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

RESOLUTION NO. 08-63

WHEREAS, the Central Texas Regional Mobility Authority ("CTRMA") was created pursuant to the request of Travis and Williamson Counties and in accordance with provisions of the Transportation Code and the petition and approval process established in 43 Tex. Admin. Code § 26.01, *et seq.* (the "RMA Rules"); and

WHEREAS, the Board of Directors of the CTRMA has been constituted in accordance with the Transportation Code and the RMA Rules; and

WHEREAS, in a minute order approved on August 25, 2005, the Texas Transportation Commission authorized the CTRMA to pursue the development of the 290 East Turnpike Project (the "Project"); and

WHEREAS, PBS&J is providing project management services to the CTRMA in connection with the Project (the "Project Manager"); and

WHEREAS, in Resolution No. 07-70, dated December 7, 2007, the Board of Directors authorized CTRMA staff to initiate the process for procuring design and engineering services for the design and engineering of the Project in three segments; and

WHEREAS, in Resolution No. 08-16, dated March 26, 2008, the Board of Directors authorized entering into contracts with three engineering design firms [Jacobs Carter Burgess, LJA Engineering ("LJA") and KCI Kennedy Consulting ("Kennedy")] for the three respective segments of the Project; and

WHEREAS, contracts were executed with each of the engineering design firms, including a Work Authorization No. 1 regarding the general design work to be undertaken; and

WHEREAS, in order to have the necessary utility design services required for the two segments of the Project requiring such services to be undertaken by LJA and Kennedy, it is necessary to enter into Work Authorization No. 2 for the respective contracts with LJA and Kennedy, substantially in the form set forth in Attachment "A" attached hereto and incorporated herein; and

WHEREAS, the Project Manager has represented to the Board of Directors and CTRMA staff that the work reflected in Work Authorization No. 2 and the cost thereof are necessary and appropriate for the continued efficient and timely design of the Project.

NOW THEREFORE, BE IT RESOLVED, that the Board of Directors approves Work Authorization No. 2 under each of the respective LJA and Kennedy contracts, attached hereto as Attachment "A" as it relates to utility design services for the Project, provided that any work

commenced under Work Authorization No. 2 be subject to the terms and conditions of the respective LJA and Kennedy contracts.

Adopted by the Board of Directors of the Central Texas Regional Mobility Authority on the 17th day of December, 2008.

Submitted and reviewed by:

Tom Nielson
General Counsel for the Central
Texas Regional Mobility Authority

Approved:

Lowell H. Lebermann, Jr.
Vice Chairman, Board of Directors
Resolution Number 08-63
Date Passed 12/17/08

ATTACHMENT "A"
TO
RESOLUTION NO. 08-63
WORK AUTHORIZATIONS NO. 2
TO LJA AND KENNEDY CONTRACTS

ATTACHMENT C

WORK AUTHORIZATION
C-1
WORK AUTHORIZATION NO. 2
CONTRACT FOR ENGINEERING SERVICES

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

PART I. The Engineer will perform engineering services generally described as utility coordination and design services for the 290 East Toll Project Segment #3 (approximate limits from just west of FM 3177 to FM 734) in accordance with the project description attached hereto and made a part of this Work Authorization. The responsibilities of the Authority and the Engineer as well as the work schedule are further detailed in Exhibits A, B and C, as well as Attachment B-1, which are attached hereto and made a part of the Work Authorization.

PART II. The maximum amount payable under this Work Authorization is **$85,673.14** and the method of payment is Cost Plus Fixed Fee. This amount is based upon the Engineer's estimated Work Authorization costs included in Exhibit D and Exhibit E, which is attached and made a part of this Work Authorization. The basis for payment will be as follows:

> The amount paid shall be based on actual labor hours worked, billed at actual wage rates, plus allowable direct expenses (only those identified in Exhibit D) at actual costs. Billed labor rates must be equal to or less than the maximum wage rates per classification shown in the Maximum Rate Schedule in Exhibit E. The total amount paid shall not exceed the maximum amount payable. For payment the Engineer is required to provide evidence of actual hours worked, employee classification, actual wage rates, and evidence of allowable direct costs.

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

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

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

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

THE ENGINEER	**CENTRAL TEXAS REGIONAL MOBILITY AUTHORITY**
(Signature)	(Signature)
J. Kevin Kennedy	Mike Heiligenstein
President of G.P.	Executive Director
(Date)	(Date)

LIST OF EXHIBITS

Exhibit A	Scope of Services to be provided by the Authority
Exhibit B	Scope of Services to be provided by the Engineer
Exhibit C	Work Schedule
Exhibit D	Fee Schedule
Exhibit E	Maximum Rate Schedule
Exhibit H-2	DBE subprovider Form

EXHIBIT A
SERVICES TO BE PROVIDED BY THE AUTHORITY

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

1. Authorize the Engineer in writing to proceed.

2. Place at Engineer's disposal all reasonably available information pertinent to the Project, including previous reports, drawings, specifications, or any other data relative to the design and construction of the Project.

3. Review and approve the Engineer's progress schedule with milestone activities and/or deliverables identified.

4. Provide timely review and decisions in response to the Engineer's request for information and/or required submittals and deliverables, in order for the Engineer to maintain the agreed-upon work schedule identified in Exhibit C.

5. Provide Project Design Guidelines and CADD Standards Manual.

6. Attend and participate in progress and coordination meetings as required.

EXHIBIT B
SERVICES TO BE PROVIDED BY THE SEGMENT ENGINEER

The Segment Engineer, herein referred to as the "Engineer", shall be responsible for the work outlined in this Scope of Services. This scope of services appends the scope set forth in Section 1.07 and Section 1.19 of Work Authorization #1.

1.07 Utility Coordination and Design

A. Meetings and Coordination

1. Meeting/Coordination with COA Utility Staff – The Engineer will setup meetings and coordinate with the COA Utility Staff throughout the design effort. Initial meetings to discuss the proposed scope of each of the projects, progress meetings to review interim plan sets, and final approval meetings will be held between the Engineer and COA Utility Staff. Throughout the design, the Engineer will be in contact with COA Utility staff regarding the water and wastewater relocation designs. The Engineer will obtain from the City of Austin design flows and pressures (normal working pressure and design surge pressure). For budgeting purposes it has also been assumed that corrosion monitoring design will not be required.

2. Coordination with Prime Consultant on Plan Preparation and Cross- Sections – The Engineer will coordinate with the Prime Consultant regarding plan set up and details for including the utility relocation plans within the overall bid document. Coordination between water and wastewater utilities and other aspects of the project including dry utilities, grading, structural, and storm water improvements will be covered.

B. Design and Plan Production

1. Review SUE/Data Acquisition – The Engineer shall gather relevant water/wastewater data from the SUE deliverables, the City of Austin (COA) Water Utility, and other sources as available. The data will be reviewed and the Engineer shall coordinate with the GEC,SUE subconsultant and COA regarding any questions with the data. From the final analysis of the data, the Engineer shall define each water and wastewater utility relocation project to be included in the design.

2. Plan and Profile Sheets for Water Main Relocations – The Engineer will create plan and profile sheets for proposed water main relocations to be included in the bid documents for the overall project. These sheets shall include:

   a. Preparation of plan and profile sheets of proposed water main relocations at a scale of 1"=40' H and 1"=4'V, or as necessary to clearly show all required information.

   b. Depiction of abandonment of existing water mains.

3. Water Shutdown/Tie In Sequencing Sheets – The Engineer will create sheets to show how water tie-ins and possible water shutdowns shall be accomplished at each relocation project.

4. Water/Wastewater Detail Sheets – The Engineer shall prepare water and wastewater detail sheets including COA & CTRMA standard details and project specific details as required. All utility engineering activities will be done in accordance with TxDOT's ROW Utility Manual, The Utility Accommodation Rules "UAR", or as directed by CTRMA.

5. Water/Wastewater Note Sheets – The Engineer shall prepare water and wastewater note sheets in accordance with COA, CTRMA, and TCEQ standards.

6. Specification Preparation – The Engineer shall prepare specifications for the proposed projects using standard COA Specifications with Special Provisions and Special Specifications as required for the project.

7. Quantity Takeoffs/Bid Form – The Engineer will compute quantities related to water and wastewater relocations included in the project. A bid form provided by the Prime Consultant will be filled out with the final quantities.

8. Cost Estimates – The Engineer will prepare cost estimates for each water and wastewater relocation for each design submittal (60%, Pre-Final and Final).

9. COA Design Report/Summary – The Engineer will prepare a final design report detailing calculations, materials, and other details of the water and wastewater relocations.

10. Advertise and Bid Phase Services – The Engineer will assist with advertising and bidding of the project to include attending pre-bid meetings, responding to bidder questions, and preparing addenda.

