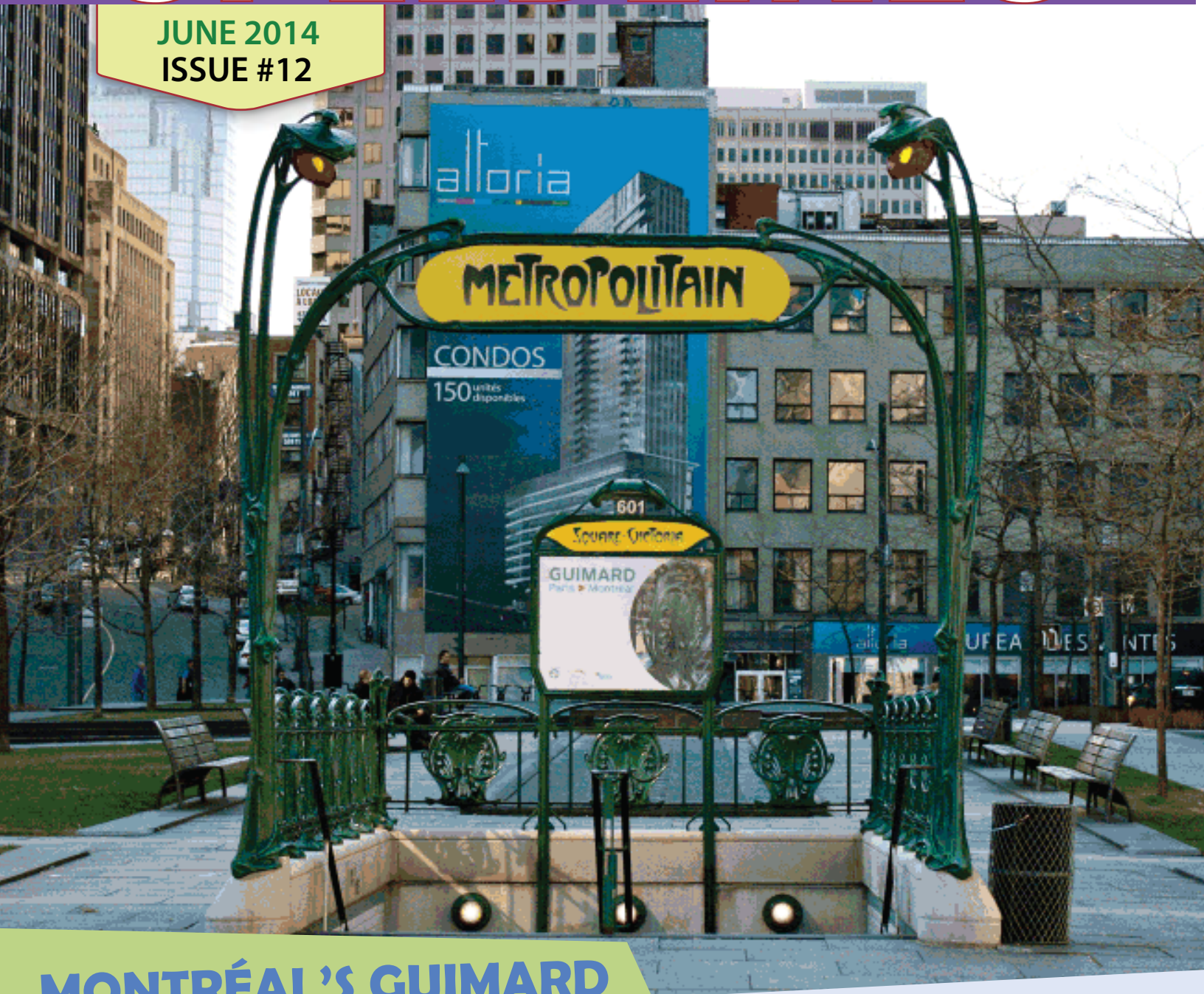


HIGH-SPEED INTERCITY PASSENGER RAIL

SPEEDLINES

JUNE 2014
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MONTREAL'S GUIMARD

Victoria Square is bisected by rue Saint-Antoine. Hector Guimard's Metro entrance to Square-Victoria Metro Station is seen in the foreground. Montréal's Guimard is the only authentic example of these world-famous art nouveau works in use on a metro station outside Paris. This portico was donated in 1967 by the RATP, the Parisian transit

authority, to the Montréal metro to commemorate the RATP's collaboration in the metro design. This shield-shaped medallions of iron, delicately curved sign holders, and "lily-of-the-valley" light standards with orange tear drop-shaped lamps is a true centerpiece.

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SPEEDLINES MAGAZINE



Beneath the skyscrapers, Montreal's downtown neighborhood offers grand civic spaces, high-end shopping, 30 concert halls and the world's largest underground complex. For a country so large, a system of rapid transportation has always been at the forefront of Canadian history. In this vast downtown subterranean center, it boasts one of the largest, cleanest and safest subsurface complexes in the world. A total 20.5 miles (33 kilometers) of pedestrian walkways run under Downtown, connecting metro stations. The beauty of the underground city, of course, is that it keeps locals and visitors out of the elements. If you live and work along the underground city tunnel route, there's no need to ever emerge from below. To some, that may seem a bit strange, but for Montrealers, who have to endure harsh winters, it's been a godsend.

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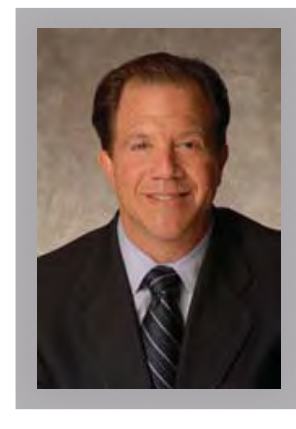
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When you register for the conference, be sure to visit the host information desk in the APTA registration area and pick up your complimentary transit pass valid for all STM and AMT services from Saturday, June 14th to Sunday, June 22nd.



FROM THE DESK OF DAVID KUTROSKY ■ ■ ■

Bienvenue à Montréal et l'APTA Conférence Ferroviaire. Welcome to Montreal and the APTA Rail Conference.

As I prepare to step down as Chair of the APTA High-Speed Intercity Passenger Rail Committee I have reflected on what we have accomplished together over the past several years. I am especially pleased that the APTA Board of Directors adopted our committee's recommendations for a High-Speed Intercity Passenger Rail Program (HSIPR) calling for a federal investment of \$50 billion in new revenues over six years to develop the high-speed intercity passenger rail system that would connect with Amtrak, commuter rail and transit systems. This program was subsequently incorporated by reference in APTA's Authorization Task Force Report. These principles, and the justification for APTA's \$50 billion ask, have been packaged in a nicely designed brochure that will be distributed at the Rail Conference.

APTA has fortified and strengthened its partnership with FRA over the last 2 years, which is exemplified through the Administration's recent GROW America Act legislative proposal. This program of investments in transportation infrastructure was unveiled at the rededication of the St. Paul Union Depot. The proposed GROW America Act would allocate \$19 billion over four years for high-speed and intercity passenger rail and \$70 billion for public transit. This proposal is a critical step forward. It shows that Washington is getting serious about fixing our broken transportation systems. We need to get Congress to pass it—but we can't do it without your support. The bill sets aside nearly \$5 billion per year for high performance and passenger rail programs "with a focus on improving the connections between key regional city pairs and high traffic corridors throughout the country," according to the U.S. Department of Transportation.

Rail is the mode of the future. It is sustainable, reliable and safe but it needs a solid, consistent sustained federal funding partner. We need to make the business case to advance this federal partnership in growing passenger rail in America and to increase the level of commitment from our federal funding partner. This is why the development of a work plan for the seminal Return on Investment (ROI) Benefits Analyses study is critically important. This study would help make the business case for investing in passenger rail. The APTA High-Speed Intercity Passenger Rail



montreal



Committee is continuing to seek funds from members and friends to match funds already pledged by APTA and other agencies and HSIPR supporters to advance HSIPR investment and then release the RFP. We need to redouble our efforts to secure sponsorship of this study.

In addition to building the business case for HSIPR, we need an effort to advance workforce development that would encourage a younger generation to join the struggle in advancing HSIPR services and programs around the country and to work on the committee.

This issue of SPEEDLINES includes articles providing a broad spectrum of what's happening in the continuing development of intercity passenger and high-speed rail programs throughout the United States and from around the world.

