

HIGH-SPEED INTERCITY PASSENGER RAIL

SPEEDLINES

Los Angeles County Metro Rail, a heavy rail rapid transit line in Los Angeles, includes the Red and Purple subway lines, as well as the Gold, Blue, Orange, Silver and Green light rail lines. This is a look at the **Red Line Vermont/Sunset Station** which stops from San Fernando Valley, through Hollywood, to the historic Union Station Downtown LA.

March 2016
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CALIFORNIA

CHSRA's 2016 Business Plan describing the latest project goals, financing, and development plans.

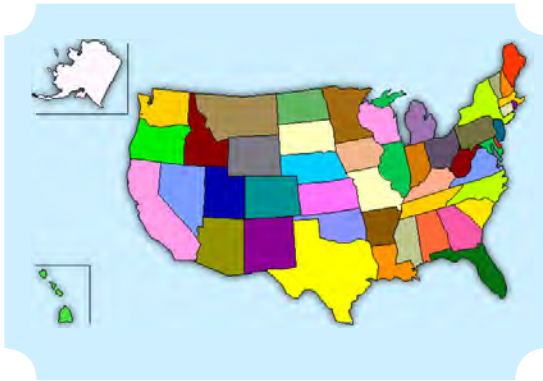
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
The U.S. transportation system as such is in most other countries consists, actually, of networks of varied systems. In America, the backbone is composed of an agglomeration of roadways. Subsidiary to this, of course, is the collection of various “ways” or rights-of-way on which trains, planes and watercraft travel. Within this broad, mobile band, working high-speed rail – passenger and freight – is decidedly missing. That said, the pendulum, at long last, is moving in the direction of high-speed rail inclusion, even if slowly and that – good, bad or indifferent depending upon one’s point of view – has upset the status quo.

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Our economy faces many challenges. Among them is the need to create more jobs, increase our energy independence and become a more sustainable nation. Man cannot live by bread alone. High-speed rail is the missing ingredient in America's recipe for a national transportation network. Without it, the whole system is less effective.



FROM THE
DESK OF

PETER GERTLER

Dear HSIPR Committee Members & Friends:

If it's March, it must be the Legislative Conference. I hope to see you in Washington, DC and on Sunday, March 13, at our Committee Meeting. Even though we are in the silly season of the Presidential campaign, there has been serious business happening on the HS&IPR front. Most importantly, the Fixing America's Surface Transportation Act of 2015 (FAST Act) was passed by Congress and signed by the President moving our country closer to a balanced approach for planning and funding our nations critical transportation infrastructure. This is the first time ever that the surface transportation act includes a Passenger Rail Title setting the foundation for a long-term and sustainable source of funding for HS&IPR. Many of our committee members along with APTA staff and other interested parties worked hard with Congressional and Administration staff to provide subject matter expertise in the development of the FAST Act.

The FAST Act however, would not have progressed without the bi-partisan effort and leadership of U.S. Senators John Thune, Chair, and Bill Nelson, Ranking Minority Member, of the Senate Commerce, Science and Transportation Committee. Please join us on Sunday at our HS&IPR Committee meeting where we will be recognizing Senators Thune and Nelson for their contribution to HS&IPR and the passage of the FAST Act with the presentation of a commendation resolution.

In other news, there is much to report on the progress of HS&IPR as evident in the articles in this edition of SPEEDLINES of activities around the world. In addition, at our Committee meeting we will get an update on the Return of Investment (ROI) Study underway, the Regional Corridors Subcommittee; Project Updates from California; the NEC; and the FRA. We will also hear about the 2016 / 2017 Work Program for the Committee and planned activities and sessions at the Rail Conference in June in Phoenix and the Annual Conference in September in Los Angeles, California. It's also officer nomination season, and we have formed a Nominating Committee that will be presenting the nomination process and schedule needed to conduct an election at our June meeting in Phoenix.

As always, there is a lot to do, and I am grateful for the resources and commitment of APTA staff and our committee members for the getting all the hard work done. Looking forward to seeing everyone in Washington, DC in March!

Chairman APTA High-Speed Intercity Passenger Rail Committee

TRANSIT IN SOUTHERN ONTARIO SET TO *electrify*

Angela Iannuzziello, P.Eng., is AECOM's Transit Market Sector Lead for major transit rail projects in Canada. She has more than 30 years of extensive and diverse experience as an engineer specializing in transportation, transit planning, and operations. In 2015, Angela was awarded the Outstanding Transportation Business Member Award by the American Public Transportation Association and In 2014, Angela was awarded Transportation of the Year Award by the Transportation Association of Canada. AECOM is one of, if not the largest, suppliers of design services to Metrolinx.

Contributed by Angela Iannuzziello, AECOM

High-speed rail (HSR) has not been incorporated into any of Canada's transit systems – at least not yet – but Canada is ready. One area of focus right now is the corridor running between Toronto and Windsor in southern Ontario, a 362 kilometer-hike (225 miles) one way through the economic heart of Canada. (The Province of Alberta is simultaneously investigating the potential for running HSR between Calgary and Edmonton.)

And it may not be just to connect outlying areas to Toronto, Canada's largest economic center. The benefits go both ways. Within the Toronto-Windsor corridor lies Canada's Technology Triangle, which includes the cities of Kitchener, Waterloo and Cambridge. This area is becoming a destination in and of itself as it emerges to become what many call the Silicon Valley of the north. (It's most notable resident is BlackBerry Limited. However a number of premier educational, financial and medical science centers are also based there.) Kitchener-Waterloo is on the brink

of substantial economic development that will transform it into a hub of commercial activity and a network base for many centers of excellence.

The Toronto-Windsor corridor traverses a large swath of an area of Ontario known as the Greater Golden Horseshoe (GGH) with Toronto at its center. This area has been identified as one of North America's fastest growing regions with the population forecasted to grow to 11.5 million, including job growth of 5.5 million by 2031. In its Growth Plan for the Greater Golden Horseshoe, 2006, Ontario identified planned targets to be achieved by 2031, including 400 combined residents and jobs per hectare in the City of Toronto urban growth centers alone, and another 200 combined residents and jobs per hectare for 14 identified urban growth centers within the Greater Toronto-Hamilton Area (GTHA).

Urban sprawl and housing prices have driven people away from city centers for decades, but this trend has reversed itself over the last decade. All this two-way travel has led to an increase in commuter traffic both ways.

The need for a cost-effective public transportation network has grown simultaneously.

While there is a real need for the travel efficiency that HSR would introduce into the Toronto-Windsor corridor, it is prudent to consider that HSR represents one component of an overall transit revolution in the Greater Toronto and Hamilton Area (GTHA). And, within the GTHA, Metrolinx is becoming a regional express rail (RER) system with electrification of some of the network; is building light rail Transit lines (LRT) and bus rapid transit lines (BRT) in the region. Within the City of Toronto further extensions to subways, LRTs and BRTs are underway.

Metrolinx, which operates GO commuter rail services, is already engaged in the 10-year RER program to provide two-way, all day service along all seven of the commuter rail lines. All seven of GO's rail lines' peak period service have been improved. Five out of seven of its lines have introduced all-day service with 15-minute trip intervals along some segments. The majority of its rail network will become electrified and new electric locomotives or electric multiple-units, aka EMUs, are in

INTEGRATING FUTURE HSR INTO AN EXPANDING RAPID TRANSIT NETWORK



plan. Rail infrastructure improvements include 342 kilometers (213 miles) of existing regional rail network track upgrades, new or expanded stations and an expanded fleet. RER electrification would cover 262 kilometers (163 miles) of rail. Completion is expected in 2024. In addition, a regional fare integration strategy and fare structure is under development to facilitate connectivity between RER and other transit services. The province of Ontario committed \$32 billion of funding towards this program in the last five years.

Given all the current activity being undertaken under the RER system, HSR may look decidedly different in Canada than how it does elsewhere in the world. Careful planning will be necessary to successfully integrate HSR into the existing multi- and intermodal network.

More than ever, the time is ripe to engage in the HSR conversation, but there are a number of stakeholders that need to be brought into that

conversation in addition to Metrolinx and the general public. The existing transit systems come under the jurisdiction of multiple levels of government – federal, provincial and local municipalities – as well as numerous transit agencies – Metrolinx, with its GO Train and GO Bus network providing inter-city transportation, the Toronto Transit Commission (TTC) providing intra-city transit and numerous regional transit agencies – and what happens and when, often boils down to who is going to pay for it.

In light of the investments made, the region is well-positioned to incorporate HSR into its transit plans. There are a number of unfunded projects vying for budget allocations and the province recognized the HSR potential in February of this year, when it announced plans to introduce HSR into the Toronto-Windsor corridor with the goal of connecting various communities with Toronto. Preliminary activity includes an environmental assessment

already underway. In addition, the federal government has promised to invest CAD\$6-billion in Canadian transit over the next four years.

The benefits of introducing a fully integrated transit system, inclusive of HSR, includes a reduction in traffic congestion in and out of Toronto, which in turn leads to freer movement for commercial transportation. Commute times will be tremendously reduced and service frequency can be increased with headways of as little as 15 minute. Fewer vehicles on the roadways mean a reduced environmental footprint as fewer idling engines translate to less air pollution. Substantial economic possibilities in areas surrounding Toronto can also be realized. The City of London, for example, may be in a position to benefit the most from HSR.

While areas like Kitchener-Waterloo are still considered commutable locations to and from Toronto, London is



that much further out making a daily commute impractical. According to an article published by The London Free Press, London's Chamber of Commerce CEO, Gerry Macartney said there were already thousands of London travelers to and from Toronto each week that would stand to benefit from the introduction of an HSR system. As little as five years ago, travel by car between these two cities was approximately two hours; today, with the influx of commuters, travel time is closer to three hours. Add to this the notorious stretch of highway just east of London that is infamous for being the site of many horrific and deadly car crashes involving multiple car pileups. The topography of the area with its close proximity to Lake Ontario renders it hazardous to drivers during bouts of often sudden inclement weather. HSR will open up myriad possibilities for London commuters and commerce. The increased easy access and safer commute will mean that London employers will

be able to attract more top talent and skilled workers.

The prospect of HSR is not without its challenges. It's not like you can throw a switch and voilà, HSR is born. One of the political challenges for this part of the country is harmonizing and gaining consensus from the multiple governments and the various public transit agencies that are involved. Interestingly, at the writing of this article, a popular Toronto morning TV news show was running a poll asking its audience if they would like to see one transit authority for the entire GTA. Four hours into the poll, the results were already overwhelming with 81.91% for vs. 18.09% against. In the meantime, there are multiple stakeholders and numerous transit routes that will be affected by HSR. With an already heavily used transit network, the perception of rider impacts will need to be managed. Public consultations are commonly used to educate the general public about proposed

plans and demonstrate how impacts to the ridership and surrounding communities will be minimized – perhaps through incorporating a dual diesel/electric engine approach until such time as all 262 kilometers (163 miles) of identified rail has been electrified. All the while, these sessions will reinforce the ultimate value that the traveling public will realize as well as the economic activity that will be generated in Toronto's satellite communities.

Other challenges include rail sharing between commuter and freight trains. Today, freight trains are heavier and longer and have become slower, periodically creating bottlenecks that at times affect portions of rail shared with commuter transit. Other ancillary infrastructure challenges include adequate parking. Once the rail systems have proven to be cost-effective and speedier alternatives to driving, the increase in ridership will lead to greater demand for transit station parking. Existing parking facilities may need to be overhauled to provide extra spaces, while some demand management measures may be needed to incite more users to access stations using local public transit services. New stations will need to be built and existing stations modified. The same will apply to maintenance facilities while existing track and signals will also need to be modified. And of course, any needed grade separations must be addressed and funding worked out with individual road owners – typically municipalities.

In summary, there is still a distance to be travelled from where we are today to where we want to end up when it comes to HSR. But the timing is good. Funding is available. Governments are supportive and the need is strong and continues to grow stronger every day. Southern Ontario is better poised to realize greater connectivity than ever before. The possibilities appear limitless.



California

CALIFORNIA HIGH-SPEED RAIL PROJECT UPDATE

By 2029, the system will run from San Francisco to the Los Angeles basin in under three hours at speeds capable of over 200 miles per hour. The system will eventually extend to Sacramento and San Diego, totaling 800 miles with up to 24 stations. In addition, the Authority is working with regional partners to implement a state-wide rail modernization plan that will invest billions of dollars in local and regional rail lines to meet the state's 21st century transportation needs.

By David Cameron
Officer At-Large, APTA HSIPR Committee

The California High-speed Rail Authority released its 2016 Draft Business Plan (http://www.hsr.ca.gov/docs/about/business_plans/DRAFT_2016_Business_Plan_0201816.pdf) charting its course for the coming years. The Plan describes the Authority's intention to deliver high-speed rail service connecting the Silicon Valley to the Central Valley, offering high-speed rail passenger service between these two important economic regions by 2025, nine years from now.

There are now more than 100 miles of construction underway in the Central Valley. The Legislature and the Governor reaffirmed their commitment to the program by providing an ongoing revenue stream through the state's Cap and Trade proceeds, which will provide a minimum of \$500 million a year.

There are two significant changes from the 2014 Business Plan:

- 1.) Phase 1 cost estimate has been significantly reduced. For the same scope of work, these updated estimates reflect an 8% reduction in costs, down to \$62.1 billion when compared to the \$67.6 billion estimate presented in the 2014 Business Plan.
- 2.) The initial operating segment (IOS) will begin in the north Bay Area rather than the south Burbank/Los Angeles Basin, and run from San Jose/Silicon Valley to Bakersfield, commencing service in nine years.