Deliverable Summary

- The Engineer will submit to the GEC via the Segment Designers ten (10) copies of 11 X 17's of the PS&E at each phase (60%, Pre-Final and Final) stage for approval.
- The Engineer will submit to the GEC and Segment Designers all Microstation DGNs files at each submittal (60%, Pre-Final and Final).
- Upon final plan acceptance by the GEC, Segment Designers and City of Austin, a sealed mylar copy of the final, signed by City of Austin, will be submitted to the segment designers in a format suitable for inclusion in each segment designers final PS&E assembly. One (1) set of 11x17's of the final plans will also be provided to the GEC in both electronic and hard copy formats.

1.19 Coordination, Meetings & Invoicing

A. The Engineer will attend the Utility Coordination Meetings with the Project Team, as outlined in Section 4.4.5, Utility Coordination, of the 290 East Project Manual. This task includes attendance at Segment-specific meetings as needed by design issues.

EXHIBIT C
WORK SCHEDULE

Segment 3

60% Submittal (Utility design 90% complete).....April 23, 2009

Pre-Final Submittal (Utility design 100% complete).....July 1, 2009

Final Submittal.....August 13, 2009

EXHIBIT D
FEE SCHEDULE

FOR
KENNEDY CONSULTING, LTD.

290 EAST TOLL PROJECT
Utility Coordination and Design

For services describe in the Scope of Services, we request the compensation as detailed below. Cost breakdowns for engineering services and explanation of expenses are shown on the following pages.

TOTAL COMPENSATION

Utility Design and Coordination (K Friese & Associates, Inc.)	**$**	**85,673.14**

Exhibit D
Summary of Manhours by Classification & Major Task Analysis

CATEGORY	K. Friese & Associates, Inc.		TOTALS	
	HOURS	COST	HOURS	COST
1.02 GOVERNMENTAL AGENCY COORDINATION				$ -
1.03 DATA COLLECTION				$ -
1.04 GEOTECHNICAL INVESTIGATION				$ -
1.05 SUPPLEMENTAL SURVEYING				$ -
1.06 ROW MAPPING				$ -
1.07 UTILITY COORDINATION AND DESIGN	869	83,417.38	869	$ 83,417
1.08 INITIAL DESIGN AND DCC				$ -
1.09 ROADWAY DESIGN				$ -
1.10 DRAINAGE DESIGN				$ -
1.11 STRUCTURAL DESIGN				$ -
1.12 RETAINING WALL DESIGN				$ -
1.13 SIGNING, MARKINGS AND SIGNALIZATION				$ -
1.14 TRAFFIC CONTROL PLAN				$ -
1.15 TRAFFIC MANAGEMENT SYSTEMS				$ -
1.16 ILLUMINATION				$ -
1.17 TOLL FACILITY DESIGN				$ -
1.18 MISCELLANEOUS				$ -
1.19 COORDINATION, MEETINGS & INVOICING	14	$ 1,809.36	14	$ 1,809
TOTAL LABOR COST		$ 85,226.74		$ 85,227
DIRECT EXPENSES		$ 446.40		$ 446
TOTALS	883	$ 85,673.14	883	$ 85,673.14
FIXED FEE	$ 8,522.67			
DBE PERCENTAGE	100.0%		100.0%	
OVERALL PERCENTAGES	100.0%		100.0%	

Exhibit D

Summary of Manhours by Classification & Major Task Analysis

K. Friese & Associates, Inc.

Utility Coordination and Design - Water and Wastewater

Fee/Rate Schedule							OH	MARGIN	PROJECT
Average Billing	$58.50	$43.00	$35.00	$28.50	$27.00	$21.00	RATE	RATE	MULTIPLIER
Average Loaded Rate	$167.22	$122.91	$100.05	$81.47	$77.18	$60.03	159.86%	10.00%	2.858

Description of Work or Task	Senior Proj Engr $167.22/Hr	Senior Engineer $122.91/Hr	Design Engineer $100.05/Hr	EIT $81.47/Hr	Sr. Engr. Tech. $77.18/Hr	Admin / Clerical $60.03/Hr	Staff-Hr. Totals	Staff Cost / Task Totals	Plan Sheet Total
1.07 UTILITY COORDINATION AND DESIGN - WATER AND WASTEWATER									
1.07.A.1 Meetings and Coordination									
A.1.a Meetings/Coordination with City of Austin Staff	4	16	0	8	0	0	28	$ 3,287.20	0
A.1.b Meetings/Coordination with Prime Consultant	0	28	0	20	48	0	96	$ 8,775.52	0
Design Meeting Subtotal:	*4*	*44*	*0*	*28*	*48*	*0*	*124*	*$ 12,062.72*	0
1.07.B.2 Design and Plan Production									
B.2.a Review SUE / Data Acquisitioin	2	8	0	24	12	0	46	$ 4,199.16	0
B.2.b Plan and Profile Design and Sheet Production - Water									
1. 800 LF of 6" 458+50 to 466+50	2	16	0	8	16	0	42	$ 4,187.64	2
2. 1400 LF of 12" 469+00 to 483+00	3	28	0	12	24	0	67	$ 6,773.10	3
3. 700 LF of 8" 474+00	2	16	0	8	16	0	42	$ 4,187.64	2
4. 650 LF of 8" 513+00	2	16	0	8	16	0	42	$ 4,187.64	2
5. 650 LF of 2.25" 514+50	2	12	0	8	12	0	34	$ 3,387.28	2
6. 2,800 LF of 6" 519+40 to 541+00	6	48	0	16	40	0	110	$ 11,293.72	6
7. 500 LF of 6" 539+00	1	8	0	4	8	0	21	$ 2,093.82	1
8. Water Line design as directed by GEC/ CTRMA	4	16	0	24	20	0	64	$ 6,134.32	4
B.2.c Water Shutdown / Tie-In Sequencing Plans	2	16	0	8	8	0	34	$ 3,570.20	1
B.2.d Construction Details	0	2	0	4	12	0	18	$ 1,497.86	3
B.2.e Construction Notes	0	2	0	4	8	0	14	$ 1,189.14	2
B.2.f Specifications	2	4	0	12	0	16	34	$ 2,764.20	0
B.2.g Quantities / Bid Form	0	4	0	16	20	0	40	$ 3,338.76	0
B.2.h Cost Estimate	1	8	0	12	0	0	21	$ 2,128.14	0
B.2.i City of Austin Design Summary Report	2	12	0	16	32	8	70	$ 6,062.88	0
B.2.j Advertisement and Bid Phase Services	2	16	0	8	12	8	46	$ 4,359.16	0
Design Plan and Production Subtotal:	*33*	*232*	*0*	*192*	*256*	*32*	*745*	*$ 71,354.66*	*28*
1.19 COORDINATION, MEETINGS AND INVOICING									
A. GEC / CTRMA Coordination	2	12	0	0	0	0	14	$ 1,809.36	0
Basic General Expenses (detail included below)								$ 446.40	0
Utility Coordination and Engineering - Water and Wastewater Total:	**39**	**288**	**0**	**220**	**304**	**32**	**883**	**$ 85,673.14**	**28**

Exhibit D

Summary of General Expenses

K. Friese & Associates, Inc.

Segment 3 - Utility Coordination and Design

Item Description	Unit	Quantity	Unit Cost	Total Cost
Basic General Expenses				
I. CADD Time	HR.	0	$0.00	**$0.00**
II. Basic Printing and Reproduction				
A. Report Submittals 8.5" x 11"	EA.	500	$0.10	**$50.00**
B. 60% Submittal 11" x 17" (24 shts. X 1 Set)	EA.	24	$0.20	**$4.80**
C. Pre-Final Submittal 11" x 17" (24 shts. X 1 Set)	EA.	24	$0.20	**$4.80**
D. Final Submittal 11" x 17" (24 shts. X 1 Set)	EA.	24	$0.20	**$4.80**
E. Final Submittal 11" x 17" Mylar (24 shts. X 1 Set)	EA.	24	$2.00	**$48.00**
III. Overnight Deliveries (FedEx) (1/mo. X 8 mo.)	EA.	5	$20.00	**$100.00**
IV. Travel - Mileage	Miles	400	$0.585	**$234.00**
			Total Basic General Expenses	**$446.40**

Exhibit E
Maximum Rate Schedule
Utility Coordination and Design

Labor Classification	Maximum Rate
K Friese & Associates, Inc.	
Senior Project Engineer	$ 58.50
Senior Engineer	$ 43.00
Engineer	$ 35.00
Engineer-in-Training	$ 28.50
Senior Engineer Technician	$ 27.00
Clerical	$ 21.00
Actual billed rates are not to exceed the maximum rate.	
Documentation of hours worked is necessary to receive reimbursement.	

EXHIBIT H-2

Central Texas Regional Mobility Authority
Subprovider Monitoring System Commitment Agreement

This commitment agreement is subject to the award and receipt of a signed contract from the Central Texas Regional Mobility Authority. ***NOTE: Exhibit H-2 is required to be attached to each contract that does not include work authorizations. Exhibit H-2 is required to be attached with each work authorization. Exhibit H-2 is also required to be attached to each supplemental work authorization. If DBE/HUB Subproviders are used, the form must be completed and signed. If no DBE/HUB Subproviders are used, indicate with "N/A" on this line: _____ and attach with the work authorization or supplemental work authorization.***

Contract #: 08290E22703E Assigned Goal: 12.7% Prime Provider: Kennedy Consulting, Ltd.

