

**CITY OF EL PASO, TEXAS
AGENDA ITEM
DEPARTMENT HEAD'S SUMMARY FORM**

DEPARTMENT: Engineering and Construction Management

AGENDA DATE: June 12, 2012

CONTACT PERSON NAME AND PHONE NUMBER: R. Alan Shubert, P.E., City Engineer (X4423)

DISTRICT(S) AFFECTED: 3, 6, 7, and 8

SUBJECT:

That the City Manager be authorized to sign the First Amendment to the Agreement for Professional Services by and between the City of El Paso and Lockwood, Andrews & Newnam, Inc., a Texas Corporation, for a project known as "Alameda Corridor Rapid Transit System (Alameda Corridor RTS)" to add the additional design services, surveys, and relocations of stations in the amount of Two Hundred Eighteen Thousand Nine Hundred Fifty and No/00 Dollars (\$218,950) thereby extending the contract amount from \$1,950,000.00 to \$2,168,950.00

BACKGROUND / DISCUSSION:

In order to complete the Mutual Use Agreement (MUA) with TxDOT, metes and bounds are required for each station on TxDOT right of way. Additional survey is also needed for minor parcel takes to allow for ADA compliance and sight distance requirements. Survey is needed to identify depth and location of utilities. The consultant designed multiple iterations of the station canopy which required additional meetings. Since articulated buses are not able to make the existing sharp right turn at Montana and Piedras, constructing a right turn lane at the Five Points Transfer Center will allow the buses to turn south on Piedras. The traffic signal at Tularosa and Pieras will be modified to accommodate the RTS vehicles exiting the transfer center. Design plans for RTS stations at Reynolds will be included as part of the TxDOT reconstruction of Alameda. Relocation of RTS station will eliminate the need to acquire ROW at that location.

PRIOR COUNCIL ACTION:

May 10, 2011 award of Agreement for Professional Services

AMOUNT AND SOURCE OF FUNDING:

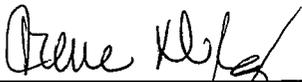
2009 Certificates of Obligation

BOARD / COMMISSION ACTION:

N/A

*****REQUIRED AUTHORIZATION*****

DEPARTMENT HEAD:



(If Department Head Summary Form is initiated by Purchasing, client department should sign also)
Information copy to appropriate Deputy City Manager

RESOLUTION

BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF EL PASO:

That the City Manager be authorized to sign the First Amendment to the Agreement for Professional Services by and between the City of El Paso and Lockwood, Andrews & Newnam, Inc., a Texas Corporation, for a project known as "Alameda Corridor Rapid Transit System" to add the additional design services, surveys, and relocation of stations in the amount of Two Hundred Eighteen Thousand Nine Hundred Fifty and No/00 Dollars (\$218,950) thereby extending the contract amount from \$1,950,000 to \$2,168,950.

ADOPTED THIS _____ DAY OF _____ 2012.

CITY OF EL PASO:

John F. Cook,
Mayor

ATTEST:

Richarda Duffy Momsen,
City Clerk

APPROVED AS TO FORM:



Cynthia Osborn
Assistant City Attorney

APPROVED AS TO CONTENT


for _____
R. Alan Shubert, P.E.
City Engineer

THE STATE OF TEXAS)
)
COUNTY OF EL PASO)

FIRST AMENDMENT
AGREEMENT
FOR PROFESSIONAL SERVICES

This First Amendment to that certain Agreement for Professional Services is made this _____ day of _____, 2012, by and between the City of El Paso, a Texas municipal corporation (the "*Owner*"), and Lockwood, Andrews & Newnam, Inc., (the "*Consultant*").

WHEREAS, on May 10, 2011, the Owner entered into an Agreement for Professional Services with the Consultant (the "*Agreement*") for a Project known as "**ALAMEDA CORRIDOR RAPID TRANSIT SYSTEM (ALAMEDA RTS)**" (the "*Project*"); and

WHEREAS, the Agreement may be amended under the provisions of Section 3.2 and Attachment "C"; and

WHEREAS, the parties hereto desire to amend the Agreement to provide additional design services and surveys, including the design of the stations at University Medical Center for incorporation into TxDOT's project for the reconstruction of Alameda, the design of alternative station platforms, the design for the relocation of other stations, the design of a right turn lane at the Five Points Transfer Center, the design for modifications to the traffic signal at Tularosa and Piedras, additional metes and bounds surveys for the TxDOT Multi Use Agreement and for property which may need to be acquired, and survey of potholes for utility agencies, at an additional cost of \$218,950.00, thereby extending the contract amount from \$1,950,000.00 to \$2,168,950.00.

NOW THEREFORE, in consideration of the mutual promises set forth in this First Amendment and for other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the parties hereto agree as follows:

1. **Scope of Services.** The Owner hereby authorizes the Consultant to continue to perform the Services as described in Attachment "A" of the Agreement as well as perform the additional services as further described in Attachment "A" to this First Amendment.
2. **Payments to Consultant.** Payments to the Consultant shall be made pursuant to the schedule enumerated within Attachment "D" of the original agreement. Payment to the Consultant for the additional services the subject of this First Amendment shall not exceed TWO HUNDRED EIGHTEEN THOUSAND NINE HUNDRED FIFTY AND 00/100 DOLLARS (\$218,950.00).
3. **Time of Completion.** The additional services shall be completed within the project schedule as set forth in the Agreement, following the Owner's written Notice to Proceed to the Consultant.
4. **Terms and Conditions.** All terms and conditions of the Agreement and all subsequent Amendments thereto, except as herein revised, shall remain in full force and effect.