The northern terminus was selected over the southern because it can be built with available funding from Proposition 1A bonds (\$9 bil), federal funds (\$3.4 bil) and the continued anticipated Cap and Trade proceeds (\$500 mil/yr). This is critical because under the U.S. Congress as it is currently constituted, no additional Federal funds are anticipated.

The Authority released a Request for Qualifications (RFQ) for Environmental and Engineering Services for the San Francisco to San Jose Project Section and the San Jose to Merced Project Section of the high-speed rail program. The San Francisco to San Jose Project Section is approximately 51 miles. The San Jose to Merced Project Section is approximately 84 miles. The contract is estimated at \$36 million for a three-year term.

Planning and construction of the Bakersfield to Burbank segment will continue at its existing pace:

Station planning: the City of Burbank will receive \$800,000 in funding for high-speed rail station-area design and development. The City of Bakersfield will receive \$750,000 for the



design and development of a high-speed rail station. The City of Palmdale will receive \$600,000 in grants for the design and development of the high-speed rail station.

Environmental work: The Authority is taking boring samples in the Angeles National Forest where it proposes to put tunnels for its rail project between Palmdale and Burbank. The authority has six routes under consideration that would require tunneling beneath the national forest and San Gabriel Mountains National Monument.

On January 5, 2016, the CHSR Authority Approved California Rail Builders for the Design-Build Services Contract for Construction Package 4 which will extend approximately 22-miles through the Central Valley stretching from one mile north of the Tulare/Kern County line to north of Bakersfield.

California Rail Builders is an entity including Ferrovial Agroman: one of the largest contractors worldwide and with significant experience in constructing high-speed rail infrastructure, Euroestudios: one of Spain's leading engineering firms with experience designing HSR projects around the world, and Othon: a disadvantaged business enterprise firm.

California Rail Builders bid \$347,557 million. The Authority estimate for CP 4 was \$400 to \$500 million. This is the 3rd bid that has come in under Authority estimates.

Threats to the HSR project

In November 2015, a ballot initiative was submitted for circulation which

would redirect the remaining billions of high-speed rail bond funds to water projects. The group behind the initiative, California Water Alliance, said it has commitments to meet a \$2-million budget for the signature campaign and has hired one of the nation's best-known petitioning companies to gather the 585,000 valid voter signatures needed. The Secretary of State's campaign fundraising website shows much less, about \$250,000 in receipts since Jan. 1. If the measure does qualify, California's \$53-billion-a-year agriculture industry will probably haul out checkbooks to support it. A January 2016 poll by the Stanford University-based Hoover Institution finds 53 percent of Californians would vote for a ballot measure ending high-speed rail and using the unspent money on water-storage projects. If this initiative qualifies for the ballot, it spells another big challenge for California's high-speed rail system, the single largest civil works project in the history of the nation.

Other Construction Updates

Fresno River Viaduct – Construction is currently underway on a 1,600-foot section of the Fresno River Viaduct in Madera, the first aerial structure part of the high-speed rail program. Seven small businesses and over 100 workers have been involved in the construction of that project.

Tuolumne Street Bridge Demolition – the Authority started demolition of the Tuolumne Street Bridge in Downtown Fresno. This will make way for construction of a new, higher bridge that will accommodate the high-speed rail line and allow for two-way traffic and contributing to the revitalization of

downtown Fresno's city core.

99 Realignment - In partnership with the Caltrans, work has begun to realign portions of State Route 99 North of Fresno to accommodate high-speed rail at the same time improving traffic operations, reducing congestion and improving safety in this busy corridor. The Authority continues to work closely with all homeowners, property owners, and businesses that need to be relocated as part of the development of the high-speed rail system. This process can be a challenge. However some property owners have chosen to use the relocation as an opportunity to expand and grow their business or move to a better location. As of January 15, the Authority has acquired 627 parcels of the 1492 needed to advance construction in the Central Valley, and has been able to advanced property acquisition and delivered right-of-way through better understanding of individual property owner concerns, improved communications and processes and increased staff and resources.

In December 2014, the Authority chose Dragados/Flatiron/Shimmick for the design-build contract for Construction Package 2-3 (CP 2-3), the next 65 mile segment from Fresno to North of Bakersfield. The Authority had estimated the cost of CP 2-3 to be between \$1.5 billion to \$2 billion. Dragados/Flatiron/Shimmick bid \$1.2 billion.

In April 2013, the Authority chose Tutor Perini/Zachry/Parsons for the design-build contract to begin construction of the 29 mile Madera to Fresno segment, the first section of the high-speed rail system. The Authority had estimated the cost for the design-build contract to be between \$1.2 billion and \$1.8 billion. Tutor Perini/Zachry/Parsons, a California-based bid \$985 million.



HSR POLICY FORUM

GETTING TO THE TIPPING POINT - WASHINGTON, DC

By Eric Peterson
Associate Publisher, APTA HSIPR Committee

Transformative, incremental, regulatory reform, proportional regulation, champions, defenders, grass roots, grass tops, up to 125 mph, 220 mph and faster, these were just a few of the contrasting terms heard during the day long policy forum, "Getting to the Tipping Point for High-Speed Rail in the U.S.," sponsored by the American Public Transportation Association (APTA) and its Intercity and High-Speed Passenger Rail Committee on December 2nd, at APTA's new Washington headquarters.

The Forum featured four sessions with issues including: planning and environmental clearance, funding and finance of intercity and high-speed rail systems, leadership and governance, and identifying the top priorities and the next steps to advancing intercity and high-speed passenger rail service in the U.S.

Noting that the Congress was about to pass the first five-year surface transportation reauthorization that included a rail title, APTA's Chair, Valarie McCall, welcomed the nearly 100 passenger rail engineering, policy and economics experts who gathered for the forum.

Michael Melaniphy, APTA's President and CEO welcomed the rail advocates to the new APTA headquarters with a note of optimism, suggesting that a major milestone in the history of American passenger rail was occurring with the passage of the "Fixing America's Surface Transportation (FAST) Act.

Peter Gertler, Chair of APTA's High-Speed and

Intercity Passenger Rail Committee, and Al Engel, Vice Chair of the committee set the stage for the day-long forum, noting the recent history of efforts to advance intercity and high-speed passenger rail service in the U.S., and giving the charge for the forum to set the pace and direction for future passenger rail development.

Observing that APTA's Board of Directors adopted a 22-point legislative proposal for a federal high-speed and intercity passenger rail program two years ago, Peter Gertler suggested that one of the anticipated outcomes of this forum was to identify which of those 22 points had been achieved, which still needed to be addressed, and what new principles needed to be put forward in order to achieve the tipping point.

Al Engel observed that this forum is a follow on to the First SPEEDLINES Editorial Board Roundtable held September 2014 where we asked the question, "What will be the tipping point for the U.S. to commit to a high performance intercity passenger rail policy and program?" There were 6 notable thought leaders who offered their ideas on when we would reach a tipping point. Among the observations: "When it is recognized by our leaders that high-speed rail is a proper public investment that cannot be funded solely from the fares paid by riders just as is the case for highways, airports and transit systems; When we have a successful demonstration project in the U.S. ; When a clear consensus on benefits is reached; One good project needs to be built to convince a skeptical public. The U.S. will adopt HSR when all other

competing alternatives have been thoroughly studied and set aside.”

Engel went on to observe that this meeting occurs 51 years after the introduction of the high-speed rail mode when commercial operation of the Japanese Shinkansen began in October 1964. He noted that today 15 countries are operating more than 20,000 route miles of high-speed rail services. Sixteen (16) countries have lines under construction and 29 countries are planning HSR services.

The first session – Planning and Environmental Clearance – was moderated by Dominic Spaethling, chair of APTA’s high-speed and intercity passenger rail programs subcommittee, and included David Valenstein, chief of the Federal Railroad Administration’s (FRA) Environmental and Corridor Planning Division; Shaun McCabe of the Texas Central Partners; David Carol from WSP/Parsons Brinckerhoff; and Peter Peyser on behalf of the California High-Speed Rail Authority.

Speaking to the issue of planning, FRA’s Valenstein noted that from the federal perspective today planning is not about putting lines on a map: it’s about developing the tools that enable states and regions to develop and execute their own passenger rail programs.

“Since 2009, Valenstein said, “FRA has transformed itself from primarily a safety regulatory agency to a grant-making, facilitating organization. “For FRA,” Valenstein noted, “the question today is how can we expedite the planning and investment process in the various corridors that are executing, about to execute, or are planning passenger rail improvement projects.”

Carol said that the role of the federal government in the Northeast Corridor (NEC) has evolved over the past 45 years from having complete control over every aspect of its operation to being part of a coalition of champions bringing various resources and expertise to prepare the corridor to be one, if not the first to be a true high-speed corridor. Carol noted that the FRA can shape the vision of the future, but states and regional organizations, with or without Amtrak, are implementing and assuming responsibility for corridor-wide planning and operation. “To succeed, however,” Carol said, “we need congressional champions.”

Peyser stated that the relationship between the California project and the many state and federal agencies involved in providing environmental reviews and clearances is very complex because of the geography involved. “The project is on the ‘presidential dashboard’ because of the number of federal agencies engaged,” Peyser said.

McCabe profiled the Texas Central project as a privately led initiative that will provide over \$36 billion in cumulative benefits to the corridor between Dallas and Houston over the next 25 years. To date, McCabe noted, only \$75 million in private sector funding has been committed with an additional \$100 million expected to be announced soon. “But,” McCabe observed, “as important as the funding is, the most important resource this project has is the support of stakeholders throughout the corridor.”

McCabe questioned the need for such a rigorous NEPA review of the project, particularly given that the Texas Central project is a private, not a public sector initiative.

The panel members were unanimous in their view that planning is not the hard part of these projects. Communication to the public and to policymakers is the hardest and most demanding aspect. Translating the technology of modern-day passenger rail development into understandable messages is critical to the success of these and virtually every corridor project throughout the United States.

Reflecting on former House Speaker Tip O’Neil’s admonition, “All politics is local,” McCabe observed that stakeholder support is critical, and all stakeholders are equally important, no matter whether they are directly or indirectly affected by a rail project. Even those who will never ride the high-speed train are vital, because they can be the ones who can prolong the review process and perhaps ultimately make it impossible to build. The conversation cannot be about winners and losers. It needs to be about recruiting advocates who in turn support champions.

People will support true high-speed rail once they’ve had an opportunity to see it, touch it and experience it. Indeed, recent polls suggest that 70 percent of Americans say that in theory they support the United States having high-speed passenger rail, and with

the demographic changes coming to the United States, it will only be a matter of time before it arrives. It will relieve current and future growing pains, reduce airport and highway congestion, create jobs and promote economic development, and prove to be the best thing that ever happened to public transportation in the U.S.

The second session – Funding and Finance of Intercity and High-Speed Rail – was moderated by Sharon Greene, co-chair of APTA’s high-speed rail and intercity passenger rail finance subcommittee, and included Melissa Porter, principal legal officer and advisor to the FRA Administrator; Mar-Andre Roy with CPCS; Jodie Misiak representing the Build America Transportation Investment Center (BATIC) at the U. S. Department of Transportation; and Laurene Mahon from the Canadian Imperial Bank of Commerce (CIBC).

Greene started the session by asking panel members how the distinction of type of service affects the source and type of federal funding a project can receive. No one on this panel reacted to the question, but it was later addressed by panel participants in the third session.

Observing that passenger trains continue to attract more and more riders, and that within the next 30 years the American population will grow by approximately 70 million, Porter opined that things were moving in the right direction of intercity passenger rail. The federal government has invested more than \$10 billion in passenger rail since 2010, especially in the NEC, that for the first time ever, the surface transportation reauthorization, known as the FAST Act, contained a rail title that contained a \$2.5 billion authorization for rail improvements through three separate programs, and that even Amtrak received a net benefit. But, she observed, all of these developments underscore the need for more funding and financing for passenger rail, especially a long-term, predictable funding mechanism.

Roy, who co-authored the first and only Transportation Research Board (TRB) National Cooperative Rail Research Project titled, “Alternative Funding and Financing Mechanisms for Rail Projects,” noted that virtually all passenger rail projects throughout the world require public funding. The question is how does the gap between government funding availability and the cost of providing the passenger rail service get filled?

A variety of funding sources, some frequently overlooked, are available said Roy. These include branding,

sponsorships and naming rights. A useful mechanism employed by the Japanese Railway Companies is land value uplift capture. This is a strategy that will be used as part of the redevelopment of Union Station in Washington, D.C. Roy also noted Virginia’s Intercity Passenger Rail Operating and Capital (IPROC) Fund that is supported by a .1 percent sales tax, and is specifically dedicated to addressing the Commonwealth’s growing intercity passenger rail network.

Public/Private Partnerships (P3) are a viable financing and project delivery tool Roy said. “But too often policy maker mistake P3s as a source of private sector funding,” he said. “They are not.”

Roy did, however, observe that in Ontario, all infrastructure projects are run through a P3 screen to determine if they might be viable P3 projects. Roy observed that even if a project does not qualify as a P3, the screening frequently identifies faults that may improve the financial performance or procurement strategy for the project. “American infrastructure projects could benefit from such a screening process,” Roy observed.

Misiak introduced forum attendees to the U.S. Department of Transportation’s new Build America Transportation Investment Center (BATIC), noting that the center is focused on creating a more customer-driven funding and financing tool. “Private investment needs to be brought to the table,” Misiak said. “BATIC helps project sponsors make their projects more attractive to private investment and improves the environment to attract better investment strategies for improve project deliver.”

Currently BATIC has approximately \$7 billion in federal credit assistance available and is managing a portfolio of \$18 billion in infrastructure investments. It has produced a best practices guide and is offering technical assistance to help projects capture more private investment. Overall, Misiak said, BATIC wants to promote expanded use of federal credit tools like TIFIA and RRIF, innovate new approaches to project delivery, and adapt approaches used in other transportation modes including streamlined project review and accelerated project delivery.