I look forward to seeing you at the High-Speed Intercity Passenger Rail Committee meeting on Sunday, June 15th at 8:00 a. m.

Merci pour votre travail acharné. Meilleurs voeux de succès! Thank you for all your hard work. And best wishes for continued success!

David B. Kutrosky

Chairman APTA High-Speed Intercity Passenger Rail Committee



MANHATTAN UNDERGROUND

AMTRAK ADVANCES CONCRETE CASING

Contributed by Petra Todorovich Messick, AMTRAK - Principal Officer - NY/NJ Development

*I*f you visit Manhattan's Far West Side this summer you will experience a neighborhood in transformation. Massive construction cranes, heavy equipment, lots of concrete trucks, trucks bringing building materials and hauling away rock and debris, are all part of the experience. No less than 24 million square feet of commercial and residential space are being planned and constructed throughout the district, along with new parks, the opening of a new station on the No. 7 subway line, and the planned transformation of the Farley Post Office into Moynihan Station. When complete, this new cluster of office buildings, residences, and amenities is likely to shift the center of gravity of Manhattan's central business district permanently westward.

Amidst this transformation is one construction project that may hold the key to the long term success of the district. Thirty-five feet below the surface, Amtrak's

contractor is drilling rock to excavate an 800-foot long trench, where a concrete casing is being built to preserve the underground right-of-way for two new rail tunnels under the Hudson River. The tunnel alignment through Manhattan is designed to connect directly to Penn Station as part of Amtrak's Gateway Program, a comprehensive program of rail investments that will double passenger rail capacity along the busiest stretch of the Northeast Corridor. Though still more than a decade away (the program's target completion year is 2030), when complete, the new tunnels serving Amtrak and NJ Transit passengers will provide much needed access from New Jersey and points south to the tens of millions of square feet of office space being built on Manhattan's Far West Side.

That the concrete casing construction could advance ahead of the larger, more complex Gateway Program is due to a convergence of events, including the disaster of Super Storm Sandy, in 2012-2013, which focused public and private

sector leaders on a rare opportunity to secure the rail tunnel alignment. The first challenge was the rapid advancement of Hudson Yards development project being constructed over the Long Island Rail Road West Side Yard. This project, which broke ground in December 2012, will include construction of 13 million square feet of commercial and residential space over the next decade, including buildings as tall as the Empire State Building. Unless a protective concrete casing is built now for the future rail tunnels, the opportunity to connect new Hudson River tunnels to Penn Station will be lost forever.

Amtrak planners were working with the Hudson Yards developers to develop a solution for preserving the Gateway alignment when Super Storm Sandy made landfall in New York City in October 2012. The two existing single-track Hudson Tunnels, already a major chokepoint on the Northeast Corridor, were inundated with over 3 million gallons of seawater, shutting down service on the





Above Left

Phase 1 of the concrete casing under construction in March 2014, looking east toward the Lerner Building.

Northeast Corridor. Though they have since been returned to service, the century-old tunnels now need a major rehabilitation and improvement initiative that will require a prolonged outage that will only be practicable after completion of new tunnels, due to the high daily volume of rail traffic. The long term effects of the salt water intrusion into the tunnels during Super Storm Sandy are currently under investigation.

Construction of Phase I of the concrete casing began in August 2013 with \$185 million in federal funding from the Disaster Relief Appropriations Act of 2013. With Phase I more than 50 percent complete in June 2014, Amtrak planners are now focused on advancing Phase II of the concrete casing with the same construction forces so that the entire Manhattan tunnel alignment can be protected from the Hudson River to 10th Avenue, where it connects with existing Amtrak infrastructure. If funded, the next construction elements would be from 11th Avenue to 12th Avenue, starting construction in the next year so that it can be completed before Long Island Rail Road's tracks, removed in Phase I, are restored in October 2015.



Center

Excavation underway for the concrete casing in April 2014.



Above Right

The western limit of Phase 1 at the 11th Avenue. The next phase will continue underneath the 11th Avenue viaduct.

Though the full Gateway Program is still years away, the rapid progress of the first phase of the concrete casing, from conception of the project in 2012, to design, to construction, bodes well for the second phase and for the replacement of the century-old tunnels. Amtrak planners are now focused on commencing environmental documentation for the new tunnels, which will initially replace the existing tunnels so they can be shut down for extensive repairs. It is only after the existing tunnels are rehabilitated and other elements of the Gateway Program are realized, such as doubling track capacity between Newark, NJ and Penn Station, New York, and expanding Penn Station to the south, that the full capacity benefits of the Gateway Program will be realized.

In the meantime, the task at hand is to secure a tunnel alignment through Manhattan that makes the Gateway Program possible in the future. Only with the continued cooperation of all the parties involved – the Obama Administration, Amtrak, the developer Related Companies, Long Island Rail Road, and others – will this heroic effort proceed. It is not an exaggeration to say that the economic future of the Far West Side – and the larger New York-New Jersey Region – depends upon it.

*Photography compliments of
Joe Rago, AMTRAK Deputy
Chief Engineer - Construction*

LEGISLATIVE NEWS



MAP-21 REAUTHORIZATION

Contributed by Jeffrey Boothe & Lauri Hettinger of Holland and Knight



On April 29, the White House released its draft four-year, \$302 billion surface transportation reauthorization bill. The proposal, which is called the GROW AMERICA Act (Generating Renewal, Opportunity, and Work with Accelerated Mobility, Efficiency, and Rebuilding of Infrastructure and Communities throughout America) does not offer specifics as to how its programs would be financed, but it does incorporate freight rail for the first time even though that idea has been rejected by Congress in the past.

The legislation provides \$199 billion for highways, \$72 billion for public transit, \$13.6 billion for “critical immediate investments,” \$4.8 billion for the Federal Railroad Administration (FRA), and \$1.3 billion for TIGER grants. Those figures stand in comparison to the \$80 billion for highways and \$21.3 billion for transit found in MAP-21, the current two-year transportation reauthorization law.

The Administration’s proposal also includes several policy

provisions. Among the notable changes is a requirement of the Department of Transportation (DOT) to set a schedule for the implementation of PTC (the FRA would be allowed to grant extensions in some cases). The bill would also allow railroads to petition for “alternative risk mitigation strategies” instead of PTC and seek “full rulemaking authority with respect to the hours of service of railroad employees presently subject to a new and complicated, but still deficient and unempirical statutory scheme.”

The proposal would require DOT to encourage “pay for success contracting” and create a requirement that construction standards “shall” consider all modes of travel in highway design (including pedestrian, bicycle, and public transportation).

The Senate Environment and Public Works (EPW) Committee reported S. 2322, the MAP-21 Reauthorization Act on May 15th. The bill represents a consensus reached by full committee Chairwoman Barbara Boxer

(D-CA) and Ranking Member David Vitter (R-LA), along with Highways Subcommittee Chairman Tom Carper (D-DE) and Ranking Member John Barrasso (R-WY). S. 2322 would be a six-year bill that would provide for infrastructure spending at current levels plus inflation. However, the proposal is not expected to include any funding mechanism, leaving that task up to the Senate Finance Committee. The Chairwoman has been meeting with Senate Finance Committee Chairman Wyden (D-OR) to discuss a range of ideas to fund the bill and recently testified before the Finance Committee’s hearing on the Highway Trust Fund.

The Senate Commerce, Science, and Transportation Committee (jurisdiction over highway safety and rail) is seeking to report its reauthorization legislation (safety and freight titles) and the Passenger Rail Investment and Improvement Act (PRIIA) reauthorization legislation sometime this summer. The Committee is planning to include a competitive multi modal freight grant program in its MAP-21 legislation which will be a combination of the PRNS and TIGER programs. The



Senate Banking, Housing, and Urban Affairs Committee (jurisdiction over transit) will hold off until the Senate Finance Committee reports a bill; however, the Committee has held several hearings on MAP-21 implementation and has begun drafting.

House Transportation and Infrastructure Committee Chairman Bill Shuster (R-PA) – has repeatedly said that he hopes to mark up a bill “sometime this spring, early summer.” His priorities for the bill include: public-private partnerships, streamlining, and freight.