(Signature page to follow)

WITNESS THE FOLLOWING SIGNATURES AND SEALS:

THE CITY OF EL PASO

Joyce Wilson
City Manager

CONSULTANT

Lockwood, Andrews & Newnam, Inc.

By: 

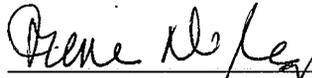
By: Michael A. Feeney, P.E., EITC,
Title: Associate

APPROVED AS TO FORM:



Cynthia Osborn
Assistant City Attorney

APPROVED AS TO CONTENT:



for R. Alan Shubert, P.E.
City Engineer

Attachment A

Supplemental No. 1 Part A Revision to Original Scope of Services

Project: Alameda Corridor Rapid Transit System (RTS)
Owner: City of El Paso, Texas
Engineer: Lockwood, Andrews & Newnam, Inc.

General Description:

The project consists of the development of the City of El Paso Rapid Transit System (RTS) Corridor in El Paso, Texas. The Alameda RTS Corridor originates at the Downtown Transit Center (DTC), traveling to the Mission Valley Transit Center as generally described in the Project Scope – Attachment A of the Prime Agreement for professional services between the Owner and the Engineer.

The purpose of this supplemental is to amend the original contract to adjust the scope of services and fee related to the anticipated changes required to accommodate requests of the owner.

Generally, the additional services include:

Revision to original Contract

- Relocation of the RTS Platforms at the intersection of IB Vocational
- Developing exhibits and recommending station locations and ROW needs. Multiple iterations of adjusting the station location.
- Developing alternative station platforms, where width, length or height vary from prototypes
- Develop utility exhibits for relocated platforms.
- Develop roadway improvements at both IB and OB Carolina to improve pedestrian access. May need to limit cross-walk locations. Improvements are limited to minor street curb return improvements.
- Develop Metes and Bounds for TxDOT Multi Use Agreement
- Develop Metes and Bounds for Parcel Takes
- Survey Potholes for Utility Agencies (City to manage SUE operations)

The following are the additional services associated with this supplemental to be provided by the Design Team:

1.1 Project Management

General

Coordinate with sub-contractors associated with additional work to include scope and contract development along with additional effort associated with contract negotiations.

1.1.02 Schedule Control

1.1.02.1 Baseline Schedule

1. Due to changes in the Alameda Schedule as a result of changes to Station Locations, LAN will review and develop updated schedule (2 additional updates).

1.1.06 Design Reviews

1. Preliminary Design Review for IB Vocational as this station will have to be updated for future submittals.
2. Design reviews for multiple (16) station configurations as each station will be modified to fit the parkway condition (Civil and Structural).

1.1.09 Design Analysis

1. Design analysis for IB Vocational as this station is being relocated.
2. Development of analysis for (16) station platform configurations (civil and structural).

1.2 Investigation

1.2.02 Soils Investigation

1. Geotechnical investigation at IB Vocational due to shifting of platforms.

1.2.04 Surveys

1. Develop Metes and Bounds for 22 locations for TxDOT Multi Use Agreement.
2. Develop Metes and Bounds for 10 parcel takes
3. Additional Survey at IB Vocational (250' additional topo to the west)
4. Survey Potholes for Alameda Utilities etc. (Assume 40 separate setups).

1.3 Geometric Planning

1.3.02 Civil –In-Line Station Sites

1. Develop a maximum of 16 platform configurations.

1.4 Utility & Drainage

1.4.01 Drainage –In-Line Station Sites

1. Preliminary Plan Layout update for IB Vocational.
2. Identification of impacts to existing drainage system at the above locations.

1.4.03 Utility Coordination

1. Evaluate and Review record drawings produced by utility companies for updated station locations.
2. Prepare existing utility Layouts for these updated locations and review survey information at this location.
3. Coordinate with Utility agencies for this new location.

1.5 Stations Architecture

1.5.01 Station Planning/Architecture-In-Line Station Sites

1. No additional effort associated with this effort as long as Mesa canopy designs are utilized.

1.6 Stations MEP & Foundation /Structural

1.6.01 Station Structural

1. No additional cost associated with Structural design as the design concepts from Mesa will be utilized.

Pre-Final Design Phase

2.1 Project Management

2.1.06 Design Reviews

1. Pre-Final Design Reviews for multiple (16) station configurations as each station will be modified to fit the parkway condition.

2.1.09 Design Analysis

1. Development of analysis for (16) station platform configurations.

2.1.11 Cost Estimates

1. Additional cost estimating related to increase in scope as it relates to Civil platform design, and structural platform design.

