

**MEMORANDUM OF UNDERSTANDING
BETWEEN SAN DIEGO ASSOCIATION OF GOVERNMENTS
AND THE CITY OF CHULA VISTA
REGARDING SOUTH BAY BRT (TOWN CENTER DRIVE TO BIRCH ROAD)**

SANDAG CONTRACT NUMBER 5001151

This Memorandum of Understanding ("MOU") is made and entered into effective as of this ^{19th} day of August 2013, by and between the San Diego Association of Governments ("SANDAG") and the City of Chula Vista ("City") for the purpose of working cooperatively on the South Bay Bus Rapid Transit ("South Bay BRT") project segment from Town Center Drive to Birch Road. Individually, SANDAG and City may be referred to as "Party" and collectively as "Parties."

RECITALS

The following recitals are a substantive part of this MOU:

WHEREAS, SANDAG proposes to construct the South Bay BRT from I-805 along East Palomar Street, over SR-125, around Otay Ranch Town Center to Birch Road, and then south on SR-125 to the Otay Mesa Intermodal Transportation Center in the southwest quadrant of the SR-905 / Siempre Viva Road Interchange, herein after defined as the "Project"; and

WHEREAS, the Project whose implementation is expected to provide Bus Rapid Transit ("BRT") service for those commuting between downtown San Diego and the Otay Mesa Border Crossing is of regional importance to the Metropolitan Transit System (MTS), the Cities of Chula Vista and San Diego, the County of San Diego, SANDAG, and the public; and

WHEREAS, SANDAG will be the lead agency and administer the construction contract in cooperation with City; and

WHEREAS, SANDAG intends to utilize City to provide engineering design services for the Town Center Drive to SR-125/Birch Road segment of Project per the scope of work described in Attachment A, attached hereto and incorporated herein, and for the not-to-exceed amount in Attachment B, attached hereto and incorporated herein; and

WHEREAS, SANDAG intends to construct the Project as part of the South Bay BRT Project, SANDAG project No.1280504; and

WHEREAS, the Parties wish to memorialize their agreement in this MOU to carry out the purposes set forth above.

AGREEMENT

NOW THEREFORE, in consideration of the mutual promises set forth herein, the Parties agree as follows:

1. To coordinate the design and construction of a segment of the South Bay BRT from Town Center Drive to Birch Road per the Scope of Work described in Attachment A for the not-to-exceed amount in Attachment B. To the extent that either party hereto believes that performance of the Scope of Work may exceed such not-to-exceed amount, the parties shall meet and confer regarding whether an amendment to this MOU may be required to either reduce the Scope of Work or increase the not-to-exceed amount.
2. SANDAG will bid the approved plans, award a construction contract and manage the construction of the Project including inspection and changes in accordance with the competitive processes set forth in SANDAG Board Policies and applicable laws. SANDAG may at its discretion bid and construct the Project in a larger construction contract as part of the SANDAG CIP program.
3. City agrees to provide staff support and cooperation with the improvement plan review and approval, including, but not limited to, any staff support or cooperation needed to defend any claims or litigation that may arise with regard to their design.
4. Neither City nor any officer thereof is responsible for any damage or liability occurring by reason of anything done or omitted to be done by SANDAG under or in connection with any work, authority, or jurisdiction delegated to City under this MOU. It is understood and agreed that, pursuant to Government Code Section 895.4, SANDAG shall fully defend, indemnify, and save harmless Chula Vista, all officers and employees from all claims, suits, or actions of every name, kind, and description brought for or on account of injury (as defined in Government Code Section 810.8) occurring by reason of anything done or omitted to be done by SANDAG under or in connection with any work, authority, or jurisdiction delegated to SANDAG under this MOU.
5. Neither SANDAG nor any officer thereof is responsible for any damage or liability occurring by reason of anything done or omitted to be done by City under or in connection with any work, authority, or jurisdiction delegated to SANDAG under this MOU. It is understood and agreed that, pursuant to Government Code Section 895.4, City shall fully defend, indemnify, and save harmless SANDAG, all officers and employees from all claims, suits, or actions of every name, kind, and description brought for or on account of injury (as defined in Government Code Section 810.8) occurring by reason of anything done or omitted to be done by City under or in connection with any work, authority, or jurisdiction delegated to SANDAG under this MOU.
6. That all obligations of SANDAG under the terms of this MOU are subject to the appropriation of the required resources, including funding, by SANDAG and the approval of the SANDAG Board of Directors or Transportation Committee.

