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February 13, 2018

Ms. Jessica Chambers  
Department of Administration  
Purchasing Division  
2019 Washington Street, E  
Charleston, WV 25305

02/12/18 12:09:22  
@ Purchasing Division

**RE: Expression of Interest - West Virginia Updated State Rail Plan**

Dear Ms. Chambers and Selection Committee Members,

West Virginia's rail system plays an essential role in moving freight to/from ports and industries throughout the East Coast and Midwest. West Virginia is positioned to take advantage of improved rail intermodal corridors through the state and the expanded range of energy resources currently under development in the region. Intercity and commuter rail passenger services provide essential transportation services to the state's citizenry. An increased emphasis on tourism by the Governor and Legislature positions rail for growth in that industry. Tourist railroads such as Cass Scenic Railroad and the Durbin & Greenbrier Valley Railroad bring in out of state dollars to the economy and spur local development. Potential multimodal connections to transit, highway, and bicycle-pedestrian (bike-ped), facilities in the state's urban areas can help to increase the rail footprint throughout West Virginia.

The State Rail Plan is the foundation for future growth of rail services in West Virginia. It is the dynamic tool that allows decision-makers to implement the goals of the plan. The State Rail Plan describes the state's rail network, operations, and benefits; the state rail plan process; the state's rail vision, goals, and objectives; and proposed public short- and long-range capital improvements, studies, and recommended next steps to address the issues identified. The plan also identifies rail transportation-related economic development linkages and opportunities, as well as the physical and policy improvements necessary to enhance the effectiveness and efficiency of the state's rail system.

Based on previous rail planning goals, preliminary goals and objectives for this project could include:

- Promote rail safety
- Preserve, protect, evaluate, and improve West Virginia's rail infrastructure and service to ensure its continued competitive position and economic contribution to citizens and businesses
- Increase emphasis on intermodal and energy-related activities by expanding service in these areas
- Balance the enhancement of West Virginia's rail network with community and environmental stewardship and economic competitiveness
- Support movement of goods by rail
- Preserve, protect, evaluate, and improve as needed intercity passenger rail service in the state
- Support rail-related tourism as part of an economic development program
- Preserve and support commuter rail service

## The AECOM Team

Our team is best equipped to provide all the services required for development of a world-class rail plan. We can help to position West Virginia to make rail decisions that positively affect residents, communities, and businesses now and into the future.

AECOM staff that will lead this project have worked on more than 20 PRIIA-complaint state rail plans in the last 9 years, including West Virginia. Our Project Manager, Justin Fox, was the project manager for the previous West Virginia State Rail Plan. He is a leading expert in state rail planning.

The team that we have assembled for this important project is unparalleled in its blend of worldwide experience and local knowledge.

We offer the following in response to this advertisement:

Evaluation Criteria	AECOM Advantage
Qualifications and Experience	<ul style="list-style-type: none"> <li>✓ #1 in transportation as ranked by Engineering News-Record in 2017.</li> <li>✓ #1 in transit/rail as ranked by Engineering News-Record in 2017.</li> <li>✓ Project Manager Justin Fox has 18 years of experience managing state rail plans.</li> <li>✓ Senior Advisor Ken Sislak has more than 45 years of experience managing rail projects.</li> <li>✓ Toni Horst is a national Thought Leader in economics and has 25 years of experience.</li> <li>✓ Staff will perform all roles required, including specialties such as freight rail planning, investment, passenger rail, and stakeholder engagement.</li> </ul>
	<ul style="list-style-type: none"> <li>✓ Vast rail planning capabilities with strong public engagement track record.</li> <li>✓ Decades-long experience for transportation clients in West Virginia.</li> <li>✓ Extensive range of transportation specialists focused on freight, finance, passenger rail, economic development, and public outreach professionals</li> <li>✓ Specific expertise with tourist rail, commodity movements, and intermodal investments.</li> <li>✓ Project manager led the preparation of the West Virginia 2013 State Rail Plan.</li> </ul>
	<ul style="list-style-type: none"> <li>✓ Qualified staff available to meet the schedule requirements.</li> <li>✓ Two WV offices with in-state staff of 25.</li> <li>✓ Currently hiring to increase in-state staff.</li> <li>✓ Industry Thought Leaders in freight and passenger rail available as needed.</li> </ul>
Approach	<ul style="list-style-type: none"> <li>✓ Excellent performance on past WVDOT projects including delivering projects ahead of schedule, and quality submissions, without need for supplements.</li> <li>✓ Team members have worked on more than 20 PRIIA-compliant (Passenger Rail Investment and Improvement Act) state rail plans, including West Virginia.</li> <li>✓ PM served as project manager and passenger rail planner for the 2013 West Virginia State Rail Plan.</li> <li>✓ WV staff have worked in all 55 counties and have existing relationships with many local government leaders, state agency staff, and elected officials around the state.</li> <li>✓ AECOM offices in Morgantown and Kenova, WV.</li> <li>✓ Thorough understanding of the project's purpose and goals.</li> </ul>