2.3 Traffic Signals and Lane Configuration

1. Update signage due to shifting of stations

2.4 Civil/Drainage Design

1. Develop 16 platform configurations instead of one prototypical.

2.5 Stations Architecture

2.5.01 Station Planning/Architecture-In-Line Station Sites

No changes to Architecture plans per Mesa Configuration

2.6 Stations MEP & Foundation /Structural

2.6.01 Station Structural

1. Foundation Design will be required for 16 platform configurations.

3.0 Final Design Phase

3.1 Project Management

3.1.06 Design Reviews

- 1 Final design reviews for multiple (16) station configurations as each station will be modified to fit the parkway condition.

3.1.09 Design Analysis

1. Development of analysis for (16) station platform configurations.

3.1.11 Cost Estimates

1. Additional cost estimating related to increase in scope as it relates to non-prototypical design; civil platform design, and structural platform design.

3.3 Traffic Signals and Lane Configuration

1. Adjust Signing due to station location changes

3.4 Civil/Drainage Design

- 1 Develop 16 platform configurations instead of one prototypical.

3.6 Stations MEP & Foundation /Structural

3.6.01 Station Structural

1. Concrete foundation design will be required for 16 platform configurations.

5.0 Project Schedule

Pre-Final Design Phase – Schedule remains same – no days added.

Final Design Phase – Schedule remains same – no days added.

Schedule Assumptions:

- 1 Three (3) Week City/TxDOT Review
- 2 Pavement Design provided by City.
- 3 Limits of sidewalk, landscaping and illumination to be culminated by March 26, 2012 along with Station locations.
- 4 No changes to station locations over 30 feet in any direction.
- 5 Details and construction for Public Art elements will be executed under separate contract.

NOT INCLUDED IN SUPPLEMENTAL

- Development of plans for Buena Vista in Microstation for TxDOT-let project or change Order.
- Driveway Profiles
- Review of parcel takes and maintenance documents (Metes and Bounds). The City will review.
- Exhibits or Analysis for Adjacent Property Traffic Circulation
- Structural Analysis of Permanent Shoring or Temporary shoring for Existing Buildings. Contractor will be required to develop Shoring adjacent to Existing

Buildings. Review of contractor calculations to be additional services and not part of this scope.

- Structural Analysis due to Art elements. Art sculptures to be incorporated in landscaped areas.
- Canopy sizes to be the same as Mesa project. No additional sizes will be designed.
- Coordination between SUE provider and surveyor.
- Construction staking or ROW delineation, beyond setting corners during the metes and bounds process for each station location.
- Driveway, sidewalk or construction easement Exhibits; shown in plans only.
- Special structural loading on existing utilities that may remain under the platform.
- Utility coordination and follow-up after Bid documents are submitted.
- The accuracy of the proposed utilities design or construction will not be the responsibility of LAN. It will be the responsibility of each agency to ensure that the adjustments are clear of the proposed design.
- Parking mitigation, including any ADA spaces.
- Existing regular bus route and/or station impacts and mitigation during temporary or permanent conditions.
- Solar Lighting.
- Wayfinding along corridor or at stations.
- Shop drawings for artwork, including shade panels, will be reviewed by others during construction.
- Survey for driveway penetrations.

Phase / Firm	LAN	SSW	LTK	CDA	Mci	FXSA	Totals
PE Phase	117,155				24,392		\$ 141,547
Pre Final	14,540						\$ 14,540
Final Design	6,161						\$ 6,161
<i>Subtotal LS</i>	<i>137,856</i>	-	-	-	<i>24,392</i>	-	\$ <i>162,248</i>
Bid & Construction	-						\$ -
<i>Total Fee</i>	<i>137,856</i>	-	-	-	<i>24,392</i>	-	\$ <i>162,248</i>
<i>Less \$50,000 for previously-budgeted survey</i>	<i>87,856</i>				<i>24,392</i>		\$ <i>112,248</i>

City of El Paso
 Sun Metro Alameda RTS
 Price Proposal for Design Services
 LAN

OH	180.630%
Fee	15.680%
Bidding Multiplier	3.23

		Price	Labor Price	Total Hours	Raw Rate	Billable Rate	Project Manager	Design Manager	Eng / Prof	Jr Eng / Jr Prof	Tech / CADD	Admin	Structural Eng	Structural Engineer	Clerical	Electrical Eng	Quality Control	Designer (EIT)	Direct Expenses	TOTAL Subcontracted Cost		
					\$72.25	\$233	\$60.00	\$194	\$48.00	\$155	\$39.00	\$128	\$31.20	\$101	\$74	\$62.50	\$30.00	\$16.00	\$55.00	\$57.50	\$30.50	
Traffic Signal Fiber Communication	LTK	\$0	\$0	0																		
Cost Estimates	LTK	\$0	\$0	0																		
Specifications	LTK	\$0	\$0	0																		
		\$0	\$0	0																		
4.0 Bidding / Construction Phase		\$6,161	\$6,161	8											10	12	0	4	4	12	\$ -	\$0
4.1 Bidding Assistance																						
Attend Pre-Bid Conference	ALL	\$0	\$0	0																		
Respond to quotes from prospective bidders	ALL	\$0	\$0	0																		
Contract Documents Revision	ALL	\$0	\$0	0																		
Prepare Addenda	ALL	\$0	\$0	0																		
Evaluate Bids & provide recommendation to the City	LAN	\$0	\$0	0																		
		\$0	\$0	0																		
4.2 Construction Phase Services																						
Review of Shop drawings & submittals (Additional Scope)	ALL	\$0	\$0	0																		
Responses to RFI (Additional Scope)	ALL	\$0	\$0	0																		
Review Shop drawings and Prepare As Builts (Three Additional Canopy Configurations)(Architect)	CDA	\$0	\$0	0																		
Construction Change Orders Review	LAN	\$0	\$0	0																		
Pay Estimate Review	LAN	\$0	\$0	0																		
Commissioning and Start-up of systems (Not in Scope)	LAN	\$0	\$0	0																		
Substantial Completion walk through	ALL	\$0	\$0	0																		
Punch list preparation	ALL	\$0	\$0	0																		
Final Completion walk through	ALL	\$0	\$0	0																		
Prepare "As-Built" drawings	ALL	\$0	\$0	0																		
		\$0	\$0	0																		
Total Estimated Cost		\$137,856	\$17,087	79			2	6	2	1	1	4	18	24	-	10	14	\$28	\$	5,300	\$119,469	

