

The Riverside Streetcar

Proposal for FEASIBILITY STUDY with Conceptual Design



Prepared for: City of Riverside

Prepared by: TIG/m, LLC 9160 Jordan Avenue Chatsworth, CA 91311 +1 818.709.8500



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REF: RMV-0-10-PPL-160

SECTION 1 Project Description

The subject of this Proposal is a street-running electric railway system (commonly known as a streetcar system) to be considered for the Downton area of Riverside, CA.

The project has been dubbed the Riverside Streetcar system for the purposes of this conceptual effort. The scope of this Proposal is a Feasibility Study, which will require a certain level of Conceptual Design in order to quantify the project in units that can be used to provide insight into the technical and economic feasibility of the project.

TIG/m has begun a preliminary study of the transportation systems, both existing and proposed, for the greater Riverside area. This work will be continued under the proposed study, and it will be the goal of the design efforts undertaken to introduce the streetcar not as a replacement for any of the existing transit modes, but as a necessary "link in the chain" which would provide a multi-modal system encircling all of greater Riverside.

The number one goal of any public transportation system is to get people out of their private automobiles by giving them a complete end-to-end solution for their travels; creating a communal sense of place that is a connected, walkable, exciting place to be. This is done by connecting all of the alternate modes of travel into a seamless whole. In the case of the Riverside Streetcar this means making *as many tram stops as possible* a multi-modal stop for buses, streetcars, and bicycles. These three modes support one and other, when we give motorists a viable opportunity to leave their cars at home all three of these modes of travel will see increased ridership. These modes do not compete with one and other, they complement one and other

TIG/m is a turn-key design/build company that will assess the feasibility of using our revolutionary self-powered streetcar systems for the purposes intended on the Riverside Streetcar. TIG/m systems require no wayside power infrastructure thereby dramatically reducing the visual, technical, and economic impacts to the community. TIG/m is also a full-service engineering firm with independent design groups work autonomously and have the capability of performing unbiased feasibility and demand analysis for alternative options.

The alignment under consideration for the Riverside Streetcar will include a one-way downtown loop. This will be connected to a one or two-way loop heading out east and circling through the UC Riverside Campus continuing down adjacent to the new CARB campus and back to Downtown.

An Operations and Maintenance Facility and an associated TIG/m Manufacturing Plant is being proposed for the Innovation District north of 3rd Street. This Facility would be essential for the efficient operation of the streetcar line and would become the center of manufacturing of TIG/m advanced Modern streetcars for applications all over Southern California and eventually throughout the United States. An existing right-of-way and unused track spur in this area would be used as a test track and proving ground for new designs and technologies as they are developed by our team of world-class engineers and inventors.





TOTAL ALIGNMENT LENGTH:

Single Track (one-way loop) = 7.75 mi. Double Track (two-way loop) = 15.5 mi. Number of Passenger Stops = 18

Conceptual Alignment Design

Working in conjunction with City Planners and interested groups in a design charrette we will develop a phase-able alignment concept. TIG/m civil engineers will then bring the entire alignment up to the level of schematic design (geometrically able to support engineered track) in order to assess the buildability of the trackwork in the existing streets and to provide a basis for accurate estimation of construction costs using unit quantities. Close liaison with City Managers, Planners, and Engineers will be developed in order to inform this design process with all available current data relative to rights of way, traffic controls, as well as at-grade and sub-grade utilities. An active Cost Model will be applied, based on the assumptions developed in the design charrettes, concerning a potential duty-cycle which will take into account operation and maintenance costs for the first year of operation, costs for 5-year increments thereafter, and concluding in a 30-year life cycle.

Demand Analysis w/ Ridership Projections

A Demand Analysis utilizing a modified standard 4-step procedure will be undertaken to assess the potential ridership of such a system. Public data from previous studies (such as RTA busway studies) will be accessed wherever possible to correlate new data with data that has been previously produced.



Cost Benefit Analysis

A Cost/Benefit Analysis will be undertaken to compare and contrast the proposed self-powered streetcar system with traditional overhead catenary system streetcar (OCS) as well as standard and rapid-bus systems (BRT), other transit modes, as well as the do-nothing alternative.

Community Benefits Analysis

An overview of general and specific benefits of street railway to the community will be undertaken; including, increased mobility for low-income work force, access to multi-modal transportation solutions currently considered untenable, increased opportunities for Transit Oriented Development. Among other things, data developed during the conceptual design and demand analysis/ridership projection will be used to calculate reductions in vehicle miles travelled and the resulting reductions in various forms of pollution to the benefit of the community.



