Proposed Work

The Mobility Authority has identified a number of issues where Neal Spelce's communications experience, community involvement, visibility and reputation will be of tremendous value in message development and delivery for CTRMA as well as MoPac Improvement Project, 183 South, MoPac South, 183 North and Oak Hill Parkway projects.

Some examples include coordination with neighborhoods, as well as other areas of concern such as construction impact, sound walls, moving of trees, drainage flow, asbestos removal, bicycle/pedestrian and environmental improvements and understanding of the Mobility Authority's mission and role in the region.

Additionally, and at the request of the Mobility Authority, this may also include proactive measures and/or trouble-shooting to provide a better understanding with the community as well as maintaining a favorable relationship with this affected community and the public at large. Other selected assignments could include presentations, involvement of area public officials and civic organizations, input in public meeting preparations, MoPac Moment videos, It's Time podcasts, and responses to feedback from community members.

Neal Spelce has long advocated working on short-term action with long-term view. This would include, for example, involvement with messaging and strategy on educational and informative advertising and other vehicles for communication to target markets. It could also involve assessing opportunities/needs and impact of future projects (MoPac South, Oak Hill Parkway and 183 North) that are in various stages of planning and development.

Both parties understand the need to be prepared for unforeseen events that might occur during the term of this agreement. Therefore, we place a high priority on the ability to be nimble and react quickly.

Unique Background for this Consultation

Neal has owned and operated a large Austin advertising, marketing and public relations firm, winning national accolades. For decades Neal Spelce was a highly-rated and national award-winning local TV news anchor and has a deep and unique understanding of media and their commitment to reporting information. Neal has also been named Austin's Most Worthy Citizen for his civic involvement that included service as Chair of the Austin Chamber of Commerce, Chair of United Way, Chair of Better Business Bureau, Chair of 15-County Capitol Area Boy Scouts of America, Founder and President of Austin Area Research Foundation (AARO), Chair of Leadership Austin, Chair of American Health and Fitness Foundation, holder of 3 communications degrees from the University of Texas at Austin.

This wide range of experience and community involvement also includes deep and expanding knowledge of Central Texas as exemplified by writing a well-circulated weekly newsletter since 1979 containing insights, perspectives and analysis of business public affairs, growth and development, transportation, real estate, education and environmental issues in the Austin area.

Contractual Terms

I agree with work the agreed upon hours below to work on behalf of the Mobility Authority, with the understanding that those hours may fluctuate depending upon the Mobility Authority's requests.

I propose a monthly retainer between Neal Spelce and the Mobility Authority effective July 1, 2017, to terminate on June 30, 2019.

The monthly retainer is for a commitment of 10 hours per week, averaged over the preceding period, at a compensation of \$8,000 per calendar month. Starting July 28, 2017, and on the 28th day of each following month through June 2019, I will provide the Mobility Authority with an invoice that describes the services I provided to Mobility Authority (project specific work separated from CTRMA work) and noting the date and amount of time devoted to those services for the period covered by the invoice.

This agreement is intended to be effective on July 1, 2017, with the first retainer (for all services provided after July 1, 2017 and before July 29, 2017) payable on July 30, 2017. The remaining monthly retainers will be payable on the 29th day of each following month through June 2019.

In addition to the retainer payments, the Mobility Authority agrees to reimburse expenses that may be incurred by Neal Spelce on behalf of the Mobility Authority when the proposed expense is approved by the Mobility Authority in writing before the expense is incurred. Also, the Mobility Authority agrees to pay Neal Spelce for project specific work up and above the retainer (not to exceed \$60,000 each fiscal year) when the proposed project specific work is approved by the Mobility Authority before the work is initiated. It is understood the amount could be adjusted at any time depending upon the level of project specific work during the 2-year contract period.

This agreement may be terminated by Neal Spelce or the Mobility Authority at any time for convenience by written notice to the other party, with the retainer to be prorated as necessary and paid as of that termination date, together with any approved expenses that have been incurred but not reimbursed.

Mike Heiligenstein, Executive Director

Neal Spelce
d/b/a The Neal Spelce Company



**CENTRAL TEXAS
Regional Mobility Authority**

May 31, 2017
AGENDA ITEM #6

Approve the minutes from the April 26, 2017
Regular Board meeting and from the May 15, 2017
Board Workshop 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 April 26, 2017 Regular Board Meeting and the attached draft minutes for the May 15, 2017 Board Workshop.

Backup provided: Draft Minutes, April 26, 2017 Regular Board Meeting
Draft Minutes, May 15, 2017 Board Workshop

MINUTES

Regular Meeting of the Board of

Directors of the

CENTRAL TEXAS REGIONAL MOBILITY AUTHORITY

Wednesday, April 26, 2017

The meeting was held in the Mobility Authority's Lowell H. H. Lebermann, Jr. Board Room at 3300 N. Interstate 35, #300, Austin, Texas 78705-1849. Notice of the meeting was posted April 19, 2017 at the respective County Court Houses 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:

www.mobilityauthority.com/about/vod.php

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

After noting that a quorum of the Board was present, Chairman Ray Wilkerson called the meeting to order at 9:04 a.m. with the following Board members present: David Singleton, Nikelle Meade, Charles Heimsath, David Armbrust, Amy Ellsworth and Mark Ayotte.

2. Opportunity for public comment.

3. Welcome newly appointed Board Member and administer the oath of office.

Chairman Wilkerson introduced Mark Ayotte, the new Board member replacing Jim Mills, and administered the oath of office.

Chairman Wilkerson recessed the Board Meeting and reconvened as the Audit Committee.

Audit Committee Meeting:

David Singleton, Chairman of the Audit Committee called the Audit Committee Meeting to order at 9:08 a.m.

- A. Mary Temple, Controller introduced auditor Michael Brian and Tino Robledo, from RSM US, LLP.
- B. Accept the letter of engagement for annual independent auditing services.

Michael O’Brian and Tino Robledo, RSM US, LLP spoke on this item.

Chairman Wilkerson mentioned that the Mobility Authority complies annually with audits and accountability reports that include an Independent External Audit, a Single Audit required by the federal government, an annual report to County Commissioner Courts, the annual disclosure report sent to Southwest Securities and posted electronically on EMMA, and numerous other reports filed with the Texas Transportation Commission and other agencies.

Audit Committee Chairman Singleton entertained a motion to accept the letter of engagement.

MOTION: Accept the letter of engagement for annual independent auditing services.

RESULT: Approved (Unanimous); 7-0

MOTION: Charles Heimsath

SECONDED BY: David Armbrust

AYE: Wilkerson, Meade, Singleton, Heimsath, Armbrust, Ellsworth, Ayotte

NAY: None.

ADOPTED AS: **RESOLUTION NO. 17-019**

- C. Insurance Audit.

Bill Chapman, Chief Financial Officer presented this item. Mr. Chapman mentioned the Mobility Authority undergoes an insurance audit every three years as required by bond covenants.

- D. Adjourn Audit Committee.

After completing the Audit Committee, Chairman Singleton adjourned the Audit Committee meeting at 9:19 a.m. Chairman Wilkerson reconvened in open meeting at 9:20 a.m.

Regular Board Items

4. Approve the minutes from the March 29, 2017 Regular Board Meeting.

MOTION: Approval for the March 29, 2017, Board Meeting minutes.

RESULT: Approved (Mark Ayotte abstained); 6-0

MOTION: David Singleton

SECONDED BY: Charles Heimsath

AYE: Wilkerson, Meade, Singleton, Heimsath, Armbrust, Ellsworth

NAY: None.

5. Accept the financial statements for March 2017.

Mary Temple, Controller presented this item.

MOTION: Accept the March 2017 financial statements.

RESULT: Approved (Unanimous); 7-0

MOTION: Amy Ellsworth

SECONDED BY: Nikelle Meade

AYE: Wilkerson, Meade, Singleton, Heimsath, Armbrust, Ellsworth, Ayotte

NAY: None.

ADOPTED AS: **RESOLUTION NO. 17-020**

6. Approve financial institutions and qualified brokers authorized to provide investment services and engage in investment transactions with the Mobility Authority and reaffirm the CTRMA investment policy.

Bill Chapman, Chief Financial Officer, presented this item.

MOTION: Approve financial institutions and qualified brokers authorized to provide investment services and engage in investment transactions with the Mobility Authority.

RESULT: Approved (Unanimous); 7-0
MOTION: Meade
SECONDED BY: Heimsath
AYE: Wilkerson, Meade, Singleton, Heimsath, Armbrust,
Ellsworth, Ayotte
NAY: None.

ADOPTED AS: RESOLUTION NO. 17-021

7. Approve the annual compliance report to the Texas Department of Transportation required by 43 Texas Administrative Code § 26.65.

Bill Chapman, Chief Financial Officer presented this item.

MOTION: Approve the annual compliance report to the Texas Department of Transpiration required by 43 Tex. Admin. Code § 26.65.

RESULT: Approved (Unanimous); 7-0
MOTION: Heimsath
SECONDED BY: Ayotte
AYE: Wilkerson, Meade, Singleton, Heimsath, Armbrust,
Ellsworth, Ayotte
NAY: None.

ADOPTED AS: RESOLUTION NO. 17-022

8. Exercise the option of the Mobility Authority under state law to develop, finance, construct, and operate the 183 North Project as a toll project.

Justin Word, Director of Engineering presented this item.

MOTION: Exercise the option of the Mobility Authority under state law to develop, finance, construct, and operate the 183 North Project as a toll project.

RESULT: Approved (Unanimous); 7-0
MOTION: Armbrust
SECONDED BY: Meade
AYE: Wilkerson, Meade, Singleton, Heimsath, Armbrust,
Ellsworth, Ayotte
NAY: None.

ADOPTED AS: RESOLUTION NO. 17-022

- 9. Discuss and consider approval of Amendment No. 4 to the Agreement for HNTB's General Consulting Civil Engineering Services and Supplement No. 4 to Work Authorization No. 16 for the MoPac Improvement Project.**

Justin Word, Director of Engineering provided presentation and mentioned this was a time extension only.

MOTION: Approve Amendment No. 4 to the HNTB Agreement for consulting engineering services and Supplement No. 4 to Work Authorization No. 16 for the MoPac Improvement Project.

RESULT: Approved (Unanimous); 7-0

MOTION: Heimsath

SECONDED BY: Meade

AYE: Wilkerson, Meade, Singleton, Heimsath, Armbrust, Ellsworth, Ayotte

NAY: None.