8. Any notice required or permitted under this MOU may be personally served on the other Party, by the Party giving notice, or may be served by certified mail, return receipt requested, to the following addresses:

For SANDAG
401 B Street, Suite 800
San Diego, CA 92101
Attn: Bruce Schmith

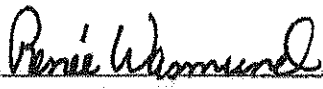
For City of Chula Vista
Public Works Department
276 Fourth Avenue
Chula Vista, CA 91910
Attn: Kirk Ammerman

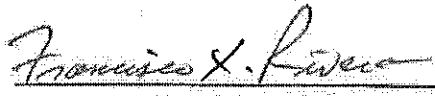
9. That unless it is amended by the Parties in writing, this MOU shall terminate on December 31, 2015, or on such earlier or later date as the Parties may agree to in writing.
10. The indemnification provisions of this MOU shall survive termination of the MOU, but not longer than those provisions required in law with regard to Architectural/Engineering design services rendered under this agreement.
11. This MOU shall be interpreted in accordance with the laws of the State of California. If any action is brought to interpret or enforce any term of this MOU, the action shall be brought in a state or federal court situated in the County of San Diego, State of California.
12. All terms, conditions, and provisions hereof shall inure to and shall bind each of the Parties hereto and each of their respective heirs, executors, administrators, successors, and assigns.
13. For purposes of this MOU, the relationship of the Parties is that of independent entities and not as agents of each other or as joint ventures or partners. The parties shall maintain sole and exclusive control over their personnel, agents, consultants, and operations.
14. No alteration or variation of the terms of this MOU shall be valid unless made in writing and signed by the Parties hereto, and no oral understanding or agreement not incorporated herein shall be binding on any of the Parties hereto.
15. Nothing in the provisions of this MOU is intended to create duties or obligations to or rights in third-parties to this MOU or affect the legal liability of the Parties to this MOU to third-parties.
16. This MOU may be executed in any number of identical counterparts, each of which shall be deemed to be an original, and all of which together shall be deemed to be one and the same instrument when each Party has signed one such counterpart.
17. This Agreement shall be deemed executed on the date on which the last Party signs this MOU.
18. Should any part of this Agreement be rendered or declared invalid by a court of competent jurisdiction of the State of California, such invalidation of such part or portion of this MOU should not invalidate the remaining portions thereof, and they shall remain in full force and effect.

IN WITNESS WHEREOF, the Parties hereto have executed this MOU effective on the day and year first above written.

SAN DIEGO ASSOCIATION OF GOVERNMENTS

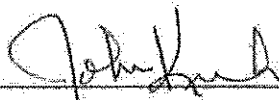
CITY OF CHULA VISTA

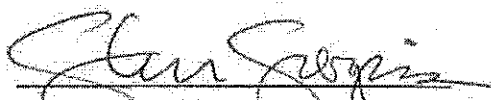

for GARY L. GALLEGOS
Executive Director or designee


for RICHARD A. HOPKINS
Director of Public Works

APPROVED AS TO FORM:

APPROVED AS TO FORM:


JOHN F. KIRK
Office of General Counsel


GLEN R. GOGINS
City Attorney

ATTACHMENT A

South Bay BRT Preliminary and Final PS&E for ORTC Guideway from Town Center Drive to Birch Road (ORTC Station and Lighting Improvements by others)

I. PROJECT DESCRIPTION

This scope of services will advance the design of the South Bay Bus Rapid Transit (SBBRT) corridor through the Preliminary and Final Design stages. This scope specifically provides for development of the Otay Ranch Town Center (ORTC) Guideway segment from Town Center Drive to Birch Road (Station Improvements & Station Lighting by Kimley-Horn). The conceptual design as presented in the SBBRT Environmental Document will provide the basis of design.

II. EXPECTED RESULTS

Develop 40%/95%/Final/Bid-Ready construction and supporting documents (e.g. design studies, plans, opinion of probable construction costs, specifications) for the SBBRT infrastructure within the areas identified above.