Highway Trust Fund Shortfall

According to the Department of Transportation (DOT), the Highway Trust Fund Highway Account will encounter a shortfall on August 29, before the end of FY 2014. The Highway Account began FY 2014 with approximately \$1.6 billion in cash. A \$9.7 billion transfer from the General Fund to the Highway Account was processed shortly after the start of the fiscal year; however, the surface transportation program continues to outlay at a greater pace than receipts are coming in. The fund’s Mass Transit Account is expected to have a balance

of around \$1 billion at the end of FY 2014. The Mass Transit Account began FY 2014 with approximately \$2.5 billion in cash. A \$2 billion transfer from the General Fund to the Mass Transit Account was processed shortly after the start of the fiscal year. Secretary of Transportation Anthony Foxx said the figures are “tracking very closely to what we’ve been saying for months, which is come August or September we’re going to be in a hole.” He added, “And it just reaffirms what we’ve been saying all along, which is that this is a serious problem.”

Fiscal Year 2015 Appropriations

On May 7th the House Appropriations Subcommittee on Transportation, Housing, and Urban Development (THUD) marked up its bill, and the full Appropriations Committee reported the bill on May 21st with no changes in how funding was allocated. Key provisions in the House THUD Appropriations Bill are as follows:

Overall, the bill provides for \$52 billion in discretionary spending. This includes:

- 40.25 billion for federal

highways

- \$1.4 billion for the Federal Railroad Administration (FRA)
- \$10.5 billion for FTA
- \$1.7 billion for Capital Investment Grants – full funding for all transit projects with an FFGA
- \$150 million for Washington Metropolitan Area Transit Authority.
- \$100 million for TIGER for road, highway, and bridge construction and improvement, and port and railroad intermodal improvements; the legislation does not allow these funds to be used for transit projects, or bike and pedestrian paths.
- No money for high-speed rail

Across the Capitol, Senate Appropriations Committee Chairwoman Barbara Mikulski (D-Md.) confirmed that her panel would hold its first mark up on May 22. At that time, the committee will consider the Military Construction-Veterans Affairs bill. At this time, the Committee has not indicated the timeline for consideration for the Senate THUD Appropriations bill.



CALIFORNIA

WITH HURDLES AHEAD- HSR PROPONENTS REMAIN OPTIMISTIC

Contributed by David Cameron

Despite the challenges – court cases, STB decisions, escalating costs – full-fledged construction of the nation's first high speed rail system is set to begin in July 2014. Indeed, initial work has already begun with preliminary engineering, soil testing, right of way preparation and property acquisition for the first 29 miles from Madera to Fresno. The \$1 billion Design-Build Contract for this section, known as Construction Package 1 (CP-1) was won by Tutor Perini/Zachry/Parsons, a Joint Venture.

In April 2014, the Authority issued a Request for Proposal (RFP) to five world-class teams, inviting them to bid on the Construction Package 2-3 (CP 2-3) design-build contract. CP 2-3 extends in excess of 60 miles from Fresno south through the Central Valley and is estimated to bid between \$1.5 billion to \$2 billion. On May 7, 2014, the California High Speed Rail Authority Board unanimously approved the EIR/EIS for the 114 mile Fresno to Bakersfield section that includes CP 2-3.

The Challenges that Lie Ahead

As benefits a transformational project of this magnitude, a host of challenges – Federal, legal and, of

course, funding - lie ahead. None are insurmountable but all present significant hurdles for the Authority, the Governor and the President to clear.

Surface Transportation Board

In September 2013, the Authority requested an exemption from the Surface Transportation Board's (STB) laborious and time consuming prior approval process on the Fresno to Bakersfield segment. A denial will result in a time-consuming, costly delay because 4 of the 29 miles in CP-1 are part of the exemption being sought by the Authority. The STB had previously granted an exemption on just 25 of the 29 mile segment. If the STB does not grant the exemption, the Authority will have to renegotiate its contract with the Tutor Perini/Zachry/Parsons, a delay that will be costly.

Lawsuits

The Authority is facing several lawsuits. One resulted in a decision issued by Sacramento Judge Michael Kenny, who refused to validate the sale of Prop. 1A bonds needed to pay for the first phases of construction. Prop 1A, a state initiative passed by California voters in 2008, allocated \$9.9 billion in bonds to construct the HSR system. It contained

language allowing the sale of the bonds only if the State had identified a source for all the funds needed to construct a "useable" segment before construction began. Judge Kenny ruled that the State had not identified the full source of funding for the first useable segment.

The Authority's first Business Plan defined the first useable segment as the \$31 billion segment for Madera to San Fernando Valley in the L.A. Basin-\$6 billion for the Madera to Bakersfield segment and \$25 billion for the segment over the mountainous Tehachapi Pass to LA Basin. The Authority received \$3.4 billion in FRA ARRA funds and Federal HSR funding. With the \$9.9 billion in Prop 1A bond funding, the Authority easily has the funding for the \$6 billion for the 140 miles from Madera to Bakersfield but has not identified the source of the \$25 billion needed to continue the HSR line over the Tehachapi Pass from Bakersfield to the L.A. Basin.

The State petitioned the California Supreme Court, requesting an expedited ruling overturning Judge Kenny's decision on the grounds that the Judge exceeded his authority in invalidating a Legislative vote authorizing the Bond sale. The Supreme Court handed the case to the 3rd District Court of Appeal, which granted the expedited review.

All briefs have been submitted, oral arguments will take place May 23, 2014, and a decision should be issued relatively quickly. The Authority has fall-back position: the initial Business Plan (which is the basis for this lawsuit) was subsequently superseded by the 2014 Business Plan that envisions the Central Valley (Fresno to Bakersfield) section as its first useable segment for which the Authority has identified all the funds necessary.

An additional lawsuit filed by Kings County farmer John Tos has been accepted by the court. This lawsuit contends that the “blended” system wherein the high speed trains share tracks with the Caltrain commuter trains between San Francisco and San Jose will prevent the high-speed trains from achieving Prop. 1A’s ultimate mandated travel time of 2-hour 40-minute travel time from San Francisco to Los Angeles, and that the blended system is substantially different than the fully dedicated tracks for high-speed trains that some hard-core advocates and project opponents both say the voters were promised in the proposition. The Authority contends the blended system, using electrified and modernized Caltrain tracks, will allow the system to meet the speed and trip time requirements of 1A. The case is expected to go to trial sometime the summer of 2014.

In Funding

The Obama Administration sent the GROW AMERICA Act to Congress, a comprehensive surface transportation package that includes \$19 billion for rail development over the next four years, presumably some of it going to

HSR. There is no chance the House Republicans will pass it. Rep. Jeff Denham (R-CA10), who represents part of California’s Central Valley and whose district would benefit greatly from the HSR system, is the Chair of the House Rail Subcommittee. Denham has legislation to block any more Federal funding for California’s HSR system and is doing everything he can to stymie the system’s progress. Additionally, House bill H. R. 2610: Department of Transportation Appropriations Act, 2014, has several sections that target California’s HSR system:

Sec. 192. None of the funds made available by this Act may be used for the California High-Speed Rail Program of the California High-Speed Rail Authority.

Sec. 194. None of the funds made available by this Act shall be used by the Surface Transportation Board to take any actions with respect to construction of a high-speed rail project in California unless the Board has jurisdiction over the entire project and the permit is or was issued by the Board with respect to the project in its entirety.

Sec. 194 is a concern because it is an impossible bar to hurdle. The second phase, which extends the system to Sacramento and San Diego, won’t begin until after 2029 and there are no permits or exemptions the Authority will be seeking for that portion for at least a decade. Nor will it be seeking permits or exemptions for the first phase, construction packages 4, 5, 6, 7, 8, or 9, scheduled to be completed by 2029. This is just another back door attempt to stop the project by any means available.

California Governor Jerry Brown’s 2014-15 budget allocates \$250 million a year cap and trade funds to the HSR system. Environmental groups are questioning the use of those funds given the system will not be fully running and at its maximum greenhouse gas (GHG) emissions reduction capacity until 2029. Environmental groups prefer the funds be used for immediate GHG reductions. There will be incremental reductions to GHG in the Central Valley as the Fresno to Bakersfield segment becomes operational in 2018 because it will remove cars from the road but the train will still be run by diesel, albeit cleaner diesel, locomotives. The system will not become electrified with a catenary until later in the construction process. And the Authority has promise a zero emission construction process that offsets pollution with environmental measures such as planting of trees along the route, use of the most modern, cleanest construction equipment, recycling of construction material and other mitigation efforts.