City of El Paso
Alameda Corridor Rapid Transit System (RTS)
Price Proposal for Additional Engineering Services
Supplemental No. 1 Part A
Moreno Cardenas Inc.

Rev 5/23/12

Payroll OH	59%								
G&A OH	123%								
Billing Multiplier	3.23								
Raw Rate		\$65	\$39	\$27	\$19	\$18			
Billable Rate		\$210	\$126	\$87	\$61	\$58			

			Price	Labor Price	Total Hours	Sr Prof	Eng / Prof	Jr Eng / Jr Prof	Tech / CADD	Admin	Direct Expenses	Sub-contract Cost
1.0 Preliminary Design Phase (Additional Services)												
1.1 Project Mangement												
Staff Assignments, Supervision and Administration	ALL		\$0	\$0	0						\$0	
	Subtotal		\$0	\$0	0	0	0	0	0	0	\$0	\$ -
1.2 Investigation												
Site Visit(s)	ALL		\$896	\$854	8		4	4			\$43	
Data Collection	ALL		\$896	\$854	8		4	4			\$43	
	Subtotal		\$1,793	\$1,707	16	0	8	8	0	0	\$85	\$ -
1.4 Utilities												
Utility Information Collection	MCI		\$632	\$601	6		2	4			\$30	
Update Utility Exhibits	MCI		\$4,108	\$3,913	54		6	8	40		\$196	
	Subtotal		\$4,740	\$4,514	60	0	8	12	40	0	\$226	-
1.5 Civil Design												
Revise Drainage Area Maps (7 Stations)	MCI		\$2,295	\$2,186	28		4	8	16		\$109	
Prepare P&P Sheets (7 Stations)	MCI		\$4,516	\$4,301	50	2	8	16	24		\$215	
Prepare Plan Sheet (7 Stations)	MCI		\$2,105	\$2,005	24	2	2	4	16		\$100	
	Subtotal		\$8,916	\$8,492	102	4	14	28	56	0	\$425	\$ -
1.6 SUE and Custom Station Layouts												
SUE Coordination with Engineer and Owner	MCI		\$2,737	\$2,606	30	2	4	8	16		\$130	
Custom Station Layouts (up to 16 Typical)	MCI		\$3,470	\$3,305	38	2	4	16	16		\$165	
P&P/Layout Adjustments for 5 Different Layouts	MCI		\$2,737	\$2,606	30	2	4	8	16		\$130	
	Subtotal		\$8,943	\$8,518	98	6	12	32	48	0	\$426	\$ -
Subtotal Preliminary Design Phase			\$24,392	\$23,231	276	10	42	80	144	0	\$1,162	\$0

Supplemental No. 1 Part B Revisions Not included in Original Scope of Services

Project: Alameda Corridor Rapid Transit System (RTS)
Owner: City of El Paso, Texas
Engineer: Lockwood, Andrews & Newnam, Inc.

General Description:

The project consists of the development of the City of El Paso Rapid Transit System (RTS) Corridor in El Paso, Texas. The Alameda RTS Corridor originates at the Downtown Transit Center (DTC), traveling to the Mission Valley Transit Center as generally described in the Project Scope – Attachment A of the Prime Agreement for professional services between the Owner and the Engineer.

The purpose of this supplemental is to amend the original contract to include new tasks not originally included in the scope of services and fee related this project, as requested by the owner.

Because TxDOT is currently constructing the roadway on Alameda near the UMC, The City of El Paso directed LAN to include plans for incorporation into the TxDOT project such that platform can be constructed with TxDOT's contractor, therefore, minimizing future re work of the area for the construction for the RTS project. This effort will be required for the IB and OB stations at UMC so that standalone construction package for inclusion into the ongoing TxDOT Alameda Phase I Construction Project can be implemented. All drawings prepared for this standalone package will be prepared in Microstation/Geopak format on TxDOT survey control data.