## Project Understanding

The State Rail Plan Update is anticipated to consist of the development of current data and plans for development of a statewide rail vision, including goals, objectives, and strategies to achieve the aforementioned goals and objectives. Our team is ready to include all necessary components as required by the Federal Railroad Administration (FRA), the Passenger Rail Investment and Improvement Act (PRIIA) and the Fixing America's Surface Transportation (FAST) Act.

AECOM has conducted an initial review of resources and conditions, discussed the development process for the previous plan, and reviewed other impacts that will need to be considered for this plan update. We are fully confident in our ability to work closely with all stakeholders to develop a plan that best represents the needs of state agencies, local government, and the general public. AECOM also anticipates an elevated level of stakeholder and public involvement in certain locations and has trained facilitators, social media specialists and website designers on our team to encourage a variety of feedback on the planning process.



Based on our analysis of the advertised project, the AECOM team is confident that we have the specialized expertise and capabilities to efficiently develop this project and meet the cost, schedule, and quality goals of the West Virginia Department of Transportation (WVDOT) and the West Virginia State Rail Authority (SRA).

#### Key Personnel

AECOM has staff fully capable of managing this assignment, with a foundation for support in our Morgantown Office. Our team is joined by people who worked on the previous plan: Ken Withers of RLBA and Steve Roberts. They bring deep WV experience and profound modal knowledge to the team. We have also identified a number of rail specialists, professional engineers, planners, and specialized technicians and support staff from other nearby AECOM offices based on their past experience with similar projects. We are confident that with the availability of West Virginia-based personnel, in conjunction with the unmatched depth of our corporate resources, the AECOM team is fully capable of successfully undertaking this assignment. All personnel identified in our Expression of Interest prospectus are available to work on this assignment and meet the schedule.

#### Office Location

We will manage and execute the planning process from AECOM's Morgantown office. Our West Virginia-based project team, with select regional support from other offices, has the necessary expertise to complete this project to meet the needs of the WVDOT and the SRA.

#### Closing

In our prospectus, we have identified several important factors that clearly distinguish the AECOM team as the "consultant of choice." Our team welcomes this opportunity to present our qualifications, and we look forward to the possibility of working with you on the West Virginia State Rail Plan.

Sincerely,

**AECOM Technical Services, Inc.**

Handwritten signature of Justin Fox in black ink.

Justin Fox  
Project Manager

Handwritten signature of David Weaver in blue ink.

