

RAILWORKS® TODAY

*A monthly newsletter for employees of
RailWorks Corporation and its subsidiaries*

Formula Equates to Expo Line Success



PNR RailWorks is replacing 40 kilometers (about 25 miles) of power rail on Vancouver's Expo Line. Crews like this one, observed by Foreman Mike Sotiris on the right, work overnight to perform the installation.

Adapting a formula that is part precise methodology, part creativity and all quality has proven to be a success for PNR RailWorks with an evolving light rail transit job in Vancouver, BC.

For 22 months, PNR RailWorks crews based out of the Pacific region have been steadily replacing 40 kilometers (about 25 miles) of power rail on the Expo Line, which runs between downtown Vancouver and Surrey to the southeast. The Expo Line is part of Vancouver's Skytrain light rail system, and the power-rail upgrade, valued at about \$12 million, is one of multiple upgrades and construction projects occurring across the system.

PNR RailWorks Project Manager Daniel Kabat describes the first three months of the Expo Line job as a learning-curve period made up



An Expo Line train in Vancouver crosses over Quebec Street east of Science World and near Main Street Station.

of constant change, which his crews met with smart systems and resourceful solutions. The crews – a combined 35 people to execute the project's scope – are organized into three process-oriented teams with distinct roles:

- An engineering team, which surveys the guideway and takes measurements of the location of existing insulators along the guideway. The team uses computer-aided design software to draft construction drawings that not only meet the criteria in the customer-supplied design drawings but also pre-determine the length of rails and the locations of other components. "The construction drawings developed by the engineering team are used by everyone in our group," says Daniel. "The prep

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INSIDE LINE

The beginning of this project was a hard grind. This type of specialized work has been done in the past but not under such tight working blocks.



Daniel Kabat
Project Manager
PNR RailWorks

We started the project replacing 10 track meters on the first night, developing over a four-month period to reach a record of 207 track meters in one night.

To achieve that kind of productivity, collaboration and motivation have been keystones. I really rely on my leadership team. As a group, we are all part of each decision, consistently aiming for higher targets. I have found that when all parties understand the hurdles and limitations and communicate those effectively, we can achieve solutions and hit new goals.

We share accountability throughout the whole team, which instills a lot of trust. And when we reach successes, the team shares the recognition. At the completion of key milestones, we have off-the-job team-building events with the whole crew. This instills pride and energizes this crew to continuously meet challenges and strive for new achievements. It's an opportunity to not only get to know the people you work with better but also to maintain the motivation.

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team builds and sequences off these drawings, and the installation team uses them as their guide for installation.”

- A preparation team, whose task is to cut and drill rail and to then sequence the rail and support components so that they are accessible in the correct order and free of any issues for the installation team.
- The installation team, which performs its tasks during a 6½-hour overnight shift, removes old power rail and components and replaces them with the new material readied by the preparation team. Along with installing each section within the defined tolerance, the team ensures the track is ready for revenue service early the next morning.



Machine Operator Jeremy Naman, above, erects a stanchion post for a pivoting guard rail on the Expo Line guideway. Inset: Trackman Bill Jamieson marks power rail before cutting it to size for transportation and installation.

The removal and installation occurs Sunday through Thursday, from about 9:30 p.m. through about 4 a.m. Contract requirements from customer TransLink – metro Vancouver’s regional transportation authority – call for removing and installing a daunting 130 track meters of new power rail and supporting components in that timeframe each night.

“To come to the location, remove existing components, install new rail, then tie in and commission track for revenue service operation the next day is a really challenging task,” says Daniel. “Because of the limited track time and large production target, we put a lot of thought into how to be prepared, and how to limit cutting and drilling during the 6½-hour installation shift.” He says it takes “creativity, being well organized and a lot of communication. (It takes) pre-planning, pre-cutting, pre-drilling and pre-sequencing” to get everything ready for the installation team.

This preparation allowed the team to exceed 130 track meters and actually achieve a record 207 track meters installed in one shift.

To accommodate the installation and avoid the work area during these revenue-service hours, TransLink has modified its normal service featuring two parallel tracks, each dedicated to a singular direction. Instead, trains on the track being upgraded “reverse run,” or switch to the parallel track at an appropriate point, to avoid the work area.

However, at one point, TransLink asked for a change order that involved red-zone work in large areas. The work was along the

guideway where Translink could not reverse run to provide PNR RailWorks with a clear work area. So PNR RailWorks got creative, proposing that the work occur during the Expo Line’s non-revenue period each night, from 1:45 a.m. to 4:15 a.m. In that narrow window and over eight weeks, the team sustained an impressive 45 meters per night.

The project team has developed safety mechanisms and procedures throughout the course of the project that exceed the client’s hazard controls and have been accepted by the client. Some examples are a:

- Pivoting guard rail allowing personnel to work on the elevated guideway. This system pivots from engaged (providing a fall-arrest environment) to disengaged (to allow for train movement).
- Mobile Anti-Electrocution Device (MAED), an insulating shield installed in front of power rail that allows operators to access equipment in areas where power cannot be shut down.