Background:

TxDOT is currently under contract to construct the Alameda Phase 1 Construction Drawings. The Contractor is constructing the Westbound through lanes in phase 1 of the Sequence of Work. In an effort to minimize impacts to the traveling public and minimize the reconstruction of the roadway elements, the City has directed LAN to develop the required plan sheets such that TxDOT can execute a change order for both IB and OB stations.

Due to the limited TxDOT Parkway, the City has coordinated with the appropriate facilities manager at UMC and Thomas Jefferson High School in an effort to obtain an easement for the purpose of constructing the IB/OB UMC RTS station. Preliminary investigation anticipates that the easement for these improvements include a 20' X 105' area beyond the existing TxDOT ROW for the UMC IB. This easement allows for a 9' X 62' Canopy to be placed on an 18' X 85' platform which will better serve the community. Further investigation will be done for the OB UMC Station.

Because the approved TxDOT environmental document does not include the described easement above, TxDOT has required that only a portion of the platform be constructed within the existing TxDOT ROW. As a result, the platform and RTS station will be constructed in a two phase operation. The first phase will include the construction of the platform within the TxDOT ROW and within the current Alameda Phase 1

Construction Project and the second phase will include the remaining platform and Canopy elements within the UMC property/easement and Thomas Jefferson High School during the RTS Alameda project.

TxDOT has required that all drawings be developed in Microstation format, therefore all LAN drawings will need to be converted to this format.

Generally, the new services include:

- Develop School Crossing Flashers related to the adjustments of the existing facilities on the Alameda Corridor (Raynor Location only)
- Develop Right Turn Lane at Five Points Transfer Center.
- Relocation of one station platform to Right Turn Lane
- Modify existing signal at (Piedras/Tularosa)
- Develop smaller Pylon for transit centers.
- Develop 35' Canopy Configuration
- Drainage Analysis along the Right Turn Lane
- Develop OB at UMC for incorporation into TxDOT plans (Two Phase Construction Required).
- Develop IB at UMC for incorporation into TxDOT plans (Two Phase Construction Required)

The following are the additional services associated with this supplemental to be provided by the Design Team:

1.1 Project Management

General

Coordinate with sub-contractors associated with additional work to include scope and contract development along with additional effort associated with contract negotiations.

1.1.02 Schedule Control

1.1.02.1 Baseline Schedule

1.1.06 Design Reviews

1. School Crossing Adjustments along Alameda
2. Geometrics at Five Points
3. Proposed Signal modifications at Tularosa
4. Pylon Design for Transfer Station.
5. Striping plans for Tularosa intersection
6. Drainage features at the Right Turn Lane ; Five Points
7. Demo Sheets at Five Points
8. UMC OB Station for TxDOT Change Order Phase 1
9. UMC IB Station for TxDOT Change Order Phase 1

1.1.09 Design Analysis

1. Signal Adjustments along Alameda
2. Signal Adjustments at Five Points

1.2 Investigation

1.2.02 Soils Investigation

1. Soil Borings at Five Points to be provided by City and CQC to analyze and provide foundation recommendations

1.2.04 Surveys

1. Obtain additional topo on Jefferson High School Property to include existing utilities.
2. Obtain additional topo on UMC property to include existing utilities.
3. Survey to be in Microstation.

1.2.05 Sidewalks

1.3 Geometric Planning

1.3.01 Traffic – Systems

1. School Crossing for Adjustments (Raynor Location Only)
2. Striping and signing Plans for Piedras and Tularosa
3. Signal Design at Piedras and Tularosa

1.3.03 Civil –In-Line Station Sites

1. Develop geometrics for UMC OB station in Microstation
2. Develop geometrics for UMC IB station in Microstation
3. Additional Site visit for UMC IB/OB stations
4. Compute horizontal alignments in Microstation/Geopak format

1.3.04 Civil – Construction Sequence

1.3.05 Civil – Street Geometrics

1. Right Turn Lane at Five Points

1.4 Utility & Drainage

1.4.01 Drainage –In-Line Station Sites

1. Preliminary Plan Layout for Right Turn Lane.
2. Review TxDOT plans and Identify drainage impacts to TxDOT drainage plans regarding OB UMC.
3. Review TxDOT plans and Identify drainage impacts to TxDOT drainage plans regarding IB UMC
4. Update TxDOT drainage plans as needed for the UMC OB station, however no computations included. Only minor updates anticipated.
5. Update TxDOT drainage plans as needed for the UMC IB station, however, no computations included. Only minor updates anticipated.

1.4.03 Utility Coordination

1. Evaluate and Review record drawings produced by utility companies for the Access Road improvements.
2. Coordinate with Utility agencies, as the proposed improvements on TxDOT project (UMC OB only) may require modifications. (Plans to be done by others)
3. Coordinate with Utility agencies on Jefferson High School as required. Adjustments by others.
4. Coordinate with Utility Agencies on UMC property as required. Any adjustments to be done by others.
5. Attend Utility meetings regarding the UMC IB/OB station as these stations will be outside TxDOT ROW.

