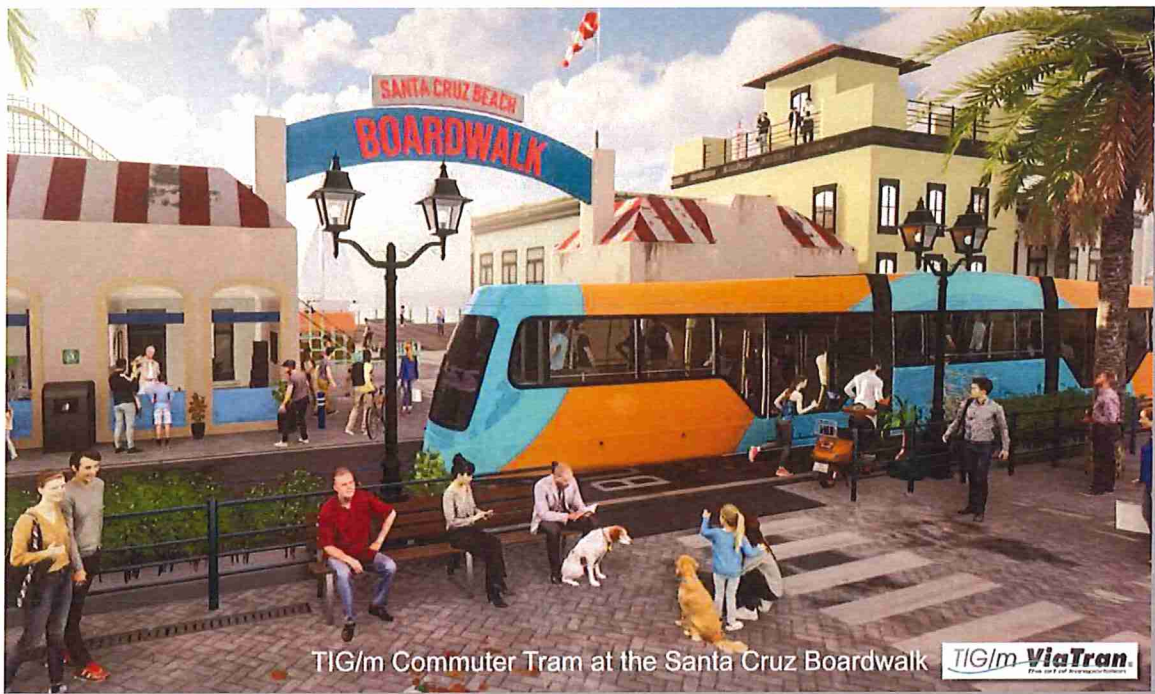


SANTA CRUZ BRANCH LINE RAILWAY CONCEPT PROPOSAL



For submittal to the **SCCRTC**

By

TIG/m ViaTran[®]
The art of transportation

TIG/m, LLC
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Chatsworth, CA 91311
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Section 1: Project Summary

Summary

A consortium of railway professionals under the TIG/m banner offers to assume the current ACLA in order to continue short-line freight operations in the Watsonville area and expand Branch Line Railway operations to include Commuter Services between Watsonville and West Santa Cruz, as well as a Tourist Excursion Service from Capitola to Davenport and all beaches in between. Under a privately funded initiative TIG/m proposes to provide all Financing, Design, Build, Operate and Maintain services to the SCCRTC for the Branch Line Railway.

1.1 The Story

Brad Read, President, TIG/m, LLC

The City of Santa Cruz, the boardwalk, and the coastal areas surrounding Sant Cruz have always been some of my favorite California destinations. Over the years I have independently developed a vision for the long dormant railway in the area. My background is in developing **and building** transportation solutions, first for the entertainment industry at internationally known theme parks, zoos, and municipal parks, and subsequently in cities around the world for municipal transit purposes. So, I was excited to find that the SCCRTC Rail Transit Feasibility Study came to some of the same conclusions I had about the potential for servicing the local population and tourism industry by utilizing the Branch Line. The difference between the two visions is; mine is more complete, more exciting, more attractive and therefor more economically feasible. But the main advantage of our approach is that my company, TIG/m, has assembled a delivery a team with the experience necessary to envision, finance, design, engineer, build and operate the entire multi-function system through a consortium of industry experts, eliminating the need for the SCCRTC to take each individual scope of services out to bid. This approach, a privately financed sole-source DFBOM project, will save the County many years of effort, hundreds of millions of dollars and will provide the citizens of Santa Cruz county with the fastest means to vastly increased connectivity, pride of place, and prosperity.

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 Santa Cruz Brach Line this means making *every single tram stop* a multi-modal stop for buses, rail cars, and bicycles. These three modes support one and other, when we give motorists a viable opportunity to leave their cars at home (or let them go altogether) 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

We are aware of the sensitivities of the local population to rail vehicles operating along this alignment, the competing uses for this valuable asset including cyclists and pedestrians, and the pressing need for solutions to the county's dilemma of utilizing the right of way to its utmost potential while relieving existing stresses on transportation in the area and complementing and supporting bus service.

1.2 The Team

TIG/m, LLC in coordination Roaring Camp Railroad, Joe Kneib Consulting, Urban Innovations, and Mark Johannessen are intent upon bringing together our respective teams and industry partners to create a joint development partnership that will be unparalleled in its ability to:

1. **Successfully quality to accept the reassignment of the current Santa Cruz Branch Line Railway ACLA.**
2. **Fulfill the requirements of the Phase I of the current ACLA, fulfill Phase II, and expand the use of the railway to its ultimate potential.**

TIG/m's delivery team comprises a group of industry experts with years of proven success in each of our respective fields related to railway funding, project management, design, construction, rolling stock manufacturing, safety certification, delivery, and operations and maintenance.

We believe that the Commission was wise to acquire this right of way and that it represents one of the most unique and attractive potential railway operations in the country today, if it is developed correctly by taking advantage of the innate beauty of the location, ambient attractions, and prime location as a commuter corridor.

It is our goal to work with the SCCRTC, the local interest groups and, indeed, all of the stakeholders and potential users of such a system to assure that everyone is heard and the best possible outcome for everyone is achieved. However, we feel strongly that the guiding ideas of the industry experts included in our team are essential to pushing past the endless rounds of study and review that plague projects like this, delaying progress until such fatigue sets in that nothing ever gets built.

At TIG/m, we get things built!!

Please see APPENDIX A to review the team company overview documents and individual CV's relative to the principals involved in this endeavor.

We hope you see the promise in us that we see in the Sant Cruz Branch Line Railway!

1.3 The Vision

Our team has reviewed the existing ACLA and is currently in discussions with the Operator. We are interested in relieving the current Operator of their obligation, which they are keen to do, and to take it over to provide continuity for the short line freight operations with the understanding that as we begin to provide services under what is now designated as Phase II of the agreement, we will be proposing a more comprehensive plan to institute full use of the Branch Line using a three-pronged approach.

Short-line freight + commuter rail + tourist excursion rail.

Figure 1-1: Our vision for the Santa Cruz Branch Line:



1.4 The Rolling Stock

1.4.1 The Short Line. The short-line freight operation will be serviced by Santa Cruz, Big Trees, and Pacific Railroad (Roaring Camp Railroad) using its traditional diesel/electric locomotives and freight car rolling stock. They have purchased several pieces of equipment specifically for this operation and can move them from Felton to the Pajaro Junction area for the start of service as soon as the RTC completes remediation of the track between Santa Cruz and Watsonville. The current lease holder has been servicing the limited number of freight customers available in the Watsonville area, and no major changes are foreseen for this portion of the SCBLR operations other than working to expand the customer base, streamline operations, and improve profitability. The major difference in our approach is that the short line freight operator will now be a local firm, with an established local operation (Roaring Camp) and a vested interest in the county and people of Santa Cruz. The short line freight operation is seen as a self-supporting for-profit operation with a budget that is orders of magnitude smaller than the combined Commuter and Excursion budget and is therefore **not included** in the forgoing Cost Modeling efforts.

1.4.2 The Commuter and Excursion Lines. The commuter and tourist excursion functions will be serviced by TIG/m's revolutionary **self-powered electric rolling stock**. These vehicles utilize a battery-dominant/hydrogen fuel cell hybrid propulsion system, making them completely silent and zero-emission. Both types of vehicle operate on the same track, with no need for traditional wayside power systems, and are operated and serviced by the same O&M teams. This ground-breaking propulsion system has been proven in service for 20 years, carrying millions of passengers in public operation in the U.S, Aruba, the UAE, and Qatar. All TIG/m rolling stock is designed and built under European Norms EN-50126, 8, and 9 for the highest standards of safety and reliability.

Figure 1-2, Passenger systems rolling stock:



TIG/m designed and built the first modern-era battery powered streetcar in 1998 and it went into service at the Grove/Framers Market line in Los Angeles in 2000. It has been operating for the last 20 years carrying millions of satisfied passengers at a reliability rate of 99+%. Since that time TIG/m has significantly advanced and improved the design of its proprietary battery-dominant propulsion system and standardized it under the most stringent railway applications standards in the world; the EN-50126-8-9 Codes.

As of this date, TIG/m, LLC has designed and delivered Streetcar and Tram systems for projects and cities in the US, Mexico, Aruba, The United Arab Emirates, Qatar, and China. We were the first company in the world who successfully delivered zero-emission electric rail vehicles that can operate a full 20-hour passenger service day without the need to stop for the acquisition of additional power during that time. We achieved this by combining the very latest, high energy-density LiFePO₄ (Lithium Iron-Phosphate) battery systems with a super-efficient regenerative braking function, and an on-board HFC (Hydrogen Fuel Cell) generator that can produce additional electrical energy to further charge the batteries during passenger service if required by conditions of service during the day. At night, during maintenance service hours, the battery systems are charged and balanced for a period of four hours.

1.4.3 Zero Carbon Transit. The on-board generator is a hydrogen fuel cell (or an ICE consuming a gaseous fuel such as CNG or LPG if the client prefers). The H₂ fuel cell option delivers a **zero-emission** vehicle, and if the H₂ is produced by electrolysis using renewable energy (wind, solar, etc.) the entire transportation system can be qualified as a **zero-carbon system**. We have delivered two such systems (the first in the world) at the eilan project in Texas and the Downtown Streetcar System in Oranjestad, Aruba.

Figure 1-3, Battery Dominant Propulsion system:



It is quite plausible to install a solar/hydrogen/battery energy cycle in Santa Cruz based on the yearly available hours of sunshine and the availability of land for solar collection. TIG/m can engineer, design, and build the system should the RTC decide that zero-emission, zero-carbon transportation is a priority in Sant Cruz.

