

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

RESOLUTION NO. 06-25

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; and

WHEREAS, in Resolution No. 05-73, dated September 28, 2005, the Board of Directors approved the entry into a Traffic and Revenue Engineering Services Agreement with URS Corporation for the provision of traffic and revenue engineering services for CTRMA projects and potential projects; and

WHEREAS, URS Corporation previously developed a scope of work and proposed budget for an investment grade traffic and revenue study for the 290 East Turnpike Project which was approved by the CTRMA Board of Directors as Work Authorization No. 2 on January 31, 2006 by Resolution No. 06-04; and

WHEREAS, the CTRMA and URS Corporation have determined that the scope of services under Work Authorization No. 2 should be supplemented to provide for the expansion and refinement of the Traffic Serial System, Roadway Network, and Socioeconomic Data to update the Regional Model; and

WHEREAS, a copy of that proposed scope of work and budget is contained in Supplement 1 to Work Authorization No. 2, attached hereto as Attachment "A"; and

WHEREAS, the CTRMA Board of Directors must approve Supplement 1 to Work Authorization No. 2 before URS may proceed with work thereunder; and


WHEREAS, URS has represented to the CTRMA staff that the work reflected in Supplement 1 to Work Authorization No. 2 and the cost thereof is necessary and appropriate.

NOW THEREFORE, BE IT RESOLVED, that the CTRMA Board of Directors approves Supplement 1 to Work Authorization No. 2, attached hereto as Attachment "A", provided that

any work commenced under Supplement 1 to Work Authorization No. 2 be subject to the Traffic and Revenue Engineering Services Agreement between the CTRMA and URS.

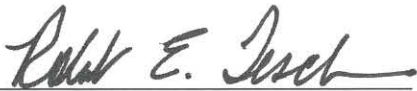
Adopted by the Board of Directors of the Central Texas Regional Mobility Authority on the 26th day of April, 2006.

Submitted and reviewed by:



Tom Nielson
General Counsel for the Central
Texas Regional Mobility Authority

Approved:



Robert E. Tesch
Chairman, Board of Directors
Resolution Number 06-25
Date Passed 04/26/06

Attachment "A"
To Resolution 06-25
Complete Copy of Supplement 1 to Work Authorization No. 2
URS Corporation

Attachment "A"
To Resolution 06-25
Complete Copy of Supplement 1 to Work Authorization No. 2
URS Corporation



41008116

February 15, 2007

Ms. Laura Y.H. Harris, P.E.
HNTB Corporation
301 Congress Avenue, Suite 600
Austin, TX 78701

Reference: Agreement for Traffic and Revenue Engineering Services with the Central
Texas Regional Mobility Authority

Subject: Work Authorization No. 2 and Supplemental No. 1

Dear Ms. Harris:

In reference to your conversation with Bob Cuellar enclosed are two signed original
copies of Work Authorization No. 2 and Supplemental No.1.

Please send me an executed copy of each document to the address at the bottom of this
letter.

Should you have a question please contact me at 419-6821, or at
Sammy_Young@urscorp.com.

Sincerely,

Sammy J. Young
Contract Administrator

Enclosure

c: Bob Cuellar / URS

URS Corporation
P.O. Box 201088
Austin, TX 78720-1088
9400 Amberglen Boulevard
Austin, TX 78729
Tel: 512.454.4797

WORK AUTHORIZATION

URS

WORK AUTHORIZATION NO. 2

This Work Authorization is made as of this 31st day of January, 2006, under the terms and conditions established in the AGREEMENT FOR TRAFFIC AND REVENUE ENGINEERING SERVICES, dated as of October 1, 2005 (the "Agreement"), between the Central Texas Regional Mobility Authority ("Authority") and URS ("Consultants"). This Work Authorization is made for the following purpose, consistent with the services defined in the Agreement:

Investment Grade Traffic Study for US 290 East

Section A. - Scope of Services

A.1. Consultant shall perform the following Services:

Refer to Attachment A – Scope of Work

A.2. The following Services are not included in this Work Authorization, but shall be provided as Additional Services if authorized or confirmed in writing by the Authority.

N/A

A.3. In conjunction with the performance of the foregoing Services, Consultant shall provide the following submittals/deliverables (Documents) to the Authority:

Refer to Attachment A – Scope of Work

Section B. - Schedule

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

Services under this Work Authorization are expected to be substantially complete within 12 months from the date this Work Authorization becomes effective and based on Attachment B. This Work Authorization will not expire until all tasks associated with the Scope of Services are complete.

Section C. - Compensation

C.1. In return for the performance of the foregoing obligations, the Authority shall pay to Consultant the amount not to exceed \$ **1,407,200.00**, based on actual hourly rates as estimated by the attached fee estimate. Compensation shall be in accordance with the Agreement.

C.2. Compensation for Additional Services (if any) shall be paid by the Authority to Consultant according to the terms of a future Work Authorization.

Section D. - Authority's Responsibilities

The Authority shall perform and/or provide the following in a timely manner so as not to delay the Services of the Consultant. Unless otherwise provided in this Work Authorization, the Authority shall bear all costs incident to compliance with the following:

N/A

Section E. - Other Provisions

The parties agree to the following provisions with respect to this specific Work Authorization:

N/A

Except to the extent expressly modified herein, all terms and conditions of the Agreement shall continue in full force and effect.

Authority: Central Texas Regional Mobility Authority Consultant: URS

By: Robert E. Tesch

By: W. David Balfour

Signature: 

Signature: 

Title: Chairman Board

Title: Senior Vice President

Date: 04-26-06

Date: 12-7-2006

**ATTACHMENT A - SCOPE OF SERVICES
WORK AUTHORIZATION # 2
URS CORPORATION**

**US 290E TOLL DEVELOPMENT PROJECT
INVESTMENT GRADE TRAFFIC AND REVENUE ENGINEERING SERVICES**

The Investment Grade Traffic and Revenue Engineering Services described herein are to be provided by URS Corporation (URS) to the Central Texas Regional Mobility Authority (CTRMA) to prepare an Investment Grade Traffic and Toll Revenue Study and Report for the US 290E toll road project. The US 290E baseline project is defined from US 183 to SH 130.

SCOPE OF SERVICES

This Scope of Services is organized into 13 principal tasks that encompass the investment grade study, documentation, and support of project financing. Significant analysis of all aspects of the US 290E project along with a comprehensive modeling effort involving the toll diversion forecasting and the socioeconomic data (SED) underlying the demographic projections are part of this complex study. Included in this comprehensive work program are the following tasks:

- Task 1 – Project Management
- Task 2 – Data Compilation and Review
- Task 3 – Traffic Data Collection/Field Surveys
- Task 4 – Economic/Demographic Data
- Task 5 – Stated Preference Travel Study
- Task 6 – Model Development/Validation
- Task 7 – Toll Rate Schedule/Toll Collection Plan
- Task 8 – Project Configuration
- Task 9 – Traffic Estimation
- Task 10 – Toll Revenue Forecasts
- Task 11 – Financial Feasibility
- Task 12 – Documentation
- Task 13 – Financing Support

The project schedule, staffing plan, and budget that support this scope of services are attached.

Task 1 – Project Management

Meetings, coordination, administration, and quality assurance comprise Task 1 and are described in the following subtasks:

- 1.1 Meetings
 - 1.1.2 Project Kick-Off, Scope Development, and Mobilization Meetings
 - 1.1.3 Project Progress Meetings to be Scheduled Monthly
 - 1.1.4 Presentations to the CTRMA Board and Other Interested Parties
- 1.2 Coordination
 - 1.2.1 Coordination with the CTRMA Working Group, Governmental Organizations (including TxDOT), Charles River Associates (Regional Mobility Study), and Other Entities to be Identified by the CTRMA
 - 1.2.2 Coordination with Sub-Consultants: Resource Systems Group, GRAM Traffic, Bomba & Associates, and Alliance Transportation Group

- 1.2.3 Establish Communications Procedures and Documentation
- 1.3 Project Schedule and Monthly Updates
- 1.4 Progress Reports and Invoices (Monthly)
- 1.5 Project Quality Assurance

Task 2 – Data Compilation and Review (Previous Relevant Studies)

This task involves maximizing the utilization of previous studies by evaluating their relevance for the US 290E project. The CTRMA and other local, state, and/or Federal governmental agencies have performed numerous studies with relevance to the US 290E project. URS will obtain and review studies pertaining to toll feasibility projects, TxDOT count data, and area SED projections. A technical memorandum will be issued to document the results of the Task 2 work. The subtasks below are not intended as a complete list, but are examples of previous studies that contain relevant information.

- 2.1 Review Other Relevant CTRMA Toll Feasibility Reports
- 2.2 Review CTRMA Market Research Survey Report (Wilson Research)
- 2.3 US 183A Investment Grade Study Report
- 2.4 Compile and Review Available Historical Traffic Volume and Travel Time Data
- 2.5 Obtain and Review TxDOT Count Station Data
- 2.6 Obtain and Review the Latest Capital Area Metropolitan Planning Organization (CAMPO) Regional Travel Demand Model Revised Roadway Network
- 2.7 Review the CTPP (Central Texas Turnpike Plan) 2005 SED Set
- 2.8 SH 130 Stated Preference Travel Study Report

Task 3 – Traffic Data Collection/Field Surveys

The first step in this task will be to determine the US 290E study area, which will go beyond the limits of the project to encompass a larger geographic area of influence. In this task, the baseline of existing corridor traffic and travel related data will be developed and documented. The principal purpose of developing this baseline will be for validation of the CAMPO model. Work will involve travel time studies, traffic data collection, origin/destination (O/D) studies, and review of available historical traffic information. Traffic study data collection will be closely coordinated with the CTRMA Director of Communications. A technical memorandum will be issued describing the data collection program and documenting the results of the traffic studies. The subtasks below describe the work that will be performed.

- 3.1 Develop traffic count program in the US 290E corridor to supplement available data from TxDOT count stations and other projects. A count program will be developed to gather current data from US 290E, parallel routes, cross streets, and other routes to be determined.
- 3.2 Conduct travel time studies on US 290E, parallel routes, cross street routes, and frontage roads.
- 3.3 Perform trip origin-destination (O/D) surveys. In addition query travelers for information pertaining to trip frequency, trip purpose, vehicle classification, vehicle occupancy, and other travel information.
- 3.4 Compile traffic, travel time, and O/D study data for validation of the regional travel model.

Task 4 – Economic/Demographic Data

The CAMPO regional travel model contains the network that will be the baseline model for the US 290E traffic and toll revenue forecasts. Contained in the CAMPO model are the region's Traffic Serial Zone (TSZ) systems, which are the cartographic boundary files that detail the SED and travel-related data. URS understands that the revised CAMPO model updated the network only and not the SED set. The recently developed SED set for the CTTTP 2005 refinancing analysis will be used as the initial, underlying data for this effort. This data set will be expanded, as needed, to encompass the US 290E study area to provide a common and consistent database for this project and the Preliminary T & R corridors. Work in this task, as it pertains to gathering data from other organization sources, will be closely coordinated with the CTRMA Director of Communications. A technical memorandum will be issued describing the work performed in Task 4 and documenting the results.

For this task, URS has retained the services of Bomba & Associates to assess the reasonableness of the forecast in the updated CTTTP. Bomba & Associates has successfully completed this task in similar investment grade studies for three Austin area toll road projects: SH 130, SH 45/Loop 1, and US 183-A. Additionally, Bomba & Associates served as consultant in this capacity for the 2005 CTTTP SED update.

URS anticipates the 2005 CTTTP database will be used for TSZs outside of the project study area, since many previously received a close level of scrutiny. An assessment of the forecasts outside of the study area at a subarea level of geography will be performed for this investment grade analysis. Should any adjustments to the subarea forecasts be deemed necessary, the SED will be allocated proportionately to the TSZs.

4.1 Data Collection

Collect data and review recent literature that summarizes demographic and economic changes to Travis County, the Austin metropolitan area, and, in particular, changes within the US 290E study area. The data will be used to identify recent population and employment development trends and prospects for future growth. Data will be collected from the following sources:

- U.S. Census Bureau
- Texas State Data Center
- Texas Workforce Commission
- Texas Water Development Board
- Texas Comptroller of Public Accounts office
- Capital Area Metropolitan Planning Organization
- City of Austin
- City of Manor
- City of Pflugerville
- Travis County
- *Austin-American Statesman*
- *Austin Business Journal*
- Any other relevant source.

Maps will be obtained from the various municipalities in the study area showing zoning, water and wastewater infrastructure, sensitive environmental features, etc., plus recent digital orthoimagery of the study area.

4.2. Field Surveys

Field surveys will be performed encompassing the entire US 290E study area to discern recent development patterns, including field surveys of selected areas of interest throughout Travis County. Areas of growth and change will be mapped for use during the study area assessment.

(NOTE: The level of effort that will be required in this task is dependent upon the level of SED changes in the CTTTP 2005 update from the previous version of the CTTTP.)

4.3 Interview Local Officials

Local officials who represent local public entities, such as planning or permitting departments, with jurisdictions in the study area will be interviewed. Public entities that will be contacted include:

- City of Austin
- City of Manor
- City of Elgin
- City of Pflugerville
- Travis County
- Others as determined appropriate

4.4 Review and Adjust Baseline Population and Employment at the TSZ Level

If necessary, the baseline population and employment estimates at the TSZ level will be adjusted based on the results of work in the previous subtasks. This effort will not employ econometric or demographic models to create new forecasts or to adjust existing forecasts. Baseline population estimates at the TSZ level will be randomly selected and compared to data from the 2000 U.S. Census. If a TSZ's baseline employment estimate is judged to be inaccurate, the figures will be updated. This will be done by conducting a field survey of the TSZ to record the locations of employment, identifying the square footage of those facilities, and multiplying the building area by a ratio of employees per square foot.