Work Authorization (WA)#: 2 WA Amount: $85,673.14 Date: 12/2/2008
Supplemental Work Authorization (SWA) #: _____ to WA #: _____ SWA Amount: _____

Revised WA Amount: _____

Description of Work *(List by category of work or task description. Attach additional pages, if necessary.)*	**Dollar Amount** *(For each category of work or task description shown.)*
Utility Coordination – Water/Wastewater	**$85,673.14**
Total Commitment Amount *(Including all additional pages.)*	$85,673.14

IMPORTANT: The signatures of the prime and the DBE/HUB and Second Tier Subprovider, if any (both DBE and Non-DBE) and the total commitment amount must always be on the same page.

Provider Name: Kennedy Consulting, Ltd. **Address: 204 S. IH 35, Suite 101, Georgetown, TX 78628** **Phone # & Fax #: 512-864-2833 (Fax: 512-930-0909)** **Email: kkennedy@kci-ltd.com**	**Name:** J. Kevin Kennedy, P.E. *(Please Print)* **Title:** President of General Partner _____ **Signature** **Date**
DBE/HUB Sub Provider **Subprovider Name: K Friese & Associates, Inc.** **VID Number:** **Address: 1120 S. Capital of Texas Highway** **Austin, TX 78746** **Phone # & Fax #: 512-338-1704 (Fax: 512-338-1784)** **Email: kfriese@kfriese.com**	**Name:** Karen A. Friese, P.E. *(Please Print)* **Title:** President _____ **Signature** **Date**
Second Tier Sub Provider **Subprovider Name:** **VID Number:** **Address:** **Phone #& Fax #:** **Email:**	**Name:** _____ *(Please Print)* **Title:** _____ _____ **Signature** **Date**

VID Number is the Vendor Identification Number issued by the Comptroller. If a firm does not have a VID Number, please enter the owner's Social Security or their Federal Employee Identification Number (if incorporated).

ATTACHMENT C

WORK AUTHORIZATION
C-1
WORK AUTHORIZATION NO. 2
CONTRACT FOR ENGINEERING SERVICES

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

PART I. The Engineer will perform engineering services generally described as utility engineering and design services for the 290 East Toll Project Segment #2 (approximate limits from just west of Tuscany Way to just west of FM 3177) in accordance with the project description attached hereto and made a part of this Work Authorization. The responsibilities of the Authority and the Engineer as well as the work schedule are further detailed in Exhibits A, B, and C which are attached hereto and made a part of the Work Authorization.

PART II. The maximum amount payable under this Work Authorization is **$771,940.88** and the method of payment is Cost Plus Fixed Fee. This amount is based upon the Engineer's estimated Work Authorization costs included in Exhibit D and Exhibit E, which is attached and made a part of this Work Authorization. The basis for payment will be as follows:

> The amount paid shall be based on actual labor hours worked, billed at actual wage rates, plus allowable direct expenses (only those identified in Exhibit D) at actual costs. Billed labor rates must be equal to or less than the maximum wage rates per classification shown in the Maximum Rate Schedule in Exhibit E. The total amount paid shall not exceed the maximum amount payable. For payment the Engineer is required to provide evidence of actual hours worked, employee classification, actual wage rates, and evidence of allowable direct costs.

PART III. Payment to the Engineer for the services established under this Work Authorization shall be made in accordance with Articles 3 thru 5 of the contract, and Attachment A, Article 1.

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

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

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

THE ENGINEER	**CENTRAL TEXAS REGIONAL MOBILITY AUTHORITY**
_____	_____
(Signature)	(Signature)
Jeff Collins, P.E.	Mike Heiligenstein
(Printed Name)	(Printed Name)
Senior Vice President	Executive Director
_____	_____
(Date)	(Date)

LIST OF EXHIBITS

Exhibit A	Scope of Services to be provided by the Authority
Exhibit B	Scope of Services to be provided by the Engineer
Exhibit C	Work Schedule
Exhibit D	Fee Schedule
Exhibit E	Maximum Rate Schedule
Exhibit H-2	DBE Subprovider Forms (3)

EXHIBIT A
SERVICES TO BE PROVIDED BY THE AUTHORITY

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

1. Authorize the Engineer in writing to proceed.

2. Place at Engineer's disposal all reasonably available information pertinent to the Project, including previous reports, drawings, specifications, or any other data relative to the design and construction of the Project.

3. Review and approve the Engineer's progress schedule with milestone activities and/or deliverables identified.

4. Provide timely review and decisions in response to the Engineer's request for information and/or required submittals and deliverables, in order for the Engineer to maintain the agreed-upon work schedule identified in Exhibit C.

5. Provide Project Design Guidelines and CADD Standards Manual.

6. Attend and participate in progress and coordination meetings as required.

EXHIBIT B
SERVICES TO BE PROVIDED BY THE SEGMENT ENGINEER

The Segment Engineer, herein referred to as the "Engineer", shall be responsible for the work outlined in this Scope of Services. This scope of services appends the scope set forth in Section 1.07, 1.14 and Section 1.19 of Work Authorization #1.

1.07 Utility Coordination and Design

A. Telecommunications and Natural Gas Facilities

1. Meetings and Coordination with Facility Owners.

a) The Engineer will schedule individual and/or group meetings with the Telecom Companies within each Roadway Segment to review and discuss the Joint Trench and/or Individual Trench Design. Meetings will include discussions on the trench design layout, number, size and type of conduits requested by the Telecom, and the utility standards and specifications to be used in the design. Meeting minutes will be prepared and distributed within five (5) business days by the Engineer to all meeting participants. The Engineer will notify the GEC of the individual telecom meetings within three (3) business days of the meeting date.

b) The Engineer will schedule individual meetings with Texas Gas Services (TGS) within each Roadway Segment to review and discuss the relocation design. Meetings will include discussions on the design layout, size and type of gas line required, and the utility standards and specifications to be used in the design. Meeting minutes will be prepared and distributed within five (5) business days by the Engineer to all meeting participants. The Engineer will notify the GEC of the TGS meetings within three (3) business days of the meeting date.

2. Design and Plan Production.

The Engineer will provide the professional design services for a joint trench telecom duct bank, individual telecom trench, and gas line relocations associated with the US 290 East Project – Segments 1, 2 & 3. Design Services will include utility coordination meetings with group and individual utility companies, design of relocation plans for a joint trench and individual trench for the telecom utilities and relocation plans for TGS lines, including plans, specifications, quantities, and estimates, and coordination and update

meetings with the Corridor General Engineering Consultant (GEC). All utility engineering activities will be done in accordance with TxDOT's ROW Utility Manual, the Utility Accommodation Rules "UAR", telecom and gas industry design standards, or as directed by CTRMA. The relocation plans, specifications, quantities and cost estimate will be separated into the three segments of the project. Utility design services shall be as outlined below:

a) The Engineer will review the telecom and gas as-builts provided by the GEC along with information obtained directly from all utilities involved in conjunction with the each Roadway Segment schematic design to identify, coordinate and verify limits of joint trench and individual telecom trench design and gas relocation design. The joint and individual trench limits and gas relocation limits will be coordinated with the GEC and individual utility companies prior to the start of the utility relocation design.

b) The Engineer will prepare plan and profiles for the joint trench and individual telecom trench relocations for each Roadway Segment. The plan sheets will be 11x17 and will be incorporated into each Roadway Segment PS&E package. Roadway segment design files, project resource files, and border and sheet files will be provided by the GEC to the Engineer for preparation of the utility relocation designs. The joint trench and individual trench telecom and gas relocation design will be in Microstation (*.dgn) format, Version 8.

c) The Engineer will prepare telecom specifications, quantities, and estimate for each Roadway Segment, to be incorporated into the PS&E submittal package. The specifications, quantities, and estimate will be provided in the format as required by the contract documents for this project.

d) The Engineer will submit the 90% utility relocation trench design for telecom to the individual utility companies and GEC within each segment for review and approval. The Engineer will update the 90% utility relocation trench design plans to address and resolve review comments received from the individual utility companies.

e) The Engineer will submit ten (10) 11x17 paper copies of the 90% utility relocation trench design for gas and telecom with the 60% Roadway Section Design Submittal. The design plans will be provided in hard copy and electronic (*.dgn/*.pdf) format.

f) The Engineer will make updates to the 90% gas and telecom utility relocation trench design plans, specifications, quantities and estimates.

g) The Engineer will submit ten (10) 11x17 paper copies and one 11x17 mylar copy of the 100% complete gas and telecom utility relocation trench design plans, specifications, quantities, and estimates for review and approval to the GEC with the Pre-Final Roadway Section Design Submittal. The final 11x17 mylar plan and profile sheets will be signed and sealed by a Professional Engineer licensed in the State of Texas.