Recent BATIC successes include the Pennsylvania Rapid Bridge Replacement P3, and the Port of Newark Container Terminal, a TIFIA-based P3 that derives its

funding from within the gates of the terminal.

CIBC's Mahon observed that private investment infrastructure already exists in the United States, but not in passenger rail. She attributed the lack of private investment in passenger rail to a misheld notion about government subsidy. "Government subsidy is actually government equity, and it needs to be monetized. The government should be selling its equity to the private sector, and in so doing, the funding gap can be filled," Mahon said. "Unfortunately," she observed, "to do that in the United States would require new budget policy, and that is not likely to happen in today's politically charged environment."

Mahon also observed that reducing a project's cost is like finding new money. To make her point, she noted the massive overdesign of passenger rail equipment to make it "crash-worthy." No private investor is going to see a return on their investment in passenger rail rolling stock she said.

Greene asked the panel for their views on the impact of uncertain public policy on the willingness of the private sector to invest in public projects like intercity passenger rail. Panel members were unanimous that uncertainty discourages private investment.

Keynote Speaker - The Forum took a luncheon break and the featured guest speaker was U.S. Representative Earl Blumenauer (OR-3), a true champion of intercity passenger rail. Rep. Blumenauer noted that Congress was attempting to accomplish a year's worth of work in 10 days, but in passing the FAST Act, Congress was setting the stage for a welcomed and long-sought debate over infrastructure funding, especially funding for passenger rail. Blumenauer called intercity passenger rail a program that will not die no matter how hard Congress tries to kill it.

With the upcoming elections, Blumenauer observed, there should be a better policy environment to address intercity passenger rail rationally. Also, he noted, there are many good corridor projects underway across the country that will improve connectivity and promote economic development. This progress will help set the stage for an even better passenger rail reauthorization in five years.

Blumenauer urged Forum attendees to use the next five years wisely, to develop strategies that address current

shortfalls. He admonished the current Administration for misrepresenting its passenger rail initiative, and urged that passenger rail advocates focus on incremental improvements that deliver higher-speed, more reliable intercity passenger rail service. That's an objective within reach he said.

Blumenauer called the inclusion of a rail title in the FAST Act transformative. "It affords the opportunity to put all the pieces of a transportation system together. It's a recognition of where America as a society is headed," Blumenauer said.

The Oregon congressman urged that future success is dependent on people like those gathered for the Forum to become advocates. "It's essential, and the FAST Act should provide the energy and credibility to get the job done," Blumenauer observed.

"If you craft your advocacy properly, you can achieve effective reforms that are not threatening to the environmental and other potential passenger rail champions," Blumenauer said. "Focus on building a coalition of supporters in small communities, with developers, and with others who may not be considered traditional intercity passenger advocates. Look to pursuing performance-based standards as opposed to overburdening regulations. Let's continue the conversation."

The third session – Leadership and Governance – was moderated by Al Engel, vice chair of APTA's High-Speed Rail and Intercity Passenger Rail Committee, and included Stephen Gardner, Executive Vice President, Northeast Corridor Business Development, Amtrak; Darrel Johnson, CEO, Orange County Transportation Authority (OCTA); and, Emily Stock, Manager of Rail Planning, Virginia Department of Rail and Public Transportation (VDRPT).

Gardner led the panel's discussion by noting that federal leadership is absolutely essential for Amtrak to build a network of targeted high-speed rail services. He noted that presently, federal and state leaders do not view high-speed rail as necessary, and that perception is affecting projects including California, Texas, Virginia, Florida, and the Midwest. Can any of these projects get off the ground as high-speed rail initiatives and change that perception?

Fortunately, Gardner conveyed that the FAST Act will help change that perception because it reflects

general agreement in Congress that a national passenger rail network with targeted corridors for high-speed service has value. "The tension is in favor of preserving and improving the network," Gardner said.

Gardner noted that the integration of rail into the entire transportation system is very positive. The FAST Act is transformational. The separation of the national network and NEC is very helpful. It will enable Amtrak to leverage its assets to promote growth.

NEC Future, the plan for the Northeast Corridor, is an important opportunity to engage stakeholders on the question of the role of passenger rail in the regions transportation system. It promotes collaboration. It moves the Gateway project forward. It addresses service and resilience. It promotes collaboration among the various stakeholders, and it recognizes the need for intercity passenger rail in the corridor.

OCTA's Johnson said leadership from the state government in California has been critical to the states 40 year-old intercity passenger rail service. Early on, Johnson said, the state government realized the potential of rail and decided to do for rail what it previously did for highways. The California state government raised its own money, planned its own projects, and managed and operated its own system.

Johnson relayed that OCTA has sought to transform existing state-sponsored intercity rail service to be more responsive to local needs, issues and consumer demand by laying a foundation with study, creating new governing bodies, joint powers authorities with its own governing by-laws, establishing local governance for regional systems (LOSSAN Board, San Joaquin and Capitol Corridor), and leveraging resources and responsibilities while minimizing financial risk.

Governance relationships, Johnson said, are based on a performance matrix that drives flexibility and change. For example, each unit that is part of the LOSSAN Board has the ability to manage its own unit, but there is general agreement that if one unit adopts a strategy that proves successful, other units have the ability to both adopt and partner in that strategy's implementation. This approach has been particularly successful in the areas of branding and promotions. The strategy is to integrate all available resources.

VDRPT's Stock said her agency is focused on the development of the Southeast High-Speed Rail Corridor, a higher-speed shared use corridor connecting the NEC to points south through Virginia, the Carolinas and Georgia.

Virginia has been able to leverage a variety of federal, state and private sector resources to advance its program. For example, Stock noted, the Commonwealth matched American Recovery and Reinvestment Act (ARRA) grants with state funds and a high level of collaboration from host railroad CSX.

As a result, Stock said, the Tier 1 environmental impact study (EIS) has been completed for the Washington to Richmond (DC2RVA) section of the Southeast Corridor, a corridor that was originally defined in 1992. Plans call for incremental improvements on shared tracks. The Tier 2 EIS is about to be completed. The project brings together all affected parties to improve the corridor's design, and to improve reliability, travel times and service frequency in the corridor.

Stock said the initiative has received criticism because even though speeds in the corridor will be well below the defined speeds for true high-speed rail, the FRA requires Virginia to use the term, "high-speed rail," because the ARRA program was labeled "high-speed rail. More flexibility in the nomenclature would lend improved credibility to the project, Stock said.

Stock noted that VDRPT has been successful in using Federal Highway Administration rail crossing and other enhancement funds because these projects help alleviate highway congestion.

VDRPT's federal wish list includes more money, more flexibility to use federal money for a variety of needs, support for innovations in a shared-use-corridor, dual-powered locomotives, construction of convertible height station platforms, change in the definition of high-speed rail and other related terminology, and continued support and cooperation from FRA.

The panel was asked, how does a legislative proposal get "birthed?" Suppose the progress from ARRA continued. What changes could be envisioned?

Gardner said that the industry is much further along than it was in 2009. FRA has transformed itself with greater capacity. There was a mis-match between



funding availability and project readiness. There is always going to be a tension between locally grown projects and federal expectations – there is much more work needed to develop performance-based measures.

Johnson suggested that people think about organizational theory and structure. In the beginning issues had to be settled by the governor. Now there is an organization and delegations of authority that can handle virtually all issues related to OCTA and the California high-speed rail initiative.

Stock noted that Virginia's partnership with CSX has been critical, particularly in areas such as modeling standards, station design, and routes.

What about multi-year funding, the panel was asked. Each state and corridor is different. Is there an advantage for Amtrak to receive multi-level/multi-year funding to address its priorities?

The panelists were unanimous that multi-year funding is critical. "We need champions to obtain and ensure multi-year funding," Gardner said. "The task for the next five years is for stakeholders to come together with plans and the champions to get the job done."

"The potential investor is looking to invest in a national system as an asset. Investors are petrified by NEPA," Johnson observed.

Session 4 – Top Priorities and Next Steps – Forum breakout discussions and reports – Eric Peterson summarized the prior sessions, noting that the first high-speed rail forum in 2014 followed the APTA Board of Directors adoption of a set of 22 legislative principles to advance the renaissance of intercity passenger rail service, and especially high-speed rail in the United States.

Peterson observed that there was general agreement that passage of the FAST Act with the inclusion of a rail title represents a transformative moment for American intercity passenger rail. Many, but not all of APTA's legislative principles were embraced in the FAST Act, and that much work remains to be done.

The discussion and presentations in each of today's forums suggest that conditions are not as gloomy as some might suspect, that there are alternatives available, that there is much opportunity for innovation, and there is need for policy reform, especially in the areas of regulation, project definition, and levels of effort.

What is also clear is that with the passage of the FAST Act, the industry has been given a window of opportunity through which it can recruit its champions, organize and execute its education initiatives, and develop its strategies to align the appropriate levels of government engagement at the local, state and federal levels with the aspiration of a well developed, multi-modal transportation system that maximizes mobility options, including intercity and high-speed passenger rail in corridors where it is appropriate.

To set the course and sound the call to action, forum attendees organized themselves into three breakout discussion groups – Planning and Environmental Clearance; Funding and Finance of Intercity and High-Speed Rail Systems; and, Leadership and Governance.

The following is a summary of the discussion and recommendations from each of the three breakout groups:

Planning and Environmental Clearance – Mike Davis, ICF International – this breakout group expressed concerns about NEPA inflexibility.

One participant said that the FAST bill shows a trend of Congressional rollback of NEPA regulations. Others said they would like to see the lead agencies exhibit more flexibility and recognize the abilities of FTA/FRA/FHWA to use each other's NEPA procedures and determinations.

The Tappan Zee Bridge project was referenced as a good example of NEPA streamlining with Washington, D.C. pushing for the consolidated permit reviews. The big issues are: (a) Getting better buy-in during the planning process; (b) Setting public expectations by better educating it about the purpose of NEPA; and, (c) Doing outreach and consensus building on alternatives during planning and keeping NEPA focused on disclosure of impacts.

AMTRAK is focusing more on customers to help get attention for funding from Congress. They understand that an activist customer base becomes an advocacy group for rail improvements. "Locals need to tell elected officials what needs to be done." Public engagement is not an attempt to buy-off of opposition. It is intended to build stakeholder support even if in the end there is still some residual opposition.

The group was unclear about how the FAST Act affects FRA's ability to engage in consultation with other agencies to coordinate and streamline the review process while addressing NEPA requirements and environmental NGO's desires. Specifically, there were questions about how to get communities so engaged that they will get Congress to support the high performance rail program.

Participants noted that Hill staffers say Congress doesn't hear from constituents about rail, and with so many members of Congress opposed to the Administration's high-speed rail program, the notion of a \$50 billion program may be an over-reach.

By contrast, the group noted how the Amtrak NEC Commission is getting locals involved and invested. As a result, there is a broad NEC voice from the states.

Others encouraged setting timeline or moratoria restrictions on the NEPA process, as well as getting the process more focused on impact analysis and not a beauty contest for alternatives and win/lose positioning. The Minneapolis I-35 Bridge replacement project is an example of how the environmental process should work.

Funding and Finance of Intercity and High-Speed Rail Systems – Lindsay Collins, Chambers, Conlon & Hartwell, LLC – Buy America and RRIF requirements need to be more flexible. There should be tiered requirements depending on the level of federal investment. Projects should be more business oriented ... make the business case for intercity and high-speed passenger rail.

Leadership and Governance – Dominic DiBrito, LTK Engineering Services – Don't be partisan, but start with the top leadership at the local, state and federal levels. Have a strong political will – It worked for the highway system. High-speed rail is advancing worldwide because of political will. Look to U.S. models of integrated systems that might be adaptable as a governance model for intercity and high-speed passenger rail. Success in this field will be dependent on the integration of governance that allows everyone to have a seat at the table.

Limit the number of opportunities by which the regulatory review and permitting processes can be challenged and delayed. Is the issue really meeting requirements of the NEPA review, or is it about the number of opportunities for litigation?

NEPA needs to be rethought. Design alternatives should be decided before the NEPA study process begins. NEPA was not intended to be the place where design alternatives are reviewed.

Redefine the objective of "Buy America." In current form Buy America limits innovation. Help Congress understand what the original intent of Buy America was.

Whatever is done, recruiting Congressional champions is paramount. Congress can get behind proposals that have a positive message. Give Congress that message!

Conclusion – At the outset, this Forum was intended to evaluate how many of the 22 principles outlined in APTA's legislative proposal for a federal high-speed and intercity passenger rail program were achieved with the passage of the FAST Act, and what more needs to be done to get the program to "the tipping point."

In general terms, much progress has been made over the past five years, but much work remains. States, local communities, corridors, and Amtrak have attempted to work around many of the current obstacles that impede the renaissance of intercity passenger rail and the introduction of true high-speed passenger rail service in the United States. There have been some successes, and many disappointments along the way. Policy forum organizers are hopeful that this conversation and its recommendations will set the stage, and give American high-speed and intercity rail development the momentum to reach the tipping point.

LEGISLATIVE NEWS



2016

Contributed by Peter Peyser, President, Peyser Associates

Congress in December enacted a multi-year surface transportation reauthorization bill that included a comprehensive rail title. Through a good part of 2015, most observers would have said we would not be able to write that sentence in 2016. It is a tribute to the hard work of rail advocates, including many readers of this publication, that we can indeed write that sentence and then discuss how the legislation advances the cause of intercity passenger rail in the United States.