David Weaver, PE  
Associate Vice President, West Virginia  
Office Manager



Purchasing Division  
 2019 Washington Street East  
 Post Office Box 50130  
 Charleston, WV 25305-0130

State of West Virginia  
 Centralized Expression of Interest  
 02 – Architect/Engr

Proc Folder: 401701

Doc Description: Addendum1 EOI to select an engineer firm for State Rail Plan

Proc Type: Central Purchase Order

Date Issued	Solicitation Closes	Solicitation No	Version
2018-02-05	2018-02-13 13:30:00	CEOI 0804 RMA1800000001	2

**BID RECEIVING LOCATION**

BID CLERK  
 DEPARTMENT OF ADMINISTRATION  
 PURCHASING DIVISION  
 2019 WASHINGTON ST E  
 CHARLESTON WV 25305  
 US

**VENDOR**

Vendor Name, Address and Telephone Number:

**FOR INFORMATION CONTACT THE BUYER**

Jessica S Chambers  
 (304) 558-0246  
 jessica.s.chambers@wv.gov

Signature X

FEIN # 95-2661922

DATE 2/5/2018

All offers subject to all terms and conditions contained in this solicitation

**ADDITIONAL INFORMATION:**

Addendum

Addendum No.01 issued to publish and distribute the attached information to the vendor community.

\*\*\*\*\*

**Expression of Interest**

The West Virginia Purchasing Division is soliciting Expression(s) of Interest for the Agency, The West Virginia Rail Authority from qualified firms to provide architectural/engineering services to update The Federal Railroad Administration (FRA) Compliant State Rail Plan, per the bid requirements, specifications, and terms and conditions as attached hereto.

\* Online submission of Expression of Interest are Prohibited.

INVOICE TO		SHIP TO	
STATE RAIL AUTHORITY 120 WATER PLANT DR		STATE RAIL AUTHORITY (DBA) SOUTH BRANCH VALLEY RAILROAD 120 WATER PLANT DR	
MOOREFIELD	WV26836	MOOREFIELD	WV 26836
US		US	

Line	Comm Ln Desc	Qty	Unit Issue
1	WV Rail Plan Update		

Comm Code	Manufacturer	Specification	Model #
94101608			

**Extended Description :**

Engineering firm to complete an updated WV State Rail Plan

**SOLICITATION NUMBER: CEOI RMA180000001**

**Addendum Number: No.01**

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The purpose of this addendum is to modify the solicitation identified as ("Solicitation") to reflect the change(s) identified and described below.

**Applicable Addendum Category:**

- | Modify bid opening date and time
- | Modify specifications of product or service being sought
- | Attachment of vendor questions and responses
- | Attachment of pre-bid sign-in sheet
- | Correction of error
- | Other

**Description of Modification to Solicitation:**

This addendum is issued to modify the solicitation per the attached documentation and the following:

1. To publish vendor questions and agency responses.

No other changes.

**Additional Documentation:** Documentation related to this Addendum (if any) has been included herewith as Attachment A and is specifically incorporated herein by reference.

**Terms and Conditions:**

1. All provisions of the Solicitation and other addenda not modified herein shall remain in full force and effect.
2. Vendor should acknowledge receipt of all addenda issued for this Solicitation by completing an Addendum Acknowledgment, a copy of which is included herewith. Failure to acknowledge addenda may result in bid disqualification. The addendum acknowledgement should be submitted with the bid to expedite document processing.

# ATTACHMENT A

Technical Questions CEOI RMA18\*1

1. In Section 6 of the Instructions to Vendors Submitting Bids (Section Two), it indicates that, "acceptable delivery methods including electronic submission via, wvOASIS, hand delivery, delivery by courier, or facsimile." If hard copies are delivered, how many copies are expected? And should an electronic copy also be submitted? Should that electronic copy be flash drive, cd rom, or wvOASIS? (I will address this question).

Please see page 7 of the solicitation:

**The Purchasing Division may prohibit the submission of bids electronically through wvOASIS at its sole discretion. Such a prohibition will be contained and communicated in the wvOASIS system resulting in the Vendor's inability to submit bids through wvOASIS. Submission of a response to an Expression of Interest or Request for Proposal is not permitted in wvOASIS.**

