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## BEST PRACTICES FOR INTEGRATED MOBILITY

Improving the **Bus** Experience PAGE 56

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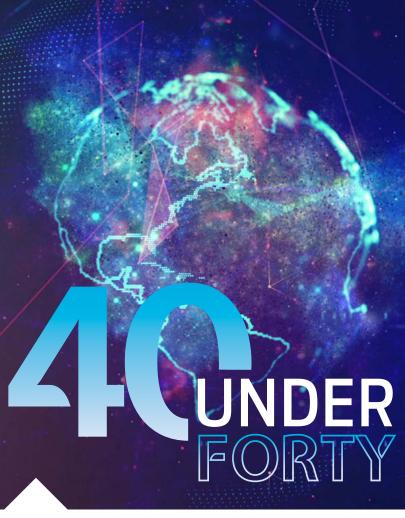
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## **MASS TRANSIT** ENDEAVOR

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## The best we have is pretty darn good

This year marks the eleventh iteration of the magazine's 40 Under 40 list and the main take away is that the industry's future is bright.

elcome to our eleventh annual 40 Under 40 issue. Within these pages, you'll be introduced to the transit industry's current generation of young leaders. This year's honorees are exceptional, but I will tell you, finalizing this list was not an easy task. We could have easily doubled the size of this list and maintained the quality of honorees, but we had to draw a line somewhere. Having an abundance of impressive and dedicated professionals, who are also in the early to mid-point of their careers, is a great problem for the industry to have.

There are some unique qualities about this group that stand out. For example, the 2019 40 Under 40 class brings a global view to the North American transit industry with several honorees having work experience in countries outside the U.S. and Canada including England, Malaysia and Qatar. There is also one honoree who collects maps and passes from around the world to better understand how transit information is communicated.

We have people who began their transit careers early and have nearly two decades worth of experience and people who gained valuable experience in other industries and have made the switch to transit. This year's class contains heads of agencies, who are making positive impacts on how their communities move and department heads, who oversee multi-million-dollar initiatives that are reshaping networks and segments of the market.

More than 42 percent of this year's honorees are women and all fall within the millennial generation, which is reflected in some of their accomplishments. One of our honorees is credited with creating a popular transit hashtag and one was recently named as someone to follow

on Twitter for her focus on Mobility-as-a-Service advocacy.

More than 42 percent of this year's honorees are women and all fall within the millennial generation.



Our honorees are involved with various organizations, both transit and community focused, they take time to mentor and, based on their lists of favorite books, are better read than most folks. Many are spouses and parents, including one honoree who is the father of identical triplet boys.

For all their individual accomplishments and experiences, they do share one thing in common: They care deeply about how transit enhances the lives within their communities.

The entire *Mass Transit* team is proud to be able to present the 2019 Class of 40 Under 40 honorees. We hope you take the time to get to know them beyond the pages of the magazine by visiting the 40 Under 40 page on our website, MassTransitmag.com/40-under-40; where you'll find additional fun facts, deeper first person viewpoints and more information about their accomplishments.

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Mischa Wanek-Libman, Editor 🗴 mwanek@masstransitmag.com 🛛 224-324-8532 🖬 linkedin.com/in/mischawaneklibman

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## PEOPLE & PLACES THE LASTEST INDUSTRY NEWS



FTA ALLOCATED federal funding to Santa Clara VTA in late August through a pilot program.

## Santa Clara VTA awarded federal grant through expedited pilot program

The federal government has allocated \$125 million to the Santa Clara Valley Transportation Authority (VTA) for the Bay Area Rapid Transit (BART) Silicon Valley Phase II project. The project was selected in June as the first to enter the Federal Transit Administration's (FTA) Expedited Project Delivery pilot program. The funding is contingent on Santa Clara VTA meeting all program requirements needed to proceed to a construction grant agreement. Santa Clara VTA must secure funding through non-federal contributions for at least 75 percent of the project. Once the funding threshold is met, FTA will expedite the review and evaluation of application materials under a streamlined review process as authorized by the Fixing America's Surface Transportation (FAST) Act. Santa Clara VTA estimates that the streamlined project delivery promised in the Expedited Project Delivery Program will allow it to fast track its funding process by more than 14 months. MassTransitmag.com/21094871

#### FTA approves Honolulu rail project's recovery plan

▶ The Federal Transit Administration (FTA) has approved the Honolulu Authority for Rapid Transportation's (HART) recovery plan to deliver its 20.1-mile rail project.

In a letter to HART Executive Director and Chief Executive Officer Andrew Robbins, FTA said the recovery plan "made substantial progress from its initial recovery plan submitted in April 2017, when there were significant concerns about HART's ability to complete the project."

The FTA's letter also explained that the project will not receive any of the \$744 million committed to it until HART can identify and finance the City Center procurement, anticipated to be awarded in January 2020, "as the procurement is the largest risk area related to project cost and schedule."

The recovery plan calls for the project to be constructed from East Kapolei to Ala Moana Center with 21 stations for under \$8.299 billion. HART says that by 2030, 70 percent of Oahu's population and 80 percent of the island's jobs will be located along the rail corridor. MassTransitmag.com/21096090



RIDERS WAIT to board the new IndyGo Red Line BRT.

#### IndyGo launches Red Line BRT

Indianapolis Public Transportation Corporation (IndyGo) started service on its first bus rapid transit line, The Red Line, on Sept. 1. The all-electric fleet operates along the 13-mile line, which runs through some of Indianapolis' most densely populated neighborhoods and significantly expands the bus system.

The Red Line and its local extensions will be free to ride for the full month of September and the entire system will be free the first two weeks. Riders looking to travel north of the 66th Street station or south of the University station will make a transfer to a local bus but will not need to pay.

IndyGo estimates 8,000 people rode the line on the first day. The transit provider noted it will monitor service and make adjustments for a reliable, comfortable experience.

"IndyGo is embarking on a dynamic endeavor, essentially doubling the size of its bus system while introducing cutting-edge technology and a 100 percent electric-powered fleet," said IndyGo President and CEO Inez Evans. MassTransitmag.com/21095315

Continued page 12

### People in the News



**Robert Powers** 

**Bay Area Rapid Transit Robert "Bob" Powers has** been appointed as the next general manager after approval from the Bay Area Rapid Transit (BART) Board of Directors. Powers was the deputy manager and interim general manager. He brings 20 years of public transportation industry experience. Powers has been with BART for seven years and began as the assistant general manager in planning, development and construction. Powers will now oversee a \$2.4 billion budget and the district's 3,600 employees who serve 407,000 riders each weekday. MassTransitmag.com/21090266



#### Des Moines Area Regional Transit Authority The Des Moines Area

**Regional Transit Authority** (DART) has named Frederick Gilliam as its new chief operating officer where he will lead the operations, safety and risk management, maintenance and facilities departments and will oversee DART's fixed route and paratransit services. He previously served at New Jersey Transit and the Capital District Transportation Authority in Albany, NY. Gilliam succeeds DART CFO, Jamie Schug, who was serving as interim COO. MassTransitmag.com/21090267



#### Marisa Bono

Via Metropolitan Transit Marisa Bono has joined Via Metropolitan Transit's **Public Engagement Group as** chief strategic officer where she'll create and manage links between external and internal resources and help develop strategic messaging and relationships regarding Via's longrange vision. She will work with the director of government and community relations to enhance relationships with elected officials, Via partners, the business community and other key stakeholders. She'll help analyze and evaluate complex issues and make recommendations on appropriate action by Via. MassTransitmag.com/21093033



Darrell Maxey

#### Metrolink

**Darrell Maxey was selected** to be the chief mobilization officer for Metrolink. He was previously Metrolink's deputy chief operating officer where he helped implement Positive Train Control Technology. In his new position he'll focus on leading and implementing new agency-wide projects, such as the new bundling contract for Metrolink operations. He brings more than 40 years of experience and has been with Metrolink since 2006. Prior to this, he spent 18 years with the Southern Pacific (now Union Pacific Railroad) and nine years with Caltrain in northern California.

MassTransitmag.com/21091747



#### **PEOPLE & PLACES**

#### APTA highlights transit needs of late-shift workers

► The American Public Transportation Association (APTA) released a study highlighting the needs of late-shift commuters, their growing impact on the economy and recommendations to improve commuting options.

The "Supporting Late-Shift Workers: Their Transportation Needs and the Economy" study, shows a large share of Americans work nights and weekends within industries such as food service, health care, construction, education and finance. These industries have high projected growth rates over the next seven years, but inadequate access to public transit services can prevent segments of the workforce from accessing better job opportunities while also increasing turnover and absenteeism rates for employers.

Many public transit agencies around the country operate late shift services but additional services are vitally needed, according to the study. Late-shift transit commuters earn an estimated \$28 billion in wages and generate \$84 billion in sales each year. Increased late-night transit options will result in access to opportunities for late-shift employees and increase the pool of workers for employers.

MassTransitmag.com/21095733



**BIG BLUE** Bus welcomed its first electric bus into service in late August.

## Big Blue Bus welcomes first zero-emissions vehicle to fleet

▶ Big Blue Bus (BBB), which serves Santa



Monica, Calif., and west Los Angeles, held a ribbon-cutting ceremony Aug. 21 to unveil its first battery-electric bus.

The launch of the bus into service isn't just a key milestone in BBB's journey toward a zero-emission fleet by 2030, but marks a step toward an enhanced customer experience, as well.

The single bus is estimated to eliminate more than 385,700 lbs. of nitrogen oxide (NOx) emissions over its 12-year service life.

The 40-foot bus, which entered revenue service shortly after the ribbon-cutting ceremony, has six onboard batteries that provide a total capacity of 444kWh. It can be fully charged in under four hours on paired ChargePoint Express 250 chargers installed at the bus maintenance facility. The bus can hold 75 passengers, 38 seated, and the onboard passenger amenities include easy to clean seats, Wi-Fi, a passenger awareness monitor, silver LED destinations signs, slip-resistant flooring, the EZ Stop System and a Q-POD Wheelchair Restraint System.

MassTransitmag.com/ 21094086

#### MORE NEWS AT A GLANCE

Miami-Dade Department of Transportation and Public Works introduced an open payment system for its EASY Card transit fare system through a collaboration with Cubic Transportation Systems.

SMassTransitmag.com/21093905

 Complete Coach Works has begun its deliveries of rehabilitated buses to the Winston-Salem Transit Authority (Winston-Salem) with the buses having undergone system overhauls.
 MassTransitmag.com/21095737

 Graffiti Shield will be providing TriMet with its Glass Shield Multi-Layer over the next five years for an estimated 5,000 windows to protect existing New Flyer and Gillig buses from graffiti and vandalism.
 MassTransitmag.com/21096091

 Vapor Bus International has installed electric passenger door systems on the New Flyer Xcelsior CHARGE Demo Bus. The fully integrated door systems improve operational efficiency, safety and enhance vehicle aesthetics. Components include a space-saving actuator mechanism, door panels, mechanical linkages and an advanced, electronic controller.
 MassTransitmag.com/21094454





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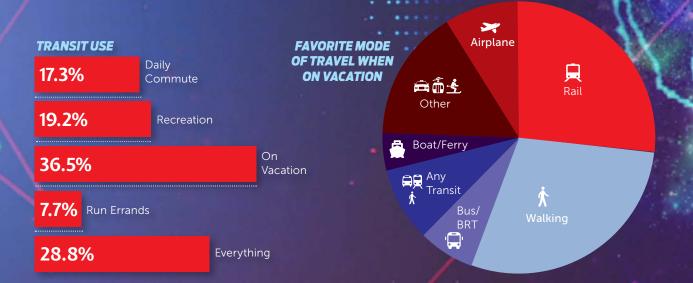
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## **MASS BRANST** PRESENTS

## UNDER FORTY



#### **GLOBAL APPRECIATION**

While all honorees are part of the North American transit industry, their view of transit touches all corners of the globe, which can be found in their favorite systems from around the world.







**CITY TRANSIT** 



Average Years in Transit





Average Age 35.2 <sub>Youngest</sub> 28





#

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FOUR-WAY TIE BETWEEN TRIMET, CHICAGO TRANSIT AUTHORITY, BERLIN AND MOSCOW

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Christina Belmont Senior Marketing Manager Genfare



#### FOR THE PAST THREE YEARS,

Christina Belmont has been a senior marketing manager at Genfare where she's proven herself as a valuable asset to not only Genfare, but the public transportation industry as a whole.

While balancing her full time job, she's heavily involved with the American Public Transportation Association (APTA). Her knowledge of public transportation and expertise in fare collection is an advantage to the committee she chairs, APTA Tech, which was previously the Fare Collection Systems Planning Subcommittee.

This skillset was put to the test when she helped organize and implement one of the most well attended and most profitable fare collection and technology conferences in recent history, the 2018 Fare Collection/Revenue Management and TransITech Conference.

This year, she was also named APTA EXPO Vice Chair. As vice chair, she will accompany fellow planners and the committee to Anaheim, Calif., for a site visit. She was also accepted into APTA's

#### Fact:

She will serve as the chair of APTA EXPO Orlando in 2023 after serving as vice chair for the 2020 conference.

MassTransitmag. com/21093535 Emerging Leadership Program—a noteworthy accomplishment that will serve her and the industry well. During her time in the program, Belmont enjoyed meeting and bonding with peers, as well as collaborating and learning from them.

Recently, Belmont has worked on a comprehensive and successful roll out of Genfare's mobile payment solution, Mobile Link. She's also helped with the roll out of two corporate catalogs, one which is a company overview and the other, an overview of Genfare's aftermarket offerings.

The company launched an inaugural Genfare User Group meeting at two industry conferences. Belmont was heavily involved in the planning process with everything from site location to agenda and session descriptions.

**"I'm** heavily involved with APTA, and all of that comes along with a demanding full-time job. All of the extra work requires working at night and on weekends, but it's all worth it in the end!"

## CONGRATS Christina Belmont

The Genfare Team proudly congratulates Christina Belmont, Senior Marketing Manager, for being recognized as one of our industry's best and brightest in Mass Transit's Top 40 Under 40.

We applaud this well-deserved recognition, your efforts and dedication, and we're thrilled to call you one of our own.

## **GENFARE**

### **ERIK BELMONT SERVES AS A** program analyst in the Transit Delivery

program analyst in the Transit Delivery Division after starting at the District Department of Transportation (DDOT) as a Capital City Fellow in 2017.

During his time as a fellow, he researched, conducted outreach and designed performance measures currently used to analyze the electric bus program.

In the spring of 2018, DDOT began operating 14 electric buses in the District of Columbia's Circulator fleet as part of a pilot project to test the viability of the technology and its feasibility for large scale expansion. He supported the launch of the electric bus program in 2018 by working with the manufacturer to identify mechanical and technical challenges that came along the way.

To accomplish this, he assembled a group of electric bus manufacturer staff, DDOT staff and D.C. Circulator's operations and maintenance contractor to troubleshoot challenges in the program, and to bring them successfully into service. Since the launch of the pilot, he's assembled and led an additional group within DDOT to oversee the collection of data that will issue final recommen-

#### Fact:

Belmont led the electric bus briefing event with the Greater Washington Region Clean Cities Coalition, and accepted D.C. Circulator's 2018 Electric Fleet Leadership Award.