First, let us review the key rail provisions included in the FAST Act:

- **Amtrak Funding** – The bill supplies \$5.454 billion for the National Network and \$2.596 billion for the Northeast Corridor over five years.

- **Amtrak Accounting** – The bill requires Amtrak to set up separate accounts for the Northeast Corridor and the

National Network. It does not require that Northeast Corridor revenues stay on the corridor, but it does set up a procedure Amtrak must follow to make transfers away from the corridor that is intended to ensure transparency and specific Amtrak board approval of the transfers.

- **Intercity Passenger Rail Grants** – The bill establishes three new grant programs for intercity passenger rail:

- o **Consolidated Rail Infrastructure and Safety Improvements** – Provides \$1.103 billion over five years for a wide range of projects to plan, build and improve the infrastructure needed for safe and efficient passenger rail service.

- o **Federal-State Partnership for State of Good Repair** – Provides \$997 million over five years for capital projects to repair existing rail assets.

- o **Restoration and Enhancement Grants** – Provides \$100 million over five years for

operating grants to restore service on lines where Amtrak service was terminated or enhance service on existing lines.

- **Intercity Rail Financing** – The bill makes a number of improvements to the RRIF loan program. Among the most important are the establishment of a process of issuing Master Credit Agreements to cover a program of projects and the inclusion of Transit Oriented Development (TOD) projects as eligible in the program.

- **Stakeholder Engagement in Rail Planning** – The bill establishes two committees – one for state supported routes and one for Gulf Coast rail service – designed to bring key players outside of Amtrak into the process of planning for future intercity rail service.

Taken together, these provisions indicate that Congress gave considerable thought to taking steps that would set

the table for a more comprehensive approach to developing intercity passenger rail in the United States. By making Amtrak more transparent, bringing more players into the game, establishing grant programs and improving financing opportunities, Congress created some of the key conditions for growth in the passenger rail network. What they did NOT do, however, is supply adequate funding to help make that growth happen. The funding for Amtrak and for the grant programs established under the bill is woefully inadequate to advance significant new passenger rail service. It is arguably not adequate to even sustain the level of service we now have.

The three new grant programs established in the bill took a hit to their already low funding levels when Congress failed to appropriate any funds for them in the fiscal 2016 appropriations bill for transportation. This means the first year of authorization for these grants is essentially lost.

The Obama Administration clearly recognized the gap between aspiration and funding when it released its fiscal 2017 budget on February 9. As part of an initiative to boost clean transportation, the Administration proposed spending \$3.2 billion in fiscal 2016 alone for grants to improve the existing passenger rail network and build new rail links. The entire transportation budget proposal from the Administration was termed “obnoxious” by the Chair of the House Appropriations Committee’s Subcommittee on Transportation-HUD when

Secretary Foxx appeared before the subcommittee to defend it. It appears unlikely any part of it will be included in the fiscal 2017 appropriations bill.

Passenger rail advocates surveying this landscape might well ask “Did the FAST Act help us in advancing our agenda?” The answer to that question is certainly “yes.” However, the bill leaves much work to be done. The venues to do that work have been expanded by the creation of the new committees on rail service. The opportunities to push for more funding are there because of the authorization of new grant programs.

Passenger rail advocates can begin the work by contacting their Members of Congress and asking them to push for appropriations in fiscal 2017 for the grant programs created in FAST and to provide the fully authorized amount of funding for Amtrak. At the time this article is published, Congress will be in the heat of dealing with those appropriations bills. So the time for action is NOW.



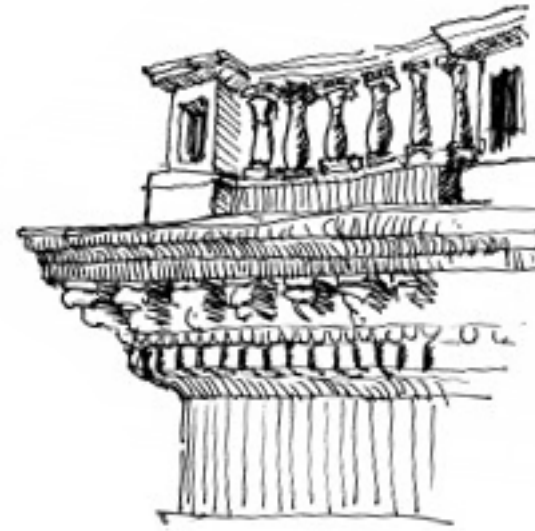
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[FAST ACT ESTIMATED PROGRAM TOTALS](#)



America has always been a nation on the move. But an aging and crumbling transportation system is not only slowing Americans down, it's reducing productivity, undermining our ability to move products across the country and around the world, and increasing congestion and air pollution. It's time to get America moving again!

– U.S. Chamber of Commerce

TRANSFORMATIVE HIGH-SPEED RAIL

Contributed by Mark Walbrun, PE | Mott MacDonald, Practice Leader, Rail & Transit East

Planners for transformative high-speed rail projects (projects that will substantially change travel activities in a given corridor) know that five major factors will determine the ridership demand. For a truly world-class system, all five will be optimized. These factors influence route alignment, station locations, track speed, service planning, rolling stock attributes, and maintenance planning.

1. Travel Time

Two benchmarks are critical to the success of any rail service. The first is the station-to-station travel time. While top speed is a useful number for marketing the service, the overall station-to-station travel time is what most riders will compare to auto and air travel time. Ridership models have shown that the potential user pool increases significantly when train travel time is noticeably less than auto travel time. As train travel time approaches air travel time, a substantial portion of the travel market can be obtained.

Optimizing the overall travel time should be a key goal when designing a high-speed rail route. A commonly heard aphorism is “to go fast, don’t go slow.” While seemingly obvious,

this actually refers to the problem in typical urban areas where train routes to reach central business districts must traverse tight curves, grade crossings, or complex interlockings. Speeds are therefore limited, so minimizing these sections is key. It takes 25 miles of upgraded track running at 150 mph vs. 120 mph to make up for 5 miles (10 minutes) of running at 30 mph instead of 60 mph in an urban area. Spending time on the urban alignment can therefore pay big dividends.

The second key benchmark is reliability. Frequent travelers understand that many circumstances can affect the punctuality of any transportation service. They factor that into their mode decision. Therefore, average lateness is essentially added to the overall travel time.

Because transparency is lacking, reliability is not a consistent or predictable influence on choice. Stories about one very late train on social media can overcome months of stellar performance. On the other hand, since punctuality is not often shown on booking sites, most

potential travelers cannot factor it in.

Developing a reliable system and a resilient system are also two different things. Reliability is based on optimizing regular operations. Resilience is the ability to recover when things don’t go as planned. The frequency of main line cross-overs is one investment that impacts both.

2. Access Time

The location of high-speed rail stations is of paramount importance in obtaining the best possible “capture” area. Potential customers factor in the access time and add it to the overall travel time. Access time includes both the time needed to get from your location to the station and the processing time at the station. Locations near business districts with access to high-quality transit are ideal. Stations designed so travelers can quickly move from local transportation to the boarding platform will minimize access time. Stations not as well located need large parking structures near to the station, connected with enclosed pedestrian walkways

Ways to minimize station processing time can include web-based

ticketing to avoid ticket lines, clear wayfinding, accurate train status boards, and fast vertical transportation from the station to the correct platform. Fast elevators and escalators are a common solution.

Essentially, potential travelers look at overall train travel time, reliability, and access time to compare kinematic options for a particular travel time slot. It is then that the next aspect comes into play.

3. Frequency

Most successful high-speed rail systems across the world operate at minimum one-hour headways for much of the day. Intercity travelers are tolerant of operations that don't exceed two-hour headways, but show a clear preference for one-hour service.

Anything beyond two hours will significantly limit the potential ridership. This limitation particularly affects return journeys, where travelers are unsure about which train they will be ready to take. Instinctively, travelers will add half of the headway to the overall travel time.

The span of service (early morning to late at night) can also impact travel decisions. Services that don't start early enough for a mid-morning arrival, or stop running too early to accommodate evening entertainment, will limit ridership. Ridership studies have shown that lack of a "worst-case" late departure can significantly affect choice of mode. Of course, the need to invest in a longer span of service is balanced by the need to maintain the infrastructure and rolling stock, usually at night.

4. Comfort

This heading covers a whole

spectrum of issues. It includes things like seat comfort, time to find open seats (if not reserved), availability of food, restroom conditions, boarding ease, and climate control. Branding holds sway here as well. Virgin Trains in the UK and Italo in Italy offer a heavily advertised product that has a cachet that riders often mention when discussing their travel plans. If the service has high brand awareness, potential riders feel they don't have to make excuses for their selection and are often drawn to the experience.

Here is where the U.S. can lead in high-speed rail development. Standing outside on open platforms, being buffeted by freezing air or sweating in high temperatures and high humidity, is not something most air or auto passengers are subjected to. With the help of Positive Train Control GPS locations and platform edge doors, now widely available in Asia, we can keep our platforms comfortable and secure while providing a large boarding "lounge" for riders to wait where they want to — right next to the tracks.

5. Price

The impact of price on travel decisions is often reduced once the above factors are considered. Most successful high-speed rail systems offer a wide variety of fares calibrated to different market groups. These include last-minute business travelers, choice riders for whom comfort is key, mid-range travelers willing to book in advance, economy-minded travelers willing to accept off-peak departures for savings, etc. Tie-in promotions with entertainment venues can bring in travelers who don't want to bother figuring all this out — they want someone to do all the work and give them a price and schedule.

Identifying Potential Corridors
Developing rail corridors that

allow for true high-speed train operation is a combination of intuition, engineering, environmental awareness, political savvy, and economic understanding. It is an art with a significant dose of science, involving multitudes of trade-offs.

The alignment team needs to find the best route that balances competing interests of cost, performance, capacity, reliability, and resilience. This will require numerous iterations. Eventually the selected plan needs to be checked against the original criteria to see if the new line will be truly transformative.

This is possible for many corridors, even in a highly developed nation with vocal constituencies. The best plan may be developed with overlaid commuter rail, regional rail, or coordinated bus service. It may serve established markets or be positioned to advance new areas. It will be transformative.

“ HSR will serve to make better the existing transportation network by providing one more viable option and means of transport to more effectively and efficiently move people around the country.

SPOTLIGHT

YOU SHOULD GET TO KNOW US



MARK WALBRUN

VICE PRESIDENT / Practice Leader

"High-Speed Rail will provide the United States with travel options that will energize our economy, allow for productive collaboration among regional companies, and seemingly compress distances between key attractions in nearby cities."

MOTT
MACDONALD
Rail and Transit East



CHRISTINE SUCHY

DIRECTOR

"This is an exciting time for passenger rail. Demand is stronger than ever, new partnerships are being formed, big and bold projects such as the Gateway Program are taking shape, and Amtrak is procuring new high-speed trainsets that will define how people travel on the Northeast Corridor. Rail is part of the transportation solution, and Amtrak and our NEC partners are challenged to ensure that the NEC can meet the demand."

AMTRAK
Finance,
Grants Administration



ERIC PETERSON

POLICY ADVISOR

"I grew up in eastern Wyoming right next to the Burlington Northern line which I took to college until service was ended in the late 60s. Intercity passenger rail was and will again be an important part of the nation's multi-modal transportation system. I am committed to making that concept a reality."

Infrastructure
funding and
finance, public
transportation, and
intercity and high-
speed passenger
rail issues

THE CHUNNEL

LESSONS LEARNED THROUGH THE DECADES

Eurostar is a high-speed train connecting Great Britain to Continental Europe. The Eurostar travels via the Channel Tunnel that runs 31 miles (50 km) along the English Channel. This unique train will take you from London to Paris in 2 hours and from London to Brussels in 2 hours and 15 minutes. The Eurostar also travels direct to Calais, Lille and Disneyland Paris (Marne-la-Vallée) and offers seasonal services to southern France in summer and the French Alps in winter.

The original idea for a tunnel to cross the English Channel from England to France was advanced by French engineer Albert Mathieu in 1802. But it took nearly two centuries before Mathieu's channel crossing concept became a reality. Today, the EuroTunnel, the 31 mile underwater rail link between Conquelles, France and Folkestone, United Kingdom (U.K.), is part of a larger high-speed rail network that connects London to Paris and Brussels, and someday soon will stretch even further into the U.K. and Europe.

The Chunnel itself is a complex engineering, financial and operational feat, and a mundane utility that many today take for granted. Without it, however, much of the economic vitality of the U.K. and the European Union (E.U.) would be lagging.

Since the signing of the Franco-British Treaty of Canterbury by British Prime Minister Margaret Thatcher and French President François Mitterrand on February 12, 1986, many scholars, industry experts and pundits have marveled at the success and shortcomings of the project's construction. Many too have opined on the lessons learned from the launch and completion of the Chunnel's construction as well as its on-going operation.

In addition to authorizing the construction of a one-of-kind bi-national infrastructure project, the treaty authorized the creation of a bilateral government organization called the Intergovernmental Commission (IGC) responsible for monitoring all matters associated with the construction and operation of the Chunnel, together with a safety authority to advise the IGC. The private sector contracting organization that was selected to build and operate the Chunnel, France-Manche-Channel

Tunnel Group (TML) was the subject of this government oversight.

TML was a bi-national entity comprised of two banks and five construction companies on the British side and three banks and five construction companies on the French side. An entity called the Maître d'Oeuvre was employed as a supervisory engineering body by TML to monitor the project and report back to the governments and the banks.

The treaty also required that all of the funding for the project come from the private sector, with not even a loan guarantee from any governmental entity. The originally estimated cost of the project was approximately \$10 billion. By the time the project was completed the actual cost was nearly double.

