



BCM can address every aspect of urban rail design and construction through a comprehensive Project Management Consultancy Program.

THE BCM LTD DIFFERENCE

INTRODUCTION

With over 28 years of experience in the urban rail sector, over 100 successful rail systems designs completed, and numerous large Project Management Consultancies under our belt, you can be assured that we bring the expertise in light and very light rail necessary for a successful project. We have worked in six countries around the world and work comfortably under international guidelines CEN/APTA/IBC to achieve international code compliance.

INFRASTRUCTURE SIMPLIFIED

BCM's extensive experience in designing and building urban tramway infrastructure using shallow trackforms and VLR/LRT rolling stock gives us a huge advantage in creating designs that can avoid costly utilities relocation — saving you millions per mile.

Self-Powered Vehicles

By carrying traction power onboard the vehicles and eliminating the need for wayside power systems, the project can be significantly simplified and rendered affordable for medium sized cities and towns.

Carbon-Neutral Options

From zero-emission battery-only to fully carbon-neutral hydrogen/electric hybrid propulsion. Future-proof, powerful, and proven in years of public service.



International Safety Standards

All trams are designed, manufactured by our preferred vendors, and tested to comply with EN-50126, EN-50128, and EN-50129, as well as all applicable railway safety standards.

Although we recommend design for uninterrupted battery service, if the client requires it, we can provide energy sources such as overhead contact or opportunity charging as well as onboard generation through HFC or CNG ICE. Batteries are charged and balanced each night. The vehicle is simply plugged into a QCDC wall unit at its berth in the Depot, using the supplied high-voltage charging system.

WHY CHOOSE BCM LTD

Powerful Mission. Beautiful Solutions.

Powerful Mission

Reducing streetcar infrastructure costs by eliminating expensive distributed power systems — helping re-introduce street railway into the modern city.

Award-Winning

Multiple international, national, and local awards. A growing list of technology milestones and world's firsts in rail propulsion.

Maximum Safety

Strictest adherence to European and American Railway Standards. Reliability, Accessibility, Maintainability, and Safety — by design.

Carbon Neutral

Dedicated to carbon-neutral public transportation. Choose from zero-emission battery-only to fully carbon-neutral hydrogen/electric options.

Urban Street Railway Systems

Designing affordable infrastructure and rolling stock for cities worldwide.



OUR CAPABILITIES

A Complete Rail Systems Partner

Whether you are starting from a blank page or looking for support on a specific phase of your project, BCM Ltd has the expertise to help. We bring together engineering, manufacturing, and project delivery under one banner.

Concept & Feasibility

From the earliest stages of a project, BCM Ltd works with clients to define the scope, assess feasibility, and develop a clear concept for the rail system. We help you understand what is possible and what it will take to get there.

- Route and ridership analysis
- Technology selection and comparison
- Preliminary cost modelling
- Stakeholder engagement support

System Design & Engineering

Our engineering team delivers complete rail system design — from vehicle specification and track layout through to power, signaling, and control systems. All work is carried out to international railway standards.

- Vehicle specification and design
- Track geometry, alignment engineering, construction documents
- Signaling and control systems
- EN-50126/8/9 compliance

Procurement

BCM Ltd manages the full manufacturing process for trams, streetcars, and heritage trolleys. Vehicles are built by our preferred vendors to the highest quality standards and proven in years of international public service. Battery-electric and hydrogen/electric vehicles

- Heritage and modern styling
- Quality assurance and testing
- Factory acceptance testing (FAT)



Delivery & Commissioning

We manage the logistics of delivering vehicles and infrastructure to your city, and work alongside your team through commissioning and site acceptance testing to ensure everything operates as designed.

- International logistics management
- Site acceptance testing (SAT)
- Commissioning support
- Operator training

Maintenance & Support

BCM Ltd provides ongoing technical support, maintenance guidance, and spare parts supply to keep your fleet in service. Our team is available to assist operators throughout the life of the system.

- Preventive maintenance programs
- Spare parts supply
- Remote technical support
- Fleet performance monitoring

Compliance & Certification

Navigating railway safety standards and regulatory approval can be complex. BCM Ltd has deep experience with European and American railway standards and can guide your project through the certification process.

- EN-50126 / EN-50128 / EN-50129
- Safety case development
- Regulatory liaison
- Independent safety assessment support



OUR DESIGNS

Heritage or Modern Style.

Modern Technology.

Vintage or modern aesthetics, robust performance, and vanguard technology make BCM Ltd vehicle designs unique in all the world. Manufactured by our preferred vendors, our trams and trolleys combine signature, bespoke aesthetics with the reliability and sustainability of cutting-edge engineering.

- Battery-only and hydrogen/electric variants
- Standard gauge track — non-electrified
- Rapid installation, low impact trackform
- Award-winning designs, internationally recognized





OUR DELIVERABLES

From Concept to Construction

Every BCM Ltd engagement produces rigorous, professional deliverables — from early-stage alignment concepts through to full construction documents and financial models.



Alignment Concepts

Route options, corridor analysis, and phasing strategies mapped for decision-makers.