1.4.4 Silent Operation. TIG/m Trams are exceedingly quiet. The following picture shows an MRV-3A Tram at 20mph, with the air-conditioning running, passing by a sound meter. 70 dB is the sound level of normal conversation.

Figure 1-4, dB rating of operational TIG/m Tram:



Wheel noise is mitigated in all TIG/m Trams and Streetcars by our proprietary wheel-flange lubrication system. This system eliminates flange squeal at corners by applying a lubricant to the front and back face of the flange of every wheel on the vehicle.

Figure 1-5, TIG/m proprietary flange lubrication system:



1.4.5 Modern Tram Capacity. For commuter operations on the Santa Cruz Branch Line Railway, we have two modern Trams that are perfectly suited in size and capacity: The 100 passenger MRV-3A, and the 200 passenger MRV-4A. The MRV-4 is used in the Operational Simulation found in Section 1.6 below.

Figure 1-6, TIG/m MRV-3AC 100 passenger Modern Tram:

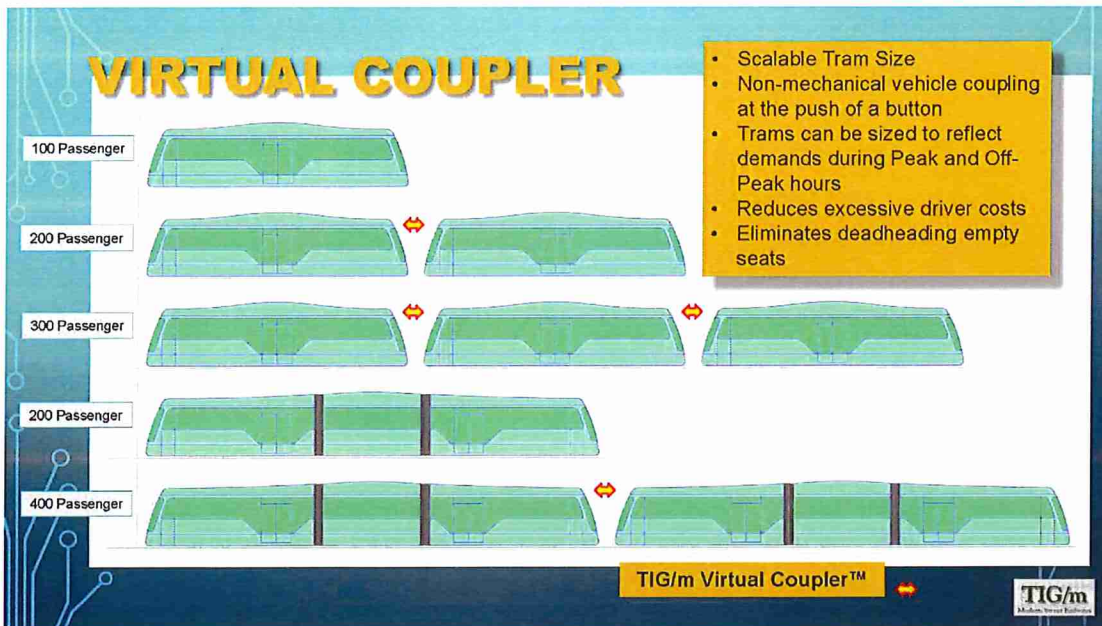


Figure 1-7, TIG/m MRV-4A 200 passenger Modern Tram:



1.4.6 Virtual Coupler. Both of these trams are self-powered as described above and both trams can take advantage of our Virtual Coupler™ system which allows us to size the overall tram consist according to the demands of peak and off-peak ridership.

Figure 1-8, TIG/m Virtual Coupling



1.4.6 Heritage Trolley Style and Convertibility. For the Tourist excursion services portion of the railway TIG/m has a number of heritage-style trolleys that are suitable, however, we recommend the Double Deck HRT-2A. These beautiful and robust works of art are attractions unto themselves. Their impressive craftsmanship coupled with the high-quality materials (solid bronze castings, solid oak and steel construction, custom hand pin-striped painted finishes) entice all who see them to experience a thrilling open air excursion; while at the same time serving a workmanlike transportation function. The propulsion technology is identical to our modern tram systems making the silent-running, zero-emission electric vehicles. The wide canvas awning on the lower deck provides a shaded breezeway for ultimate comfort on hot sunny days or rainy afternoons. The upper deck, at 12 feet high, provides the ultimate viewing platform for scenic tours of the stunning California coastline and in our operations around the world, these seats are always in demand. The curved "bow-benches" at the front and rear of the car are the best seats in the house!

Figure 1-9, TIG/m Open Double -Deck Trolley

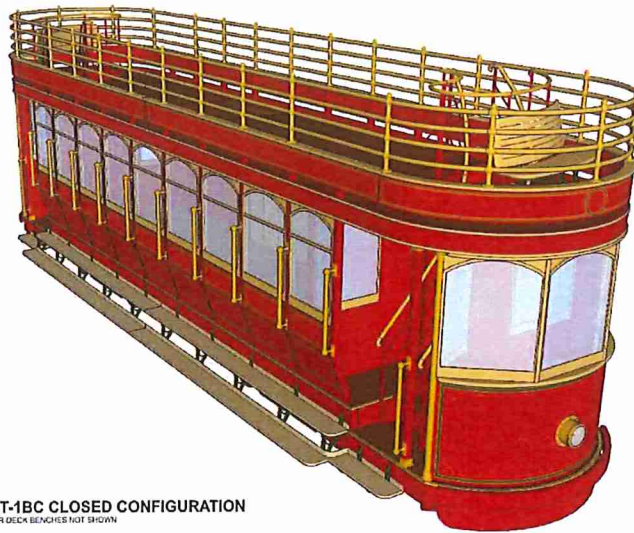


TIG/m Streetcars on track in Downtown Oranjestad, Aruba

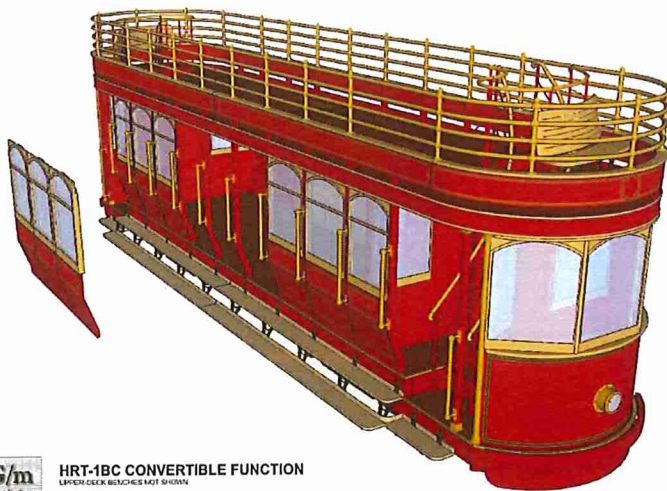
Seating configurations can be tailored to the type of viewing experience desired as well as the passenger demand and requirement for space devoted to bicycles, picnic baskets, parcels, etc. Coachwork on the lower deck can be customized to provide an open, closed, semi-closed, or convertible passenger compartment.

Below you will see a model depicting the convertible coachwork function. This allows the lower-deck to be heated and cooled in inclement weather and opened up for the ultimate passenger experience during mild weather.

Figure 1-10, TIG/m convertible Heritage Trolleys



TIG/m HRT-1BC CLOSED CONFIGURATION
Upper Deck Benches Not Shown

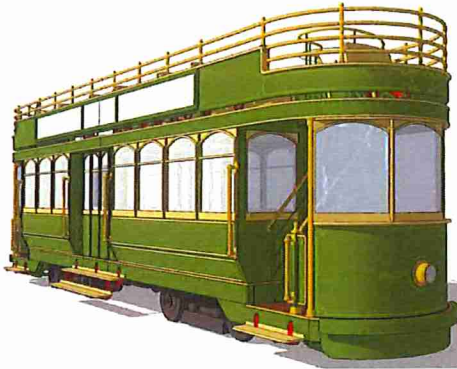


TIG/m HRT-1BC CONVERTIBLE FUNCTION
Upper Deck Benches Not Shown

Figure 1-11, TIG/m Convertible Double-Deck Trolley in closed configuration.

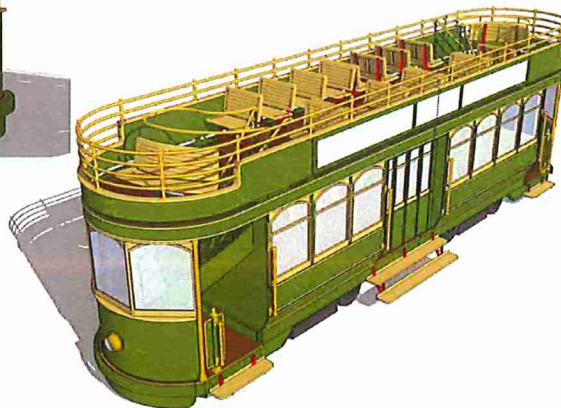


Figure 1-12, TIG/m Closed Double-Deck Trolley



Double-Deck Battery/Hybrid Streetcar

Operates without the need for continuous off-board electrification of any kind.
Fully enclosed air-conditioned and heated lower deck. Open-air upper deck.
Maximum capacity 140 passengers (seated and standing).
(Full Specifications upon request)



A Fleet of these vehicles is now in production at our Chatsworth facility for deployment at the Burj Dubai development in the UAE. (Commissioning planned for 2nd quarter 2011)



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1.5 The Track

All Track work will follow the recommendations of TCRP Report 155: Track Design Handbook for Light Rail Transit.

1.5.1 New Track

At the 3 sites determined by operational simulation models to be the optimal locations for bypass sidings, TIG/m will install equilateral double-point switches and 200' long double track sections using high-grade 110# relay rail and composite cross-ties. There will also be a requirement for an O&M rail spur to the new Operations and maintenance facility which will include a switching and stabling yard as well a double track spur through the facility passing over a 60' long maintenance trestle pit. For the purposes of this Proposal 2.5 miles of new open track have been included to address the above requirements.