1.5 Stations Architecture

1.5.01 Station Planning/Architecture-In-Line Station Sites

1. Develop Pylon Concept at smaller magnitude

1.6 Stations MEP & Foundation /Structural

1.6.01 Station Structural

1. Alter Pylon Foundation Design to accommodate smaller pylons
2. Develop two phase platform design and details in Microstation for TxDOT change order UMC OB
3. Develop two phase platform design and details in Microstation for TxDOT change order UMC IB

Pre-Final Design Phase

2.1 Project Management

2.1.06 Design Reviews

1. School Crossing Adjustments
2. Geometrics Five Points
3. Adjustments to Signals at Five Points
4. Pylon Design for Transfer Station
5. Design Review of drainage features
6. Demo Sheets at Five Points
7. UMC OB station platform review for TxDOT change order submittal
8. UMC IB Station platform review for TxDOT change order submittal

2.1.09 Design Analysis

1. Pylon Foundation (smaller unit)

2.1.11 Cost Estimates

1. Signal Design at Five Points

2. Five Points Civil items
3. Demo Sheets
4. UMC OB station for TxDOT Change order submittal
5. UMC IB station for TxDOT Change order submittal

2.3 Geometric Planning

2.3.01 Traffic Signals and Lane Configuration

1. School Crossing for Adjustments (Raynor Location only)
2. Striping and signing Plans for Piedras and Tularosa
3. Signal Design at Piedras and Tularosa

2.3.03 Civil –In-Line Station Sites

2.3.04 Civil – Construction Sequence

2.3.05 Civil – Street Geometrics

1. Right Turn Lane

2.4 Utility & Drainage

2.4.01 Drainage –In-Line Station Sites

1. Plan Layout for Right Turn Lane

2.4.03 Utility Coordination

1. Evaluate and Review record drawings produced by utility companies for the Right Turn Lane improvements
2. Coordinate with TxDOT and Thomas Jefferson High School staff to identify potential conflicts.
3. Coordinate with TxDOT and UMC to identify potential conflicts

2.5 Stations Architecture

2.5.01 Station Planning/Architecture-In-Line Station Sites

1. Develop smaller Pylon for Transit Centers

2.6 Stations MEP & Foundation /Structural

2.6.01 Station Structural

1. Structural design of the Pylon Foundation.
2. UMC OB Station Platform design Phase 1 in Microstation
3. UMC IB Station Platform design Phase 1 in Microstation

2.7 Landscaping and Irrigation

2.7.01 Conduit Sleeves for Irrigation

1. Develop plans for Sleeves related to Irrigation for UMC OB station Phase 1 in Microstation.
2. Develop plans for sleeves related to irrigation for UMC IB station Phase 1 in Microstation.

3.0 Final Design Phase

3.1 Project Management

3.1.06 Design Reviews

1. School Crossing Adjustments
2. Geometrics at Five Points
3. Proposed Signals at Five Points
4. Pylon Design for Transfer Station
5. Design Review of drainage features
6. Demo Sheets at Five Points
7. UMC OB station platform review for TxDOT change order submittal
8. UMC IB station platform review for TxDOT change order submittal

3.1.09 Design Analysis

1. Signal Adjustments
2. Pylon Foundation

3.1.11 Cost Estimates

1. Civil items at Five Points
2. Demo Sheets at Five Points
3. Develop quantities for UMC Change orders

3.3 Geometric Planning

3.3.01 Traffic Signals and Lane Configuration

1. School Crossing for Adjustments (Raynor Only)
2. Striping and signing Plans for Piedras and Tularosa.
3. Signal Design at Piedras and Tularosa

3.3.03 Civil –In-Line Station Sites

3.3.04 Civil – Construction Sequence

3.3.05 Civil – Street Geometrics

1. Right Turn Lane at Five Points

3.4 Utility & Drainage

3.4.01 Drainage –In-Line Station Sites

1. Plan Layout for Right Turn Lane
2. Review TxDOT plans and modify Inlet Location at the curb return UMC IB.
3. Develop geometric design design for curb, bus turnout and platform in Microstation for UMC IB.
4. Update tin file to generate spot shots IB/OB stations
5. Update TxDOT Cross Sections as needed
6. OB UMC Platform in Microstation format

7. IB UMC Platform in Microstation format

3.4.03 Utility Coordination

1. Evaluate and Review record drawings produced by utility companies for the Right Turn Lane improvements
2. Coordinate with Utility agencies within the station at Five Points
3. Coordinate with Thomas Jefferson High School utilities
4. Coordinate with UMC Utilities

3.5 Stations Architecture

3.5.01 Station Planning/Architecture-In-Line Station Sites

1. Develop Pylon for Transit Centers (smaller)
2. Develop interim Pedestrian Lighting Conduit and Ground Box Layouts within the applicable construction limits in Microstation.
3. Develop Interim Communication conduit and Ground Boxes within the applicable construction limits in Microstation format.
4. Develop Interim irrigation lines and ground boxes within the applicable construction limits in Microstation format.

3.6 Stations MEP & Foundation /Structural

3.6.01 Station Structural

1. Structural design of the Pylon Foundation
2. Structural design of the metal structure for Pylon
3. OB UMC platform design in Microstation; Phase 1
4. IB UMC platform design in Microstation ; Phase 1

3.7 Landscaping and Irrigation

3.7.01 Conduit Sleeves for Irrigation

1. Develop plans for Sleeves related to Irrigation for UMC OB station Phase 1 in Microstation.
2. Develop plans for Sleeves related to Irrigation for UMC IB station Phase 1 in Microstation.