Challenges abound but that’s to be expected with one of the single largest civil works projects in the history of the nation. The Authority has only had to endure a few lawsuits. The Golden Gate Bridge endured over 2,300 lawsuits. More lawsuits will come and more naysayers will rise up but in the end, this project will get built. Why? Because facts are stubborn things: California’s population will grow to nearly 52.7 million by 2060, a population gain of nearly 15.4 million. California is facing a transportation crisis. Population growth of 15 million on top of 38 million; 10 million more

registered vehicles on top of 32 million. California has to face the stubborn fact that something has to give. Successful economies depend on an efficient and effective transportation system. We cannot pour concrete fast enough to keep up with our growing population. One high speed rail system can carry as much traffic as 16 lanes of freeway.

At \$68 billion the system is expensive but the state estimates it will cost twice that amount to expand existing airports, build new airports and widen freeways to cope with the projected population growth. California has a \$155 billion annual budget. As Gov. Brown likes to state, for a project that will serve the state for thirty years, \$68 billion is only 1 percent of the budget expenditures over that time. It is a wise investment.

California's Central Valley, where construction is starting, has the highest unemployment in the state. The Central Valley has long been isolated from the economic power regions in the Bay Area and Los Angeles. HSR will be a game-changer. The project is expected to create 20,000 construction-related jobs a year while it is being built and an estimated 450,000 permanent jobs once it's finished due to the economic activity that will spring up along the route. The HSR system will be an economic engine for the Central Valley and at the 24 stations along its route.

California's HSR system will become a model for the nation. HSR has proven itself worldwide as an efficient and effective transportation mode. As California builds its system, other states will follow.

Former Transportation Secretary LaHood speaking out on his recent visit to Sacramento — *June 1st:*

I am meeting with Gov. Jerry Brown and High-Speed Rail chief executive Jeff Morales. I want to thank the Governor for his commitment and give him some advice about where some funding might be in the Department of Transportation. I want to talk to him about some private investors who have come to me....

When I was in Washington, I helped provide funding to the tune of \$4 billion. This is the one place in America that would have true high-speed rail. It is the one place in America where there is a real commitment.

This is one of the best projects in the country right now. It is because of Gov. Brown. I know these court decisions have been a little bit of a setback. But hopefully they'll get a good ruling in the end.

BICOASTAL PROCUREMENT

HIGH-SPEED TRAINSETS: AN OPPORTUNITY WITH CHALLENGES

Contributed by Thomas E. Frawley, P. E., Esq.

Thomas E. Frawley, P.E., Esq. is a consultant working to provide procurement support to the California High-Speed Rail Authority. Mr. Frawley is the principal of Thomas E. Frawley Consulting LLC, a certified small business (SBE) based in the Philadelphia metro area.

On January 24, 2014, the Invitation to Offerors (ITO) for the next generation of American high speed trainsets hit the street. The procurement is a joint effort being conducted by Amtrak and the California High Speed Rail Authority (The Authority).

Changes in Federal Railroad Administration (FRA) structural crashworthiness requirements to allow an energy management approach to collision survival, have combined with the similar needs of the two agencies to create an opportunity for a joint procurement. But this opportunity is not without significant challenges. The logic of a single larger procurement to attract broader supplier interest – and hopefully more competitive prices – is inescapable. It's a practice employed in passenger transport for many years to successfully procure a variety of vehicles ranging from buses to commuter rail cars. But the success of this procurement will depend in large measure on

how suppliers address multiple issues and two in particular: design differences driven by differences between the Amtrak and Authority operating environments; and differences in timing of delivery.

Different Operating Environments Drive Design Differences

The operating environments of Amtrak and the Authority are significantly different. Consider this issue from the perspective of whether or not to include a tilting suspension. Amtrak's northeast corridor includes significant curves making tilt an important capability. In contrast, the California system will utilize mostly new, dedicated high-speed infrastructure following most overseas high-speed rail models, making a tilting suspension unnecessary.

Consider too maximum speed. With the maximum operating speed on Amtrak's Northeast Corridor (NEC) anticipated to increase to 160 MPH in 2017 with the completion of

programmed improvements in New Jersey, and soon afterwards at other locations in the NEC, off-the-shelf overseas equipment with relatively typical 180+ MPH capability would more than suffice. But with a planned maximum speed in revenue service of 220 MPH, the California system needs something with a little more "oomph". Loading Gauge or Carbody Width is another key difference. Center-to-center track spacing in the NEC that was largely defined in the 19th Century significantly limits the dynamic clearance envelope for Amtrak's trains, and by extension, both the physical dimensions of the train and the operation of tilt suspension systems. In contrast, the Authority will benefit from both the opportunity to design new dedicated high speed infrastructure, as well as the generous existing clearances that are typical in the western U.S. and are in evidence on the lines over which the Authority's trains will operate into Los Angeles and San Francisco.

How about Interior Configuration? Both Amtrak and the Authority will employ 2+2 seating in Business Class. The Authority will also use 2+2 seating in First Class while Amtrak First Class seating will be configured with 2+1 seating. Seat pitch is specified at 42 inches in First Class and 39 inches in Business Class.

To address these differences, Amtrak and the Authority would receive different trains, but they would share a “Common platform” or “platform family”, meaning the trains would share basics of manufacture and most of their components, and presumably their primary design characteristics, such as distributed versus concentrated power, similar carbody construction/cross section, and conventional versus articulated bogie architecture, to achieve economies, while satisfying the divergent needs of the two owners. Amtrak and the Authority have worked diligently to create a procurement process that includes sufficient flexibility to economically address these divergent needs. With regard to maximum operating speed, the specifications reflect a compromise by which Amtrak asks for options to be able to increase the maximum operating speed from 160 MPH, to 186 MPH and further to 220 MPH. As for carbody width, it remains to be seen how suppliers accommodate the divergent needs of Amtrak and the Authority. It is noteworthy, however, that the manufacture of a “family” of passenger rail vehicle designs that offer variation in width in addition to length is not without precedent. And interiors are an easy subject for which a compromise was reached,

as train interiors are required to include track mounting that permits different seating configurations to be employed even after delivery.

Different Delivery Timing

Timing of delivery is another example of divergent needs. Amtrak needs their new trainsets soon – to replace and/or augment the aging Acela fleet. (It’s hard to believe, but the Acelas are 15 years old!) Conversely, the Authority’s need for rolling stock is still several years into the future. The ITO indicates that Amtrak is seeking delivery of the first production trainset as early as 2018, while the Authority has established a deadline of the end of 2018 for issuing Notice To Proceed (NTP) for its 13 production trainsets. This is critical, as it is the overlap of the order delivery dates that makes the combined production run feasible.

Other Interesting Aspects of the Procurement

The ITO does not present the Amtrak fleet size for the procurement as a vehicle quantity. The Amtrak requirements include four alternative operating plans ranging from replacement of the existing Acela fleet with no change in service, to replacing the existing Acela fleet while adding some 25 trips per day, each with the required number of operating trainsets identified, but with overall quantity left to the suppliers based on their expectations regarding the need for operating and maintenance spares. The Authority does identify order quantities, consisting of two prototype trainsets, 13 production trainsets, and four options for up to a total of 70 additional trainsets.

Buy America requirements are a hot topic of late, and FRA’s current view of waivers was likely part of the reason that the production vehicles are expected to combine all-U.S. components with U.S. assembly. That being said, waivers are contemplated for four prototype trainsets, two each for Amtrak and the Authority.

In recognition of the challenges embodied in the procurement requirements, and to preserve flexibility, the ITO indicates that if a common platform cannot be obtained, Amtrak may proceed to procure its needed trainsets alone.

The ITO envisions at least three contracts to be potentially awarded – one for trainsets for Amtrak, a 15-year Technical Support, Spares and Supply Agreement for Amtrak (with options for both early terminations and extensions), and one for trainsets and thirty years of support for the Authority.

Lastly, Amtrak has required multiple options for their trainsets, including additional cars to lengthen the trainsets, substitution of a full bistro car in lieu of the half-bistro specified, and video screens in seatbacks like some aircraft interiors.

Proposals are due in a matter of weeks. Hopefully the proposals received provide viable solutions for both Amtrak and CHSRA, and jumpstart a new level of high-tech rail rolling stock manufacturing here in the U.S.