MassTransitmag. com/21093538 dations for the future of DDOT's electric bus expansion.

He's currently leading the effort in creating DDOT's fleet transition plan. As part of the fleet transition plan effort, he's also developing a pilot project testing a microgrid backup system to guarantee that electric buses can function seamlessly during a major power outage. He's also an advocate for the use of electric bus technology as a resilience measure, using the vehicles as mobile batteries capable of powering emergency facilities if disaster strikes.

Due to his experiences, Belmont has represented DDOT at multiple speaking occasions, presenting what he and his division learned about electric buses at the 2018 American Public Transportation Association Sustainability and Multimodal Planning Workshop and at the 2018 Washington Advanced Energy 4th quarter meeting.

<sup>44</sup> have the satisfaction of knowing that my work will positively impact the lives of our ridership by helping to reduce carbon emissions and reduce NOx emissions, thereby improving the quality of the air they breathe when riding our buses."



Erik Belmont Program Analyst Office of Transit

Operations, District Department of Transportation, Transit Delivery Division





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Liz Brisson Major Corridors Planning Manager San Francisco Municipal Transportation Agency (SFMTA)



#### LIZ BRISSON LEADS THE SAN FRAN-

cisco Municipal Transportation Agency's (SFMTA) five-person Major Corridors Planning team that is responsible for project management of early stages of major rail and bus corridor projects.

Since 2017, Brisson has overseen the Geary Rapid Project, a \$35 million investment to improve transit reliability and pedestrian safety along an important transit corridor that carries 56,000 bus riders daily. Her team conducted inclusive outreach with affected communities, building relationships with neighborhood stakeholders. Her team partnered with community members to identify decorative elements to be installed in the crossing's median refuge to represent the rich history and culture of the neighborhoods.

Her leadership of the outreach process culminated in unanimous approvals at the SFMTA Board in August 2018. The project completed its near-term implementation in December 2018, including installation of nearly two new miles of transit-only lanes, and commenced major civil construction in February 2019.

She also led the preliminary planning for the Muni Subway Expansion Project,

#### Fact:

Brisson was involved in a student group organization that was combating urban sprawl, ultimately leading her to planning school and then the public transit industry.

MassTransitmag. com/21093553 a \$3 billion vision to underground two miles of existing surface light-rail line. It would also redesign a high-speed auto thoroughfare as a multi-modal boulevard. Although still early, Brisson has led the project through initial alternatives analysis, concept development and community outreach, culminating in the project's inclusion in the SFMTA's longrange capital plan.

Outside of work, Brisson is active in transportation advocacy in Oakland. In 2014, she co-founded Transport Oakland, achieving the organization's founding goal of creating Oakland's first Department of Transportation less than two years later. Transport Oakland has educated the city of Oakland and transit board elected officials about the importance of great transportation and endorsed and supported candidates most supportive of this vision.

**"I'm** proud of my team's work to bring the Geary Rapid Project through its final project approvals in summer 2018 and get the first improvements in the ground only 40 days later. Getting improvements in the ground so quickly after approval is not typical and is a testament to my entire team's hard work."



#### JEFF BERNSTEIN HAS SPENT NEARLY

15 years in the industry driving technological innovation and financial sustainability while maintaining safe and effective operations at two of the country's largest transit agencies.

As deputy chief financial officer of New Jersey Transit, he is a key member of the leadership team revitalizing the agency and finance department. His efforts shortened the financial close from six weeks to two weeks and created meaningful and timely financial reporting which he presents monthly to the board of directors. Bernstein launched initiatives to solve system and process issues impeding NJ Transit's ability to promptly pay vendors, and one of the key results of a drive for financial efficiencies has been a \$10 million savings in employee benefit costs without a reduction in benefits. Other initiatives currently underway include optimizing fare enforcement on proof-of-payment systems and helping determine partnership opportunities with microtransit and Transportation Network Companies.

Bernstein began his career as a civil engineer at Parsons Brinkerhoff (now

#### FACT:

Bernstein shares two tips from his experience: (1) find a great mentor who you can trust and has your best interests at heart; (2) never accept "because that's how we always do it" as a reason for continuing with a practice.

MassTransitmag. com/21093117 WSP), before earning his MBA and working in various departments within the Metropolitan Transportation Authority and served as CFO of global mobile payments firm Bytemark before joining NJ Transit.

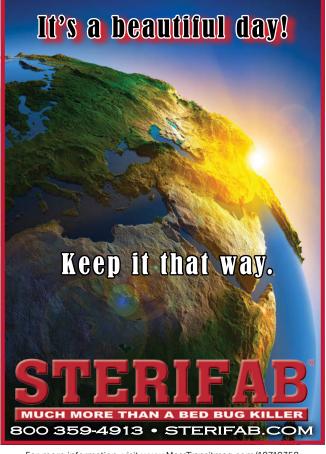
Bernstein is a strong advocate for public transit and his contributions to the industry extend beyond his "day job." He believes strongly in mentoring the next generation of transit leaders and is a frequent guest lecturer on the business of public transit at local universities. Earlier in his career he founded the Greater New York City chapter of the Young Professionals in Transportation and grew the chapter from an idea to one of the largest chapters internationally prior to successfully transitioning leadership. He has presented at TRB and APTA conferences and remains active in both those organizations.



Jeff Bernstein Deputy Chief Financial Officer New Jersey Transit



**"Public** transit is all about providing sustainable mobility for people and I take tremendous satisfaction in knowing that the work my team and I do directly impacts nearly a million people riding NJ Transit's services a day."



For more information, visit www.MassTransitmag.com/10719358

NJ TRANSIT salutes Deputy CFO Jeffrey Bernstein for being named one of Mass Transit's Top 40 Under 40!



For more information, visit www.MassTransitmag.com/10729721 SEPTEMBER/OCTOBER 2019 | MassTransitmag.com | Mass Transit | 19



#### Lauren Cochran Scoville Director of Southwest Sales Proterra



#### LAUREN COCHRAN SCOVILLE HAS

been working in public transportation for more than a decade and has had a career centered on transit innovation across roles at mass transit agencies, strategic research firms and technology manufacturing companies.

Cochran Scoville says her work with diverse stakeholders at Foothill Transit to deploy the world's first full-size, battery electric bus into commercial operation is one of her crowning achievements thus far. Her leadership and stewardship was key in the establishment of the battery-electric vehicle category in North American mass transit.

She built on her experience with mass transit and electric vehicles when she returned to her home state of Texas to work as a researcher with the Texas Transportation Institute. She was part of a team that partnered with the Texas Department of Transportation to launch the first automated and connected vehicle proving ground transportation for public transit, located at Texas A&M University.

Houston METRO recruited her in 2015 to serve as director where she was

#### FACT:

Cochran Scoville is credited with starting the #BusLove hashtag on social media, which is celebrating its ninth trendsetting year.

MassTransitmag. com/21093121 responsible for the agency's contracted operations and then moved into the director of innovation role where she opened the Office of Innovation.

Innovation to improve accessibility in transit is another passion of Cochran Scoville's. In 2015, she led research for USDOT to identify new technologies to help people with disabilities navigate public transit systems. At Houston METRO, she managed paratransit contractors and piloted a bluetooth smart phone app that alerted blind passengers about bus stop locations.

At Proterra, Cochran Scoville's passion for innovation has continued to flourish. She is co-leading the company strategy on automation applications for customer EV fleets. The company explains that her strength is her customer engagement, which she uses to help identify the best automation features based on customer interest and needs.

**"[]** enjoy] the sense of fulfillment that comes from working towards total zero emission transit, a goal so much bigger than my career and critical to the future of the planet that I love."

## PROTERRA CONGRATULATES REN RAN SCOVILLE

Proterra proudly congratulates Lauren Cochran Scoville, Director of Southwest Sales, selected for Mass Transit's 2019 Top 40 under 40. Thank you for 11 years of service in the transit industry and your dedication to zero-emission transportation!

#### #ebuslove



#### NICHOLAS DAVIDSON BEGAN HIS

transit career in April 2012 as the customer service supervisor at Stark Area Regional Transit Authority (SARTA) in Stark County, Ohio. During his tenure in this position, SARTA integrated mobile data terminals into the paratransit system which moved drivers to paperless manifests. He oversaw the implementation of dynamic scheduling techniques through the software scheduling suite known as Trapeze Pass.

He organized an event for staff to improve the administration of paratransit and demand response service. This event and his Trapeze adjustments led SARTA to a nine-percent on-time performance increase and achieved an operating efficiency of 2.4 passengers per hour. Davidson and his paratransit team provided technical assistance to a number of agencies from New York, Ohio, Washington and Alberta, Canada, as they all began moving toward dynamic scheduling. Subsequently, SARTA was named as a finalist in 2018 for Trapeze's Strategic Alliance Award of Excellence.

In August 2016, he was promoted to transportation planning manager. He's

#### Fact:

He's a 2018 graduate of APTA's Emerging Leaders Program and a 2017 graduate of Leadership Stark County.

MassTransitmag. com/21093559 since worked on projects such as: realigning routes in southeast Canton to reduce the food desert in impoverished neighborhoods; providing better access to employment by adjusting routes and schedules to several communities; and increasing the number of stop amenities and bus shelters to improve riders' experiences.

He pitched an idea for Trapeze's Pass system, enabling users to strategically adjust parameter settings through an automated process. This was adopted by Trapeze and will be implemented in an upcoming version. He was named a finalist for the 2019 Trapeze Innovation Award of Excellence for this suggestion.

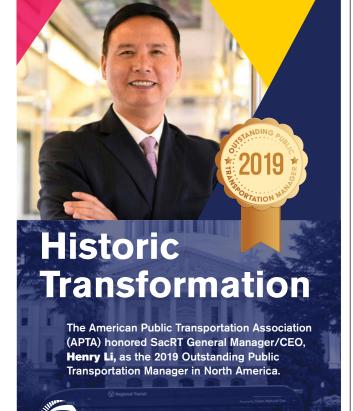
He's been a featured speaker at the Ohio Public Transit Association (OPTA) and ThinkTransit (Trapeze) Conferences. He served on the planning committee for the OPTA Annual Conference for the past three years, helping secure a partnership with the National Transit Institute for the 2019 conference.

**"When** I started at SARTA, I thought my career would be in public service. Over time, I developed a passion for public transit through my work in paratransit service."



Nicholas Davidson Transportation Planning Manager Stark Area Regional Transit Authority (SARTA)





SARTAonline.com

SARTA

CONGRATS

**TO OUR OWN** 

NICHOLAS DAVIDSON

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For more information, visit www.MassTransitmag.com/11191142

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#### Crissy Ditmore Director of Strategy Cubic Transportation Systems Inc.



#### **CRISSY DITMORE IS A 14-YEAR VETER-**

an of the transportation industry and assists government partners in developing technology solutions while ensuring the public's interest through a common-sense approach to policy. In her current role with Cubic, she works with transit agencies and transportation authorities in communities across the country to identify new technologies that support their overall transportation network including advancements in CAD AVL, fare collection systems, real time passenger information, traffic and congestion management and Mobility for All. She collaborates with policymakers at the state and federal level to maximize user experiences while ensuring equity, access and the attainment of broad regional goals.

Ditmore serves as board chair of the TravelSpirit Foundation North America and is a founding member of the Coalition for Smarter Transportation, which works toward refining open and accessible tools for an integrated mobility future while unifying public and private interests for the common good.

Ditmore began her career as a project manager for VPSI Commuter Vanpools,

#### FACT:

Ditmore is a recipient of the Max Lyon Lifetime Achievement Award, APTA Ad Wheel Award and was recently named Number 5 on the 2019 list of "50 Tweeters in MaaS You Should be Following."

MassTransitmag. com/21093099

where she saw a doubling of the vanpool fleet in Anchorage, Alaska, during her first year. She is credited with organizing a series of successful grassroots campaigns to ensure transit funding was preserved through changes in municipal leadership and she worked with the Alaska State Transit Coalition to secure the state's first, dedicated matching funds for federal grants and local projects. Additionally, Ditmore developed language to introduce the concept of commuter centers that was eventually included in a Department of Defense authorization bill. She also worked with industry associations to introduce and eventually pass the "private investment in commuter vanpool" funding regulation that expanded access to implement vanpool projects in regions that did not have matching funds to implement service.

**"Everything** we hope to accomplish lives or dies by policy. Whether that policy is local, state, federal, by regulation, law or statute, a deep understanding of policy is fundamental to a successful career in mobility."

## THE FUTURE OF MOBILITY IS LOOKING GOOD

Director of Strategy Cubic Transportation Systems

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Crissy Ditmore ON BEING NAMED TO

#### SUMERSET ELLIS JOINED UTAH

Transit Authority (UTA) in 2017 after spending 12 years at the University of Utah, where she impacted overall GIS efforts, data analytics and implementation of the Transit Asset Management (TAM) program.

Ellis has accomplished a variety of things in her short time at UTA. She helped design and initiate an open data portal that allows the public to download data related to key UTA KPIs. She geospatially identified UTA assets containing key information relating to the TAM program. Through georeferencing, she created as-built drawings of rail infrastructure to better identify components. She successfully piloted a workable turn-by-turn navigation solution for bus drivers to minimize route deviations due to detours. She completed Phase 1 of a light-rail vehicle tracking software that tracks LRV location relative to the planned schedule.

She also set up a property database that will include agreements, license documentation and other relevant information relative to UTA properties

#### Fact:

According to coworkers, "I can do that" is a phrase Ellis often says.

MassTransitmag. com/21093565 in UTA's ArcGIS Online account. She provided constant support of UTA's Service Delivery departments relating to map creating and software support.

Ellis accomplished all of this while being the only GIS person at UTA and only being able to devout 50 percent of her time to these projects. The other 50 percent of her time goes towards implementing UTA's TAM program.

Thanks to her work on UTA's GIS capabilities, projects that may have taken weeks can now take only a few days and small projects can typically be completed in a matter of a few days or hours with a high degree of accuracy, completeness and professionalism.

Considered the ultimate team player amongst coworkers, her positive attitute helps the team maintain perspective and focus to reach their goals.

**"Since** I have the opportunity to work with all departments at UTA, I get to personally experience each group's inner workings and capabilities. I love being able to find GIS-based solutions to individual and group challenges."



Sumerset Ellis, MSGIS GIS Asset Administrator Utah Transit Authority (UTA)



## THE FUTURE IS SAFETY





Erin Fiorini General Manager, Infrastructure Capital Finance Chicago Transit Authority (CTA)



#### ERIN FIORINI BEGAN HER CAREER AT

the Chicago Transit Authority (CTA) in 2005 as an executive administrative assistant and has since moved up the ranks to where she now serves as the general manager of infrastructure capital finance for the CTA's Infrastructure Department.

She oversees the five-year, \$3 billion capital budget, which encompasses the CTA's major improvements to bus and rail infrastructure. She also manages the CTA's Program Management consultant and web-based project management system contract, provides reports and updates to external funding agencies, and works with various CTA departments and external parties to develop future capital projects and programs.

She has been a driving force behind many innovative practices utilized by CTA. As one example, the Infrastructure Department is in the process of transitioning from a paper invoicing process for contractors to an electronic process under her leadership.