(NOTE: This subtask includes work associated with splitting TSZs and re-allocating the SED to the adjusted zonal system within the study area to achieve a more refined level of detail for traffic modeling purposes.)

4.5 Assess and Adjust TSZ Population and Employment Forecasts

Population and employment forecasts in the study area for the years 2007, 2017, and 2030 will be adjusted if necessary. Should intermediate forecast periods be required, the intervening years will be interpolated from the model forecast periods. Adjustments will be made to TSZs outside of the study area if it were determined these changes would be germane to this analysis.

4.6 Identify Growth Sensitivities for a "Low-Growth" Scenario

Based upon the information collected in Subtasks 4.1, 4.2, 4.3, 4.4, and 4.5. TSZs within the US 290E study area might have their population or employment forecasts adjusted as part of a "low-growth" sensitivity analysis, should future conditions change. This identification will also include select areas outside of the study area as well.

Task 5 – Stated Preference Travel Study

URS will perform a Stated Preference Travel Study, the purpose of which is to survey motorists on their travel preferences, patterns, and willingness to pay tolls. Market based transportation research is especially critical in areas such as Austin where tolling is a new concept and there are no existing toll facilities from which to obtain and analyze actual user data. In addition, the URS Team will compare the results of the US 290E preference study with the 1999 preference study performed by the URS team for the SH 130 project. Work in this task, as it pertains to performance of the travel survey, will be closely coordinated with the CTRMA Director of Communications.

URS has retained the services of Resource Systems Group (RSG) to perform this study. Working with URS, RSG previously performed a Stated Preference Travel Study for the SH 130 project and is familiar with Austin and its environs. A technical memorandum will be prepared documenting the project approach, data and findings. It will include details of methods used for the survey, the survey data that were collected and the models that were developed. Work in this task is described below (scope enhanced since 11.1.05 draft).

Phase 1 – Travel Survey

5.1 Develop Survey Questionnaire

The survey questionnaire will include questions to describe the most recent trip that the respondent made within the corridor. These questions will be followed with stated preference experiments in which characteristics of the corridor travel alternatives – travel times tolls – are systematically varied. Finally, the questionnaire will include sufficient demographic details to allow the sample to be expanded to the full population. The questionnaire will be structured so that it can be completed in 10 minutes or less. An initial draft of the survey questionnaire will be developed and provided for team review and comment. The questionnaire will be revised in response to these comments and the revised draft used as the starting point for Task 5.2.

5.2 Program Survey Instrument

The survey questionnaire will be programmed using Resource Systems Group's IVIS™ system. This system provides a graphical user interface and sophisticated dynamic branching to improve the efficiency and cost-effectiveness of stated preference data collection. The survey questionnaire will be programmed to be administered at central sites on laptop computers and will be available for use over the Internet. The instrument will include digital maps to allow respondents convenient alternatives for specifying trip origins and destinations. The completed survey instrument will be provided to the project team for review and comment and will be revised as appropriate based on pre-test results.

5.3 Develop Survey Plan

A survey plan will be developed that ensures adequate coverage of all key population groups. The survey administration will be conducted at a variety of sites. Obtaining the cooperation necessary to cover all of the most desirable sites will be an important piece of the administration planning. These sites will likely shopping centers, office buildings and other major activity centers. At each site, a cluster of 2-6 laptop computers will be provided. Survey staff will recruit/qualify potential respondents, assign them to a computer and assist them as necessary in completing the questionnaire.

In addition, the survey will be made available to respondents over the web. We have found that, particularly in the Austin region, the web option is particularly attractive to younger, more mobile, more educated individuals who have high non-response rates with conventional surveys.

5.4 Administer Survey

The survey will be administered in accordance with the final survey plan. An initial pre-test will be conducted to provide field input on the questionnaire design and administration methods. The survey questionnaire and plan will be modified based on the pre-test results and the revised survey will be sent to full field. The fieldwork will be directed by a staff manager with a field team of two to four others will be responsible for recruiting and assisting respondents. The staff manager will maintain tallies of survey progress and adjust the survey plan as necessary to ensure that the fieldwork is completed on time and within the allocated portion of the budget.

Phase 2 – Data Analysis and Modeling

5.5 Data analysis

Upon completion of the data collection, descriptive tabulations of the data will be completed. Tabulations will be prepared for responses to each question and selected cross-tabulations will be prepared to evaluate relationships among key variables. These tabulations will include general information about the characteristics of the sample and of their responses to the stated preference experiments.

The data will also be compiled into a dataset suitable for statistical choice model estimation.

5.6 Statistical Modeling

Stated preference data from the survey will be analyzed using accepted statistical techniques. Travel choice models will be estimated using ALOGIT, a widely used commercial software package that was developed specifically for this type of application. The models will include effects of travel time and toll level on the choice between tolled and toll-free routes.

5.7 Estimation of Individualized Models

This task will estimate values of time by individual respondent. This will be accomplished using state-of-the-art methods such as hierarchical Bayes or simulation-based classical estimation of the logit kernel model and will result in an estimate of the full distribution of values of time. The resulting models will be implemented in spreadsheet form and methods for implementing them in URS's traffic forecasting model will be developed.

Task 6 – Model Development/Validation

URS will develop a traffic/toll revenue-forecasting model for the US 290E project for which the year 2030 CAMPO regional travel model will be the baseline. URS staff is familiar with the CAMPO regional travel demand model, which we are using for the Texas Turnpike Authority (TTA) SH 130 Investment Grade Study. URS will coordinate the calibration and validation of the CAMPO model with CAMPO staff. CAMPO is updating its model, which will be available to the TTA, CTRMA, and other agencies in the near future. Work in this task is described in the subtasks below.

- 6.1 Install the updated version of the CAMPO regional travel model for use on this project. URS currently utilizes the previous version of the CAMPO model for its T&R projects in the Austin area. Therefore, this step to review the new version of the CAMPO model documentation and then test the model is critical. Should URS staff experience any difficulties in testing the model, these will be resolved with CAMPO staff prior to applying the model to the US 290E study.
- 6.2 Compare the Task 3 field study results with the CAMPO model assumptions and validate the model to existing conditions. Compare field travel time data with the travel times estimated by the highway assignment process and adjust the CAMPO model highway network parameters as needed to improve replication of observed speeds. Compare the ground counts to those in the model and adjust, as needed, to reflect observed conditions. Verify the baseline trip table both at the screenline level and at specific link locations utilizing select-link techniques. This will be an iterative process requiring adjustments possibly both to the highway assignment and trip distribution routines: Model calibration and validation will be coordinated with CAMPO staff.
- 6.3 These parameters plus those from the O/D studies performed in Task 3 and Stated Preference Study results in Task 5 will be input to CAMPO the mode-choice model by traveler segment. It is assumed these data will provide the travel preference baseline for input to the US 290E project.
- 6.4 Update the CAMPO model with the URS Team revised TSZ system (the split TSZ's) re-allocated SED and enhanced roadway network (refer to subtask 4.4).
- 6.5 Perform a "reasonableness" test of the CAMPO model that will confirm the model validation to observed conditions and of the preference data. These tests are typically performed at specified traffic screen lines where modeled outputs are checked against observed conditions. Should modeled results vary from the observed conditions beyond levels considered "reasonable" for travel demand modeling, URS would first verify the model chain performance. If the model is determined to be performing as expected, then URS would make further adjustments to the model. This model adjustment process will be coordinated with CAMPO staff. Replication of observed conditions in the baseline model is important for forecasting future traffic. (NOTE: It is unknown at this time the level of testing that will be required on the updated CAMPO model for the CTRMA studies.)

Task 7 – Toll Rate Schedule and Toll Collection Plan

The US 290E toll rate schedule will be established with specific input from the US 183A, other Austin-area toll road projects, and the Stated Preference Travel Study. Toll collection methods will be developed considering Electronic Toll Collection (ETC) and cash operations. Work to be performed is described the subtasks below.

- 7.1 Develop a toll rate schedule that is based on Austin-area toll rate plans and those being implemented on the US 183A, SH 130, and SH 45 projects. The rate schedule will identify the opening year rate with an annual escalator for estimating annual toll revenues. The toll rate schedule will be input to Task 9 for traffic modeling purposes.

7.2 Various methods of toll collection will be analyzed to determine the method most feasible for the US 290E project. It has been decided by the CTRMA T&R Working Group that a combined ETC and cash collection system and ETC only will be tested in the modeling program. The following toll options will be evaluated:

- Non Tolloed (baseline)
- Tolloed with ETC only
- Tolloed with Combined Cash and ETC
- Open Road Tolling (ORT) – Video Tolling
- Design Traffic (between non tolloed and tolloed) includes general turning movements

Task 8 – Project Configuration and Network Projects

The preliminary design of the US 290E project (prepared by the design engineer) will be provided to URS for input to modeling program. The modeling program will determine the levels of traffic attracted to the project, which may affect the ultimate sizing of the facility and subsequently the design. The following work will be performed.

8.1 Obtain the US 290E preliminary design for the roadway layout including the main lanes, ramps, frontage road system, and toll collection design. Code the project into the network in preparation for the modeling task. Through an iterative modeling process the traffic volumes will be estimated on the project. URS will make recommendations for sizing the project based on the traffic volumes and operations considerations, which could necessitate design revisions.

8.2 The baseline US 290E project is from US 183 to SH 130. Options to be evaluated (coded and modeled) include the following:

- Direct connectors at US 183 to and from the north
- Extension of US 290E from SH 130 to FM 973
- Direct connectors at SH 130 from the north to the south

8.3 Update and maintain a file of future transportation projects in the CAMPO network. URS staff will review each future project and input it into an assumptions spreadsheet that will be included in the project report. This file will contain the name of the project, schedule, facility type, sponsoring entity (e.g., CTRMA, TxDOT, county, cities, etc.), and other relevant information. Projects will be updated based upon meetings with the sponsoring entities. Each project will be coded into the network based upon the updated assumptions.

Task 9 – US 290E Traffic Estimation

In this task, URS will perform the traffic modeling to estimate volumes for the US 290E project. With the SED and network links added into the CAMPO model (validated), URS will then use the model to forecast traffic. Included in the modeling process are assumptions pertaining to toll evasion, revenue ramp-up periods, and seasonal variations. Based upon the traffic volume estimates, URS will provide recommendations, if any, for sizing the facility or adjustments to the toll collection strategies, ramp configuration, and/or frontage road system. Work to be performed in this task is described below.

- 9.1 Develop a table of no-build and build alternatives to be modeled, which will include a no-toll scenario. Results of the no-toll scenario will reflect the estimated traffic volumes on the project without tolls. The no-build and no-toll scenarios will be used to compare the build toll alternatives to assess the impacts of toll constraints indicated by model output. In addition to the initial models runs, URS will perform sensitivity tests.
- 9.2 Model the no-build and build alternatives during the forecast period and with periodic toll increases with various toll strategies (from Task 7) including constant tolls. Each alternative will include toll details, e.g., interchange-to-interchange toll rates, discounts for tag users, etc. This disaggregated technique allows individual components of a revenue stream to be pooled to reflect the project forecast.
- 9.3 Model outputs can be expected to reflect the impacts of the tolls at various levels. However, as a check on the reasonableness of the model outputs, URS will conduct an independent traffic/toll elasticity analysis and compare the model outputs with the elasticity expectations. This work is an iterative process, in terms of model adjustment, that may require adjusting the model assumptions to resolve any differences between model output and elasticity.
- 9.4 Review traffic volumes for the baseline and alternatives to determine whether the proposed frontage road cross-sections and intersection approaches will operate at an acceptable Level of Service (LOS) based on a variety of factors, including turning lane movements. This capacity analysis will focus on the frontage road intersections along the corridor at 10 locations between US 183 and SH 130 and an alternative to FM 973 and design traffic on the main line. The analysis will be performed for morning and evening peak hour traffic volumes utilizing the methods of the 2000 Highway Capacity Manual with the Synchro / Sim Traffic 6.0 software.

Task 10 – Toll Revenue Forecasts

This task focuses on the US 290E toll revenue forecasts under various tolling strategies and design configurations assumed in previous tasks. URS will perform an extensive analysis to optimize toll rates, tolling strategies, and tolling locations. Opening year and future years' (40-year forecast) toll revenue potential will be analyzed and documented. Phasing or re-sizing the project may be considered based upon the estimated toll revenue stream. Preliminary T & R estimates will be documented in a technical memorandum for consideration by the CTRMA T&R Working Group. Work to be performed in this task is described below.

- 10.1 Analyze the model outputs from Task 9 to determine the toll revenue potential for opening year and a 40-year forecast under various tolling conditions and project configurations. Results of this analysis will be displayed in a tabular format. Based upon the results of this analysis, schemes to optimize toll revenue may be introduced.
- 10.2 Results of the sensitivity and elasticity tests will be analyzed and shown in a tabular format in the project report. This analysis will provide additional documentation to support the reasonableness of the modeling approach and results. Sensitivity tests will include the following and others TBD by the T&R Working Group:
 - Socioeconomic adjustments (differing growth forecasts)
 - Network adjustments (changes in competing or contributing roadway network)
 - Value of Time adjustments

- Toll rate adjustments, e.g., lower rates, value pricing strategies, etc.
- Economic indicators, such as fuel costs

Task 11 – Financial Feasibility

In this task, URS will analyze the Task 10 results and determine the feasibility of the US 290E toll project. Additional costs elements will be required to determine the feasibility of the project, e.g., capital costs and operations and maintenance (O/M) estimates. Work in this task will involve.

- 11.1 Obtain the project construction (soft and hard) cost estimates from PBS&J. Coordinate development of the annual O/M estimates with PBS&J.
- 11.2 Develop tables showing the annualized toll revenues versus the costs to determine the feasibility of the US 290E project for inclusion in the URS T & R report.