With this governance and financial structure setting the policy parameters of the project, TML proposed to build the Chunnel by tunneling from both the British and the French sides, with tunnel completion to be achieved somewhere near the middle of the English Channel, 150 feet under the seabed.

Challenges:

In his memoir on his tenure as the chief executive of TML, Jack Lemley noted the challenges facing the project because of the linguistic and cultural differences of the parties in this bi-national arrangement. Lemley observed that the engineering, work plan, and communication strategies of the English were very different from the French, and the challenge was to constantly meld the differences, keep everyone focused on the same objective, and continue to make progress.



There are two railway tunnels, and a service tunnel. The work began on in 1986, and took four years to connect the two sides.

On December 15, 1987, boring of the Chunnel began on the English side. The French began boring on February 28, 1988. Over the next six years more than 13,000 engineers, technicians and others labored underground using 11 massive boring machines to bore and finish three tunnels (a north rail tunnel, a south rail tunnel and a service tunnel), and install all of the equipment and systems required to make the Chunnel operational.

Over the course of this six-year construction period there were many celebrations, the first occurring when the breakthrough of the service tunnel occurred on December 1, 1990. Breakthroughs on the north and south rail tunnels occurred on May 22, 1991 and June 28, 1991 respectively. On December 10, 1993 TML handed the Chunnel over to EuroTunnel, the private corporation created to operate and maintain the Chunnel from that day forward. And on May 6, 1994, Queen Elizabeth and French President Mitterrand officially opened the Chunnel for commercial operation.

Since actual revenue service began on the Chunnel on June 1, 1994 nearly five times the U.K.'s population has passed through the Chunnel, as well as enough automobiles and trucks to stretch from the earth to the moon.

On the 20th anniversary of the opening of the Chunnel, the Financial Times' Jane Wild noted that

the project has been afflicted with delays, disputes and financial crisis, but that following a financial reorganization through which the original investors lost all of their investment, annual passenger ridership had grown to 325 million, and Groupe EUROTUNNEL paid its first dividends to stockholders in 2009.

In its February 18, 2016 statement of annual results, the Groupe EUROTUNNEL announced that in 2015 its revenue increased by 5 % to €1.222 billion; that earnings before EBITDA increased to €542 million; that net consolidated profit increased to €100 million; and, that there was a 22% increase in the dividend to 0.22€ per share.

Groupe EUROTUNNEL went on to report several improvements in its Shuttles transport services including that 2.6 million passenger vehicles, 1.5 million trucks, and 10.3 million Eurostar passengers used the EUROTUNNEL in 2015.

Looking ahead, Groupe EUROTUNNEL anticipates continued growth in its truck and car shuttle service, adding the capacity of three new truck shuttles, the launch of new high-speed rail service between London and Amsterdam, and continued growth in its freight rail service as well.

Lessons Learned:

So given its rather turbulent, but – apparently – more



successful recent experience and anticipated future performance, what are the lessons to be learned from the Chunnel that might be applicable to America's future renaissance of intercity passenger rail and the future introduction of true high-speed passenger rail service?

In their Harvard Business Review case study of the Euro Chunnel Project, Arnold, Baer, Boyle, et al (2015) examined the project's procurement management from its inception to its development and implementation and its closeout. They graded the project poorly managed and executed.

The Harvard reviewers' evaluation tied directly to the issues raised by Jack Lemley regarding the differences in culture, language and custom, and the desire to be deferential while at the same time maintaining a focus on the larger picture. The result, from both Lemley and the Harvard reviewers' perspectives, was that planning time frames were too short, contributing to a scope of work that was not fully defined or developed. Budget estimates and schedules were not accurate. Contractor choices were poor, and overall management was chaotic with lapses in vital communication, massive corrections and unanticipated challenges resulting in huge cost overruns. The Harvard reviewers concluded that more resources were spent assigning blame than finding solutions. "But in the end the project was completed."

Firm-fixed price contracts were used throughout the project. But because the project's scope of work was limited, the actual work contracted was frequently inadequate for the completion of each of the project's tasks. This resulted in numerous change orders, which drove the overall project cost well beyond the original estimates. Additionally, because of the original governance of the project, the banks and government officials were given overreaching regulatory authority that went well beyond their technical capacities – in the case of the bankers, and their financial or fiduciary responsibilities – in the case of the government representatives.

In their retrospective review of the project, "The Channel Tunnel: A Project Management Perspective," Srivatsav, Joys, et al, identified several key issues that contributed to the difficulty of delivering the

Channel Tunnel. These issues included the project's bifurcated, bi-national management structure, the project's incomplete planning, changes in the management structure during the construction of the project, the intervention of IGC, the challenges of securing project financing, unexpected geological conditions, conflicting management priorities, the complexity and sensitivity of the boring machines, the potential for flooding and tunnel collapse during boring, the unexpected realization that the tunnel required air conditioning, and the complexity of the government-required fire protection systems in the Chunnel and on the rolling stock.

Thomas G. Donlan, editorial writing in Barron's (January 12, 1998) noted that, "the greatest divides to be spanned by the tunnel were the cultural channel between Britain and France, the economic chasm between the banks and contractors, and the regulatory gulf between government and private industry."

On this last point, Donlan wrote:

"The governments that took no financial responsibility for the construction or operation of the tunnel demanded and received regulatory oversight of every aspect of safety. They set up two international regulatory bodies, both funded entirely at the expense of Eurotunnel. Neither had any responsibility for the costs of their decrees.

"The regulators, working at times with Eurotunnel and at times against it, would impose most of the alleged improvements on the contractors' design and create most of the delay -- the two factors that expanded costs."

For Americans contemplating the future of intercity passenger rail and the possible evolution of true high-speed passenger rail, it is easy to become frustrated over the limited progress the United States has made in the past decade. But we can, however, take solace in the fact that the challenges ahead of us are much less daunting than the challenges faced by the pioneers of the Chunnel. They persevered and ultimately saw the light at the end of their tunnel. America can too.

By Kenneth G. Sislak
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STATES ROUNDUP

PASSENGER RAIL PROJECT PROGRESS

In late February thousands of people lined railroad tracks and gathered at shuttered stations all across the Gulf Coast from New Orleans to Jacksonville, Florida. They assembled to demonstrate their support for restoring passenger rail service along the Gulf Coast, which had been wiped out by Hurricane Katrina more than ten years ago. Businesses and schools closed early to allow a diverse crowd of people, rich and poor, young and old, from cities large and small, to assemble and watch an Amtrak inspection train pass by carrying the FRA Administrator, civic and local leaders. They held signs proclaiming, "We need passenger rail back on the Gulf Coast." This is proof that not just a handful of true believers are interested in restoring and improving passenger rail for nostalgic reasons. It is, "We the people."

Congress has been somewhat responsive to the pleas of constituents from across the country. On December 4, 2015, President Obama signed into law the Fixing America's Surface Transportation Act of 2015 (FAST Act), authorizing intercity rail passenger investment programs for five years: \$1.45 billion for Amtrak, \$98 million for rail infrastructure and improvements, \$82

million for rail state of good repair, and \$20 million for rail restoration grants.

However, Congress did not appropriate any additional funding for passenger rail in FY 2016 beyond the flat-funding of Amtrak at \$1.39 billion (\$288.5 million operating, \$1.1 billion capital). President Obama's recently-proposed FY 2017 budget includes substantial increases to high-speed and passenger rail funding sources. The budget proposal includes raising the funding level from \$1.39 billion to \$2.32 billion. But like most proposals from President Obama, the FY 2017 budget is expected to meet staunch resistance in Congress.

As an advocacy organization, APTA must keep Surface Transportation Board (STB) members, state legislators and congressional representatives informed of the need for improved rail passenger service. What follows are brief discussions of the how states and local communities are getting involved in planning and implementing the investments needed to restore and improve intercity passenger rail services from around the country: Interstate Regional Planning

- Northeast Corridor (NEC) FUTURE – The public comment period for the Tier 1 Draft EIS ended

on January 30. The Draft EIS, prepared by a joint venture of AECOM and Parsons Brinkerhoff, encompasses the entire main corridor between Boston and Washington DC. Cost estimates for corridor improvements range from \$19.9 billion (No Build, 2014 dollars) to between \$64 and \$308 billion (Build alternatives, 2014 dollars). All the alternatives assume steel-wheel technology. These improvements range from maintenance of the existing infrastructure to next-generation 220 mph high-speed service using alternate corridor segments. The FRA is now tasked with identifying a Preferred Investment Program (Preferred Alternative) for analysis in the Tier 1 Final EIS and incremental implementation.

- The Southern Rail Commission (SRC), including representatives of the states of Louisiana, Mississippi, Alabama and Florida, has coordinated with Amtrak to study restored passenger service between the four states. The proposed service is marketed as Gulf Coast Passenger Rail. An Amtrak report published in December 2015 identifies two leading alternatives: 1) an extension of City of New Orleans national corridor service, which currently travels between Chicago and New Orleans, to Jacksonville and Orlando,

Florida; and 2) state supported service between New Orleans and Orlando. Amtrak's Crescent service between New York, Washington, Charlotte, Atlanta, Birmingham and New Orleans would connect at New Orleans. Amtrak's Sunset Limited would also connect at New Orleans. Amtrak's Silver Service/Palmetto and Auto Train would connect at Jacksonville. SCR has prioritized three additional, unfunded Southern regional passenger rail routes, including:

The I-20 Corridor between Dallas, Shreveport, Jackson (MS) and Meriden; Baton Rouge—New Orleans; and Birmingham—Montgomery—Mobile.

The Southwest Multi-State Rail Planning Study was the very first high-performance rail (HPR) network planning study led by the Federal Railroad Administration (FRA). FRA initiated the Southwest study concurrent with its national planning effort to develop a toolkit for the conceptual planning of HPR networks at the multi-state and megaregional level. The toolkit included the development of a CONceptual NETwork Connections Tool (CONNECT) that helps analyze the performance of HPR corridors and networks. The Southwest study was a test case for the guidelines, tools, and performance standards developed as part of FRA's national planning effort. The Southwest region was selected as the setting for the first, and prototype, multi-state rail planning study due to the longstanding interest in the development of rail services by the region's states and localities as evidenced by the creation of the Western States High-Speed Rail Alliance. The Alliance exists for the purpose of determining the viability of developing and promoting a HPR network throughout the Rocky Mountain region with eventual connections to the Pacific Coast and other regions of the United States. Parsons Brinckerhoff and Steer Davies Gleave prepared the Southwest study for FRA.

The success of the Southwest study has led FRA to initiate other multi-state

regional planning studies in the Midwest and Southeast. The plans will unite state rail planning in these regions, foster multi-state coordination, and provide a framework for interstate and inter-regional passenger service planning. FRA will soon announce its selected consultant teams for these multi-state passenger rail studies.

State Updates

Alabama – Last year we highlighted the 2013 feasibility study for service between Birmingham and Montgomery. The proposed line between Birmingham - Montgomery would only connect with the proposed Gulf Coast should that line be extended from Montgomery to Mobile. The state continues to publicize the project and include it in the State Rail Plan.

Arizona – The FRA Southwest Multi-State Rail Planning Study examined connections to California from Phoenix. Caltrans is considering adding those connections to its future vision of passenger rail improvements in its 2018 California State Rail Plan update. Arizona DOT (ADOT) has been working closely with the FRA and local governments and planning organizations in Maricopa, Pinal and Pima counties on evaluating Phoenix – Tucson passenger rail service. To support that effort, a Draft Tier 1 Environmental Impact Statement has been prepared. The decision to pursue the alternatives in the Draft Tier 1 EIS came not only from technical evaluations, but was also largely based on public and agency comment. During the last four years of the study, more than 10,000 people across Arizona have completed surveys to weigh in with their ideas of which routes best served their communities. The proposed passenger rail line will be designed as a blended service: An express service would have few stops

between Tucson and Phoenix, and a local service would stop at several communities along the way. There is currently no construction schedule and no funding identified for a project to build a rail system between Tucson and Phoenix. It will be up to the public and policymakers to decide if the project is feasible and how to generate the funding to pay for the project. The Final EIS is anticipated to be completed by Spring 2016. AECOM, HDR, Jacobs, and Parsons Brinckerhoff helped prepare the Draft EIS.

Arkansas – The Arkansas State Highway and Transportation Department (AHTD) is studying the feasibility of new passenger rail service between Little Rock and Memphis. AECOM is currently assisting AHTD in preparing the alternatives analysis. The consultant team recently completed rail simulation modelling results. Once they are approved, the alternatives analysis will be completed and public meetings will be scheduled for comments. Shortly thereafter the Service Development Plan (SDP) will be prepared. The study should be completed by Thanksgiving 2016.

California – California has a long history of intercity passenger and high-speed rail project development and implementation. SPEEDLINES has regularly carried informative articles about the projects in California. And this issue is no exception. Since last year, the management of the three state-supported intercity services shifted from Caltrans to local Joint Powers Authorities. Ridership continues to grow as service is improved and on-time performance increases. Construction has begun on the high-speed train system in the Central Valley and the California High-Speed Rail Authority just

issued its draft 2016 Business Plan that shifts the emphasis from crossing the Tehachapi Mountains to gain access to the Los Angeles basin to completing the linkages between San Francisco and Bakersfield. (See California High-Speed Rail Update).

Caltrans has initiated an update of the State Rail Plan. The State Rail Plan will include a chapter on the 2040 vision for rail services in California. The passenger rail vision would encompass developing a more coordinated service delivery strategy using network integration and timed transfers at regional hub stations. The network integration work is being completed and the draft vision will be presented to the ad hoc Rail Operators Working Group in April.

