

SIEMENS

From engineering design, installation and start up; to testing and system training - Siemens has the experience and portfolio to meet all your engineering service needs

Signal engineering design services for freight, commuter and transit



From engineering, installation and start up to testing and system training courses – our experts provide you with a single source for customized service solutions.

Our North American-US-based projects and engineering group provides a broad range of engineering and project management services to main line freight and passenger railroads, including PTC implementation, pole line elimination, capacity and reliability improvements, as well as complete grade crossing design, field testing and commissioning, field wiring verification and field troubleshooting support.

We work with Siemens signaling systems as well as providing designs based on other manufacturers' equipment and interface to legacy systems, and can provide an independent circuit check of designs submitted by other firms.

Our experienced staff also delivers complete turn-key signaling systems for mass transit and light-rail transit projects across the entire United States and elsewhere. All of our work complies with Federal, State and local regulations for safety and complies with industry standards and norms.

Our comprehensive portfolio of rail signaling solutions includes project management for complex signaling projects and application programming for all platforms. We also offer Trainguard PTC, Trainguard MT CBTC, Trainguard ETCS, Switchguard ITS 700 in-tie switch machines as well as engineering services for transit, commuter and freight systems.

Siemens Trainguard PTC and Trainguard MT CBTC are the new generation of train control systems. Both technology platforms can substantially improve traffic and transport capacity in metro transit systems.

The Sicas® S7 microprocessor-based interlocking control systems is a platform designed for the North American market and features an integrated industry-standard coded DC track circuit and standard protocols which make it easy to implement on existing systems.

The Switchguard® ITS 700 in-tie switch machine, is an innovative new solution from Siemens. Unlike traditional switch machines, the ITS 700 fully integrates all switch movement and point detection functions inside a high strength hollow steel tie, which leads to lower maintenance costs, fewer trouble calls, a longer service life and better track quality. Additionally, the ITS 700 is the only in-tie switch machine available with an AREMA-compliant hand-throw mechanism.

usa.siemens.com/mobility



Benefits

- **Local expertise** – our experts specialize in providing solutions tailored to each customer's individual requirements.
- **Creativity** – our staff leverages decades of experience in all facets of signaling and Siemens world-wide experience to develop the right solution to meet any challenge.
- **Communication** – our team works closely with customers not only determine the right solution, but also to establish long-term relationships.
- **Dedication** – we are committed to going the extra mile to exceed customer expectations.
- **Design** – we employ true computer-aided design through use of engineering tools such as AutoCAD Electrical to:
 - Support automatic generation of wire and cable tags
 - Prevent misidentification and misuse of component connection points
 - Enforce wire size restrictions on component connections
 - Automate generation of bills of material
 - Facilitate rack and panel design by linking layout positioning to location identification in circuit plans

Product references

- **Since 2007, completion of over 100 Engineering Projects with Class I Railroads**
 - Pole Line Eliminations
 - Drawbridge Modernizations
 - Switch Machine Conversions
 - Yard Switch Remote Control
 - Code Line Eliminations
 - Grade Crossing Designs
 - Infrastructure/Capacity Improvements
- **Completed Portland Light Rail Transit Project**
 - Engineering
 - Programming
 - Testing and Commissioning
- **Provided engineering support on Toronto Union Station Signaling Project**
 - AREMA compliance evaluation of switch heater systems
 - Validated safe braking report – 3,900+ routes
 - Reviewed route and aspect charts – 3,900+ routes
- **Minneapolis Central Corridor Project**
 - Design, engineering, installation supervision and commissioning for signaling system
 - Application programming and delivery of Sicas S7 interlocking
- **BHP Billiton, NM (Industrial railroad)**
 - Design and engineering of signaling system
 - Track vacancy system based on axle counters ACM 100

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