SECTION 2 TIG/m, LLC Company Overview

TIG/m, LLC is a California limited liability company in operation, for the **sole purpose of design/building custom self-powered street railway systems,** since 2005.

TIG/m, LLC builds **self-powered electric vehicle systems** (trams, trolleys, people-movers) that require no overhead wire or continuous wayside power systems of any kind. Our vehicles can be configured with range-extending power generators which allow them to operate for up to 20 hrs. per day without stopping to recharge the battery systems. Heritage-style and Modern type vehicles are available. Our newest models, being manufactured for the countries of Qatar, Aruba, Mexico, and the United Arab Emirates, are zero-emission ultra-green streetcars that utilize hydrogen fuel-cells to charge the batteries while they are in passenger service. Our rail vehicles run on standard gauge track (1,435 mm) and they are custom-designed, and hand crafted to the highest standards of excellence while at the same time adhering to all international standards for LRT vehicles.

Because our vehicles are self-powered, construction of the track and infrastructure is substantially simplified and, by elimination of overhead wire systems, most projects will see a reduction in capital cost of infrastructure construction of up to 50%.

We offer full service in each of the following scopes of work:

- Demand Analysis (feasibility studies)
- Alignment design
- Civil and track engineering
- Operations and maintenance planning
- Maintenance facility design
- Streetcar design and fabrication
- Track and special-work construction
- Depot fit-out
- System commissioning
- Operations & Maintenance

TIG/m is a full service street railway designer, vehicle manufacturer, and infrastructure builder. Our offices and factory at 9160 Jordan Ave, Chatsworth, CA, USA include Departments of Civil, Track, Structural, and Electrical and Mechanical Engineering, as well as state-of-the-art Fabrication Departments for the following disciplines:

- metalworking (machining, forming, welding)
- plastics (machining, forming, joining)
- composites (engineering, forming, lay-up)
- electronics (engineering, fabrication)
- hydraulics and pnuematics
- woodworking
- assembly
- finishing (painting, glazing)

A separate facility in Valle Crucis, North Carolina, USA provides the following discipline:

• Ferrous and non-ferrous metal working, forming, and casting foundry.



TIG/m provides on-site services that include:

- Construction Administration.
- QCR (Quality Control Review).
- Construction and installation of track, special-work, signalization equipment, maintenance facility infrastructure, and operations equipment.
- Delivery, test and adjust, and Commissioning of rolling-stock.
- Operations & Maintenance.

Please refer to the following pages for TIG/m, LLC Organizational Chart, Referenced GCC Project, and other documents concerning the Company Insurance and Registration.







TIG/m Assembly Hall #2, July 11, 2018





REF: RMV-0-10-PPL-160



TIG/m International Presence



TIG/m Tram System in Doha, Qatar





SECTION 3 Scope of the Proposal

The Scope of this Proposal is limited to developing sufficient information, both by on-site reconnaissance and in-house engineering, to allow the advancement of the proposed Riverside Streetcar design to a state that will provide a model capable of supporting the derivation of data necessary for the determination of the technical and economic feasibility of the program.

The information developed will include:

- Schematic level alignment design
- Demand Analysis with ridership forecast
- Infrastructure construction and rolling stock manufacturing estimates
- Cost Model with Operations and Maintenance estimates
- Total Project Cost Projections with Revenue Generation offsets
- Cost/Benefit Analysis including compare/contrast with OCS streetcar and BRT.
- Community Benefit Analysis.

The program to complete this work will cover a period of 16 weeks beginning at the time of execution of an agreement.



SECTION 4 Methodology

Alignment Design

At a design charrette, several alternate alignment concepts for the proposed Streetcar line will be investigated, along with the possibility of phasing the project by the sequential construction of portions of the alignment, the first of which could be functional transportation demonstrator.

The next steps to be taken involve site work and developing communications channels between TIG/m personnel, the RTA, and city officials. TIG/m civil design personnel will arrive to map and photograph the entire proposed alignment, taking notes as to the placement of all relevant street and wayside structures, furnishings, signalization equipment, and apparent utilities structures for future reference. Other TIG/m personnel will be tasked with developing relationships with City Planning, City Architects, and Building and Safety in order to acquire 3D surface models and/or contour maps of the roadway and drainage designs, as-built information on roadway structures, and subgrade utilities plans.