The ability to creatively manage challenges has remained a constant on this project, according to Daniel. “Even though we have been doing the same work for the last 22 months, we are still changing things and adapting to new challenges” to meet and exceed customer safe-work procedures as well as quality and production expectations. PNR RailWorks, he says, has “built a safe work environment and also earned the hard-won trust of the client.”

The group has finished installing the originally requested 34 kilometers (21 miles) of new rail and is installing an additional 6 kilometers (about 3½ miles) as part of a change order. It is presently evaluating a request for quotation to perform an additional 9 kilometers (6 miles) of power-rail change-out.

Expo Line Project Leadership Team

Daniel Kabat, Project Manager

Garry Potrebenko, Superintendent

Jim Manners, Safety Coordinator

Mike Sotiris, Foreman (Installation shift)

Romeo Pangan, Foreman (Installation shift)

Sheldon Joynes, Foreman (Preparation shift)

John Rhee, Field Engineer

Alexander Kotler, Field Engineer

Earl Amurao, Quality Control Officer

RailWorks Values In Action: **Industry Leadership**

Dorris Invests in Industry and RailWorks as NRC Chairman

As RailWorks Track Services Vice President Bill Dorris begins his second year as chairman of the National Railroad Construction & Maintenance Association (NRC), he shares some insights into why it's worthwhile to invest his time and energy into this industry leadership position.

Bill Dorris
NRC Chairman
Vice President & General Manager
RailWorks Track Services



Q: Why did you get involved in the NRC (National Railroad Construction & Maintenance Association?)

A: I attended my first NRC conference in 2003 and was elected to the board of directors two years later. I got involved because it is the only association that is dedicated to the railroad construction industry, which I have been involved in my entire career, for 38 years.

Q: Why is it important for RailWorks to be involved in this organization?

A: Our involvement is extremely important because the NRC is the only national association whose sole purpose is to protect and promote the interests of rail contractors and their employees. As the nation's largest track contractor, RailWorks has taken a leadership role in the NRC. We realize a growing and safe environment for rail contractors benefits everyone at RailWorks.

Q: What does the NRC do for our industry?

A: The NRC is based in Washington, D.C., and is our industry's ears and mouthpiece with the U.S. Congress. Through its lobbying efforts, the NRC educates lawmakers about the value of a strong rail network. This work helps pass laws that generate a positive work environment for contractors and fund our projects, such as the Short Line tax credit and TIGER grants. Most of our offices have secured projects because of these laws. The NRC also keeps us informed of pending legislation that can help

or hurt our industry and provides opportunities for us to communicate directly with our elected officials, either through project site visits or their annual Railroad Day on Capitol Hill.

Their annual equipment auction gives contractors access to needed equipment. The annual conference also allows us to hear about capital programs directly from representatives of major Class I and regional railways and transit authorities.

Q: How does the NRC affect us in the field?

A: In addition to helping to secure funding for our projects, the NRC provides some of the industry's best safety training tools, including toolbox talks (on the Safety page in SharePoint) and training videos. The NRC's 18 safety videos are the best that I have seen in all my years in this industry. These videos are second to none regarding safe and best operating practices. Each one covers a separate type of work track contractors perform.

Q: What advice would you give to someone interested in a career in our industry?

A: I would say, "Go for it." Over the next 10 years, there is a tremendous need to fill positions within the rail industry. There are countless opportunities coming for great positions, especially at RailWorks.

RailWorks Employees in NRC Leadership Positions
Bill Dorris, Chairman and Board Member
Jim Hansen, Board Member
Danny Brown, Board Member, Equipment Committee
Tammy Mathews, Safety Committee, former committee chairperson

NRC Safety Videos	
<ul style="list-style-type: none"> ■ Hand Tools ■ Power Tools ■ Freight and Industrial Track ■ Railway Maintenance Equipment Part 1 ■ Railway Maintenance Equipment Part 2 ■ Transit Track ■ Unloading and Handling Material ■ Hot Work ■ Thermal Adjusting CWR 	<ul style="list-style-type: none"> ■ Field Welds ■ Tie Gang ■ Rail Gang ■ Flash Butt Welding ■ Fall Protection in the Rail Industry ■ How to Build a Turnout and Special Trackwork ■ Handling CWR ■ Replacing Grade Crossings Part 1 (preparation) ■ Replacing Grade Crossings Part 2 (execution)
Request copies through your safety professional or the Corporate Director, Safety, Health and Environmental Tammy Mathews	

RAILWORKSMART RAILWORKSAFE

RailWorks Companies Win 'Safe Contractor' Awards



RailWorks representatives attending the annual NRC conference in Hollywood, FL., display some of the "Safe Contractor" plaques awarded for exemplary safety performance.

The National Railroad Construction and Maintenance Association (NRC) recognized RailWorks companies for their exemplary safety performance January 10 at their 37th annual conference in Hollywood, FL.