Note that because the subject of this article is an ongoing procurement, all information provided is taken from public procurement documents.

GLOBAL AWARENESS

NORTHEAST CORRIDOR CLIMATE CHANGE

Contributed by Karen Gelman, AMTRAK

Evidence of climate change impacts continues to mount within the scientific community. Increases in global average air and ocean temperatures, widespread melting of polar and glacial snow and ice packs, and rising global average sea level, are expected to cause regional climate changes that will have adverse impacts on transportation infrastructure.

Among the impacts often cited are:

- More frequent/severe storm surge and flooding that may affect subsurface tunnels and low-lying infrastructure due to more intense precipitation, sea level rise and altered weather patterns;
- Increased thermal expansion of bridge joints causing degradation due to higher temperatures and increased duration of heat waves;
- Culvert and drainage infrastructure damage due to changes in precipitation intensity or snow melt timing;
- System downtime, derailments and slower travel times due to risk of rail buckling and catenary wire sagging during extremely hot days; and
- Shortened infrastructure life in general due to increased numbers and magnitude of storm surges and/or relative sea level rise.

In recent years, major storms in the Northeast have highlighted the potential accelerated impacts of climate change on Amtrak's NEC infrastructure. The most extreme and wide-spread of these recent storms was Super Storm Sandy in October of 2012, which affected the entire Mid-Atlantic coastal region. Public transportation was shut down across the region, including Amtrak's NEC operations, and a state of emergency was declared for each state along the corridor and the District of Columbia.

Many states and cities in the corridor are taking a closer look at potential change impacts.

For Example:

- In September 2013, the Delaware Sea Level Rise Advisory Committee issued a number of recommendations for adaptation strategies affecting the State's waterways, habitats, future development areas, and transportation infrastructure. Efforts are underway to gather intelligence from state agencies, local and county governments, non-profits, educators, business and citizens on the next steps for implementing those recommendations.

- Following SuperStorm Sandy, the New York City Panel on Climate Change was convened to provide up-to-date scientific information and analyses. Its June 2013 report highlighted new climate change projections and future coastal flood risk maps to enhance the resiliency of citywide systems and infrastructure to a range of climate risks.

- Over the next several months, Amtrak will begin a process of assessing climate change risks and impacts to its NEC assets - including track, electric power supply, bridges, tunnels, stations and facilities. This "vulnerability risk assessment" will help Amtrak anticipate and prepare for the operational challenges of future climate changes and shape capital investment priorities along the corridor.

SPOTLIGHT

YOU SHOULD GET TO KNOW US



EMILY BURSTEIN
CHIEF, RAIL PLANNING BRANCH

“California is working on a number of initiatives to transform rail in the state to a fully integrated network of high-speed, intercity and commuter passenger rail by examining the market opportunities that arise from a fully integrated rail system. Providing the rail customer a ‘seamless’ ride connected to other transit services will be an important tool in achieving the state’s greenhouse gas reduction targets.”

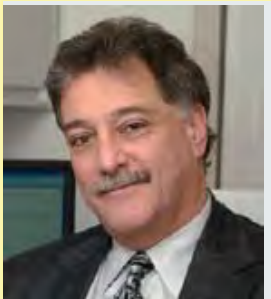
**CALIFORNIA
DOT (Caltrans)**
Office of System, Freight
and Rail Planning



KYLE GRADINGER
TRANSPORTATION INDUSTRY ANALYST

“As we continue to plan and develop a high-performance rail system for the United States, we must remember the importance of creating a network of connected intercity and commuter rail services. Moreover, ensuring user-friendly connections between rail and intercity bus, local transit, bicycle, and pedestrian networks can ensure that we create a more useful and cost-effective transportation system for all.”

**FEDERAL
RAILROAD
ADMINISTRATION**
Railroad Policy and
Development



DAN BEAR
Senior VP, National Planning Lead

“With limited resources and infrastructure that is at capacity, we are faced with very difficult investment decisions to accommodate growth efficiently. The NEC Future Program focuses on expansion opportunities of rail within an area and economy that rivals most countries. Analysis requires a holistic look of NEC rail operations, where multiple trip purposes and demands are served daily. It’s just one example of the expanded role rail will play throughout the country in the future.”

**PARSONS
BRINCKERHOFF**
NEC Future Program

“Our progress is a true measure of our most valuable, and intangible asset of all – people.”

WHY WE NEED APTA'S PROPOSED STUDY

AMERICA'S BUSIEST RAIL CORRIDOR IN THE NORTHEAST

Contributed by Bob Yaro, Ph.D., President – Regional Plan Association

“

It's only been 52 years since Senator Claiborne Pell proposed that the Northeast Corridor (NEC) become the world's first high speed rail (HSR) line. And while Americans are patient people, in the decades since then more than a dozen Asian and European countries have built their own HSR systems and many more countries are planning these systems.

Over the past half century, instead of being improved, the Northeast Corridor --America's busiest rail corridor, with more than 400 million annual passengers -- has continued to languish. Recently, the 120 year old Walk Bridge in Norwalk, CT, froze in an open position, shutting down intercity and commuter rail service between New York and Boston for most of a day. And Amtrak's own master plan estimates that it will require more than \$50 billion to meet projected demand for conventional rail service in the corridor, and an additional \$100 billion to provide world class HSR service between Washington and Boston.

The Federal Railroad Administration is now conducting a multi-year master

plan and Preliminary Environmental Impact Statement for the entire corridor. But the Congress has shown little interest in proceeding with these investments, despite the fact that the \$2.5 trillion economy and mobility system of the Northeast are beginning to congeal around overcrowded airports and the gridlocked I-95 highway corridor.

Virtually every transportation expert agrees that the NEC is an ideal place to utilize HSR --at 475 miles it is too large to be efficiently serviced by automobile and too small to be serviced by commercial aviation. But key choke points in the corridor are susceptible to disruption or even catastrophic failure, including the 100+ year old Hudson River tunnels, Baltimore tunnels, Susquehanna Bridge, New Haven Line moveable bridges and other structures that are decades beyond the ends of their useful lives. While even short-term disruptions are undercutting the economic vitality of America's largest megaregion, Amtrak President Joe Boardman recently stated that it may be necessary to take one of the two existing Hudson River tunnels out of service to deal

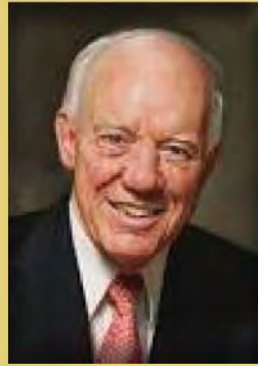
with the extreme corrosion caused by their salt water inundation from Hurricane Sandy. When that happens, Boardman noted, the NEC will go from 24 peak hour trains to 6 --four of them Amtrak trains --virtually shutting down New Jersey Transit's commuter rail service into Manhattan and severely limiting all intercity service in the corridor. And this could deal a body blow to the economy of New York, New Jersey and the whole Northeast.

How can this decades long story of political deadlock and delay be broken? The answer may be in redefining the NEC as an economic development, not a transportation issue. In Japan, China, France, Spain and other countries, HSR systems have been justified on the basis of potential to change the economic geography of these countries. Most recently, in the United Kingdom, the British government has made the decision to proceed with the HS2 line, stretching from London to Manchester, with an eventual second phase extending to Glasgow and Edinburgh. The austerity minded Conservative Government has decided to proceed with this

project, despite its ultimate \$77 billion cost, in large part due to project's economic benefits to the whole country. An economic impact analysis that determined that the HS2 line would transform the economy of the English Midlands and North of England, which have experienced decades of economic malaise. In many countries HSR, and improved conventional inter-city rail projects, have achieved similar transformations.

The good news is that the American Public Transportation Association is proposing to conduct a Return on Investment study (ROI Study) similar to the HS2 economic benefit analysis that will determine how a similar economic transformation could be achieved in underperforming Northeast cities, such as Baltimore, Wilmington, New Haven and Hartford. These places could be transformed if HSR services could pull them into the commuter sheds and employment and housing markets of the Northeast's strong market cities, including Boston, New York and Washington. APTA's proposed ROI Study could begin to transform the political debate here, as a similar analysis did in Britain. For this reason it is vitally important that APTA succeed in its fund-raising effort for this study.