Task 12 – Documentation

The US 290E investment grade traffic and toll revenue study will be documented at various stages with technical memoranda, including the Preliminary Toll Revenue Forecasts, and the draft and final report. Technical memoranda will be issued in draft format for review, comment, and approval by the CTRMA T&R Working Group. Then the final technical memoranda will be issued. The documents are itemized below:

Task	Deliverable
1	Scope of Services, Budget, Schedule
2	Technical Memorandum 1: Results of the Review of Other Studies
3	Technical Memorandum 2: Traffic Study
4	Technical Memorandum 3: Economic/Demographic Study
5	Technical Memorandum 4: Stated Preference Travel Study
6	N/A
7/9/10/11	Technical Memorandum 5: Toll Rate Schedule/Toll Plan and Preliminary T&R Forecasts/Feasibility
8	N/A
12	US 290E Investment Grade T&R Study Draft and Final Report

Task 13 – Project Financing Support

URS will support the financing of the project with documentation of the investment grade study and as a member of the CTRMA T&R Working Group. Our support will involve meetings with the working group, presentations of the Investment Grade study to the rating agencies, bond insurance companies, and other organizations to be identified by the CTRMA. URS will prepare materials (presentation boards, power point slides, handouts, etc.) as needed for presentation purposes.

URS assumes seven meetings/presentations in this scope for staffing and budgeting purposes. It is assumed four meetings will take place in Austin, TX, two meetings in New York City, and one meeting in Washington, DC. Should additional meetings/presentations be required to support project financing, URS will scope and budget these meetings on a time and materials (T&M) basis, plus reimbursable for other direct costs incurred, e.g., travel, lodging, meals, etc.

Work in this task is described in the subtasks below:

- 13.1 Review financing documents
- 13.2 Review disclosure documents
- 13.3 Participate in meetings regarding bond and disclosure documents and prepare presentation materials, e.g., power point slides, presentation boards, handouts, etc.
- 13.4 Certify information in the disclosure documents related to the URS Traffic and Toll Revenue Investment Grade Study report, including the underlying assumptions

Attachement C - Fee Schedule Summary
 URS - Work Authorization #2
 US 290E Investment Grade Study

12 Month
 Schedule

TASK	Total Hours	Total Labor Cost
Task 1 Project Management	1572	\$167,827.76
Task 2 Review Previous Studies	92	\$8,500.01
Task 3 Traffic Field Studies	384	\$35,714.23
Task 4 SED Collection and Analysis	344	\$27,780.46
Task 5 Stated Preference Travel Study	152	\$14,756.21
Task 6 Model Development/Validation	1068	\$89,453.89
Task 7 Toll Schedule / Plan	236	\$27,122.14
Task 8 Project Configuration	740	\$58,826.03
Task 9 Traffic Estimation	1120	\$104,280.67
Task 10 Toll Revenue Forecasts	414	\$39,537.42
Task 11 Financial Feasibility	186	\$18,987.15
Task 12 Documentation	1224	\$112,728.95
Task 13 Project Financing Support	524	\$75,801.55
Total Hours and Labor	8056	\$781,316.47
Total Labor (Rounded)		\$781,300.00

EXPENSES

Air travel (22 trips @ \$600)	\$13,200.00
Lodging (NY/Wash 8 nights @ \$300)	\$2,400.00
Lodging (AUS 29 nights @ \$175)	\$5,075.00
Meals (43 days @ \$90)	\$3,870.00
Rental vehicle (35 days @ \$75)	\$2,625.00
Gasoline (35 days@\$25)	\$875.00
Postage	\$400.00
Color Copies (@ \$1.40 ea)	\$140.00
B/W Oversize Copies	\$200.00
Tech Memos (5x25copiesx\$30/ea)	\$3,750.00
Report (2X25copies@\$40/ea)	\$2,000.00
Engineering/Graphic Plots	\$700.00
Courier	\$850.00
Presentation Boards (25@\$300/ea)	\$7,500.00
Expense subtotal	
Total expenses (rounded)	\$43,600.00

TOTAL URS COSTS \$824,900.00

SUB-CONTRACTOR COSTS

ATG	\$53,100.00
Bomba & Associates	\$98,800.00
GRAM Traffic	\$290,400.00
RSG	\$140,000.00

TOTAL US 290E URS T&R COSTS \$1,407,200.00

WORK AUTHORIZATION

URS

WORK AUTHORIZATION NO. 2

This Work Authorization is made as of this 31st day of January, 2006, under the terms and conditions established in the AGREEMENT FOR TRAFFIC AND REVENUE ENGINEERING SERVICES, dated as of October 1, 2005 (the "Agreement"), between the Central Texas Regional Mobility Authority ("Authority") and URS ("Consultants"). This Work Authorization is made for the following purpose, consistent with the services defined in the Agreement:

Investment Grade Traffic Study for US 290 East

Section A. - Scope of Services

A.1. Consultant shall perform the following Services:

Refer to Attachment A – Scope of Work

A.2. The following Services are not included in this Work Authorization, but shall be provided as Additional Services if authorized or confirmed in writing by the Authority.

N/A

A.3. In conjunction with the performance of the foregoing Services, Consultant shall provide the following submittals/deliverables (Documents) to the Authority:

Refer to Attachment A – Scope of Work

Section B. - Schedule

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

Services under this Work Authorization are expected to be substantially complete within 12 months from the date this Work Authorization becomes effective and based on Attachment B. This Work Authorization will not expire until all tasks associated with the Scope of Services are complete.

Section C. - Compensation

C.1. In return for the performance of the foregoing obligations, the Authority shall pay to Consultant the amount not to exceed \$ **1,407,200.00**, based on actual hourly rates as estimated by the attached fee estimate. Compensation shall be in accordance with the Agreement.

C.2. Compensation for Additional Services (if any) shall be paid by the Authority to Consultant according to the terms of a future Work Authorization.

Section D. - Authority's Responsibilities

The Authority shall perform and/or provide the following in a timely manner so as not to delay the Services of the Consultant. Unless otherwise provided in this Work Authorization, the Authority shall bear all costs incident to compliance with the following:

N/A

Section E. - Other Provisions

The parties agree to the following provisions with respect to this specific Work Authorization:

N/A

Except to the extent expressly modified herein, all terms and conditions of the Agreement shall continue in full force and effect.

Authority: Central Texas Regional Mobility
Authority

Consultant: URS

By: Robert E. Tesch

By: W. David Balfour

Signature: 

Signature: 

Title: Board Chairman

Title: Senior Vice President

Date: 04.26.06

Date: 12-7-2006

**ATTACHMENT A - SCOPE OF SERVICES
WORK AUTHORIZATION # 2
URS CORPORATION**

**US 290E TOLL DEVELOPMENT PROJECT
INVESTMENT GRADE TRAFFIC AND REVENUE ENGINEERING SERVICES**

The Investment Grade Traffic and Revenue Engineering Services described herein are to be provided by URS Corporation (URS) to the Central Texas Regional Mobility Authority (CTRMA) to prepare an Investment Grade Traffic and Toll Revenue Study and Report for the US 290E toll road project. The US 290E baseline project is defined from US 183 to SH 130.

SCOPE OF SERVICES

This Scope of Services is organized into 13 principal tasks that encompass the investment grade study, documentation, and support of project financing. Significant analysis of all aspects of the US 290E project along with a comprehensive modeling effort involving the toll diversion forecasting and the socioeconomic data (SED) underlying the demographic projections are part of this complex study. Included in this comprehensive work program are the following tasks:

- Task 1 – Project Management
- Task 2 – Data Compilation and Review
- Task 3 – Traffic Data Collection/Field Surveys
- Task 4 – Economic/Demographic Data
- Task 5 – Stated Preference Travel Study
- Task 6 – Model Development/Validation
- Task 7 – Toll Rate Schedule/Toll Collection Plan
- Task 8 – Project Configuration
- Task 9 – Traffic Estimation
- Task 10 – Toll Revenue Forecasts
- Task 11 – Financial Feasibility
- Task 12 – Documentation
- Task 13 – Financing Support

The project schedule, staffing plan, and budget that support this scope of services are attached.

Task 1 – Project Management

Meetings, coordination, administration, and quality assurance comprise Task 1 and are described in the following subtasks:

- 1.1 Meetings
 - 1.1.2 Project Kick-Off, Scope Development, and Mobilization Meetings
 - 1.1.3 Project Progress Meetings to be Scheduled Monthly
 - 1.1.4 Presentations to the CTRMA Board and Other Interested Parties
- 1.2 Coordination
 - 1.2.1 Coordination with the CTRMA Working Group, Governmental Organizations (including TxDOT), Charles River Associates (Regional Mobility Study), and Other Entities to be Identified by the CTRMA
 - 1.2.2 Coordination with Sub-Consultants: Resource Systems Group, GRAM Traffic, Bomba & Associates, and Alliance Transportation Group

- 1.2.3 Establish Communications Procedures and Documentation
- 1.3 Project Schedule and Monthly Updates
- 1.4 Progress Reports and Invoices (Monthly)
- 1.5 Project Quality Assurance

Task 2 – Data Compilation and Review (Previous Relevant Studies)

This task involves maximizing the utilization of previous studies by evaluating their relevance for the US 290E project. The CTRMA and other local, state, and/or Federal governmental agencies have performed numerous studies with relevance to the US 290E project. URS will obtain and review studies pertaining to toll feasibility projects, TxDOT count data, and area SED projections. A technical memorandum will be issued to document the results of the Task 2 work. The subtasks below are not intended as a complete list, but are examples of previous studies that contain relevant information.

- 2.1 Review Other Relevant CTRMA Toll Feasibility Reports
- 2.2 Review CTRMA Market Research Survey Report (Wilson Research)
- 2.3 US 183A Investment Grade Study Report
- 2.4 Compile and Review Available Historical Traffic Volume and Travel Time Data
- 2.5 Obtain and Review TxDOT Count Station Data
- 2.6 Obtain and Review the Latest Capital Area Metropolitan Planning Organization (CAMPO) Regional Travel Demand Model Revised Roadway Network
- 2.7 Review the CTPP (Central Texas Turnpike Plan) 2005 SED Set
- 2.8 SH 130 Stated Preference Travel Study Report

Task 3 – Traffic Data Collection/Field Surveys

The first step in this task will be to determine the US 290E study area, which will go beyond the limits of the project to encompass a larger geographic area of influence. In this task, the baseline of existing corridor traffic and travel related data will be developed and documented. The principal purpose of developing this baseline will be for validation of the CAMPO model. Work will involve travel time studies, traffic data collection, origin/destination (O/D) studies, and review of available historical traffic information. Traffic study data collection will be closely coordinated with the CTRMA Director of Communications. A technical memorandum will be issued describing the data collection program and documenting the results of the traffic studies. The subtasks below describe the work that will be performed.

- 3.1 Develop traffic count program in the US 290E corridor to supplement available data from TxDOT count stations and other projects. A count program will be developed to gather current data from US 290E, parallel routes, cross streets, and other routes to be determined.
- 3.2 Conduct travel time studies on US 290E, parallel routes, cross street routes, and frontage roads.
- 3.3 Perform trip origin-destination (O/D) surveys. In addition query travelers for information pertaining to trip frequency, trip purpose, vehicle classification, vehicle occupancy, and other travel information.
- 3.4 Compile traffic, travel time, and O/D study data for validation of the regional travel model.

Task 4 – Economic/Demographic Data

The CAMPO regional travel model contains the network that will be the baseline model for the US 290E traffic and toll revenue forecasts. Contained in the CAMPO model are the region's Traffic Serial Zone (TSZ) systems, which are the cartographic boundary files that detail the SED and travel-related data. URS understands that the revised CAMPO model updated the network only and not the SED set. The recently developed SED set for the CTTTP 2005 refinancing analysis will be used as the initial, underlying data for this effort. This data set will be expanded, as needed, to encompass the US 290E study area to provide a common and consistent database for this project and the Preliminary T & R corridors. Work in this task, as it pertains to gathering data from other organization sources, will be closely coordinated with the CTRMA Director of Communications. A technical memorandum will be issued describing the work performed in Task 4 and documenting the results.

For this task, URS has retained the services of Bomba & Associates to assess the reasonableness of the forecast in the updated CTTTP. Bomba & Associates has successfully completed this task in similar investment grade studies for three Austin area toll road projects: SH 130, SH 45/Loop 1, and US 183-A. Additionally, Bomba & Associates served as consultant in this capacity for the 2005 CTTTP SED update.

URS anticipates the 2005 CTTTP database will be used for TSZs outside of the project study area, since many previously received a close level of scrutiny. An assessment of the forecasts outside of the study area at a subarea level of geography will be performed for this investment grade analysis. Should any adjustments to the subarea forecasts be deemed necessary, the SED will be allocated proportionately to the TSZs.

4.1 Data Collection

Collect data and review recent literature that summarizes demographic and economic changes to Travis County, the Austin metropolitan area, and, in particular, changes within the US 290E study area. The data will be used to identify recent population and employment development trends and prospects for future growth. Data will be collected from the following sources:

- U.S. Census Bureau
- Texas State Data Center
- Texas Workforce Commission
- Texas Water Development Board
- Texas Comptroller of Public Accounts office
- Capital Area Metropolitan Planning Organization
- City of Austin
- City of Manor
- City of Pflugerville
- Travis County
- *Austin-American Statesman*
- *Austin Business Journal*
- Any other relevant source.

Maps will be obtained from the various municipalities in the study area showing zoning, water and wastewater infrastructure, sensitive environmental features, etc., plus recent digital orthoimagery of the study area.

4.2. Field Surveys

Field surveys will be performed encompassing the entire US 290E study area to discern recent development patterns, including field surveys of selected areas of interest throughout Travis County. Areas of growth and change will be mapped for use during the study area assessment.

(NOTE: The level of effort that will be required in this task is dependent upon the level of SED changes in the CTTTP 2005 update from the previous version of the CTTTP.)