Colorado - The big news in Colorado is the 23-mile electrified University of Colorado A Line connecting Denver will open on April 22, 2016, providing fast, frequent and reliable connections between downtown Denver, Denver International Airport, and the many communities along I-70. The integrated commuter rail line will have connections at Denver Union Station to Amtrak and the C, E and W light rail lines, the G and B commuter rail lines later this year and local and regional buses. The train to the plane makes international connections easier too. The other big news is \$46 million in TIGER grants over the past two years has funded 80 miles of track improvements and replacements that allow Amtrak's Southwest Chief to increase speed to 79 mph. The track renewal will yield more than an hour in time savings for the train, freeing schedule time to permit considering a new stop in Pueblo. As the Front Range of Colorado continues to grow into a linear economic region from Fort Collins to Pueblo with increasing traffic congestion throughout, more people are convinced that passenger rail services would help alleviate traffic congestion and improve air quality. The Colorado Department

of Transportation (CDOT) Division of Transit & Rail and the FRA completed the Interregional Connectivity Study (ICS) in 2014. Although neither a preferred alignment nor a preferred technology has been identified, CDOT still actively publicizes the project. And improvements to the Southwest Chief and the introduction of the University of Colorado A Line train will certainly aid the cause.

Connecticut - On December 4, 2015, Governor Dannel P. Malloy announced an agreement with Amtrak to complete the New Haven, Hartford and Springfield rail project. The guaranteed agreements include cost ceilings and a clear timetable for work completion. The new service called the CT Rail Hartford Line (Hartford Line) will connect with existing Metro-North commuter rail and Amtrak Acela high-speed rail services on the New Haven Line to New York and on the Northeast Corridor to New London and Boston. The goal of the Hartford Line is ambitious – to provide those living, working or traveling between New Haven, Hartford and Springfield with high-performance rail service equal to the nation's best rail passenger service. The completed Hartford Line will triple the number of trains between New Haven and Hartford and double the service between Hartford and Springfield. The program is now in construction and work is progressing rapidly. Four station projects are in construction and due to be completed prior to the launch of service, while critical fiber optic signal cable and communication nodes are installed along the corridor to power a brand new signal system including Positive Train Control. Every weekend, centuries-old and undersized culverts and drainage structures are replaced. The roadbed is currently being excavated for the second track. Construction is scheduled to be completed and trains are expected to start rolling in January 2018.

Florida – The most exciting news is the All Aboard Florida "Brightline" branded

project is under construction. The initial Phase I of the new passenger rail service is located along the 66.5 miles of the Florida East Coast Railway (FEC) corridor connecting West Palm Beach, Fort Lauderdale and Miami, and includes three stations and associated infrastructure improvements. FRA issued a Finding of No Significant Impact (FONSI) for the initial Phase I of the Project on January 30, 2013. AECOM prepared the Environmental Assessment for Phase I. Stations in Miami, Fort Lauderdale and West Palm Beach are in various phases of design and construction. Miami Central has been under construction since the beginning of 2015. All Aboard Florida demolished the existing building located on the future downtown Fort Lauderdale station site. Site clearing occurred, and since early this year, underground foundation work has been underway. All Aboard Florida demolished the existing buildings located on the downtown West Palm Beach station site. To-date, the first round of piling work has been completed. All Aboard Florida has been examining the Phase II extension to Orlando resulting in a 235 mile intercity passenger rail service with a three-hour anticipated travel time between Miami and Orlando. A Draft EIS was initiated for Phase II of the Brightline project in April 2013 and was completed on September 19, 2014. The document analyzed the cumulative effects of both phases of the Brightline project since train operations will cover the full corridor between Miami and Orlando. The FRA issued the Final EIS on August 4, 2015. VHB prepared the EIS documents.

Georgia – The Georgia Department of Transportation (GDOT) is studying two passenger rail corridors. GDOT is preparing a Tier I Environmental Impact Statement (EIS) to evaluate

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merica has looked enviously upon the development of high-speed rail routes elsewhere in the world, particularly Japan. The country with among the highest car ownership and some of the busiest roads in the world realized, perhaps late, that alternative forms of transport would be needed to cope with the continued demand for fast, efficient long- and short-distance journeys.

the general environmental and related impacts of constructing and operating proposed high-speed ground transportation (HSGT) between Atlanta and Chattanooga for the FRA in cooperation with the Tennessee Department of Transportation (TDOT). An Administrative Draft of the EIS has been reviewed by the FRA and the consultant team led by AECOM is still addressing FRA review comments.

In addition, GDOT is preparing the Atlanta to Charlotte Passenger Rail Corridor Investment Plan (PRCIP). This is an extension of the Southeast High-Speed Rail Corridor (SEHSR), which is under development from Charlotte to Washington, D.C. The extension from Charlotte, would travel southeast through portions of South Carolina and into Atlanta. HNTB prepared a draft alternatives development report and submitted it to GDOT and FRA in October 2015 as part of the PRCIP study process.

Illinois – The \$1.5 billion Chicago-St. Louis project is nearing completion. The project included replacing about

183 miles of track and building several new train stations along the Amtrak Lincoln Service line. With all construction set to be completed in 2017, the trip will soon be an hour shorter than current trips, with a total of eight trains a day. The project, funded from a federal grant, includes improvements that allow trains to travel at 110-mph. Riders are already reaping some of the benefits. Currently, trains are running up to 110 mph from Dwight to Pontiac and will have the same capability from Joliet to Carlinville once construction is completed later this year. Construction of the new \$3.2 million station at Dwight commenced in August 2015 and the City of Alton will take bids on the construction of their new multimodal transportation center on March 16, 2016.

The Midwest High-Speed Rail Association has proposed the CrossRail program of interrelated projects in Chicago that would electrify Metra's Milwaukee West Line from Union Station to just south of O'Hare International Airport (ORD). The line then would travel north to the airport

along Canadian National right-of-way, stopping at a station that would be built as part of O'Hare's new car-rental facility, which now is just a people-mover ride away from the terminals. Mayor Rahm Emanuel of Chicago announced his administration's intention of linking Chicago's downtown and O'Hare International Airport by way of a new high-speed express rail service similar to the CrossRail program originally championed by predecessor Richard M. Daley. The city has selected firm WSP/Parsons Brinckerhoff to conduct the first phase of the engineering and feasibility study.

Indiana – The July 2015 issue of SPEEDLINES contained an article written by Venetta Keefe, Senior Rail Planner, Indiana DOT (IndOT) discussing their innovative public/private partnership involving Iowa Pacific managing the Hoosier State service on the 196-mile corridor between Indianapolis and Chicago. The Iowa Pacific Railway furnishes rolling stock and on-board service personnel. The train is operated by Amtrak and the service is subsidized

by Indiana. New amenities for riders are part of the deal negotiated by InDOT. Among them is the dome car, which features a glass, domed ceiling and booths where people can take in the view. The train also has a dining car, which offers hot breakfast and dinner, depending on the time of day. The food is prepared fresh by the train's chef.

Iowa - The Chicago to Quad Cities project is in limbo. Although a \$6.2 million preliminary engineering study and environmental impact statement is underway through the Iowa Department of Transportation and is expected to be completed sometime later this year, there has been a change in tone. Cost estimates for the Iowa segment of the project have grown to about \$125 million. The 2010 federal grant would cover about \$53 million, leaving a \$72 million shortfall, according to Iowa DOT reports. The current Governor of Iowa is not a proponent of the project. There is support by the Iowa DOT to complete preliminary engineering and get the project defined and environmentally cleared.

Louisiana - The Southern Rail Commission recently released a briefing book on passenger rail opportunities between Louisiana's two largest cities: New Orleans and Baton Rouge (September 2015). The analysis recommends startup service with twice-daily round trips between the two cities. This study was completed by Transportation for America and the Center for Planning Excellence. While no funding has been identified, the corridor continues to be actively publicized by rail advocates in the state. And of course, the Amtrak Gulf Coast service restoration report and inspection train trip from New Orleans to Jacksonville highlighted the latent demand for passenger rail service along the Gulf Coast as crowds welcomed the inspection train at scheduled station stops along the way.

Maine - The Downeaster is a 145-mile regional passenger train service, managed by the Northern New England Passenger Rail Authority (NNEPRA)

created by the State of Maine and operated by Amtrak. Named for the Down East region of Maine, the train runs from North Station in Boston, Massachusetts to Brunswick, Maine, with 10 intermediate stops. The train operates five daily round trips between Portland and Boston, two of which continue to Brunswick. The proposed Downeaster extension to Lewiston - Auburn now has funding for the study and the affected municipalities are putting together a work plan.

Maryland - Amtrak, in partnership with the Maryland Transit Administration (MTA), has made over \$9.5 million worth of improvements at Baltimore Penn Station in the last four years delivering new restrooms, improved platform lighting, plaza enhancements, passenger information displays throughout the station and other safety and security measures. An additional \$4 million worth of projects are underway or in design. MTA also is planning upgrades to the Amtrak/MARC station at BWI Airport along with several other projects along the Washington-Boston Northeast Corridor within the state. The projects will make Amtrak and MARC trains in the area more reliable as well as allow more trains to pass through the overcrowded rail corridor. The project will reconfigure the station to have four mainline tracks, each with access to a platform. It will also include a nine-mile fourth track that will run alongside the existing ones, and a new station building with a larger waiting room. An Environmental Assessment was completed in May 2015. Preliminary engineering has commenced.

Massachusetts - The Massachusetts Department of Transportation and the Vermont Agency of Transportation, in collaboration with the Connecticut Department of Transportation, are conducting

an alternatives analysis and feasibility study to examine the opportunities and impacts of more frequent and higher speed intercity passenger rail service on two major rail corridors known as the Inland Route and the Boston to Montreal Route. The study of these two rail corridors has been designated the Northern New England Intercity Rail Initiative. HDR is conducting the alternatives analysis. Public meetings were held in September 2015 and the final report should be issued in early 2016.

Michigan - In our last edition of SPEEDLINES, Tim Hoeffner of Michigan DOT (MDOT) gave an update of how they were upgrading the Chicago - Detroit/Pontiac corridor for improved speeds and additional daily departures. Their goal is to increase daily departures from three trains each way to ten and cut Chicago - Detroit trip times from 5.5 hours to 4 hours. FRA in partnership with MDOT, Illinois and Indiana sponsored a Draft Tier I EIS for the Chicago-Detroit route. The Draft EIS was prepared with the assistance of a team of consultants led by HNTB. Currently, the consultant team is completing the combined Final Environmental Impact Statement (FEIS) and Record of Decision (ROD) for approval by the FRA. The Final EIS/ROD is targeted for completion by mid-2016. The Service Development Plan is also underway and will be completed by late 2016.

MDOT purchased a 135 mile segment of the Chicago-Detroit/Pontiac corridor between Kalamazoo and Dearborn from the Norfolk Southern in 2012 and is actively upgrading this segment to increase speeds to 110 mph and operating reliability. The western section from Kalamazoo to Battle Creek was upgraded in 2014 and will be ready for a speed increase to 110 mph once dispatching is transferred to Amtrak. The next section between Battle Creek and Jackson

will be rehabilitated during the 2016 construction season using TIGER V funding. The section between Jackson and Ypsilanti is currently scheduled for 2017 rehabilitation. The eastern end from Ypsilanti and Dearborn received a new double track along with other upgrades in 2015. Additionally, fiber optic cables, wayside signals, signal houses and crossing gates have been upgraded throughout the corridor. Quandel Consultants is providing project management and design engineering services to MDOT in support of this work. The 97-mile segment between Porter, Indiana to Kalamazoo, Michigan already features train speeds up to 110 mph.

A study was conducted and completed examining the feasibility of operating passenger trains between Holland - Grand Rapids - Lansing - Ann Arbor - Detroit. The "Coast to Coast" passenger rail feasibility study was prepared by TEMS. The study found establishing basic 79 mph service on the 186-mile route through Ann Arbor and Howell would require an annual subsidy of about \$3 million and an upfront investment of \$130 million. However, establishing 110 mph service would require greater capital investment but it would yield higher ridership that would allow the service to recover its operating costs and in fact could generate \$12 million in annual profits on the route through Ann Arbor and Howell.

A proposed passenger rail project linking Traverse City to Ann Arbor - Detroit is being advocated by the Michigan Land Use Institute, who hopes to make that dream a reality. The Traverse City-based nonprofit is spearheading a campaign to explore passenger rail service on an approximately 240-mile stretch of track between the two cities — an "A2TC" initiative that's generated interest and discussion.

There are ongoing discussions across the river from Detroit about Toronto-London-Windsor high-speed rail. A

recent article about Ontario passenger rail highlighted stakeholder interest in a Montreal - Toronto - Windsor/Detroit - Chicago corridor. The provincial government should consider linking any potential high-speed rail in Ontario to cities in the Midwest United States, according to president and CEO of the Windsor-Essex Regional Chamber of Commerce.

Minnesota - There are two passenger rail projects advancing through project development in Minnesota. The Northern Lights Express (NLX) is a proposed passenger rail project between Minneapolis and Duluth. The Tier 1 EIS was completed by Kimley - Horn/SRF. A Finding of No Significant Impact was signed by FRA in 2013. During the summer and fall of 2015, the Minnesota Department of Transportation and its consultant team led by Quandel Consultants worked diligently to analyze station and facility site locations, forecast ridership and revenue, and identify an optimal service plan for the NLX Project. On December 16, 2015, the Minneapolis-Duluth/Superior Passenger Rail Alliance, in conjunction with the Minnesota and Wisconsin Departments of Transportation, announced project details. The preliminary estimate of the total cost to implement the NLX Project is between \$500 and \$600 million. This includes stations, equipment and the necessary track and roadway grade crossing improvements to provide reliable, daily, high-speed intercity passenger rail service. Previous cost estimates approached \$1 billion dollars. The NLX passenger rail service will operate on 152 miles of existing BNSF Railway track between Minneapolis and Duluth with an operating plan of four round trips per day at speeds up to 90 miles per hour with an end-to-end travel time of approximately 2 ½ hours. These preliminary project and operating cost estimates will be updated and a final benefit-cost analysis will be prepared upon

completion of cost-sharing discussions with BNSF. MnDOT is also proceeding with the completion of preliminary engineering, Tier 2 Project Level environmental review, and a Financial and Implementation Plan. By early 2017, the NLX Project will be shovel-ready.