She's currently leading the CTA's efforts to revamp web-based project management processes to incorporate lessons learned and industry best practices. De-

#### Fact:

Fiorini never imagined she'd manage large budgets as both her undergraduate and graduate degrees are in English literature and writing.

MassTransitmag. com/21093539 spite predictable pushback that comes with new process implementation, she works hard to ensure everyone's voice is heard, new processes are rolled out effectively and adequate training is provided.

She's also migrating the series of spreadsheets and databases that served as the agency's cost management system directly into the web-based project management system as a way to seamlessly integrate cost controls into projects. This required research and some software customization, but she's invested the time to make sure CTA is able to effectively manage construction project costs. Her efforts to modernize the processes are critical to ensuring the success of current and future CTA projects.

Co-workers report she takes the time to know where in the process every project is at and provide advice to newer project managers.

**"The** most challenging part of my job is making sure we can build projects with the funding we have. Public agencies have to make their resources stretch and part of my job is to make sure we spend money where the need is so we can continue to make improvements to our transit system."

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#### AS DIRECTOR OF GOVERNMENT AND

Community Affairs, Casey Fromson leads the political and community engagement for the San Mateo County Transit District, which manages three separate transit agencies – Caltrain, a commuter rail that runs from San Francisco, Calif., to Gilroy through the heart of the Silicon Valley; SamTrans, which manages bus and paratransit services in San Mateo County; and the San Mateo County Transportation Authority, which funds small and large scale transportation programs and projects.

Fromson has been a key force behind the electrification of the Caltrain rail system, leading a monumental effort to fully fund the \$1.9 billion project. After securing \$1.3 billion from local, regional and state commitments, the project was on the cusp of receiving a full funding agreement from the federal government when the administration changed in 2017. Fromson led a concerted and coordinated nationwide campaign that activated the tireless support of Caltrain's federal and state delegation, private sector partners (including titans in Silicon Valley's tech sector), riders and fellow public agencies

#### FACT:

Fromson spent seven years in Washington, D.C., as the legislative director for U.S. Rep. Anna Eshoo (D-CA-18) and as a legislative aide for U.S. Sen. Patty Murray (D-WA).

MassTransitmag. com/21093094 to overcome the possible loss of federal funding. The project will ease congestion in one of the country's most economically productive regions while paving the way for a more than 175,000-ton reduction of greenhouse gases annually.

Fromson also recently directed the transit district's engagement in one of the largest outreach programs ever seen in San Mateo County to develop a transportation expenditure plan. This plan led to the voter approved 2018 Measure W, which is projected to bring in approximately \$90 million a year in taxes for the next 30 years. Fromson is currently overseeing the political engagement for the creation of a Strategic Plan for the San Mateo County Transportation Authority and for the Caltrain Business Plan. Both plans will help develop a better understanding of the region's future transportation needs and will identify opportunities and strategies for how the district can support those needs.

**"If** we provide great public transit, we will create stronger communities, support a more sustainable travel mode and make a positive impact in people's everyday lives."



Casey Fromson Director of Government and Community Affairs for Caltrain SamTrans and the Sam Mateo County Transportation

Authority



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#### Steven Granson Transit Project Development Practice Leader HNTB



#### **STEVEN GRANSON JOINED HNTB IN**

2018, but his passion for transit began much earlier. Holding a bachelor's in business administration, accounting and finance, and a master's in transportation planning, the transit industry sparked a 15-year career.

His combination of degrees provides a valuable specialization that helps clients visualize transit possibilities and how to deliver the capital resources to make them real. Because of this he's held leadership roles on major transit projects in cities like Seattle, Chicago and more.

Living in Houston, Texas, Granson helped lead the \$823 million Purple Line Light Rail project for the Metropolitan Transit Authority of Harris County. He's also part of the Campbellton Road Corridor transit project for MARTA, with Phase One underway. He's assembled and is managing a team of 30 HNTB staff and six subconsultant firms to complete the study, which will determine the best forms of transit for the corridor.

Granson is known as an expert in the Federal Transit Administration's New Starts capital funding program at HNTB.

#### Fact:

Granson serves as a volunteer board member for the City of Manvel Economic Development Corporation, advocating for transportation and infrastructure issues

MassTransitmag. com/21093564

With his financial background, he has developed an understanding of the program's rules, mechanisms and policies, helping transit agencies advance projects.

Granson is also spearheading innovation at HNTB. With full support of HNTB's executive leadership, he's developing and leading a new transit project development practice that assists clients nationwide on transit, environmental, financial and economic development planning, as well as navigating federal rules and regulations.

Granson serves as chair of the New RailVolutionaries that connects young professionals to networking and education. He also represents HNTB for the local Council of Minority Transportation Officials chapter.

"This may sound idealistic, but when I transitioned to a career in the public transit industry, I wanted to do work that would have an impact on communities in my city, state and across the U.S. Every day I get to work on projects that will impact people directly and/or indirectly. I can wake up every morning and be happy about that reality."

## **HNTB** CONGRATULATES **STEVEN GRANSON**

for being recognized among the "40 Under 40"

top young professionals in the transit industry.



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#### **BENJAMIN GRUNAT STARTED AT**

GILLIG in 2010 as a controller in accounting. Not long after, he took over as the director of national sales where he helped the team exceed company goals. He then moved on to director of project sales management where he developed the insides sales team and processes.

Today, as director of product planning and strategy, a newly-created role, he drives conversations and ideas at GILLIG and is committed to improving product lines, managing customer expectations and achieving high outcomes.

Grunat has a clear vision for what customers need from new technology and product choices. His strong voice plays a role in the direction GILLIG has taken and the products that have been offered. During his time at GIL-LIG, new product offerings, such as compressed natural gas, battery elec-

#### Fact:

Grunat helped launch the Battery Electric Bus by gathering customer requirements and representing the voice of the customer throughout the development process.

MassTransitmag. com/21093531 tric and body style enhancements, have been introduced.

He's also enhanced GILLIG's internal processes with continuous improvements, including the addition of customer relationship management software, along with using better data analysis to help drive decisions for the company.

As a key player in GILLIG's growth, he oversees the project sales team and the strategic planning group and works closely with the vehicle integration, design engineering and project management groups.

**"With** the introduction of new advanced technologies and products, it's important to engage stakeholders not only early in the process but also throughout the stages of implementation."



Benjamin Grunat Director, Product Planning & Strategy GILLIG



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## GILLIG proudly congratulates BEN GRUNAT



Selected for Mass Transit's 2019 Top 40 Under 40



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#### Zachary A. Hernandez Chief Data Analyst AlphaVu



#### ZACHARY A. HERNANDEZ BEGAN AT

AlphaVu as a content analyst in 2016 and has since worked his way up to chief data analyst where he designs customized research projects and directs the creation and compilation of customized data analytics.

As the chief data analyst for AlphaVu, Hernandez works every day to advance the use of big data to better understand everything from operations and safety and labor relations to government relations and public outreach. His work for public transportation and infrastructure clients across the country use artificial intelligence, machine learning, data mining and data visualization to solve problems and meet strategic goals. He pushes innovative uses of data to help mold public opinion and in turn help localities build support for public transportation funding.

His projects contributed to the success of local ballot initiatives for securing funding for transit and infrastruc-

#### Fact:

He spent two summers in Bogotá, Colombia, studying the city's formal and informal public transportation networks as a research fellow.

MassTransitmag. com/21093567 ture, and they helped develop efficient, successful public outreach models.

In addition to his work, he's also been building his industry presence through industry presentations, such as speaking at COMTO's Annual Meeting in 2017, and he's been published in Mass Transit Magazine where he wrote "Social Listening: A human-centered approach to your online strategy."

Before joining AlphaVu, Hernandez was a research fellow at Washington University at St. Louis, Missouri, where he conducted an independent research project titled "Politics of Urban Mobility: Everyday Practices and the Construction of Informal Public Transportation in Bogotá, Colombia."

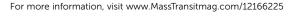
**"It's** important the industry continues to innovate its public outreach and stay creative in finding new ways to build support. One way to do so is to connect the content of your messaging to the preexisting affinities and values of people living in your community."



Congratulations on making the 40 Under 40 Zach Hernandez!

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## **Q'STRAINT**





#### Jeremy Johnson-Miller

Mobility & Transit Program Administrator Iowa DOT, Public Transit Bureau



#### JEREMY JOHNSON-MILLER'S CAREER

began at an agency that helped low-income families find housing. It was here that he experienced the connection between transit, housing, healthcare, employment and educational opportunities. Through his research and work connecting clients with transit, he was offered a position at the Heart of Iowa Regional Transit Agency (HIRTA) as its first mobility coordinator.

HIRTA operates in seven counties and Johnson-Miller's passion for people and transit helped the system see ridership increases that allowed HIR-TA to begin developing new programs and earned Johnson-Miller the Federal Transit Administration Region VII Mobility Manager of the Year award in 2013.

He left HIRTA as mobility coordinator to join the Iowa Department of Transportation, in the Office of Public Transit. Johnson-Miller is a firm believer in the power of networking and spends his days working with state agencies, speaking at local events and reaching out to departments within Iowa DOT.

Johnson-Miller worked with the Iowa DOT Motor Vehicle Division on a website

#### FACT:

Johnson-Miller was a frequent transit user during his childhood in lowa City, using the local bus to meet his aunt for lunch, go to the library and get ice scream.

MassTransitmag. com/21093118 redesign, bringing all licensing-related topics into one, easy-to-use location, allowing customers to access all information relating to licensing and alternative modes of transportation on a single landing page. He is also working on a first in the nation partnership between motor vehicle licensing and transit. The work focuses on four main areas - corrections/ re-entry, disability, aging and medical - to understand the needs of each community to determine obstacles and barriers to obtaining and/or maintaining a valid driver's license, as well as what options are available to people without a license.

Johnson-Miller's ultimate goal is to change the language and culture of various state agencies. Knowing that each state department is tasked with creating a long-range plan, he wants this to be the opportunity to change how services are coordinated.

**"Public** transportation is part of a bigger network that serves the entire person; we need to understand that a customer lives a life before and after they ride the bus."

#### THOMAS M. HEWITT JR. LED THE CRE-

ation of the service plan, bus stop optimization and the development of the operating implementation plan for BaltimoreLink, which he describes as a reimagining of the region's transit network with capital infrastructure improvements and an agency-wide multimodal rebranding effort. Hewitt explains that BaltimoreLink provided the catalyst for data-driven decision making, guidance documents and standardization at the administration, which allows it to continue to build a transit system that provides safe, equitable, efficient and reliable service throughout the Baltimore region.

Following the implementation of BaltimoreLink, Hewitt has led several major initiatives that have pushed MDOT MTA forward as an agency. Hewitt is directly responsible for the development of the bus stop design guidelines, the bus service standards and the performance monitoring guidelines, three documents that provide a blueprint towards continued service growth and improvement. He has created BaltimoreLink route report cards that track overall service trends and performance using MDOT MTA's guiding principles of safety, efficiency, reliability

#### **FACT:**

Hewitt played club ice hockey at Ohio State University where he served as assistant captain his Junior and Senior year. He can still be found on this ice in adult league or pickup games around Baltimore.

MassTransitmag. com/21093360 and world-class customer service. He developed an annual service plan that allows for a deeper dive into each of the route's performance to determine what changes will help both the individual service and the overall bus network. Hewitt has also established a process to analyze and review critical schedule reliability elements, such as runtimes and layover/ recovery time to maximize service while maintaining efficiency.

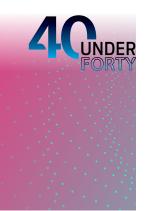
Overall, the commitment to continuous improvement using data-driven analytics has already had a significant positive effect on MDOT MTA's on-time-performance (OTP). This past winter, MDOT MTA utilized real-time data for the first time to construct bus schedules. Since the new schedules were implemented on February 3, core bus system OTP rates rose to a high of 71.4 percent for March, compared to a pre-BaltimoreLink OTP rate of 59.5 percent, all while reducing operations requirements.

**"Being** an expert in one area is important but having a working knowledge outside your area of expertise is what can help you to the next level in your career."



#### Thomas M. Hewitt, Jr.,

AICP Director of Service Development Maryland Department of Transportation Maryland Transit Administration



#### JAYME JOHNSON, UNDER THE CHIEF

operating officer of the Washington Metropolitan Area Transit Authority (WMATA), has built the authority's office of strategic initiatives from the ground up with a goal of achieving dramatic improvements in safety, efficiency and delivery across WMATA's operations. Johnson's mandate is to change business as usual across WMATA's operational frontline, namely rail, bus, police, paratransit and support services. Johnson recruited a team of more than 35 mixed employee and consultant staff, delivering an ambitious program of over 20 organizational change projects.

A flagship initiative of Johnson's office is the 3% Challenge. He launched and leads the initiative to help close the multimillion-dollar gap between current operational spending growth and the three percent annual growth cap imposed by WMATA's jurisdictional funders. Johnson's actions to break down silos and redefine the conversation helped to drive a culture shift at WMATA towards personal fiscal responsibility and tracking projects' impact on the organization's budget.

#### FACT:

Johnson met his wife, Molly, during a chance encounter in 2011, which eventually led to a transatlantic move, a career change and, as of 2019, new U.S. citizenship for Johnson.

MassTransitmag. com/21093116 Johnson's team has also delivered on the priority of dramatically improving the state of the rail system. Johnson and his team took a data-driven approach to reform procedures and improve management practices, which resulted in crews gaining, on average, 15 percent more time overnight to do their work. Additionally, he coordinated the design, installation and evaluation of a tagging relay prototype, a new system of de-energizing and restoring third rail power that is simpler and more efficient than WMATA's current procedures.

Johnson's team designed and delivered the COO's Leadership Program, which brings a systematic approach to reskilling and inspiring all managers and supervisors across operations. Never seen before at WMATA, the program brings operational improvement and improves recruitment and retention.

**"Do** the basics brilliantly. No vision, strategy, great idea or common-sense solution is possible unless your team or organization has the basics in place."



Jayme Johnson Director, Strategic Initiatives Washington Metropolitan Area Transit Authority





### "Okay. Did you try unplugging it and plugging it back in?"

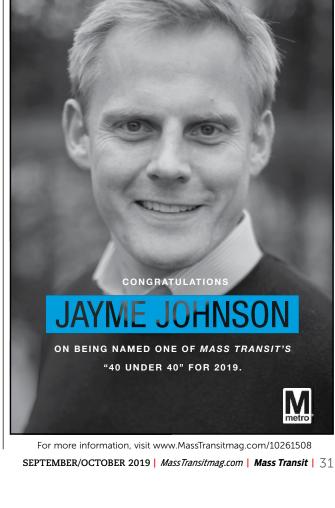
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#### James C. Keel, MBA

Interim Public Transportation Director City of Greenville on behalf of the Greenville Transit Authority



#### WHAT DREW JAMES KEEL TO PUBLIC

transit was the evolving nature of transportation and he wanted to be involved in a service that benefited many members of the public. Keel believes transportation is critical to provide access and freedom of choice of jobs in his community and has seen the direct benefit of expanded, consistent service.