ADOPTED AS: RESOLUTION NO. 17-023

Briefings and Reports

10. Executive Director Report.

A. Quarterly update on transportation projects under construction.

I. 183 South Project.

Justin Word, Director of Engineering, Steve Pustelnyk, Director of Community Relations, and Dan Freeman, GEC Deputy Project Manager, Atkins presented.

II. SH 45 SW Project.

Justin Word, Director of Engineering and Cris Peña, GEC Project Manager, RS&H presented.

III. MoPac Improvement Project.

Steve Pustelnyk, Director of Community Relations presented.

IV. Status of Change Orders.

Justin Word, Director of Engineering and Mike Heiligenstein, Executive Director presented.

Executive Session Pursuant to Government Code, Chapter 551

- 11.** 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).
- 12.** Discuss legal issues relating to procurement and financing of Mobility Authority transportation projects, as authorized by §551.071 (Consultation with Attorney).
- 13.** Discuss personnel matters as authorized by §551.074 (Personnel Matters).

Chairman Wilkerson announced that the Board would not meet in Executive Session.

After confirming that no member of the public wished to address the Board, Chairman Wilkerson declared the meeting adjourned at 10:38 a.m.

**Minutes
Board of Directors of the
CENTRAL TEXAS REGIONAL MOBILITY AUTHORITY
Workshop
Monday, May 15, 2017**

**Hotel Ella – Azalea Meeting Rooms 1&2
1900 Rio Grande
Austin, TX**

Items presented at the Workshop were for briefing and discussion only. The Board took no action. There is a Board Workshop PowerPoint containing additional information. The PowerPoint for the May 15, 2017 Board of Directors Workshop is available on the CTRMA website at the following link:

<https://www.mobilityauthority.com/board-meetings/05-15-2017>

1. *Opening Remarks from Chairman Wilkerson and Executive Director Heiligenstein.*
 - a. After noting that a quorum of the Board was present, Chairman Ray Wilkerson called the workshop to order at 9:15am with the following Board Members present: David Singleton, Nikelle Meade, Charles Heimsath, David Armbrust, Amy Ellsworth, and Mark Ayotte.
2. *Public Comment*
 - a. No members of the public in attendance.
3. *National/State/Local Legislative:* Presenters: Karen Johnson/ISI Consulting, Jerry Valdez/Valdez Government Affairs, Brian Cassidy/Locke Lorde, and Ashby Johnson, Capital Area Metropolitan Organization (CAMPO).
 - a. Karen Johnson/ISI Consulting: Provided transportation updates on the federal level and described what is included in the proposed \$1 Trillion Transportation plan, and ways in which it might be funded.
 - b. Jerry Valdez/Valdez Government Affairs. Provided status update on Texas Legislation regarding transportation bills affecting the RMAs. Also, described the bill process and how bills are amended.
 - c. Brian Cassidy/Locke Lord: Discussed in detail the various transportation bills that directly affect the RMAs, focusing on anti-toll bills such as Sunset Review. Described how many have now been funneled down a select few that he cited as fundamentally problematic for the RMAs.

- d. Ashby Johnson/CAMPO discussed the Regional Transportation Plan.
 - i. Provided background on CAMPO, its organizational structure and the long-term transportation plan and how it becomes implemented. Discussed the status of the CDA Bill and the projects that would be affected by its outcome.
 - ii. Discussed the possibility of the RMA having a seat on CAMPO's board.
- 4. *Financial Report*: Presenters: Bill Chapman, Vince Dolan and Prakash Ganesh with KPMG).
- 5. *Project Report*: Presenters: Justin Word and Jeff Dailey
- 6. *Ethics Presentation*: Presenter: Geoff Petrov
- 7. *Consensus building on regional solutions*: Presenters: Bill Ihlo / Stantec, Matthew Jukes / Kapsch, Clarke Heidrick / AARO. Tina Geiselbrecht / Texas Transportation Institute also present.
 - a. Bill Ihlo/Stantec – discussed how we determine toll rate increases.
 - b. Matthew Jukes/Kapsch – Discussed ways in which the RMA can partner with local agencies to address future mobility in the region
 - c. Clarke Heidrick/AARO: Discussed AARO's (Austin Area Research Organization) background, organizational structure, and purpose, specifically how their organization is connected with transportation throughout the region covering six counties in Central Texas.

NOTE: The Board Members had discussions and provided comments and feedback throughout the Workshop as each item was presented instead of reserving discussion and comments for Items 8 & 9.

- 8. Roundtable Discussion (Board and staff roles, practices, and procedures)
- 9. Closing Comments and Feedback
- 10. Adjourn Meeting

Chairman Wilkerson declared the Board Workshop adjourned at 3:30pm.



CENTRAL TEXAS
Regional Mobility Authority

May 31, 2017
AGENDA ITEM #7

Accept the financial statements for
April 2017

Strategic Plan Relevance: Regional Mobility
Department: Finance
Contact: Bill Chapman, Chief Financial Officer
Associated Costs: N/A
Funding Source: N/A
Action Requested: Consider and act on draft resolution

Summary:

Presentation and acceptance of the monthly financial statements for April 2017.

Backup Provided: Draft Resolution
Draft financial statements for April 2017.

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

RESOLUTION NO. 17-0XX

ACCEPT THE FINANCIAL STATEMENTS FOR APRIL 2017

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; and

WHEREAS, the Executive Director, working with the Chief Financial Officer, has reviewed and authorized the disbursements necessary for the month of April 2017, and has caused Financial Statements to be prepared and attached to this resolution as Exhibit A.

NOW THEREFORE, BE IT RESOLVED, that the Board of Directors accept the Financial Statements for April 2017, attached as Exhibit A.

Adopted by the Board of Directors of the Central Texas Regional Mobility Authority on the 31st day of May 2017.

Submitted and reviewed by:

Approved:

Geoffrey Petrov, General Counsel

Ray A. Wilkerson
Chairman, Board of Directors

Exhibit A

Central Texas Regional Mobility Authority
Income Statement
For the Period Ending April 30, 2017

	Budget Amount FY 2017	Actual Year to Date	Percent of Budget	Actual Prior Year to Date
REVENUE				
Operating Revenue				
Toll Revenue - Tags	46,555,037	44,758,963	96.14%	38,655,752
Video Tolls	16,030,043	11,711,748	73.06%	9,889,060
Fee Revenue	6,876,980	4,681,632	68.08%	3,892,128
Total Operating Revenue	69,462,060	61,152,343	88.04%	52,436,940
Other Revenue				
Interest Income	250,000	774,626	309.85%	1,364,695
Grant Revenue	700,000	19,428,596	2775.51%	65,453,856
Reimbursed Expenditures	1,555,396	207,873	13.36%	2,849
Misc Revenue	-	6,010	-	48,322
Total Other Revenue	2,505,396	20,417,105	814.93%	66,869,723
TOTAL REVENUE	\$71,967,456	\$81,569,447	113.34%	119,306,662
EXPENSES				
Salaries and Benefits				
Salary Expense-Regular	2,967,036	2,647,133	89.22%	2,365,632
Salary Reserve	80,000	-	-	-
TCDRS	415,385	367,202	88.40%	326,354
FICA	128,873	119,578	92.79%	109,405
FICA MED	45,627	38,864	85.18%	34,433
Health Insurance Expense	332,091	284,476	85.66%	214,306
Life Insurance Expense	14,167	6,871	48.50%	3,623
Auto Allowance Expense	10,200	8,500	83.33%	8,500
Other Benefits	269,785	180,915	67.06%	154,894
Unemployment Taxes	15,463	4,231	27.36%	4,404
Total Salaries and Benefits	4,278,627	3,657,771	85.49%	3,221,551

Central Texas Regional Mobility Authority
Income Statement
For the Period Ending April 30, 2017

	Budget Amount FY 2017	Actual Year to Date	Percent of Budget	Actual Prior Year to Date
Administrative				
Administrative and Office Expenses				
Accounting	20,000	6,449	32.24%	15,173
Auditing	74,000	53,880	72.81%	36,247
Human Resources	30,000	14,095	46.98%	20,159
IT Services	88,000	60,295	68.52%	49,042
Internet	1,700	2,001	117.73%	4,769
Software Licenses	55,725	61,601	110.54%	22,157
Cell Phones	14,542	12,844	88.33%	9,493
Local Telephone Service	12,000	12,947	107.89%	11,931
Overnight Delivery Services	850	63	7.39%	119
Local Delivery Services	1,050	-	-	276
Copy Machine	12,000	12,776	106.47%	11,666
Repair & Maintenance-General	1,000	2,030	203.00%	2,950
Meeting Facilities	1,000	-	-	-
Community Meeting/ Events	2,000	-	-	616
Meeting Expense	15,250	7,469	48.98%	6,378
Public Notices	2,000	25	1.25%	-
Toll Tag Expense	1,900	1,024	53.87%	810
Parking	3,600	1,313	36.48%	2,364
Mileage Reimbursement	11,200	3,811	34.03%	3,564
Insurance Expense	150,000	123,573	82.38%	108,409
Rent Expense	558,000	443,823	79.54%	393,595
Legal Services	525,000	41,872	7.98%	96,481
Total Administrative and Office Expenses	1,580,817	861,891	54.52%	796,198
Office Supplies				
Books & Publications	6,150	730	11.86%	1,082
Office Supplies	21,000	14,632	69.68%	17,830
Computer Supplies	17,000	11,452	67.37%	12,063
Copy Supplies	2,500	764	30.58%	1,760
Other Reports-Printing	10,000	6,054	60.54%	5,088
Office Supplies-Printed	2,700	789	29.21%	3,214
Misc Materials & Supplies	3,750	1,098	29.29%	2,238
Postage Expense	5,850	358	6.12%	485
Total Office Supplies	68,950	35,877	52.03%	43,760

Central Texas Regional Mobility Authority
Income Statement
For the Period Ending April 30, 2017