4.3 Interview Local Officials

Local officials who represent local public entities, such as planning or permitting departments, with jurisdictions in the study area will be interviewed. Public entities that will be contacted include:

- City of Austin
- City of Manor
- City of Elgin
- City of Pflugerville
- Travis County
- Others as determined appropriate

4.4 Review and Adjust Baseline Population and Employment at the TSZ Level

If necessary, the baseline population and employment estimates at the TSZ level will be adjusted based on the results of work in the previous subtasks. This effort will not employ econometric or demographic models to create new forecasts or to adjust existing forecasts. Baseline population estimates at the TSZ level will be randomly selected and compared to data from the 2000 U.S. Census. If a TSZ's baseline employment estimate is judged to be inaccurate, the figures will be updated. This will be done by conducting a field survey of the TSZ to record the locations of employment, identifying the square footage of those facilities, and multiplying the building area by a ratio of employees per square foot.

(NOTE: This subtask includes work associated with splitting TSZs and re-allocating the SED to the adjusted zonal system within the study area to achieve a more refined level of detail for traffic modeling purposes.)

4.5 Assess and Adjust TSZ Population and Employment Forecasts

Population and employment forecasts in the study area for the years 2007, 2017, and 2030 will be adjusted if necessary. Should intermediate forecast periods be required, the intervening years will be interpolated from the model forecast periods. Adjustments will be made to TSZs outside of the study area if it were determined these changes would be germane to this analysis.

4.6 Identify Growth Sensitivities for a "Low-Growth" Scenario

Based upon the information collected in Subtasks 4.1, 4.2, 4.3, 4.4, and 4.5. TSZs within the US 290E study area might have their population or employment forecasts adjusted as part of a "low-growth" sensitivity analysis, should future conditions change. This identification will also include select areas outside of the study area as well.

Task 5 – Stated Preference Travel Study

URS will perform a Stated Preference Travel Study, the purpose of which is to survey motorists on their travel preferences, patterns, and willingness to pay tolls. Market based transportation research is especially critical in areas such as Austin where tolling is a new concept and there are no existing toll facilities from which to obtain and analyze actual user data. In addition, the URS Team will compare the results of the US 290E preference study with the 1999 preference study performed by the URS team for the SH 130 project. Work in this task, as it pertains to performance of the travel survey, will be closely coordinated with the CTRMA Director of Communications.

URS has retained the services of Resource Systems Group (RSG) to perform this study. Working with URS, RSG previously performed a Stated Preference Travel Study for the SH 130 project and is familiar with Austin and its environs. A technical memorandum will be prepared documenting the project approach, data and findings. It will include details of methods used for the survey, the survey data that were collected and the models that were developed. Work in this task is described below (scope enhanced since 11.1.05 draft).

Phase 1 – Travel Survey

5.1 Develop Survey Questionnaire

The survey questionnaire will include questions to describe the most recent trip that the respondent made within the corridor. These questions will be followed with stated preference experiments in which characteristics of the corridor travel alternatives – travel times tolls – are systematically varied. Finally, the questionnaire will include sufficient demographic details to allow the sample to be expanded to the full population. The questionnaire will be structured so that it can be completed in 10 minutes or less. An initial draft of the survey questionnaire will be developed and provided for team review and comment. The questionnaire will be revised in response to these comments and the revised draft used as the starting point for Task 5.2.

5.2 Program Survey Instrument

The survey questionnaire will be programmed using Resource Systems Group's IVIS™ system. This system provides a graphical user interface and sophisticated dynamic branching to improve the efficiency and cost-effectiveness of stated preference data collection. The survey questionnaire will be programmed to be administered at central sites on laptop computers and will be available for use over the Internet. The instrument will include digital maps to allow respondents convenient alternatives for specifying trip origins and destinations. The completed survey instrument will be provided to the project team for review and comment and will be revised as appropriate based on pre-test results.

5.3 Develop Survey Plan

A survey plan will be developed that ensures adequate coverage of all key population groups. The survey administration will be conducted at a variety of sites. Obtaining the cooperation necessary to cover all of the most desirable sites will be an important piece of the administration planning. These sites will likely shopping centers, office buildings and other major activity centers. At each site, a cluster of 2-6 laptop computers will be provided. Survey staff will recruit/qualify potential respondents, assign them to a computer and assist them as necessary in completing the questionnaire.

In addition, the survey will be made available to respondents over the web. We have found that, particularly in the Austin region, the web option is particularly attractive to younger, more mobile, more educated individuals who have high non-response rates with conventional surveys.

5.4 Administer Survey

The survey will be administered in accordance with the final survey plan. An initial pre-test will be conducted to provide field input on the questionnaire design and administration methods. The survey questionnaire and plan will be modified based on the pre-test results and the revised survey will be sent to full field. The fieldwork will be directed by a staff manager with a field team of two to four others will be responsible for recruiting and assisting respondents. The staff manager will maintain tallies of survey progress and adjust the survey plan as necessary to ensure that the fieldwork is completed on time and within the allocated portion of the budget.

Phase 2 – Data Analysis and Modeling

5.5 Data analysis

Upon completion of the data collection, descriptive tabulations of the data will be completed. Tabulations will be prepared for responses to each question and selected cross-tabulations will be prepared to evaluate relationships among key variables. These tabulations will include general information about the characteristics of the sample and of their responses to the stated preference experiments.

The data will also be compiled into a dataset suitable for statistical choice model estimation.

5.6 Statistical Modeling

Stated preference data from the survey will be analyzed using accepted statistical techniques. Travel choice models will be estimated using ALOGIT, a widely used commercial software package that was developed specifically for this type of application. The models will include effects of travel time and toll level on the choice between tolled and toll-free routes.

5.7 Estimation of Individualized Models

This task will estimate values of time by individual respondent. This will be accomplished using state-of-the-art methods such as hierarchical Bayes or simulation-based classical estimation of the logit kernel model and will result in an estimate of the full distribution of values of time. The resulting models will be implemented in spreadsheet form and methods for implementing them in URS's traffic forecasting model will be developed.

Task 6 – Model Development/Validation

URS will develop a traffic/toll revenue-forecasting model for the US 290E project for which the year 2030 CAMPO regional travel model will be the baseline. URS staff is familiar with the CAMPO regional travel demand model, which we are using for the Texas Turnpike Authority (TTA) SH 130 Investment Grade Study. URS will coordinate the calibration and validation of the CAMPO model with CAMPO staff. CAMPO is updating its model, which will be available to the TTA, CTRMA, and other agencies in the near future. Work in this task is described in the subtasks below.

- 6.1 Install the updated version of the CAMPO regional travel model for use on this project. URS currently utilizes the previous version of the CAMPO model for its T&R projects in the Austin area. Therefore, this step to review the new version of the CAMPO model documentation and then test the model is critical. Should URS staff experience any difficulties in testing the model, these will be resolved with CAMPO staff prior to applying the model to the US 290E study.
- 6.2 Compare the Task 3 field study results with the CAMPO model assumptions and validate the model to existing conditions. Compare field travel time data with the travel times estimated by the highway assignment process and adjust the CAMPO model highway network parameters as needed to improve replication of observed speeds. Compare the ground counts to those in the model and adjust, as needed, to reflect observed conditions. Verify the baseline trip table both at the screenline level and at specific link locations utilizing select-link techniques. This will be an iterative process requiring adjustments possibly both to the highway assignment and trip distribution routines: Model calibration and validation will be coordinated with CAMPO staff.
- 6.3 These parameters plus those from the O/D studies performed in Task 3 and Stated Preference Study results in Task 5 will be input to CAMPO the mode-choice model by traveler segment. It is assumed these data will provide the travel preference baseline for input to the US 290E project.
- 6.4 Update the CAMPO model with the URS Team revised TSZ system (the split TSZ's) re-allocated SED and enhanced roadway network (refer to subtask 4.4).
- 6.5 Perform a "reasonableness" test of the CAMPO model that will confirm the model validation to observed conditions and of the preference data. These tests are typically performed at specified traffic screen lines where modeled outputs are checked against observed conditions. Should modeled results vary from the observed conditions beyond levels considered "reasonable" for travel demand modeling, URS would first verify the model chain performance. If the model is determined to be performing as expected, then URS would make further adjustments to the model. This model adjustment process will be coordinated with CAMPO staff. Replication of observed conditions in the baseline model is important for forecasting future traffic. (NOTE: It is unknown at this time the level of testing that will be required on the updated CAMPO model for the CTRMA studies.)

Task 7 – Toll Rate Schedule and Toll Collection Plan

The US 290E toll rate schedule will be established with specific input from the US 183A, other Austin-area toll road projects, and the Stated Preference Travel Study. Toll collection methods will be developed considering Electronic Toll Collection (ETC) and cash operations. Work to be performed is described the subtasks below.

- 7.1 Develop a toll rate schedule that is based on Austin-area toll rate plans and those being implemented on the US 183A, SH 130, and SH 45 projects. The rate schedule will identify the opening year rate with an annual escalator for estimating annual toll revenues. The toll rate schedule will be input to Task 9 for traffic modeling purposes.

7.2 Various methods of toll collection will be analyzed to determine the method most feasible for the US 290E project. It has been decided by the CTRMA T&R Working Group that a combined ETC and cash collection system and ETC only will be tested in the modeling program. The following toll options will be evaluated:

- Non Tolloed (baseline)
- Tolloed with ETC only
- Tolloed with Combined Cash and ETC
- Open Road Tolling (ORT) – Video Tolling
- Design Traffic (between non tollod and tollod) includes general turning movements

Task 8 – Project Configuration and Network Projects

The preliminary design of the US 290E project (prepared by the design engineer) will be provided to URS for input to modeling program. The modeling program will determine the levels of traffic attracted to the project, which may affect the ultimate sizing of the facility and subsequently the design. The following work will be performed.

8.1 Obtain the US 290E preliminary design for the roadway layout including the main lanes, ramps, frontage road system, and toll collection design. Code the project into the network in preparation for the modeling task. Through an iterative modeling process the traffic volumes will be estimated on the project. URS will make recommendations for sizing the project based on the traffic volumes and operations considerations, which could necessitate design revisions.

8.2 The baseline US 290E project is from US 183 to SH 130. Options to be evaluated (coded and modeled) include the following:

- Direct connectors at US 183 to and from the north
- Extension of US 290E from SH 130 to FM 973
- Direct connectors at SH 130 from the north to the south

8.3 Update and maintain a file of future transportation projects in the CAMPO network. URS staff will review each future project and input it into an assumptions spreadsheet that will be included in the project report. This file will contain the name of the project, schedule, facility type, sponsoring entity (e.g., CTRMA, TxDOT, county, cities, etc.), and other relevant information. Projects will be updated based upon meetings with the sponsoring entities. Each project will be coded into the network based upon the updated assumptions.

Task 9 – US 290E Traffic Estimation

In this task, URS will perform the traffic modeling to estimate volumes for the US 290E project. With the SED and network links added into the CAMPO model (validated), URS will then use the model to forecast traffic. Included in the modeling process are assumptions pertaining to toll evasion, revenue ramp-up periods, and seasonal variations. Based upon the traffic volume estimates, URS will provide recommendations, if any, for sizing the facility or adjustments to the toll collection strategies, ramp configuration, and/or frontage road system. Work to be performed in this task is described below.

- 9.1 Develop a table of no-build and build alternatives to be modeled, which will include a no-toll scenario. Results of the no-toll scenario will reflect the estimated traffic volumes on the project without tolls. The no-build and no-toll scenarios will be used to compare the build toll alternatives to assess the impacts of toll constraints indicated by model output. In addition to the initial models runs, URS will perform sensitivity tests.
- 9.2 Model the no-build and build alternatives during the forecast period and with periodic toll increases with various toll strategies (from Task 7) including constant tolls. Each alternative will include toll details, e.g., interchange-to-interchange toll rates, discounts for tag users, etc. This disaggregated technique allows individual components of a revenue stream to be pooled to reflect the project forecast.
- 9.3 Model outputs can be expected to reflect the impacts of the tolls at various levels. However, as a check on the reasonableness of the model outputs, URS will conduct an independent traffic/toll elasticity analysis and compare the model outputs with the elasticity expectations. This work is an iterative process, in terms of model adjustment, that may require adjusting the model assumptions to resolve any differences between model output and elasticity.
- 9.4 Review traffic volumes for the baseline and alternatives to determine whether the proposed frontage road cross-sections and intersection approaches will operate at an acceptable Level of Service (LOS) based on a variety of factors, including turning lane movements. This capacity analysis will focus on the frontage road intersections along the corridor at 10 locations between US 183 and SH 130 and an alternative to FM 973 and design traffic on the main line. The analysis will be performed for morning and evening peak hour traffic volumes utilizing the methods of the 2000 Highway Capacity Manual with the Synchro / Sim Traffic 6.0 software.

Task 10 – Toll Revenue Forecasts

This task focuses on the US 290E toll revenue forecasts under various tolling strategies and design configurations assumed in previous tasks. URS will perform an extensive analysis to optimize toll rates, tolling strategies, and tolling locations. Opening year and future years' (40-year forecast) toll revenue potential will be analyzed and documented. Phasing or re-sizing the project may be considered based upon the estimated toll revenue stream. Preliminary T & R estimates will be documented in a technical memorandum for consideration by the CTRMA T&R Working Group. Work to be performed in this task is described below.

- 10.1 Analyze the model outputs from Task 9 to determine the toll revenue potential for opening year and a 40-year forecast under various tolling conditions and project configurations. Results of this analysis will be displayed in a tabular format. Based upon the results of this analysis, schemes to optimize toll revenue may be introduced.
- 10.2 Results of the sensitivity and elasticity tests will be analyzed and shown in a tabular format in the project report. This analysis will provide additional documentation to support the reasonableness of the modeling approach and results. Sensitivity tests will include the following and others TBD by the T&R Working Group:
 - Socioeconomic adjustments (differing growth forecasts)
 - Network adjustments (changes in competing or contributing roadway network)
 - Value of Time adjustments

- Toll rate adjustments, e.g., lower rates, value pricing strategies, etc.
- Economic indicators, such as fuel costs

Task 11 – Financial Feasibility

In this task, URS will analyze the Task 10 results and determine the feasibility of the US 290E toll project. Additional costs elements will be required to determine the feasibility of the project, e.g., capital costs and operations and maintenance (O/M) estimates. Work in this task will involve.