This information will be taken back to the TIG/m Offices in Chatsworth, CA to begin the process of developing a schematic level alignment design using AutoDesk Civil 3D.

Demand Analysis

Concurrent with the alignment design, other TIG/m personnel will begin the process of developing a Demand Analysis. The first step in the proposed methodology will be to undertake a thorough study of current population movements in three dimensions. Several alternate alignment concepts for the proposed Streetcar line will be investigated by a combination of on-site reconnaissance and study of current as-built infrastructure plans.

Toward our goal of identifying the optimal configuration of the Streetcar System for the Riverside Streetcar we will perform a Ridership Analysis. To do this we will develop a database for the greater Riverside area based on land-use mapping as well as building data and footfall mapping to develop accurate populations.

As we have done with the Ridership Analysis' for several previous projects including the Mshiereb Downtown Doha Tramway, our aim is to develop a picture of the *local micro-travel market* within the greater Riverside area and then identify which of the alternate alignment designs for the Streetcar will most efficiently serve that travel market. Utilizing all available city master plans coupled with land use diagrams and spreadsheets identifying the demographic distribution of the current and projected populations, we will collate and then subject this data to a simplified fourstep method with the ultimate goal of forecasting a maximum demand on the Streetcar circulator, projected forward to the future build-out of the ambient transit systems planned for the greater Riverside area. The identified area is divided into individual Travel Analysis Zones (TAZ) for the purpose of the study, and the travel market is subjected to a four-step travel forecasting procedure which includes:

- Trip generation
- Trip distribution
- Mode split
- Trip assignment

The work defined above will result in a projected daily passenger demand on a proposed people mover operating on the preferred alignment.

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Cost/Benefit Analysis

The next step in the proposed methodology will be to investigate the application of the TIG/m MRV 3A streetcar technology as it applies to the proposed alignment. Alternate technologies and associated projected capital cost estimates will be compared and contrasted. The resulting data will be set forth in spreadsheet format.

Community Benefit Analysis

As a direct result of the Demand Analysis/Ridership Projection effort, a study of the various benefits to the community will be undertaken. Some of these will be less readily quantifiable such as; enhanced sense of place, increased sense of pride in community and prosperity consciousness. Some of these will be more readily quantifiable such as: increased accessibility to non-automobile drivers, better public transit accessibility for all due to shorter headways and increased hours of service. Some of these benefits will be firmly quantifiable by calculation such as: reduction in vehicle miles travelled (VMT), reduction in greenhouse gas production, reduction in vehicle tailpipe pollution, reduction in vehicle non-tailpipe pollution.

Cost Projections and Project Financing

Based on the preliminary designs developed for the study and the result of the Demand analysis, a Capital Cost Estimate and an Operations and Maintenance Cost Model will be developed. The Capital Cost Estimate will consist of ROM estimates of each scope of work required to complete the infrastructure and rolling stock components of the project. The O&M Cost Model will take into account all aspects of the ongoing system functionality for the life of the project (normally projected for 30 years).

Combined CAPEX and OPEX will be amortized over the project lifecycle and a methodology for financing the project will be set forth.



SECTION 5 Deliverables

The Deliverables for this project will consist of:

- Full-size site plans and alignment drawing showing the developed alignment and • proposed locations for the passenger stops and O&M infrastructure.
- A PowerPoint presentation of the project, highlighting; the Team, the process (through video and still images), and the results of the study. This PPT will be suitable for presentation to all stakeholders.
- Bound copies of the printed Feasibility Study Report in as many copies as are ٠ required for presentation to Stakeholders and interested parties.

• 1	he Report Contents will be set forth as follows:
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	The art of transportation	www.modernstreetraliwaya.com
RIVERSID	E STREETCAR FEA	SIBILITY STUD
Table of C	Contents	
EXECUTIVE SUM	MARY	
1.0 INTRODUCTIO	DN	
2.0 EXISTING CO	NDITIONS	
3.0 SYSTEMS RE	QUIREMENTS	
4.0 STREETCAR	VEHICLES	
5.0 OPERATIONS	PLAN	
6.0 ALIGNMENT O	CONCEPTS AND EVALUATION	
7.0 RIDERSHIP E	STIMATE	
8.0 COMMUNITY	BENEFITS	
9.0 CAPITAL COS	ST ESTIMATE	
10.0 OPERATIO	NS COST ESTIMATE	
11.0 NEXT STEP	P5	
APPENDICES		
LIST OF TABLES		
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Modem Street Bolt	wDv5	licence



SECTION 6 Commercial Proposal

The proposed program of work will be completed during a period of 16 weeks following the execution of a suitable written agreement.