**One copy of the solicitation is required.**

2. In Section 3 of the General Terms and Conditions (Section Five), it indicates that the contract is a fixed period contract of 365 days. We interpret that the document would be submitted and completed within a year from notice to proceed. Is this indeed the case or is there another schedule in mind for the final document? **Yes – the document would be completed within a year from the notice to proceed**
3. Is there a small, women-owned, and/or minority-owned business goal? If so, what is it? (I will address this one). **There is no SWAM goal.**
4. On page 11, where a "staffing plan" is referenced, is there a particular format and or specific content you would like for that information? For example, would you like to see a table of staff, project title, hours by tasks (exclusive of \$) or would you simply like a project team organization chart showing roles/ responsibilities and reporting lines? **A project team organization chart showing roles and responsibilities for this project will be adequate.**
5. Does page 1 of the RFP need to be completed and returned with bidders expressions of interest (referring to the Signature X, FEIN I and date at the bottom of page 1)? (I will address this one)

**It is preferred that page 1 of the solicitation is completed and returned to easily identify the vendor's information.**

6. Page 2 states "Online submission of Expression of Interest are Prohibited". Instructions to Vendors Submitting Bids, Item 6, first sentence, states "All bids must be submitted electronically through wvOASIS". Item 6, paragraph 4, last sentence states "Submission of a response to an Expression of Interest or Request for Proposal is not permitted in wvOASIS". Please confirm electronic submission through wvOASIS is the preference

**Online responses are prohibited for Expression of Interest.**



**ADDENDUM ACKNOWLEDGEMENT FORM**  
**SOLICITATION NO.: 1**

**Instructions:** Please acknowledge receipt of all addenda issued with this solicitation by completing this addendum acknowledgment form. Check the box next to each addendum received and sign below. Failure to acknowledge addenda may result in bid disqualification.

**Acknowledgment:** I hereby acknowledge receipt of the following addenda and have made the necessary revisions to my proposal, plans and/or specification, etc.

**Addendum Numbers Received:**

(Check the box next to each addendum received)

- |  |  |
|--|--|
| <input checked="" type="checkbox"/> Addendum No. 1 | <input type="checkbox"/> Addendum No. 6  |
| <input type="checkbox"/> Addendum No. 2            | <input type="checkbox"/> Addendum No. 7  |
| <input type="checkbox"/> Addendum No. 3            | <input type="checkbox"/> Addendum No. 8  |
| <input type="checkbox"/> Addendum No. 4            | <input type="checkbox"/> Addendum No. 9  |
| <input type="checkbox"/> Addendum No. 5            | <input type="checkbox"/> Addendum No. 10 |

I understand that failure to confirm the receipt of addenda may be cause for rejection of this bid. I further understand that any verbal representation made or assumed to be made during any oral discussion held between Vendor's representatives and any state personnel is not binding. Only the information issued in writing and added to the specifications by an official addendum is binding.

AECOM

Company



Authorized Signature

February 5, 2018

Date

**NOTE:** This addendum acknowledgement should be submitted with the bid to expedite document processing.  
Revised 6/8/2012

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## Expression of Interest

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West Virginia's transportation system is critical to the state's economy and quality of life. The system is responsible for serving the ever-changing and growing needs of a diverse, geographically dispersed traveling public. Changes to West Virginia's socio-demographic profile, economy, and environment over the next several years will influence transportation needs and travel patterns. West Virginia must anticipate these changes and adapt transportation plans and services to respond to changing needs.

The 2018 West Virginia State Rail Plan is an important component of the WVDOT statewide transportation planning. The previous State Rail Plan was prepared in 2013 and requires updates to reflect changes in the underlying economic growth and population distribution patterns and the demands these changes place on West Virginia rail system. The AECOM team includes three staff members who were instrumental in developing the 2013 WV State Rail Plan: **Ken Withers**, **Justin Fox** and **Steve Roberts**. These professionals will provide our team continuity with the previous effort.

Traditionally, coal has been the largest commodity handled by rail in the state, and it remains so. However, rail traffic has been affected by changes in coal consumption nationally. However, freight tons are well diversified, and there have been tonnage increases predicted in other industrial sectors, such as manufacturing

including basic chemicals and products such as plastics and rubber.