The second project is the Rochester - Twin Cities Rail Corridor (Zip Rail), which is an approximately 100-mile corridor located between Rochester and the Minneapolis/St. Paul. Currently, the Minnesota Department of Transportation (MnDOT) and Olmsted County Regional Railroad Authority have suspended the study. MnDOT also announced that it has issued permits to the North American High Speed Rail company, which will begin a feasibility study in the near future for a high speed rail line in southeastern Minnesota.

Mississippi - Mississippi is a member-state of the Southern High-Speed Rail Commission, which has envisioned a high speed rail service operating along the Gulf Coast. The Gulf Coast Corridor runs from Houston to Atlanta. The Corridor travels east through Baton Rouge to New Orleans, Biloxi and finally Mobile. A line runs north from New Orleans to Atlanta. The line between New Orleans and Atlanta via Meridian and Hattiesburg would use the Norfolk Southern Railway's mainline. A leg of this service would operate along the Gulf Coast between New Orleans and Mobile on the CSX Transportation mainline. A feasibility study was completed in 2006. This passenger rail project is still in the State Rail Plan despite not identifying how this project will be paid for. The Amtrak inspection trip generated great excitement and enthusiastic support for the restoration of passenger rail service between New Orleans and Jacksonville.

Missouri - Amtrak service is provided in Missouri on two long distance

routes – the Southwest Chief and Texas Eagle - and two regional routes - the Missouri River Runner and Lincoln Service. The state provides about \$8 million annually to operate the Missouri River Runner. Amtrak ridership in Missouri has grown 46 percent in the last five years. Recommendations to improve Missouri's passenger rail service are part of a greater plan to improve travel within the Midwest region and are outlined in the State Rail Plan prepared by HNTB. Missouri received more than \$53 million in federal grants for improvements on the route between St. Louis and Kansas City. Missouri is participating in the Midwest NextGen equipment procurement for new locomotives and passenger rail equipment assigned to the Missouri River Runner service. The improvements have resulted in a 78 percent increase in ridership and 92 percent customer satisfaction.

Montana - Amtrak completed an analysis of the restoration of passenger rail through the southern part of Montana for the Montana Department of Transportation (MDT). The Amtrak study examined two segments. The first is between Sandpoint, ID and Williston, ND and is limited to a track analysis and outlines improvements that would be needed to make the railroads ready to carry passenger rail. The second part of the study provided more detailed analysis along the most populous segment of the same route, between Billings and Missoula, MT. This study considered investments, timetables and ridership. The Amtrak study was intended to help inform further planning and policy development in regard to the restoration of passenger rail service through Montana's populous southern corridor. Amtrak recommended state policymakers determine if passenger rail service should be developed along this southern route and if so, identify funding for capital and operating expenses. Rail advocates continue to press the state for the new southern route. Their goal is to restore the North Coast Hiawatha route across southern and central Montana, possibly from

Glendive, Miles City, Billings, Livingston, Bozeman and Helena to Missoula. But no funding exists to restore the service or provide for continuing operating subsidies, but interest remains high.

Nevada – There are many proposals to improve passenger rail service in Nevada. Some include private enterprise such as the Las Vegas Railway Express (X-Train) conventional speed entertainment-themed passenger rail project between Los Angeles and Las Vegas and the XpressWest high-speed rail project connecting Las Vegas to the California high-speed rail system at Victorville. The X-Train is still seeking private financing to start services on a new route alignment that avoids heavily congested UP routes.

XpressWest completed an environmental impact statement and received a Record of Decision. With all required federal right-of-way approvals in place and having received the necessary licensing and approvals to construct and operate a high-speed train, XpressWest only needed to secure the funding to construct. XpressWest has been unable to secure adequate private investors in the United States or a \$5.5-billion federal loan. However, it has formed a partnership with China Railway International USA, a consortium led by China Railway, the national railroad of the People's Republic of China. China Railway International stated that it would provide initial capital of \$100 million. Project officials say they are confident construction could begin as early as September 2016. Chinese officials now describe the project as a 230-mile route with an additional stop in Palmdale and eventual service through to Los Angeles using some of the same track that would eventually be used by the publicly backed California high-speed rail project. Additional permits, approvals and environmental analysis would be needed for the proposed segment from Victorville to Palmdale and Los Angeles.

With the California High-Speed Rail Authority reprogramming its construction schedule to emphasize the connection between San Francisco and the Central Valley, the more difficult crossing of the Tehachapi Mountains and additional environmental studies would be an additional obstacle for XpressWest and the Chinese.

New Hampshire - The New Hampshire Department of Transportation (NHDOT), working in concert with its counterparts in Massachusetts with support and funding from the Federal Railroad Administration (FRA) and Federal Transit Administration (FTA), completed the Capitol Corridor Rail and Transit Alternatives Analysis (TAA), which examined passenger rail service between Boston and Concord, NH with a potential extension to Montreal. The study consultant was AECOM. The study evaluated a diverse set of rail and bus options for improving connectivity in the corridor by leveraging existing transportation infrastructure and integrating transportation and land use planning. The study found the need for this passenger rail service has been growing for decades along the 73-mile corridor. A series of recommendations have been made. According to the analysis, the Manchester Regional Rail alternative serving two stations in Nashua, one in downtown Manchester and one at the Manchester-Boston Regional Airport would offer the greatest economic benefit with moderate construction investment. Currently, NHRTA and rail expansion supporters are currently urging the New Hampshire legislature to provide \$4 million in funding for completing the critical project development phase, which is the next logical step in the NH Capitol Corridor Project.

This essential phase of the project consists of developing a detailed financial plan, final engineering, and preparation of funding applications for submission to the Federal Transit Administration and Federal Rail Administration.

New York - New York is developing plans to strengthen its rail passenger system by providing higher speed passenger rail within the Empire Corridor between Buffalo and New York City. Adding to the appeal are anticipated improvements in on-time performance and reliability resulting from investments in this 463-mile rail corridor between New York City and Buffalo/Niagara Falls. As part of the program of improvement projects on the Empire Corridor, New York State Department of Transportation (NYSDOT) is investing in train stations: either building new ones or refurbishing old stations along the 319 miles of track between Albany-Rensselaer and Niagara Falls – everywhere, it seems, except downtown Buffalo. Utica's century-old Union Station has undergone \$10 million restoration work since 2004. NYSDOT took bids to construct a new \$15 million passenger station in downtown Schenectady. Construction of the station is expected to start about the time double tracking between Albany and Schenectady is completed. The long-delayed double tracking project will reduce travel time between the two cities and improve service on Amtrak's Empire Corridor. The new train station, which will be owned by Amtrak, is expected to open in early 2018. It will replace the aging, cramped station off Erie Boulevard whose utilitarian design is a far cry from the former Union Station that was demolished four decades ago. The design of the new station was inspired by the aesthetics and architecture of the former Union Station, which was built in 1910. Farther up the rail line in Rochester, a new \$30 million train station – with a brick and stone facade and high arched windows – is also expected to open in 2017. And that's also when a new \$28 million station

will open in Niagara Falls.

Governor Cuomo unveiled a proposal to transform Penn Station and the historic James A. Farley Post Office into a world-class transportation hub. The project, known as the Empire Station Complex, will feature significant passenger improvements, including first-class amenities, natural light, increased train capacity and decreased congestion, and improved signage to dramatically enhance the travel experience. The project – which is anticipated to cost \$3 billion – will be expedited by a public-private partnership in order to break ground this year and complete substantial construction within the next three years. This proposal will fundamentally transform Penn Station for the 21st century.

The Gateway Program is a proposed set of strategic rail infrastructure improvements designed to improve current services and create new capacity that will allow the doubling of passenger trains running under the Hudson River. The program will increase track, tunnel, bridge, and station capacity, eventually creating four mainline tracks between Newark, NJ, and Penn Station, New York, including a new, two-track Hudson River tunnel. The program also includes updates to, and modernization of, existing infrastructure, such as the electrical system that supplies power to the roughly 450 weekday trains using this segment of the Northeast Corridor, and rebuilding and replacing the damaged components of the existing, century-old Hudson River tunnel, which was inundated with sea water during Super Storm Sandy. By eliminating the bottleneck in New York and creating additional tunnel, track, and station capacity in the most congested segment of the NEC, the Gateway Program will provide greater levels of service, increased redundancy, added reliability for shared operations, and additional capacity for the future increases in commuter and intercity rail service.

The Gateway Program is still in the planning and design phase. A new Gateway Development Corporation will be created to oversee the project. Fifty-percent of the funding for the Gateway project will be provided by the federal government and by the states of New York and New Jersey will equally share the other fifty-percent.

North Carolina – North Carolina Department of Transportation (NCDOT) has been managing oversight of the Piedmont Improvement Program (PIP). The PIP includes a program of interrelated projects designed to increase train frequencies by adding up to two daily passenger train round trips between Raleigh and Charlotte –allowing a total of five round trips daily. Along with increased frequencies other improvements are designed to increase train operating speeds. These projects are largely funded through federal stimulus money from the American Recovery and Reinvestment Act. (ARRA). The program of interrelated projects includes adding 31 miles of double track, 12 grade-separations, closing 23 public and 15 private railroad crossings, renovating train stations in Cary, High Point, Burlington and Kannapolis. PIP will be complete in early 2017. Separately, NCDOT and the City of Raleigh, with assistance from GoTriangle, are building a new Raleigh Union Station. Scheduled to open in 2017, the new passenger rail station will replace the existing Amtrak Station on Cabarrus Street, which routinely experiences overcrowding and lacks the adequate platform size to serve longer trains. Raleigh Union Station has been contemplated in planning documents since the 1990s and is a significant component in the City's draft Downtown master plan. Raleigh Union Station is anticipated to stimulate additional development in the city's Warehouse District on the west end of Downtown.

The FRA, NCDOT and the Virginia

Department of Rail and Public Transportation completed the Southeast High-Speed Rail Tier II Final Environmental Impact Statement (FEIS) Raleigh to Richmond study in September 2015. Comments received on the document will be addressed in the Record of Decision (ROD), which is anticipated to be completed in early 2016. Michael Baker and Hatch Mott McDonald helped prepare the EIS documentation. The Southeast High Speed Rail Corridor (SEHSR) was designated by Congress as running from Washington, DC through Richmond, VA and Raleigh, NC to Charlotte, NC, with maximum speeds of 110 mph. It is part of an overall plan to extend service from the existing Northeast Corridor (Boston to Washington) to points in the Southeast.

Oklahoma – The Texas-Oklahoma Passenger Rail Study is an evaluation of a range of passenger rail service options in an 850-mile corridor from Oklahoma City to South Texas. Oklahoma Department of Transportation is an important partner in the study. The study is scheduled to conclude by the end of 2016 after the completion of a Tier I service-level environmental impact statement (EIS) and a service development plan. More details of this study are outlined under Texas as the Texas DOT is managing the study effort.

Oklahoma DOT also initiated a Tulsa – Oklahoma City Corridor Investment Plan to define, evaluate and prioritize future investments in the Tulsa-Oklahoma City Corridor. The planning effort will include an objective evaluation of passenger rail as a means of providing inter-city connectivity between Tulsa and Oklahoma City. This effort will focus on long-term needs for inter-city transportation and will complement other planning efforts


addressing regional and local transportation issues. Parsons Brinckerhoff was assisting Oklahoma DOT in preparing the Corridor Investment Plan. Since then, the privately-owned Iowa Pacific Railroad proposed operating the Eastern Flyer train between Oklahoma City to Tulsa. The Iowa Pacific Railroad services were to include a dome car, coaches and full meal service. This would be the first regular passenger service to Tulsa since 1967 and begin operating in 2015. Iowa Pacific said the start date would be further delayed, as both Oklahoma City and Tulsa considered efforts to facilitate rail service connecting the cities' downtowns.

Oregon – Update on state support for the Cascades corridor is highlighted under Washington.

Pennsylvania – Pennsylvania DOT (PennDOT), in cooperation with the FRA and Norfolk Southern, undertook the Keystone West High Speed Rail study in 2011 to identify and evaluate the feasibility of options to reduce passenger rail travel times and increase trip frequency—without hindering the important freight service that runs on the same tracks. The Feasibility Report and Preliminary Service Development Plan were approved by the FRA in 2014. As it is a conceptual-level study, additional detailed technical investigation, analysis, and design would be required before undertaking any of the recommended actions. Since then, the Western Pennsylvanians for Passenger Rail is pushing for increased service on the Pennsylvanian. They say there's enough demand to support three round trip trains a day between Pittsburgh - Harrisburg -Philadelphia - New York City. And they are looking at ways to increase service between Altoona and Pittsburgh. PennDOT is in discussions with Amtrak to increase the frequency to two daily round trips between Pittsburgh - Philadelphia – New York.