III. SCOPE OF WORK

The scope of work shall consist of the following tasks and deliverables to be completed by the City of Chula Vista ("City") in accordance with the terms and conditions of the MOU between City and SANDAG:

1. *Project Management, Coordination & Design Review*

This task will provide for invoicing for this task order, coordination with SANDAG staff, monthly progress reports, attendance at the meetings described below, design coordination and review, and other project management activities for the duration of the design portion of the project (up to 13 months).

1.1. Design Coordination and Review

The City will coordinate design features and methodology with the T.Y. Lin and Kimley-Horn design teams. Coordination will include phone and email correspondence to coordinate station design, intersection equipment, lighting, and water quality.

1.2. PDT Meetings

Attend monthly PDT Meetings at SANDAG.

1.3. Stakeholder Coordination Meetings

Attend stakeholder coordination meetings as follows:

1.3.1. Attend up to 3 site specific stakeholder coordination meetings for each of the four proposed BRT stations.

1.3.2. Attend up to 4 corridor stakeholder coordination meetings for the East Palomar Street reconstruction between Heritage Rd and Oleander Avenue.

1.3.3. Attend up to 3 community meetings.

2. *Supplemental Survey, Surface Updates, and Utility Mapping*

Supplemental topographic surface feature mapping, other visible break lines, and additional cross sections will be collected along the corridor, specifically at intersections as described below. Visible topographic surface features will also be surveyed.

2.1. Centerline Survey of the Guideway

The centerline and right-of-way for the Guideway in this segment will be established from record maps and previous dedications. Horizontal control points along this corridor will be tied in by field survey to correct for grid/ground scale issues and for quality checks.

2.2. Cross sections will be completed at the following locations:

2.2.1. Along the Guideway within the project limits - Roadway sections every 100 feet from R/W to R/W (approximately 100 feet wide) to include utility easements, fencing/walls and toe/top of slope. Two cross street roadway sections will be surveyed every 50 feet from the curb returns for a total of 100 feet.

2.2.2. Intersections surveys including 10' x 10' grids, curb returns, pedestrian ramps and visible poles/utilities at the following locations:

- Town Center Drive
- NE Drwy @ ORTC
- Kestrel Falls Road
- Birch Road

2.2.3. Additional field surveys will be completed at the station location and associated pedestrian connections/crossings.

2.2.4. Survey will include above ground visible utility appurtenances, existing drainage and sewer facilities invert elevations, visible irrigation systems, controllers or handhole boxes and corridor trees.

2.3. Utility Mapping

2.3.1. Utility research will be limited to areas in which physical construction is anticipated. The research will include sending out letters to utilities with an interest in the project study area and receiving as built plans.

2.3.2. Field observation will be performed to record the horizontal locations and descriptions of visible existing utility facilities located within and adjacent to the project's boundaries and prepare an existing utility system report.

2.3.3. Create a log for utility drawings used. The log will include the name of the owner, function of the facility, size, material (as available), date and drawing numbers (as available).

2.3.4. Wet and dry utility locations, sizes, and descriptions will be added to the base mapping and shown on the improvement drawings.

2.3.5. Up to 10 utility potholes will be performed and surveyed to include horizontal and vertical locations of the utilities. The City shall submit and receive approval of a pothole plan before proceeding with potholing. The City will prepare and obtain traffic control and excavation permits to perform potholes.

3. *Conceptual Design Study*

The purpose of this conceptual design study is to evaluate the proposed SBBRT improvements within the Guideway including:

3.1. Coordination with SANDAG and adjacent design consultants to obtain final decisions on the proposed improvements prior to the start of final design.

3.2. Attend the following anticipated meetings:

- SANDAG (up to 4 meetings)
- City of Chula Vista (up to 2 meetings)

3.3. Field Observation

The City will perform up to two site visits that will include:

- Landscape observation
- Street lighting observation
- Slope, fence, and wall observation
- Pavement observation
- Utility observation

3.4. Develop Alternative Cross Sections

Two (2) alternative cross sections for the Guideway. Both alternatives will include a two-way guideway; one with standard lane widths and the other with reduced lane widths to minimize impacts. Cross sections will show existing and proposed R/W width, travel lane widths, existing pavement to be protected in place, landscaped median widths, curb types, bike lane / pedestrian path locations and widths, slopes, retaining walls, water quality locations, and street light locations.