Deliverable Summary

- The Engineer will submit to the GEC via the Segment Designers ten (10) copies of 11 X 17's of the PS&E at each phase (60%, Pre-Final and Final) stage for approval.
- The Engineer will submit to the GEC via the Segment Designers all Microstation DGNs files at each submittal (60%, Pre-Final and Final).
- Upon final plan acceptance by the GEC and Segment Designers, a sealed mylar copy of the final will be submitted to the segment designers in a format suitable for inclusion in each segment designers final PS&E assembly. One (1) set of 11x17's of the final plans will also be provided to the GEC in both electronic and hard copy formats.

B. Water and Wastewater Facilities

1. Meetings and Coordination.

a) The Engineer will setup meetings and coordinate with the COA Utility Staff throughout the design effort. Initial meetings to discuss the proposed scope of each of the projects, progress meetings to review interim plan sets, and final approval meetings will be held between the Engineer and COA Utility Staff. Throughout the design, the Engineer will be in contact with COA Utility staff regarding the water and wastewater relocation designs. The Engineer will obtain from the City of Austin design flows and pressures (normal working pressure and design surge pressure). For budgeting purposes it has also been assumed that corrosion monitoring design will not be required.

b) Coordination with Prime Consultant on Plan, Profile and Cross-Section Preparation – The Engineer will coordinate with the Prime Consultant

regarding plan set up and details for including the utility relocation plans within the overall bid document. Coordination between water and wastewater utilities and other aspects of the project including dry utilities, grading, structural, and storm water improvements will be covered.

2. Design and Plan Production.

a) Review SUE/Data Acquisition – The Engineer shall gather relevant water/wastewater data from the SUE deliverables, the City of Austin (COA) Water Utility, and other sources as available. The data will be reviewed and the Engineer shall coordinate with the GEC, SUE Engineer and COA regarding any questions with the data. From the final analysis of the data, the Engineer shall define each water and wastewater utility relocation project to be included in the design.

b) Plan and Profile Sheets for Water Main Relocations – The Engineer will create plan and profile sheets for proposed water main relocations to be included in the bid documents for the overall project. These sheets shall include:

(1) Preparation of plan and profile sheets of proposed water main relocations at a scale of 1"=40' H and 1"=4'V, or as necessary to clearly show all required information.

(2) Depiction of abandonment of existing water mains.

c) Plan and Profile Sheets for Wastewater Main Relocations – The Engineer will create plan and profile sheets for proposed wastewater main relocations to be included in the bid documents for the overall project. These sheets shall include:

(1) Preparation of plan and profile sheets of proposed wastewater main relocations at a scale of 1"=40' H and 1"=4'V, or as necessary to clearly show all required information.

(2) Depiction of abandonment of existing wastewater mains.

d) Water Shutdown/Tie In Sequencing Sheets – The Engineer will create sheets to show how water tie-ins and possible water shutdowns shall be accomplished at each relocation project.

e) Bypass Pumping plans for Wastewater – The Engineer shall create bypass pumping plans for each wastewater relocation project. It has been assumed that the City of Austin will provide bypass pumping design flows. These plans shall be at a scale of 1"=100'H.

f) Water/Wastewater Detail Sheets – The Engineer shall prepare water and wastewater detail sheets including COA & CTRMA standard details and project specific details as required. All utility engineering activities will be done in accordance with TxDOT's ROW Utility Manual, The Utility Accommodation Rules "UAR", or as directed by CTRMA.

g) Water/Wastewater Note Sheets – The Engineer shall prepare water and wastewater note sheets in accordance with COA, CTRMA, and TCEQ standards.

h) Specification Preparation – The Engineer shall prepare specifications for the proposed projects using standard COA Specifications with Special Provisions and Special Specifications as required for the project.

i) Quantity Takeoffs/Bid Form – The Engineer will compute quantities related to water and wastewater relocations included in the project. A bid form provided by the Prime Consultant will be filled out with the final quantities.

j) Cost Estimates – The Engineer will prepare cost estimates for each water and wastewater relocation for each design submittal (60%, Pre-Final and Final).

k) COA Design Report/Summary – The Engineer will prepare a final design report detailing calculations, materials, and other details of the water and wastewater relocations.

l) Advertise and Bid Phase Services – The Engineer will assist with advertising and bidding of the project to include attending pre-bid meetings, responding to bidder questions, and preparing addenda.

Deliverable Summary

- The Engineer will submit to the GEC via the Segment Designers ten (10) copies of 11 X 17's of the PS&E at each phase (60%, Pre-Final and Final) stage for approval.

- The Engineer will submit to the GEC via the Segment Designers all Microstation DGNs files at each submittal (60%, Pre-Final and Final).

- Upon final plan acceptance by the GEC, Segment Designers and City of Austin, a sealed mylar copy of the final, signed by City of Austin, will be submitted to the segment designers in a format suitable for inclusion in each segment designers final PS&E assembly. One (1) set of 11x17's of the final plans will also be provided to the GEC in both electronic and hard copy formats.

1.14 Traffic Control

1. Meetings and Coordination.

   a) Coordination with Utility Designers and Prime Consultant. The Engineer shall coordinate to resolve traffic control issues.

2. Design and Plan Production.

   a) Preparation of traffic control details / sequencing narrative. The Engineer shall prepare traffic control details and/or standards and include utility considerations in the overall construction sequencing narrative.

Deliverable Summary

- Traffic control details and sequencing narrative as further described in Section 1.14, Traffic Control of Work Authorization No. 1.

1.19 Coordination, Meetings & Invoicing

A. The Engineer will attend the bi-weekly Utility Coordination Meetings with the Project Team, as outlined in Section 4.4.5, Utility Coordination, of the 290 East Project Manual. This task includes attendance at Segment-specific meetings as needed by design issues.

B. The Specialty and Segment Design Consultants shall have a quality control plan in effect during the entire time work is being performed under this project.

C. The Engineer will attend Submittal Review Meetings at the 60%, Pre-Final, and Final Design Submittals and attend the Pre-Bid Meeting for Roadway Construction (4 meetings per Segment)

D. The Engineer will follow invoice procedures as described in Section 3.2 of the 290 East Project Manual, as outlined below. Invoice and Progress Report Format shall include the following:

1. Original signature of appropriate personnel of the Engineer
2. Dates of the billing period
3. Documentation of hours worked
4. Past months activities and accomplishments
5. Pending issues and decisions
6. Problem areas and recommended corrective actions
7. Next month's planned activities
8. Current period budget status summary (showing task percent complete vs cost percent complete per task)
9. Job to date budget status summary (showing task percent complete vs. cost percent complete per task
10. Total amount of Work Authorization spent to date
11. Total amount of Work Authorizations spent in current period

EXHIBIT C
WORK SCHEDULE

Segment 1

60% Submittal (Utility design 90% complete)……..……..…March 5, 2009

Pre-Final Submittal (Utility design 100% complete)……...…May 7, 2009

Final Submittal……..……...June 17, 2009

Segment 2

60% Submittal (Utility design 90% complete)……..….April 9, 2009

Pre-Final Submittal (Utility design 100% complete)……..June 4, 2009

Final Submittal……..……...July 16, 2009

Segment 3

60% Submittal (Utility design 90% complete)…….April 23, 2009

Pre-Final Submittal (Utility design 100% complete)……July 1, 2009

Final Submittal……...……...August 13, 2009

EXHIBIT D
FEE SCHEDULE

FOR
LJA Engineering & Surverying, Inc.

290 EAST TOLL PROJECT - UTILITY COORDINATION AND DESIGN

For services describe in the Scope of Services, we request the compensation as detailed below. Cost breakdowns for engineering services and explanation of expenses are shown on the following pages.

TOTAL COMPENSATION

Utility Coordination and Design (LJA Engineering & Surverying, Inc.)	**$ 22,237.24**
Utility Coordination and Design - Water and Wastewater (K Friese & Associates, Inc.)	**$ 196,364.94**
Utility Coordination and Design - Telecommunications and Natural Gas (Cobb Fendley & Associates)	**$ 544,165.94**
Utility Coordination and Design - Traffic Control (Rodriguez Transportation Group)	**$ 9,172.76**
	$ 771,940.88