The compensation to TIG/m for the proposed program of work will cover the following range of engineering disciplines and design functions:

- Project Administration
- Public and Private Sector liaison
- Travel and Site-Work
- Alignment Design
- Civil Design
- Civil Engineering
- Track Engineering
- Demand Analysis
- O&M Planning and Design
- Financial Analysis
- Presentation Preparation
- Printing and Publication

The total compensation amount will be paid in three installments according to the following program of payments:

- 50% upon execution of the agreement
- 30% at the 8th week after execution of the agreement
- 20% at the delivery of the completed study

The compensation amount for the complete program of work set forth in this proposal is detailed in the attached Excel spreadsheet.



Project Costs

Project:FEASIBILITY STUDY w/Conceptual Design for Riverside Streetcarv1.1Project ID No.:TIGMRMV-0-01-PPL-160_2020-03-10

Project Management

Tasks	Resource	Resource	Dedicated Time		Days in	Daily In- house Rates	Daily Field	Travel (USD)	Per Diem (USD)	Hotel (USD)	Totals
	Nos.		Month/s	Days	Field	(USD)	Rates (USD)	expenses	\$100/Day	\$200	USD
Director/Lead Design	1	Brad Read*	Full Time - (4 Months)	84	20	\$ 1,200.00	\$ 1,600.00		\$ 2,000.00	\$ 4,000.00	\$ 114,800.00
Project Coordination	1	Polly Chellew**	Full Time - (4 Months)	84	15	\$ 675.00	\$ 780.00		\$ 1,500.00	\$ 3,000.00	\$ 62,775.00
Technical Writing	1	Julia Wahnsiedler**	Full Time (4 months	84	10	\$ 650.00	\$ 750.00		\$ 1,000.00	\$ 2,000.00	\$ 58,600.00
										Sub-Total	\$ 236,175.00
Project Team											
	Resource	Resource	Dedicated Time		Days in	Daily In- house Rates	Daily Field				
Tasks	Resource	Resource	Dedicated Tir	ne	Days in	house Rates	Daily Field	Travel (USD)	Per Diem (USD)	Hotel (USD)	Totals
Tasks	Resource Nos.	Resource	Dedicated Tir Month/s	ne Days	Days in Field	house Rates (USD)	Daily Field Rates (USD)	Travel (USD) Airfare	Per Diem (USD)	Hotel (USD) \$200	Totals USD
Tasks Demand Study/Data Gathering	Resource Nos.	Resource Martin Villa	Dedicated Tir Month/s 1 week	Days	Days in Field	house Rates (USD) \$320.00	Daily Field Rates (USD) \$480.00	Travel (USD) Airfare N/A	Per Diem (USD) \$600.00	Hotel (USD) \$200 \$1,000.00	Totals USD \$4,800.00
Tasks Demand Study/Data Gathering Demand Study/Data Gathering	Resource Nos.	Resource Martin Villa Mauricio Lopez	Dedicated Tir Month/s 1 week 1 week	Days 7 7	Days in Field 6	house Rates (USD) \$320.00 \$320.00	Daily Field Rates (USD) \$480.00 \$480.00	Travel (USD) Airfare N/A N/A	Per Diem (USD) \$600.00 \$600.00	Hotel (USD) \$200 \$1,000.00 \$1,000.00	Totals USD \$4,800.00 \$4,800.00
Tasks Demand Study/Data Gathering Demand Study/Data Gathering Demand Study/Data Gathering	Resource Nos.	Resource Martin Villa Mauricio Lopez Katherine Villanueva	Dedicated Tir Month/s 1 week 1 week 1 week	Days 7 7 7 7	Days in Field 6 6 6	house Rates (USD) \$320.00 \$320.00 \$320.00	Daily Field Rates (USD) \$480.00 \$480.00 \$480.00	Travel (USD) Airfare N/A N/A N/A	Per Diem (USD) \$600.00 \$600.00 \$600.00	Hotel (USD) \$200 \$1,000.00 \$1,000.00 \$1,000.00	Totals USD \$4,800.00 \$4,800.00 \$4,800.00