3.5. Concept Development Phase

The City will expand on the alternative cross sections prepared in Task 3.4 to prepare up to two concept plans over aerial photo. The concept plans will evaluate impacts on existing improvements. The concept plans will include:

- Typical Cross sections (up to 3)
- Existing and proposed R/W and easements lines
- Dimensions
- Lane, curb and sidewalk layout
- Landscaping
- Water quality improvements
- Proposed striping
- Limits of pavement removal
- Grading limits
- Intersection pavement treatments
- New traffic signals
- Modification of existing traffic signals
- Pedestrian access points

The City will prepare a technical memorandum for the preferred alternative. The technical memo will outline assumptions, potential issues and solutions for the following:

- Water quality
- Intersection operations
- Street lighting [NOTE: City will use KHA's Photometric Study]
- Landscaping
- ADA Compliance
- Rough order of magnitude, opinion of probable construction cost

4. *Urban Design Advancement*

The City will coordinate with project stakeholders to obtain final decisions on the visual elements of the project prior to the start of final design for those project elements. Final decisions for each element will be documented in a Design MOU or "Basis of Design Report" for use in preparing Final PS&E.

4.1. Landscape and Irrigation Concept Design

4.1.1. Develop a preliminary Landscape Concept for the approved alignment and station site plans. The landscape concept will adhere to the City's and State of California Water Efficient Landscape Regulations and ordinances and California State Building code requirements in effect at the time of MOU execution.

4.1.2. Develop a preliminary Irrigation Concept Plan for the approved alignment and station site plans. The concept plan will look at initial irrigation design feasibility, systems coordination, goals of how water conservation ordinance requirements will be attained, types of irrigation to be utilized to meet those goals and preliminary water conservation/efficiency calculations (Maximum Applied Water Allowance - MAWA and Estimated Total Water Use - ETWU). This initial submittal will include the following:

Meetings:

- Landscape and irrigation (up to 3 meetings)
- Warranties, maintenance, and operations meetings as needed. [NOTE: Additional Meetings are needed outside the design contract to address agency maintenance obligations and commensurate funding and are outside the scope of this Agreement].

Meeting Materials:

- Landscape Concept Plan
- Plant Palette/Landscape materials Exhibit
- Irrigation coverage plan to show the locations of the proposed landscape areas to be irrigated
- Preliminary locations of point of connections (meters, back flow preventers, controllers, power supply) and preliminary main line layout
- Preliminary City of Chula Vista Water Efficient Landscape Irrigation Calculations (MAWA/ETWU)

5. *Transit Signal Priority and Non-signalized Intersections Design Advancement Analysis*

For the unsignalized intersection of the Northeast Driveway to/from ORTC, a pedestrian crossing concept will be developed by the City. This concept will allow for BRT vehicle crossing without stopping. This concept may include the use of pedestrian or BRT crossing tables, color pavement enhancements, paver design, in-pavement flashers, rectangular rapid flashing beacons, flashing bollards, modified pedestrian crossings, signage, and other design elements for a non-signalized intersection. Final concepts developed from this design study will be used in final design plans.

A new traffic signal will be installed at Town Center Drive. Existing traffic signals will be modified at Kestral Falls Drive and EastLake Parkway, Birch Road and EastLake Parkway, Birch Road at easterly and westerly shopping center entrances.

6. *Utility Coordination*

The City will provide utility coordination support services for utility conflicts along the Guideway corridor including:

- 6.1. Developing a matrix of wet and dry utility conflicts and individual utility conflict plan sheets that will be organized by utility ownership.
- 6.2. Providing direct coordination with utility representatives through meetings, written communications, and telecommunications processes.
- 6.3. Coordinate and meet with MTS regarding MTS Fiber/Communications to the ORTC BRT station.

7. *Drainage Study and Hydromodification Design*

A drainage study will be prepared for the project to analyze and size the proposed drainage infrastructure. The drainage study will include the following sections: introduction, methodology, hydrologic and hydraulic analysis, conclusions/recommendations. The study will be prepared in accordance with agency standards in effect at the time of execution of this agreement. The City will:

- 7.1. Provide up to 2 site visits to determine connection locations for proposed system.
- 7.2. Attend up to 2 meetings to discuss the final design of the proposed system.
- 7.3. Prepare calculations in accordance with the San Diego County Hydrology Manual and San Diego County Drainage Design Manual. Local drainage requirements for the portions of the project in the City of Chula Vista will also be followed, including the "City of Chula Vista Stormwater Design Manual."
- 7.4. Prepare drainage basin mapping.
- 7.5. Calculate hydraulic capacity, peak flow rates, and estimation of proposed pipe and inlet sizes.
- 7.6. Prepare hydromodification calculations using SWMM model.
- 7.7. Design underground hydromodification improvements.