Exhibit D
Summary of Manhours by Classification & Major Task Analysis

CATEGORY	LJA		CFA		K FRIESE		RTG		TOTALS	
	HOURS	COST	HOURS	COST	HOURS	COST	HOURS	COST	HOURS	COST
1.02 GOVERNMENTAL AGENCY COORDINATION										$ -
1.03 DATA COLLECTION										$ -
1.04 GEOTECHNICAL INVESTIGATION										$ -
1.05 SUPPLEMENTAL SURVEYING										$ -
1.06 ROW MAPPING										$ -
1.07 UTILITY COORDINATION AND DESIGN			5094	$ 511,864.95	1989	$ 190,613.10				$ 702,478
1.08 INITIAL DESIGN AND DCC										$ -
1.09 ROADWAY DESIGN										$ -
1.10 DRAINAGE DESIGN										$ -
1.11 STRUCTURAL DESIGN										$ -
1.12 RETAINING WALL DESIGN										$ -
1.13 SIGNING, MARKINGS AND SIGNALIZATION										$ -
1.14 TRAFFIC CONTROL PLAN							60	$ 9,172.76		$ 9,173
1.15 TRAFFIC MANAGEMENT SYSTEMS										$ -
1.16 ILLUMINATION										$ -
1.17 TOLL FACILITY DESIGN										$ -
1.18 MISCELLANEOUS										$ -
1.19 COORDINATION, MEETINGS & INVOICING	164	$ 22,120.24	257	$ 30,684.49	40	$ 4,767.84				$ 57,573
TOTAL LABOR COST		$ 22,120.24		$ 542,549.44		$ 195,380.94		$ 9,172.76		$ 769,223
DIRECT EXPENSES		$ 117.00		$ 1,616.50		$ 984.00		$ -		$ 2,718
TOTALS	164	$ 22,237.24	5351	$ 544,165.94	2029	$ 196,364.94	60	$ 9,172.76	7604	$ 771,940.88
FIXED FEE	$ 2,212.02		$ 54,254.94		$ 19,538.09		$ 917.28		$ 76,922.34	
DBE PERCENTAGE					25.4%		1.2%		26.6%	
OVERALL PERCENTAGES	2.9%		70.5%		25.4%		1.2%		100.0%	

Exhibit D

Summary of Manhours by Classification & Major Task Analysis
LJA Engineering & Surveying, Inc.
Utility Coordination and Design

Fee/Rate Schedule							OH	MARGIN	PROJECT
Average Billing Rate	$69.52	$50.00	$46.06	$45.00	$36.06	$20.80	RATE	RATE	MULTIPLIER
Average Loaded Rate	$212.36	$152.74	$140.70	$137.46	$110.15	$63.54	177.70%	10.00%	3.055

Description of Work or Task	Project Manager $212.36/Hr	Senior Proj Engr $152.74/Hr	Engineer $140.70/Hr	Sr. Engr. Tech. $137.46/Hr	Engr. Tech. $110.15/Hr	Admin / Clerical $63.54/Hr	Staff-Hr. Totals	Staff Cost / Task Totals	Plan Sheet Total
1.19 GEC Coordination, Meetings and Invoicing									
A) Coordinate with Utility Designers and Segment 1 & 2 Segment Designers	8	32	0	0	0	0	40	$ 6,586.56	0
B) Incorporate Utility Plans into Bid Package (Quantities, Provisions, Specifications, Plans, Estimates)	0	8	16	0	24	0	48	$ 6,116.72	0
C) QA/QC Utility Plans (3 submittals)	0	12	24	0	0	0	36	$ 5,209.68	0
D) Invoicing (assume 6 invoices)	4	12	0	0	0	24	40	$ 4,207.28	0
Basic General Expenses (see detail below)								$ 117.00	
Utility Engineering Total:	**12**	**64**	**40**	**0**	**24**	**24**	**164**	**$ 22,237.24**	**0**

Exhibit D

Summary of General Expenses
LJA Engineering & Surveying, Inc.
Utility Coordination and Design

Item Description	Unit	Quantity	Unit Cost	Total Cost
Basic General Expenses				
I. Basic Printing and Reproduction				
A. Report Submittals 8.5" x 11"	EA.	0	$ -	$ -
B. 60% Submittal 11" x 17"	EA.	0	$ -	$ -
C. Pre-Final Submittal 11" x 17"	EA.	0	$ -	$ -
D. Final Submittal 11" x 17"	EA.	0	$ -	$ -
E. Final Submittal 11" x 17" Mylar	EA.	0	$ -	$ -
II. Overnight Deliveries (FedEx)	EA.	0	$ -	$ -
III. Travel - Mileage	Miles	200	$ 0.59	$ 117.00
			Total Basic General Expenses	**$ 117.00**

Exhibit D

Summary of Manhours by Classification & Major Task Analysis

Cobb Fendley & Associates

Utility Coordination and Design - Telecommunications and Natural Gas

Fee/Rate Schedule										OH	MARGIN	PROJECT
Average Billing Rate	$79.76	$40.88	$55.88	$42.64	$36.78	$28.71	$26.44	$23.12	$20.98	RATE	RATE	MULTIPLIER
Average Loaded Rate	$250.05	$128.16	$175.18	$133.68	$115.31	$90.01	$82.89	$72.48	$65.77	185.00%	10.00%	3.135

Description of Work or Task	Principal $250.05/Hr	Project Manager $128.16/Hr	Senior Engineer $175.18/Hr	Project Engineer III $133.68/Hr	Project Engineer II $115.31/Hr	Proj Eng I/ Tech III $90.01/Hr	Technician II $82.89/Hr	Technician I $72.48/Hr	Admin / Clerical $65.77/Hr	Staff-Hr. Totals	Staff Cost / Task Totals	Plan Sheet Total
SEGMENT 1 (STA 235+00 to 261+00) - UTILITY ENGINEERING												
1.07.A.1 Meetings and Coordination												
A.1.a Meetings w/Telecom Owners	0	16	0	24	0	8	0	8	4	60	$ 6,821.88	0
A.1.b Meetings w/Natural Gas Owners	0	1	4	4	0	0	0	2	1	12	$ 1,574.33	0
Segment 1 Subtotal - Coordination	*0*	*17*	*4*	*28*	*0*	*8*	*0*	*10*	*5*	*72*	*$ 8,396.21*	
1.07.A.2 Design and Plan Production - Telecommunications												
A.2.a Review as-builts	0	2	0	12	0	0	0	0	0	14	$ 1,860.48	0
A.2.b Plan and profile design and production												
b.i Joint Trench (assumed 1,260 lf)	0	2	4	0	6	8	6	16	0	42	$ 4,026.00	6
b.ii Individual Trench (assumed 2,200 lf)	0	4	8	0	18	24	28	54	0	136	$ 12,384.74	8
b.iii Trench design as directed by GEC/CTRMA	0	2	4	0	4	6	6	10	0	32	$ 3,180.48	4
A.2.c Prepare specifications, quantities and estimate	0	1	1	5	0	2	0	0	1	10	$ 1,217.53	0
A.2.d Submit 90% to owners for review and approval	0	2	0	2	2	6	0	6	2	20	$ 1,860.78	0
A.2.e Submit 90% to Prime and GEC	0	0	1	2	0	4	0	6	1	14	$ 1,303.23	0
A.2.f Address Comments, Update Design	0	2	2	2	2	8	0	10	2	28	$ 2,681.08	0
A.2.g Submit Final Plans for review and approval	2	1	2	1	2	0	0	6	1	15	$ 1,843.57	0
Segment 1 Subtotal - Telecom	*2*	*16*	*22*	*24*	*34*	*58*	*40*	*108*	*7*	*311*	*$ 30,357.89*	18
1.07.A.2 Design and Plan Production - Natural Gas												
A.2.a Review as-builts	0	1	0	4	0	0	0	0	0	5	$ 662.88	0
A.2.b Plan and profile design and production (assumed 1,250 lf)	0	2	4	8	6	10	4	6	0	40	$ 4,384.88	6
b.i Gas Line design as directed by GEC/CTRMA	0	0	1	0	2	0	4	4	0	11	$ 1,027.28	
A.2.c Prepare specifications, quantities and estimate	0	1	1	4	0	4	0	0	1	11	$ 1,263.87	0
A.2.d Submit 90% to owners for review and approval	0	1	0	2	0	2	0	1	1	7	$ 713.79	0
A.2.e Submit 90% to Prime and GEC	0	1	1	1	0	1	0	1	1	6	$ 665.28	0
A.2.f Address Comments	0	2	2	2	0	2	0	2	2	12	$ 1,330.56	0
A.2.g Submit Final Plans for review and approval	1	1	1	2	0	0	0	2	1	8	$ 1,031.48	0
Segment 1 Subtotal - Natural Gas	*1*	*9*	*10*	*23*	*8*	*19*	*8*	*16*	*6*	*100*	*$ 11,080.02*	6
Segment 1 - Utility Engineering Total:	**3**	**42**	**36**	**75**	**42**	**85**	**48**	**134**	**18**	**483**	**$ 49,834.12**	

Exhibit D

Summary of Manhours by Classification & Major Task Analysis

Cobb Fendley & Associates

Utility Coordination and Design - Telecommunications and Natural Gas

Fee/Rate Schedule										OH	MARGIN	PROJECT
Average Billing Rate	$79.76	$40.88	$55.88	$42.64	$36.78	$28.71	$26.44	$23.12	$20.98	RATE	RATE	MULTIPLIER
Average Loaded Rate	$250.05	$128.16	$175.18	$133.68	$115.31	$90.01	$82.89	$72.48	$65.77	185.00%	10.00%	3.135

