

Location: Remote Salary: \$135k - \$165k Hours: Full-Time

JOB DESCRIPTION:

A Systems Engineering approach to safety that includes standards that address all aspects of the client's system, including signal and train control, track, rolling stock, operating practices, system qualifications, and maintenance shall be employed. Therefore, this position will support the certification of a full system, including track, systems, and rolling stock. This position supports the assessment of and compliance with applicable codes, regulations, laws, legislation and standards and technical requirements through the certification process. The Railway Systems Certification Engineer works in the Rail and Operations Delivery Branch of the client's Office of Program Delivery.

RESPONSIBILITIES AND REQUIREMENTS

- Support services in relation to System Certification, including but not limited to Pre-Revenue Service Acceptance and Testing Plan, Train Control Implementation Plan, and New Starts Deliverable Requirements:
- All systems, subsystems, components, equipment, and materials furnished and installed conform to the requirements of the contract documents;
- The entire transit system, with all interfaces, operates as an integrated whole and is capable of functioning effectively to provide dependable service;
- The system is safe for use by patrons to the extent possible in conformance to industry standards, standard of care, and conformance with contractual requirements;
- The system will operate safely through the host communities; and
- Support the operator to confirm the safe operation and maintenance of the system.
- Confirm contractor's Verification and Validation (V&V) process and plan that meets minimum VV requirement, Requirements Management, design management, interface management, inspection and testing management as well as configuration and change management.
- Provide guidance and leadership to high-speed rail systems and track engineering team members. Mentoring and advising staff regarding various FRA requirements.

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KNOWLEDGE OF:

Code of Federal Regulations (49 CFR Parts 200-299), , and FRA Monitoring Procedure 54-Readiness for Revenue Operations. Knowledge of design, construction, testing and commissioning, operation, maintenance, renewal and asset management of the client, including track alignments (horizontal, vertical, and super-elevation), track formation, track structure and drainage), and familiarity with ATC, Traction electrification, hazard detection and warning systems, and emergency alarms.

- Knowledge of system integration on rail projects including civil, structural, vehicle, train control, traction power and communications subsystems along experience with:
- System safety, certification and assurance.
- Interface management, requirements management, compliance, verification and validation, and RAMS.
- Operational security, regulatory approvals and operational and maintenance requirements and procedures.

ABILITY TO:

Utilize sound engineering practices and knowledge to review developed requirements, specifications, designs and reports and to be able to interpret those technical requirements for compliance with statute, national and international design standards and best industry practice. Use analytical and problem-solving skills to develop structured methods to identify root causes, create resolution options, evaluate impacts and implement the selected solution; Demonstrate attention to detail in preparing and reviewing technical work/proposals, be able to provide insight and guidance based on previous work experience. Ability to review designs and technical specifications; Review cost estimates and projections; Work and communicate effectively with others (project team members, contractors, and client representatives, at different levels, as required) using courtesy, respect and sensitivity. Provide input to multiple working level project meetings and provide feedback and comments on overall project progress at briefing and review meetings with Authority staff. Meet deadlines, follow and adhere to workplace policies.

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DESIRABLE QUALIFICATIONS

- Experience working for a railroad, commuter rail agency, or other FRA regulated entity is preferred.
- Experience with European norm standard EN50126 and EN/ISO/IEC 17020 is preferred
- Professional designation (i.e. CHST, OHST, ASP or CSP) meeting qualifications of a national or international certifying agency; or actively pursuing such designation is preferred
- At least 10 years of experience including supervisory experience at a site-specific level and/or managing multiple projects is preferred
- Knowledge/experience of the US railroad industry and/or international railroad systems.
- Knowledge of railroad operations.
- Experience with safety programs in a railroad, construction, or environment, including planning, training, implementation, monitoring, and certification.
- Experience with FRA safety policies, procedures and reporting is required
- Experience with railroad operating rules and practices
- Experience with different methods of On-Track Protection
- Planning tools and techniques
- Development and monitoring of training programs and requirements
- Auditing processes and protocols
- FRA Legislation and Regulations
- The ability to maintain good communication skills and working relationships with management, other divisions, districts, federal and state agencies, local agencies and private sector contractors, subcontractors and suppliers and their associations.
- Ability to work collaboratively across rail & transit disciplines (Systems Engineering, Signals, Electrification Systems, Data Communications, and Project Controls), Project Managers, Systems Engineers, Signals Engineers, Analysts, and Coordinators.
- Proficiency and knowledge of office-related computer software applications.
- Availability to occasionally travel to other local offices and job site locations.



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ABOUT ZPro SOLUTIONS INC.

With offices in Florida (HQ), California, and New York, ZPro Solutions Inc. (ZPro) was founded in 2016. Certified as a DBE, MBE and SBE in various states and municipalities. ZPro Solutions is a technology firm offering a full range of consulting services. We specialize in Business Transformation, Enterprise Asset Management, Data Management, Business Operations, Program Management, Project Management, Data Analytics, and Software Sales. Our highly trained and qualified team of consultants provide the skills and expertise to perform comprehensive analysis, using proven methodologies to develop strategies and plans to meet critical business needs. Our team combines expertise in enterprise asset management, projects management, data science and technology to transform industries and bring clients optimal solutions leading to desired outcomes and the greatest ROI.

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