- 11.1 Obtain the project construction (soft and hard) cost estimates from PBS&J. Coordinate development of the annual O/M estimates with PBS&J.
- 11.2 Develop tables showing the annualized toll revenues versus the costs to determine the feasibility of the US 290E project for inclusion in the URS T & R report.

Task 12 – Documentation

The US 290E investment grade traffic and toll revenue study will be documented at various stages with technical memoranda, including the Preliminary Toll Revenue Forecasts, and the draft and final report. Technical memoranda will be issued in draft format for review, comment, and approval by the CTRMA T&R Working Group. Then the final technical memoranda will be issued. The documents are itemized below:

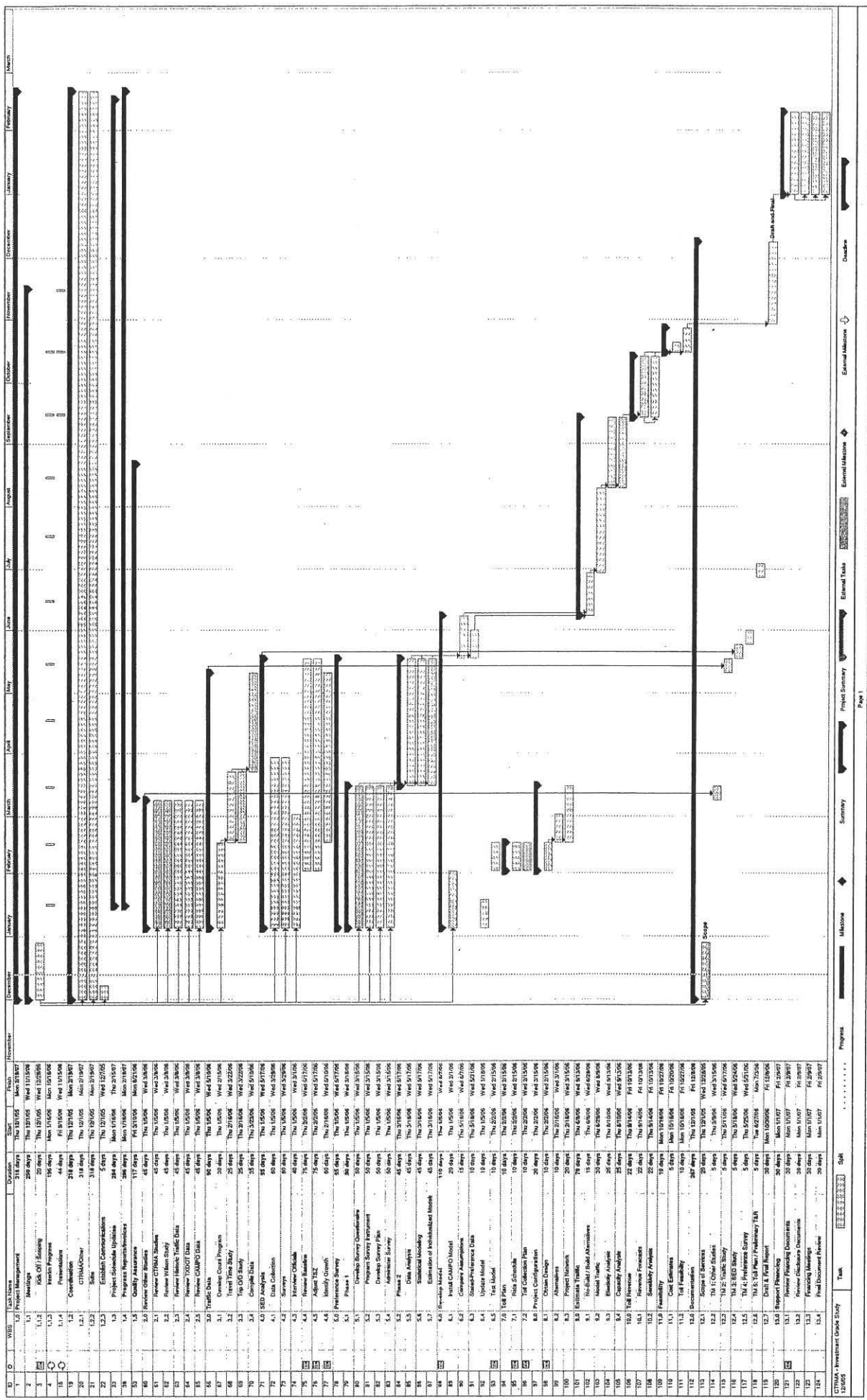
Task Deliverable

1	Scope of Services, Budget, Schedule
2	Technical Memorandum 1: Results of the Review of Other Studies
3	Technical Memorandum 2: Traffic Study
4	Technical Memorandum 3: Economic/Demographic Study
5	Technical Memorandum 4: Stated Preference Travel Study
6	N/A
7/9/10/11	Technical Memorandum 5: Toll Rate Schedule/Toll Plan and Preliminary T&R Forecasts/Feasibility
8	N/A
12	US 290E Investment Grade T&R Study Draft and Final Report

Task 13 – Project Financing Support

URS will support the financing of the project with documentation of the investment grade study and as a member of the CTRMA T&R Working Group. Our support will involve meetings with the working group, presentations of the Investment Grade study to the rating agencies, bond insurance companies, and other organizations to be identified by the CTRMA. URS will prepare materials (presentation boards, power point slides, handouts, etc.) as needed for presentation purposes.

URS assumes seven meetings/presentations in this scope for staffing and budgeting purposes. It is assumed four meetings will take place in Austin, TX, two meetings in New York City, and one meeting in Washington, DC. Should additional meetings/presentations be required to support project financing, URS will scope and budget these meetings on a time and materials (T&M) basis, plus reimbursable for other direct costs incurred, e.g., travel, lodging, meals, etc.



Attachement C - Fee Schedule Summary
 URS - Work Authorization #2
 US 290E Investment Grade Study

12 Month
 Schedule

	TASK	Total Hours	Total Labor Cost
Task 1	Project Management	1572	\$167,827.76
Task 2	Review Previous Studies	92	\$8,500.01
Task 3	Traffic Field Studies	384	\$35,714.23
Task 4	SED Collection and Analysis	344	\$27,780.46
Task 5	Stated Preference Travel Study	152	\$14,756.21
Task 6	Model Development/Validation	1068	\$89,453.89
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B/W Oversize Copies	\$200.00
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TOTAL URS COSTS

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Bomba & Associates	\$98,800.00
GRAM Traffic	\$290,400.00
RSG	\$140,000.00

TOTAL US 290E URS T&R COSTS

\$1,407,200.00

SUPPLEMENT NO. 1 TO WORK AUTHORIZATION NO. 2

URS

This Supplement No. 1 to Work Authorization No. 2 is made as of this 26th day of April, 2006, under the terms and conditions established in the AGREEMENT FOR TRAFFIC AND REVENUE ENGINEERING SERVICES, dated as of October 1, 2005 (the "Agreement"), between the Central Texas Regional Mobility Authority ("Authority") and URS ("Consultants"). This Supplement is made for the following purpose, consistent with the services defined in the Agreement:

Expand and refine regional model for Investment Grade Traffic Study for US 290 East

Section A. - Scope of Services

A.1. Consultant shall perform the following Services:

Refer to Attachment A – Scope of Work

A.2. The following Services are not included in this Supplement, but shall be provided as Additional Services if authorized or confirmed in writing by the Authority.

N/A

A.3. In conjunction with the performance of the foregoing Services, Consultant shall provide the following submittals/deliverables (Documents) to the Authority:

Refer to Attachment A – Scope of Work

Section B. - Schedule

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

Services under this Supplement are expected to be substantially complete within 3 months from the date this Work Authorization becomes effective. This Work Authorization will not expire until all tasks associated with the Scope of Services are complete.

Section C. - Compensation

C.1. In return for the performance of the foregoing obligations, the Authority shall pay to the Consultant the amount not to exceed \$138,610.76, based on Attachment B – Fee Estimate. This will increase the not to exceed compensation amount for Work Authorization No. 2 from \$ 1,407,200.00 to \$1,545,810.76. Compensation shall be in accordance with the Agreement.

C.2. Compensation for Additional Services (if any) shall be paid by the Authority to Consultant according to the terms of a future Work Authorization.

Section D. - Authority's Responsibilities

The Authority shall perform and/or provide the following in a timely manner so as not to delay the Services of the Consultant. Unless otherwise provided in this Work Authorization, the Authority shall bear all costs incident to compliance with the following:

N/A

Section E. - Other Provisions

The parties agree to the following provisions with respect to this specific Work Authorization:

N/A

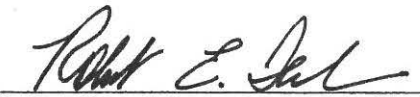
Except to the extent expressly modified herein, all terms and conditions of the Agreement shall continue in full force and effect.

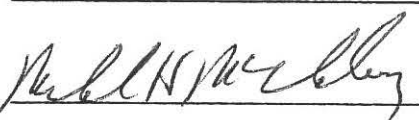
Authority: Central Texas Regional Mobility
Authority

Consultant: URS

By: Robert E. Tesch

By: Michael H. McCloskey

Signature: 

Signature: 

Title: Board Chairman

Title: Vice President

Date: 04.26.06

Date: 12/4/2006

**ATTACHMENT A- SCOPE OF SERVICES
SUPPLEMENT 1 TO WORK AUTHORIZATION #2**

**US 290E TOLL DEVELOPMENT PROJECT
TRAFFIC AND TOLL REVENUE ENGINEERING SERVICES**

**EXPAND AND REFINE TRAFFIC SERIAL ZONE SYSTEM, ROADWAY NETWORK,
AND SOCIOECONOMIC DATATO UPDATE THE REGIONAL MODEL**

The Traffic and Revenue Engineering Services described herein are to be provided by URS Corporation (URS) to the Central Texas Regional Mobility Authority (CTRMA) to prepare the "Expand and Refine Traffic Serial Zone System, Roadway Network, and Socioeconomic Data to Update the Regional Model." This supplemental will focus on refinements to the travel demand model framework to facilitate traffic and toll revenue forecasting for the CTRMA toll development projects.

SCOPE OF SERVICES

This Scope of Services is organized into seven principal tasks that encompass this supplemental study, as it relates to the travel demand model refinements. Work will focus on further refinement of the model platform for the US 290E project and for the subsequent CTRMA toll development projects. URS will perform the following tasks in this scope of services.

- Task 1 – Project Management
- Task 2 – Model Zone Structure
- Task 3 – Field Studies
- Task 4 – Roadway Network/Zone System
- Task 5 – Centroid Connectors
- Task 6 – Socioeconomic Data
- Task 7 – Trip Distribution/Generation Modules

Task 1 – Project Management

URS assumes the following project management subtasks for Supplement 1.

- 1.1 Meetings
 - 1.1.2 Scope development and mobilization meetings.
- 1.2 Coordination
 - 1.2.1 Coordination with team and sub-consultant: Bomba & Associates
- 1.3 Project Schedule and Monthly Updates
- 1.4 Progress Reports and Invoices (monthly)
- 1.5 Project Quality Assurance

Task 2 – Model Zone Structure

URS will review the travel demand model geographic traffic serial zone (TSZ) system to develop a refined zone, network, and socioeconomic data.

- 2.1 Review the CAMPO Model network, CTTTP roadway network, and the Austin Street layer to develop the refined zone system.

Task 3 – Field Studies

URS will conduct field studies in the expanded geographic area in which the TSZ system will be studied for refinement.

- 3.1 Perform field studies to verify the roadway network and to determine the most appropriate refinement of the zone system. Analyze data in preparation for modification to the model framework.

Task 4 – Roadway Network/Zone System

URS will modify the roadway network and TSZ system based on the analysis performed in Task 3. Review and update the Transportation Improvement Program (TIP) project list in the expanded geographic area.

- 4.1 Refine and update the roadway network and zone system. Input the revisions to the TransCAD roadway network/TSZ system to create the new model platform.
- 4.2 Review the TIP future project list in the expanded geographic area and update the projects with current schedule information from the responsible agency. Input the updated information into the future roadway network.

Task 5 – Centroid Connectors

URS will revise the centroid connectors in the roadway network with the refined data and will update the model framework.

- 5.1 Update the centroid connectors in TransCAD in accordance with the refined existing and future roadway network.

Task 6 – Socioeconomic Data (SED)

URS will review the SED in the refined TSZ system and will update the demographic indicators: population, employment, and residential. The updated data will be allocated to the refined zone system. This data set will be expanded to encompass the US 290E corridor and the future corridors to provide a common and consistent database for all of these facilities. The geographic area south of FM 2244 and west IH 35, which has not undergone a demographic analysis, will be the primary focus of our work.

- 6.1 Perform field studies in the study area to identify new residential, commercial, and industrial developments. Update the population, housing, and employment indicators. Reallocate the updated SED to the revised TSZ system and input to the model.

Task 7 – Trip Distribution/Generation Modules

URS will test the trip distribution and trip generation modules with the modified zone system and roadway network.

- 7.1 Run and test the trip distribution and trip generation modules in the refined travel demand model and calibrate the model with the refined database.