Description of Work or Task	Principal $250.05/Hr	Project Manager $128.16/Hr	Senior Engineer $175.18/Hr	Project Engineer III $133.68/Hr	Project Engineer II $115.31/Hr	Proj Eng I/ Tech III $90.01/Hr	Technician II $82.89/Hr	Technician I $72.48/Hr	Admin / Clerical $65.77/Hr	Staff-Hr. Totals	Staff Cost / Task Totals	Plan Sheet Total
SEGMENT 2 (STA 261+00 to 458+50) - UTILITY ENGINEERING												
1.07.A.1 Meetings and Coordination												
A.1.a Meetings w/Telecom Owners												
a.i Joint Trench Coordination	0	4	0	4	0	2	0	4	2	16	$ 1,648.84	0
a.ii Individual Trench Coordination	0	32	0	48	0	16	0	16	8	120	$ 13,643.76	1
A.1.b Meetings w/Natural Gas Owners	0	3	4	4	2	0	0	2	1	16	$ 2,061.27	0
Segment 2 Subtotal - Coordination	*0*	*39*	*4*	*56*	*2*	*18*	*0*	*22*	*11*	*152*	*$ 17,353.87*	
1.07.A.2 Design and Plan Production - Telecommunications												
A.2.a Review as-builts	0	4	0	16	0	16	0	0	4	40	$ 4,354.76	0
A.2.b Plan and profile design and production												
b.i Joint Trench (assumed 24,610 lf)	0	52	76	200	0	221	266	532	0	1347	$ 127,214.31	53
b.ii Individual Trench (assumed 15,600 lf)	0	32	64	128	0	160	192	384	0	960	$ 90,572.48	34
b.iii Trench design as directed by GEC/CTRMA	0	8	12	40	0	54	60	70	0	244	$ 23,382.18	35
A.2.c Prepare specifications, quantities and estimate	0	4	2	14	0	16	0	0	4	40	$ 4,437.76	0
A.2.d Submit 90% to owners for review and approval	0	4	0	8	0	10	0	12	2	36	$ 3,483.48	0
A.2.e Submit 90% to Prime and GEC	0	3	3	10	0	6	0	10	2	34	$ 3,643.22	0
A.2.f Address Comments, Update Design	0	4	8	24	0	32	0	48	4	120	$ 11,744.84	0
A.2.g Submit Final Plans for review and approval	2	3	3	8	0	4	0	8	2	30	$ 3,550.98	0
Segment 2 Subtotal - Telecom	*2*	*114*	*168*	*448*	*0*	*519*	*518*	*1064*	*18*	*2851*	*$ 272,384.01*	122
1.07.A.2 Design and Plan Production - Natural Gas												
A.2.a Review as-builts	0	2	0	4	0	6	0	0	0	12	$ 1,331.10	0
A.2.b Plan and profile design and production (assumed 8,960 lf)	0	20	40	80	50	154	49	97	0	490	$ 50,984.01	23
b.i Gas Line design as directed by GEC/CTRMA	0	2	2	4	10	16	20	20	0	74	$ 6,842.06	
A.2.c Prepare specifications, quantities and estimate	0	2	3	10	0	10	0	0	6	31	$ 3,413.38	0
A.2.d Submit 90% to owners for review and approval	0	1	0	2	0	4	0	0	1	8	$ 821.33	0
A.2.e Submit 90% to Prime and GEC	0	1	1	2	0	2	0	4	2	12	$ 1,172.18	0
A.2.f Address Comments, Update Design	0	2	4	8	0	12	0	14	0	40	$ 4,121.32	0
A.2.g Submit Final Plans for review and approval	1	1	2	4	0	0	0	6	2	16	$ 1,829.71	0
Segment 2 Subtotal - Natural Gas	*1*	*31*	*52*	*114*	*60*	*204*	*69*	*141*	*11*	*683*	*$ 70,515.09*	23
Segment 2 - Utility Engineering Total:	**3**	**148**	**224**	**566**	**62**	**723**	**587**	**1207**	**30**	**3550**	**$ 360,252.97**	

Exhibit D

Summary of Manhours by Classification & Major Task Analysis

Cobb Fendley & Associates

Utility Coordination and Design - Telecommunications and Natural Gas

Fee/Rate Schedule										OH	MARGIN	PROJECT
Average Billing Rate	$79.76	$40.88	$55.88	$42.64	$36.78	$28.71	$26.44	$23.12	$20.98	RATE	RATE	MULTIPLIER
Average Loaded Rate	$250.05	$128.16	$175.18	$133.68	$115.31	$90.01	$82.89	$72.48	$65.77	185.00%	10.00%	3.135

Description of Work or Task	Principal $250.05/Hr	Project Manager $128.16/Hr	Senior Engineer $175.18/Hr	Project Engineer III $133.68/Hr	Project Engineer II $115.31/Hr	Proj Eng II/ Tech III $90.01/Hr	Technician II $82.89/Hr	Technician I $72.48/Hr	Admin / Clerical $65.77/Hr	Staff-Hr. Totals	Staff Cost / Task Totals	Plan Sheet Total
SEGMENT 3 (STA 458+50 to 564+00) - UTILITY ENGINEERING												
1.07.A.1 Meetings and Coordination												
A.1.a Meetings w/Telecom Owners												
a.i Joint Trench Coordination	0	4	0	4	0	2	0	4	2	16	$ 1,648.84	0
a.ii Individual Trench Coordination	0	24	0	36	0	12	0	12	6	90	$ 10,232.82	0
Segment 3 Subtotal - Coordination	*0*	*28*	*0*	*40*	*0*	*14*	*0*	*16*	*8*	*106*	*$ 11,881.66*	
1.07.A.2 Design and Plan Production - Telecommunications												
A.2.a Review as-builts	0	4	0	14	0	10	0	0	0	28	$ 3,284.26	0
A.2.b Plan and profile design and production												
b.i Joint Trench (assumed 5,270 lf)	0	10	22	0	44	52	62	123	0	313	$ 28,943.94	14
b.ii Individual Trench (assumed 5,290 lf)	0	14	28	0	56	55	66	132	0	351	$ 33,145.29	16
b.iii Trench design as directed by GEC/CTRMA	0	4	4	0	20	24	36	52	0	140	$ 12,432.80	
A.2.c Prepare specifications, quantities and estimate	0	1	1	8	0	8	0	0	4	22	$ 2,355.94	0
A.2.d Submit 90% to owners for review and approval	0	3	0	2	2	8	0	10	2	27	$ 2,458.88	0
A.2.e Submit 90% to Prime and GEC	0	0	2	1	2	8	0	10	2	25	$ 2,291.08	0
A.2.f Address Comments, Update Design	0	2	1	1	14	2	0	10	2	32	$ 3,215.88	0
A.2.g Submit Final Plans for review and approval	1	1	2	1	1	0	0	10	1	17	$ 1,768.13	0
Segment 3 Subtotal - Telecom	*1*	*39*	*60*	*27*	*139*	*167*	*164*	*347*	*11*	*955*	*$ 89,896.20*	30
Segment 3 - Utility Engineering Total:	**1**	**67**	**60**	**67**	**139**	**181**	**164**	**363**	**19**	**1061**	**$ 101,777.86**	
GENERAL - UTILITY ENGINEERING												
1.19 GEC Coordination, Meetings and Invoicing												
A. Bi-Weekly Utility Coordination Meetings	0	20	0	20	0	10	0	20	8	78	$ 8,112.66	0
B. QA/QC	0	25	25	0	0	0	0	0	0	50	$ 7,583.50	0
C. Submittal Review Meetings (Per Segment)												
1. 60%	0	9	0	9	0	0	0	6	3	27	$ 2,988.75	0
2. Pre-Final	0	9	0	9	0	0	0	6	3	27	$ 2,988.75	0
3. Final	0	9	0	9	0	0	0	6	3	27	$ 2,988.75	0
4. Pre-Bid	0	12	0	12	0	0	0	0	0	24	$ 3,142.08	0
D. Prepare and submit monthly invoicing and progress reports	3	12	0	0	0	0	0	0	9	24	$ 2,880.00	0
E. Basic General Expenses											$ 1,616.50	
GEC Coordination Total:	**3**	**96**	**25**	**59**	**0**	**10**	**0**	**38**	**26**	**257**	**$ 32,300.99**	**0**
UTILITY DESIGN & COORDINATION TOTAL - TELECOMMUNICATIONS AND NATURAL GAS											**$ 544,165.94**	

Exhibit D

Summary of General Expenses

Cobb Fendley & Associates

Utility Coordination and Design - Telecommunications and Natural Gas

Item Description	Unit	Quantity	Unit Cost	Total Cost
Basic General Expenses				
I. Basic Printing and Reproduction				
A. Report Submittals 8.5" x 11"	EA.	150	$ 0.11	$ 16.50
B. 60% Submittal 11" x 17"	EA.	1,600	$ 0.16	$ 256.00
C. Pre-Final Submittal 11" x 17"	EA.	1,600	$ 0.16	$ 256.00
D. Final Submittal 11" x 17"	EA.	1,600	$ 0.16	$ 256.00
E. Final Submittal 11" x 17" Mylar	EA.	160	$ 1.15	$ 184.00
II. Overnight Deliveries (FedEx)	EA.	5	$ 36.00	$ 180.00
III. Travel - Mileage	Miles	800	$ 0.59	$ 468.00
			Total Basic General Expenses	**$ 1,616.50**