	Budget Amount	Actual Year to	Percent of	Actual Prior Year
	FY 2017	Date	Budget	to Date
Communications and Public Relations				
Graphic Design Services	75,000	6,625	8.83%	20,335
Website Maintenance	140,000	104,270	74.48%	14,222
Research Services	105,000	87,828	83.65%	-
Communications and Marketing	469,900	282,751	60.17%	140,643
Advertising Expense	336,500	159,751	47.47%	115,035
Direct Mail	10,000	-	-	380
Video Production	35,000	8,820	25.20%	34,229
Photography	10,000	2,954	29.54%	9,232
Radio	10,000	-	-	-
Other Public Relations	125,000	5,000	4.00%	71,430
Promotional Items	10,000	972	9.72%	8,322
Displays	5,000	-	-	-
Annual Report printing	5,000	-	-	1,706
Direct Mail Printing	11,300	-	-	-
Other Communication Expenses	1,000	2,426	242.64%	802
Total Communications and Public Relations	1,348,700	661,397	49.04%	416,337
Employee Development				
Subscriptions	3,300	1,467	44.46%	8,550
Memberships	50,750	35,612	70.17%	38,336
Continuing Education	11,750	135	1.15%	331
Professional Development	6,700	-	-	303
Other Licenses	1,250	257	20.52%	430
Seminars and Conferences	44,000	21,344	48.51%	13,486
Travel	88,000	47,221	53.66%	49,781
Total Employee Development	205,750	106,036	51.54%	111,217
Financing and Banking Fees				
Trustee Fees	15,000	19,773	131.82%	12,900
Bank Fee Expense	8,000	4,803	60.03%	4,848
Continuing Disclosure	10,000	-	-	-
Arbitrage Rebate Calculation	8,000	6,455	80.69%	3,685
Rating Agency Expense	30,000	15,000	50.00%	14,000
Total Financing and Banking Fees	71,000	46,030	64.83%	35,433
Total Administrative	3,275,217	1,711,232	52.25%	1,402,945

Central Texas Regional Mobility Authority
Income Statement
For the Period Ending April 30, 2017

	Budget Amount FY 2017	Actual Year to Date	Percent of Budget	Actual Prior Year to Date
Operations and Maintenance				
Operations and Maintenance Consulting				
GEC-Trust Indenture Support	165,000	97,799	59.27%	101,073
GEC-Financial Planning Support	10,500	47	0.45%	440
GEC-Toll Ops Support	45,000	20,558	45.68%	3,180
GEC-Roadway Ops Support	331,667	388,659	117.18%	292,114
GEC-Technology Support	40,000	19,026	47.56%	37,787
GEC-Public Information Support	30,000	52,700	175.67%	43,368
GEC-General Support	1,176,000	616,851	52.45%	341,374
General System Consultant	70,000	85,511	122.16%	136,208
Traffic and Revenue Consultant	80,000	68,937	86.17%	73,267
Total Operations and Maintenance Consulting	1,948,167	1,350,089	69.30%	1,028,811
Roadway Operations and Maintenance				
Roadway Maintenance	4,871,600	2,481,597	50.94%	993,491
Landscape Maintenance	5,000	-	-	108,103
Signal & Illumination Maint	20,000	25,041	125.21%	141,816
Maintenance Supplies-Roadway	45,000	396	0.88%	68,460
Tools & Equipment Expense	750	22	2.95%	475
Gasoline	6,000	4,940	82.34%	2,211
Repair & Maintenance-Vehicles	1,500	1,566	104.37%	7,621
Roadway Operations	-	-	-	521
Electricity - Roadways	180,000	124,961	69.42%	121,066
Total Roadway Operations and Maintenance	5,129,850	2,638,523	51.43%	1,443,764
Toll Processing and Collection Expense				
Image Processing	2,300,000	1,161,644	50.51%	1,463,653
Tag Collection Fees	3,240,000	3,015,537	93.07%	2,587,585
Court Enforcement Costs	40,000	11,416	28.54%	10,525
DMV Lookup Fees	5,000	397	7.93%	1,974
Total Processing and Collection Expense	5,585,000	4,188,993	75.00%	4,063,737

Central Texas Regional Mobility Authority
Income Statement
For the Period Ending April 30, 2017

	Budget Amount FY 2017	Actual Year to Date	Percent of Budget	Actual Prior Year to Date
Toll Operations Expense				
Facility maintenance	-	30	-	787
Generator Maintenance	-	-	-	5,512
Generator Fuel	6,000	58	0.96%	1,291
Fire and Burglar Alarm	500	276	55.27%	370
Elevator Maintenance	3,000	-	-	-
Refuse	1,200	1,181	98.40%	699
Pest Control	1,600	-	-	3,074
Custodial	2,500	-	-	1,313
Telecommunications	90,000	43,971	48.86%	63,370
Water	10,500	12,193	116.13%	9,086
Electricity	1,200	1,734	144.54%	-
ETC spare parts expense	1,600	-	-	-
Repair & Maintenance Toll Equip	275,000	11,928	4.34%	365,029
Law Enforcement	273,182	182,856	66.94%	178,233
ETC Maintenance Contract	1,755,098	966,626	55.08%	1,140,774
ETC Toll Management Center System Operation	49,098	73,647	150.00%	-
ETC Testing	10,000	-	-	-
Total Toll Operations Expense	2,480,478	1,294,502	52.19%	1,769,539
Total Operations and Maintenance	15,143,495	9,472,107	62.55%	8,305,851
Other Expenses				
Special Projects and Contingencies				
HERO	700,000	914,213	130.60%	911,814
Special Projects	125,000	12,027	9.62%	683,208
Other Contractual Svcs	105,000	67,728	64.50%	36,369
Contingency	300,000	10,578	3.53%	21,342
Total Special Projects and Contingencies	1,230,000	1,004,547	81.67%	1,652,733

Central Texas Regional Mobility Authority
Income Statement
For the Period Ending April 30, 2017

	Budget Amount FY 2017	Actual Year to Date	Percent of Budget	Actual Prior Year to Date
Non Cash Expenses				
Amortization Expense	383,230	319,836	83.46%	319,358
Amort Expense - Refund Savings	1,027,860	860,539	83.72%	856,550
Dep Exp- Furniture & Fixtures	2,207	2,043	92.55%	1,104
Dep Expense - Equipment	9,692	12,829	132.37%	7,787
Dep Expense - Autos & Trucks	6,406	8,762	136.77%	4,312
Dep Expense-Buildng & Toll Fac	177,115	147,596	83.33%	147,596
Dep Expense-Highways & Bridges	22,012,091	14,602,232	66.34%	14,106,715
Dep Expense-Communic Equip	196,115	163,429	83.33%	163,429
Dep Expense-Toll Equipment	2,756,238	2,296,865	83.33%	2,294,852
Dep Expense - Signs	325,893	271,578	83.33%	271,578
Dep Expense-Land Improvemts	884,934	737,445	83.33%	737,445
Depreciation Expense-Computers	16,203	11,505	71.00%	13,610
Total Non Cash Expenses	27,797,984	19,434,657	69.91%	18,924,337
Total Other Expenses	29,027,984	20,439,203	70.41%	20,577,069
Non Operating Expenses				
Bond issuance expense	200,000	1,128,769	564.38%	177,924
Interest Expense	42,813,675	26,182,827	61.16%	34,660,565
Community Initiatives	100,000	28,500	28.50%	35,000
Total Non Operating Expenses	43,113,675	27,340,096	63.41%	34,873,488
TOTAL EXPENSES	\$94,838,998	\$62,620,409	66.03%	\$68,380,904
Net Income	(\$22,871,542)	\$18,949,039		50,925,758

Central Texas Regional Mobility Authority
Balance Sheet
as of April 30, 2017

	as of 04/30/2017		as of 04/30/2016	
ASSETS				
Current Assets				
Cash				
Regions Operating Account	\$ 416,804		\$ 575,866	
Cash in TexStar	655,148		582,231	
Regions Payroll Account	78,066		54,465	
Restricted Cash				
Goldman Sachs FSGF 465	245,370,134		332,914,322	
Restricted Cash - TexSTAR	133,425,441		7,030,417	
Overpayments account	165,348		133,797	
Total Cash and Cash Equivalents		<u>380,110,942</u>		<u>341,291,097</u>
Accounts Receivable				
Accounts Receivable	14,485		14,485	
Due From TTA	823,320		566,017	
Due From NTTA	554,804		450,466	
Due From HCTRA	658,798		798,947	
Due From TxDOT	386,784		1,032,703	
Interest Receivable	362,891		360,782	
Total Receivables		<u>2,801,082</u>		<u>3,223,399</u>
Short Term Investments				
Agencies	157,611,481		217,797,320	
Total Short Term Investments		<u>157,611,481</u>		<u>217,797,320</u>
Total Current Assets		<u>540,523,504</u>		<u>562,311,816</u>
Total Construction in Progress		479,331,270		297,089,527
Fixed Assets (Net of Depreciation)				
Computer	28,767		42,972	
Computer Software	840,657		1,205,786	
Furniture and Fixtures	15,682		32,006	
Equipment	150		(4,415)	
Autos and Trucks	53,237		21,888	
Buildings and Toll Facilities	5,320,058		5,497,173	
Highways and Bridges	602,032,940		611,085,270	
Communication Equipment	54,992		251,108	
Toll Equipment	14,959,830		17,716,068	
Signs	10,984,778		11,310,671	
Land Improvements	10,771,428		11,656,362	
Right of way	87,944,995		86,849,829	
Leasehold Improvements	152,029		164,808	
Total Fixed Assets		<u>733,159,543</u>		<u>745,829,526</u>
Other Assets				
Intangible Assets-Net	102,489,326		12,043,873	
2005 Bond Insurance Costs	4,537,050		4,750,558	
Prepaid Insurance	62,640		59,025	
Deferred Outflows (pension related)	780,064		-	
Pension Asset	202,023		-	
Total Other Assets		<u>108,071,103</u>		<u>16,853,457</u>
Total Assets		<u><u>\$ 1,861,085,420</u></u>		<u><u>\$ 1,622,084,325</u></u>

