EVENT GUIDE

RRB20

RAILWAY ROADBED & BALLAST SYMPOSIUM

FEBRUARY 10 – 12, 2020
KANSAS CITY, MO

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KEYNOTE SPEAKER

Keith Creel

President and Chief Executive Officer
Canadian Pacific

On January 31, 2017, Mr. Creel assumed his new role as President and Chief Executive Officer, becoming the 17th person to lead Canadian Pacific since 1881.

Creel was appointed President and Chief Operating Officer in February 2013 and joined the CP Board of Directors in May of 2015.

Under his leadership, CP is finding safer, more efficient ways to connect customers to domestic and global markets, and will continue to play a prominent role in connecting communities in both Canada and the U.S.

Prior to joining CP, he was Executive Vice-President and Chief Operating Officer at Canadian National (CN). He held various positions at CN including Executive Vice-President Operations, Senior Vice-President Eastern Region, Senior Vice-President Western Region, and Vice-President of the Prairie Division.

Creel began his railroad career at Burlington Northern Railway in 1992 as an intermodal ramp manager in Birmingham, Alabama. He also spent part of his career at Grand Trunk Western Railroad as a superintendent and general manager and at Illinois Central Railroad as a trainmaster and director of corridor operations, prior to its merger with CN in 1999.

He holds a Bachelor of Science in Marketing from Jacksonville State University. He also completed the Advanced Management Program at the Harvard Business School. He has a military background as a commissioned officer in the U.S. Army, during which time he served in the Persian Gulf War in Saudi Arabia. Recognized for his leadership at CP, he was named by Progressive Railroading as “Railroad Innovator” for 2014.

Keynote Speaker
Sponsored by: CP

SCHEDULE

MONDAY, FEBRUARY 10

5:30 PM	Registration	**Location**: Tea Room/Barney Allis
6:00 - 7:30 PM	Opening Reception	**Location**: Tea Room/Barney Allis

TUESDAY, FEBRUARY 11

6:30 AM	Registration	**Location**: Basie Ballroom Foyer
7:00 - 8:00 AM	Breakfast	**Location**: Basie Ballroom A

Keynote and Opening Presentation

David Connell, *Union Pacific Railroad (retired) - Moderator* **Location**: Basie Ballroom B

8:00 AM	Welcome / Introduction, *Edward D. Sparks II, CSX Transportation and AREMA President*
8:10 AM	Keynote Speaker, *Keith Creel, President & CEO, Canadian Pacific Railway*
8:30 AM	Life Cycle Considerations, *Peter Veit, PhD, Graz University of Technology*
9:00 AM	On the Importance of Railway Track Drainage, *James P. Hyslip, PhD, PE, HyGround/Loram*
9:30 AM	Ballast and Subgrade Studies by Transportation Technology Center, Inc. (TTCI) *Dingqing Li, TTCI*
10:00 - 10:30 AM	Coffee Break **Location**: Basie Ballroom A

SCHEDULE

TUESDAY, FEBRUARY 11

Ballast and Roadbed Management

Shawn K. Vecellio, *Kansas City Southern Railway - Moderator*

Location: Basie Ballroom B

10:30 AM	Ballast Behavior & Enhancement, *Erol Tutumluer, PhD, University of Illinois at Urbana-Champaign*
11:00 AM	Ballast Undercutting at Amtrak: Inspection Technologies & Information Management, *Amanda Kessler, PE and Evan Whatley, EIT, Amtrak*
11:30 AM	Track Substructure Management – Lessons Learned from 40 Years of Track Substructure Investigation, *David E. Staplin, PE, HNTB Corporation and Steven M. Chrismer, PhD, PE, Amtrak*
12:00 PM	Subgrade Maintenance Management, *Rudolf Schilder, Rudolf Schilder, Dipl. -Ing. Dr.techn., ARTS Schilder & Partner GmbH*
12:30 - 1:30 PM	Lunch — **Location**: Basie Ballroom A