1.5.2 Existing Track Remediation

Along the existing 32 (approx.) miles of existing Branch Line track, TIG/m, along with our construction partners, will remove and replace approximately 38,000 cross-ties (every 3rd cross-tie) with new hardwood ties, adjust the gauge and grind the railhead where necessary, remove all angle bars, bolts, and fish plates and replace them with 8,665 aluminothermic welds. Expansion joints will be added in the locations indicated by engineering design calculations. Additional new clean ballast will be added wherever needed. All special work will be inspected and regauged where necessary, and switch components, rail crossings and other casting will be replaced if worn or deformed beyond the limits for condemnation per safety standards.

1.6 The Operations

At TIG/m we have developed a set of computer simulations using the AnyLogic software program to model the Santa Cruz Branch Line railway and prepare duty-cycle calculations that provide some realistic estimates of system passenger capacity based on the physical aspects of the existing rail line. Of course, as with any study of projected ridership, there are several key assumptions that are utilized, and we will need to clarify exactly what the difference is between Maximum Capacity Projection and a Demand Analysis.

The Maximum Capacity Projection tells us that under certain conditions, and using certain assumptions, the transit operation, as conceptualized in the model, will provide a defined maximum number of passenger trips. It does not make any predictions about how many passengers will show up to ride on the system.

The Demand Analysis tells us that under certain conditions, and also using certain assumptions that a potential for a certain number of passengers to show up to ride the system exists.

A proper 4-step demand analysis requires a great deal of on-site reconnaissance; gathering data from the populations of the communities that are to be served, and correlating it with statistical data gathered from government and transit agency studies produced over time, in an attempt to predict what the population of a defined travel market will do when given a choice of

travel modes. For this reason, this type of study is performed under contract for a substantial fee.

For the purpose of this proposal we will be comparing the results of our computer simulations with the ridership projections from a demand analysis that was performed for the Rail Transit Feasibility Study.

When estimating the maximum capacity of a transportation system it is important to make an assumption, based on experience and logic, of the average number of stops that each passenger will remain on the vehicle. This is how we estimate the maximum number of passengers per seat that can be accommodated during each cycle. For example: There are 13 stops on the trip from Watsonville to Santa Cruz. If the assumption is made that all passengers will remain on the tram for the entire trip, then we must assume that the system will accommodate only one passenger per seat per cycle. If the assumption can be supported that, on average, the passengers will remain on the tram for 6 stops, then the system will accommodate 2 passengers per seat per cycle (effectively doubling the capacity). For the purpose of this Preliminary Cost Model we will make the conservative assumption that each passenger will stay on the vehicle for the entire cycle, giving us the capacity of 1 passenger per seat per cycle.

On the next two pages you will see computer simulations for the Commuter line and the Excursion Line, each accompanied by an overview of the Factors and Results of the simulation. These Factors and Results are looked at in closed detail in Section 2 Capital Expense and ROM Estimates, of this Proposal.

Figure 1-13, The Commuter Line computer simulation

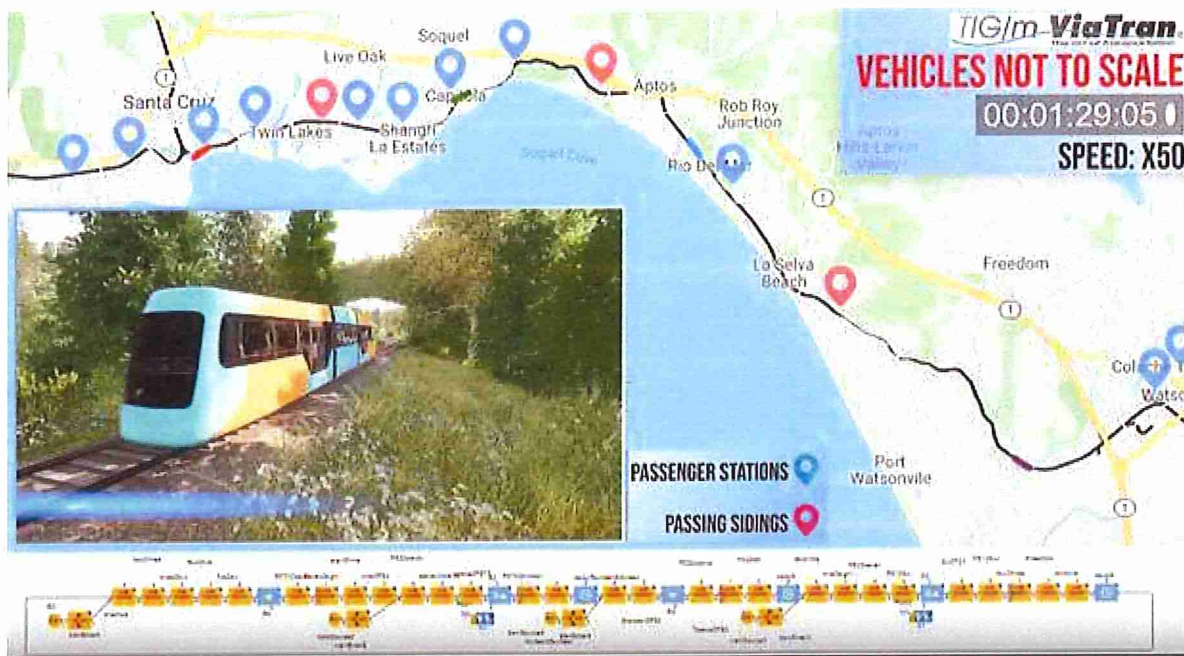


Figure 1-14, The Commuter Line factors and results



Figure 1-15, The Excursion Line computer simulation

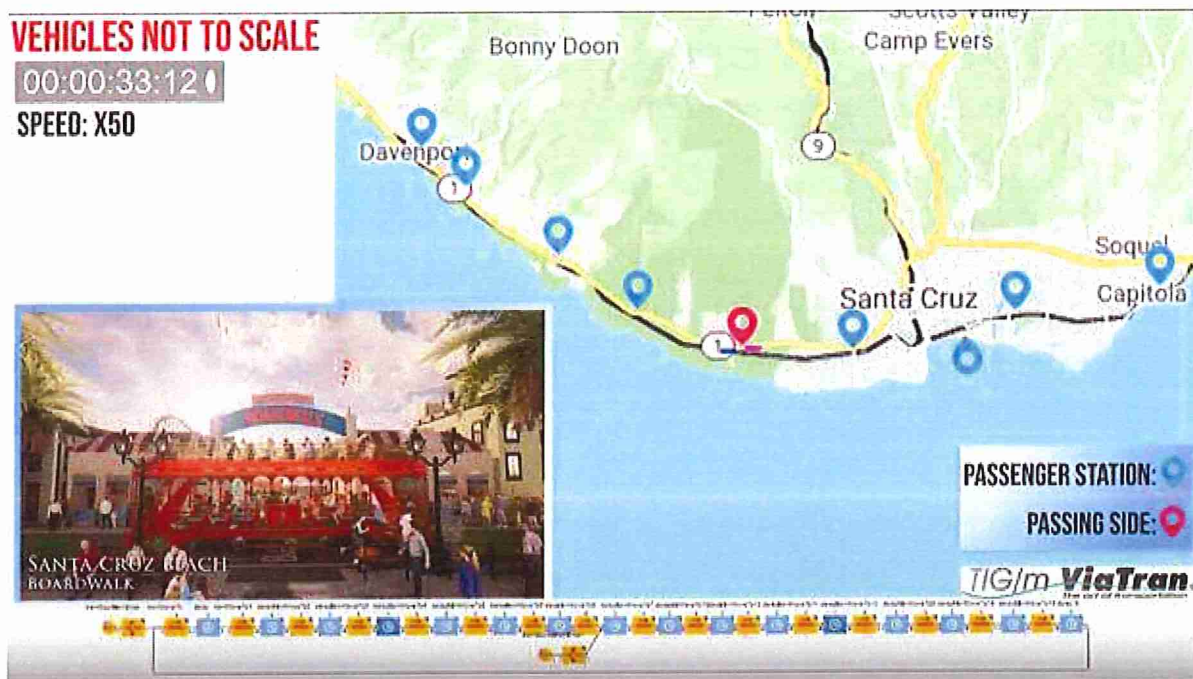



Figure 1-16, The Excursion Line factors and results

SANTA CRUZ BRANCH LINE RAILWAY

THE OPERATIONS: Excursion Line

Factors:	
Length of Track:	17.5 mi.
Number of Stations:	8
Avg. Speed:	30 mph
Dwell at Stations:	125 sec.
Number of Trams:	2
Hours of Operation/day:	15

Results:	
Cycles/hour:	1.16 (EW)
Headway:	50 min.
PPH (BW):	240
PPD (BW):	3,600
PPY (BW):	1,296,000



TIG/m Tourist Excursion Trolleys at Bonny Doon Beach, Davenport, CA

The complete video simulations are available on request.

Please contact:
brad@tig-m.com



SANTA CRUZ BRANCH RAIL LINE: FREIGHT AND RECREATIONAL PASSENGER RAIL SERVICE THROUGH JOINT-DEVELOPMENT

Our team sees an opportunity to provide a solution to the Santa Cruz County Regional Transportation Committee's (SCCRTC) desire to make better use of the Santa Cruz Branch Rail Line into a valuable transportation asset for the benefit of the communities along its path. Our team acknowledges the need for various modes of rail as well as interest in from the community to bring uses that will benefit commuters, freight customers, and recreational users. We feel that our team has the right breadth of knowledge and experience that can deliver the project in a quicker, financially sound manner through a Joint-Development Proposal, otherwise known as a Public-Private Partnership.

The following is a summary of the capabilities and backgrounds of the team members:

URBAN INNOVATIONS: EXPERTISE IN TRANSPORTATION PROJECT FINANCE AND DELIVERY

Urban Innovations (UI) is a nationally recognized transportation service firm with offices located in Pennsylvania, California and Arizona. Our mission is to help municipalities, transit authorities and developers to implement Transit Oriented Development projects by maximizing government funding and long-term financial benefits for their projects. Our approach includes establishment of the appropriate transportation strategies, synergies and team structures culminating in securing the grant funds necessary to make the project proforma viable. With this objective in mind, UI has pioneered and developed a proprietary process to maximize Federal, State, Local and private financing for Transit Oriented Developments and has overcome the complexities surrounding the implementation of Transit Oriented Development through our construction experience, relationships with developers and knowledge of governmental and private funding mechanisms. UI is in the business of helping local municipalities, transit authorities and developers maximize the benefits of Transit Oriented Development funds for their projects.