Central Texas Regional Mobility Authority
Balance Sheet
as of April 30, 2017

	as of 04/30/2017	as of 04/30/2016
LIABILITIES		
Current Liabilities		
Accounts Payable	\$ (188,150)	\$ 294,947
Construction Payable	315,676	3,118,236
Overpayments	167,868	136,012
Interest Payable	17,376,992	19,019,154
TCDRS Payable	55,343	63,915
Medical Reimbursement Payable	1,735	1,860
Due to Other Entities	6,677,954	749,715
Other	-	650,000
Total Current Liabilities	24,407,418	24,033,838
Long Term Liabilities		
Compensated Absences	138,927	189,089
Deferred Inflows (pension related)	172,017	-
Long Term Payables	310,944	189,089
Bonds Payable		
Senior Lien Revenue Bonds:		
Senior Lien Revenue Bonds 2010	68,153,634	115,061,728
Senior Lien Revenue Bonds 2011	14,287,931	309,365,339
Senior Refunding Bonds 2013	144,183,000	147,880,000
Senior Lien Revenue Bonds 2015	298,790,000	298,790,000
Senior Lien Put Bnd 2015	68,785,000	68,785,000
Senior Lien Refunding Revenue Bonds 2016	358,030,000	-
Sn Lien Rev Bnd Prem/Disc 2010	-	18,949
Sn Lien Rev Bnd Prem/Disc 2011	-	(3,274,058)
Sn Lien Rev Bnd Prem/Disc 2013	10,356,661	12,394,898
Sn Lien Revenue Bnd Prem 2015	22,173,271	23,369,776
Sn Lien Put Bnd Prem 2015	5,900,012	7,763,765
Senior lien premium 2016 revenue bonds	56,737,925	-
Total Senior Lien Revenue Bonds	1,047,397,434	980,155,398
Sub Lien Revenue Bonds:		
Subordinated Lien Bond 2011	-	70,000,000
Sub Refunding Bnds 2013	101,530,000	102,030,000
Sub Debt Refunding Bonds 2016	74,690,000	-
Sub Lien Bond 2011 Prem/Disc	-	(1,707,390)
Sub Refunding 2013 Prem/Disc	2,406,262	2,895,294
Sub Refunding 2016 Prem/Disc	10,170,444	-
Total Sub Lien Revenue Bonds	188,796,706	173,217,904
Other Obligations		
TIFIA note 2015	52,448	50,874
SIB loan 2015	30,371,574	38,025
State Highway Fund Loan 2015	30,371,574	38,025
2013 American Bank Loan	3,570,000	5,300,000
Total Other Obligations	64,365,596	5,426,925
Total Long Term Liabilities	1,300,870,681	1,158,989,316
Total Liabilities	1,325,278,098	1,183,023,155
NET ASSETS		
Contributed Capital	40,347,060	35,847,060
Net Assets Beginning	476,432,916	352,288,352
Current Year Operations	19,027,346	50,925,758
Total Net Assets	535,807,322	439,061,171
Total Liabilities and Net Assets	\$ 1,861,085,420	\$ 1,622,084,325

Central Texas Regional Mobility Authority
Statement of Cash Flows
as of April 30, 2017

Cash flows from operating activities:

Receipts from toll fees	\$	60,274,580
Receipts from other fees		213,883
Payments to vendors		(7,640,252)
Payments to employees		(3,573,224)
Net cash flows provided by (used in) operating activities		49,274,987

Cash flows from capital and related financing activities:

Proceeds from notes payable		49,341,509
Refunding of bonds		(12,817,762)
Receipts from Department of Transportation		101,631,827
Receipt from Hays County		4,500,000
Payments on interest		(28,625,042)
Acquisition of capital assets		(151,600)
Acquisitions of construction in progress		(172,037,395)
Net cash flows provided by (used in) capital and related financing activities		(60,388,463)

Cash flows from investing activities:

Interest income		2,253,640
Purchase of investments		(187,356,162)
Proceeds from sale or maturity of investments		119,095,797
Net cash flows provided by (used in) investing activities		(66,006,725)
Net increase (decrease) in cash and cash equivalents		(77,120,202)
Cash and cash equivalents at beginning of period		323,150,553
Cash and cash equivalents at end of February	\$	246,030,351

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

Operating income	\$	26,748,217
Adjustments to reconcile change in net assets to net cash provided by operating activities:		
Depreciation and amortization		18,574,118
Changes in assets and liabilities:		
Decrease in accounts receivable		(877,763)
(Increase) decrease in prepaid expenses and other assets		44,961
(Decrease) increase in accounts payable		(1,412,595)
Increase (decrease) in accrued expenses		6,198,048
Total adjustments		22,526,770
Net cash flows provided by (used in) operating activities	\$	49,274,987

Reconciliation of cash and cash equivalents:

Unrestricted cash and cash equivalents	\$	660,217
Restricted cash and cash equivalents		245,370,133
Total	\$	246,030,351

INVESTMENTS by FUND

		Balance		
			April 30, 2017	
Renewal & Replacement Fund				
TexSTAR	505,483.97			134,080,589.03
Goldman Sachs	188,717.90			245,098,597.15
Agencies			694,201.87	157,591,937.90
Grant Fund				\$ 536,771,124.08
TexSTAR	4,097,599.77			
Goldman Sachs	5,472,133.11			
Agencies			9,569,732.88	
Senior Debt Service Reserve Fund				
TexSTAR	10,631,181.14			
Goldman Sachs	29,374,761.78			
Agencies	39,991,741.51		79,997,684.43	
2010 Senior Lien DSF				
Goldman Sachs	390,045.17			
TexSTAR	-		390,045.17	
2011 Debt Service Acct				
Goldman Sachs	751,671.23		751,671.23	
2013 Sr Debt Service Acct				
Goldman Sachs	3,666,291.07		3,666,291.07	
2013 Sub Debt Service Account				
Goldman Sachs	2,026,841.20		7,045,393.58	
TexSTAR	5,018,552.38			
2015 Sr Capitalized Interest				
Goldman Sachs	10,599,637.92		60,764,759.15	
TexSTAR	50,165,121.23			
2015A Debt Service Account				
Goldman Sachs	3.30		3.30	
2015B Debt Service Account				
Goldman Sachs	1,147,439.93		1,147,439.93	
2016 Sr Lien Rev Refunding Debt Service Account				
Goldman Sachs	8,633,251.82		8,633,251.82	
2016 Sub Lien Rev Refunding Debt Service Account				
Goldman Sachs	1,254,856.74		1,254,856.74	
2016 Sub Lein Rev Refunding DSR				
Goldman Sachs	6,641,416.82		6,641,416.82	
Operating Fund				
TexSTAR	655,147.54			
TexSTAR-Trustee	2,508,886.08			
Goldman Sachs	-		3,164,033.62	
Revenue Fund				
Goldman Sachs	3,171,223.82		3,171,223.82	
General Fund				
TexSTAR	25,093,684.78			
Goldman Sachs	24,497,157.50			
Agencies	4,406,930.00		53,997,772.28	
2013 Sub Debt Service Reserve Fund				
Goldman Sachs	3,475,561.34			
Agencies			3,475,561.34	
71E Revenue Fund				
Goldman Sachs	412,798.47		412,798.47	
MoPac Revenue Fund				
Goldman Sachs	113,690.21		113,690.21	
MoPac Construction Fund				
Goldman Sachs	43,738,282.01		43,738,282.01	
2011 Sub Debt Project fund				
TexSTAR	-			
Agencies				
Goldman Sachs	0.00		0.00	
2015B Project Account				
Goldman Sachs	5,044,569.73			
Agencies	20,182,886.77		40,276,992.99	
TexSTAR	15,049,536.49			
2015A Project Account				
TexSTAR	5,299,738.33			
Goldman Sachs	26,417,704.81			
Agencies	63,134,156.70			
Treasury Notes	29,876,222.92		124,727,822.76	
2015 TIFIA Project Account				
Goldman Sachs	50,313.32		50,313.32	
2015 State Highway Fund Project Account				
Goldman Sachs	29,606,453.91		29,606,453.91	
2015 SIB Project Account				
Goldman Sachs	19,739,079.91		19,739,079.91	
2011 Sr Financial Assistance Fund				
Goldman Sachs	11,457,690.16		26,513,347.48	
TexSTAR	15,055,657.32			
Develper Deposits				
Goldman Sachs	0.00		0.00	
183S Utility Custody Deposit				
Goldman Sachs	5,826,249.35		5,826,249.35	
45SW Trust Account Hays County				
Goldman Sachs	94,757.79		94,757.79	
45SW Trust Account Travis County				
Goldman Sachs	1,305,996.83		1,305,996.83	
			\$ 536,771,124.08	\$ -