Texas – In the October 2014 issue

of SPEEDLINES, we highlighted the efforts of the privately-financed Texas Central Railway (TCR) working to bring high-speed rail service to the 240 mile Dallas-Houston corridor. In addition to terminal stations in each of the metropolitan areas, a middle station is being proposed in proximity to Bryan-College Station. The FRA released its Alignment Alternatives Analysis Report in November 2015 (<https://www.fra.dot.gov/Page/P0700>) The report identified the potential alignments that would be evaluated in the Environmental Impact Statement (EIS) TCR completed early corridor analyses that FRA independently evaluated. Subsequently, FRA has narrowed the focus of its environmental analysis to six potential alignments and the No Build alternative. AECOM is assisting TCR prepare the Draft EIS. While Dallas and Houston vocally support the project, opposition within the rural communities continues. Opponents of the project recently contacted the Japanese Ambassador to the United States to express their concerns regarding property rights, perceived adverse environmental and economic impacts, and the need for the project. Texas Department of Transportation (TxDOT) is evaluating an 850-mile corridor from Oklahoma City to South Texas. The Texas-Oklahoma Passenger Rail Study is commended in 2013 and is scheduled to conclude by the end of 2016. It will document the costs, benefits and impacts of potential rail service alternatives compared to a no-build alternative as part of a Tier I EIS and a service development plan. Both of these reports will document how passenger rail could serve Texas communities and the benefits and impacts of different passenger rail choices. The study will consider the corridor as a whole, as well as three discrete portions of the corridor including,



Oklahoma City to Dallas/Fort Worth; Dallas/Fort Worth to San Antonio and San Antonio to Rio Grande Valley/Corpus Christi/Laredo. CH2M Hill is conducting the study on behalf of TxDOT. The Lone Star Rail District (LSRD), in partnership with the Federal Highway Administration (FHWA) and TxDOT, is proposing a regional passenger rail service connecting communities along the I-35 corridor between the metropolitan areas of Austin and San Antonio. As envisioned, the Lone Star Regional Rail Project would span approximately 120 miles across several counties. Based upon previous studies, the purpose of the proposed project is to improve mobility, accessibility, transportation reliability, modal choice, safety and facilitate economic development along the I-35 corridor in central and south Texas. Burns & McDonnell is leading the consultant team preparing the draft environmental impact statement (EIS) on behalf of the LSRD. The Draft EIS will examine the effects of implementing regional passenger rail in the rapidly growing study area.


Virginia – Virginia has an active state-sponsored passenger rail program. The Commonwealth of Virginia presently invests in six state-sponsored trains that are an extension of the Northeast Corridor regional service: Lynchburg, which started in October 2009; a Richmond train, which began in July 2010; the extension of the Richmond train to establish the Norfolk route, which debuted in December 2012;

and the successful transition of two existing Amtrak routes originating in Newport News and two additional routes in Richmond in October 2013. Service to Roanoke, an extension of the highly-successful Lynchburg train, is among the most anticipated projects from DRPT. A public-private partnership with Amtrak, Norfolk Southern, the city of Roanoke and DRPT will bring intercity passenger rail service back to Roanoke for the first time in more than 34 years. The expected start date for Amtrak service to Roanoke is 2017. On October 23, 2014, FRA published a notice of intent in the Federal Register to prepare the Tier II EIS for the 123-mile portion of the SEHSR Corridor from Washington, DC to Richmond, VA. The environmental study area begins at the southern terminus of the Long Bridge over the Potomac River in Arlington, Virginia and continues south to Centralia, Virginia at the CSXT A-Line/CSXT S-Line junction. The environmental review process is expected to be completed in 2017, with a draft laying out final alternatives in 2016. Preliminary recommendations were presented at three public meetings in mid-December 2015. Those attending the open-house style meetings had access to maps showing areas in Northern and Central Virginia where the tracks could be straightened to increase speed. The presentations are available online.

Washington – Washington State has invested nearly \$500 million of its own funds in rail service, for both capital projects (\$228 million) and operating costs (\$271 million) along its portion of the 467-mile Cascades Corridor linking 18 cities in the Pacific Northwest from Eugene, OR north through

Portland and Seattle to Vancouver, B.C. In addition to state funding, Washington received \$800 million in federal high-speed rail funding to improve the Washington segment of the Pacific Northwest Rail Corridor (PNWRC), between Vancouver, WA and the Canadian border. The details of the project were reported on in SPEEDLINES #12 dated June 2014. The ARRA-funded Cascades high-speed rail program continues to make strides. Of the 20 federally funded projects, 13 projects are in construction and seven have been completed. Examples of the work completed include seismic retrofit and at Seattle's King Street Station, new tracks at various bottleneck sites and a rail trench along the Columbia River at the Port of Vancouver. Seattle's King Street Station underwent a nationally honored complete renovation, including lobby restoration and seismic upgrade. WSDOT held a pre-bid meeting on February 12, 2016, for contractors interested in learning more about the upcoming advertisement for construction of the new Amtrak Cascades Freighthouse Square Station in Tacoma.

Wisconsin – Wisconsin DOT is preparing an Environmental Assessment (EA) and Service Development Plan (SDP) in support of increasing Amtrak's Hiawatha Service between Chicago and Milwaukee from seven round trips to 10 round trips per day. Concept plans and capital cost estimates for the infrastructure improvement projects identified to accommodate the increase in frequencies are nearing completion. The EA is slated to be available for public comment during the summer of 2016. Public meetings will be held in Illinois and Wisconsin following the release of the EA. Quandel Consultants is assisting Wisconsin DOT in preparing the documentation and studies.



HSR ROI STUDY

HSIPR COMMITTEE UPDATE



The High-Speed & Intercity Passenger Rail Committee and the University of Illinois-Chicago kicked off the Return on Investment (ROI) Study on February 5, 2016. Participating in the initial meeting were the APTA Committee on High-speed and Intercity Passenger Rail Technical Oversight Team, APTA Staff and the University of Illinois at Chicago (UIC) Research Team.

The duration for the ROI study is about one year with a projected end date in February of 2017. The schedule will incorporate the “quarterly” meetings in 2016 with the HS & IPR project advisory committee as follows:

March 13th APTA Legislative Conference

June 11th at the APTA Rail Conference

September 11th at the APTA Annual Meeting

December 7th at the Rail Policy Forum

The Urban Transportation Center is UIC’s commitment to leveraging robust transportation systems to advance our communities. Looking out the windows of UTC’s offices you

see the amazing multi-modal network of transportation services that powers the modern economy - including the (under construction) initial line of the Midwest High-speed Rail Network. UTC has a strong track record in leading research projects related to public transportation and inter-city rail. The in-house research staff and affiliated faculty have expertise in systems planning, program evaluation, data development, and innovative funding and finance. UTC also boasts strong project management and communications abilities. UTC is a member of the NURail Center, as described in the following profile.

For this project, UTC is partnering with the Rail Transportation and Engineering Center (RailTEC) at the University of Illinois at Urbana-Champaign (UIUC), a sister campus to UIC. RailTEC is the largest railroad engineering academic program in North America with a legacy extending back over 120 years. The talented civil engineers at RailTEC are experienced in all aspects of planning and evaluating major rail projects. UIUC is one of very few universities to offer dedicated research and course offerings in engineering, planning and management of high-speed rail projects. RailTEC leads the National University Rail Center (NURail), the first multi-university collaboration to focus on rail industry research, education, workforce development and

technology transfer.

Economic Development Research Group, Inc. (EDR Group) is another partner in the study team. EDR Group is a consulting firm dedicated to applying state-of-the-art tools and techniques for evaluating economic performance, impacts and opportunities. The transportation work of EDR Group includes studies of the economic impacts of road, air, sea and railroad modes of travel, including economic benefits, development impacts and benefit/cost relationships. The firm specializes in (1) Research on investment benefit and productivity benefit measurement, (2) Planning studies including economic impact and benefit/cost assessment, and (3) Evaluation including cost-effectiveness implications. In the specific field of inter-city rail, EDR Group is distinguished by its role conducting benefit and economic impact studies for the California High-speed Rail Authority, as well as localized rail corridors for agencies in Georgia, New Hampshire, NY State, Canada and abroad.

The HS&IPR Committee is very appreciative of the organizations that have stepped up to sponsor this important effort. The results of the study will provide us with a powerful tool to make the policy argument for substantial public investment in a national high performance passenger rail program.

APTA RAIL CONFERENCE

PASSENGER RAIL SESSIONS

On June 18th through the 22nd, APTA will hold its Rail Conference at the Sheraton Grand Phoenix in Phoenix, Arizona. The High-Speed & Intercity Passenger Rail Committee will be kicking off meetings at 7 a.m. on Sunday, June 18th with the Regional Corridor sub-committee. Immediately follow the sub-committee meeting we will hold our full committee meeting, which will feature updates from a variety of committee members and the latest update on the Return on Investment Study commissioned by APTA and their partners.

In addition to our committee meetings the HS&IPR committee is chairing two sessions:

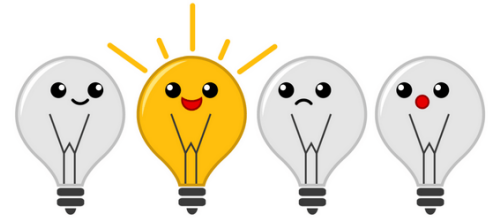
- **Intercity and High-Speed Rail Regional Corridor Development:** This session is an opportunity for our newest sub-committee the Regional Corridor Sub-committee to showcase how rail planning and operation is happening in regional corridors across the Country. Our Sub-committee Chair Darrell Johnson (CEO of Orange County Transportation Authority) will certainly put a fantastic panel together with regional intercity corridor experts.
- **International Lessons Learned in Intercity and High-Speed Rail and Application to the United States:** This session will continue our efforts to leverage our membership with UIC and with our other international APTA members. It will also be an opportunity for an update for projects and agencies around the U.S. Ken Sislak of AECOM will chair this session and has lined up the following participants:
 - o Michael Schabas, Partner, FCP Rail Consultants London England will give a presentation titled “GO Regional Express Rail - how we persuaded the Government to commit \$13 bn to a program that was not even in the pipeline; Implications for U.S. commuter rail operators, intercity and high-speed rail.”
 - o Eduardo Romo Urroz - President, Fundación Caminos de Hierro will give a presentation on the Introduction of HSR in Spain.
 - o Dr. Marc Klemenz - Deutsche Bahn will speak about network integration in Germany and Europe.

At the time of the publication of this issue of SPEEDLINES, the Rail Conference program was not published, so specific dates and times for these two sessions are not yet available, but once the program is published, keep your eyes open for these two great sessions. In addition to the two discussed above, there will be other sessions focusing on “Super Stations” and Transit-Oriented Development that should be relevant and interesting to our committee members.

So come to Phoenix and be part of the conversation and learn about the latest developments in high-speed and intercity passenger rail!

TRAINING

Build Your HSR Knowledge – Training Sessions Available



A training seminar on high-speed rail technics is being offered March 21-25 in Bakersfield, CA. The program is being organized by Eduardo Romo and the Fundacion patterned on the several Practicum organized in prior years by APTA and UIC. The Mineta Transportation Institute and the California High-Speed Rail Authority are among the sponsors of his program.

This Seminar is offering a comprehensive description of the fundamental concepts, methodologies and specialized tools involved in planning and the implementation of high-speed systems. The classes are delivered by international experts with broad experience in designing, building and operating high-speed systems. It's oriented to professionals starting or interested to start their activity in this field as well as to senior students.

Seminar structure 25 hours of classes. One opening session to introduce the basics of the systems and the current international development and trends delivered by a panel of experts and four days of classes by teachers specialized in various disciplines.

Topics include high-speed system main concepts, infrastructure and alignment, track components, mainline and stations, electrification, traffic control and signaling, modern construction techniques.

Additional information and registration can be found through this link: <http://www.hstcalifornia.com/Activities/HST-California-Bakersfield-March-2016/index.php/>

A similar program will be held in Cordoba, Spain in June 2016.

UIC will also be offering a Training Session on High-Speed Systems in Paris on April 18-23.

For more information go to: www.uic.org.



SHARE YOUR STORY

REACH OUT TO OUR COMMITTEE STAFF FOR YOUR CONTRIBUTIONS



NOTICE OF PROPOSED RULE MAKING AND PROPOSED POLICY STATEMENT

The Surface Transportation Board issued two decisions proposing definitions and policy guidance regarding passenger train on-time performance and preference. These Board decisions have far-reaching consequences. Public comments are being reviewed at this time. The proposed decision introduces a revised definition of passenger train on-time performance (OTP) and the policy statement changes the preference of passenger trains over freight trains. The proposed policy change alters 150 years of railroading protocol by allowing freight trains to have priority over passenger trains and contravenes Congressional intent.

The Notice of Proposed Rulemaking that provides a new definition of on-time performance is important to Amtrak's service because they have the right to file a complaint against the track owner if their OTP falls below 80 percent. The new definition would have only used the final destination to calculate OTP. There was a response filed by Amtrak and an overwhelming response from passengers and passenger rail advocacy groups suggesting the rule be revised to incorporate intermediate stops in the calculation of OTP.

The Proposed Policy Statement (PPS) that seeks to redefine 'preference' is still hanging in the balance. If approved this policy could effectively remove passenger trains preference over freight trains. This could reverse 150 years of railroading protocol and contravenes the federal law the country has had since 1973 providing preference to Amtrak passenger trains operating on the Class I railroads. This would be another blow to OTP and the quality of passenger rail service throughout the country. APTA is very concerned about the consequences of this proposed policy statement because it would impact all of Amtrak's long-distance and state-supported routes.

The Environmental Law & Policy Center submitted a detailed response with the support of several rail advocacy organizations. Karen Torrent, Federal Legislative Director of the Environmental Law and Policy Center, will present her reasoning behind the comments she filed on behalf of the ELPC et al at the High-Speed and Intercity Passenger Rail Committee meeting at the JW Marriott during the APTA Legislative Conference on Sunday, March 13 at 8:00 – 10:00 a.m.