FUNDING OPPORTUNITIES

Securing a project often requires facilitating the project funding in some manner. A core UI service is the enhancement of proformas by facilitating Grant funding for the project. After a significant investment and research along with collaboration with various Agencies, UI has developed a proprietary Five-Phase process for the implementation of a comprehensive grant program. These phases are summarized as:

- Evaluation of the project
- Performing a needs assessment feasibility study
- Joint development process and stakeholder development
- Establishing the business model, structures, finance and hard cost construction grants
- Implementation and finance for the design and construction program

In this challenging marketplace, projects often need more than simply grant solutions to be viable; creative structures and finance strategies are essential. UI has responded to this marketplace strategy vacuum in a variety of ways. One approach has been our affiliation with

Global Community Services, a 501(c)4 organization. With this independent but symbiotic relationship, UI has been able to formulate structures and strategies that allow public elements of projects elements to be off-balance sheet, resulting in dramatically enhanced proformas. UI has also established relationships with numerous traditional fund resources such as institutional lenders, equity and bond funds. For those projects that GCS has elected to pursue, UI has been able to bring several additional financial vehicles including Foundations, Agencies, and other more creative revenue streams to facilitate projects.

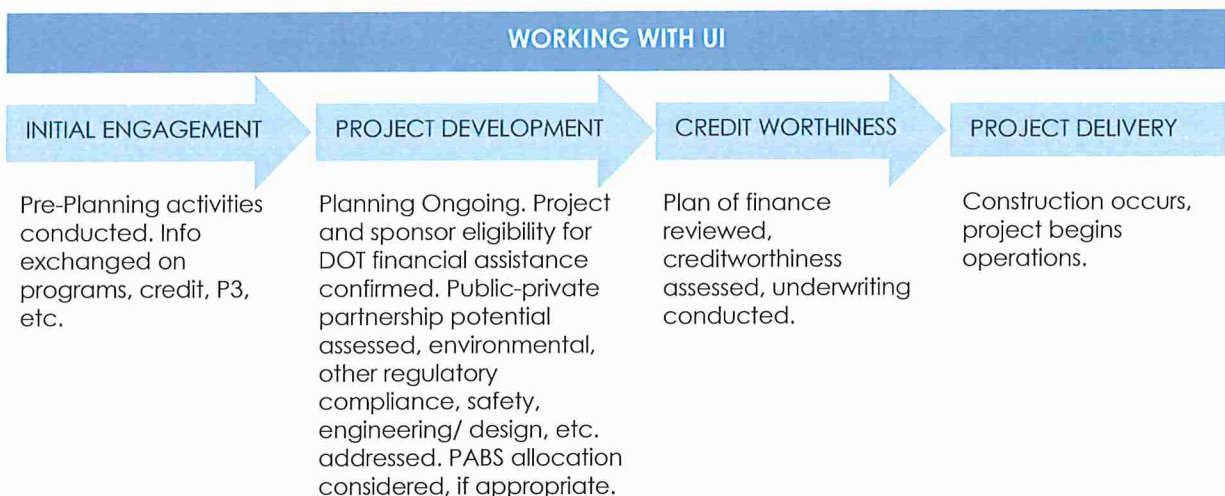
STRATEGY AND STRUCTURE

An essential element of the financing strategy will be a determination of the Strategy and Structure to be used for implementing the plan. There is no 'fixed' approach to any project, and depending on the scope, a project can have an umbrella structure with several sub-structures to address the numerous elements of the project. These strategies can serve to compartmentalize the project components to serve the various investor temperaments. The primary elements that may be considered are Public-Private-Partnerships (P3); Joint Developments (JD) also known as Transit Oriented Developments (TOD); Private Development (PD); and Non-Profit Organization programs (NPO). UI is seasoned in all aspects of these various structures and will support the team in their selection and implementation.

UI AND THE BUILD AMERICA BUREAU

Urban Innovations (UI) is the go-to organization to help project sponsors develop, finance and deliver transportation infrastructure projects. UI serves as the single point of contact to help navigate the complex process of project development, identify and secure financing, and obtain technical assistance for project sponsors. UI works with The Build America Bureau that is now home to DOT's credit programs, including Transportation Infrastructure Finance Innovation Act (TIFIA), the Railroad Rehabilitation and Improvement Financing (RRIF) and Private Activity Bonds (PAB). The Bureau also houses the newly-established FASTLANE grant program. UI offers technical expertise in public-private partnerships, transit-oriented development, environmental review and permitting, and other fields. For rural projects, UI can tap the Rural Project initiative.

Project sponsors and their partners can benefit from the UI's ability to serve as the single point-of-contact to access all of the DOT credit programs, technical assistance and to investigate the viability of P3s in their transportation infrastructure projects.



PUBLIC-PRIVATE PARTNERSHIPS (P3 OR PPP)

Public-private partnerships are long-term contractual agreements between a public agency and a private sector entity that allow for greater private sector participation in the delivery and financing of transportation projects. The use of P3s marks a shift away from traditional ways of procuring and financing transportation projects. Unlike traditional procurement processes, in a P3, a private partner may participate in some combination of design, construction, financing, operations and maintenance, including collection of user fees. P3s may be delivered more quickly than traditional procurement approaches, reduce the burden on public funding, and provide budget certainty for the public agency. They can also provide opportunities to optimize lifecycle costs and encourage innovation to achieve better quality of service.

UI, working with the Build America Bureau, can connect project sponsors and private partners with in-house technical expertise to help explore if a P3 might be worth considering and to identify and share best practices in P3s nationwide.

TRANSPORTATION INFRASTRUCTURE FINANCE AND INNOVATION ACT PROGRAM (TIFIA)

UI can help navigate obtaining financing from the TIFIA program. TIFIA provides direct loans, loan guarantees, and standby lines of credit to projects of national or regional significance.

Eligible Applicants:

- State and local governments
- Transit Agencies
- Railroad Companies
- Special Authorities
- Special Districts
- Private Entities

Eligible Projects:

- Public or private highways and bridges
- Intelligent Transportation System Projects
- Intermodal Connectors
- Transit Vehicles and Facilities
- Intercity Buses and Facilities
- Freight Transfer Facilities
- Pedestrian and Bicycle Infrastructure Networks
- Transit-Oriented Development
- Rural Infrastructure Projects
- Passenger Rail Vehicles and Facilities
- Surface Transportation Elements of Port Projects

RAILROAD REHABILITATION AND IMPROVEMENT FINANCING PROGRAM (RRIF)

UI can help navigate obtaining financing from the RRIF program. RRIF provides direct loans and loan guarantees to finance the development of railroad infrastructure.

Eligible Applicants:

- State and local governments
- Interstate compacts consented to by Congress under section 410(a) of the Amtrak Reform and Accountability Act of 1997 (49 U.S.C. 24101 note)
- Government sponsored authorities & corporations
- Railroads
- Limited option freight shippers (solely for the purpose of constructing a rail connection between a plant or facility and a railroad)
- Joint ventures that include at least one of the above

Eligible Projects:

- Acquire, develop, improve, or rehabilitate intermodal, rail equipment, or facilities
- Refinance outstanding debt incurred for the purposes listed above
- Reimburse planning and design expenses relating to activities listed above
- Finance economic development, including commercial and residential development, and related infrastructure and activities

PRIVATE ACTIVITY BONDS (PAB)

Private Activity Bonds provide private-sector developers of certain types of projects with access to tax-exempt financing, reducing the cost of capital and enhancing the investment prospects. The Department is responsible for allocating up to \$15 billion in PAB authority for surface transportation projects that meet the eligibility criteria below:

Eligible Projects:

- Any surface transportation project that receives Federal assistance under Title 23, United States Code
- Any project for an international bridge or tunnel that an international entity authorized under Federal or State law, is responsible and receives Federal assistance under Title 23, United States Code
- Any facility used for the transfer of freight from truck to rail or rail to truck (including any temporary storage facilities directly related to such transfers) which receives Federal assistance under Title 23 or Title 49

FOSTERING ADVANCEMENTS IN SHIPPING AND TRANSPORTATION FOR THE LONG-TERM ACHIEVEMENT OF NATIONAL EFFICIENCIES (FASTLANE)

FASTLANE was authorized by the Fixing America's Surface Transportation (FAST) Act to promote national transportation infrastructure development. With \$4.5 billion available from FY16 through FY20, FASTLANE funding is awarded on a competitive basis and can cover up to 60 percent of a total project's cost.

Eligible Applicants:

- Single or group of State or Local governments
- Political subdivision of a State or local government
- Metropolitan Planning Organization that serves an urbanized area (as defined by the Bureau of the Census) with a population of more than 200,000 individuals
- Special purpose district or public authority with a transportation function, including a port authority
- Federal land management agency that applies jointly with a State or group of States
- Tribal government or a consortium of tribal governments
- Multi-State or multijurisdictional group of public entities

Eligible Projects:

- Highway freight project carried out on the National Highway Freight Network (23 U.S.C. 167)
- Highway or bridge project carried out on the National Highway System (NHS) including projects that add capacity on the Interstate System to improve mobility or projects in a national scenic area
- Railway-highway Grade Crossing or Grade Separation project
- Freight project that is:
 1. an intermodal or rail project, or
 2. within the boundaries of a public or private freight rail, water (including ports), or intermodal facility, that is a surface transportation infrastructure project necessary to facilitate direct intermodal interchange, transfer, or access into or out of the facility, and will significantly improve freight movement on the National Highway Freight Network

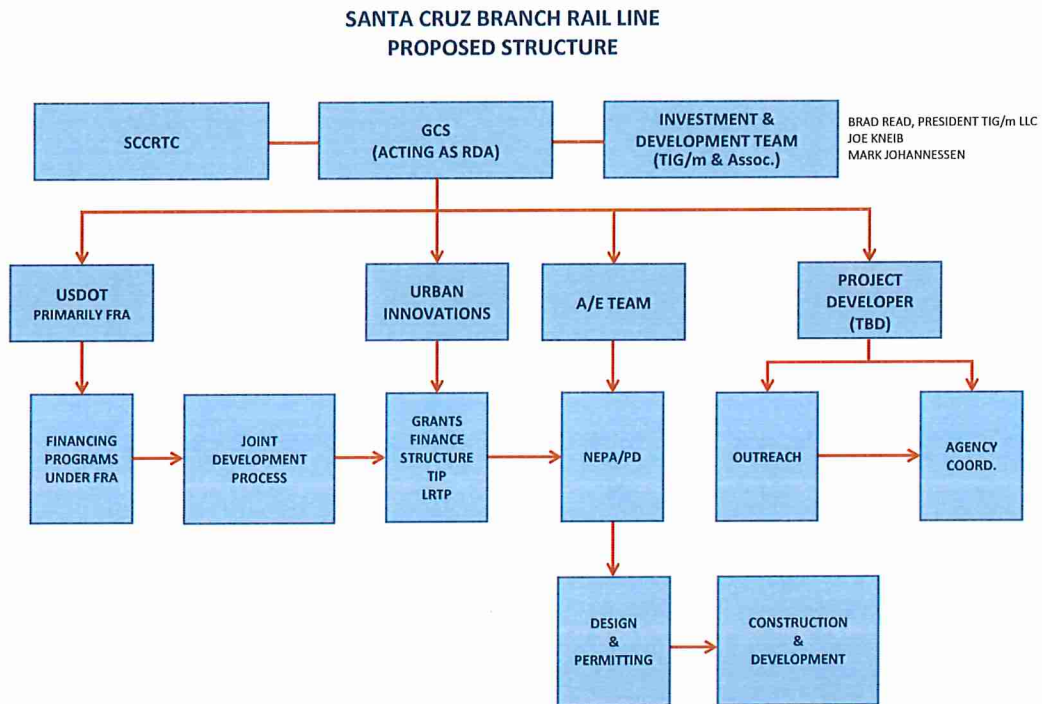
RURAL PROJECT INITIATIVE

The Department of Transportation's Rural Project Initiative is designed to make federal dollars more accessible to rural communities. Through affordable rural loans, we can begin to revitalize, repair, and rebuild rural America's infrastructure. UI works with the DOT to maximize benefits from the Rural Project Initiative for projects we consult on.