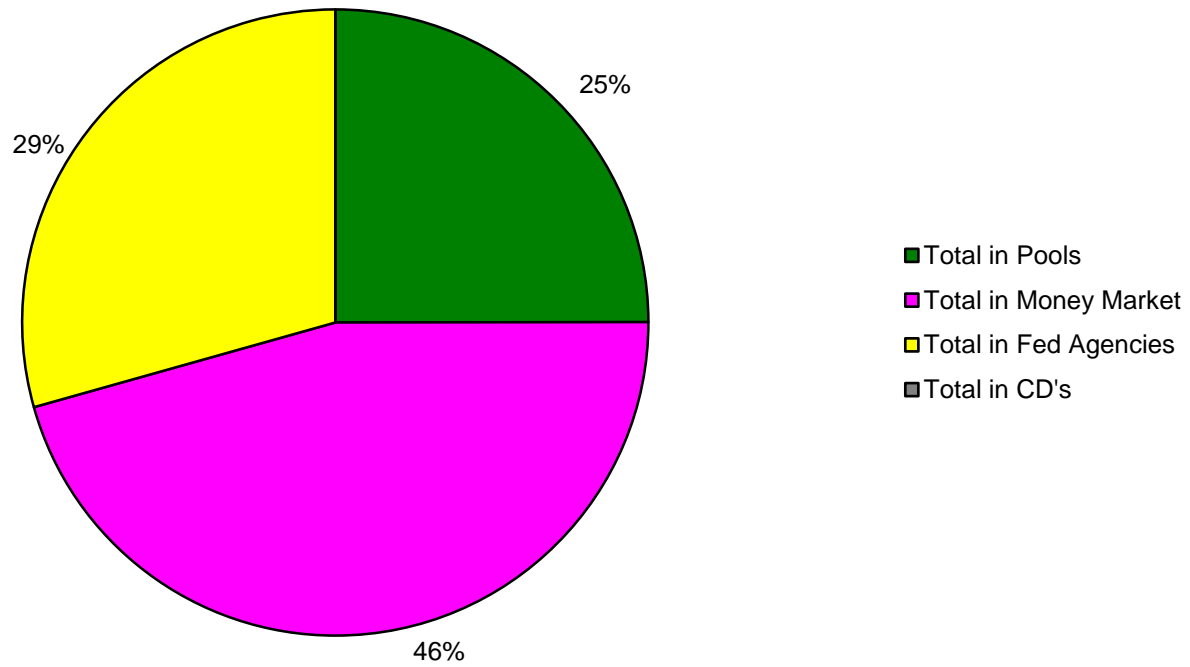
CTRMA INVESTMENT REPORT

	Month Ending 4/30/17					Rate April	
	Balance 4/1/2017	Additions	Discount Amortization	Accrued Interest	Withdrawals		Balance 4/30/2017
Amount in Trustee TexStar							
2011 Sr Lien Financial Assist Fund	15,046,827.94			8,829.38		15,055,657.32	0.714%
2013 Sub Lien Debt Service Reserve	5,015,609.27			2,943.11		5,018,552.38	0.714%
General Fund	25,078,968.60			14,716.18		25,093,684.78	0.714%
Trustee Operating Fund	2,402,869.35	1,704,501.33		1,515.40	1,600,000.00	2,508,886.08	0.714%
Renewal and Replacement	505,187.52			296.45		505,483.97	0.714%
Grant Fund	4,095,196.76			2,403.01		4,097,599.77	0.714%
Senior Lien Debt Service Reserve Fund	10,624,946.49			6,234.65		10,631,181.14	0.714%
2015A Sr Ln Project account	5,296,630.30			3,108.03		5,299,738.33	0.714%
2015A Sr Ln Project Cap Interest	50,135,701.94			29,419.29		50,165,121.23	0.714%
2015B Sr Ln Project	15,040,710.70			8,825.79		15,049,536.49	0.714%
	133,242,648.87	1,704,501.33		78,291.29	1,600,000.00	133,425,441.49	
Amount in TexStar Operating Fund							
	554,792.55	1,600,000.00		354.99	1,500,000.00	655,147.54	0.714%
Goldman Sachs							
Operating Fund	26,190.00	1,678,307.89		3.44	1,704,501.33	0.00	0.280%
45SW Trust Account Travis County	1,675,389.33			1,239.20	370,631.70	1,305,996.83	0.280%
45SW Trust Account Hays County	229,887.40			112.43	135,242.04	94,757.79	0.280%
2015A Project Account	20,434,957.47	8,000,000.00		117,618.86	2,134,871.52	26,417,704.81	0.280%
2015B Project Account	5,042,299.88			2,269.85		5,044,569.73	0.280%
2015D State Highway Fund Project Acct	29,593,029.59			13,424.32		29,606,453.91	0.280%
2015C TIFIA Project Account	50,290.51			22.81		50,313.32	0.280%
2015E SIB Project Account	19,730,129.71			8,950.20		19,739,079.91	0.280%
Developer Deposits	370.97			0.17	371.14	0.00	0.280%
183S Utility Custody Deposit	5,823,539.83			2,709.52		5,826,249.35	0.280%
2011 Sr Financial Assistance Fund	11,452,494.95			5,195.21		11,457,690.16	0.280%
2010 Senior DSF	389,868.31			176.86		390,045.17	0.280%
2011 Senior Lien Debt Service Acct	751,330.40			340.83		751,671.23	0.280%
2013 Senior Lien Debt Service Acct	2,751,305.07	913,901.08		1,084.92		3,666,291.07	0.280%
2013 Subordinate Debt Service Acct	1,520,014.53	506,227.52		599.15		2,026,841.20	0.280%
2015 Sr Capitalized Interest	10,594,831.78			4,806.14		10,599,637.92	0.280%
2015A Debt Service Acct	3.30					3.30	0.280%
2015B Debt Service Acct	860,710.00	286,390.62		339.31		1,147,439.93	0.280%
2016 Sr Lien Rev Refunding Debt Service Account	8,581,238.80	48,128.90		3,884.12		8,633,251.82	0.280%
2016 Sub Lien Rev Refunding Debt Service Account	941,803.16	312,682.17		371.41		1,254,856.74	0.280%
2016 Sub Lein Rev Refunding DSR	6,638,405.43			3,011.39		6,641,416.82	0.280%
Grant Fund	5,469,651.91			2,481.20		5,472,133.11	0.280%
Renewal and Replacement	188,632.33			85.57		188,717.90	0.280%
Revenue Fund	4,214,329.09	6,792,541.37		1,440.44	7,837,087.08	3,171,223.82	0.280%
General Fund	18,627,923.78	7,503,409.94		8,219.29	1,642,395.51	24,497,157.50	0.280%
Senior Lien Debt Service Reserve Fund	29,361,448.53			13,313.25		29,374,761.78	0.280%
MoPac Revenue Fund	73,003.01	40,656.64		30.56		113,690.21	0.280%
71E Revenue Fund	0.00	412,798.47		0.00		412,798.47	0.280%
2013 Sub Debt Service Reserve Fund	3,473,985.43			1,575.91		3,475,561.34	0.280%
MoPac Managed Lane Construction Fund	44,038,423.08	273,468.67		20,585.87	594,195.61	43,738,282.01	0.280%
	232,535,487.58	26,768,513.27	0.00	213,892.23		245,098,597.15	
Amount in Fed Agencies and Treasuries							
Amortized Principal	165,631,378.88		(39,440.98)		8,000,000.00	157,591,937.90	
	165,631,378.88	0.00	(39,440.98)	0.00	8,000,000.00	157,591,937.90	
Certificates of Deposit							
Total in Pools	133,797,441.42	3,304,501.33		78,646.28	3,100,000.00	134,080,589.03	
Total in GS FSGF	232,535,487.58	26,768,513.27		213,892.23		245,098,597.15	
Total in Fed Agencies and Treasuries	165,631,378.88	0.00	(39,440.98)		8,000,000.00	157,591,937.90	
Total Invested	531,964,307.88	30,073,014.60	(39,440.98)	292,538.51	11,100,000.00	536,771,124.08	

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 April 30, 2017

Agency	CUSIP #	COST	Book Value	Market Value	Yield to Maturity	Purchased	Matures	FUND
Federal Farm Credit	3133ECA79	4,959,250.00	4,987,548.61	4,987,450.00	1.2155%	3/11/2015	3/19/2018	Senior DSRF
Federal Farm Credit	3133EE4K3	24,928,346.00	24,988,442.90	24,993,250.00	0.7200%	1/13/2016	7/21/2017	Senior DSRF
Federal Farm Credit	3133EFSG3	10,057,749.23	10,025,075.20	9,999,800.00	0.8421%	2/8/2016	3/14/2018	2015B Sr Project
Federal Home loan Bank	313378QK0	10,253,642.07	10,157,811.57	10,095,000.00	1.0369%	2/8/2016	3/8/2019	2015B Sr Project
Freddie Mac	3137EADF3	16,124,658.17	16,007,585.69	16,002,400.00	0.6259%	2/9/2016	5/12/2017	2015A Sr Project
Freddie Mac	3134G4Z84	9,850,343.91	9,814,569.00	9,812,446.00	0.8097%	2/18/2016	10/10/2017	2015A Sr Project
Federal Home loan Bank	3030A62S5	6,984,310.89	6,996,407.07	6,996,220.00	0.9053%	3/14/2016	8/28/2017	2015A Sr Project
Fannie MAE	3135G0JA2	Matured	Matured	Matured	0.9023%	3/14/2016	4/27/2017	2015A Sr Project
Federal Home loan Bank	303370SZ2	14,536,023.18	14,313,560.71	14,313,127.50	0.9023%	3/7/2016	9/8/2017	2015A Sr Project
Federal Home loan Bank	3030A5QL6	8,000,900.56	8,000,112.57	7,999,920.00	0.7913%	3/4/2016	6/30/2017	2015A Sr Project
Federal Home loan Bank	313379FW4	8,027,415.64	8,001,921.66	8,001,520.00	0.7098%	3/30/2016	6/9/2017	2015A Sr Project
Federal Home loan Bank	3030A6SW8	10,039,900.00	10,015,750.00	9,996,400.00	0.7616%	4/11/2016	12/19/2017	Senior DSRF
Federal Home loan Bank	3030A6SW8	4,417,556.00	4,406,930.00	4,398,416.00	0.7616%	4/11/2016	12/19/2017	General
US Treasury Note	912828TB6	29,888,668.75	29,876,222.92	29,870,000.00	0.6266%	12/28/2016	6/30/2017	2015A Sr Project
		158,068,764.40	157,591,937.90	157,465,949.50				

Agency	CUSIP #	COST	Cumulative Amortization	4/30/2017 Book Value	Maturity Value	Interest Income April 30, 2017		
						Accrued Interest	Amortization	Interest Earned
Federal Farm Credit	3133ECA79	4,959,250.00	(28,298.61)	4,987,548.61	5,000,000.00	3,916.67	1,131.94	5,048.61
Federal Farm Credit	3133EE4K3	24,928,346.00	(60,096.90)	24,988,442.90	25,000,000.00	15,000.00	3,852.37	18,852.37
Federal Farm Credit	3133EFSG3	10,057,749.23	32,674.03	10,025,075.20	10,000,000.00	9,166.67	(2,279.58)	6,887.09
Federal Home loan Bank	313378QK0	10,253,642.07	95,830.50	10,157,811.57	10,000,000.00	15,625.00	(6,861.37)	8,763.63
Freddie Mac	3137EADF3	16,124,658.17	117,072.48	16,007,585.69	16,000,000.00	16,666.67	(7,585.69)	9,080.98
Freddie Mac	3134G4Z84	9,850,343.91	35,774.91	9,814,569.00	9,800,000.00	9,187.50	(2,428.16)	6,759.34
Federal Home loan Bank	3030A62S5	6,984,310.89	(12,096.18)	6,996,407.07	7,000,000.00	4,375.00	898.23	5,273.23
Fannie MAE	3135G0JA2	Matured	Matured	Matured	8,000,000.00	7,500.00	(2,354.14)	5,145.86
Federal Home loan Bank	303370SZ2	14,536,023.18	222,462.47	14,313,560.71	14,250,000.00	26,718.75	(15,890.18)	10,828.57
Federal Home loan Bank	3030A5QL6	8,000,900.56	787.99	8,000,112.57	8,000,000.00	5,333.33	(56.28)	5,277.05
Federal Home loan Bank	313379FW4	8,027,415.64	25,493.98	8,001,921.66	8,000,000.00	6,666.67	(1,921.66)	4,745.01
Federal Home loan Bank	3030A6SW8	10,039,900.00	24,150.00	10,015,750.00	10,000,000.00	8,333.33	(1,968.75)	6,364.58
Federal Home loan Bank	3030A6SW8	4,417,556.00	10,626.00	4,406,930.00	4,400,000.00	3,666.67	(866.25)	2,800.42
US Treasury Note	912828TB6	29,888,668.75	12,445.83	29,876,222.92	29,870,000.00	18,688.75	(3,111.46)	15,577.29
		158,068,764.40	476,826.50	157,591,937.90	165,320,000.00	150,845.01	(39,441.00)	111,404.03

April 30, 2017

Certificates of Deposit Outstanding

Bank	CUSIP #	COST	Yield to Maturity	Purchased	Matures	April 30, 2017 Interest	FUND
		-				\$ -	

Travis County Escrow account

Balance		Accrued		Balance
4/1/2017	Additions	Interest	Withdrawals	4/30/2017
\$ 272,480.20		\$ 123.61	\$ 1,066.79	\$ 271,537.02