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Tasks Demand Study/Data Gathering Demand Study/Data Gathering Demand Study/Data Gathering Demand Study/Data Gathering Civil Analysis/Engineering 2 and 3D Modeling	Resource Nos. 1 1 1 1 2	Resource Martin Villa Mauricio Lopez Katherine Villanueva Juan Diego Mejia Dalia Cordoba** Mauricio Lopez	Dedicated Tir Month/s 1 week 1 week 1 week 1 week Part Time (3-4 months) Part Time - (2-3 Months)	Days 7 7 7 7 7 7 7 7 6 60	Days in Field 6 6 6 10 N/A	bouse Rates (USD) \$320.00 \$320.00 \$320.00 \$320.00 \$320.00 \$320.00 \$320.00 \$320.00 \$320.00 \$320.00 \$320.00 \$320.00 \$320.00 \$320.00 \$320.00 \$320.00 \$320.00 \$320.00 \$320.00	Daily Field Rates (USD) \$480.00 \$480.00 \$480.00 \$480.00 \$480.00 \$720.00 N/A	Travel (USD) Airfare N/A N/A N/A N/A N/A N/A	Per Diem (USD) \$600.00 \$600.00 \$600.00 \$600.00 \$600.00 \$600.00 \$1,000.00 \$N/A	Hotel (USD) \$200 \$1,000.00 \$1,000.00 \$1,000.00 \$2,000.00 \$2,000.00 N/A	Totals USD \$4,800.00 \$4,800.00 \$4,800.00 \$4,800.00 \$52,440.00 \$38,400.00
Tasks Demand Study/Data Gathering Demand Study/Data Gathering Demand Study/Data Gathering Civil Analysis/Engineering 2 and 3D Modeling Mechanical Engineering	Resource Nos. 1 1 1 1 2 1	Resource Martin Villa Mauricio Lopez Katherine Villanueva Juan Diego Mejia Dalia Cordoba** Mauricio Lopez Thomas Martinez	Dedicated Tir Month/s 1 week 1 week 1 week 1 week Part Time (3-4 months) Part Time - (2-3 Months) Part Time - (1-2 Months)	Days 7 7 7 7 7 7 7 6 60 25	Days in Field 6 6 6 10 N/A N/A	bouse Rates (USD) \$320.00	Daily Field Rates (USD) \$480.00 \$480.00 \$480.00 \$480.00 \$720.00 N/A N/A	Travel (USD) Airfare N/A N/A N/A N/A N/A N/A	Per Diem (USD) \$600.00 \$600.00 \$600.00 \$600.00 \$600.00 \$00.00 \$1,000.00 \$1,000.00 N/A N/A	Hotel (USD) \$200 \$1,000.00 \$1,000.00 \$1,000.00 \$2,000.00 \$/A N/A	Totals USD \$4,800.00 \$4,800.00 \$4,800.00 \$4,800.00 \$4,800.00 \$4,800.00 \$4,800.00 \$4,800.00 \$4,800.00 \$4,800.00 \$4,800.00 \$4,800.00 \$4,800.00 \$16,000.00
Tasks Demand Study/Data Gathering Demand Study/Data Gathering Demand Study/Data Gathering Civil Analysis/Engineering 2 and 3D Modeling Mechanical Engineering Drafting/Depot Design	Resource Nos. 1 1 1 1 2 1 2 1 2	Resource Martin Villa Mauricio Lopez Katherine Villanueva Juan Diego Mejia Dalia Cordoba** Mauricio Lopez Thomas Martinez Brent Lottman	Dedicated Tir Month/s 1 week 1 week 1 week Part Time (3-4 months) Part Time - (2-3 Months) Part Time - (1-2 Months) Part Time - (1-2 Months)	Days 7 7 7 7 7 7 6 60 25 30	Days in Field 6 6 10 N/A N/A N/A	bouse Rates (USD) \$320.00	Daily Field Rates (USD) \$480.00 \$480.00 \$480.00 \$720.00 \$720.00 N/A N/A N/A	Travel (USD) Airfare N/A N/A N/A N/A N/A N/A	Per Diem (USD) \$600.00 \$600.00 \$600.00 \$600.00 \$0,000 \$1,000.00 \$1,000.00 N/A N/A N/A	Hotel (USD) \$200 \$1,000.00 \$1,000.00 \$1,000.00 \$2,000.00 \$ 2,000.00 N/A N/A	Totals USD \$4,800.00 \$4,800.00 \$4,800.00 \$4,800.00 \$52,440.00 \$52,440.00 \$16,000.00 \$19,200.00