For the Rural Project Initiative, rural is defined as an area with a population of less than 150,000 and located outside a Census-defined urbanized area.

WHO CAN APPLY	BENEFITS	ELIGIBLE PROJECTS
<ul style="list-style-type: none"> • State Governments • Local Governments • State Infrastructure Banks • Private Firms • Special Authorities • Transportation Improvement Districts 	<ul style="list-style-type: none"> • No Fees: Pay no application or advisor fees (while funds last) • Low interest: 1.54% • Up to 35 year loan term • Finance up to 49% of eligible project costs • Project size: \$10-\$75 Million 	<ul style="list-style-type: none"> • Roads and Bridges • Inter-modal Connectors • Freight Transfer Facilities • Transit and passenger rail vehicles and related facilities • Ports • Airports (under some circumstances) • Intelligent Transportation Systems • Pedestrian and Bicycle Infrastructure Networks

EXAMPLE OF A STRUCTURE FOR THE SANTA CRUZ BRANCH RAIL LINE



The example above, is a structure which Urban Innovations had developed in conjunction with Global Community Services, a 501(c)4 organization to expedite Joint Development, otherwise known as Public-Private Partnerships.

TIG/M LLC, BRAD READ, PRESIDENT: DESIGN/BUILD OF CUSTOM SELF POWERED RAILWAY SYSTEMS

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.



Figure 1: MODERN STREETCAR - TIG/m MRV-3AC single body (passenger capacity 100)

TIG/m, LLC manufactures self-powered electric vehicle systems (trams, trolleys, people-movers) which require no overhead wire or continuous wayside power systems of any kind. The 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. The newest models, being manufactured for the countries of Qatar, Aruba, Mexico, China, and the United Arab Emirates, are zero-emission ultra-green streetcars which utilize hydrogen fuel-cells to charge the batteries while they are in passenger service. The rail vehicles run on standard gauge track (1,435 mm) and 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 the 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%.

TIG/m, LLC offers 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 pneumatics
- 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 which 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.



Figure 2: MODERN STREETCAR - TIG/m Virtual Coupler Demonstration

JOE KNEIB: SHORT LINE RAILROAD CONSULTANT

Since 1970, Joe Kneib has been integral to the growth and development of Herzog from a regional asphalt paving, light grading, small structure contractor into a national heavy/highway and rail company performing environmental, civil and rail construction, maintenance, and operations across North America. Joe was instrumental in early expansions for division operations in asphalt paving, environmental services, and aggregate production. For more than 20 years, Joe was a key advisor and supporter to Stan Herzog (Chairman and CEO) and Al Landes (President and COO) for all aspects of the Herzog organization.

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Joe doesn't boast about his accomplishments at Herzog but chooses to instead point to the contributions and successes of his colleagues such as Arnold, the Herzog family, and many others too numerous to mention. On several occasions, Joe has shared how intuitive, well-respected, and charismatic Herzog's founder William E. (Bill) Herzog was. Bill inspired Joe to be ethical, productive, and do quality work. He told Joe "If you don't love your family and enjoy getting up for work, you are in the wrong place." Joe also claims that Bill's belief in mentoring,

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MARK F. JOHANNESSEN J.D., MBA, CPA, CFLS: ADVISOR AND GOVERNMENT RELATIONS

Attorney-Mediator Mark F. Johannessen, is a Certified Family Law Specialist, certified by the State Bar of California, Board of Legal Specialization, and has practiced civil, business and tax law since 1983.

With an extensive business and financial background and also a Certified Public Accountant (inactive), Mark has extensive experience in preparing licensing, joint venture, business acquisition, business development, distributorship, and other legal agreements. He has advised and consulted on domestic and international transactional and business development issues. He is an experienced litigator, mediator, and collaborative professional.

In addition to his law practice, Mark has decades of community volunteering and political activism including 12 years as a Councilmember on and the Vice-Mayor of the City of West Sacramento, chairing the California State Senate Advisory Commission on Cost Control in State Government, and has been and is currently active in local and regional non-profit organizations, governmental commissions and local issues.

APPENDIX OF COMPANY PROFILES AND RESUMES

UI KEY STAFF

Robert Ardolino, President & CEO

Robert Ardolino, has developed and successfully implemented a proprietary process for obtaining Federal, state, local and private financing for TOD projects. His experience in commercial and residential development and his knowledge of governmental and private funding mechanisms were critical in overcoming the complexities surrounding this process.

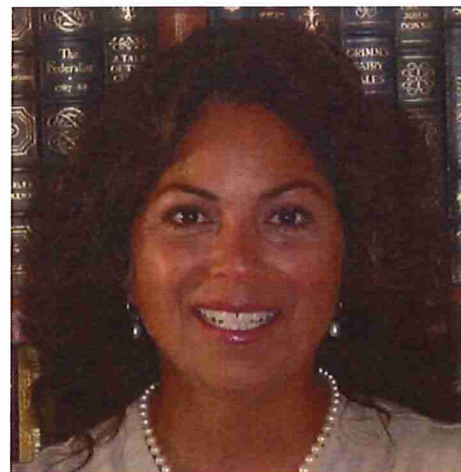
Bob has a civil engineering degree from Point Park College in Pittsburgh, PA. In 1984 he started his own company, Ardolino Industries. Working together with The Urban Redevelopment Authority of Pittsburgh, he established himself as a leader in government financing and public/private partnerships specializing in public and senior housing. Bob was exposed to TOD on a consulting project in 2000 and began his research into the topic. Over the next two years he worked at both the state and Federal levels, co-authoring policy which established new land use guidelines as they relate to TOD.

Bob has helped to create the P3 (Public Private Partnership) guidelines and deemed them the new way to successfully achieve all goals in Transit Oriented Development. His current company, Urban Innovations, is the leading consultant firm with projects reaching all over the nation.



Diana Ceseñas, Project Executive

Ms. Ceseñas has over 20 years experience in construction management and general contracting. Her primary experience is in the area of project controls, management, and development and implementation of policy and procedures with an emphasis on best practice policy. She has extensive experience in educating the project team and implementing proper management processes for tracking, analyzing, and reporting project costs in order to maintain



Urban Innovations Key Staff



the highest quality standards. She has been involved with several major, high profile projects in the Los Angeles area, such as the LA Metro Red Line – Segment 3 subway system, the controversial LAC+USC Medical Center Replacement Project pre-construction, and the LAUSD School Repair and Construction Project, each with project budgets in excess of \$1 billion and involving multi agency coordination. Ms. Ceseñas has managed the due diligence, permitting & environmental process including CEQA documents for private development and has coordinated extensively with various city, state, and federal agencies. She has also developed and implemented project controls policy and procedures for these clients. Most recently, Ms. Ceseñas' activities include the raw materials sector, where she has been providing project controls and cost management oversight for 20 large mine construction projects throughout the world. Diana is also a licensed General Contractor in the State of California.

FTA and FRA Relationships

As part of the long-term cultivation, UI has engaged several levels of the FTA and FRA directly and through our network of affiliates. Just a few of the key relationships include:

- Brian Farber, FTA Assistant Administrator
- Nathan Robinson, FRA Congressional Affairs
- Jamie Blaksley, FTA Chief Counsel
- Larry Kish, FRA Deputy Regional Administrator
- Larry Kuhn, FRA Deputy Regional Administrator, FRA Region 2
- John Mardente, FRA Director, Washington DC
- Cory Hill, FRA Director of Finance

RELEVANT EXPERIENCE

Eastside Transit Revitalization Project

The City of New Castle, PA

New Castle Area Transit Authority embarked upon a significant area revitalization project to enhance and unify the new Castle Business District. Though for two several years developers had been reinvesting in New Castle, the opportunities afforded through the incorporation of Transit and Joint Development were the greatest.

- 175 space Park N Ride parking lot
- Riverplex Pier 1 Development office building with day care center and Transit Kiosk which increased transit ridership
- Community Park provides connection to county courthouse from Park & Ride facility
- Mixed use residential development is currently under construction
- Due to the inclusion of Joint Development and the Transit portion of this Development, funding was acquired through
- FTA Federal grant dollars for 3.5M

Allegheny Valley Commuter Corridor

Southwestern Pennsylvania

The Allegheny Valley Railroad / Commuter project is the proposed implementation and operation of Diesel Light Rail passenger service along the same 19.5 mile suburban railway as the current Allegheny Valley Railroad freight service corridor.

- 7 Stops – 4 Park N Ride facilities
- Intermodal Center
- Automated Parking Facility – 500 – 1000 spaces
- Potential for economic development at 4 station sites
- Due to the inclusion of Joint Development and the Transit portion of this Development, funding was acquired through
- FTA, DOT & HUD TIGER grant secured for \$1.8M

Intermodal Transit Center

Snowmass Village, Co

This project was intended to be constructed on land owned by the Town of Snowmass Village which was being utilized for parking lots and a portion of the RFTA (Roaring Fork Transportation Authority) loading area. The development was the cornerstone of an effort to revitalize the outdated commercial area in the community. The regional transit depot and the local transit depot were separated

both vertically and horizontally in the existing core. This project sought to consolidate the two stations into a centralized location, thus improving the function of the local service as a feeder to the regional service, improving access to and efficiency of the stations design and location.