5.0 Project Schedule

See Part A

Schedule Assumptions:

1. Three (3) Week City/TxDOT Review
2. Pavement Design approval by August 2012.
3. No changes to station locations over 30 feet in any direction
4. Public Art to be inserted by City into contract documents
5. Details and construction for Public Art elements will be executed under separate contract.

NOT INCLUDED IN SUPPLEMENTAL

- Communications equipment at Five Points (VMS and Security only)
- No Signal Adjustments on Alameda corridor except as described at Five Points.
- Illumination Adjustments along Alameda. City staff to handle.
- Illumination Adjustments at Five Points. City staff to handle.
- Timing Analysis for proposed or existing signals. To be provided by City.
- Traffic Signal Field Books.
- Soil borings at Five Points (City to provide existing boring data)
- Canopy at Five Points
- Landscaping at Five Points
- Pavement Designs. To be supplied by City.
- Public Art to be inserted into plan documents by City (to include plans, estimate and specs)
- Proposed Utility Adjustments for OB UMC to be developed by others as needed.
- Adjustments to TxDOT plans, except for Drainage as noted.
- Coordination between SUE provider and surveyor.
- Construction staking or ROW delineation, beyond setting corners during the metes and bounds process for each station location.
- Driveway, sidewalk or construction easement and documentation exhibits.
- Special structural loading on existing utilities that may remain under the platform.
- Utility coordination and follow up after Bid documents are submitted.
- The accuracy of the proposed utilities design or construction will not be the responsibility of LAN. It will be the responsibility of each agency to ensure that the adjustments are clear of the proposed design.
- Parking mitigation, including any ADA spaces.
- Existing regular bus route and/or station impacts and mitigation during temporary or permanent conditions.
- Solar Lighting.
- Wayfinding along corridor or at stations.
- Shop drawings for artwork, including shade panels, will be reviewed by others during construction.

ITEMS REMOVED FROM ORIGINAL SCOPE

- Shade Analysis
- Station Platform at San Antonio
- Reclaimed Water
- Base Traffic Analysis
- TSP analysis

These items were considered and incorporated as a result of the agreed fee for this supplemental

Phase / Firm	LAN	SSW	LTK	CDA	Mci	FXSA	Totals
PE Phase	12,815				8,765		\$ 21,580
Pre Final	8,099						\$ 8,099
Final Design	18,701				8,322		\$ 27,023
Subtotal LS	39,614	-	-	-	17,087	-	\$ 56,702
Bid & Construction	-						\$ -
Total Fee	39,614	-	-	-	17,087	-	\$ 56,702

City of El Paso
 Sun Metro Alameda RTS
 Design Services for Alameda Supplemental No. 1 Part B; Includes OB UMC Change Order Efforts
 LAN

OH	180.630%
Fee	15.000%
Billing Multiplier	3.23

	ALL	Price	Labor Price	Total Hours	Raw Rate													Direct Expenses	TOTAL Subcontracted Cost
					Project Manager	Design Manager	Eng / Prof	Jr Eng / Jr Prof	Tech / CADD	Admin	Structural Eng	Structural Engineer	Clerical	Electrical Eng	Quality Control	Designer (EIT)			
Prepare "As-Built" drawings		\$0	\$0	0	\$72.25	\$60.00	\$48.00	\$39.00	\$31.20	\$22.88	\$62.50	\$30.00	\$16.00	\$55.00	\$57.50	\$30.50			
					\$233	\$194	\$155	\$126	\$101	\$74	\$202 senior	\$97	\$52	\$177 senior	\$186	\$98			
Total Estimated Cost		\$24,692	\$11,566	127	2	21	19	13	16	-	10	18	12	2	-	\$16.5	-	\$3,450	

City of El Paso
 Sun Metro Mesa BRT
 Design Services UMC Change Order Effort
 LAN