Keel joined Greenlink/Greenville Transit Authority after receiving his graduate degree. As general manager of Public Transportation, Keel oversaw daily transit operations of fixed route, dispatch, trolley and paratransit service. Keel analyzed performance of transportation functions and recommended modifications to improve. He also evaluated trends in passenger trips and would implement action plans to overcome deficiencies. Working with consultants, Keel and his team completely redesigned Greenlink's route structure with the 2017 Comprehensive Operators and developed a Transit Development Plan identifying changes in hours of service, frequency and new routes. This plan has led to adding four additional hours of service that will ten-

#### FACT:

Keel's career began his freshman year of undergrad and he is now one of the youngest transit CEOs among his fellow transit agency leaders.

MassTransitmag. com/21093112 tatively go into effect in October of 2019.

Throughout his career, Keel has looked for opportunities to integrate new technology into fleet operations that increase efficiency, lower costs and improve the ridership experience. Keel spearheaded the Greenlink electric bus program and introduced four, 100 percent zero-emission buses into the fleet. Keel also oversaw the implementation of new Transit ITS system, Paratransit Dispatching & Scheduling System and Transit Mobile Ticketing and Smart Card Payment System.

Keel is also credited with guiding his agency through several grant processes and helped Greenlink Transit secure two large grants, including a \$1.45 million Low-No Program grant to procure two electric buses and an \$11 million Bus and Bus Facilities FTA grant to build a new maintenance facility.

**"The** exciting thing about transit is something is always changing. There is always a new technology, new software, new bus or new research."



#### Zoe E. Keller

Transit Operating Project Manager & Acting Transit Procurement Specialist Illinois Department of Transportation (IDOT)



ZOE E. KELLER STARTED AS AN

intern at the Champaign County Regional Planning Commission (CCRPC) in 2014 before being hired full time in 2015 as a transportation planner.

In her role of transportation planner, Keller also served as the human services transportation coordinator and program compliance oversight monitor (PCOM), where she worked on better service for the 12-county region, and focused on better accessibility, affordability and availability of services. She also created efficiencies to reduce duplicate service and focused on communication between the different providers and the customers by facilitating meetings.

In her duties as PCOM, she oversaw the operations of the Champaign County Area Rural Transportation System. One of her greatest accomplishments as the PCOM was the implementation of a deviated fixed route and express route in Rantoul, Illinois, to create a more efficient service. She worked with the mayor and village officials on implementing the service.

In addition, the village was willing to provide \$110,000 in funding. The express route was named the Eagle Express and

#### Fact:

Keller is currently in charge of applying for the Federal Funding of Vehicles.

MassTransitmag. com/21093568 operates between Rantoul and Champaign during peak hours and off-peak service is demand/response. This service stops at two major transfer hubs for the Champaign-Urbana Mass Transit District, as well as both a major hospital and a shopping mall. When the service started two and a half years ago, there were 500 trips per month. Current ridership is 1,700 trips per month and growing.

She joined the Illinois Department of Transportation's (IDOT) Office of Intermodal Project Implementation in the Bureau of Transit Operations as a project manager in February 2018. She also is helping out in the Consolidated Vehicle Procurement Program (CVP). When the CVP section chief left this past February, Keller volunteered to help out in the CVP section.

**"There** are so many factors in this business that we have little to no control over, but the one thing we can always do is foster an honest dialogue between our partner agencies. Sometimes we have to deliver bad news, and it's easier hearing it from someone that you trust and have a positive relationship with."

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3



#### Stephanie Laubenstein Director, Sales and Business Development New Flyer of America, Inc.



#### STEPHANIE LAUBENSTEIN BEGAN

her public transit career with New Flyer in 2009 and, over the past decade, has progressively advanced from a coordinator to customer program manager, through to her current position of director, sales and business development.

In her early roles, Laubenstein served as a liaison between transit agencies and New Flyer's internal stakeholders, delivering exceptional customer experiences and supporting complex Request for Proposal processes for North America's largest transit agencies. As manager of technical sales, she leveraged industry knowledge to lead a team through procurement and option orders for municipal and private transit agencies.

In 2015, she became business segment director (BSD) for New Flyer's Municipal Transit and Private Operators market, later transitioning to the largest (metropolitan) segment representing the biggest cities in North America. As the Municipal BSD she led the development of go-to-market strategies for joint venture partnerships. As the Metropolitan BSD, Stephanie developed and launched the New Flyer Infrastructure

#### FACT:

Laubenstein serves on many committees within APTA and is a current member of the Transit Working Group for the U.S. Department of Labor Apprenticeship Powered by Industry (API) initiative.

MassTransitmag. com/21093361 Solutions<sup>™</sup> service. She also developed the New Flyer and Transportation Diversity Council relationship to support workforce development and local jobs in Los Angeles, Calif., in addition to developing and deploying bus leasing programs for transit customers in the U.S.

In her current role, Laubenstein leads New Flyer's internal and external business development initiatives, while also leading and coaching a team of nearly 20 to develop innovative technical and commercial mobility solutions and supports implementation of zero-emission pilot programs.

Throughout her career, Laubenstein has maintained active engagement in the transit industry through committee and advocacy roles. Over recent years, she has become a dedicated advocate of and contributor to workforce development and diversity initiatives in transit.

**"There** is nothing more rewarding than watching my team members succeed and helping them find their purpose and passion. Seeing others succeed and do well motivates me."

lan Macpherson Director, Production Engineering New Flyer of America



#### IAN MACPHERSON HAS BEEN LEAD-

ing complex design through mechanical engineering for more than ten years and has become a transit industry product design expert. As current director of production engineering with New Flyer, Macpherson builds on his experience designing vehicles through several chief and director level engineering roles.

At the age of 25, Macpherson moved from New Zealand to the U.S. to work for DesignLine USA, where he was responsible for the complete design, development and validation of heavy-duty transit buses and coaches, including the launch of new hybrid and battery-electric buses.

In October of 2013, Macpherson was named systems integration manager at North American Bus Industries (NABI) in Anniston, Ala. Six months later, Macpherson was promoted to chief engineer of design and led the integration of engineering teams between NABI and New Flyer, after the NABI plant was reconfigured as a New Flyer facility in 2014. Macpherson was then named chief engineer of product improvement in 2015, responsible for leading projects focused on

#### FACT:

As a recent engineering graduate, Macpherson worked in an engineering consultancy where he was exposed to various projects, one of which served a bus manufacturer. This later led to a move to the U.S. from New Zealand, and eventually, to his joining the New Flyer team.

MassTransitmag. com/21093102 design and performance improvements.

Macpherson was promoted to his current role early 2019. He leads planning, designing, and testing of all production projects at New Flyer, with an international team of 200 designers, engineers, technicians, and project coordinators. Together they work on 30-40 customer contracts at any given time, supporting and helping to advance transit agencies across North America.

Over the span of his career, Macpherson has become specialized in electric propulsion and vehicle component and software integration on transit bus platforms. His technical strength has helped innovate the North American public transportation industry, most recently developing SmartRider<sup>™</sup> – New Flyer's intelligent electronic bus levelling system – for which he is attributed as one of the inventors of the technology that ultimately improves accessibility.

<sup>44</sup> find the most rewarding part of the job (but not always the easiest!) is solving complex product issues for our customers."

#### DORIS LEE ALWAYS HAD A STRONG

interest in mobility and how people move through different spaces—having grown up in Los Angeles, lived in New York City and now in San Francisco. In her seven-year career at WSP USA, she has helped more than two dozen public transportation agencies across the country provide safe and reliable transportation systems.

Her work with these transit agencies and other transportation stakeholders (including state DOTs, airports and the Federal Highway Administration) has centered around solving critical problems spanning multiple areas. She has helped prepare practical long range and strategic plans that have enabled agencies to have clear and defensible priorities, improve business processes to significantly improve efficiencies, plan for new asset management systems and select asset management systems.

Recently, Lee helped several transit agencies with preparing a clear roadmap for their asset management improvements, charting their improvement journey for years to come and doing it

#### FACT:

Lee was selected to participate in WSP's Global Project Management Academy by the firm's leadership team. Participants of the program are selected based on their high performance and high potential.

MassTransitmag. com/21093101

in a way that can be understood by a wide group of stakeholders. These plans had to be completed within a tight timeframe to ensure compliance with Federal Transit Administration's (FTA) Final Rule for Transit Asset Management (TAM). Her easy-to-approach demeanor and capacity to distill complex topics into simple messages ensured that her recommendations are widely accepted within the agencies and put into practice. The plans innovatively included infographics and summary sheets to ensure higher visibility and were supported by detailed lifecycle models that provided underlying analysis.

Lee has also co-authored a multitude of guidance documents for state DOTs that have advanced the state of practice. These include guides to leverage technology to improve the project delivery and right of way management processes.

<sup>66</sup> enjoy the problem-solving aspect of my job and helping clients grapple with and solve challenges that not only impact their organization but ultimately the rider experience."

Ian Macpherson

Director, Production Engineering



Doris Lee Consultant,West Deputy Regional Manager, West South, Asset Management Business Advisory WSP USA



Stephanie Laubenstein Director, Sales and

**Business Development** 

### Congratulations Stephanie and Ian

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Brandon M. Maurisak, P.E. Transit Engineer



#### **BRANDON MAURISAK'S FIRST EXPE-**

rience on rail transit was a trip on what was then a two-year-old Hiawatha Light Rail (METRO Blue) line between Mall of America and Minneapolis, Minn., during a college pep band trip to play at a conference hockey tournament. Maurisak said the experience opened his world view of how transit can impact cities.

Public transit and rail electives were offered as part of the civil engineering degree program at Michigan Tech, which Maurisak credits for exposing him to characteristics of transit modes, route planning and system operations. His early exposure to rail transit and his professional life came full circle when, in 2013, following his recruitment by AECOM, he worked on the design of an extension of the system kick started by the Hiawatha.

Maurisak is described by colleagues as steadily reliable, dedicated and eternally upbeat, qualities that bode well in the transit industry where major transit projects can take decades between initial planning and opening day. Maurisak says it can be challenging to see the light at the end of the tunnel while projects

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#### FACT:

Maurisak's efforts managing the design collaboration system on two light-rail extension projects involves coordinating with more than 20 consulting firms, the client and multiple jurisdictional partners.

MassTransitmag. com/21093093 wrestle with political, budgetary, technical or other issues. He points to one project he worked on, METRO Green Line Extension, which experienced numerous pauses due to political pressure and budgetary challenges but is expected to begin operation in 2023 – a full decade after he began working on the project.

Maurisak has taken on greater responsibilities within AECOM's Portland, Ore., office where he is now involved in key business development decisions and management of department staff. To improve communications on a major project assignment, he took the initiative to assist the project manager and established regular meeting times to improve communication within the team, developed an issues and deliverables tracking system and managed resource allocations.

**"For** me, all other accomplishments will come second to graduating from college. In my family, I was part of the first generation that had college as a viable option and the day I completed my degree felt like validation for my family who believed I could do anything."

## Congratulations

AECOM is proud to have **Brandon Maurisak** to be recognized by Mass Transit magazine as one of its **2019 Top 40 Under 40**.

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#### Mustafa Mirza, M.A.Sc., P.Eng., PMP Director, Rail Systems Engineering, WSP Canada



#### MUSTAFA MIRZA BRINGS MORE THAN

15 years of engineering experience towards functional design and development, requirements definition and analysis, and client service and support. Mirza has been part of international teams that have delivered projects around the globe including in Malaysia and Qatar, before moving to Canada to work with WSP Canada.

Mirza's notable rail project contributions include Metrolinx Union Station Rail Corridor Signaling (USRC), Metrolinx GO Transit Train Control System (GTCS) and the Edmonton Metro Line Expansion. For both the USRC and GTCS projects, Mirza led the systems engineering effort in planning and managing of requirement generation, analysis and traceability. His experience and lessons learned in analysis work of rail systems in his earlier roles were invaluable assets for his new role on the USRC and GTCS projects.

For the Edmonton Metro Line Expansion Project, Mirza supported the Signaling and Train Control Strategy, taking into consideration the challenging operating conditions on the existing

#### FACT:

Mirza aspired to become an astronaut early in his career before making the successful transition to public transit.

MassTransitmag. com/21094173 Metro Line at the time. Additionally, he provided support on the Electromagnetic Interference/Electromagnetic Compatibility Study Plan for the project. Mirza continued his role in systems engineering by providing technical leadership towards the development of systems requirements during the project's preliminary design phase. Mirza regularly traveled between Toronto and Edmonton to ensure that the project proceeded smoothly and that the newly formed team in the west was well managed. His current role finds him regularly traveling between Canada's metropolitan centers in support of team growth and to apply his lessons learned.

Mirza's co-workers note he has evolved from a highly skilled technical expert into a motivated leader and credit his ability to practice mindfulness, which has resulted in an inclusive team.

**"My** advice to everyone is to focus on performance – meaning just do your job well. If you perform well, you will be recognized, and you will get more opportunities."



**Daniel Lax** Founder & CEO Clear-Vu Lighting



#### ABOUT 10 YEARS AGO, DANIEL LAX

started Clear-Vu Lighting as a division of Long Island-based plastic injection molding company, Autronic Plastics Inc. Since then, the company has grown from a concept into a provider of specification-grade LED lighting systems to transit agencies nationwide.

The first product developed was the LED Portable Lamp Bank, which replaced third-rail powered incandescent temporary and site lighting in subway tunnels. The LED replacement product reduced energy consumption by a factor of 10, improved service life by a factor of five, and eliminated a major risk of fires in the tunnels thereby improving worker safety.

He also led the development of an LED-based permanent tunnel light with an integral emergency battery backup and a quick connect system. Variants of this technology have been deployed by multiple transit agencies.

Through a NYSERDA grant, Lax's company will pilot a wireless monitoring system that will provide light fixture health data to the transit network, along with serving as an IoT-sensor network platform.

#### Fact:

Clear-Vu Lighting delivered a complete design and build station of lighting and electrical wireway every three weeks during a six-month period last year.

MassTransitmag. com/21093537 After roughly two years in the station lighting market (entrance/control area/ mezzanine/platform), the company has manufactured over 20 unique light fixture products that were designed, prototyped, fabricated and deployed across 15 subway stations in New York City during the past 18 months under New York Gov. Andrew Cuomo's Enhanced Station Initiative.

These fixtures feature best-in-class performance characteristics and an innovative three-step emergency backup system utilizing the DALI protocol.

Lax and his company have pioneered innovative niche applications of LED lighting and associated technologies in the mass transit market, and provided numerous product platforms that have improved the efficiency, operation, maintenance and safety of transit systems across the country.

<sup>44</sup> am an entrepreneur and engineer at heart. Designing, producing and delivering products that will improve the lives and safety of millions of people is what motivates me and brings me the most satisfaction."

## Question today Imagine tomorrow Create for the future

Applying technical excellence, inspired leadership and a passion for transportation systems, **Mustafa Mirza and his team at WSP** create innovative solutions to the challenges the future will bring.

> Congratulations Mustafa for your Top 40 Under 40 Mass Transit achievement.



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#### Kate Morley, AICP Development Director Mountain Line



#### KATE MORELY STARTED HER CAREER

in the industry in 2015 as a mobility planner for Mountain Line. She quickly worked her way up to development director, and under her leadership, the Mountain Line's Planning Department has undertaken several projects of regional significance.