- Transit platform to allow boarding local and regional service
- Layover bus area to accommodate two-four shuttle vehicles
- Enclosed shelter for operational support and guest services
- Escalators, elevators to improve pedestrian traffic
- Parking – 200-250 vehicles
- Additionally, a 17,000 gross square foot Conference/Arts Center shall be jointly developed.
- FTA grant funds, secured \$6M

East Chestnut Street Garage – TRIPIL

Washington, PA

The mission of TRIPIL is to promote independent living in Southwestern Pennsylvania for individuals with disabilities, to ensure that the necessary support services are available them; and to prevent unnecessary institutionalization. In order to keep up with their current growth it will be necessary for TRIPIL to construct a new office building/headquarters along with parking accommodations. The City of Washington, PA, in conjunction with the City Transit Agency is reviewing an opportunity to enter into a potential joint development opportunity with TRIPIL. The City will long term lease approximately 11,000 sq. ft. of land to TRIPIL to construct a new 30,000 sq. ft. headquarter facility, to be located on the current city parking garage site on East Chestnut Street. A Park N Ride and Transfer Center will be incorporated into the development. The Joint Development opportunity will enable TRIPIL to benefit from receiving Federal Grant Funds to assist in the development of a new building.

- FTA grants secured for Planning grants \$540,000 with a balance remaining of \$200,500.

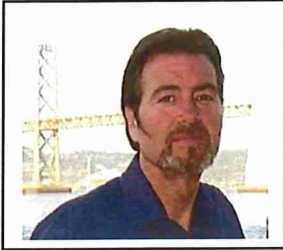
Other Projects – Partial Listing

- Light rail extension, NJ
- Sukala commuter rail, Pittsburgh PA
- BRT station, Bordentown NJ
- Grid intermodal shipping facility, Long Beach CA
- TOD, Salt Lake City, UT
- TOD/Joint Development, Mid Mon Valley Transportation Authority, Charleroi, Pennsylvania

Urban Innovations Experience



- TOD/Joint Development, Indio RDA, Indio, California
- RDA TRID Program, Washington, Pennsylvania. Various project including:
 - East Chestnut Street Garage, Mixed-Use Retail, Residential, Hotel and Parking Garage
 - Wheeling Street Multi-Modal Transit Center and Surrounding Mixed-Use Development
 - Route 19 Corridor, Transit Facilities Surrounding Mixed-Use Development
- TOD/Joint Development, Thornton CO
- TOD/Joint Development, Cornerstone @ Camelback LLC & Phoenix, AZ
- TOD/Joint Development, Save the Queen LLC & Long Beach, CA
- TOD/Joint Development OMC Green, Inc., Elk Grove, CA
- Inter-Modal transportation Center, Cabazon, CA
- Light rail station, Tunica, Mississippi



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Agoura Hills, Ca 91301
9160 Jordan Ave
Chatsworth, CA 91311

Bus. 818.709.8500
Cell 818.815.9119
Email brad@tig-m.com

Bradley L. Read

Mr. Read is a proven executive with over 30 years of experience as a corporate officer with an education, background, and extensive experience in Civil, Structural, and Mechanical Engineering. His combination of executive experience and engineering background has resulted in a successful hands-on approach to company leadership and project management which has culminated in the successful implementation of many large scale new construction and capital improvement projects. These include the design and installation of transportation systems in municipal streets, mixed-use developments, zoos, and parks in the United States, Mexico, Aruba, China, and the Middle East; projects of up to 4,000 acres, and 16 kilometers in scope.

Some recent examples are the design and installation of the world's first solar-powered street railway system at the éilan development in San Antonio, TX, and the design of the new Tramway Transportation System for the Mshiereb project in Downtown Doha, Qatar, the largest LEED Project in the world

Experience

2005- Present TIG/m, LLC Modern Street Railways

President

- Acquisition of Contracts, principal product/service representative.
- Streetcar designer; civil, structural, and mechanical designer.
- Managed design and installation of street railway system for Clients in the U.S., Mexico, Aruba, and countries of the Middle East.
- Hired, trained, and managed engineers, designers, and draftsmen.
- Performed all the usual duties of a Corporate President.
- Visit the TIG/m website for details. www.tig-m.com

1998–2008 EEI/TIG

President / Transportation Innovations Group

Director of Engineering / Entertainment Engineering, Inc.

- Managed design of projects up to \$60 million in capital cost.
- Crafted and negotiated individual Contracts up to \$38 million in value.
- Designed transportation systems for Clients in several Countries.
- Hired, trained, and managed engineers, designers, and draftsmen.
- Performed all the usual duties of the above Corporate Offices.
- Visit the EEI/TIG website for details. www.entenginc.com

1989–1998 Laurence/Wayne Research and Development, Inc.

President and co-Founder

- Created and Directed the Engineering Department.
- Developed solutions for aerospace, military, and commercial applications.

- Invention, design, and engineering of the patented **ROCLOCK™** fastening systems.
- Performed all the usual duties of a Corporate Officer.

1994–1997 **Crush Innovative Sports Systems, Inc.**

Senior Vice President / R&D

- Director of Engineering Dept.
- Design and engineering of all products including the patented **T-Bone™** snowboard binding system.
- Managed product development from blue-sky design through manufacturing.
- Performed all the usual duties of a Corporate Officer.

1980–Present **BCM / Art Services**

Owner / Principal

- Design / Engineering / Product Development.
- Commissioned and non-commissioned art works (painting, sculpture)
- Art restoration, Byzantine Water Gilding.
- For documentation of Collections, Exhibitions, Collaborations, Work Affiliations, and **Film Industry Resume** contact brad@artstax.com

Education

- School of the Museum of Fine Arts, Boston, MA.
- School of the Society of Arts and Crafts, Detroit, MI.
- Center for Creative Studies, Detroit, MI.
- Cosanti Foundation, Scottsdale, AZ.
- Arcosanti, Mayer, AZ.
- San Francisco Art Institute, San Francisco, CA.
- University of Arizona, Tucson, AZ. Master of Fine Arts, 1979.

Disciplines of Study

- Fine Art
- Architecture
- Art History
- Astronomy
- Civil Engineering
- Mechanical Engineering
- Structural Engineering
- Finite Element Analysis

Recent Awards

- LEED Platinum Certification, Doha Tramway Maintenance Facility, First LEED Platinum building in Qatar
- ACEC Diamond Award for Design Excellence, Aruba Streetcar System, Co-recipients Sam Swartz Engineering, Prime Minister Mike Eman

Patents

Sixteen U.S. Patents awarded:

- Locking Mechanisms; Multi-point load bearing, quick-release fastening systems; their configurations and applications.
- Composite wheel/rail configurations.

Conference Presentations

Numerous international transportation conference presentations.

“New Transportation Solutions as an Outgrowth of the Entertainment Industry”
American Society of Mechanical Engineers
Howard Hughes School of Engineering, University of Las Vegas, NV

“Hydrogen Embrittlement of Ferrous and Non-Ferrous Materials”
American Society for Metals, Detroit, MI.

Licenses and Certificates

1983 PE- Civil, Structural Engineering, CA
1994 Structural Research and Analysis Corporation
2001 AutoDesk Corporation, Developer
2003 Solidworks Corporation, Developer
2004 Corporate Performance Institute, CC Master of Negotiation
2005 DestiNY USA, CT Destinomics

Major Projects Mr. Read has been involved in:

(Most recent first)

Transportation:

Chimelong Railway	Zhuhai, China
Mshiereb Doha Tramway	Doha, Qatar
Downtown Dubai Trolley	Dubai, UAE
Oanjetstad Streetcar System	Aruba
éilan Streetcar System	San Antonio, Texas
Puerto Los Cabos Tram	San Jose Del Cabo, Mexico
Polo Square Streetcar	Indio, California
Maymont Park Peoplemover	Richmond, Virginia
Grand Station Trolley System	Loveland, Colorado
Wild Animal Park RoadTrain	Escondido, California
Chicago Metra Locomotive	Chicago, Illinois
The Grove Trolley	Los Angeles, California
Phase I Monorail	Las Vegas, Nevada

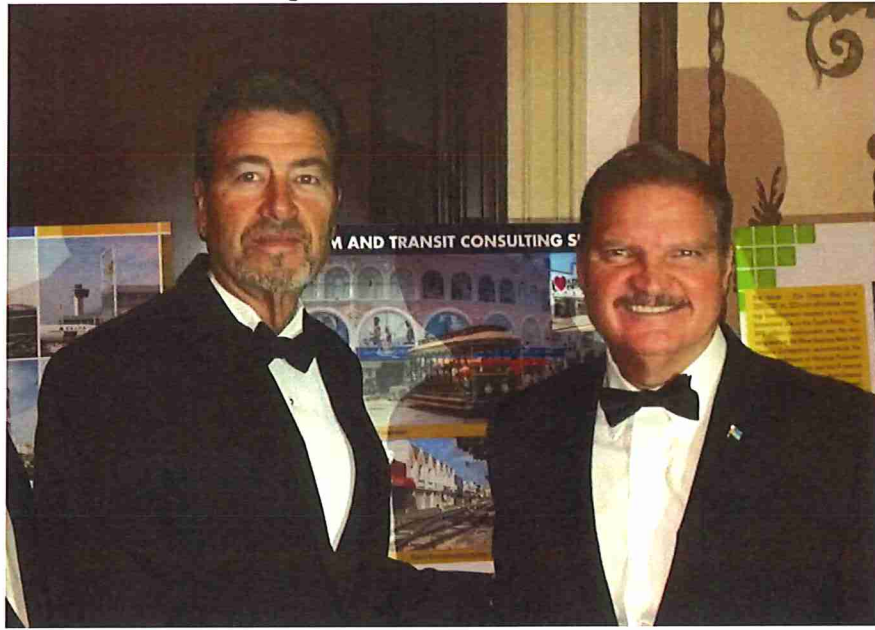
Ride, Show, and Facility Engineering:

Staples Center	Los Angeles, California
Hollywood Bowl	Hollywood, California
Crystal Cathedral	Garden Grove, California
Fremont Stages	Las Vegas, Nevada
Disney's California Adventure	Anaheim, California
Experience Music Project	Seattle, Washington
Universal City	Hollywood, California
Disneyland Hotel	Anaheim, California
Salt Lake Paralympics	Salt Lake City, Utah
Lost Continent	Universal Studios, Florida

Sony Pictures Studios
Tokyo Disneyseas
Snoopy Studios

Culver City, California
Tokyo, Japan
Universal Studios, Japan

Brad Read with Prime Minister Mike Eman of Aruba at the reception for the Diamond Award for Design Excellence, at the Waldorf Astoria Hotel in NYC.