Since the last rail plan, Amtrak ridership on its two long-distance routes serving the state – Amtrak's *Capitol Limited* from Chicago to Washington DC, and the *Cardinal* from Chicago to New York – has declined. On the other hand, commuter rail ridership on MARC's Brunswick Line remains strong, and the state's heritage or tourist railroads such as the Cass Scenic Railway continue to draw tourists from outside the state, providing a stimulus to rural West Virginia.

Developing systematic processes for determining the most cost-effective infrastructure investment strategy is a key to successful stewardship of public dollars in an era of constrained fiscal resources. With this procurement, the West Virginia Department of Transportation (WVDOT) and the West Virginia State Rail Authority (SRA) will turn their attention to developing a framework for evaluating investment in an integrated rail transportation system to serve the future travel and freight mobility needs of shippers and residents of West Virginia. These agencies' ability to deliver the State Rail Plan successfully depends on the selection of a consulting team with a proven record of managing such projects as well as a proven approach for reviewing existing data and spotting future trends. Together with our teaming partner R.L. Banks & Associates, Inc. (RLBA), AECOM is well suited to support WVDOT and SRA in this important undertaking.



*Steve Roberts will be assisting AECOM with the passenger rail analysis, focusing on Amtrak, MARC, and heritage rail services. Steve fulfilled the same role in the 2013 West Virginia State Rail Plan. He is a former senior marketing executive with Amtrak*

# Qualifications, Personnel, and Relevant Projects

## AECOM TEAM OVERVIEW

AECOM Technical Services, Inc. (AECOM) is a nationally recognized leader in transportation planning, engineering, and construction services. AECOM will serve as the prime consultant and will perform the majority of tasks on this contract. We have successfully delivered seven state rail plans in the last five years and are currently completing the state rail plans in California and New Mexico. Our staff is available and ready to work on the West Virginia State Rail Plan. Our team includes RL Banks & Associates, Inc. (RLBA), which will support the freight rail planning and analysis portions of the project. Our team offers a combination of local staff and national experts with expertise in data analysis and plan review, GIS, performance evaluation, technical report writing and project management. We have the necessary qualifications to successfully deliver this project on time, and we have identified team members specifically suited to the needs of this contract.

### **AECOM**

**Type of organization / State of origin / Date established:**

Corporation / California / 1970

**Location of Headquarters & Other Offices:**

Headquarters: One California Plaza | 300 S. Grand Ave., Suite 1100 | Los Angeles, CA 90071

AECOM operates numerous offices worldwide. Work for this project will be done in our Morgantown office, 150 Clay Street, Suite 410, WV 26501 and other locations in the U.S.

**Number and location of employees:**

AECOM employs approximately 78,000 people worldwide, including 25 in West Virginia.

**Types of services offered:**

AECOM provides fully integrated planning, engineering, design and program management services for a broad range of markets. Specifically related to the freight rail and transit markets, AECOM provides planning, environmental studies, design, engineering, program management, construction management and advisory services to public agencies and private operators.

### **RLBA**

**Type of organization / State of origin / Date established:**

Corporation / Washington, D.C. / 1956

**Location of Headquarters & Other Offices:**

Headquarters: 2107 Wilson Blvd. | Suite 750 | Arlington, VA 22201

Work for this project will be performed from the headquarters office shown above. RLBA also operates offices in California, New Jersey, and Tennessee.

**Number and location of employees:**

RLBA employs 11 full-time employees and six contract employees. Six of full-time employees work in the headquarters office.

**Types of services offered:**

RLBA provides services related to railroad economic and financial analysis, engineering analysis and service planning. Specifically related to state rail and freight planning, RLBA assesses the viability of short line railroads, evaluates light density rail lines, and devises strategies for small railroads and railroad abandonments. In addition, RLBA offers expertise in regulatory issues related to federal transportation agencies.