- 7.8. Develop drainage design and analysis based on the preliminary concepts that were approved by the agency during the environmental phase of the project.
- 7.9. Submit a draft Drainage Study and Hydromodification Plan to SANDAG at the 40% level of plans completion.
- 7.10. Submit a final Drainage Study to SANDAG for final review and approval.

This task assumes:

- Significant changes to the preliminary concepts that were approved by the City of Chula Vista during the preliminary design/environmental phase of the project will not be required.
- Drainage studies will further refine the concepts already prepared and approved by the agencies.

8. *Water Quality Study*

The City will update the Water Quality Study prepared during the environmental phase of the project (by others). The update to the Water Quality Technical Report will be based on the preliminary concepts that were approved by the agencies during the preliminary design/environmental phase of the project. The City will:

- 8.1. Coordinate and process the WQTR through the City only and it is assumed no coordination with the Regional Board is required.
- 8.2. Update report to show the implementation of the previously approved water quality treatment concepts for each section of the project.
- 8.3. Submit a draft WQTR to SANDAG at the 95% level of plans completion.
- 8.4. Submit final WQTR to SANDAG for final review and approval.
- 8.5. Provide up to three review cycle submittals for the WQTR.

This task assumes:

- Significant changes to the preliminary concepts that were approved by the City of Chula Vista during the preliminary design/environmental phase of the project will not be required.
- The Water Quality Technical Reports will further refine the concepts already prepared and approved by the agencies.
- Comments on the reports will be minor and not require significant changes to the overall concept of the water quality treatment that was previously approved.

9. *Engineering Design (40%, 95%, Final & Bid Ready Construction Packages)*

These tasks will advance the design package through the Preliminary Engineering stage of completion—development of 40% construction documents—and Draft PS&E (95% complete) and Final PS&E (100% complete).

The City will prepare preliminary dry utility system design alignments based on improvement plans and existing condition base plan for the removal, relocation, undergrounding, and new

service systems required to meet the project's dry utility requirements. Final plans will be the responsibility of the respective utility owner.

Plan Features:

- 9.1. Plan format (i.e. title sheet and sheet borders) will be in a SANDAG format for each project segment with local jurisdiction signature blocks. Standard notes for the local jurisdiction and SANDAG will be included.
- 9.2. Horizontal control – Guideway will generally include computed centerlines with horizontal control based on station-and-offset values. Non-linear project elements such as station site plans will rely on dimensions between project features and a table of coordinates at key locations.
- 9.3. The scale of plan sheets are anticipated to be the city standard of 1"=40' for corridor plans (e.g. roadway, signal interconnect) and 1"=20' for more detailed plans (e.g. station layouts, TSP plans).

Design Package Includes: Otay Ranch Town Center Guideway (Town Center Drive to Birch Road)

Title Sheet (by TY Lin)		Traffic Plan for one (1) Non-signalized Intersections	1
Sheet Index, Legend, & Abbreviations (by TY Lin)		Traffic Signal Interconnect Plans (Ends at Magdalena Avenue)	1
General Notes (by TY Lin)		Utility Notes, Legend, & Symbols (by TY Lin)	
Key Map and Horizontal Control	1	Utility Plans (Showing Existing Utilities Only)	3
Typical Cross Sections	2	Landscape General Notes (by TY Lin)	1
Roadway (Guideway) Layout Plan & Profiles	3	Landscape Plans	3
Intersection Grid Grades & Staking Notes (2 per sheet)	2	Landscape Details	1
Construction Details	1	Irrigation General Notes (by TY Lin)	1
Temporary Water Pollution Control Plans	3	Irrigation Plans	3
Temporary Water Pollution Control Details	1	Irrigation Details	1
Grading and Drainage Plan & Profiles	5	Total Expected Sheets	49
Grading and Drainage Details	1		
Stage Construction General Notes and Abbr.	1		
Stage Construction and Traffic Handling Plans	3		
Stage Construction Details	1		
Roadway Lighting Plans & Details	3		
Traffic Signing and Striping Plans & Details	4		
New Traffic Signal Plans @ Town Center Drive and Kestrel Falls Road	2		
Traffic Signal Modification Plans for the existing signalized intersection @ Birch	1		

10. *The City will provide bid package development and support services, for the tasks identified below, up to the level of effort identified in Attachment B.*

10.1. Incorporate review comments to the Final Construction Plans submittal and prepare "Bid-Ready" plan sets for SANDAG Contracts Department to advertise project.