Exhibit D

Summary of Manhours by Classification & Major Task Analysis

K. Friese & Associates, Inc.

Utility Coordination and Design - Water and Wastewater

Fee/Rate Schedule								OH	MARGIN	PROJECT
Average Billing	$58.50	$43.00	$35.00	$28.50	$27.00	$25.19	$21.00	RATE	RATE	MULTIPLIER
Average Loaded Rate	$167.22	$122.91	$100.05	$81.47	$77.18	$72.00	$60.03	159.86%	10.00%	2.858

Description of Work or Task	Senior Proj Engr $167.22/Hr	Senior Engineer $122.91/Hr	Engineer $100.05/Hr	EIT $81.47/Hr	Sr. Engr. Tech. $77.18/Hr	Engr. Tech. $72.00/Hr	Admin / Clerical $60.03/Hr	Staff-Hr. Totals	Staff Cost / Task Totals	Plan Sheet Total
1.07 UTILITY COORDINATION AND DESIGN - WATER AND WASTEWATER										
1.07.B.1 Meetings and Coordination										
B.1.a Meetings/Coordination with City of Austin Staff	4	60	16	0	8	0	4	92	$ 10,501.84	0
B.1.b Meetings/Coordination with Prime Consultant	8	48	24	8	0	72	8	168	$ 15,954.64	0
Design Meeting Subtotal:	*12*	*108*	*40*	*8*	*8*	*72*	*12*	*260*	*$ 26,456.48*	
1.07.B.2 Design and Plan Production										
B.2.a Review SUE / Data Acquisitioin	0	32	16	40	24	0	0	112	$ 10,645.04	0
B.2.b Plan and Profile Design and Sheet Production - Water										
1. 1,500 LF of 12"/16" 275+40 to 286+10	3	12	16	8	24	0	0	63	$ 6,081.46	3
2. 650 LF of 6" 289+00 to 292+00	2	8	4	12	16	0	0	42	$ 3,930.44	2
3. 600 LF of 12" 289+00 to 292+00	2	8	12	4	16	0	0	42	$ 4,079.08	2
4. 500 LF of 6" 292+00 to 296+00	1	4	4	4	8	0	0	21	$ 2,002.38	1
5. 650 LF of 2.25" 295+00 to 296+00	2	8	4	12	16	0	0	42	$ 3,930.44	2
6. 450 LF of 16" 334+00	2	4	4	4	8	0	0	22	$ 2,169.60	1
7. 450 LF of 8" 344+50	1	4	4	4	8	0	0	21	$ 2,002.38	1
8. 1,300 LF of 2.25" 344+50 to 357+50	3	12	4	16	24	0	0	59	$ 5,532.62	3
9. 400 LF of 12" 365+00	1	4	4	4	8	0	0	21	$ 2,002.38	1
10. 700 LF of 66" 374+00 to 377+00	4	16	4	16	16	0	0	56	$ 5,574.04	2
11. 500 LF of 2.25" 388+00 to 389+50	1	2	2	4	8	0	0	17	$ 1,556.46	1
12. 500 LF of 24" 388+00 to 389+50	2	8	4	4	8	0	0	26	$ 2,661.24	1
13. 400 LF of 6" 389+50 to 393+00	1	4	6	4	8	0	0	23	$ 2,202.48	1
14. 600 LF of 16" 391+00 to 393+50	2	8	12	4	16	0	0	42	$ 4,079.08	2
15. 950 LF of 16" 393+50 to 403+00	2	8	12	4	16	0	0	42	$ 4,079.08	2
16. 500 LF of 12" 407+50	2	4	8	4	8	0	0	26	$ 2,569.80	1
17. 200 LF of 2.25" 407+50	1	2	4	4	8	0	0	19	$ 1,756.56	1
18. 3,250 LF of 16" 407+50 to 455+00	8	28	12	40	56	0	0	144	$ 13,560.72	7
19. 1,200 LF of 2.25/6" 426+00 to 433+00	2	8	8	16	24	0	0	58	$ 5,273.96	3
20. 450 LF of 2.25" 451+50	1	2	4	6	8	0	0	21	$ 1,919.50	1
21. 700 LF of 6" 451+50 to 458+50	2	8	4	12	16	0	0	42	$ 3,930.44	2
22. Water as directed by GEC/CTRMA	4	16	8	12	24	0	0	64	$ 6,265.80	3
Water Plan & Profile Subtotal:	*49*	*210*	*160*	*238*	*368*	*0*	*0*	*1025*	*$ 97,804.98*	

Exhibit D

Summary of Manhours by Classification & Major Task Analysis

K. Friese & Associates, Inc.

Utility Coordination and Design - Water and Wastewater

Fee/Rate Schedule								OH	MARGIN	PROJECT
Average Billing	$58.50	$43.00	$35.00	$28.50	$27.00	$25.19	$21.00	RATE	RATE	MULTIPLIER
Average Loaded Rate	$167.22	$122.91	$100.05	$81.47	$77.18	$72.00	$60.03	159.86%	10.00%	2.858

Description of Work or Task	Senior Proj Engr $167.22/Hr	Senior Engineer $122.91/Hr	Engineer $100.05/Hr	EIT $81.47/Hr	Sr. Engr. Tech. $77.18/Hr	Engr. Tech. $72.00/Hr	Admin / Clerical $60.03/Hr	Staff-Hr. Totals	Staff Cost / Task Totals	Plan Sheet Total
1.07 UTILITY COORDINATION AND DESIGN - WATER AND WASTEWATER										
B.2.c Plan and Profile Design and Sheet Production - Wastewater										
1. 50 LF of 8" 290+00	0	2	2	6	4	0	0	14	$ 1,243.46	1
2. 450 LF of 66" 309+00 (only MH adjustment)	1	2	0	2	4	0	0	9	$ 884.70	1
3. 3,300 LF of 2" FM 405+00 to 434+00	7	12	24	40	60	0	0	143	$ 12,936.26	7
4. WW design as directed by GEC/CTRMA	4	16	8	12	24	0	0	64	$ 6,265.80	3
Wastewater Plan & Profile Subtotal:	*12*	*32*	*34*	*60*	*92*	*0*	*0*	*230*	$ *21,330.22*	
B.2.d Water Shutdown / Tie-In Sequencing Plans	6	16	8	12	24	0	0	66	$ 6,600.24	3
B.2.e Wastewater Bypass Pumping Plans	2	6	8	0	8	0	0	24	$ 2,489.74	1
B.2.f Construction Details	0	2	0	4	20	0	0	26	$ 2,115.30	5
B.2.g Construction Notes	0	2	0	4	20	0	0	26	$ 2,115.30	2
B.2.h Specifications	4	8	8	24	0	0	12	56	$ 5,128.20	0
B.2.i Quantities / Bid Form	0	4	4	40	40	0	0	88	$ 7,237.84	0
B.2.j Cost Estimate	0	12	0	24	0	0	0	36	$ 3,430.20	0
B.2.k City of Austin Design Summary Report	4	20	32	8	8	0	0	72	$ 7,597.88	0
B.2.l Advertisement and Bid Phase Services	4	28	20	8	20	0	0	80	$ 8,306.72	0
1.19 COORDINATION, MEETINGS AND INVOICING										
A. Bi-Weekly Coordination	8	24	0	0	0	0	8	40	$ 4,767.84	0
Basic General Expenses (detail included below)									$ 984.00	
Utility Coordination and Engineering - Water and Wastewater Total:	**174**	**822**	**548**	**736**	**1076**	**144**	**44**	**3544**	**$ 196,364.94**	**65**

Exhibit D

Summary of General Expenses

K. Friese & Associates, Inc.

Utility Coordination and Design - Water and Wastewater

Item Description	Unit	Quantity	Unit Cost	Total Cost
Basic General Expenses				
I. Basic Printing and Reproduction				
A. Report Submittals 8.5" x 11"	EA.	0	$ 0.11	$ -
B. 60% Submittal 11" x 17"	EA.	1,200	$ 0.20	$ 240.00
C. Pre-Final Submittal 11" x 17"	EA.	0	$ 0.16	$ -
D. Final Submittal 11" x 17"	EA.	0	$ 0.16	$ -
E. Final Submittal 11" x 17" Mylar	EA.	59	$ 1.00	$ 59.00
II. Overnight Deliveries (FedEx)	EA.	5	$ 20.00	$ 100.00
III. Travel - Mileage	Miles	1,000	$ 0.59	$ 585.00
			Total Basic General Expenses	$ 984.00

Exhibit D

Summary of Manhours by Classification & Major Task Analysis

Rodriguez Transportation Group

Utility Coordination and Design - Traffic Control

Fee/Rate Schedule						OH	MARGIN	PROJECT
Average Billing Rate	$72.80	$62.40	$41.60	$38.59	$34.32	RATE	RATE	MULTIPLIER
Average Loaded Rate	$200.15	$171.56	$114.37	$106.10	$94.36	149.94%	10.00%	2.749