Attachement C - Fee Estimate
 URS Supplement 1 to WA #2
 Model Refinements

Schedule 8 Weeks	TASK	Total Labor Cost
Task 1	Project Management	\$19,805.97
Task 2	Model Zone Structure	\$8,470.63
Task 3	Field Studies	\$7,110.23
Task 4	Roadway Network/Zone System	\$14,871.23
Task 5	Centroid Connectors	\$5,851.64
Task 6	Socioeconomic Data	\$20,294.87
Task 7	Trip Distribution/Generation	\$15,296.20
	Total Labor Cost	\$91,700.76

EXPENSES

Air travel (0 trips @ \$600)	\$0.00
Lodging (0 nights @ \$300)	\$0.00
Lodging (0 nights @ \$175)	\$0.00
Meals (10 days @ \$20)	\$200.00
Rental vehicle (5 days @ \$75)	\$375.00
Gasoline (5 days@ \$25)	\$125.00
Postage	\$25.00
Color Copies (25 @ \$1.40 ea)	\$35.00
Copying	\$50.00
Tech Memos (X copiesx\$30/ea)	\$0.00
Report (0x25copies@\$40/ea)	\$0.00
Engineering/Graphic Plots	\$50.00
Courier	\$50.00
Presentation Boards (0@\$300/ea)	\$0.00
Expense Subtotal	\$910.00

TOTAL URS COSTS **\$92,610.76**

SUB-CONTRACTOR COSTS

Bomba Associates \$46,000.00

TOTAL Costs Supplement 1, WA#2 **\$138,610.76**

SUPPLEMENT NO. 1 TO WORK AUTHORIZATION NO. 2

URS

This Supplement No. 1 to Work Authorization No. 2 is made as of this 26th day of April, 2006, under the terms and conditions established in the AGREEMENT FOR TRAFFIC AND REVENUE ENGINEERING SERVICES, dated as of October 1, 2005 (the "Agreement"), between the Central Texas Regional Mobility Authority ("Authority") and URS ("Consultants"). This Supplement is made for the following purpose, consistent with the services defined in the Agreement:

Expand and refine regional model for Investment Grade Traffic Study for US 290 East

Section A. - Scope of Services

A.1. Consultant shall perform the following Services:

Refer to Attachment A – Scope of Work

A.2. The following Services are not included in this Supplement, but shall be provided as Additional Services if authorized or confirmed in writing by the Authority.

N/A

A.3. In conjunction with the performance of the foregoing Services, Consultant shall provide the following submittals/deliverables (Documents) to the Authority:

Refer to Attachment A – Scope of Work

Section B. - Schedule

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

Services under this Supplement are expected to be substantially complete within 3 months from the date this Work Authorization becomes effective. This Work Authorization will not expire until all tasks associated with the Scope of Services are complete.

Section C. - Compensation

C.1. In return for the performance of the foregoing obligations, the Authority shall pay to the Consultant the amount not to exceed \$138,610.76, based on Attachment B – Fee Estimate. This will increase the not to exceed compensation amount for Work Authorization No. 2 from \$ 1,407,200.00 to \$1,545,810.76. Compensation shall be in accordance with the Agreement.

C.2. Compensation for Additional Services (if any) shall be paid by the Authority to Consultant according to the terms of a future Work Authorization.

Section D. - Authority's Responsibilities

The Authority shall perform and/or provide the following in a timely manner so as not to delay the Services of the Consultant. Unless otherwise provided in this Work Authorization, the Authority shall bear all costs incident to compliance with the following:

N/A

Section E. - Other Provisions

The parties agree to the following provisions with respect to this specific Work Authorization:

N/A

Except to the extent expressly modified herein, all terms and conditions of the Agreement shall continue in full force and effect.

Authority: Central Texas Regional Mobility
Authority

Consultant: URS

By: Robert E. Tesch

By: Michael H. McCloskey

Signature: 

Signature: 

Title: Board Chairman

Title: Vice President

Date: 04.26.06

Date: 12/4/2006

**ATTACHMENT A- SCOPE OF SERVICES
SUPPLEMENT 1 TO WORK AUTHORIZATION #2**

**US 290E TOLL DEVELOPMENT PROJECT
TRAFFIC AND TOLL REVENUE ENGINEERING SERVICES**

**EXPAND AND REFINE TRAFFIC SERIAL ZONE SYSTEM, ROADWAY NETWORK,
AND SOCIOECONOMIC DATA TO UPDATE THE REGIONAL MODEL**

The Traffic and Revenue Engineering Services described herein are to be provided by URS Corporation (URS) to the Central Texas Regional Mobility Authority (CTRMA) to prepare the "Expand and Refine Traffic Serial Zone System, Roadway Network, and Socioeconomic Data to Update the Regional Model." This supplemental will focus on refinements to the travel demand model framework to facilitate traffic and toll revenue forecasting for the CTRMA toll development projects.

SCOPE OF SERVICES

This Scope of Services is organized into seven principal tasks that encompass this supplemental study, as it relates to the travel demand model refinements. Work will focus on further refinement of the model platform for the US 290E project and for the subsequent CTRMA toll development projects. URS will perform the following tasks in this scope of services.

- Task 1 – Project Management
- Task 2 – Model Zone Structure
- Task 3 – Field Studies
- Task 4 – Roadway Network/Zone System
- Task 5 – Centroid Connectors
- Task 6 – Socioeconomic Data
- Task 7 – Trip Distribution/Generation Modules

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URS assumes the following project management subtasks for Supplement 1.

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- 4.1 Refine and update the roadway network and zone system. Input the revisions to the TransCAD roadway network/TSZ system to create the new model platform.
- 4.2 Review the TIP future project list in the expanded geographic area and update the projects with current schedule information from the responsible agency. Input the updated information into the future roadway network.

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- 5.1 Update the centroid connectors in TransCAD in accordance with the refined existing and future roadway network.

Task 6 – Socioeconomic Data (SED)

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- 6.1 Perform field studies in the study area to identify new residential, commercial, and industrial developments. Update the population, housing, and employment indicators. Reallocate the updated SED to the revised TSZ system and input to the model.

Task 7 – Trip Distribution/Generation Modules

URS will test the trip distribution and trip generation modules with the modified zone system and roadway network.

- 7.1 Run and test the trip distribution and trip generation modules in the refined travel demand model and calibrate the model with the refined database.

Attachement C - Fee Estimate
 URS Supplement 1 to WA #2
 Model Refinements

Schedule 8 Weeks	TASK	Total Labor Cost
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Task 2	Model Zone Structure	\$8,470.63
Task 3	Field Studies	\$7,110.23
Task 4	Roadway Network/Zone System	\$14,871.23
Task 5	Centroid Connectors	\$5,851.64
Task 6	Socioeconomic Data	\$20,294.87
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	Total Labor Cost	\$91,700.76

EXPENSES

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Lodging (0 nights @ \$175)	\$0.00
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Report (0x25copies@\$40/ea)	\$0.00
Engineering/Graphic Plots	\$50.00
Courier	\$50.00
Presentation Boards (0@\$300/ea)	\$0.00
Expense Subtotal	\$910.00

TOTAL URS COSTS **\$92,610.76**

SUB-CONTRACTOR COSTS

Bomba Associates \$46,000.00

TOTAL Costs Supplement 1, WA#2 **\$138,610.76**



41008118

February 15, 2007

Ms. Laura Y.H. Harris, P.E.
HNTB Corporation
301 Congress Avenue, Suite 600
Austin, TX 78701

Reference: Agreement for Traffic and Revenue Engineering Services with the Central
Texas Regional Mobility Authority

Subject: Work Authorization No. 3

Dear Ms. Harris:

In reference to your conversation with Bob Cuellar enclosed are two signed original
copies of Work Authorization No. 3

Please send me an executed copy to the address at the bottom of this letter.

Should you have a question please contact me at 419-6821, or at
Sammy_Young@urscorp.com.

Sincerely,

Sammy J. Young
Contract Administrator

Enclosure

c: Bob Cuellar / URS

URS Corporation
P.O. Box 201088
Austin, TX 78720-1088
9400 Amberglen Boulevard
Austin, TX 78729
Tel: 512.454.4797

WORK AUTHORIZATION

URS

WORK AUTHORIZATION NO. 3

This Work Authorization is made as of this 31st day of January, 2006, under the terms and conditions established in the AGREEMENT FOR TRAFFIC AND REVENUE ENGINEERING SERVICES, dated as of October 1, 2005 (the "Agreement"), between the Central Texas Regional Mobility Authority ("Authority") and URS ("Consultants"). This Work Authorization is made for the following purpose, consistent with the services defined in the Agreement:

Austin Area Phase II Toll Facilities sketch level traffic and toll revenue engineering services

Section A. - Scope of Services

A.1. Consultant shall perform the following Services:

Refer to Attachment A – Scope of Work

A.2. The following Services are not included in this Work Authorization, but shall be provided as Additional Services if authorized or confirmed in writing by the Authority.

N/A

A.3. In conjunction with the performance of the foregoing Services, Consultant shall provide the following submittals/deliverables (Documents) to the Authority:

Refer to Attachment A – Scope of Work

Section B. - Schedule

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

Services under this Work Authorization are expected to be substantially complete within nine (9) months from the date this Work Authorization becomes effective and based on Attachment B. This Work Authorization will not expire until all tasks associated with the Scope of Services are complete.

Section C. - Compensation

C.1. In return for the performance of the foregoing obligations, the Authority shall pay to Consultant the amount not to exceed \$ 200,000.00, based on actual hourly rates as estimated by the attached fee estimate (Attachment C). Compensation shall be in accordance with the Agreement.

C.2. Compensation for Additional Services (if any) shall be paid by the Authority to Consultant according to the terms of a future Work Authorization.

Section D. - Authority's Responsibilities

The Authority shall perform and/or provide the following in a timely manner so as not to delay the Services of the Consultant. Unless otherwise provided in this Work Authorization, the Authority shall bear all costs incident to compliance with the following:

N/A

Section E. - Other Provisions

The parties agree to the following provisions with respect to this specific Work Authorization:

N/A

Except to the extent expressly modified herein, all terms and conditions of the Agreement shall continue in full force and effect.

Authority: Central Texas Regional Mobility
Authority

Consultant: URS

By: Robert E. Tesch

By: Michael H. McCloskey

Signature: 

Signature: 

Title: Board Chairman

Title: Vice President

Date: 04.26.06

Date: 12/4/2006

ATTACHMENT A – SCOPE OF SERVICES
Work Authorization #3
URS CORPORATION

AUSTIN-AREA PHASE 2 TOLL FACILITIES
“SKETCH LEVEL” FEASIBILITY
TRAFFIC AND TOLL REVENUE ENGINEERING SERVICES

The Traffic and Revenue Engineering Services described herein are to be provided by URS Corporation (URS) to the Central Texas Regional Mobility Authority (CTRMA) to prepare a “Sketch Level” Feasibility Traffic and Toll Revenue Study for the following projects:

1. US 183E from IH 35 to SH 71
2. SH 71E (Ben White Boulevard) from east of IH 35 to the Airport
3. US 290W from East of William Cannon to FM 1826
4. US 290W / SH 71W “The Y Interchange” in Oak Hill
5. Loop 360 Expansion from SH 71 to US 183

URS understands that the Phase 2 T & R Study results will be incorporated into the “Mobility Alternative Finance Study,” with the oversight of a “Steering Committee,” and being performed in part, by Charles River Associates (CRA).

URS will coordinate this study with the US 290E Investment Grade study to take advantage of sharing information between the two URS studies being performed for the CTRMA. Recognizing, however, that URS will perform tasks specific to this Preliminary T & R Study as outlined in this scope of services.

SCOPE OF SERVICES

This Scope of Services is organized into nine principal tasks that encompass this preliminary T & R study and documentation, and as it relates to coordination with the “Mobility Alternative Finance Study,” Scope of Work, November 9, 2005. (Refer to Exhibit 1 attached.) URS will perform the following tasks referenced in the Mobility Study Scope of Work plus the tasks described herein to complete a preliminary T&R study for each corridor:

- Review CAMPO Model, especially as it relates to managed lanes and toll facilities with parallel frontage roads.
- Determine usage level assumptions can be made on data currently available and based on traffic and revenue analysis conducted by URS.

URS will analyze each proposed toll facility project at a level of detail sufficient to estimate traffic and toll revenue for opening year and interim future years to year 2030. The following tasks are included in this scope of services:

- Task 1 – Project Management
- Task 2 – CAMPO Model Review
- Task 3 – Conceptual / Preliminary Designs
- Task 4 – Field Surveys / Traffic Data Collection
- Task 5 – Socioeconomic Data (SED) Set
- Task 6 – Toll Rate Schedule/Toll Collection Plan
- Task 7 – Traffic Estimation
- Task 8 – Toll Revenue Estimation
- Task 9 – Documentation

EXHIBIT 1

MOBILITY ALTERNATIVE FINANCE STUDY

Scope of Work

November 9, 2005

- Task 1 - Will the Phase 2 Toll Plan cover its costs and produce surplus revenues that could be used to fund additions to the system approved by CAMPO?**
1. Review the CAMPO model, especially as it relates to managed lanes and toll facilities with parallel frontage roads, as follows:
 - a. The model data sets
 - b. The model toll forecasting compatibility
 - c. The model toll forecasting accuracy
 2. In light of this review, analyze the following:
 - a. What usage level assumptions can be made on data currently available and based on the Traffic and Revenue analysis conducted by URS?
 - b. What cities and road comparisons exist to compare the proposed facilities and system and the usage/toll rates on existing managed lanes and /or toll facilities with parallel free frontage roads?
 - c. How do tolls at these prices affect the projections in the toll feasibility studies?
 - d. Based on what other toll agencies have done, what is a reasonable range of toll rates?
 - e. How do the toll rates for the roads in the Phase 2 Plan compare to the toll rates for urban toll roads in cities across the U.S.?
 - f. In the planning process, when and how are toll rates normally analyzed and then set?
 3.
 - a. How does the CAMPO area's percentage of highway lane miles scheduled to be tolled compare to the rate of tolling in other American metropolitan areas?
 - b. What are the projected number of lane miles and projected percentage of tolled lanes in the comparison cities?