Research and Development

Theodore R. Sussmann, Jr., PhD, *US. Department of Transportation - Moderator*

Location: Basie Ballroom B

1:30 PM	Linking Ballast Research to Practice, *Theodore R. Sussmann, Jr., PhD, U.S. Department of Transportation*
1:45 PM	Penn State Altoona RTE Research, *Hai Huang, PhD, PE, Penn State University, Altoona*
2:00 PM	Ballast Behavior and the Probabilistic Analysis of Ballast Life, *Carlton Ho, PhD, PE, University of Massachusetts*

2:15 PM	In-Track Timber Crosstie-Ballast Interfacial Pressure Measurements for Revenue Freight Trains and DOTX 218/219 Test Train Operating Conditions, *Jerry G. Rose, PhD, PE, University of Kentucky*	
2:30 PM	Triaxial Testing of the Shear Strength Behavior of Degraded Ballast, *Yu Qian, PhD, University of South Carolina*	
2:45 PM	R&D Panel Discussion, *All of the Above including Michael T. Hendry. PhD, University of Alberta and Erol Tutumluer, PhD, University of Illinois Urbana-Champaign*	
3:15 - 3:30 PM	Coffee Break	**Location**: Basie Ballroom A

Effects on Other Components

Rainer Wenty, Ing. *Senior Track Technology Advisor - Moderator*

Location: Basie Ballroom B

3:30 PM	Ballast and Track Lateral Stability, *Andrew Kish, PhD, Kandrew Inc. Consulting Services*
4:00 PM	Railroad Ballast - More Than "Just" A Stone, *Fabian Hansmann, PhD, Plasser American*
4:30 PM	Ballast and Transitions "The Bump at the End of the Bridge," *James McLeod, PE, CN and Mario Ruel, PE, ME, Mario Ruel Consulant*
5:00 PM	The Influence of Ballast Support Condition and Moisture on Concrete Crosstie Performance, *J. Riley Edwards, PhD, PE, University of Illinois Urbana-Champaign*
5:30 PM	Day 1 Closing Remarks, *Darrell D. Cantrell, Cantrell Rail Services, Inc.*

SCHEDULE

WEDNESDAY, FEBRUARY 12

6:30 AM	Registration Open	**Location**: Basie Ballroom Foyer
7:00 - 7:45 AM	Breakfast	**Location**: Basie Ballroom A

Introduction and International Presentations

Joseph Smak, *Amtrak (retired) - Moderator*

Location: Basie Ballroom B

7:45 AM	Welcome / Introduction, *Joseph Smak, Amtrak (retired)*
8:00 AM	Overview of 15 years of Canada's Railway Ground Hazard Research Program, *Michael T. Hendry. PhD, University of Alberta*
8:30 AM	Railway Roadbed Characterization and Performance Monitoring, *Hannes Grabe, PhD, University of Pretoria*
9:00 AM	The Management of Roadbed in the United Kingdom, *Phil Sharpe, PhD, Independent Roadbed Specialist*
9:30 AM	Ballasted Trackbed Degradation and Settlement, *Erol Tutumluer PhD, University of Illinois at Urbana-Champaign* for Xuecheng Bian PhD, Zhejiang University
10:00 - 10:15 AM	Coffee Break — **Location**: Basie Ballroom A

Maintenance and Renewal Process

Conrad Ruppert, *University of Illinois Urbana - Champaign and HNTB Corporation - Moderator*

Location: Basie Ballroom B

10:15 AM	GAM - Geo-Hazard Risks & Asset Management Railway's Perspective, *Mario Ruel, PE, ME, Mario Ruel Consulant and James McLeod, PE, CN*
10:45 AM	Things That Affect the Life of Tamping; Recommended Tamping Cycles, *Darrell D. Cantrell, Cantrell Rail Services, Inc.*

11:15 AM	Federal Railroad Administration (Ballast Waiver), *Hugh Thompson, Federal Railroad Administration*	
11:45 AM	The Mobile Mud Spring, *Tyson J. Spire-Sweet, Union Pacific Railroad*	
12:15 - 1:15 PM	Lunch	**Location**: Basie Ballroom A