While a principal focus of this study will be on the NEC, the analysis will also assess the ways that improved inter-city and HSR services could also transform the economic geography of America's other megaregions --including Northern and Southern California, Cascadia, the Midwest, Southeast's Piedmont Atlantic, Florida, and the Texas Triangle - itself worldwide as an efficient and effective transportation mode. As California builds its system, other states will follow.



IN MEMORIAM:

James Oberstar,

PASSENGER RAIL ADVOCATE



James Oberstar, former U.S. Congressman who represented Minnesota's 8th congressional district for over a quarter century and former Chairman of the House Transportation and Infrastructure Committee, passed away May 3 at the age of 79. Oberstar is survived by his wife Jean, four children and eight grandchildren.

Representative Oberstar was a champion in Congress for high-speed and intercity passenger rail. APTA mourns the loss of former Chairman Jim Oberstar. We at APTA consider him a special and cherished member of the APTA family. He courageously sought to defend Amtrak and fought for a transformative surface transportation bill that ushered in the next generation of infrastructure legislation. His long tenure in the Congress lead to the forward looking transportation policy that will benefit generations to come.

The National Association of Railroad Passengers (NARP) honored Oberstar with their Golden Spike Award in 2005, for his staunch defense of a national network of passenger trains. "Representative Oberstar has one of Capitol Hill's most extensive records in support of a modern transportation system," said then-Chairman George Chilson during the 2005 NARP Board Meeting in Minnesota. "He has worked tirelessly both in defending Amtrak and in promoting development of world-class high speed rail."

House Minority Leader Nancy Pelosi said on learning of his passing, "Jim Oberstar knew everything there was to know about our nation's infrastructure, and fought tirelessly to rebuild and renew it."

VIRGINIA PASSENGER RAIL SERVICE

PAST AND PRESENT

Contributed by Eric Peterson with Co-Author Credits to Kevin Page, Chief of Rail Transportation, Virginia Department of Rail and Public Transportation, and Amy Inman, Planning and Mobility Programs Administrator, Virginia Department of Rail and Public Transportation.



Roanoke

While many states have ambitions of reviving and growing their intercity passenger rail service, there are few states that have actually succeeded in launching new services, improving current services and laying plans for future service expansion the way Virginia has.

Long a state with a strong railroading tradition, the level of collaboration and cooperation between the Commonwealth's Department of Rail and Public Transportation (DRPT), CSX, Norfolk Southern, a number of shortline railroads, Amtrak, Virginia Railway Express (VRE), local governments and the Virginia General Assembly have

created an environment in which intercity passenger rail has grown and flourished, and where it is recognized as a vital part of the Commonwealth's transportation system.

As outlined in a March 9, 2014, presentation by Amy Inman, DRPT's Planning and Mobility Programs Administrator, at the American Public Transportation Association's (APTA) annual Legislative Conference in Washington, D.C., Virginia is well on its way to achieving its development goals through FY 2021, and doing it without the partisan wrangling or attacks from interests that somehow view passenger rail as an affront to America's

love affair with the automobile that other states have experienced.

In fact, according to DRPT documents, one of the greatest advantages for improved intercity passenger rail service is the relief that will come to Virginia's highly congested interstate system.

Currently, Virginia is served by both Amtrak's regional and long-distance trains and by VRE's commuter rail trains. According to DRPT, today Amtrak operates 17 trains in the Commonwealth. Of these, 11 operate in state-sponsored corridors of less than 750 miles and six are categorized as "long-distance" trains.

In recent years, state-sponsored service in Virginia has increased with the opening of new service between Washington, D.C. and

Richmond, Virginia; Washington, D.C. and Lynchburg, Virginia; and between Washington, D.C. and Newport News, Virginia. These additions were made possible under the Passenger Rail Investment and Improvement Act (PRIIA) of 2008, which enabled Amtrak, under Section 209, to negotiate with states to expand intercity passenger train service, making Virginia the first state to do so under Amtrak's newly authorized ability to expand services with state partners. All of Amtrak's trains operating in Virginia provide direct service into the Northeast Corridor (NEC) through Washington, D.C. to New York City and Boston, Massachusetts.

In Virginia's near-term plan, the Commonwealth intends to extend its state-sponsored service from Washington to Lynchburg to Roanoke, and Washington to Richmond to Norfolk. Longer-term plans look to increase the number of trains from Washington to Lynchburg and Richmond to Lynchburg; extend service from Roanoke to Bristol, Tennessee, increase the number of trains between Richmond and Newport News, and extend the Northeast Corridor – via trains running at least 110 MPH – from Washington, D.C. to Raleigh and Charlotte, North Carolina.

Underlying DRPT's steady evolution of the Commonwealth's intercity passenger rail program has been a pragmatic strategy that relies on

collaboration and cooperation with the owners of the rail lines over which the passenger services run, utilization of federal and state money when and where it is available, and a willingness to do whatever is possible for the moment, all the while keeping in mind its long-term objective of "alleviating congestion and creating a rail system appropriate for future passenger and freight growth," as outlined DRPT's report on funding strategies.

The challenge, according to DRPT, is finding the resources to implement its goals. DRPT notes that the factors influencing the funding picture for Virginia's passenger rail program include:

- Demand for passenger service is growing statewide, as gasoline prices and less attractive aviation options increase demand for Amtrak service, which operates on tracks owned by freight railroads.
- Freight railroads anticipate greater demand on their systems for freight operations. Capacity expansion and other capital investments will be necessary to preserve freight capacity as passenger service expands.
- Freight rail operates at a profit, and freight railroads have a responsibility to their shareholders to remain profitable. Intercity passenger rail, like transit, requires a subsidy.
- Virginia has several potential funding options for passenger and freight rail. These options vary according to their source, uses and availability.
- Commuter rail capacity improvements between Fredericksburg and Washington, D.C. to replace the

capacity used by VRE for service startup."

DRPT acknowledges that PRIIA Section 209 and the stimulus funding provided through the 2009 American Reinvestment and Recovery Act was a game-changer for the Commonwealth. These provisions provided an opportunity to leverage a variety of funding and financing sources to develop and begin the implementation of rail improvements. Among the sources used by DRPT were the Rail Enhancement Fund (REF), the Shortline Railway Preservation and Development Fund (RPP), state-backed financing referred to as the HB3202 Rail Capital Bonds, and the Rail Industrial Access (RIA) grant program. In total, Virginia plans to invest approximately \$629.2 million, a challenge Virginia faces in fulfilling this plan is identifying and capturing a dependable stream of financing and funding, i.e., a "Passenger Rail Operating and Capital Fund."

While the task may seem daunting, in reality Virginia has many options with which it can create and maintain the fund. In its report to the Governor and the General Assembly in 2010, DRPT identified a number of options that included:

- Evaluate Rental Car Tax Revenues and consider increasing the current 10 percent tax by three percent to a total of 13 percent tax for use as a dedicated revenue source for the new Intercity Passenger Rail Operating and Capital Fund.
- Evaluate Rental Car Tax Revenues to localities and consider re-direction of three percent of the four percent dedicated to local governments to the new Intercity Passenger



Rail Operating and Capital Fund.

- Evaluate the proportions of the TTF for a potential allocation of 4.3% of the TTF for potential use in funding the Intercity Passenger Rail Operating and Capital Fund. The General Assembly established the same funding level in its passage of House Bill (HB) 3202. Today, intercity passenger rail capital projects and funding for continued and new rail operations are the only mode not provided for in whole or in part through the TTF.

- Evaluate potential revenue from the privatization of the Alcoholic Beverage Control (ABC) stores for potential use in funding the Intercity Passenger Rail Operating and Capital Fund.

- Evaluate potential revenue from the addition of a sales tax to be charged in addition to the rental car tax on rental fees for potential use in funding the Intercity Passenger Rail Operating and Capital Fund.

- Evaluate other mechanisms

adopted by other states such as:

- Assessing additional fees to personalized license plate fees
- Redirecting tax revenues from the sale of new and used motor vehicles
- Redirecting vehicle weight fee revenues.

In a survey of other states with plans to expand their intercity passenger rail programs, DRPT found that its funding proposals were comparatively better. Additionally, DRPT found that it is operating in a much more passenger rail-friendly environment.

For example, in 2013, the Virginia General Assembly adopted HB1828, a bill that codifies a state Supreme Court decision that the state’s rail system does provide a highway benefit, that authorizes DRPT to acquire and hold title to land for constructing rail infrastructure, and that allows DRPT to hold title to abandoned railway and preserve it for future rail development.