Description of Work or Task	Project Manager $200.15/Hr	Senior Proj Engr $171.56/Hr	Engineer $114.37/Hr	Sr. Engr. Tech. $106.10/Hr	Engr. Tech. $94.36/Hr	Staff-Hr. Totals	Staff Cost / Task Totals	Plan Sheet Total
UTILITY COORDINATION AND DESIGN - TRAFFIC CONTROL								
1.14.1 Meetings and Coordination								
1.a Coordination with utility designers and prime consultant	4	32	0	0	0	36	$6,290.52	
1.14.2 Design and Plan Production								
2.a Include utility sequencing in overall traffic control narrative	0	8	0	0	16	24	$2,882.24	
Utility Coordination and Design - Traffic Control Total:	**4**	**40**	**0**	**0**	**16**	**60**	**$9,172.76**	

Exhibit E
Maximum Rate Schedule
Work Authorization No. 2
Utility Coordination and Design

Labor Classification	Maximum Rate
LJA Engineering & Surveying, Inc.	
Project Manager	$ 69.52
Senior Project Engineer	$ 50.00
Engineer	$ 46.06
Senior Engineering Technician	$ 45.00
Engineering Technician	$ 36.06
Clerical	$ 20.80
Cobb Fendley & Associates	
Principal	$ 79.76
Project Manager	$ 40.88
Senior Engineer	$ 55.88
Project Engineer III	$ 42.64
Project Engineer II	$ 36.78
Technician III	$ 28.71
Technician II	$ 26.44
Techincian I	$ 23.12
Clerical	$ 20.98
K Friese & Associates, Inc.	
Senior Project Engineer	$ 58.50
Senior Engineer	$ 43.00
Engineer	$ 35.00
Engineer-in-Training	$ 28.50
Senior Engineer Technician	$ 27.00
Engineering Technician	$ 25.19
Clerical	$ 21.00
Rodriguez Transportation Group	
Project Manager	$ 72.80
Senior Project Engineer	$ 62.40
Engineer	$ 41.60
Senior Engineering Technician	$ 38.59
Engineering Technician	$ 34.32
Actual billed rates are not to exceed the maximum rate.	
Documentation of hours worked is necessary to receive reimbursement.	

EXHIBIT H-2
Central Texas Regional Mobility Authority
Subprovider Monitoring System Commitment Agreement

This commitment agreement is subject to the award and receipt of a signed contract from the Central Texas Regional Mobility Authority. ***NOTE: Exhibit H-2 is required to be attached to each contract that does not include work authorizations. Exhibit H-2 is required to be attached with each work authorization. Exhibit H-2 is also required to be attached to each supplemental work authorization. If DBE/HUB Subproviders are used, the form must be completed and signed. If no DBE/HUB Subproviders are used, indicate with "N/A" on this line: _____ and attach with the work authorization or supplemental work authorization.***

Contract #: 08290E22702E _____ Assigned Goal: 12.7 % Prime Provider: LJA Engineering & Surveying, Inc.

Work Authorization (WA)#: 2 WA Amount: $771,940.88 Date: _____

Supplemental Work Authorization (SWA) #: _____ to WA #: _____ SWA Amount: _____

Revised WA Amount: _____

Description of Work *(List by category of work or task description. Attach additional pages, if necessary.)*	**Dollar Amount** *(For each category of work or task description shown.)*
Utility Coordination and Design	**$544,165.94**
Total Commitment Amount *(Including all additional pages.)*	**$544,165.94**

IMPORTANT: The signatures of the prime and the DBE/HUB and Second Tier Subprovider, if any (both DBE and Non-DBE) and the total commitment amount must always be on the same page.

Provider Name: LJA Engineering & Surveying, Inc. **Address:** 5316 Highway 290 West, Suite 150 **Phone # & Fax #:** 512.439.4700 / 512.439.4716 **Email:** jcollins@ljaengineering.com	**Name:** Jeff Collins, P.E. *(Please Print)* **Title:** Senior Vice President _____ **Signature** **Date**
DBE/HUB Sub Provider Subprovider **Subprovider Name:** Cobb, Fendley & Associates, Inc. **VID Number:** 17421928791 **Address:** 8000 Centre Park Drive, Ste 270 Austin, Texas 78754	**Name:** William Fendley, P.E. *(Please Print)* **Title:** _____ _____ **Signature** **Date**

EXHIBIT H-2
Central Texas Regional Mobility Authority
Subprovider Monitoring System Commitment Agreement

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Contract #: 08290E22702E Assigned Goal: 12.7 % Prime Provider: LJA Engineering & Surveying, Inc.

Work Authorization (WA)#: 2 WA Amount: $771,940.88 Date: _____

Supplemental Work Authorization (SWA) #: _____ to WA #: _____ SWA Amount: _____

Revised WA Amount: _____

Description of Work *(List by category of work or task description. Attach additional pages, if necessary.)*	**Dollar Amount** *(For each category of work or task description shown.)*
Utility Coordination and Design	**$196,364.94**
Total Commitment Amount *(Including all additional pages.)*	**$196,364.94**

IMPORTANT: The signatures of the prime and the DBE/HUB and Second Tier Subprovider, if any (both DBE and Non-DBE) and the total commitment amount must always be on the same page.

Provider Name: LJA Engineering & Surveying, Inc. **Address:** 5316 Highway 290 West, Suite 150 **Phone # & Fax #:** 512.439.4700 / 512.439.4716 **Email:** jcollins@ljaengineering.com	**Name:** Jeff Collins, P.E. *(Please Print)* **Title:** Senior Vice President _____ **Signature** **Date**
DBE/HUB Sub Provider Subprovider **Subprovider Name:** K Friese & Associates, Inc. **VID Number:** 1481304687800 **Address** 1120 South Capital of Texas Highway, Bldg. 3, Ste 100 Austin, Texas 78759 **Phone # & Fax #:** 512.338.1704/512.338.1784 **Email:** kfriese@kfriese.com	**Name:** Karen Friese, P.E. *(Please Print)* **Title:** President _____ **Signature** **Date**
Second Tier Sub Provider **Subprovider Name:** **VID Number:** **Address:** **Phone #& Fax #:** **Email:**	**Name:** _____ *(Please Print)* **Title:** _____ _____ **Signature** **Date**

VID Number is the Vendor Identification Number issued by the Comptroller. If a firm does not have a VID Number, please enter the owner's Social Security or their Federal Employee Identification Number (if incorporated).

EXHIBIT H-2
Central Texas Regional Mobility Authority
Subprovider Monitoring System Commitment Agreement

This commitment agreement is subject to the award and receipt of a signed contract from the Central Texas Regional Mobility Authority. ***NOTE: Exhibit H-2 is required to be attached to each contract that does not include work authorizations. Exhibit H-2 is required to be attached with each work authorization. Exhibit H-2 is also required to be attached to each supplemental work authorization. If DBE/HUB Subproviders are used, the form must be completed and signed. If no DBE/HUB Subproviders are used, indicate with "N/A" on this line: ___ _____ and attach with the work authorization or supplemental work authorization.***

Contract #: 08290E22702E Assigned Goal: 12.7 % Prime Provider: LJA Engineering & Surveying, Inc.

Work Authorization (WA)#: 2 WA Amount: $771,940.88 Date: _____

Supplemental Work Authorization (SWA) #: _____ to WA #: _____ SWA Amount: _____

Revised WA Amount: _____

Description of Work *(List by category of work or task description. Attach additional pages, if necessary.)*	**Dollar Amount** *(For each category of work or task description shown.)*
Traffic Engineering	**$9,172.76**
Total Commitment Amount *(Including all additional pages.)*	**$9,172.76**

IMPORTANT: The signatures of the prime and the DBE/HUB and Second Tier Subprovider, if any (both DBE and Non-DBE) and the total commitment amount must always be on the same page.

Provider Name: LJA Engineering & Surveying, Inc. **Address:** 5316 Highway 290 West, Suite 150 **Phone # & Fax #:** 512.439.4700 / 512.439.4716 **Email:** jcollins@ljaengineering.com	**Name:** Jeff Collins, P.E. *(Please Print)* **Title:** Senior Vice President _____ **Signature** **Date**
DBE/HUB Sub Provider Subprovider **Subprovider Name:** Rodriguez Transportation Group. Inc. **VID Number:** 1742776874600 **Address:** 11211 Taylor Draper Lane, Ste 100 Austin, Texas 78759 **Phone # & Fax #:** 512.231.9544 / 512.231.9133 **Email:** mrodriguez@rtg-texas.com	**Name:** Mark E. Rodriguez, P.E. *(Please Print)* **Title:** President _____ **Signature** **Date**
Second Tier Sub Provider **Subprovider Name:** **VID Number:** **Address:** **Phone #& Fax #:** **Email:**	**Name:** _____ *(Please Print)* **Title:** _____ _____ **Signature** **Date**

VID Number is the Vendor Identification Number issued by the Comptroller. If a firm does not have a VID Number, please enter the owner's Social Security or their Federal Employee Identification Number (if incorporated).