Summary of Accomplishments – Joseph A. (Joe) Kneib

OVERVIEW

Since 1970, Joe Kneib has been integral to the growth and development of Herzog from a regional asphalt paving, light grading, small structure contractor into a national heavy/highway and rail company performing environmental, civil and rail construction, maintenance, and operations across North America. Joe was instrumental in early expansions for division operations in asphalt paving, environmental services, and aggregate production. For more than 20 years, Joe was a key advisor and supporter to Stan Herzog (Chairman and CEO) and Al Landes (President and COO) for all aspects of the Herzog organization.

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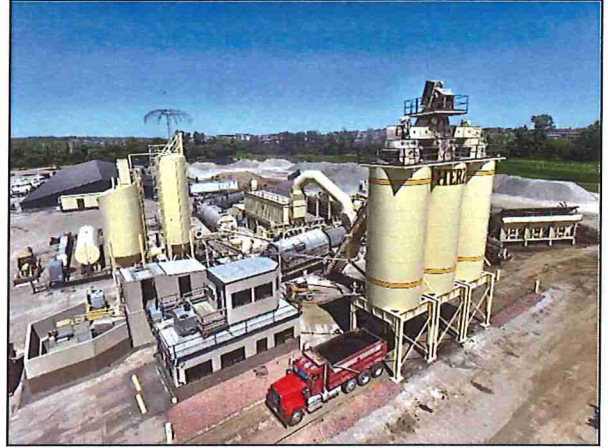


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Summary of Accomplishments – Joseph A. (Joe) Kneib

MILESTONE ACHIEVEMENTS

While attending college at Missouri Western State College, Joe was first exposed to the railroad industry as a switchman/brakeman on the CB&Q Railroad (now Burlington Northern). A few years later in **1970**, Bill Herzog hired Joe – a young, hard-working, scrappy laborer – for area paving and railroad projects. Taking great pride in his work, Joe began carving his way through the ranks as laborer, foreman, superintendent, and in **1973** earned his first big promotion to General Manager of MoKan Paving – Herzog’s asphalt operations serving Northwest Missouri and Northeast Kansas. He transitioned into a larger role serving as Vice President of MoKan from **1975** until **1981**, supervising more than 150 employees.



During this period of asphalt operations growth, Herzog began to diversify and explore work in the railroad and waste management industries to offset costs during the winter months. With Joe’s early experience on the railroad, he also became intimately involved in the development and expansion of



Herzog’s rail division and civil construction. He had a key role in the bidding and negotiation of Herzog’s first big railroad contract for the U.S. Corps of Engineers in **1975** at the Clinton Dam/Truman Reservoir in Benton County, Missouri. This 12.5-mile relocation of MK&T Railroad (now the UPRR) from Shell City to Clinton, MO was the largest dollar contract for Herzog at the time (serving as a subcontractor to Luhr Brothers Company) and served as an important lesson in stakeholder coordination for the company.

In **1978**, Joe and Al Landes managed Herzog’s first significant involvement with grading, electrical, sewer, utility, drainage, structures, and concrete work with a series of seven Interstate 229 projects near downtown St. Joseph, MO. The amount of civil work Herzog completed for MoDOT within a complicated and demanding schedule gave Herzog the necessary experience to begin pursuing rail construction projects with substantial heavy civil components.

In **1979**, Joe helped Herzog bid and win the southern California Tijuana Trolley contract. Herzog served as the prime contractor to build the trolley line from downtown San Diego to San Ysidro, CA for the Metropolitan Transit Development Board (MTDB). This project set the stage for Herzog’s entrance into national transit work and future projects with MTDB.

Just as Herzog was experiencing newfound success in the rail industry, Herzog’s asphalt division began bidding asphalt construction work outside of Missouri. As a result, Joe began setting up a strategic partnering, subcontractor, and supplier network for asphalt paving and rail construction projects throughout Texas, California, Arkansas, New Mexico, and Oklahoma. In **1980**, Joe helped Herzog secure

Summary of Accomplishments – Joseph A. (Joe) Kneib

its first large-scale asphalt project as a prime contractor on a substantial section of Interstate 20 in Marshall, Texas. This work ultimately led to additional Texas asphalt contracts, significantly expanding Herzog's operations across the entire state and later into New Mexico.

In **1981**, Joe's responsibilities officially transitioned into the special projects and business development role he has today. He became instrumental in another diversification of Herzog's business – waste management. Joe's personal relationship with Les Haug of ECHO Engineering and Equipment Co. in Santa Ana, CA provided the foundation for a 20/80 venture on a 7-year operations contract with the County of San Diego to operate their six landfills (1982-1995). This long-term contract in environmental services allowed Herzog to incorporate as Herzog Environmental, Inc. and pursue additional work for landfills in Kansas, Colorado, New Mexico, and the U.S. Territory of Guam. This company has since evolved into a 50/50 joint venture company (between Herzog and Philips & Jordan) known as Green Group Holdings, LLC.

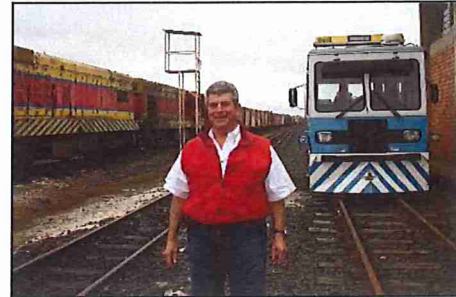
In **1985**, Joe learned that the Kansas City Southern (KCS) railroad sought a way to easily obtain ballast near their railroad line. Joe spearheaded the effort to find a suitable area to develop and startup a rock quarry in West Hatton, AR. Shortly after quarry production began, Herzog built a rail spur from the quarry to the KCS railroad to expedite transport. As many of 100 cars plus per day were loaded with riprap, asphalt materials, concrete rock, and railroad ballast. When the quarry was sold in 1995, the 1,000+ acre quarry was producing approximately 2.2M tons of rock per year. The sale to Meridian Minerals/Martin Marietta led to Herzog's ownership of over 5,000 railcars giving a healthy boost to Herzog's Railroad Services, Inc's equipment inventory. The success in the quarry business also enabled Herzog to incorporate as Herzog's Stone Products, Inc. and open portable quarry operations throughout Kansas, Oklahoma, Arkansas, Texas, and New Mexico.

Joe's other notable achievements during this period include winning a 15-year contract with the Metropolitan Council in St Paul, MN for beneficial reuse of incinerator sewage sludge ash and a 13-year contract with the BNSF for the transport and unloading of aggregate for the American Crystal Sugar Company. Joe was also involved with the acquisition of Herzog's wholly-owned subsidiary, Tru-Flex Manufacturing, in **1988**. This metal hose manufacturer in West Lebanon, IN supplied the asphalt paving equipment industry with necessary metal hoses. Not only did Joe bring the entity to Herzog's consideration, but also identified buyers for the sale at 15 times the purchase price in **2008**.

Working behind the scenes, Joe has had significant involvement in the partnering, proposal strategy, negotiation, and start-up of nearly all of Herzog's major rail transportation projects throughout the U.S. One of his first efforts, included serving a key role in the preconstruction and start-up for the Southern Pacific (now UPRR) relocation and the construction of the LACMTA Blue Line and Long Beach segments in Los Angeles, CA, in **1987**.

Summary of Accomplishments – Joseph A. (Joe) Kneib

In the **1990s**, Joe began exploring work abroad, building teams to propose on newly privatized rail projects. In Australia, Herzog pursued 14 different railroad construction projects in New South Wales. In Chile, Herzog proposed on the reconstruction of 900 km of track infrastructure, rolling stock, and operations for the Empresa de los Ferrocarriles del Estado (EFE) railway from Puerto Montt to Santiago, Chile. After putting in years of work towards these pursuits, clients halted these projects for various reasons.



In **1997**, Joe helped convince Herzog's project manager Frank Storbakken (and the construction team) to utilize an alternate construction method for the rail construction of the Red Line Tunnel project in North Hollywood, CA. This change resulted in a swing of more than \$9M from what could have been a negative profit project should it have been built how it was bid and the way a previous contractor constructed an adjacent project.

From **2002-2005** on the \$130M CTX North & South in San Francisco, CA, Joe served as a liaison between the Herzog/Stacy and Witbeck joint venture's project manager, the Caltrain project manager, UPRR freight service, and Amtrak passenger service for track access, scheduling, property acquisition, and material acquisitions. This project gave Herzog significant credibility for completing necessary construction work in live track environments. Caltrain experienced on-time delivery and assessed no liquidated damages. Today a subsidiary for Herzog's operation and maintenance arm, Herzog Transit Services, Inc. (HTSI), operates the passenger rail service along this corridor.

New Mexico Council of Government's (NMCOG) \$128M RailRunner II and \$20M RailRunner III project in Santa Fe, NM was on and off for several years while necessary funding was secured. Once the project was out for bid, from **2004-2005**, Joe was integral in the proposal, negotiation, procurement, and startup efforts for both Herzog Contracting Corp. (construction) and HTSI (operations and maintenance).

From **2005-2006**, Joe, and former colleague Jim Cunningham, shaped the Herzog/Stacy Witbeck JV winning project strategy and managed the proposal development for the \$370M RTD West Corridor LRT. This project became the first CM/GC project in Colorado and was awarded one of the safest, linear heavy civil projects in the state due to project manager John West and Herzog's commitment to safety.

Between **2010-2015**, Joe sought out more international work for Herzog – leading teaming efforts on mega rail projects in the United Arab Emirates (UAE) for Etihad Rail as well as the Kingdom of Saudi Arabia (SAR) & Saudi Railways Organization (SRO). Although the construction contracts that Herzog bid on with the Saudi Bin laden Group were ultimately cancelled, Herzog was invited back in September in 2017 to propose on the operations and maintenance for the Etihad Rail project. In **2011**, Joe also led proposal efforts with HARSCO Rail on the 281-mile, \$1.8B Haramain Phase 1 High Speed Rail project.