Additionally, the General Assembly adopted HB2313, the Commonwealth’s first major transportation funding measure in nearly 30 years, designating a revenue source for the Intercity Passenger Rail Operating and Capital Fund for five years, allowing the Commonwealth to fund its Section 209 state supported Amtrak trains, and dedicating a portion of the state’s sales and use tax to fund transit and passenger rail.

With the vision put forward, the plan proposed, the ground work laid, and the near-term achievements gained, DRPT has given Virginia a realistic lead-time to prepare for the future and to demonstrate the long-term viability of incremental passenger rail service development able to serve the mobility needs of Virginians as well as others traveling to and through the Commonwealth and the Northeast Corridor in the 21st Century.





FLORIDA

“ Florida East Coast Industries (FECI) is developing a new, convenient, cost-effective and environmentally friendly way to travel between South and Central Florida, with the potential to expand to Tampa and Jacksonville. FECI, through its subsidiaries and affiliates, is a major owner and developer of real estate and transportation-related businesses within the State of Florida and is the owner of Florida’s



AN INNOVATION

ALL ABOARD FLORIDA

Contributed by Eugene K. Skoropowski, Sr. V.P. for Passenger Development

“

Something exciting is brewing in Florida.....and, while the case could be made that this excitement and innovation is really a continuation of the legacy of Henry Flagler that started in the late 1800s, there is a decidedly modern application taking place that is expected to set the standards for new intercity passenger rail service in America for the coming decades.

All Aboard Florida (AAF) is a new, privately-funded, intercity passenger rail service between Miami and Orlando that will operate largely on the tracks and right-of-way of the original Henry Flagler railroad, the Florida East Coast Railway Corridor (FECR), for some 195 miles of the 235 mile distance between Miami and Orlando. AAF marks the beginning of a new era in Florida's rich and innovative rail history by re-igniting Henry Flagler's inspired vision to create greater connectivity that also fuels future growth and prosperity by connecting two of the most visited and populated regions in the state.

AAF trains will operate on a fully double tracked railroad between Miami and Cocoa, with the exception of the mile-and-a-half single

track drawbridge at Stewart over the St. Lucie River. Interestingly, this was the exact same track configuration of the FECR when passenger service ended in the late 1960s. However, as a result of AAF, significantly more modern components will be installed, resulting in a completely upgraded rail corridor, they include: new continuous welded rail, high speed turnouts and universal crossovers, a new signal and dispatch system, positive-train-control, state-of-the-art stations, safety and security systems, upgraded crossing warning systems, plus much more.

So why is this happening in Florida? In the late 1800s, Henry Flagler built the FECR to open up Florida for tourism, land development and commerce. Fast forward to today, and the legacy company of Flagler is poised to do that again. For more than 20 years, there has been a rising demand for passenger rail service connecting South and Central Florida. AAF is poised to meet that demand with a fast and convenient alternative for those traveling within the state. Florida is home to more than 19 million residents and soon to be the third largest state in the country, surpassing New York for the first time. The state is also home

to the busiest tourism market in the world, with more than 95 million annual tourists. The South Florida region is the gateway for tens of millions of international travelers each year, while Orlando welcomes more than 57 million tourists, the majority of which are domestic.

It is no secret that Florida's urban roadways are highly congested and intimidating to most drivers not familiar with the state's road network, and also for many drivers who ARE familiar with that network. Introduction of an additional travel option for Floridians and guests in the state is long overdue. From the early 1970s, Florida has established policies to encourage development of intercity passenger trains within the state, and several attempts have been made in the past. What makes AAF different? AAF is the creation of the private sector, and it proposes to operate within an existing railway corridor, thus reducing the overall environmental impact and leveraging a rail corridor that has been operational for more than 100 years.

Using the existing FECR right-of-way for the majority of its distance has significant cost benefits compared to all-new, isolated high

speed rail systems. Assembling the land and the approval processes for totally new systems often consumes significant time and costs that AAF can avoid by planning its operation within an existing, well-maintained and operated railroad. This is the condition that we have in Florida.

Where will AAF go? Initially, the 'trunk of the tree' will operate from Miami to Orlando, making station stops at Fort Lauderdale and West Palm Beach en route. Trip time will be approximately three hours, which is faster than driving and competitive with air travel, when advance arrival time, security checks, waiting and exiting times are factored into the equation. A consistent hourly service pattern provides passengers with a flexible travel option throughout the day. Once the Miami-to-Orlando segment is operational, AAF can analyze the addition of new stations along the existing route and expansions to other markets, like Tampa or Jacksonville.

Agreements with the Florida Department of Transportation (FDOT), and the Orlando Orange County Expressway Authority (OOCEA) have provided the necessary right-of-way for construction of the new 40-mile segment from Cocoa Junction to Orlando Airport. This segment will have no grade crossings, and the alignment will allow for sustained operation at 125 mph.

AAF is also developing 4.5 million square feet of new transit oriented development around each

of its stations in South Florida. These three stations will be centrally located in the urban cores of Miami, Fort Lauderdale and West Palm Beach. All Aboard Florida will also be a tenant at the Orlando International Airport's new intermodal station. This station will link the existing terminal and be the area's intermodal hub by providing connections to four rail systems.

The Orlando International Airport has been in the forefront nationally in planning to bring higher speed intercity passenger service directly into its airport for many years. In addition to serving AAF, the future intermodal/multimodal station will provide connections for an automated people mover to the existing North Terminal, SunRail, Central Florida's new commuter rail trains, and light rail/maglev services. Such intermodal connections are commonplace in Europe and across the globe, but scarce in the United States. AAF trains will be a major provider of service in partnership with Orlando International Airport, which is building the new intermodal terminal and will own and operate it. Connections with existing and future ground transportation options will also be available, including shuttle connections to the Orlando Attractions (Disney, Universal, Sea World, etc) and to the new Medical Center just south of Orlando Airport.

Turning again to history, the AAF station in downtown Miami is on the same exact property as Henry Flagler's original Miami station. The nine-acre property that will make up

the station is located within blocks of the American Airlines Arena, Biscayne Bay and the arts and downtown districts. Today's condition of intense development and congested city streets in downtown Miami make an at-grade station impossible. The new AAF station will be elevated about 55 feet above street level, allowing for at-grade pedestrian and vehicular traffic to flow. The platforms will have direct access to two adjacent Miami Metrorail stations (with direct service into Miami International Airport) and direct connections to the aerial downtown Miami automated Metromover. The company is also planning to develop about 3.5 million square feet of transit oriented development, with uses such as hospitality, commercial, retail and residential, around this station.

The stations in Fort Lauderdale and West Palm Beach will occupy a smaller land footprint than Miami but be landmarks within the community. Both stations are located in downtown areas that are largely underdeveloped, so the addition of an All Aboard Florida station will provide a much-needed economic boost and job creation. These stations will also be connected to existing and future transportation systems, like the Wave Streetcar in Fort Lauderdale and the trolley in West Palm Beach. Additionally, the Tri-Rail station is just blocks from the AAF station in downtown West Palm Beach, so connections will be provided for access to South Florida's commuter rail system.

So what will these AAF trains look

ALL ABOARD FLORIDA

like? The design and specifications, as well as preliminary engineering have been going on for many months, and the AAF rolling stock will be of the most modern design, adapted from proven in-service technology. These AAF single level coach cars will include such features as level boarding, full access at stations and on trains for wheelchair passengers, including passage through all doorways and aisle ways, plus wheelchair accessible passage into the café/bistro car. AAF will offer seating options based on your activity, like work or play. Conformance with the Americans with Disabilities Act (ADA) has been a priority in the rolling stock design process, along with many additional state-of-the-art features, such as fabricated trucks for a superior ride quality. Additionally, AAF trains will operate at a top speed of 125 mph on the new rail line between Cocoa and Orlando, and at speeds up to 110 mph north of West Palm Beach.

If I were to give you a hint of the appearance, I would simply say that the AAF trains will be as distinct from a conventional locomotive-and-coaches train, as the Amtrak Acela train is from the conventional Amtrak Regional trains. Sleek in appearance, reliable in operation, and proven design components are paramount, as is compliance with the 'Buy America' provisions. The trains will be fully manufactured and assembled in the United States.