Recently, Morely led the agency's Highway 180 Implementation Plan, a grant-funded study recommending solutions for winter congestion. While there have been previous studies of this corridor, this was the first one to put pen-to-paper solutions that had been discussed for years, such as alternative access, paid parking and tolling.

She established a robust network of public and private partners with ties to the corridor to assist with the plans, and used cutting-edge techniques, like cell phone data, to make informed recommendations about potential solutions. The final plan was unanimously approved by the Northern Arizona Intergovernmental Public Transportation Association Board of Directors, and several of the recommended strategies were implemented for the 2018-2019 winter

#### Fact:

Morely's time as an activities director at a boarding school helping students incorporate biking and walking inspired her to get a masters in planning.

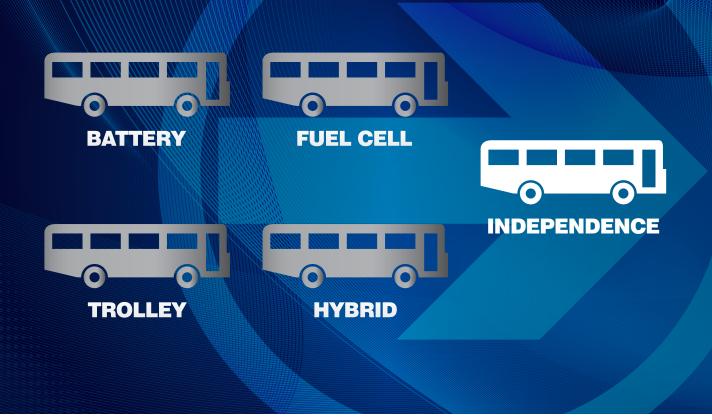
MassTransitmag. com/21093551 season, with congestion on Highway 180 corridor significantly reduced. The Highway 180 Implementation Plan also won the Arizona Transit Association's Excellence Award for Partnerships.

Morely also spearheaded a transit plan for the city of Winslow, Ariz., to study the need for inter-city transit. From inception to adoption, she built a consensus and gathered community input, taking a systematic approach to building a transit plan the city can use.

She has also spoken at the Community Transportation Association of America's annual conference on Mountain Line's mobility management programs and recently traveled to Washington, D.C., to speak with congressional representatives and industry leaders about the FAST Act reauthorization.

**"Google** Maps was brand new and I recall viewing aerial photos...and constantly discovering physical barriers that prevented safe travel between locations. I decided to go back to school and get my masters in planning to address these problems systemically."





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#### Omar A. Oliveros General Manager Greensboro Transit Agency, Keolis (GTA)



#### OMAR A. OLIVEROS STARTED AT

Keolis eight years ago as a paratransit manager, working up to fixed route manager and to where he now serves as general manager.

While he was a paratransit manager, his team underwent an operation efficiency review, which he met with support and shared what his team needed to succeed. Because of his openness and willingness to improve, the results were more impressive than any other trend in the last five years.

The results included: On-time performance, which started at the mid 80 percent range and then hit and sustained the stretch target of 95 percent; productivity improved from about 1.6 trips per hour to 1.9 trips per hour in four months; and new cancelation and no-show policies reduced no-shows by 98 percent.

During this time, Oliveros was part of the leadership team that won the Florida Public Transportation Association's 2014 Outstanding System of the Year and Keolis' 2014 President's Safety Award.

His efforts during the review helped him secure his position as general manager. In 2018, he was awarded Keolis'

#### Fact:

Oliveros attended a maintenance training session on Proterra Electric buses in hopes of offering a greener alternative.

MassTransitmag. com/21093563 2018 Outstanding Safety Award for demonstrating year over year improvements in reducing accidents and injuries. Additionally, part of the leadership team was awarded the Florida Public Transportation Association's 2018 Outstanding Public Transportation System Achievement Award.

He reduced the number of road fails in his operation by reorganizing his shop and reducing total headcount at the same time. He was instrumental in an ITS Technology deployment, including web-based CAD/AVL, mobile video surveillance and system configuration from ETA (Spot) that allows train commuters to track their bus connection before arriving at the terminal. He also introduced computer dispatch software (DCS) that improved the system's ontime performance.

He also helped reduce the number of passenger valid complaints per 100,000 from 16.32 in 2017 to 7.31 in 2018-2019.

**"TO** be effective you need to be open, listen and learn from your customers, staff and peers. They can change your perspective."

#### ERINN PINKERTON IS THE FIRST

female president and CEO of BC Transit Corp. (BC Transit), overseeing a fleet of more than 1,200 vehicles and an annual operating budget of more than C\$300 million (US\$225.589 million). Previously, she was the vice president of business development for BC Transit.

She is a visionary leader and has used her strategic thinking at BC Transit with regard to the future role of public transportation in society and the importance of modernization to ensure it attracts and retains riders. She's at the forefront of innovation, technology usage and partnerships critical to BC Transit.

She has spearheaded important initiatives for BC Transit, including the launch of the Transit Future program, which delivered direct engagement with communities across British Columbia, embracing direct feedback from current and future customers to inform future investments and service decisions for their transit systems. She also led the implementation of new technologies such as real-time information, automatic passenger counters, closed circuit television cameras and more.

#### Fact:

Pinkerton was previously BC Transit's chief transformation officer and led corporate planning, sales, marketing and communications, information technology and transit planning and scheduling teams.

MassTransitmag. com/21093545

Over her career, she has demonstrated an ability to set a vision, set ambitious objectives and successfully achieve those objectives. By setting a clear vision and sharing it widely, her teams have carried out award winning initiatives such as the #ExploreBCByBus campaign recognized with a Canadian Urban Transportation Association (CUTA) Marketing Initiative of the Year Award in 2017 and a Planning Institute of BC award for the work undertaken by BC Transit's Planning Team for the Highway 16 Community Transit Service initiative. It was her leadership and vision that enabled these teams to carry out the work necessary to receive these awards.

Under her people-first leadership, coupled with her innovative spirit, BC Transit is well-positioned to transform the journeys of all transit users across the province of British Columbia for many years to come.

**"The** clock resets daily for our operations and being part of a team that is dedicated to meeting the ever-changing and daily services needs is inspiring."



Erinn Pinkerton President & CEO BC Transit Corp. (BC Transit)



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#### Melissa Ruhl Senior Transportation Planner Arup



#### **MELISSA RUHL IS A SENIOR TRANS-**

portation planner for Arup in San Francisco, Calif., where she manages transportation innovation strategies. Partnering with cities and transit agencies, she helps communities plan for tomorrow while improving quality of life today.

In partnership with design firm Perkins + Will, she managed an Arup team that designed a concept for 4th Street in San Francisco based on a future with autonomous vehicles (AVs) in which demand for curbside passenger loading skyrockets. Her work focused on how it's possible to design livable streets and cities that allow AVs without being dictated by them.

She's also worked with the city of San Francisco on ConnectSF, a pioneering blue-sky planning effort to develop a 50year vision for the future of transportation. Ruhl and the team worked with the city on an alternative approach that called for scenario planning to identify key drivers of change, describe potential future scenarios and explore implications for residents. The resulting vision plan now guides projects and plans throughout the city.

In June 2018, Ruhl co-authored "Au-

#### Fact:

The "Autonomous Vehicles: A Horizon Initiative Perspective Paper" was one of the first of its kind to be published in the United States.

MassTransitmag. com/21093557 tonomous Vehicles: A Horizon Initiative Perspective Paper" on behalf of the San Francisco Bay Area Metropolitan Transportation Commission. The paper provides an overview of the state of the AV market and presents strategies the region can embrace to create a better world with AVs.

Ruhl frequently speaks in California and nationally on AVs and the future of cities. She's published articles and book chapters on future mobility, including most recently a chapter on Mobility as a Service in "Disruptive Transport: Driverless Cars, Transport Innovation and the Sustainable City of Tomorrow."

In June 2018, the Northern California American Planning Association granted her the Special Recognition Award Emerging Planner. In February 2019, she was appointed to the TRB Transportation Issues in Major U.S. Cities Committee.

**"When** I was weighing career options, I was smitten by the fact that planners combined research, thought leadership and data-driven trends to make tangible improvements in people's lives. Few professions balance the abstract and the real so fundamentally."



Sam Sargent, J.D. Deputy Chief of Staff Capital Metro



#### THE PUBLIC TRANSIT INDUSTRY ISN'T

the typical first step in the career path of someone fresh out of law school, but Sam Sargent knew he wanted to be in a business that built great things and had a mission as important as moving people and he found it in transit. His community involvement background, calm demeanor and deep knowledge of the community has allowed him to excel in public and government engagement for service plans, capital improvement projects and community transportation initiatives.

Sargent brings a technical understanding of transit along with a passion for his hometown, Austin, Texas, to his role as deputy chief of staff that allows him to instantly weigh in on how a given situation is shaped or is impacted by existing and past policies, land use, development and planning.

In addition to being a part of the development of Capital Metro's Project Connect, a long-term regional vision plan adopted by the Capital Metro Board in December 2018, Sargent has had several other key achievements at Capital Metro, including the development of

#### FACT:

A native Texan, Sargent was first introduced to transit during a family trip to Washington, D.C., when he was four years old.

MassTransitmag. com/21093362 the public engagement strategy for Cap Remap, Capital Metro's largest overhaul of Austin's bus network ever, leading the community involvement efforts behind Capital Metro's innovative Pickup service, which introduced on-demand transit to Austin and heavy involvement in the agency's Summer Splash pilot, which created new MetroRail family days and free rides for young people under 18.

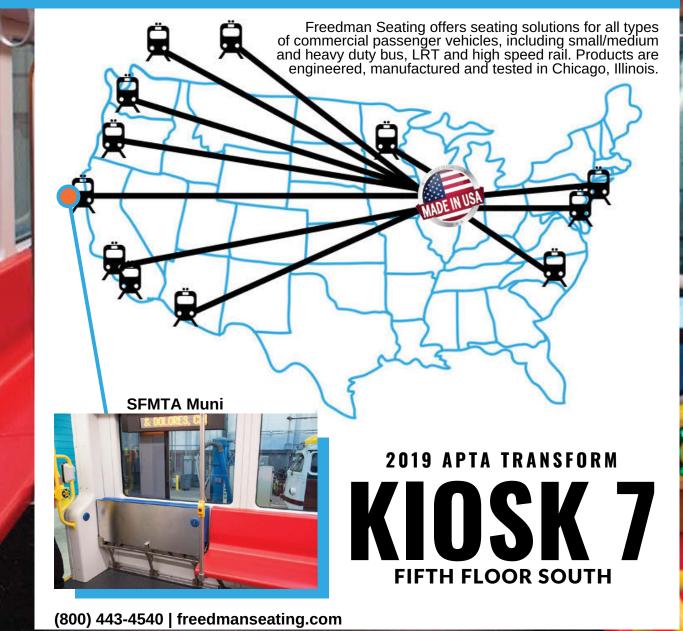
The result of the pilot was that more than 300,000 trips were taken by young people, leading Capital Metro's Board to extend free fares indefinitely. Through education and making public transportation exciting and accessible to students, Sargent works every day to build new markets for transit and the next generation of public transportation customers.

Sargent is described as a passionate advocate for improved, equitable mobility in Austin.

**"The** most rewarding part of solving a transit problem is that the solution [must] move more people, more safely, more comfortably and more reliably."

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#### Melissa Davidson Sather

Project Manager Transportation Management & Design, Inc. (TMD)



#### FOR THE PAST SIX YEARS, MELISSA

Davidson Sather has quickly advanced at Transportation Management & Design, Inc. (TMD), where she's now one of the leaders of the transit planning practice. Since joining, she's worked on projects in over 20 different cities across more than 10 states.

She's involved in multiple aspects of the projects, including service analysis, concept visioning, transit service tier and network design, innovative mobility applications, stakeholder outreach, survey development, market and consumer research, financial planning and analysis and implementation support. She's worked on projects such as: DART Forward 2035 Transit Services Plan Year 5 Update (Des Moines), WeGo Public Transit Better Bus Project (Nashville), MTS Transit Optimization Project and Program of Projects Initiative for a 2020 ballot measure (San Diego) and RTA Comprehensive Operations Analysis (Riverside).

She's currently leading the network design effort as part of the Los Angeles Metro NextGen Bus Study, which is re-envisioning transit service in Los Angeles County. Her work has involved rethinking transit service characteristics

#### Fact:

Her capstone project earned the National 2019 Neville A. Parker Award in recognition of an Outstanding Non-Thesis Master's Degree Paper in Policy and Planning.

MassTransitmag. com/21093556 to respond to new findings related to how people travel derived from location-based service and TAP card data. Technical analysis for this study has included rebuilding the system one corridor segment at a time to develop the core network spines and an in-depth review of the interaction between L.A. Metro's rapid and local service. The redesigned network considers all aspects of the customer experience to create a system that responds to rider needs and expectations. The draft plan will be shared with stakeholders and the public in early 2020.

She holds a degree in history and economics from Northwestern University. She also received a master's in urban and regional planning from UCLA, where her capstone project was "A New Model for Transit: Transit/TNC Partnerships in Western Riverside County."

**"Working** in so many different places has given me invaluable insight into what makes each transit agency unique and what challenges are shared throughout the industry. Day to day, I really enjoy identifying opportunities to improve efficiency in service delivery so agencies can provide more service with their limited resources.



#### Jonathan Steketee

Customer Service & Contract Compliance Manager Livermore Amador Valley Transit Authority (LAVTA)



#### **JONATHAN STEKETEE IS THE CUS**tomer service and contract compliance

manager for the Livermore Amador Valley Transit Authority (LAVTA) where he oversees the operations contracts for the agency's fixed route and ADA paratransit, along with managing a staff of five who oversee customer service, fleet management and IT.

During his time at LAVTA, he's managed the shared autonomous vehicle (SAV) demonstration project and Go Dublin! Both of these projects played a role in LAVTA being named the top transit agency in the state by the California Association for Coordinated Transportation (CALACT), which followed a similar honor from the California Transit Association.

The SAV project is another tool for improving first and last mile connections to the two Bay Area Rapid Transit (BART) stations in the service area, and is being carried out in collaboration with local partners.

Go Dublin! is a ridesharing partnership which was the first of its kind in the Bay Area and the first to partner

#### Fact:

Steketee started in the transit industry as a bus operator for University of California, Davis' Unitrans, the largest student-run transportation system in the U.S.

MassTransitmag. com/21093548 with both Uber and Lyft. The program provides a 50 percent subsidy of rideshare trips up to \$5 for trips that start and end within the Dublin city limits. Many similar programs lack accessible vehicles, but Steketee worked with Uber to have LAVTA's Tri-Valley service area be one of the first U.S. test locations for Uber WAV (Wheelchair Accessible Vehicles). He also wrote a successful grant application that will enable the program to expand to Pleasanton and Livermore, making the service boundaries the same as LAVTA's entire service area.

He was recently appointed to the conference planning committee and technology committee for CALACT and created an email Listserv for transit operations staff throughout the Bay Area to use to communicate ideas and best practices among peers. Additionally, he's made several presentations over the past two years at state and national conferences.

**"It's** not easy to go down a new path, and in fact a lot of the time, it can feel daunting. Be brave and be the change."