Summary of Accomplishments – Joseph A. (Joe) Kneib

From **2008-2013**, the Regional Transit District (RTD) in Denver, CO put several projects out for bid on multiple expansions to their LRT system. Joe served as Herzog's proposal sponsor for both Herzog and Stacy and Witbeck within the construction joint venture on the \$3B Eagle P3 rail construction project running from Denver International Airport to Union Station in downtown Denver, CO. He also led the strategic efforts for the Herzog/Stacy and Witbeck JV (within the Bechtel team) on the P3 pursuit for the construction of five new LRT lines in Denver. The contract ultimately evolved into a design-build for only one of the lines (North Metro). Herzog's team was announced as the low bidder but not awarded the best value project contract.

Back stateside, from **2011-2012**, Joe served as a sponsor for the Herzog/Stacy and Witbeck JV in the pre-proposal, proposal, and interview efforts for the \$88M KC Streetcar construction project with the City of Kansas City, Kansas City Streetcar Authority, and representatives from the four stakeholder areas (Union Station, Crossroads, Power and Light, and River Market). Joe's ability to connect with the necessary people laid the groundwork for Al Landes and Stacy and Witbeck partners to work through negotiations with the city during contract award. With Herzog's subsequent award of the operations and maintenance contract, transit management provided valuable electrification system and operations input into the KC Streetcar construction.



From **2015 to 2018**, Joe continued to attend annual industry conferences both nationally and internationally, mentor and advise our next generation of leaders at Herzog, and serve an integral role in the pursuit of various civil and rail projects such as the \$1.3B MBTA Green Line project, recently awarded to the design-build joint venture (Fluor/Middlesex/Herzog/ Balfour Beatty) in 2017. Joe was also recently bestowed an Outstanding Service Award for his tireless efforts and dedication to the support of the National Council for Public-Private Partnerships (NCPPP).

PROFESSIONAL AFFILIATIONS

Joe's tenacity, positive attitude, and strong work ethic within the construction industry has led him to get involved, build teams, and earn credibility with industry associations throughout his career. His continued involvement is due to his genuine interest in supporting infrastructure development in the U.S. and teaming up with the new faces in construction.

- Associated General Contractors (AGC) of America – Public-Private Partnerships (PPP) committee, task force & member
- AGC local chapters (MO, KS, CO, MN, SD, ND, IA, NE, OK, NM, TX, AR, CA, AZ, UT, NV) – member
- AGC International Division – member
- American Road & Transportation Builders Association (ARTBA) – PPP, High Speed Rail, Rail Mass Transit committees, task forces & member

Summary of Accomplishments – Joseph A. (Joe) Kneib

- National Council for Public-Private Partnerships (NCPPP) – Transportation Institute board member
- Canadian Council for Public Private Partnerships - member
- National Railroad Construction and Maintenance Association, Inc. (NRC) – member
- American Railway Engineering and Maintenance-of-Way Association (AREMA) – member
- Solid Waste Association of North America (SWANA) – member
- National Waste & Recycling Association (NWRA) – member
- Associated Builders and Contractors (ABC) – member
- American Association of Railroads (AAR/GO-21) – member
- Greater Kansas City Chamber of Commerce – Transportation task force & member
- National Right to Work committee – member
- St. Joseph, MO, Chamber of Commerce – Transportation and Industrial Development task force, Industrial Development committee member
- U.S./UAE Business Council – member
- Mayor’s 5-year Oversight Committee for 2-C Tax Referendum (\$250M street reconstruction), Colorado Springs, CO
- Northwest MO/Northeast KS Building and Industry Association – former President & member
- United Arab Emirates (UAE) Chamber of Commerce – former member



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Profile

- 50 years of management and business development experience in the rail, highway, and heavy construction industry
- Played an integral role in developing Herzog Contracting Corp. from a regional highway construction company to a national and international construction, operations, and maintenance firm
- Has built long-standing relationships with public/private owners and stakeholders
- Strategically identifies project needs, innovations, and market trends

Relevant Experience

Herzog Contracting Corp. : St. Joseph, MO : 1970-2018 Senior Vice President, Market Development

- Organized construction and equity participation in public private partnerships for domestic and international transportation projects
- Worked closely with local, state, federal and international governmental transportation entities for the development of contractual agreements and innovative solutions for complex transportation problems
- Instrumental in advancement of Herzog's environmental division for construction of landfills, beneficial reuse of municipal and industrial waste materials, and transportation and disposal of hazardous materials
- Involved in the early concepting and marketing of Herzog's proprietary material-handling rail equipment
- Instrumental in the expansion of Herzog's rail car leasing, ballast transportation, and distribution system in North America
- Former Vice President and General Manager of Mo-Kan Paving, Inc. a fully-owned division of Herzog Contracting Corp.
- Former superintendent, foreman, and laborer for asphalt paving, grading, and railroad construction projects

Burlington Northern Railroad, Operating and Maintenance Division : MO/NE/IA : 1967-1969

Switchman/Brakeman

- Performed maintenance of way operations in freight yard and main lines
- Assembled and disassembled trains for destination locations

Land Construction Company : St. Joseph, MO : 1966-1967 Labor and Heavy Equipment Operator

- Varying responsibilities for grading, asphalt paving, and concrete patching

Education

Coursework in Business Administration, Missouri Western State University, St. Joseph, MO, 1966-1970

Board & Committee Experience

Associated General Contractors (AGC), International Division and Public-Private Partnerships task force

American Road & Transportation Builders Association (ARTBA), High Speed Rail and Rail Mass Transit committee

National Council for Public-Private Partnerships (NCPPT), Transportation Institute board member

Former Heartland Hospital Foundation board member

Additional Membership Organizations

National Railroad Construction and Maintenance Association, Inc. (NRC)

American Railway Engineering and Maintenance-of-Way Association (AREMA)

Solid Waste Association of North America (SWANA)

National Waste & Recycling Association (NWRA)

Associated Builders and Contractors (ABC)

American Association of Railroads (AAR/GO-21)

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Legal and Professional Experience

Attorney - international law and business, Nagashima & Ohno (now Nagashina, Ohno & Tsunematsu), Tokyo, Japan

- Prepared licensing, joint venture, business acquisition, business development, distributorship, and other legal agreements,
- Assisted Japanese counterparts with contract negotiations,
- Prepared memorandum and articles on matters relating to Japanese tax, employment, securities, financing and general corporate law,
- Worked on aircraft leasing projects, the establishment of foreign-owned businesses in Japan and support for Japanese-owned businesses in the U.S., Asia, South America, Europe, Russia, and Middle East.

Attorney in private law practice, Sacramento, Santa Cruz, California

- Advised and consulted on domestic and international transactional and business development issues,
- Experienced family law litigator, mediator and collaborative professional.

Certified Public Accountant and Tax Manager, Price Waterhouse (now PwC) in the Amsterdam, Newport Beach and San Francisco offices

- Consulted on individual, corporate and partnership tax matters,
- Managed compliance work, client projections and forecasting,
- Engaged in practice development,
- Supervised client programs,
- Performed budgeting and billing services,
- Assisted with tax related seminars and research projects.

Political Experience

Mayor Pro Tem/Council Member, City of West Sacramento, California (pop. 55,000)

- Elected November 2006. re-elected November 2010, and again in November 2014. Resigned December 2018,
- Worked with regional, state and federal elected officials on funding and policy support on a variety of city issues including transportation, housing, homelessness, flood protection, and others,

- Spearheaded the development of an award-winning comprehensive active-aging plan to address the city's aging population in partnership with AARP,
- Pushed future-looking initiatives including reduction of the city's carbon footprint and increasing its hydrogen footprint, smart city policy development and implementation, addressing the digital divide, job creation, and mobility,
- Spearheaded the installation of the first public hydrogen automobile fueling station in California, located in West Sacramento,
- Member of the West Sacramento – Sacramento Streetcar Policy Steering Committee.

Business Experience

Environmental infrastructure consultant

- Provided team leadership and legal support for foreign municipal and industrial water and wastewater treatment system pre-development work and other environmental projects,
- Successfully produced a USAID-funded pre-feasibility study for a privatized water and wastewater project in Bulgaria,
- Conducted market surveys and analysis,
- Identified projects and conducted foreign site work in Chile, Argentina, Czech Republic and Bulgaria,
- Consulted with government authorities (foreign and U.S.),
- Located and selected in-country business and project development partners.

International trade consultant

- Coordinated the *ELAN* (Export Legal Assistant Network) for the Northeastern, California region and provided consulting services to regional businesses desiring to enter foreign markets,
- Provided legal support to regional businesses with an established foreign presence.

Software development and sales

- Developed and sold iOS apps specific to Apple devices,
- Consulted and developed web-based, data-driven applications,
- Experienced coder in various languages including Swift, Objective C, JavaScript, Java, PERL, PHP, HTML, CSS and others,
- Produced audio, video and graphics content.

Education

Graduate – Harvard Kennedy School Executive Program “Driving Government Performance”, Cambridge, Massachusetts.

Juris Doctor - Southwestern University School of Law, Los Angeles, California and University of the Pacific, McGeorge School of Law, Sacramento, California.

M.B.A. - Golden Gate University, San Francisco, California.

B.S. - Business Administration & Accounting, California State University, Chico, California

Language Schools - Japanese - Tokyo, Japan; Dutch - Amsterdam, the Netherlands

Present civic engagement and public service

Superior Court Judge Pro Tem for traffic, small claims and family law courts in Sacramento and Santa Cruz Counties

Chair of the California Senate Advisory Commission on Cost Control in State Government

Commissioner on the Santa Cruz County Senior Commission

President-elect of the Santa Cruz County Bar Association

Member of Santa Cruz Divorce Solutions, a collaborative professional group for family law cases

Past civic engagement and public service

Commissioner on the Port of West Sacramento governing board

Commissioner on the Yolo Housing Authority board

Commissioner on the Yolo-Solano Air Quality Management District

Commissioner with the Yolo County 10-Year Plan to End Homelessness Executive Commission

Member of the Sacramento delegation of the California Conference of Bar Associations

Volunteer family law mediator with the Sacramento County Superior Court

Member of FLEXCOM (Family Law Executive Committee) review team for pending family law legislation

Member of the Yolo County Economic Development Council. Organized the Yolo County Economic Summit 2004 in February 2004

Board Member of the West Sacramento Chamber of Commerce. Past Vice President and Treasurer and past chair of the Chamber's Economic Development, Governmental Affairs and Public Affairs Committees

Northeastern California Regional Coordinator for the *ELAN* (Export Legal Assistant Network) program, a program co-sponsored by the Federal Bar Association, U.S. Small Business Administration and U.S. Department of Commerce to provide legal and export advice to regional businesses