183 South Design-Build Project

Change Order Status 4/26/17



Executed Contract Values	\$581,545,700
Executed Change Orders	
CO#1 City of Austin ILA Adjustment	(\$2,779,934)
CO#2 Addition of Coping to Soil Nail Walls	\$742,385
CO#4 Greenroads Implementation	\$362,280
CO#6 51st Street Parking Trailhead	\$477,583
Others Less than \$300,000 (3)	\$100,553
Subtotal	(\$1,097,133)
Current Contract Value	\$580,448,567
Change Orders in Negotiations/ Potential Contractual Obligations	\$16,300,000
Total Project Contingency	\$ 47,900,000
(-) Total Potential Obligations (Includes Executed Change Orders)	\$15,200,000
Remaining Project Contingency	\$ 32,700,000



SH 45SW Construction

Change Order Status 4/26/17



Executed Contract Value	\$75,103,623
Executed Change Orders	
	None To Date
	Subtotal
	\$0
Current Contract Value	\$75,103,623
Change Orders in Negotiations/ Potential Contractual Obligations	\$5,380,000
Total Project Contingency	\$7,520,000
(-) Total Potential Obligations (Includes Executed Change Orders)	\$5,380,000
Remaining Project Contingency	\$2,140,000



MOPAC Construction

Change Order Status 4/26/17



Executed Contract Value	\$136,632,100
--------------------------------	----------------------

Executed Change Orders		
CO#01B	5th & Cesar Chavez SB Reconfig (Construction)	\$593,031
CO#05B	FM 2222 Bridge NB Ret Wall Abutment Repair (Construction)	\$850,000
CO#07	FM 2222 Exit Storage Lane	\$426,000
CO#08C	Refuge Area: Added Shoulder Adjustment Soundwall #1	\$2,508,548
CO#12	Barrier Rail Opaque Seal	\$542,419
CO#17	Bike and Ped Improvements at Far West Blvd Bridge/RM 2222	\$971,889
	Total of Others Less than \$300,000 (20)	\$1,073,504
	Subtotal	\$6,965,390

Current Contract Value	\$143,597,490
-------------------------------	----------------------

Change Orders in Negotiations/ Potential Contractual Obligations	\$ 40,800,000
---	----------------------

Total Project Contingency	\$32,300,000
----------------------------------	---------------------

(+) Assessed Liquidated Damages (as of November 2016 Draw #41)	\$20,000,000
---	---------------------

(-) Total Potential Obligations (includes executed change orders)	\$47,800,000
--	---------------------

Remaining Project Contingency	\$4,500,000
--------------------------------------	--------------------



Monthly Newsletter - April 2017

Performance

As of April 30, 2017

Current Invested Balance	\$6,279,219,607.16
Weighted Average Maturity (1)	31 Days
Weighted Average Maturity (2)	104 Days
Net Asset Value	1.000045
Total Number of Participants	832
Management Fee on Invested Balance	0.06%*
Interest Distributed	\$4,130,472.86
Management Fee Collected	\$320,218.03
% of Portfolio Invested Beyond 1 Year	4.65%
Standard & Poor's Current Rating	AAAm

April Averages

Average Invested Balance	\$6,493,847,712.85
Average Monthly Yield, on a simple basis	0.7140%
Average Weighted Average Maturity (1)*	36 Days
Average Weighted Average Maturity (2)*	105 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 April:

★ Fort Bend County ESD 5 ★ Fort Bend County LID 17 ★ Harris County MUD 62

Holiday Reminder

In observance of **Memorial Day**, **TexSTAR will be closed on Monday, May 29, 2017**. All ACH transactions initiated on Friday, May 26th will settle on Tuesday, May 30th. 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

Interest rates were under pressure again during the month of April as discussion over the ability and timing of the Trump administration to implement fiscal policy reform continued. Q1 2017 growth slowed, as anticipated, however the growth backdrop for the rest of 2017 looks promising. With business and consumer confidence near cycle highs and realized investment spending already improving, in addition to any form of fiscal stimulus, the outlook for growth has significant upside. As we move through Q2, consumer spending should rebound, investment spending already accelerating, global growth remains firm and fiscal policy initiatives should become clearer. Consumption should continue to be the principal driver of the U.S. economy. Tighter labor markets, rising income, modest employment growth and rising net worth should all continue to be supportive of consumption.

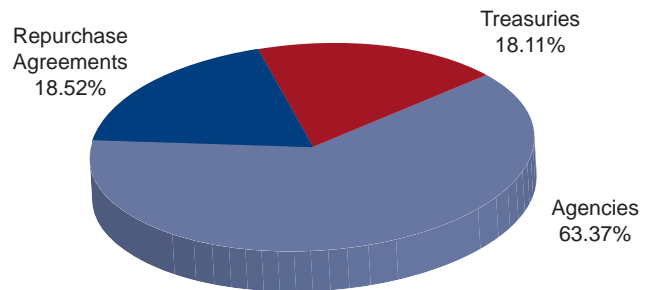
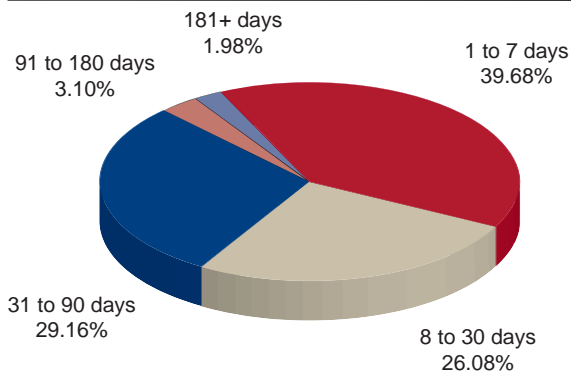
The Federal Reserve (Fed) did not meet in April, but communication from key Fed members continued to focus on the positive economic outlook, despite some softer data points. Balance sheet reduction has come into focus as changes to the Fed's reinvestment policy could come as early as this year according to Fed officials, but the details of the plan have yet to be revealed. In terms of the timing for the next federal funds rate increase, the committee has indicated that their objective is to continue to keep the pace of rate hikes "gradual". The median of the committee expects two additional rate hikes in 2017, as of the March 2017 meeting. However, if growth and inflation outperformed, financial conditions continued to ease or fiscal stimulus was enacted in the second half of 2017, the committee may become more anxious to move at a faster pace. We expect at least two more rates hikes in 2017. In addition, we expect the Fed to make an announcement to change the reinvestment policy of the balance sheet by year-end. Continued easing in financial conditions and further steady improvement in the labor market since the March FOMC has presented the Fed with the opportunity to raise rates again at the June meeting. President Trump will also be able to appointment three new Board of Governors, as well as a Vice Chair of Supervision, this year. These appointments are unlikely to make a major impact on monetary policy in 2017. However, when Chair Yellen's term is complete in 2018, the potential for a new Chair poses large risks for a major change in the Fed's approach to monetary policy going forward.

This information is an excerpt from an economic report dated April 2017 provided to TexSTAR by JP Morgan Asset Management, Inc., the investment manager of the TexSTAR pool.

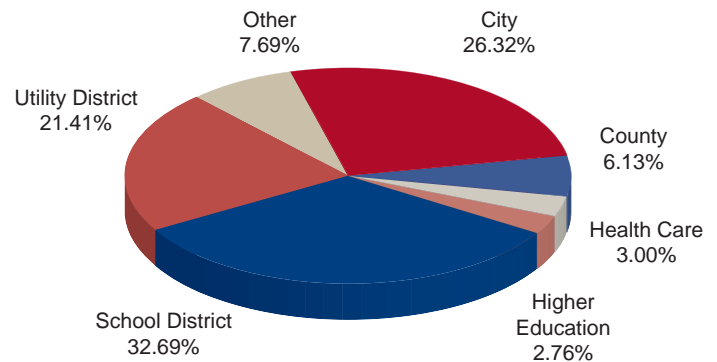
For more information about TexSTAR, please visit our web site at www.texstar.org.

Information at a Glance

Portfolio by Type of Investment As of April 30, 2017



Portfolio by Maturity As of April 30, 2017



Distribution of Participants by Type As of April 30, 2017

Historical Program Information

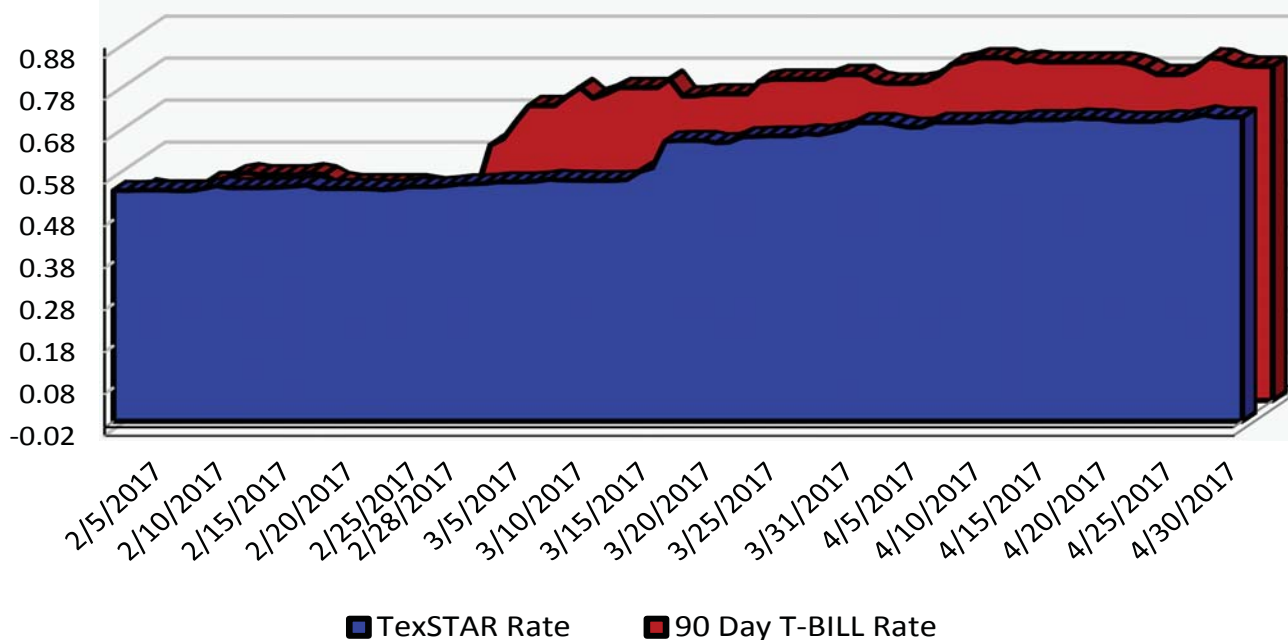
Month	Average Rate	Book Value	Market Value	Net Asset Value	WAM (1)*	WAM (2)*	Number of Participants
Apr 17	0.7140%	\$6,279,219,607.16	\$6,279,507,477.47	1.000045	36	105	832
Mar 17	0.6269%	6,551,167,144.50	6,551,621,726.22	1.000064	42	110	829
Feb 17	0.5533%	7,267,565,993.07	7,269,212,259.58	1.000226	43	111	827
Jan 17	0.5452%	7,011,113,225.83	7,012,695,761.41	1.000225	44	96	823
Dec 16	0.4815%	6,128,094,216.46	6,129,417,408.96	1.000215	49	100	822
Nov 16	0.4144%	5,250,402,124.93	5,251,596,034.74	1.000227	47	109	821
Oct 16	0.4202%	5,155,508,603.07	5,157,927,996.01	1.000469	39	105	820
Sep 16	0.4123%	5,253,367,191.87	5,255,503,092.88	1.000412	43	115	818
Aug 16	0.3990%	5,436,604,745.94	5,438,039,955.56	1.000263	39	114	817
Jul 16	0.3861%	5,602,432,939.56	5,603,475,110.87	1.000186	46	113	813
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