How often will the AAF trains operate? The operating plan calls for 16 round trips daily, for a total of 32 trains. Trains will depart hourly from both Miami and Orlando starting

between 5-6 am until 8-9 pm in the evening. A major maintenance facility is being planned at Orlando International Airport, about a mile south of the Orlando Airport Station. Full service for maintenance of the AAF trains will be provided at this location. This vehicle maintenance facility will create more than 70 permanent jobs for the Central Florida area.

The operating plan allows for a "Quick Turnaround" servicing after every round trip (think "NASCAR"), thereby ensuring a clean, well-stocked and ready-to-serve-you train that is consistent each time a train begins its run.

So what needs to happen next, and when will we see trains running? Design and engineering work have been on-going for some time now, and the start of rail and infrastructure construction is expected by mid-2014. There is a compressed construction and delivery schedule for all elements of the project, and the first trains should be ready for operation in 2016.

What is the 'differentiator' of AAF train service, as compared to any other train service? AAF is designed as a complete transportation service, with reservations and ticketing able to be arranged for your complete trip. Not only can you buy a train ticket on line, you can select your seat on line, in the coach car of your choice, like a quiet car, relax car, or social car, in economy class or business class, and even reserve seating

for a family, group, or business associates to guarantee travel together in the environment they want. Reliable wireless internet service is being designed to ensure AAF passengers have the Internet access they want.

You can arrange to be picked up at your point of origin along the Miami-Orlando corridor (at home or other location), and also to be transported from the AAF station to your final destination, all with one reservation and one transaction. If you choose to drive to the station, parking will be plentiful, and more importantly, you can arrange your reserved parking space in advance, and pay for it at the time you buy your ticket, thereby taking much of the 'angst' out of driving and parking. You will have your own, pre-determined parking space.

Of course, safety, reliability, frequency and comfort remain the highest priorities for AAF, and our service is planned and designed to deliver these key elements, plus much more. The AAF concept has the potential to be applied to many other corridors throughout the country, where the travel markets are right.

Keep your eye on Florida....the legacy of Henry Flagler is fast coming down the tracks!



WASHINGTON STATE UPDATE

Contributed by Alice Fiman, WSDOT Communications



Tukwila Station: In June 2013, WSDOT and Sound Transit broke ground on the new Tukwila Station, a \$24-million project for a new multi-use train and transit station in Tukwila (south of Seattle). The station, close to 75 percent complete, is expected to open in late 2014 and will serve Amtrak and Sounder trains, plus serve as a transit hub as the project includes a 390-stall parking lot. The Tukwila Station is part of \$ 800 million in federally-funded passenger rail improvement projects.

Intercity passenger rail plays an important role in Washington's transportation system. It provides connectivity to urban centers along the Interstate 5 corridor. 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).

In addition to state funding, Washington is one of 13 states to receive a portion of \$8 billion in federal high-speed rail funding. The funding, administered by the Federal Railroad Administration, is being invested to improve the Washington segment of the Pacific Northwest Rail Corridor (PNWRC), spanning between Vancouver, Washington and the Canadian border.

WSDOT is investing \$800 million in federal high-speed rail funds to deliver:

- Critical rail infrastructure improvements.
- Expanded travel choices.
- Economic growth across the state.

This investment in passenger rail is expected to create more than 2,300 jobs for workers on 20 capital projects along the 300-mile Washington state PNWRC.

With the federal funding, WSDOT will also provide:

- Two additional Amtrak Cascades daily round trips between Seattle and Portland, for a total of six, by 2017.
- 88 percent on-time reliability for Amtrak Cascades.
- Reduced travel time on Amtrak Cascades between Seattle and Portland.

Eleven of WSDOT's 20 federally funded passenger rail projects are under construction or complete. By the end of 2017, the projects will reduce passenger rail congestion, increase safety, plus allow WSDOT to provide better on-time performance and more frequent Amtrak Cascades service.

The projects include (see full list at right):

- Purchasing up to eight new locomotives that offer better fuel efficiency and are more environmentally friendly
- Multiple upgrades to existing track and building by-pass tracks to reduce rail congestion.
- Safety upgrades to signals and platforms.
- Expanding and refurbishing stations to meet passenger demand.



Port of Vancouver Port Rail Access: More than 100 trains pass through the Vancouver, Washington rail terminal each day, creating a major choke-point for passenger and freight rail traffic. The new bypass tracks will be constructed to take freight trains off the main track, and out of the path of Amtrak Cascades passenger trains. The \$15 million project is close to 65 percent complete.

Landslide Mitigation: WSDOT has put a focus on the root causes and finding potential solutions for service disruptions due to landslides on the rail line between Seattle and Everett. Project teams from WSDOT and BSNF are working on a number of repair strategies like retaining walls, improved drainage systems and erosion control. Construction of the \$16 million project began in August 2013.



Amtrak Cascades stops

Amtrak Cascades service connects 18 cities in the Pacific Northwest along a 467-mile rail corridor that spans from Eugene, north through Portland and Seattle, to Vancouver, B.C. The average distance between stations is approximately 30 miles. These cities and adjacent communities are home to approximately nine million residents.

Amtrak Cascades Route

- 467-mile corridor
- 300 miles in WA
- 134 miles in OR
- 33 miles in B.C.

Economic benefits of Amtrak Cascades

The statistics below are from the period of October 2011 to September 2012. The primary economic benefit comes from tourist spending.

- Annual economic benefits totaled \$131 million.
- Supports 1,500 jobs annually.
- \$6.9 million state tax revenues and \$3.4 million local tax revenue are generated annually by tourist spending.
- Reduced greenhouse gas emissions (CO₂): 15,000 tons.

Twenty projects comprise WSDOT's federally funded corridor projects that will result in two additional round trips, 88 percent on-time performance, and a 10-minute reduction in travel time. The projects must be completed in 2017. The color coding represents the status of each of these capital projects.



SHAPING PHILADELPHIA

JOINT PARTNERSHIPS FOR 30TH STREET STATION

Amtrak, Drexel University and Brandywine Realty Trust have selected Skidmore, Owings & Merrill LLP (SOM), in association with Parsons Brinckerhoff, OLIN, and HR&A Advisors to develop a comprehensive joint master plan for the area around Philadelphia's 30th Street Station.

The joint planning effort represents a unique opportunity to develop new plans and re-envision existing planning efforts to create a single, integrated vision for the 30th Street Station precinct. The SOM team will aim to develop a future where the station is at the epicenter of a dynamic, urban neighborhood full of opportunities for community development, economic development and improved transportation connections. A wide range of commercial opportunities, including a new vision for retail spaces within the station and the potential development of air rights above 85 acres of rail yards adjacent to the station, will also be considered.

The master plan will be guided by a Coordinating Committee comprised of Amtrak, Drexel University, Brandywine Realty Trust, Southeastern Pennsylv-

nia Transportation Authority (SEPTA), Pennsylvania Department of Transportation (PennDOT), City of Philadelphia, New Jersey Transit, CSX Corporation, University of Pennsylvania, Philadelphia Industrial Development Corporation, Schuylkill River Development Corporation and University City District.

"We couldn't be more excited to work with the exceptional teams at SOM, Parsons Brinckerhoff, OLIN, and HR&A Advisors," said Bob LaCroix, Amtrak Chief of Corridor Development. "Along with our great partners, we look forward to developing a bold vision for the precinct that accommodates growing demand for passenger rail service and outlines a framework for development that can reshape the Philadelphia skyline for generations to come."

With master planning efforts currently being advanced in Washington, DC, Baltimore, New York, Chicago and now Philadelphia, Amtrak is poised to turn congested and tired rail stations into the centerpieces of thriving urban neighborhoods that appeal to the millennial and baby boomer generations. As these populations continue

to flock to cities to live, work and play, they are demanding walkable communities with vibrant arts and cultural institutions and access to transportation hubs such as 30th Street Station.

The Joint Master Plan is funded by Drexel University and its partners. Drexel is also developing its Innovation Neighborhood project on 12 acres of its campus adjacent to 30th Street Station to attract and launch high-tech businesses seeking a rich research and commercialization environment with unmatched transit access.

"The 30th Street precinct is critical because it bridges Philadelphia's business center with its intellectual heart in University City," said John A. Fry, Drexel's President. "We're pleased to be able to add SOM's experience and vision to the master planning process."

Development of the master plan is expected to take approximately two years. Opportunities for public comment and involvement will be announced and advertised.