		OH	180.630%															
		Fee	15.000%															
		Billing Multiplier	3.23															
		Raw Rate	\$72.25	\$60.00	\$48.00	\$39.00	\$31.20	\$22.88	\$62.50	\$30.00	\$16.00	\$55.00	\$57.50	\$30.50				
		Billable Rate	\$233	\$194	\$185	\$126	\$101	\$74	\$202 senior	\$87	\$52	\$177 senior	\$186	\$98	Direct	Subcontracted		
1.0	Preliminary Design Phase	Price	Labor Price	Total Hours	Project Manager	Design Manager	Eng / Prof	Jr Eng / Jr Prof	Tech / CADD	Admin	Structural Eng	Structural Engineer	Clerical	Electrical Eng	Quality Control	Designer (EIT)	Expenses	INITIAL
1.1	Project Management																	
	Scoping Meeting - UMC Preliminary Concept Meetings	\$194	\$194	1		1												\$0
	Coordination with Subs to describe Changes and Direction	\$194	\$194	1		1												\$0
	Develop and Manage TxDOT electronic files to LAN Microstation File structure etc.	\$403	\$403	4					4									\$0
	Preliminary Design Development and Review of Concept (Microstation)	\$407	\$407	3			2											\$0
	Staff Assignments and Supervision	\$0	\$0	0									1					\$0
	Monthly Invoicing and Execution of supplementals for Subs	\$0	\$0	0														\$0
		\$1,197	\$1,197	9		2	2		4				1					\$0
1.2	Investigation																	
	UMC Survey within Platform limits to include Microstation files of updated topo and existing utilities on TxDOT control	FXSA	\$1,370	\$0	0													\$0
	Site Visit (3 additional site visits) UMC	\$581	\$581			3												\$1,370
	Review TxDOT plans for identifying impacts to current plans	\$194	\$194	1		1												\$0
		\$2,145	\$775	1		4												\$1,370
1.3	Geometrics Planning																	
	Develop Autoturn in Microstation	\$101	\$101	1						1								\$0
	Coordination with MCI on Plan Development of Geometrics	\$194	\$194	1		1												\$0
		\$0	\$0	0														\$0
		\$294	\$294	2	0	1	0	0	1	0	0	0	0	0	0	0	0	\$0
1.4	Utility & Drainage																	
	Coordinate with FXSA and MCI on Existing Utility Locations on UMC property	\$194	\$194	1		1												\$0
	Review potential conflicts on UMC property	\$194	\$194	1		1												\$0
	Attend up to two Utility Meeting for Utilities on UMC Property	\$194	\$194	1		1												\$0
		\$581	\$581	3		3												\$0
1.6	Stations MEP & Foundation																	
	Coordination of Two Phase Construction of Platform Design	\$791	\$791	4		2					2							\$0
		\$791	\$791	4	0	2	0	0	0	0	2	0	0	0	0	0	0	\$0
		\$5,007	\$3,637	19	0	12	2	0	5	0	2	1	0	0	0	0	0	\$1,370

City of El Paso
Sun Metro Alameda BRT
Price Proposal for Additional Design Services - UMC
MCI

2/21/2012

Payroll OH 59%
 G&A OH 123%
 Fee 15.000%
 Billing Multiplier 3.23

Raw Rate \$65 \$39 \$27 \$19 \$18
 Billable Rate \$210 \$126 \$87 \$61 \$58

			Price	Labor Price	Total Hours	Sr Prof	Eng / Prof	Jr Eng / Jr Prof	Tech / CADD	Admin	Direct Expenses	TOTAL Subcontracted Cost
1.0 Preliminary Design Phase												
1.1 Project Mangement												
Staff Assignments and Supervision	MCI		\$953	\$925	6	2	4				\$28	
			\$953	\$925	6	2	4				\$28	\$0
1.3 Civil-In-Line Station Sites												
1.3.1 Develop Preliminary Geometric Layout in MicroStation	MCI		\$301	\$301	3		1	2				
1.3.2 Conduct Site Visit	MCI		\$0	\$0	0							
1.3.3 MicroStation/Geopak format.	MCI		\$0	\$0	0							
			\$301	\$301	3	0	1	2	0	0	0	\$0
1.4 Utility & Drainage												
1.4.01.1 Preliminary Layout of inlet relocation	MCI		\$306	\$297	4			2	2		\$9	
1.4.01.2 Review TxDOT plans to identify impacts	MCI		\$90	\$87	1			1			\$3	
1.4.03.1 Review record drawings by others (utilities, UMC)	MCI		\$90	\$87	1			1			\$3	
1.4.03.2 Prepare utility layouts for easement area	MCI		\$370	\$359	5			2	3		\$11	
1.4.03.3 Coordinate with utility agencies	MCI		\$180	\$175	2			2			\$5	
			\$1,036	\$1,006	13			8	5		\$30	\$0
			\$2,289	\$2,231	22	2	5	10	5	0	\$58	\$0
3.0 Final Design Phase												
3.1.11.1 Develop quantities for station improvements change order												
3.1.11.2 Develop spreadsheet summary for station improvements	ALL		\$180	\$175	2			2			\$5	
			\$180	\$175	2			2			\$5	
			\$360	\$349	4	0	0	4	0	0	\$10	\$0
3.4 Civil / Drainage Design												
3.4.1 Review TxDOT's Drainage Plans associated with inlet relocation	MCI		\$0	\$0	0			0	0		\$0	
3.4.2 Develop drainage layout for inlet relocation	MCI		\$0	\$0	0			0	0		\$0	
3.4.3 Develop storm sewer profile for inlet relocation	MCI		\$433	\$420	6			2	4		\$13	
3.4.4 Develop geometric design for curb, bus turnout and platform	MCI		\$682	\$420	6			2	4		\$262	
3.4.5 Update tin file and compute spot elevations	MCI		\$243	\$236	3			2	1		\$7	
3.4.6 Update TxDOT cross sections impacted by station improvements	FoA/MCI		\$306	\$297	4			2	2		\$9	
			\$1,665	\$1,374	19	0	0	8	11	0	\$291	\$0
			\$2,025	\$1,724	23	0	0	12	11	0	\$301	\$0
Total Estimated Cost			\$4,314	\$3,955	45	2	5	22	16	-	\$359	