Portfolio Asset Summary as of April 30, 2017

	Book Value	Market Value
Uninvested Balance	\$ 277,602,122.45	\$ 277,602,122.45
Accrual of Interest Income	4,821,087.37	4,821,087.37
Interest and Management Fees Payable	(4,250,173.28)	(4,250,173.28)
Payable for Investment Purchased	0.00	0.00
Repurchase Agreement	1,162,277,999.77	1,162,277,999.77
Government Securities	4,838,768,570.85	4,839,056,441.16
Total	\$ 6,279,219,607.16	\$ 6,279,507,477.47

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 April 2017

Date	Mny Mkt Fund Equiv. [SEC Std.]	Daily Allocation Factor	TexSTAR Invested Balance	Market Value Per Share	WAM Days (1)*	WAM Days (2)*
4/1/2017	0.7093%	0.000019434	\$6,551,167,114.50	1.000064	41	108
4/2/2017	0.7093%	0.000019434	\$6,551,167,114.50	1.000064	41	108
4/3/2017	0.7034%	0.000019270	\$6,581,906,109.56	1.000063	40	106
4/4/2017	0.6982%	0.000019128	\$6,609,962,010.38	1.000073	41	105
4/5/2017	0.6987%	0.000019143	\$6,603,577,600.57	1.000061	40	108
4/6/2017	0.7104%	0.000019462	\$6,585,290,825.89	1.000059	41	110
4/7/2017	0.7099%	0.000019448	\$6,607,889,874.25	1.000063	40	108
4/8/2017	0.7099%	0.000019448	\$6,607,889,874.25	1.000063	40	108
4/9/2017	0.7099%	0.000019448	\$6,607,889,874.25	1.000063	40	108
4/10/2017	0.7135%	0.000019548	\$6,600,116,538.03	1.000064	39	107
4/11/2017	0.7123%	0.000019514	\$6,557,835,181.70	1.000054	39	107
4/12/2017	0.7113%	0.000019488	\$6,563,098,416.85	1.000050	38	106
4/13/2017	0.7163%	0.000019624	\$6,479,980,161.44	1.000054	36	105
4/14/2017	0.7163%	0.000019624	\$6,479,980,161.44	1.000054	36	105
4/15/2017	0.7163%	0.000019624	\$6,479,980,161.44	1.000054	36	105
4/16/2017	0.7163%	0.000019624	\$6,479,980,161.44	1.000054	36	105
4/17/2017	0.7205%	0.000019741	\$6,513,174,745.55	1.000044	36	103
4/18/2017	0.7186%	0.000019689	\$6,453,455,003.55	1.000058	35	104
4/19/2017	0.7186%	0.000019689	\$6,518,914,721.95	1.000051	34	102
4/20/2017	0.7141%	0.000019564	\$6,543,594,903.95	1.000049	34	101
4/21/2017	0.7124%	0.000019517	\$6,484,822,469.40	1.000055	33	99
4/22/2017	0.7124%	0.000019517	\$6,484,822,469.40	1.000055	33	99
4/23/2017	0.7124%	0.000019517	\$6,484,822,469.40	1.000055	33	99
4/24/2017	0.7165%	0.000019630	\$6,453,625,115.31	1.000049	33	98
4/25/2017	0.7149%	0.000019587	\$6,386,137,810.99	1.000039	33	99
4/26/2017	0.7211%	0.000019755	\$6,350,743,159.08	1.000044	32	105
4/27/2017	0.7281%	0.000019948	\$6,355,948,514.82	1.000047	32	106
4/28/2017	0.7227%	0.000019800	\$6,279,219,607.16	1.000045	31	104
4/29/2017	0.7227%	0.000019800	\$6,279,219,607.16	1.000045	31	104
4/30/2017	0.7227%	0.000019800	\$6,279,219,607.16	1.000045	31	104
Average	0.7140%	0.000019561	\$6,493,847,712.85		36	105

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>Eric Cannon</i>	<i>City of Allen</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>Nicole Conley</i>	<i>Austin ISD</i>	<i>Advisory Board</i>
<i>Becky Brooks</i>	<i>Government Resource Associates, LLC</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>David Pate</i>	<i>Richardson ISD</i>	<i>Advisory Board</i>
<i>James Mauldin</i>	<i>University of North Texas System</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

May 31, 2017
AGENDA ITEM #8

Presentation of draft budget for Fiscal Year
2017-2018

Strategic Plan Relevance: Regional Mobility
Department: Finance
Contact: Mary Temple, Controller
Associated Costs: N/A
Funding Source: N/A
Action Requested: Briefing and Board Discussion Only

Summary:

A detailed presentation regarding the proposed FY 2018 budget will be made at the Board meeting. A few key assumptions and highlights regarding the budget are listed:

- Revenue includes a full year estimate for SH 71E of \$5M and the estimate for MoPac North Managed Lanes is \$6M.
- The estimated net revenue payment obligation to TXDoT for SH 71E is \$2.8M.
- Interest expense is lower due to the impact of both refunding issuances.
- Three additional positions are included, two in Legal and one in Engineering.
- The Capital Budget Asset Management item is the year one cost of implementing a System to inventory and manage life cycle costs of the roadways and toll systems.

Backup provided: Draft FY 2017-2018 budget to be provided at Board Meeting.



**CENTRAL TEXAS
Regional Mobility Authority**

May 31, 2017
AGENDA ITEM #9

Discuss and take appropriate action to rescind primacy for the east to south direct connector on the Manor Expressway (290E) Phase III Project

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:

On September 28, 2016, the Mobility Authority Board of Directors exercised its option as a local toll project entity to develop, finance, construct, and operate the Manor Expressway (290E) Phase III project. The subsequent letter of Primacy, authorized by Mobility Authority Resolution 16-080, was submitted to TxDOT by the Mobility Authority Executive Director on September 29, 2016.

During on-going coordination, the Texas Department of Transportation (TxDOT) has indicated a desire for the Mobility Authority to continue with project development and construction, and build the east to south direct connector on behalf of TxDOT, who would fund development and construction costs of this connector. Prior to being able to develop an agreement between the two agencies to support this outcome, the Mobility Authority would be required to rescind primacy on the east to south direct connector and its associated roadway improvements.

To advance development of an agreement between the two agencies, staff recommends rescinding primacy on the east to south portion of the direct connector for this project.

Backup Provided: Draft Resolution to be provided at Board Meeting
Mobility Authority Resolution No. 16-080 (9/28/16)
Primacy Letter Notification to TxDOT (9/29/16)

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

RESOLUTION NO. 16-080

**EXERCISING THE OPTION OF THE MOBILITY AUTHORITY UNDER
STATE LAW TO DEVELOP, FINANCE, CONSTRUCT, AND OPERATE
THE MANOR EXPRESSWAY (290E) PHASE III PROJECT**

WHEREAS, under Section 373.052, Transportation Code, the Central Texas Regional Mobility Authority ("Mobility Authority") has the first option to develop, finance, construct, and operate any new toll project located in the territory of the Mobility Authority, including Travis County; and

WHEREAS, subject to the SH130 Environmental Impact Statement and all other required approvals and requirements, the Mobility Authority intends to develop, finance, construct, and operate three (3) additional 290 East / SH130 direct connectors in order to improve safety and operations, as generally depicted in Exhibit A (the "Manor Expressway (290E) Phase III Project"); and

WHEREAS, the Mobility Authority supports the goal of improving mobility in the Central Texas region through development of the Manor Expressway (290E) Phase III Project; and

WHEREAS, the Executive Director recommends the Mobility Authority exercise its option under Section 373.052, Transportation Code, to develop, finance, construct, and operate the Manor Expressway (290E) Phase III Project.

NOW THEREFORE, BE IT RESOLVED, that the Board of Directors, as provided by the process and procedures of Chapter 373, Transportation Code, hereby exercises its option as a local toll project entity to develop, finance, construct, and operate the Manor Expressway (290E) Phase III Project; and

BE IT FURTHER RESOLVED, that the Executive Director is directed to communicate in writing the Mobility Authority's exercise of this option to the Texas Department of Transportation.

Adopted by the Board of Directors of the Central Texas Regional Mobility Authority on the 28th day of September 2016.