Maintenance and Renewal Equipment

Edward F. Boyle, Jr., *Norfolk Southern Corporation - Moderator*

Location: Basie Ballroom B

1:15 PM	Shoulder Ballast Cleaning, *Daniel W. Hampton, CSX Transportation*
1:45 PM	The Evolution of Ground Penetrating Radar and Ballast Maintenance at BNSF Railway, *Adam Bankston and Christopher Pickard, BNSF Railway*
2:15 PM	Ballast and Roadbed Drainage and Remediation Practices, *Matthew Foot, P.Eng. Canadian Pacific*
2:30 PM	Improved Railway Trackbed Support Design with Asphalt Concrete in European Lines, *Diego Ramirez Cardona, Eiffage Infrastructure and Jerry G. Rose, PhD, PE, University of Kentucky*
3:00 PM	Closing, *Darrell D. Cantrell, Cantrell Rail Services, Inc. & James P. Hyslip, PhD, PE, HyGround/Loram*

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Schedule as of 2/3/20

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KEYNOTE SPEAKER

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ACKNOWLEDGEMENTS

AREMA would like to graciously thank everyone involved with the planning and execution of the **2020 Railway Roadbed & Ballast Symposium**. This event has been in the planning phase for well over a year and there are many individuals to thank.

The *Organizing Committee and Symposium Moderators* have worked diligently on the agenda and content of the program. The *Review Committee* has carefully edited and reviewed the presentations, working to ensure that the symposium offered the latest educational content. There would not be a program without our talented *Presenters* who have invested their time and creativity into producing the most informative presentations possible.

Thank you to all of our event *Sponsors*. Educational events such as this would not be possible without their support.

A special thank you to the *Symposium Organizers – Darrell Cantrell and Jim Hyslip* who had a vision. The last Symposium that AREMA presented on similar topics was in November of 2000. As part of AREMA's mission, we are tasked with bringing educational content to the industry and this Symposium has been a great mechanism to assist with attaining that mission.

Thank you all for your efforts in making this a successful event.
AREMA

Organizing Committee

Terry Bodine, Darrell Cantrell, Jim Hyslip, Dingqing Li, Mario Ruel, Conrad Ruppert and Joe Smak

Review Committee

Terry Bodine, Kevin Hicks, Stephen Wilk and Michael Wnek

POLICIES & EMERGENCY SAFETY INFORMATION

We encourage you to read and understand the emergency safety information below. The more you are aware of your surroundings, the better we can partner with you to create a safe and rewarding guest experience.

RESPONSIBLE DRINKING POLICY

Recognizing the emphasis on networking through receptions and social events and potential alcohol abuse, The Symposium urges all attendees to practice responsible drinking. Alcohol will not be served to anyone under the age of 21.

CODE OF CONDUCT

The Symposium community is diverse and inclusive, and the meeting is intended to be enriching and safe for everyone who attends. We expect all attendees, speakers, sponsors and exhibitors to treat everyone else respectfully regardless of race, gender, sexual orientation, disability, physical appearance, opinion or national origin. It is our collective responsibility to foster a safe and inclusive environment for all.

CONSENT TO USE PHOTOGRAPHIC IMAGES

Registration and attendance at, or participation in, The Symposium and other activities constitutes an agreement by the registrant to The Symposium's use and distribution (both now and in the future) of the registrants or attendee's image or voice in photographs, videos, electronic productions and audios of such events and activities.

IN THE EVENT OF AN EMERGENCY

In the event of a medical, fire, or security emergency, you may call 911, but please also notify Loss Prevention. This can be done by dialing 7777 or asking for Loss Prevention from any hotel house phone. The hotel operates between two buildings. The address to the Marriott/West Tower is 200 W 12th Street, and the address to the Muehlbach/East Tower is 1213 Wyandotte Street.

The venue's public address system would be used in other situations such as tornado and power failure conditions. The audible system will direct guests and associates to the specific plan of action. These announcements are done manually or via recorded message.

In all new surroundings, we do encourage all of your guests to familiarize yourselves in your new setting, and choose the exit route to be used in the event of emergency.

FOR MEDICAL ASSISTANCE OUTSIDE OF THE HOTEL

St. Luke's Hospital is located at 401 Wornall Road, Kansas City, MO 64111. 816-932-2000. This facility is approximately eleven minutes from the hotel, and is one of the finest in the area. In the event medical attention was requested via Fire Department paramedics, or emergency room service, this is the facility where services could be obtained.

NOTES

NOTES

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