#### **KEYUR SHAH, SENIOR DIRECTOR FOR**

Gartner, Inc., has worked with more than 45 transportation clients during his 15year career as he helps his clients navigate and adapt to changing technology expectations and industry disruptions. He leads Gartner's transportation practice in the west region, where he combines his passion for transportation and technology to help clients solve mission critical challenges through improving their processes and using new and updated technologies.

Shah's work has helped numerous agencies leverage technology to improve and automate their business processes as they manage many infrastructure assets. Throughout his career, Shah has been forward thinking in his approach to help agencies with this transition and has developed tailormade tools and frameworks that address agencies' needs and challenges. Last year, he oversaw the development of a lifecycle analysis tool to help agencies forecast capital investment needs, which provided a decision-making tool to meet a requirement of the Federal Transit Administration's (FTA) Final Rule for Transit Asset Management (TAM). This tool incorporated

#### FACT:

Shah was one of the primary authors of the FTA's Transit Asset Management Guide, which incorporates industry best practices to help agencies develop an enterprise asset management framework to improve asset data collection and inform better decision-making to make the most of funding constraints.

MassTransitmag. com/21093120

**"Making** impactful contributions to this industry and helping to make a difference gives me great pride and satisfaction."



Keyur Shah, PMP Senior Director Gartner Inc



#### gartner.com/consulting

specific asset replacement and capital ac-

tivities and was improved upon similar

agement conversations at the national lev-

el, helping to shape the asset management

approach to help transit agencies minimize

disruptions to service, maximize con-

strained resources and reduce safety risk.

his technical knowledge to the challeng-

es faced by his clients in addition to his

ability to foster relationships and man-

age complex projects has led to continued

tors had on his career and actively men-

tors and develops junior staff to become future leaders in the industry. He ensures

junior staff have the support and sponsor-

ship needed for growth and advancement

and for success in their careers to make

impactful contributions to the industry.

Shah recognizes the impact his men-

success in his career.

Shah's ability to thoughtfully apply

Shah was at the forefront of asset man-

tools available in the marketplace.

#### Gartner congratulates Keyur Shah, Transportation Industry Service Lead, on being named a Mass Transit 2019 Top 40 Under 40 honoree.

Fueled by data-driven research, Gartner Consulting helps transportation and other public and private sector organizations achieve their mission-critical priorities with technology-driven business insights.



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#### Chris Stephenson

Transportation and Mobility Management Director Senior Resource Association (SRA) Indian River Transit GoLine & Community Coach



#### CHRIS STEPHENSON BEGAN HIS

work in transit as the transportation projects coordinator at Indian River Transit in 2012. He then became the operations manager in 2014 and the director of transportation in 2015. In 2016, he was also given the additional role of director of Mobility Management for Indian River County.

Stephenson says GoLine's honor as the 2018 Community Transportation Association of America's Urban System of the Year was a key accomplishment because it highlighted two areas where the Indian River Transit system shines: Providing fare free transportation and increasing ridership at a time when ridership is trending downward nationwide. Currently, Indian River County is on track to meet its 14th straight year of growth.

In 2018, the Senior Resource Association became responsible for Martin County's paratransit fleet after no organization went out to bid for the services. Stephenson is now responsible for helping run two paratransit systems in Florida. He says helping people every day is the best part of his job. He enjoys see-

#### FACT:

During Hurricanes Matthew (2016) and Irma (2017), Stephenson oversaw evacuations for more than 150 people.

MassTransitmag. com/21093098 ing how public transportation can play a vital role in quality of life regardless of a person's age, socio-economic status or physical or cognitive ability.

Stephenson has overseen more than 40 bus shelter installations since 2012 and helped redesign nearly half of the fixed routes in 2017 when a main transfer hub used by GoLine was relocated. The result was a ridership increase by as much as 20 percent on some routes.

Stephenson has seen the transit system go from a "mom and pop" transit agency to a technologically savvy system. Under Stephenson's leadership, the system now has security cameras, GPS and automatic passenger counters on most of the public transportation buses. The system also has a smartphone app that can be used to see real time information about the buses while passengers are waiting at their stops.

**"At** Indian River Transit, we always say the top two priorities should be 1) Safety and 2) Customer Service. If you prioritize those things every day, you'll have a good system!"



#### Marc Szarkowski

Transportation Planner WSP USA and Maryland Department of Transportation Maryland Transit Administration



#### MARC SZARKOWSKI IS EMPLOYED BY

WSP USA, but brings his unique blend of graphic design skills and aesthetic, creative urban design insight and passion for public transit to Maryland Department of Transportation Maryland Transit Administration (MDOT MTA) as an embedded consultant.

One of the larger projects Szarkowski has been a part of is the BaltimoreLink bus network redesign for which he won widespread recognition for his "polar map" of the system. Szarkowski also redesigned the signs for MDOT MTA's 4,500 bus stops, transformed the look and feel of the bus schedules and developed renderings of proposed infrastructure investments. He was involved in all the collateral and design work associated with Baltimore-Link including the complete branding and aesthetic package, which established a comprehensive, cohesive, fresh look for every aspect of the new system.

Szarkowski is also credited with finding realistic, but progressive solutions, such as when he was tasked with designing a selection of handheld braille maps for blind passengers as a component of the MDOT MTA's Inclusive Transportation Planning project. He met repeat-

#### FACT:

Szarkowski loves seeing how transit service is communicated at different agencies and has collected schedules, maps and passes from more than 127 agencies around the world.

MassTransitmag. com/21093122 edly with passengers who were blind to understand and observe how they interacted with existing collateral. He used this information to develop a prototype map which was then tested with the same passengers who informed the project. As a direct result of Szarkowski's effort, the MDOT MTA is in the process of piloting braille maps for its frequent bus routes and its rail lines.

While his accomplishments with signage, wayfinding and maps are impressive, Szarkowski's true passion is urban design and the potential to influence the built environment. He has been responsible for the visioning of MDOT MTA's first transit-oriented development opportunities located around transit stations throughout the greater Baltimore region. Colleagues say that Szarkowski's ability to relate the vision to the concepts through extensive and clear language sets him apart from his peers in this field.

**"Knowing** that you can play a role in either bringing an abandoned neighborhood back to life, or bringing an entirely new neighborhood to life, is both humbling and ennobling."

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#### Laura Tolkoff Regional Planning Policy Director San Francisco Bay Area Planning and Urban Research Association (SPUR)



#### LAURA TOLKOFF BELIEVES THAT

transportation stretches beyond mobility to include city-building, economic development and social cohesion. This is a value that she brings into her work at San Francisco Bay Area Planning and Urban Research Association (SPUR). She thinks comprehensively about what it will take to make transit succeed, from land use changes, location and access to funding streams, user experience and governance.

She is credited with helping to shape the remaking of San Jose's Diridon Station, the station area and downtown San Jose, Calif. The project includes \$10 billion in rail investments plus 240 acres of developable land around the station and is described as the largest transportation and city-building opportunity in the Bay Area.

Diridon represents a chance to integrate more transit modes more seamlessly than any other place in the region, while giving shape to a greater downtown San Jose. However, fragmented decision-making, a lack of shared vision, limited public sector resources and staffing, and a lack of experience in urban megaproject planning and de-

#### FACT:

Tolkoff has worked at two of the three urban policy think tanks in the country.

MassTransitmag. com/21093097 livery hampered the project's progress.

Tolkoff designed and facilitated a multi-day European educational and advocacy trip to help show stakeholders what was possible to realize a bigger vision for Diridon. As a result, key decision-makers authored a new vision statement for the station and station area and embarked on a new integrated station area plan.

She helped establish and elevate regional attention and civic support for the project and played a key role in analyzing the potential to increase building heights and development potential in the station area without impacting the airport, the airlines and their passengers.

Tolkoff is currently working on rail integration efforts and governance reform at the regional scale and on SPUR's first regional strategy, an aspirational civic vision for the Bay Area for the next half-century and policy roadmap to achieve it.

**"There** are a lot of policies and rules that hold back public transit – part of what SPUR does is surface these policies and rules to show that our problems are not inevitable."



Dave Walker Director Revenue & Marketing Keolis Commuter Services



#### DAVE WALKER'S TRANSIT INDUSTRY

experience spans multiple modes and departments, including operations, finance, stakeholder management and commercial affairs. This breadth of knowledge and the results he has delivered in his various roles have contributed to the success of those companies.

In his current position, Walker is applying his skillset towards the groundup development and implementation of a revenue and ridership marketing initiative for the Massachusetts Bay Transportation Authority's (MBTA) commuter rail network. He leads a team of nine individuals recruited for their talents rather than their previous transportation experience. Walker and his team have developed brand guidelines in partnership with the public transit agency and performed the initial market research and analysis without preexisting templates or examples for the industry in the greater Boston region. Successfully building this multidimensional program in a year was a huge challenge Walker executed with precision. The commuter rail network is now advertised regularly and market-

#### FACT:

Walker's achievements working on transit in London, UK, earned him personal recognition from the Secretary of State for Transportation.

MassTransitmag. com/21094174 ing efforts, such as a \$10 all-weekend/ unlimited travel fare, were not only well-received but made permanent by MBTA's governing board. Forms of variable-pricing have been introduced and all conductors on the network are now equipped with handheld devices that accept credit/debit cards onboard - a first for the network.

Walker's immediate goals are to maximize fare recovery, enhance perception of the commuter rail as a network and increase ridership, but it should be noted that Boston's commuter rail network is one of the few in the country bucking national trends through increased ridership. Walker's hope is to extend those goals to all railroads and public transit systems by applying lessons learned in different disciplines (e.g. operational planning, compliance, marketing) and applying that knowledge in comprehensive ways.

**"What** I've found fascinating is that whether it is Europe, Japan or the U.S., the challenges in terms of performance or providing more capacity are very similar."

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> Dallas Area Rapid Transit (DART) Battery Electric Bus Charging Stations Dallas, Texas WSP's Role: Design

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systems installed

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#### Dinero' T. Washington President-CEO, Metro

Management & Associates, Inc. Shreveport Transit Management, Inc. (SporTran)



#### DINERO' WASHINGTON WAS RAISED

in the Shreveport, La., area and attended Caddo Parish schools before graduating from Captain Shreve High School and attending Northwestern State University where he earned two degrees, as well as his MPA. He joined Metro Management Inc. and Shreveport Transit Management Inc. (SporTran) in January 2011 and worked in various transit roles, which led to his appointment as president and chief executive officer in January 2015. His traces his belief in the power of hard work back to his parents, whose faith and work ethics imparted values in Washington that have become his guiding principles.

While at the helm of SporTran, Washington has led a successful implementation of a four-year strategic plan, completed a transit development plan-study, established a transit resource center, as well as a light duty autonomous vehicle maintenance facility and opened three new transit passenger facilities in Shreveport-Bossier. New bus routing and scheduling – the first in more than a quarter of a century – resulted in monthly ridership increases

#### FACT:

Under Washington's leadership, SporTran was the first system in Louisiana to introduce all battery-electric buses and bus electric charging stations.

MassTransitmag. com/21093100 in the past two years. Washington advocated and received funding to replace most of the fleet with new 35-foot and 40-foot compressed natural gas and electric buses.

The transit system has also undergone a technology shift under Washington's tenure, including the implementation of a "Where is My Bus System" for desktop and mobile tracking, a mobile and smart card ticketing system, an integrated passenger website, a passenger text alert system and an IVR phone system to manage calls.

Outside of his daily work to positively impact riders in the Shreveport-Bossier area, he volunteers his time on several boards, including serving as president of the Louisiana Public Transportation Association, board member on the South West Transit Association (SWTA), board member on Louisiana Clean Fuels and he is a member of Phi Beta Sigma.

**"AS** a transit system, we are committed to going above and beyond the call of duty, and together, we are creating a culture where customer service is the top priority."



Nikasha M. Wells Senior Manager

of Government Affairs & Equal Employment Officer Palm Tran



#### NIKASHAM. WELLS WORKED IN GOV-

ernment relations for two decades before joining Palm Tran as the first senior manager of governmental affairs.

She oversees the legislative aspect of over \$25 million in state and federal grant funding. She's responsible for the development of Palm Tran's state and federal legislative priorities and attends sessions to advocate for various appropriation requests.

She also held a leadership role in the board approval process for Palm Tran's first system-wide overhaul of routes and bus stops in more than 22 years with the Route Performance Maximization Project. This project netted a cost-savings of over \$5 million that was reinvested back into the system.

She was co-lead on the development and implementation of Palm Tran's first federally-mandated Transit Asset Management (TAM) Plan for a fleet of 169 buses and four facilities. Due to her leadership and tenacity, Palm Tran was one of the few transit properties in the region to implement the TAM Plan by the federal deadline.

#### Fact:

She was selected for the Leadership Palm Beach County as one of 56 individuals chosen for the year-long development program.

MassTransitmag. com/21093562 She assisted Palm Tran in implementing a pilot transportation project in the Glades region of Palm Beach County, a severely economically depressed rural area, by securing funding from the Florida Department of Transportation to provide a much-needed circulator service to residents of the area.

She serves as Palm Tran's Equal Employment Officer for over 630 employees. Since taking the helm, she's helped triple the number of women in leadership positions in the organization and significantly increased the number of minorities in mid-level management.

Among her more notable accomplishments, she was recently nominated as an emerging leader at the Conference of Minority Transportation Officials 49th annual training conference.

appreciate being able to see the fruits of my labor everyday in both the people who ride our service and in the operators that make our service run so smoothly. My job requires that I serve our external customers as well as our internal customers and to me, they are equally as important."

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#### Laura Wolfgram Consultant Four Nines Technologies



#### LAURA WOLFGRAM SERVES AS

a senior consultant and fare policy practice lead at Four Nine Technologies, where she has been for the past four years.

Wolfgram received a dual bachelor's degree in civil engineering and mathematics, and she received a master's degree in planning. She has since refined her area of focus to fare policy.

In line with her focus, Wolfgram helped establish the Four Nines fare policy practice where she constructed the Four Nines Fare Model, a fare analysis tool that can forecast the relative ridership and revenue impacts of different fare alternatives. The methodology of the model is based on research and Wolfgram's years of experience conducting ridership and revenue modeling to evaluate the impacts of changes to transit fare policies, structures, products and pricing. She designed the model to not only take into account price elasticities for different customer market segments but also to allow riders to shift between fare products as the relative average fare per boarding changes. This model capability more accurately reflects expected

#### Fact:

Wolfgram was previously the mentor chair for the Women's Transportation Seminar San Francisco Bay Area chapter.

MassTransitmag. com/21093552 real-life changes in rider behavior.

To date, Wolfgram's model has been used in nine different fare study engagements, and output from the model has provided information needed for many related Title VI fare equity analyses. At the completion of these projects, the final model files are given to the client to see how the model produced the ridership and revenue predictions they use in their decision making.

In addition to providing mentorship, Wolfgram has also presented at industry forums and events. At the 2012 TRB Annual Meeting, she partnered with her client counterparts at VTA to present "Steps to Leading Change: A Transportation Agency's Business Plan Approach." She's also presented at the 2015 APTA Revenue Management and Fare Collection Summit where she talked about "Reviewing Fare Policies with Smart Card Implementation."

**"Always** be open to hearing different perspectives to get a fuller picture; likely the solution requires collaboration."