L.K. Comstock National Transit, PNR RailWorks and RailWorks Track Systems received platinum "Safe Contractor" awards, earning perfect scores in their respective categories. RailWorks Track Services won a gold award.

The "Safe Contractor of the Year" safety contest, sponsored by the NRC, Railway Track & Structures (RT&S) magazine and Commercial Insurance Associates, recognizes NRC member contractors for

exemplary safety performance and programs.

"I am very proud of the industry recognition we have received, but even prouder of the unsung efforts that our people make every day to plan and execute work safely," said RailWorks Executive Vice President and Chief Safety Officer John August. "We work in some very tough and demanding environments."

John noted that good safety performance is something that an organization

can only achieve through group action. "It is the cumulative effort of every individual coming to work every day focused on their tasks, their environment, and the well-being of those around them, and being willing to step forward to correct things that are not correct," said John. "We want to make sure that everyone who comes to work at RailWorks goes home every night in the same – or better – shape than they arrived in."

In looking to this new year, John emphasized that safety is a team sport where the season never ends. "You have to achieve a victory every day. We'll take a few moments to savour the moment, hang the victory plaques on the wall and then go right back to work on achieving the best results tomorrow and in the future."

Calendar Notes

Industry Events

Feb. 21-24	Grain Elevator and Processing Supply (GEAPS) Expo	St. Louis, MO
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Safety Training

Jan. 29-30	RailWorks Track Systems	Kelso, WA
Weeks of Feb. 2 and 9	RailWorks Track Services	Minooka, IL
Week of Feb. 9	RailWorks Track Services	St. Louis, MO
Feb. 16-18	RailWorks Track Systems	Lakeville, MN
Feb. 19-20	PNR RailWorks Prairie Region	Cochrane, AB
Feb. 23-24	PNR RailWorks Pacific Region	Abbotsford, BC
Feb. 23-27	RailWorks Track Services	Youngstown, OH

News Across the Line

L.K. Comstock National Transit

Work began last fall and is gaining momentum on DART's (Dallas Area Rapid Transit) light rail extension project called South Oak Cliff Line Section-3 (SOC-3). This project features a 2.76-mile extension of DART's Blue Line from the current end of the line at the Ledbetter Station south to a new station on the campus of the University of North Texas at Dallas.



L.K. Comstock National Transit serves as the systems contractor for a joint venture between Archer Western Contractors, Philips May and Robinson Industries. Project Manager **Zafar Arif** and Construction Manager **Clark Chance** are leading the \$21.4-million project, which is scheduled to open for revenue service in December 2016.

L.K. Comstock will furnish and install the following work:

- Two traction power substations (TPSS) and the corresponding DC feeder system
- The overhead catenary systems (OCS) with an interface with existing OCS
- The signal system with a cab signaling system
- A communication system with voice, data, and video communication between the control center, stations, substations and other facilities on the SOC-3 right-of-way. This includes reconfiguring the existing Ledbetter Station.

RailWorks Corporation

A hallmark of RailWorks' advertising campaigns has always been its people. Unlike nearly all other ads in our industry, our ads put our employees front and center. They help tell the story of the RailWorks brand: That you can depend on our capable employees. That RailWorks is raising the bar and "Building Expectations" in our industry. That you can expect more with RailWorks at work.

In February, RailWorks will kick off a new wave of advertising that again features our employees. But this time, rather than focusing on employees at job sites, our new ads highlight employees who work behind the scenes to plan and execute our projects.

Featuring the tag line "Behind Every Project is a Smart Plan," these ads convey the extensive planning that takes place before we ever set foot on a job site. They suggest that our smart approaches are a key way RailWorks is successfully executing projects across North America. This message and visuals also are featured on the slide show on the homepage of RailWorks' website.



Look for these ads in industry trade publications in February. Our thanks to the L.K. Comstock & Co. employees at the Second Avenue Subway project who are featured in the ads. They provided a behind-the-scenes look at the smart work they do for the New York City Transit (NYCT) Authority.

Rail Delivery Kicks Off SEPTA Grade Separation Project



A RailWorks Track Systems crew unloads continuous welded rail (CWR) for the Southeastern Pennsylvania Transportation Authority (SEPTA) in Langhorne, PA, as part of a grade-separation project. SEPTA and CSX share existing track, and RailWorks' Major Projects Division is constructing a new, 3.4-mile third main line that will allow SEPTA to have sole occupancy of two tracks while CSX continues to operate on a third. At left, Rocky Kimble, project superintendent, directs the unloading operation, with Laborer Aaron Van Tassell on the rail train directing the ends of the rail into the threader head. At right Laborer Kent Boggess and Operators Dave Lapham and Justin Mitchell are in the process of unloading of two of the 47 strings (800-foot CWR) from the rail train. Superintendents Rocky Kimble and T.J. McChristy are leading field operations for the project. Construction began in December 2014 and will wrap up in late April 2015.