Through our prior experience with delivering many other state rail plans, AECOM understands the opportunities and challenges of planning, funding, and delivering an improved transportation network in an era of shifting revenue resources. Most importantly, we fully understand that the ideal state rail network must improve both freight and passenger rail operations, add resilient infrastructure, and ensure continued safety, as well as remain adaptable in the future.

The AECOM team's corporate competence in, and knowledge of the skills required for this contract are detailed throughout our proposal. Our depth and experience has consistently ranked AECOM No. 1



in Transportation and No. 1 in Mass Transit and Rail of U.S. engineering firms by *Engineering News-Record*. AECOM brings knowledge and understanding of transit projects in all project phases including procurement, design, construction and commissioning.

To support WVDOT and SRA in the success of this planning effort, AECOM is committed to investing the time and resources necessary to meet these agencies' goals and objectives for the State Rail Plan, including compliance with all applicable FRA, PRIIA and FAST Act requirements.

Our multidisciplinary team possesses the technical expertise, state rail planning experience, and professional relationships needed by WVDOT and SRA to help you realize a state rail system, fully integrated the state's multimodal network and poised to deliver positive economic, social, and environmental benefits for all West Virginians. As you evaluate this Expression of Interest, we

ask that you consider the following features and benefits offered by the AECOM team:

**Planning and Collaboration:** We have recent and relevant history of successful partnership with WVDOT, stakeholders, and communities in a variety of highway planning efforts, which will assist in identifying current and future challenges and opportunities to build a more strategically developed and globally integrated multimodal transportation system. Collaborative relationships with these stakeholders have already been established through some of our prior work and will be important in helping us refresh and update the 2018 State Rail Plan. In addition, both AECOM and RLBA have extraordinarily good working relationships with CSX Transportation, Norfolk Southern Railway, several of the state's short line and regional railroads, Amtrak, MARC, and tourist railroads; these relationships will be extremely important in engaging with these entities to refine and update the State Rail Plan.

**Rail Planning and Design:** AECOM is ranked as the number one design firm in the Transit/Rail category by *Engineering News-Record*. We obtained this position by planning and designing more transit/rail projects in the United States than any other firm.

**Seasoned Professionals:** The AECOM team is composed of technical professionals who have repeatedly demonstrated that they can work effectively in a team-based environment. The team has a firm understanding of the FRA state rail planning and review process, as evidenced by our experience completing state rail plans in New Mexico, Arizona, California, North Carolina, Pennsylvania, and Tennessee. To maximize the value we offer to WVDOT and the SRA, our project leadership team includes the following technical experts in the field of freight and rail passenger planning and design.

## PROJECT PERSONNEL/ORGANIZATIONAL CHART

The individuals cited below appear on the proposed organizational chart that follows:



**Justin Fox, Project Manager.** Helping a state develop its rail plan is exciting work. It's all about creating a strategic plan of where a state wants take its rail program. It involves engaging stakeholders – railroads, shippers, train riders, cities, politicians, and the general public – to find out what they want and need for their rail systems. That could vary from financial assistance for cash strapped short lines to improved intercity and commuter rail services, and more. With the need understood, you can help the state's rail planners articulate a vision for their rail program, along with supporting projects that over time will realize that vision. In the last 18 years I have been involved in helping to craft almost 20 state rail plans, from Alaska to Florida, and, yes, for West Virginia in 2013. Each one is different, and every one has been a tremendously fulfilling experience.

*"I have always enjoyed planning work. At its root, planning is about figuring out the good ideas from the bad ideas, and then find a way to move ahead with the good. Strategic plans, like state rail plans, are for me the most challenging and thus the most rewarding effort of all. These plans set a direction, to which relevant resources are aligned. And to be effective, they require the input and support of all stakeholders." -Justin Fox*



**David Weaver, Project Director,** Managing AECOM's Transportation Consulting Services in West Virginia for the past 20 years has given me a wonderful opportunity to work on a variety of planning studies, engineering design, design-build, and construction management projects throughout the state. After circling the country and then returning to my home state of West Virginia, I've learned that it is important to understand best practices and experiences from other locales to avoid repeating missteps taken elsewhere. But, it is also important in West Virginia to understand the unique needs and culture of our state, to develop strategies and plans that work here. For my entire life, I have travelled West Virginia to experience and enjoy the rich heritage and resources that the state offers. Connecting AECOM's national and local experts with in-state clients to collaborate on important projects in West Virginia provides me with great professional fulfillment.