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#### WILLIAM WONG MAH STARTED AT

Alameda-Contra Costa Transit District (AC Transit) in 2005 as a transportation supervisor and has since worked his way up to assistant transportation superintendent transbay.

Upon his arrival, he decided to survey the entire San Francisco Transbay operation and realized the schedules could be streamlined to increase efficiencies. He took this initiative to the planning and scheduling departments, recommending route modifications and changing the line up of how buses arrived, parked and left the Transbay Terminal. He then reformatted the internal forms to make the work more user-friendly for supervisors monitoring service.

He also played a role in the Transbay Joint Powers Authority's initiative to tear down the former Transbay Terminal and rebuild a new transit center, now known as the Salesforce Transit Center. He helped setup systems, manage and train staff, maintain existing service while the major operational transition took place and ensured the wayfinding communications systems were user friendly.

#### Fact:

He helped create standard operating procedures for the CleverCAD system before AC Transit transitioned from an existing operations control center to a newly upgraded one.

MassTransitmag. com/21093566 He's also been instrumental in the planning and deployment of the new Computer Aided Dispatch-Automated Vehicle Locator System known as CleverCAD; helping with the development and implementation of the system. As part of the rollout, he ensured all transportation supervisors received adequate training for the new CleverCAD system in conjunction with the Clever Bus in the Box (Bib) Operator Training for 1,500 Operators.

He's currently helping with building and preparing AC Transit's new Bus Rapid Transit system along a 9.5-mile corridor connecting downtown Oakland and San Leandro. As a project team member, he works with various internal and external stakeholders, using analytics to ensure this project is successfully implemented.

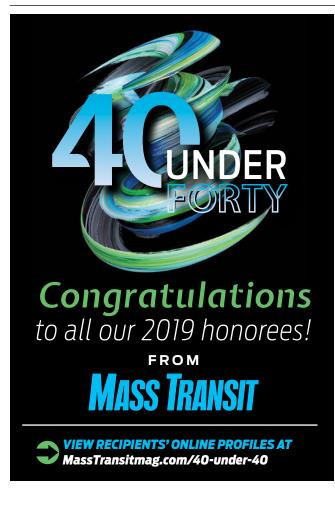
am most proud of reopening the Transbay Service at the Salesforce Transit Center in August...It is a once in a lifetime chance to work [with] this team to create something new that will last for years to come."



William Wong Mah Assistant

Transportation Superintendent Transbay Alameda-Contra Costa Transit District (AC Transit)





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AC Transit congratulates William Wong Mah for being recognized as one of *Mass Transit* magazine's Top 40 Under 40. We value William's efforts, along with those of the entire AC Transit team, to support our mission of delivering safe, reliable, sustainable transit service.







For more information, visit www.MassTransitmag.com/10704549 SEPTEMBER/OCTOBER 2019 | MassTransitmag.com | Mass Transit | 55



## Improving the **Bus Experience**

Agencies can boost ridership and customer satisfaction by striking the right balance of service reliability and creature comforts.

By Kimberly Slaughter, Mark Huffer, contributors

#### **HETRANSIT BUS-RIDING EX-**

perience has transformed so dramatically in the United States over the past decade that it's hard to imagine a time when people craned their necks beside bus stop signs in hopes that the next bus would be theirs. Many of today's bus riders can use their smartphones to determine their bus's arrival and enjoy a quicker, safer trip when it does. In many cases, they also can use their phones to pay the fare and connect to Wi-Fi for the duration of their trips.

Transit agencies have gradually been building out these technologies and amenities and are taking other steps to attract additional riders. Nationally, between 2007 and 2017, bus ridership declined 11 **AGENCIES ARE** providing more reliable service with more amenities.

percent, according to the American Public Transportation Association (APTA) 2019 Fact Book. The reasons for this vary from region to region, but the net effect is that transit agencies are becoming more creative in providing a range of services to retain existing customers and attract new customers to their system.

Fortunately, there are many great examples of agencies that are finding success in partnerships, operational transformation and investments in forward-looking technology. Here are a few core strategies that we're seeing being executed across the country. Some could be described as back-to-basics and others as taking-on-the-future.

#### Strategy 1 – Be quick and predictable

Let's start with an indisputable fact: people want their bus to get them where they want to go as quickly and predictably as possible. Successful transit agencies understand this reality and have focused on tactics that increase service frequency on heavily used routes, invest in traffic signal priority systems and reduce the number of stops to reduce duration of the ride. Additionally, 81 percent of transit buses have adopted automatic vehicle location systems to optimize operations and provide real-time bus arrival notices to riders.

In recent years, we have seen several agencies roll out "overnight" system redesigns that concentrate on improving service along the busiest corridors. Often, this means a 10-minute wait for the next bus, rather than 20 or 30 minutes. Agencies have also extended service hours into the evenings and have added weekend hours to accommodate the diverse schedules of service workers.

In Houston, Texas, for example, a major reimagining of their METRO bus system has resulted in reliable service being delivered to residents seven days a week, with buses arriving at stops on heavy-use routes about every 15 minutes. The city reorganized its routes from a previous radial design into a grid, so buses now reach more parts of the city. METRO ridership has increased since this transformation.

#### Strategy 2 – Use tech and partnerships to make trips seamless

One consequence of concentrating resources on a city's busiest corridors is that the outlying, low-density areas may receive less emphasis in terms of routes and service frequency. However, it is important to continue to serve this market with transit options. This is why many agencies are partnering with Uber, Lyft and other transportation network companies (TNCs) to create a seamless solution.

No doubt, transit agencies and TNCs continue to compete head-to-head in certain markets, but increasingly they are realizing the outsized benefits possible to both parties when they cooperate. TNCs already are providing transportation to and from transit hubs but could serve a valuable role as an extender of bus services in select geographic areas through partnerships with the transit agency. This could include agency subsidies for TNC rides, potentially a less costly proposition in low-density areas where full-sized buses may not necessarily be the most efficient way to provide transit services.

Ultimately, consumers make the decision about the transportation services they'll use, and they appreciate any effort to make such decisions easier and less stressful. This is why we're seeing more bus agencies and TNCs collaborating on the information front, providing

consumers with transparency in terms of available travel options.

Denver, Colo., is experimenting with Uber in this regard, offering the public an easy way to plan multimodal trips – such as a bus trip and Uber trip – in one place. In essence, the Regional Transportation District is providing real-time bus

(and train) information to Uber, which in turn incorporates this information into its ride-sharing app. This collaboration also lets riders use the app to buy their transit tickets and access endto-end directions. Initial findings of the experiment are promising, which means that other cities soon could offer a similar service.

#### Strategy 3 – Think outside the bus

Many bus shelters have long been in need of a makeover, and some

#### More online

Creating a Sense of Place at bus stops improves the customer experience MassTransitmag. com/21093924 agencies are taking steps to make the (ever-briefer) wait for a bus more pleasant. High efficiency LED or even solar lighting is now common on shelters. Technology, too, is playing a role. We're seeing a trend of digital readouts at bus stops to provide real-time bus arrival information, as well as Wi-Fi connections so that passengers can begin to stream their entertainment before boarding their (Wi-Fi enabled) bus.

Fare collection is rapidly evolving as well. Most bus rapid transit (BRT) routes employ offboard ticketing with the aid of Ticket Vending Machines (TVM). Increasingly, transit agencies are moving toward mobile ticketing whereby passengers can purchase single ride or even multi-ride passes on their smartphones – even if their trip requires a transfer or multiple providers.

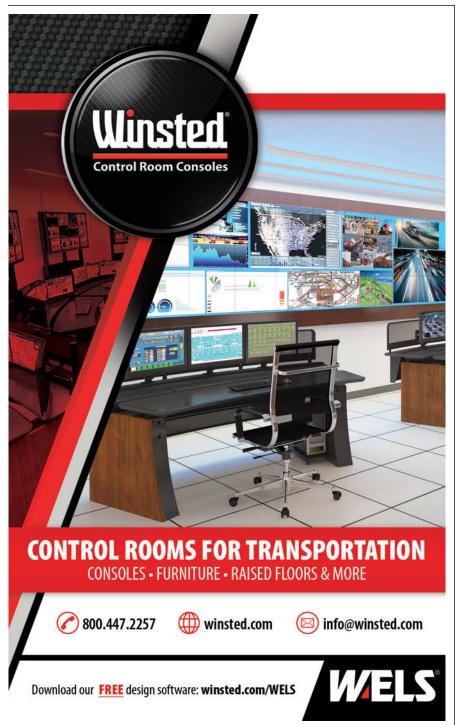


will start to have Wi-Fi and electrical outlets in addition to more comfortable seats and better environmental controls.

#### Strategy 4 – Electrify for the future

On-board Wi-Fi and electrical outlets are still relatively uncommon, but we believe they'll soon be ubiquitous. Such amenities, along with more comfortable seats and better environmental controls are part and parcel of the newest buses rolling off the assembly lines. The newest buses are dazzling in every way, and when they roll down the street, they instantly reframe the "bus experience" in many people's minds. As agencies upgrade their buses, some are taking things a step further by transforming some of their fleet into all-electric vehicles. Although the United States is currently behind other nations in utilizing electric buses, the momentum appears to be shifting thanks to improving technology and public interest in the environmental benefits of electric vehicles, in general.

In Indiana, the Red Line will be the nation's first all-electric BRT service and is part of a program that will connect Indianapolis and several other cities in a 35-mile corridor, coming within walking distance of more than 100,000 people. On the west coast, Los Angeles, Calif., is already rolling out its ambitious plan



For more information, visit www.MassTransitmag.com/12160176

to have a 100 percent electric bus fleet by 2030.

#### Strategy 5 – Prepare for tomorrow

Finally, nothing has the potential to change transit operations and enhance the rider experience more than automated and connected vehicle technolo-

gy. The capabilities becoming a fast reality allow BRT systems to add significant capacity and precision to their operations, positioning them to rival commuter rail lines' service and ridership with unmatched flexibility to meet marketplace changes.

In Indiana, the Red Line will be the nation's first all-electric BRT service and is part of a program that will connect Indianapolis and several other cities in a 35-mile corridor...

#### Delivering a great experience

These agency innovations – and many more across the country – are an acknowledgement that delivering an exceptional customer experience will be essential to preserving the vital role of bus service in our communities. We look to the coming decade with great anticipation and confidence that it will be one of rising ridership, innovation and reliable, safe and affordable trips for more Americans than ever before.



Kimberly Slaughter is senior vice president and national transit/rail market sector leader for HNTB Corporation.



Mark Huffer is project director and transit practice leader for HNTB Corporation.



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# in Rail Technology

Technology advancements are focused on enhancing safety and security, increasing service efficiency, cutting down maintenance costs and bettering the passenger experience.

By Megan Perrero, assistant editor

**AIL TECHNOLOGY CON**tinues to develop as transit agencies look for ways to provide faster, safer and more reliable service. As the number of operating systems increase and the amount of data needed increase, companies are providing innovations that enhance connectivity and communication. To achieve this, innovations coming to the industry focus on improving or creating a digital framework, bettering rail crossing safety, 3D printing discontinued parts and strengthening Wi-Fi connectivity.

#### Unifying data through a connected transportation platform

Capitalizing on digital technologies allows operators to offer safer and more satisfying customer experiences while improving the workforce communication and productivity, according to Brad Fellows, a managing partner for consulting in travel, transportation and hospitality at DXC Technology.

"Many mass transit organizations are striving to build the foundation and or the digital framework toward capitalizing on these emerging technologies," Fellows said. "This can span solutions for Transit Enterprise Asset Management (TAM), cloud solutions, creating new applications, improving security measures, increasing data storage capacity and advancing workplace and mobility capabilities for their customers and workforces."

Because of the level of impact, it's important for rail operators to become digitalized, which helps rail organizations be as efficient as possible with mission-critical systems while improving safety, Fellows explained. Digitalization also allows for precision scheduling, which allows for more service options. Being able to implement the more complex data solutions requires a unified connection that allows the data to communicate across all operations.

"Digital transformation is about becoming part of an ecosystem that not only shares data but also delivers context and intent," Fellows said. "It is built around an information architecture that enables companies to look across

a chain of travel events for an individual customer or package to identify potential challenges, predict the impact and automatically develop and execute solutions that keep transit services moving."

#### **Digital safety solutions** for rail crossings

Technology can also provide enhanced railroad safety and remote monitoring, something L.B. Foster Company is currently focusing on with its Grade Crossing Monitor-

"Digital

transformation is

about becoming part

of an ecosystem that

not only shares data

context and intent."

managing partner for

consulting in travel,

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Technology

-BRAD FELLOWS, a

but also delivers

ing system, which uses Light Detection and Ranging (LIDAR) to detect an object on the track, as well as its size, location and direction of travel.

"The LIDAR is designed to detect small children and adults, as well as vehicles and other large objects in the crossing," said Michael O'Connell, manager technical sales for the Americas at L.B. Foster. "If something or someone is identified within the cross-

ing, the Grade Crossing Monitoring system can stop or slow the train through signaling or [positive train control] integration."

Transit agencies can use the system to control the crossing gates and the exit gates of a four-quad system. If nothing is detected, all four gates will close and completely seal the crossing,

## IONS



#### **A TEAM** at Bombardier

worked on and installed a 3D printed part for GO Transit's BiLevel cars. preventing cars from weaving through the gates.

"If an obstacle is detected while the train approaches, the system will delay the closing of the exit gates allowing the vehicle to exit without becoming entrapped," O'Connell explained. "The system is protected by rugged steel housings with motorized shutters to prevent vandalism as well as contamination and damage from passing trains."

O'Connell explains that agencies will see lower life-cycle costs because minimal maintenance **"AS** the new fiberglass-reinforced polyamide material meets fire, smoke and toxicity requirements for the North American market, we are investigating additional applications for 3D printed spare parts, customized parts and manufacturing tools, made in-house and on-demand."

ALEX ROTAR, Industry 4.0 specialist in additive manufacturing at Bombardier

is required, along with a better product replacement cycle.

"Utilizing intelligent algorithms to more accurately provide key measurements such as direction and velocity, train delays are reduced due to near zero false alarms," O'Connell said.

#### Providing necessary parts with 3D printing

Technology can also help with the maintenance of a rail system; for instance, creating a discontinued part for a rail vehicle. Bombardier Transportation has been 3D printing a water fill cap for its Bi-Level commuter rail cars after a vendor discontinued production. The 3D printing technology has allowed it to improve the design, reduce production and delivery time from days to hours, and reduce costs by 90 percent, according to Alex Rotar, Industry 4.0 specialist in additive manufacturing at Bombardier.

"Our engineering, technical services, industrialization and

#### **RAILL INNOVATIONS**

project management teams combined efforts develop[ed] and produce[d] 3D printed prototypes of the part and [qualified] them with laboratory tests," Rotar explained.

Once satisfied with the results, the team asked GO Transit in Toronto, Ontario, Canada, if the part could be of use for the cars currently in production.

"GO Transit agreed, making the cap the first 3D polymer printed part on a Bombardier car in North America," Rotar said. "The 3D printed caps are currently being tested on five cars in Toronto to see how they perform in service, over time and in the Canadian climate."