- c. What is the current and projected congestion index in those cities?
- d. What are the factors in the comparison cities (if any) that may impact this analysis (i.e. history of aggressively pursuing mobility plans and construction, state investment, high levels of public transit, addition of lane miles compared to addition of vehicle miles).

Task 2 - Will each Phase 2 Plan toll facility generate sufficient revenue to cover its costs of bond financing, extra construction costs as a toll facility and operations and maintenance costs?

Will the Phase 2 Plan toll facilities generate sufficient revenue as a system to cover the costs of bond financing, extra construction costs as toll facilities and operations and maintenance costs?"

- 1. Detail the assumptions underlying the analysis.

Task 3 - How much surplus revenue, if any, will each of the Phase 2 Plan toll facilities generate after all financing costs, construction costs and operations and maintenance obligations are met?

How much surplus revenue, if any, will the Phase 2 Plan as a system generate after all financing costs, construction costs and operations and maintenance obligations are met?

- 1. Detail the assumptions underlying the analysis, including the toll rate(s) for each facility, traffic assumptions, interest rates, construction costs and growth assumptions.

Task 4 – If the Phase 2 Toll Plan is not implemented, what are the alternatives? What are best practices from other cities to finance and implement infrastructure? Why and how are they different?

- 1. How does the TxDOT/CTRMA Phase 2 Toll Plan differ from the plans submitted to the Texas Transportation Commission in 2004 by the other seven Texas metropolitan areas?
- 2. What approaches are similar metro areas in the United States taking?
- 3. Could the capacity in the Phase 2 Plan be built without tolling using the funding described at <http://www.ctrma.org/ppt/21.htm> ?
 - a. What about the Phase 2 Plan, but excluding Loop 360?

- b. What about the Phase 2 Plan, but for Loop 360 doing only the following:
 - I. building intersection improvements such as overpasses, underpasses or roundabouts to remove stoplights and
 - II. building no extra lanes?
 - c. Describe the options for the CAMPO Transportation Policy Board and the costs and benefits of each scenario.
 - I. What effect would each scenario have on the creation of a sustainable transportation system?
 - II. What is the overall sustainability of the region's transportation network? Include in this analysis the future costs of local governments building new lane miles as well as maintaining current and future transportation systems? How will the liability be bonded? Can it be sustained?
4. What alternative financing and traffic management models exist to build this system?
- a. Analyze options including, but not limited to:
 - I. A mixture of non-tolled lanes and high occupancy toll lanes.
 - II. A mixture of non-tolled lanes and managed lanes.
 - III. A mixture of non-tolled lanes and managed lanes with congestion pricing.
 - IV. Shadow toll support.
 - V. Local option gas tax.
 - b. Analyze each of these above options under two scenarios:
 - I. 1ST SCENARIO: TxDOT pays for the operation and maintenance of the entire highway through the region's distribution of gas tax revenue, and the revenues from the managed lanes stay in the Austin area.
 - II. 2ND SCENARIO: Any revenues realized from the managed lanes are required to be dedicated first to operations and maintenance.
5. What are the long-term impacts to the CAMPO 2030 Plan of not utilizing the tolling and system financing options analyzed in Number 4?
6. How could the strategies analyzed in Number 4 be used to first build the Phase 2 system and then expedite the improvements to Interstate 35 prepared for CAMPO? As part of your analysis, also include consideration of tolling all freight trucks (such as 18-wheelers).

Task 5 – Confirm the funds available for the Phase 2 Toll Plan projects in both tolled and non-tolled scenarios including the following.

1. That TxDOT/CTRMA will fund the right-of-way and utility relocation costs for tolled projects in lieu of the City of Austin and other local entities and the dollar amounts for each.
2. Identify the effect, if any, on projected toll rates and financing needs if TxDOT/CTRMA must borrow additional funds to pay for right-of-way and utility relocation costs in lieu of the City of Austin and other local entities contributing these funds.

Task 6 – Utilizing the information and analysis in Tasks 1 through 6, determine the following.

1. Which model and scenario in Task 4.4 does the most to reduce traffic congestion?
2. Which model and scenario in Task 4.4 has the best cost/benefit to Central Texas residents?
3. What is the cost-benefit to Central Texas drivers of the Phase 2 Toll Plan?
 - a. By tolling US 183, SH 71 and US 290W and thereby assuming the operation and maintenance costs for these highways and receiving access to toll revenues, will Central Texas residents realize a net gain or loss in total transportation funding, in the costs of mobility and congestion, and in new or additional facilities?

This analysis should be performed from the perspective of tolling's impact on Central Texas local governments and Central Texas drivers - not from the perspective of the Toll Plan's impact on the TxDOT budget. This analysis should also assess the ramifications and impact of the Phase 2 Toll Plan on Central Texas local governments, and in particular the ramifications of any loss of State highway funding and transfer of operations obligations to Central Texas local governments and residents.

- b. How does the Phase 2 Toll Plan compare with the preferred options in Task 7.1 and 7.2 above?

Exhibit

Background

The Central Texas region has experienced tremendous growth over the last twenty years. During that same time, local governments and TxDOT did not build adequate transportation infrastructure to keep pace with the increases in traffic. This is evidenced by the fact that the City of Austin has been voted the most congested city for its size in the United States for three years in a row.

Over the next twenty years, the Central Texas region, as defined by the Capital Area Metropolitan Planning Organization (CAMPO), will double in population. The draft 2030 CAMPO Transportation Plan has identified \$18.0 billion dollars in transportation infrastructure (roads, buses, rail) to both catch up and address the future growth.

In 2001, the CAMPO area in partnership with the Texas Turnpike Authority (a division of TxDOT) embarked on a \$2.2 billion toll road program called the Central Texas Turnpike Project (CTTP). With local general obligation bond support for right of way, the State now has 72 miles of turnpike under development, including SH 130, Loop 1 North, SH 45 North, and SH 45 Southeast. The Phase I turnpikes, owned and operated by TxDOT, will be open to traffic in late 2007.

In April of 2004, the Central Texas Regional Mobility Authority (CTRMA) and TxDOT presented a proposed Phase 2 Toll Plan. This Plan was prepared with direction from the Texas Transportation Commission regarding toll road development in the eight urban areas of Texas; the availability of additional funding for toll roads from the Texas Mobility Fund; and, a level commitment of construction dollars from TxDOT Administration for the Austin District.

The Phase 2 plan included finishing construction of two major corridors: US 183 from IH 35 to SH 71, and SH 71 (Ben White Blvd.) from east of IH 35 to Austin Bergstrom International Airport. Both of these projects have been in the regional plans and under development and construction since the late 1970's; however, lack of funding and local political support slowed completion of these projects.

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- If all of the available TxDOT revenues forecasted for the next 10-15 years were used to complete only SH 71 and US 183, there would be no way to fund and complete the other major projects in the CAMPO 2030 plan.

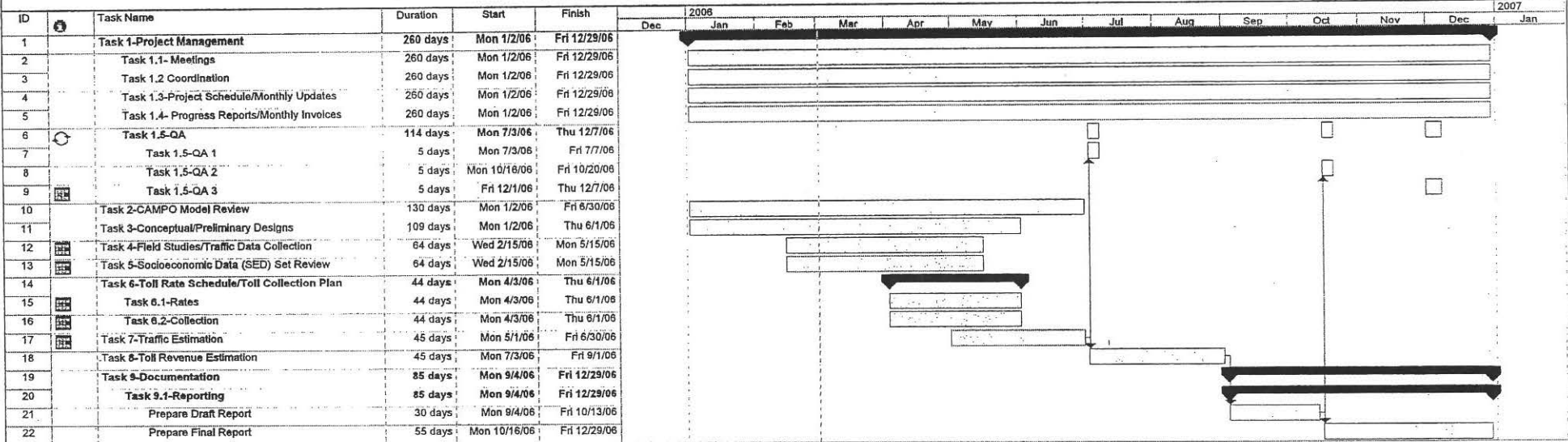
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A number of the Peer Review recommendations were addressed by CAMPO. However, the Phase 2 Toll Plan continues to point out several deficiencies, including the travel demand model and toll road forecasts; adequate funding; and, a real regional implementation program. While the Phase 2 Toll Plan outlined a specific plan of action, it did not clearly outline the funding and implementation alternatives or the next steps that CAMPO would take to complete the remainder of the road and transit projects in the long-range plan.

The haste with which the State implemented the allocation of the Texas Mobility Fund deprived the community an opportunity to digest the major shift in highway funding. This lack of public discussion on alternatives and the absence of a comparable analysis (with other Texas cities, etc.) raised doubts about the validity of the proposal. These omissions, coupled with the lack of a clear presentation regarding the role of the Phase 2 Toll Plan in the larger implementation of the CAMPO plan, necessitate an independent review and analysis of not only the Phase 2 Toll Plan, but also of analyzing the Plan in the context of CAMPO's long-range implementation strategies.

Phase 2 Corridors-WA #3 Project Schedule



Project: Phase 2-WA #3- 3.2.06.mpp

Task		Progress		Summary		External Tasks		Deadline	
Split		Milestone		Project Summary		External Milestone			

Attachment C - Fee Summary
 URS Work Authorization #3
 Phase II Toll - Sketch Level T&R

9 Month
 Schedule

TASK	Total Labor Hours	Total Labor Cost
Task 1 Project Management	586	\$60,648.03
Task 2 CAMPO Regional Travel Model	168	\$16,287.26
Task 3 Conceptual / Preliminary Designs	68	\$4,286.82
Task 4 Traffic Data Collection	92	\$8,087.39
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Task 9 Documentation	508	\$40,951.41
Total Hours & Labor	2090	\$184,608.24
Total Labor (Rounded)		\$184,600.00
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Air travel (0 trips @ \$600)		\$0
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Lodging (0 nights @ \$175)		\$0
Meals (0 days @ \$90)		\$0
Rental vehicle (0 days @ \$75)		\$0
Gasoline (8 days@\$25)		\$200
Postage		\$25
Color Copies (25 @ \$1.40 ea)		\$35
Copying		\$50
Tech Memos (X copiesx\$30/ea)		\$0
Report (2x25copies@\$40/ea)		\$2,000
Engineering/Graphic Plots		\$50
Courier		\$50
Presentation Boards (5@\$300/ea)		\$1,500
Expense subtotal		\$3,910
Total Expenses (Rounded)		\$3,900.00
TOTAL URS COSTS		\$188,500.00
SUB-CONTRACTOR COSTS		
GRAM Traffic		\$11,500.00
TOTAL URS PHASE 2 T&R COSTS		\$200,000.00

WORK AUTHORIZATION

URS

WORK AUTHORIZATION NO. 3

This Work Authorization is made as of this 31st day of January, 2006, under the terms and conditions established in the AGREEMENT FOR TRAFFIC AND REVENUE ENGINEERING SERVICES, dated as of October 1, 2005 (the "Agreement"), between the Central Texas Regional Mobility Authority ("Authority") and URS ("Consultants"). This Work Authorization is made for the following purpose, consistent with the services defined in the Agreement:

Austin Area Phase II Toll Facilities sketch level traffic and toll revenue engineering services

Section A. - Scope of Services

A.1. Consultant shall perform the following Services:

Refer to Attachment A – Scope of Work

A.2. The following Services are not included in this Work Authorization, but shall be provided as Additional Services if authorized or confirmed in writing by the Authority.

N/A

A.3. In conjunction with the performance of the foregoing Services, Consultant shall provide the following submittals/deliverables (Documents) to the Authority:

Refer to Attachment A – Scope of Work

Section B. - Schedule

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

Services under this Work Authorization are expected to be substantially complete within nine (9) months from the date this Work Authorization becomes effective and based on Attachment B. This Work Authorization will not expire until all tasks associated with the Scope of Services are complete.

Section C. - Compensation

C.1. In return for the performance of the foregoing obligations, the Authority shall pay to Consultant the amount not to exceed \$ 200,000.00, based on actual hourly rates as estimated by the attached fee estimate (Attachment C). Compensation shall be in accordance with the Agreement.

C.2. Compensation for Additional Services (if any) shall be paid by the Authority to Consultant according to the terms of a future Work Authorization.

Section D. - Authority's Responsibilities

The Authority shall perform and/or provide the following in a timely manner so as not to delay the Services of the Consultant. Unless otherwise provided in this Work Authorization, the Authority shall bear all costs incident to compliance with the following:

N/A

Section E. - Other Provisions

The parties agree to the following provisions with respect to this specific Work Authorization:

N/A

Except to the extent expressly modified herein, all terms and conditions of the Agreement shall continue in full force and effect.