Submitted and reviewed by:



Geoffrey Petrov, General Counsel

Approved:



Ray A. Wilkerson
Chairman, Board of Directors

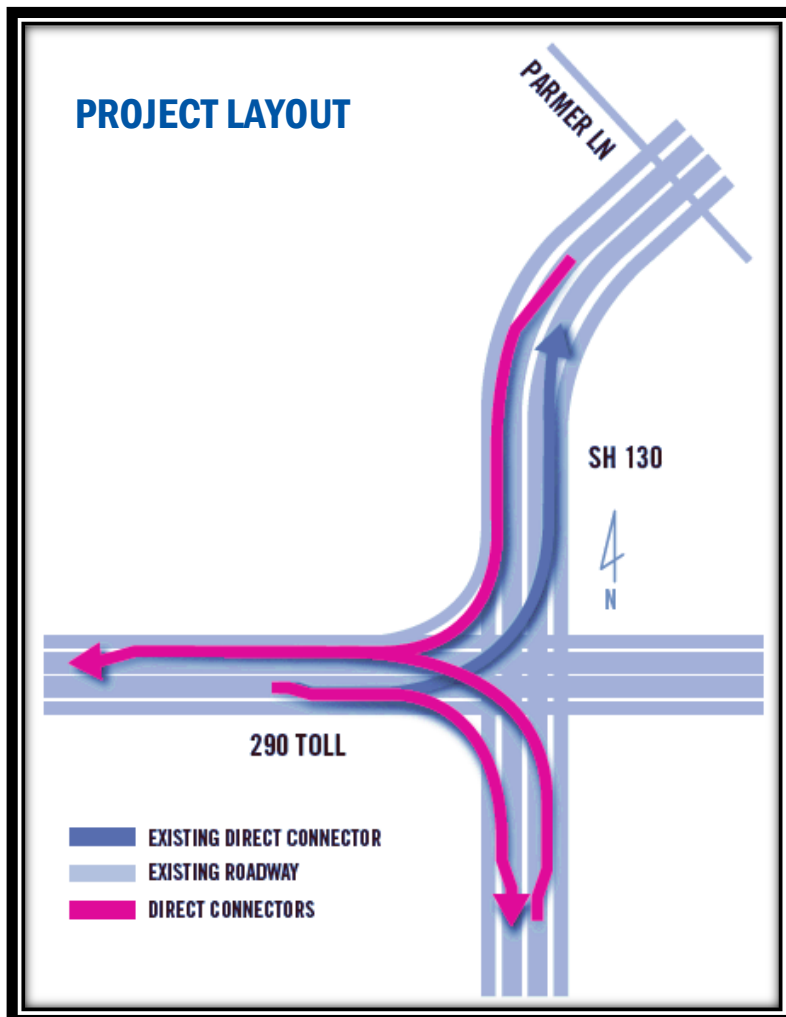
Exhibit A

PROJECT LOCATION MAP



AREA
DETAIL

PROJECT LAYOUT





**CENTRAL TEXAS
Regional Mobility Authority**

September 29, 2016

Mr. James Bass, Executive Director
Texas Department of Transportation
Dewitt C. Greer Building
125 East 11th Street
Austin, Texas 78701

**RE: Central Texas Regional Mobility Authority ("Mobility Authority")
Development of the Manor Expressway (290E) Phase III Project**

Dear Mr. Bass:

Pursuant to Section 373.052, Transportation Code, please find attached Resolution No. 16-080 whereby the Mobility Authority exercised its option to develop, finance, construct, and operate the Manor Expressway (290E) Phase III Project.

Sincerely,

Mike Heiligenstein
Executive Director

cc: Justin Word, P.E., Central Texas Regional Mobility Authority
Terry McCoy, P.E., Texas Department of Transportation
Heather Ashley-Nguyen, P.E., Texas Department of Transportation
Lloyd Chance, Texas Department of Transportation

3300 N IH-35, Suite 300, Austin, Texas 78705

Telephone: (512) 996-9778 | Fax: (512) 996-9784 | MobilityAuthority.com

Ray A. Wilkerson, *Chairman* • James H. Mills, Jr., *Vice Chairman* • Robert L. Bennett, Jr., *Treasurer*
David B. Armbrust • David Singleton • Nikelle S. Meade • Charles Heimsath • Mike Heiligenstein, *Executive Director*

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

RESOLUTION NO. 16-080

**EXERCISING THE OPTION OF THE MOBILITY AUTHORITY UNDER
STATE LAW TO DEVELOP, FINANCE, CONSTRUCT, AND OPERATE
THE MANOR EXPRESSWAY (290E) PHASE III PROJECT**

WHEREAS, under Section 373.052, Transportation Code, the Central Texas Regional Mobility Authority ("Mobility Authority") has the first option to develop, finance, construct, and operate any new toll project located in the territory of the Mobility Authority, including Travis County; and

WHEREAS, subject to the SH130 Environmental Impact Statement and all other required approvals and requirements, the Mobility Authority intends to develop, finance, construct, and operate three (3) additional 290 East / SH130 direct connectors in order to improve safety and operations, as generally depicted in Exhibit A (the "Manor Expressway (290E) Phase III Project"); and

WHEREAS, the Mobility Authority supports the goal of improving mobility in the Central Texas region through development of the Manor Expressway (290E) Phase III Project; and


WHEREAS, the Executive Director recommends the Mobility Authority exercise its option under Section 373.052, Transportation Code, to develop, finance, construct, and operate Manor Expressway (290E) Phase III Project.

NOW THEREFORE, BE IT RESOLVED, that the Board of Directors, as provided by the process and procedures of Chapter 373, Transportation Code, hereby exercises its option as a local toll project entity to develop, finance, construct, and operate the Manor Expressway (290E) Phase III Project; and

BE IT FURTHER RESOLVED, that the Executive Director is directed to communicate in writing the Mobility Authority's exercise of this option to the Texas Department of Transportation.


Adopted by the Board of Directors of the Central Texas Regional Mobility Authority on the 28th day of September 2016.

Submitted and reviewed by:



Geoffrey Petrov, General Counsel

Approved:



Ray A. Willkerson
Chairman, Board of Directors



**CENTRAL TEXAS
Regional Mobility Authority**

May 31, 2017
AGENDA ITEM #10

Discuss and consider authorizing the procurement of a contractor for miscellaneous work related to the MoPac Improvement Project

Strategic Plan Relevance: Regional Mobility
Department: Engineering
Contact: Justin Word, P.E., Director of Engineering
Associated Costs: not to exceed \$5M
Funding Source: Project Funds
Action Requested: Consider and act on draft resolution

Summary:

In 2012, the Mobility Authority completed an environmental assessment (“EA”) for the MoPac corridor from Cesar Chavez Street to Parmer Lane. Noise mitigation studies were conducted and sound wall locations were identified throughout the corridor. In 2016, two soundwall locations at NB 04 and NB 08 (Westminster) were included in an environmental reevaluation and noise abatement was determined to be feasible and reasonable. Construction plans and specifications are being prepared to be advertised in an effort to procure a contractor.

Additional elements include aesthetic features to two existing soundwalls approved in the original EA, rehabilitation plans for the bridge abutment at MoPac and RM 2222, a shared use path at MoPac and US 183, and other miscellaneous items.

Staff requests Board authorization for the procurement of construction services for the MoPac Improvement Project. Following receipt of bids, the responsive low bidder is anticipated to be presented to the Board of Directors by staff for final approval for the award of contract at the October 11, 2017 Board Meeting. No funds will be committed until the contract is executed.

Backup Provided: Draft Resolution

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

RESOLUTION NO. 17-0XX

**AUTHORIZE THE PROCUREMENT OF A CONTRACTOR FOR MISCELLANEOUS
WORK RELATED TO THE MOPAC IMPROVEMENT PROJECT**

WHEREAS, upon the completion of an environmental reevaluation for the MoPac Improvement Project (“Project”) in 2016, noise abatement was determined to be reasonable and feasible for two new sound wall locations and the Executive Director has determined it would be beneficial to construct these soundwalls as part of the Project; and

WHEREAS, the Executive Director has determined that it would also be beneficial to add other work to the Project, including aesthetic features to existing soundwalls approved in the original environmental assessment, rehabilitation plans for the bridge abutment at MoPac and RM 2222, a shared use path at MoPac and US 183, and other miscellaneous items; and

WHEREAS, the Executive Director recommends that the Mobility Authority procure construction services to perform this work for the MoPac Improvement Project.

NOW THEREFORE, BE IT RESOLVED, that the Board of Directors authorize the Executive Director to procure construction services to construct the additional soundwalls and other work for the MoPac Improvement Project.

Adopted by the Board of Directors of the Central Texas Regional Mobility Authority on the 31st day of May 2017.

Submitted and reviewed by:

Approved:

Geoffrey Petrov, General Counsel

Ray A. Wilkerson
Chairman, Board of Directors



CENTRAL TEXAS
Regional Mobility Authority

May 31, 2017
AGENDA ITEM #11

Executive Director Report

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 Comments.

- A. Texas 85th Legislature Update.
- B. Interoperability with Kansas Turnpike Authority.
- C. Commissioner Brigid Shea's meeting regarding urban cable.

Backup provided: None



CENTRAL TEXAS
Regional Mobility Authority

May 31, 2017
AGENDA ITEM #12

183 North Delivery Model Update

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: Briefing and Board Discussion Only

Summary:

Mobility Authority staff will be providing a presentation on the recommended delivery model for the 183 North Project. Staff has evaluated design-build and design-bid-build delivery models, analyzing comparative schedules, costs, risks and advantages of each and is prepared to move forward with design-build delivery.

Backup Provided: None



CENTRAL TEXAS
Regional Mobility Authority

May 31, 2017
AGENDA ITEM #13

MoPac Improvement Project Monthly Report.

Strategic Plan Relevance: Regional Mobility
Department: Engineering
Contact: Steve Pustelnyk, Director of Community Relations
Associated Costs: N/A
Funding Source: N/A
Action Requested: Briefing and Board Discussion Only

Summary:

The report is a construction status update for the MoPac Improvement Project.

Backup provided: None



CENTRAL TEXAS
Regional Mobility Authority

May 31, 2017
AGENDA ITEM #14

Executive Session

Executive Session:

Discuss acquisition of one or more parcels or interests in real property needed for the 183 South Project (Bergstrom Expressway) and related legal issues, pursuant to §551.072 (Deliberation Regarding Real Property) and §551.071 (Consultation with Attorney).



CENTRAL TEXAS
Regional Mobility Authority

May 31, 2017
AGENDA ITEM #15

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

May 31, 2017
AGENDA ITEM #16

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

May 31, 2017
AGENDA ITEM #17

Executive Session

Executive Session:

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



**CENTRAL TEXAS
Regional Mobility Authority**

May 31, 2017
AGENDA ITEM #18A - 18B

Authorize negotiation and execution of a contract to purchase a certain parcel, utility easement or other property interest for the 183 South Project

Strategic Plan Relevance: Regional Mobility
Department: Engineering / Law
Contact: Justin Word P.E., Director of Engineering / Geoff Petrov, General Counsel
Associated Costs: N/A
Funding Source: N/A
Action Requested: Consider and act on draft resolutions

Summary:

The Mobility Authority must acquire certain parcels, utility easements and/or related property interests ("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.

The parcels for your consideration and action at this meeting are:

- A. Parcel 157 of the 183 South (Bergstrom Expressway) Project, a fee taking of 0.163 acres, from 0.527 acres of real estate, **owned by Dr. William Selman and Claire Selman**, and located between Vargas Road and Thompson Lane, on Bastrop Highway, Austin TX 78741.
- B. Parcel 158 of the 183 South (Bergstrom Expressway) Project, a fee taking of 0.035 acres, from 4.477 acres of real estate, **owned by Cactus Rose OH Delta, LLC.**, and located at 436 Bastrop Highway, Austin TX 78741.

Backup provided: To be provided at the meeting.