Tasks Demand Study/Data Gathering Demand Study/Data Gathering Demand Study/Data Gathering Civil Analysis/Engineering 2 and 3D Modeling Mechanical Engineering Drafting/Depot Design Consulting/Feasibility	Resource Nos. 1 1 1 1 1 1 2 1 2 1	Resource Martin Villa Mauricio Lopez Katherine Villanueva Juan Diego Mejia Dalia Cordoba** Mauricio Lopez Thomas Martinez Brent Lottman Alvaro Villa*	Dedicated Tir Month/s 1 week 1 week 1 week 1 week Part Time (3-4 months) Part Time - (2-3 Months) Part Time - (1-2 Months) Part Time - (1-2 Months) Part Time - (1-2 Months)	Days 7 7 7 7 7 60 25 30 25	Days in Field 6 6 6 10 N/A N/A N/A N/A	House Rates (USD) \$320.00	Daily Field Rates (USD) \$480.00 \$480.00 \$480.00 \$720.00 \$720.00 N/A N/A N/A	Travel (USD) Airfare N/A N/A N/A N/A N/A N/A N/A	Per Diem (USD) \$600.00 \$600.00 \$600.00 \$600.00 \$600.00 \$1,000.00 \$1,000.00 N/A N/A N/A N/A	Hotel (USD) \$200 \$1,000.00 \$1,000.00 \$1,000.00 \$2,000.00 \$2,000.00 N/A N/A N/A	Totals USD \$4,800.00 \$4,800.00 \$4,800.00 \$4,800.00 \$4,800.00 \$4,800.00 \$4,800.00 \$4,800.00 \$4,800.00 \$4,800.00 \$4,800.00 \$52,440.00 \$16,000.00 \$19,200.00 \$30,000.00
Tasks Demand Study/Data Gathering Demand Study/Data Gathering Demand Study/Data Gathering Civil Analysis/Engineering 2 and 3D Modeling Mechanical Engineering Drafting/Depot Design Consulting/Feasibility Cost/Benefit Analysis	Resource Nos. 1 1 1 1 2 1 2 1 2 1 2 1	Resource Martin Villa Mauricio Lopez Katherine Villanueva Juan Diego Mejia Dalia Cordoba** Mauricio Lopez Thomas Martinez Brent Lottman Alvaro Villa* David Hall*/Bruce Lisell	Dedicated Tir Month/s 1 week 1 week 1 week 1 week Part Time (3-4 months) Part Time - (2-3 Months) Part Time - (1-2 Months) Part Time - (1-2 Months) Part Time - (1-2 Months) Part Time - (2-3 Months) Part Time - (2-3 Months)	Days 7 7 7 7 7 7 7 6 60 25 30 25 40	Days in Field 6 6 10 N/A N/A N/A N/A N/A	House Rates (USD) \$320.00 \$320.00 \$320.00 \$320.00 \$320.00 \$320.00 \$320.00 \$320.00 \$320.00 \$320.00 \$320.00 \$320.00 \$320.00 \$320.00 \$320.00 \$640.00 \$640.00 \$640.00 \$640.00 \$1,200.00 \$675.00	Daily Field Rates (USD) \$480.00 \$480.00 \$480.00 \$720.00 N/A N/A N/A N/A	Travel (USD) Airfare N/A N/A N/A N/A N/A N/A N/A	Per Diem (USD) \$600.00 \$600.00 \$600.00 \$600.00 \$600.00 \$1,000.00 \$1,000.00 \$N/A N/A N/A N/A N/A	Hotel (USD) \$200 \$1,000.00 \$1,000.00 \$1,000.00 \$2,000.00 \$2,000.00 N/A N/A N/A N/A	Totals USD \$4,800.00 \$4,800.00 \$4,800.00 \$4,800.00 \$4,800.00 \$4,800.00 \$4,800.00 \$4,800.00 \$12,440.00 \$16,000.00 \$19,200.00 \$27,000.00

*Interface and Liaise w/ CP&A, RTA, RPU, City Planning

**Interface w/ City Planning

Grand Total \$ 438,415.00



SECTION 7 Project Schedule

The following schedule completion date will be contingent upon the actual project start date.





Conclusion

It is our greatest hope that you will find the foregoing Proposal to be acceptable, and that you feel the same excitement and challenge that we feel when anticipating the start of such an ambitious undertaking.

Best regards,

al

Bradley L. Read PRESIDENT TIG/m, LLC