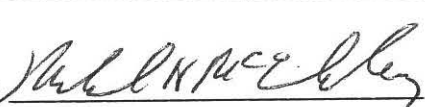
Authority: Central Texas Regional Mobility
Authority

Consultant: URS

By: Robert E. Tesch

By: Michael H. McCloskey

Signature: 

Signature: 

Title: Board Chairman

Title: Vice President

Date: 04.26.06

Date: 12/4/2006

ATTACHMENT A – SCOPE OF SERVICES
Work Authorization #3
URS CORPORATION

AUSTIN-AREA PHASE 2 TOLL FACILITIES
“SKETCH LEVEL” FEASIBILITY
TRAFFIC AND TOLL REVENUE ENGINEERING SERVICES

The Traffic and Revenue Engineering Services described herein are to be provided by URS Corporation (URS) to the Central Texas Regional Mobility Authority (CTRMA) to prepare a “Sketch Level” Feasibility Traffic and Toll Revenue Study for the following projects:

1. US 183E from IH 35 to SH 71
2. SH 71E (Ben White Boulevard) from east of IH 35 to the Airport
3. US 290W from East of William Cannon to FM 1826
4. US 290W / SH 71W “The Y Interchange” in Oak Hill
5. Loop 360 Expansion from SH 71 to US 183

URS understands that the Phase 2 T & R Study results will be incorporated into the “Mobility Alternative Finance Study,” with the oversight of a “Steering Committee,” and being performed in part, by Charles River Associates (CRA).

URS will coordinate this study with the US 290E Investment Grade study to take advantage of sharing information between the two URS studies being performed for the CTRMA. Recognizing, however, that URS will perform tasks specific to this Preliminary T & R Study as outlined in this scope of services.

SCOPE OF SERVICES

This Scope of Services is organized into nine principal tasks that encompass this preliminary T & R study and documentation, and as it relates to coordination with the “Mobility Alternative Finance Study,” Scope of Work, November 9, 2005. (Refer to Exhibit 1 attached.) URS will perform the following tasks referenced in the Mobility Study Scope of Work plus the tasks described herein to complete a preliminary T&R study for each corridor:

- Review CAMPO Model, especially as it relates to managed lanes and toll facilities with parallel frontage roads.
- Determine usage level assumptions can be made on data currently available and based on traffic and revenue analysis conducted by URS.

URS will analyze each proposed toll facility project at a level of detail sufficient to estimate traffic and toll revenue for opening year and interim future years to year 2030.

The following tasks are included in this scope of services:

- Task 1 – Project Management
- Task 2 – CAMPO Model Review
- Task 3 – Conceptual / Preliminary Designs
- Task 4 – Field Surveys / Traffic Data Collection
- Task 5 – Socioeconomic Data (SED) Set
- Task 6 – Toll Rate Schedule/Toll Collection Plan
- Task 7 – Traffic Estimation
- Task 8 – Toll Revenue Estimation
- Task 9 – Documentation

EXHIBIT 1

MOBILITY ALTERNATIVE FINANCE STUDY

Scope of Work

November 9, 2005

- Task 1 - Will the Phase 2 Toll Plan cover its costs and produce surplus revenues that could be used to fund additions to the system approved by CAMPO?**
1. Review the CAMPO model, especially as it relates to managed lanes and toll facilities with parallel frontage roads, as follows:
 - a. The model data sets
 - b. The model toll forecasting compatibility
 - c. The model toll forecasting accuracy
 2. In light of this review, analyze the following:
 - a. What usage level assumptions can be made on data currently available and based on the Traffic and Revenue analysis conducted by URS?
 - b. What cities and road comparisons exist to compare the proposed facilities and system and the usage/toll rates on existing managed lanes and /or toll facilities with parallel free frontage roads?
 - c. How do tolls at these prices affect the projections in the toll feasibility studies?
 - d. Based on what other toll agencies have done, what is a reasonable range of toll rates?
 - e. How do the toll rates for the roads in the Phase 2 Plan compare to the toll rates for urban toll roads in cities across the U.S.?
 - f. In the planning process, when and how are toll rates normally analyzed and then set?
 3.
 - a. How does the CAMPO area's percentage of highway lane miles scheduled to be tolled compare to the rate of tolling in other American metropolitan areas?
 - b. What are the projected number of lane miles and projected percentage of tolled lanes in the comparison cities?

- c. What is the current and projected congestion index in those cities?
- d. What are the factors in the comparison cities (if any) that may impact this analysis (i.e. history of aggressively pursuing mobility plans and construction, state investment, high levels of public transit, addition of lane miles compared to addition of vehicle miles).

Task 2 - Will each Phase 2 Plan toll facility generate sufficient revenue to cover its costs of bond financing, extra construction costs as a toll facility and operations and maintenance costs?

Will the Phase 2 Plan toll facilities generate sufficient revenue as a system to cover the costs of bond financing, extra construction costs as toll facilities and operations and maintenance costs?"

1. Detail the assumptions underlying the analysis.

Task 3 - How much surplus revenue, if any, will each of the Phase 2 Plan toll facilities generate after all financing costs, construction costs and operations and maintenance obligations are met?

How much surplus revenue, if any, will the Phase 2 Plan as a system generate after all financing costs, construction costs and operations and maintenance obligations are met?

1. Detail the assumptions underlying the analysis, including the toll rate(s) for each facility, traffic assumptions, interest rates, construction costs and growth assumptions.

Task 4 - If the Phase 2 Toll Plan is not implemented, what are the alternatives? What are best practices from other cities to finance and implement infrastructure? Why and how are they different?

1. How does the TxDOT/CTRMA Phase 2 Toll Plan differ from the plans submitted to the Texas Transportation Commission in 2004 by the other seven Texas metropolitan areas?
2. What approaches are similar metro areas in the United States taking?
3. Could the capacity in the Phase 2 Plan be built without tolling using the funding described at <http://www.ctrma.org/ppt/21.htm> ?
 - a. What about the Phase 2 Plan, but excluding Loop 360?

- b. What about the Phase 2 Plan, but for Loop 360 doing only the following:
 - I. building intersection improvements such as overpasses, underpasses or roundabouts to remove stoplights and
 - II. building no extra lanes?
 - c. Describe the options for the CAMPO Transportation Policy Board and the costs and benefits of each scenario.
 - I. What effect would each scenario have on the creation of a sustainable transportation system?
 - II. What is the overall sustainability of the region's transportation network? Include in this analysis the future costs of local governments building new lane miles as well as maintaining current and future transportation systems? How will the liability be bonded? Can it be sustained?
4. What alternative financing and traffic management models exist to build this system?
- a. Analyze options including, but not limited to:
 - I. A mixture of non-tolled lanes and high occupancy toll lanes.
 - II. A mixture of non-tolled lanes and managed lanes.
 - III. A mixture of non-tolled lanes and managed lanes with congestion pricing.
 - IV. Shadow toll support.
 - V. Local option gas tax.
 - b. Analyze each of these above options under two scenarios:
 - I. 1ST SCENARIO: TxDOT pays for the operation and maintenance of the entire highway through the region's distribution of gas tax revenue, and the revenues from the managed lanes stay in the Austin area.
 - II. 2ND SCENARIO: Any revenues realized from the managed lanes are required to be dedicated first to operations and maintenance.
5. What are the long-term impacts to the CAMPO 2030 Plan of not utilizing the tolling and system financing options analyzed in Number 4?
6. How could the strategies analyzed in Number 4 be used to first build the Phase 2 system and then expedite the improvements to Interstate 35 prepared for CAMPO? As part of your analysis, also include consideration of tolling all freight trucks (such as 18-wheelers).

Task 5 – Confirm the funds available for the Phase 2 Toll Plan projects in both tolled and non-tolled scenarios including the following.

1. That TxDOT/CTRMA will fund the right-of-way and utility relocation costs for tolled projects in lieu of the City of Austin and other local entities and the dollar amounts for each.
2. Identify the effect, if any, on projected toll rates and financing needs if TxDOT/CTRMA must borrow additional funds to pay for right-of-way and utility relocation costs in lieu of the City of Austin and other local entities contributing these funds.

Task 6 – Utilizing the information and analysis in Tasks 1 through 6, determine the following.

1. Which model and scenario in Task 4.4 does the most to reduce traffic congestion?
2. Which model and scenario in Task 4.4 has the best cost/benefit to Central Texas residents?
3. What is the cost-benefit to Central Texas drivers of the Phase 2 Toll Plan?
 - a. By tolling US 183, SH 71 and US 290W and thereby assuming the operation and maintenance costs for these highways and receiving access to toll revenues, will Central Texas residents realize a net gain or loss in total transportation funding, in the costs of mobility and congestion, and in new or additional facilities?

This analysis should be performed from the perspective of tolling's impact on Central Texas local governments and Central Texas drivers - not from the perspective of the Toll Plan's impact on the TxDOT budget. This analysis should also assess the ramifications and impact of the Phase 2 Toll Plan on Central Texas local governments, and in particular the ramifications of any loss of State highway funding and transfer of operations obligations to Central Texas local governments and residents.

- b. How does the Phase 2 Toll Plan compare with the preferred options in Task 7.1 and 7.2 above?

Exhibit

Background

The Central Texas region has experienced tremendous growth over the last twenty years. During that same time, local governments and TxDOT did not build adequate transportation infrastructure to keep pace with the increases in traffic. This is evidenced by the fact that the City of Austin has been voted the most congested city for its size in the United States for three years in a row.

Over the next twenty years, the Central Texas region, as defined by the Capital Area Metropolitan Planning Organization (CAMPO), will double in population. The draft 2030 CAMPO Transportation Plan has identified \$18.0 billion dollars in transportation infrastructure (roads, buses, rail) to both catch up and address the future growth.

In 2001, the CAMPO area in partnership with the Texas Turnpike Authority (a division of TxDOT) embarked on a \$2.2 billion toll road program called the Central Texas Turnpike Project (CTTP). With local general obligation bond support for right of way, the State now has 72 miles of turnpike under development, including SH 130, Loop 1 North, SH 45 North, and SH 45 Southeast. The Phase I turnpikes, owned and operated by TxDOT, will be open to traffic in late 2007.

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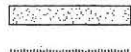
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Phase 2 Corridors-WA #3 Project Schedule

ID	Task Name	Duration	Start	Finish	2006												2007				
					Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan			
1	Task 1-Project Management	260 days	Mon 1/2/06	Fri 12/29/06	[Task bar spanning Dec 2006 to Dec 2006]																
2	Task 1.1- Meetings	260 days	Mon 1/2/06	Fri 12/29/06	[Task bar spanning Dec 2006 to Dec 2006]																
3	Task 1.2 Coordination	260 days	Mon 1/2/06	Fri 12/29/06	[Task bar spanning Dec 2006 to Dec 2006]																
4	Task 1.3-Project Schedule/Monthly Updates	260 days	Mon 1/2/06	Fri 12/29/06	[Task bar spanning Dec 2006 to Dec 2006]																
5	Task 1.4- Progress Reports/Monthly Invoices	260 days	Mon 1/2/06	Fri 12/29/06	[Task bar spanning Dec 2006 to Dec 2006]																
6	Task 1.5-QA	114 days	Mon 7/3/06	Thu 12/7/06	[Task bar spanning Jul 2006 to Dec 2006]																
7	Task 1.5-QA 1	5 days	Mon 7/3/06	Fri 7/7/06	[Task bar spanning Jul 2006 to Jul 2006]																
8	Task 1.5-QA 2	5 days	Mon 10/16/06	Fri 10/20/06	[Task bar spanning Oct 2006 to Oct 2006]																
9	Task 1.5-QA 3	5 days	Fri 12/1/06	Thu 12/7/06	[Task bar spanning Dec 2006 to Dec 2006]																
10	Task 2-CAMPO Model Review	130 days	Mon 1/2/06	Fri 6/30/06	[Task bar spanning Dec 2006 to Jun 2006]																
11	Task 3-Conceptual/Preliminary Designs	109 days	Mon 1/2/06	Thu 6/1/06	[Task bar spanning Dec 2006 to Jun 2006]																
12	Task 4-Field Studies/Traffic Data Collection	64 days	Wed 2/15/06	Mon 5/15/06	[Task bar spanning Feb 2006 to May 2006]																
13	Task 5-Socioeconomic Data (SED) Set Review	64 days	Wed 2/15/06	Mon 5/15/06	[Task bar spanning Feb 2006 to May 2006]																
14	Task 6-Toll Rate Schedule/Toll Collection Plan	44 days	Mon 4/3/06	Thu 6/1/06	[Task bar spanning Apr 2006 to Jun 2006]																
15	Task 6.1-Rates	44 days	Mon 4/3/06	Thu 6/1/06	[Task bar spanning Apr 2006 to Jun 2006]																
16	Task 6.2-Collection	44 days	Mon 4/3/06	Thu 6/1/06	[Task bar spanning Apr 2006 to Jun 2006]																
17	Task 7-Traffic Estimation	45 days	Mon 5/1/06	Fri 6/30/06	[Task bar spanning May 2006 to Jun 2006]																
18	Task 8-Toll Revenue Estimation	45 days	Mon 7/3/06	Fri 9/1/06	[Task bar spanning Jul 2006 to Sep 2006]																
19	Task 9-Documentation	85 days	Mon 9/4/06	Fri 12/29/06	[Task bar spanning Sep 2006 to Dec 2006]																
20	Task 9.1-Reporting	85 days	Mon 9/4/06	Fri 12/29/06	[Task bar spanning Sep 2006 to Dec 2006]																
21	Prepare Draft Report	30 days	Mon 9/4/06	Fri 10/13/06	[Task bar spanning Sep 2006 to Oct 2006]																
22	Prepare Final Report	55 days	Mon 10/16/06	Fri 12/29/06	[Task bar spanning Oct 2006 to Dec 2006]																

Project: Phase 2-WA #3- 3.2.06.mpp

Task
Split



Progress
Milestone



Summary
Project Summary



External Tasks
External Milestone



Deadline



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