Rail Systems Design and Delivery

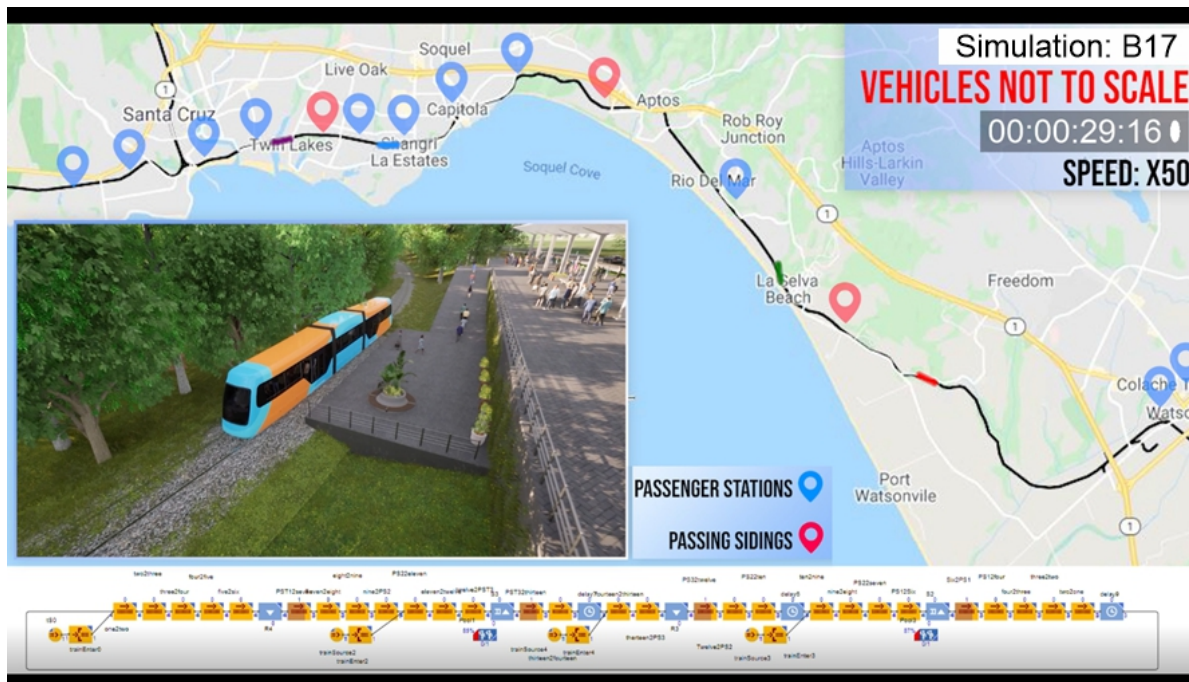
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		RIVERSIDE STREETCAR SYSTEM		ROM PROJECT COST MODEL (\$TOPS)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
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Rail Systems Design and Delivery

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Simulations

Dynamic operational simulations demonstrating system capacity, performance, and passenger flow.



Construction Documents

Full engineering drawing sets, specifications, and tender packages ready for construction.

To review, download [BCM Ltd_Example_AS-BUILT Dwggs.PDF](#).



HOW WE WORK

From Concept to Delivery

- **Concept**
 - Define scope, assess feasibility, and select the right technology for your project.
- **Design**
 - Full system engineering to CEN, IBC, and APTA international standards.
- **Procurement**
 - Build and test vehicles, track, and infrastructure to specification.
- **Delivery**
 - Commission the system, train operators, and hand over a working railway.

OUR WORK

Selected Projects

A selection of rail systems projects managed, designed, engineered, and delivered by BCM Ltd — for public and private sector clients worldwide.

Beginning on next page



Featured Project

Msheireb Downtown Doha



DOHA, QATAR

MSHEIREB DOWNTOWN DOHA TRAMWAY TRANSPORTATION SYSTEM

A landmark project delivering a complete wireless tramway system in the heart of Doha, Qatar. BCM Ltd supported end-to-end rail systems through project management, design, procurement, and delivery — from concept through commissioning. The system operates entirely without overhead wire or wayside power infrastructure, carrying millions of passengers. To view the As-Built Infrastructure drawings for the Msheireb Tramway accompany this document, download [BCM Ltd Example AS-BUILT Dwgs.PDF](#).



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SELECTED PROJECTS

Coast Futura Railway	Santa Cruz, CA
Riverside SFS	Riverside, CA
Msheireb Tramway	Doha, Qatar
Chimelong Railway	Zhuhai, China
Downtown Dubai Trolley	Dubai, UAE
Oranjestad Streetcar System	Oranjestad, Aruba
The Place Trolley	Cabo San Lucas, Mexico
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 Peoplemover	Escondido, California
Chicago Metra Locomotive	Chicago, Illinois
The Grove Trolley	Los Angeles, California
Phase I Monorail	Las Vegas, Nevada



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For a more comprehensive description of BCM Ltd capabilities, please visit:

www.bcm-ltd.net

To review the delivered as-built design for the Msheireb Downtown Doha Tramway Transportation System, download [BCM Ltd Example AS-BUILT Dwgs.PDF](#).

For more information contact:

A handwritten signature in blue ink that reads 'Brad Read'.

Brad Read

President

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