The 3D printed cap went from a traditional welded assembly to being designed for additive manufacturing. The part now only uses one piece of steel and has been simplified to an "integrated hinge part," Rotar said. And as the product is put to the test, it could open doors for more 3D printed possibilities.

"As the new fiberglass-reinforced polyamide material meets fire, smoke and toxicity requirements for the North American market, we are investigating additional applications for 3D printed spare parts, customized parts, and manufacturing tools, made in-house and on-demand," Rotar said.

#### Creating stronger Wi-Fi connectivity

In order to access technology solutions, transit organizations must have a strong and robust Wi-Fi network that can support the large quantities of data necessary to operate a seamless system. The network needs to be reliable and secure to allow for real-time information that allows the transit system to operate as efficiently as possible.

"Rail operators recognize that the reliability and timeliness of their service is important to customers," said Maria Wad-



**WIRELESS CONNECTIVITY** on a reliable and safe network can help agencies and passengers.

**"They** will increasingly use digitalization of onboard systems and remote diagnostics to improve operational efficiency."

-MARIA WADDY, North American product lead for Icomera US, Inc.

dy, North American product lead for Icomera US, Inc. "They will increasingly use digitalization of onboard systems and remote diagnostics to improve operational efficiency."

She notes that operational efficiency translates to efficient maintenance, which can lower costs or free up resources to do more work. Because technology can help prevent unscheduled maintenance, more vehicles will be in service, improving on-time performance.

"Wireless internet connectivity can also be utilized by operators to monitor other onboard systems remotely, and to derive insights and value from the available statistics, improving fleet performance and management," Waddy explained.

As the number of internet-connected onboard systems increases, operators can face the challenge of having to install multiple hardware and software pieces on the vehicles, with each piece having its own processes to manage it, according to Waddy.

"Icomera is reducing the need for additional hardware and software by running multiple virtual applications from a single platform, delivering a powerful connectivity solution with the necessary computer processing power and storage needed for supporting resource-intensive applications such as passenger Wi-Fi, Infotainment and real-time CCTV simultaneously as part of a single solution," Waddy said.

#### Looking to the future

These technologies are designed to reduce maintenance, improve service and enhance safety and security. And advancements are being made every year to keep bettering the industry and the services offered, with a vision of creating a connected journey.

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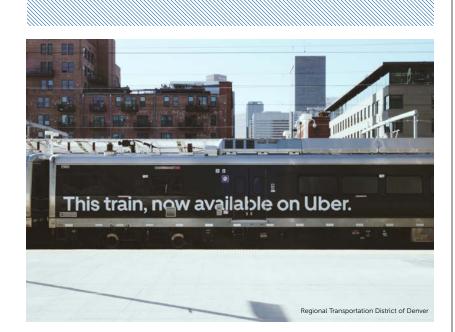




#### **BEST PRACTICES**

## **TNC Integration**

Private Partnerships · Mobile Ticketing · Paratransit



#### Denver RTD's collaboration with Uber



#### **By Laurie Huff** Senior Specialist, Public Affairs, Regional Transportation District

**DENVER, COLO.** In May, the Regional Transportation District (RTD) claimed a distinction that remains unique among transit agencies across the world: Its riders in the metro Denver region became the first anywhere to plan their transit trips with real-time information, buy tickets and ride RTD's buses and trains – all from the Uber app. While Uber has also debuted inapp transit journey planning in London, Boston and Sydney, only Denver also offers the ability to purchase, store and use RTD tickets within the app for the ride-hailing service.

RTD's collaboration with Uber was made possible through mobile ticket-

ing company Masabi, which launched mobile ticketing for RTD in fall 2017 and has formal relationships with both entities. Since the launch of inapp ticketing through Uber, close to 3,600 transit tickets were sold through the end of July, and the numbers keep climbing, with a compounded growth rate of 29.6 percent per week from the beginning of June through July. About two-thirds of the tickets sold are for local rides; the remainder are for regional trips, which also includes Denver International Airport. More than half of the individuals purchasing tickets have made repeat purchases.

A public transit provider working with a private technology company has prompted a high level of curiosity from agency peers, regional leaders and the general public. Since journey planning through Uber debuted in Denver in January, RTD staff members at all levels have fielded a multitude of questions. Being the first in the world to take part in such a project has required work-Continued on page 65 ►

#### **DCTA and Lyft**



#### **By Lindsey Baker** Director of Strategic Partnerships, Denton County Transportation Authority

**DENTON, TEXAS** • As transportation expectations change and technology evolves, Denton County Transportation Authority (DCTA) has partnered with the private sector to provide a variety of innovative services to our passengers. Where traditional transit is not an option or an effective solution, we are able to deploy TNC services in partnership with Lyft and other mobility technology providers to offer much-needed service at a lower cost to the agency and our taxpayers.

We have implemented five TNC programs since 2016 with varying degrees of success. The most widely-used and successful deployments are workforce and student-based, addressing first- and lastmile transit connectivity and after-hour transportation needs. This is particularly successful in areas with concentrated warehouse and distribution centers and hospitality/retail centers that require a large lowwage workforce, but often are not located near affordable housing options.

Since our first member-city deployment in partnership with Uber in 2016, we have refined our best practices in collaborating with TNCs. Our current TNC partnership programs offer a best practice snapshot and are the result of years of

Continued on page 66 ►

#### Best Practices VIRTUAL ROUNDTABLE Focus On: TNC Integration

Join us on Oct. 9, 3pm East/2pm Central to learn more about how transit providers are partnering with TNCs to solve first- and last-mile challenges. Register at www.MassTransitmag.com/webinars.

#### TNCs to improve paratransit service



**By Tim Barham** Chief of Transit Operations, Greater Richmond Transit Company

RICHMOND, VA. • Greater Richmond Transit Company (GRTC) pioneered partnerships with TNCs to respond faster to paratransit service needs. CARE On-Demand taps into the flexibility of the on-demand transportation market, matching available drivers with customers when they want to travel with little notice. CARE On-Demand gives GRTC's paratransit (CARE) customers the option to use a same-day, direct, non-stop trip. This premium, innovative program responds to industry-wide challenges with paratransit services. Today, GRTC completes about 11 percent of all paratransit trips through CARE On-Demand, saving the company money and improving the customer's experience. In partnership with UZURV and Roundtrip, most CARE On-Demand trips are delivered through TNCs such as UZURV and Lyft.

For years, GRTC heard from its customers their desire for greater flexibility and privacy in using paratransit service. GRTC also needed to combat traditional paratransit service challenges, including driver shortages, long on-van shared rides, late schedules, no-shows and dayof stand-by trips. The solution needed to be ADA-compliant and meet GRTC's required qualifications (insurance, safety, budget, trip documentation), as well as offer the customer-oriented solutions requested (solo trips, direct, non-stop service, same-day scheduling and adjustments and the ability to bring a personal care assistant and guests).

GRTC researched traditional taxi and new on-demand options to gauge the market, then issued a Request for Qualifications for a third-party transportation pilot program in October 2016. After reviewing proposals, GRTC began the pilot with UZURV in August 2017 and later welcomed Roundtrip in December 2017. Both partners provide direct, non-stop, doorto-door or curb-to-curb service and offer scheduling assistance through live call centers. Drivers are trained in passenger sensitivity, defensive driving and passenger assistance. UZURV offers an additional layer of training and permits customers to request a favorite driver. Roundtrip specializes in app-based booking. Both partners often pick up customers within 15-30 minutes of booking. Wheelchair accessible vehicles are also available upon request.

CARE On-Demand customers pay a \$6 "co-pay" for the trip, with GRTC covering up to an additional \$15 of the trip. Should a trip exceed this \$21 amount, the remaining cost is explained to the customer in advance of the trip and then billed to the customer. The average total cost per trip is about \$26. Because of the nature of the on-demand market, it is important to ensure customers are aware of peak demand pricing increases and understand alternative trip times that may be more cost-effective for the same origin to destination trip.

Customers immediately began trying the new program, with nearly 500 CARE On-Demand trips completed in the first month (August 2017). By January 2018, trips surpassed 1,000 that month. Because the cost to GRTC for a CARE On-Demand trip (\$15 max) is less than traditional paratransit (about \$28 per trip), we estimate saving approximately \$574,000 since launching in August 2017. With on-time-performance consistently higher than 97 percent, customer satisfaction with On-Demand is understandably high. GRTC now completes about 11 percent of its CARE trips through On-Demand, shifting more than 2,000 CARE trips per month to On-Demand.

#### Denver RTD's collaboration with Uber continued »

ing alongside Uber and Masabi to figure out all the details. The collaboration has offered new perspectives that can influence our work, and all three companies continue to learn from one another as the project moves forward.

Key takeaways include:

The exposure from this relationship with Uber is beneficial to RTD. Every transit ticket sold in the Uber app represents a conscious choice to take transit after considering how that option compares to those offered by Uber. Travelers who ultimately choose to take an Uber still have been made aware of RTD services. The Uber app is omnipresent.

RTD views Uber and companies

like it as collaborators, not competitors. Our services are complementary. People expect more flexible, customized service from their mobility options. As transit providers, it is our responsibility to explore the best ways to help people get where they need to go as easily and seamlessly as possible. Meeting this desire requires public transit providers like RTD to forge relationships with new mobility providers like Uber.

Uber Transit addresses the first- and last-mile question in transit. Since the project launched this year, more Uber trips in Denver are starting or ending near a transit station.

RTD wants Uber to be successful be-

cause both companies benefit. As RTD does, Uber will advocate and make business decisions benefiting the company. While those aims may differ, all involved recognize the value of strong, lasting relationships and the camaraderie that has been built through this project.

Tonya Anderson, RTD's product manager of electronic fare operations, noted that the relationship with Uber initially was viewed as a big risk – but taking such risks can offer big rewards. She likened the collaboration to standing at one edge of a foggy bridge, with Uber on the other side.

"We can't see to the end," Anderson said, "but we have a great partner in Masabi to leverage and learn from."

#### **BEST PRACTICES**

#### DCTA and Lyft continued »

learning from various deployments in our member and non-member communities.

#### **Current Partnerships and Programs**

DCTA has three major Lyft partnership programs that serve the city of Highland Village, University of North Texas (UNT) and the Alliance area in Denton and Tarrant Counties. **Highland Village Lyft Program,** 

#### **Deployed August 2018**

**Trips:** August 2018 to June 2019 - 1,186 total, 108 average per month

Our Highland Village Lyft program replaced our previous Community On-Demand service that is more cost effective for the agency. We partnered with Lyft to offer a \$10 discount for Lyft rides using the Lyft mobile app within the specified zone to pro-



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vide more transit options for those traveling in Highland Village and north Lewisville. The program connects our A-train commuter corridor to retail and restaurant destinations, jobs and medical facilities.

#### UNT Lyft Zone Program, Deployed September 2018

**Trips:** August 2018 launch to June 2019 – 2,394 total, 218 average per month

UNT partnered with us and Lyft to launch a pilot service to provide students with free, safe and reliable on-demand service after hours when they travel in the designated UNT Lyft Zone. The zone includes access to campus buildings, dorms, non-dorm housing, an off-site research facility and adjacent restaurants.

#### ZIPZONE Lyft Program, Deployed February 2019

**Trips:** February 2019 launch to June 2019 – 1,895 total, 379 average per month

Following a successful nine-month, dynamic Mobility as a Service pilot funded through a public-private partnership, Trinity Metro partnered with us to launch ZIPZONE in Alliance, a large commercial multi-use development. Based on the pilot and shift schedules of the area's workforce, we recognized ridership and transportation needs existed that could be served via a cost-effective TNC deployment. Riders traveling in the Alliance area use the Lyft-operated ZIPZONE, on-demand service at no cost. Trinity Metro fully subsidizes the Lyft service within the Alliance zone that includes trips from a park and ride facility and North Texas Xpress commuter bus stops to jobs throughout the area.

Some obstacles DCTA faces in incorporating TNC deployments include:

• Integration with public transit technology/MaaS applications (one-stop shop for payment, trip planning, etc.)

• Specific data-gathering from TNCs to inform future deployments or service refinement

#### **Future Programs and Projects**

We are going full speed ahead with new TNC partnerships. One partnership slated to launch in fall 2019 is our Lyft program in the city of Coppell. At DCTA, we believe it's essential for us to continue to integrate mobility solutions to serve the growing needs of North Texas, and we'll continue to lead the way in advanced mobility alternatives.

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#### Arva Industries – Ballast Excavator

Arva Industries recently delivered its new dieselpowered Vacuum Ballast Excavator. The excavator is designed to collect track ballast from around rail ties during maintenance and repairs. It also helps with drain cleaning. The hydrostatic 512 hp Tier 4 final, bi-directional machine features a 35,000 lb. tractive effort and a top speed of 30 mph. The remote-operated vacuum system includes a 20-yard bin for collecting and dumping ballast. A water spray system is installed at the vacuum end of the vehicle for dislodging debris for easier vacuuming. www.arvaindustries.com





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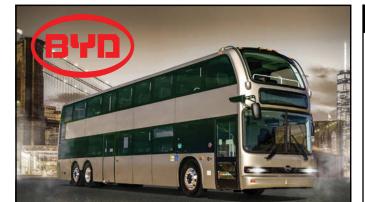
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#### DISCUSSION **Tweet & Retweet**





FTA Exec Dir Matt Welbes w/ leadership from APTA, AASHTO & CTAA offered a vision for the future of public transportation & the power of partnerships for rural & small transit systems during this morning's plenary session at the **#TransitPartnerships** Meeting2019





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#### Wishing a special farewell





Today we wished a very special farewell to Mr. Michael Terry who is retiring as President and CEO of @IndyGoBus this week. We had to make sure he received some awesome parting gifts and I had the idea to give him a custom bus stop sign! #NUMTOT

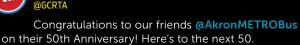














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Work is progressing nicely on the new transit facilities in Campbell River and Cowichan Valley. Both communities will be able to eniov their new digs by year's end! @City-CampbellRiv @mycvrd

74 Mass Transit Mass Transit Mass Transitmag.com SEPTEMBER/OCTOBER 2019 Have something we shouldn't miss? Tag us or email us at editors@masstransitmag.com.



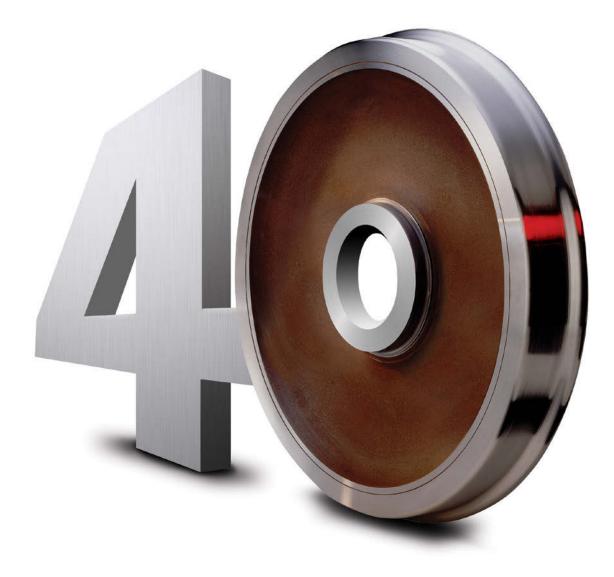
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