10.2. Incorporate review comments to the Final Specifications submittal and prepare "Bid-Ready" specifications for SANDAG Contracts Department to advertise project.

10.3. Incorporate review comments to the Final Construction Cost Estimates submittal and prepare "Bid-Ready" construction cost estimates for SANDAG Contracts Department to advertise project.

10.4. Quality Control (QC) "Bid-Ready" PS&E Package and submit "Bid-Ready" bid packages, including Contracts "Bid Form" and "Electronic Info" form, to SANDAG Contracts Department for advertisement.

11. *Right of Way Mapping*

11.1. Map Preparation

The City will prepare right of way maps at 50 foot scale consistent with Caltrans procedures and requirements. The maps will be used to identify the title and types of right of way requirements:

- Title: Access Rights, Fee (i.e. purchase of land), Easement, Temporary Construction Easement, and Permanent Easement.
- Type: Grant Deed, Easement Deed, Quitclaim, Relinquishment, etc.

11.2. Plats and Legal Descriptions

Based on the preliminary right of way requirement maps approved by SANDAG, the City will prepare Plats and Legal descriptions for SANDAG approval. SANDAG/Caltrans will use the Plats and Legal Descriptions to prepare documents to acquire the necessary right of way and easements.

IV. DELIVERABLES

1. *40% Construction Package*

- Plans
- Opinion of Probable Construction Costs
- Aerial Topo Mapping & Survey Data Files on Disk
- MOU or "Basis of Design Report" for "Urban Design Advancement" elements
- Utility Conflict Matrix
- Drainage Study & Hydromod Design Report

2. *95% Construction Package*

- Plans
- Specifications & Special Provision (Caltrans / Greenbook)
- Opinion of Probable Construction Costs
- Final Geotechnical Report

3. *Final Construction Package*

- Final Plans

ATTACHMENT B

City of Chula Vista
Public Works Department Engineering/Design

Project Number: SBBRT-04
Date: 2/12/2013
Prepared By: Salem / Gomez / Radley
Checked By: Ammerman

South Bay BRT Project - Town Center Drive, EastLake Parkway/Birch Road/SR-125

FOR BUDGETARY PURPOSES ONLY - ACTUAL HOURLY RATES WILL VARY

Account No's: SBBRT-04

Scope of work: Otay Ranch Town Center Guideway (Town Center Dr. to SR125)

Project Budget:

Section/Task	Associate Hours	Approx. Rate	Sub-Total 1	Senior Hours	Senior Rate	Sub-Total 2	Total
Design							
Project research	80	\$125.05	\$10,004.80	20	\$144.00	\$2,880.00	\$12,884.80
Preliminary design (30%)	120	\$125.05	\$15,007.20	50	\$144.00	\$7,200.00	\$22,207.20
Sheet set-up	30	\$125.06	\$3,751.80		\$144.00		\$3,751.80
Base map/sheet	40	\$125.05	\$5,002.40		\$144.00		\$5,002.40
Horizontal/Vertical Design	100	\$125.06	\$12,506.00		\$144.00		\$12,506.00
X-sections	120	\$125.05	\$15,007.20	30	\$144.00	\$4,320.00	\$19,327.20
50% Plans	150	\$125.05	\$18,759.00	60	\$144.00	\$8,640.00	\$27,399.00
Misc. City Dept Review	60	\$125.05	\$7,503.60	40	\$144.00	\$5,760.00	\$13,263.60
Drainage Study	80	\$125.05	\$10,004.80	40	\$144.00	\$5,760.00	\$15,764.80
75% Plans	120	\$125.05	\$15,007.20	60	\$144.00	\$8,640.00	\$23,647.20
Misc. City Dept Review	40	\$125.05	\$5,002.40	40	\$144.00	\$5,760.00	\$10,762.40
Cost Estimates	40	\$125.05	\$5,002.40	20	\$144.00	\$2,880.00	\$7,882.40
Specifications	100	\$125.06	\$12,506.00	40	\$144.00	\$5,760.00	\$18,266.00
90% Plans	100	\$125.06	\$12,506.00	40	\$144.00	\$5,760.00	\$18,266.00
Misc. City Dept Review	40	\$125.05	\$5,002.40	20	\$144.00	\$2,880.00	\$7,882.40
ICCOA	40	\$125.06	\$5,002.40	20	\$144.00	\$2,880.00	\$7,882.40
Administration	40	\$125.06	\$5,002.40	20	\$144.00	\$2,880.00	\$7,882.40
Pre-Construction	40	\$125.06	\$5,002.40	20	\$144.00	\$2,880.00	\$7,882.40
Design Support During Construction	60	\$125.05	\$7,503.60	30	\$144.00	\$4,320.00	\$11,823.60
Construction Administration	60	\$125.05	\$7,503.60	30	\$144.00	\$4,320.00	\$11,823.60
Project Close-Out & As-Built	80	\$125.05	\$10,004.80	40	\$144.00	\$5,760.00	\$15,764.80
Coordination Meetings	40	\$125.06	\$5,002.40	40	\$144.00	\$5,760.00	\$10,762.40
	1580		\$197,594.80	660		\$95,040.00	\$292,634.80
Survey							
Task	Task Hours	Average Rate	Sub-Total 1				
Map Research	40	\$130.00	\$5,200.00				\$5,200.00
Monument Preservation	80	\$130.00	\$10,400.00				\$10,400.00
Field Topographic	180	\$130.00	\$23,400.00				\$23,400.00
Office Topographic	80	\$130.00	\$10,400.00				\$10,400.00
Right-of-Way Engineering	240	\$130.00	\$31,200.00				\$31,200.00
Survey Project Management	100	\$130.00	\$13,000.00				\$13,000.00
Plan Review	40	\$130.00	\$5,200.00				\$5,200.00
Construction Staking, 2-Person Party	Not a Part	N/A	N/A				N/A
	760		\$98,800.00				\$98,800.00
Landscape							
Task	Task Hours	Average Rate	Sub-Total 1	Senior Hours	Rate	Sub-Total 2	Total
Conceptual Design	80	\$130.00	\$10,400.00				\$10,400.00
Planting Plans	80	\$130.00	\$10,400.00				\$10,400.00
Irrigation Plans	80	\$130.00	\$10,400.00				\$10,400.00
Details	80	\$130.00	\$10,400.00				\$10,400.00
Specifications	60	\$130.00	\$7,800.00				\$7,800.00
Meetings - 10 Total	20	\$130.00	\$2,600.00				\$2,600.00
	400		\$52,000.00				\$52,000.00
	Subtotal:	2740	\$348,394.80			\$95,040.00	\$443,434.80
	Contingency 10%:	274	\$44,343.48			\$9,504.00	\$53,847.48
	Total:	3014	\$392,738.28			\$104,544.00	\$497,282.28

- Final Specifications & Special Provision (Caltrans / Greenbook)
 - Final Opinion of Probable Construction Costs
4. *Bid Construction Package and Processing*
- Bid Ready Plans
 - Bid Ready Specifications & Special Provision (Caltrans / Greenbook)
 - Bid Ready Opinion of Probable Construction Costs

V. SCHEDULE OF SERVICES/MILESTONES/DELIVERABLES

A. Tasks Schedule

<u>Task</u>	<u>Begin/End Dates</u>
Design Studies	NTP to 3 months after NTP
40% Construction Package	NTP to 6 months after NTP
95% Construction Package	6 months after NTP to 11 months after NTP
Final Construction Package	11 months after NTP to 12.5 months after NTP
Bid Construction Package	12.5 months after NTP to 13 months after NTP

B. Milestones/Deliverables Schedule

<u>Milestone/Deliverable</u>	<u>Due Date</u>
Conceptual Design Study	NTP +3 months
40% Construction Package	NTP +6 months
95% Construction Package	NTP +11 months
Final Construction Package	NTP +12.5 months
Bid Construction Package	NTP +13 months