*"As a 7th generation West Virginian and the great-grandson of a former B&O Station Master and Yard Master in Wheeling, I understand and appreciate the importance of our rail assets in West Virginia. I look forward to working with the WV State Rail Authority and Steering Committee Members to deliver this timely plan update" - Dave Weaver*



**Bill Pugh, PhD, Quality Manager.** Quality management carries through the life of the project, including planning and approach, design and development, checking and review, and verification. AECOM is one of the few ISO 9001-certified professional and technical services firms in North America, providing a solid framework and culture for quality control and assurance. To deliver quality, it is important that we understand our client's needs, expectations and requirements. As a quality manager who is also a transportation planner and project manager, I use my technical experience to ensure that the quality plan is tailored to the specific planning project, and that the AECOM project team has the proper internal reviewers and procedures to implement it. The project quality manager works closely with the project manager to assure that these procedures are followed over the life of the project.

*"My role as Local Quality Manager for AECOM's DC Metro area transportation practice involves me in all areas of quality management for a wide range of projects. In my other roles as planner and project manager at AECOM, I have specific technical experience in rail and transit system planning at the regional and state levels." - Bill Pugh*



**Ken Sislak, Project Director.** A state rail plan is a strategic planning effort that looks at what can West Virginia do today to prepare for an uncertain future. The planning process requires stakeholder and community consensus on what that future might be. To do this, we have to understand travel and freight markets and trends, trip patterns, and community aspirations. This helps define both current and future needs. Major capital projects have costs. But they also generate wider economic benefits to the community. It is our job to identify and articulate these costs and benefits in a clear, understandable way to inform decision makers and community stakeholders about the appropriateness of the investment in a world of diminishing funding resources. My role is to help guide the planning efforts and to be a valuable advisor to WVDOT and SRA senior management.

*"Rail transportation has been my passion all my life. What I am most passionate about is seeing projects get built that enable states to compete in a connected global economy and for people to enjoy their life more fully."* -Ken Sislak



**Ken Withers of RLBA, Freight Rail Lead.** Shortly after joining R L Banks & Associates, Inc., (RLBA), I was lucky enough to get the job of preparing the West Virginia State Rail Plan. This was in the early 1990s. Since then, I have been the Project Manager for eight additional state rail plans and have been a principal assistant in the preparation of three others, including the 2013 West Virginia State Rail Plan (yes, two times in West Virginia) for a total of 12 state rail plans. The State Rail Plan requirements have evolved over the years, and that has kept things very interesting. As subconsultant, I am assisting Justin Fox of AECOM in finishing the State Rail Plan Update for New Mexico. I have been responsible for the freight railroad portion on that state rail plan. The second time in West Virginia, in 2013, as a subconsultant, I had the responsibilities of profiling West Virginia's regional, short line and tourist railroads; developing the overall freight rail assessment; evaluating the capacity of West Virginia's rail lines; describing existing the prospective commuter railroads; interviewing rail shippers; and checking compliance with Federal Railroad Administration requirements.

*"What has been especially interesting is the number of railroads (large and small) in West Virginia, and the importance to West Virginia of its rail network."* - Ken Withers



**Michael Cornfield, Rail Services and Investment Program.** The most rewarding part of strategic rail planning across the country is helping clients and stakeholders realize, implement, and articulate their unique vision for protecting and investing in future rail service. Through its State Rail Plan and related strategic planning efforts, West Virginia has an exciting opportunity to examine its statewide rail network as it exists now, evaluate current and future challenges, and engage with stakeholders, industry, and residents to explore what the future rail network can accomplish and mean to the State. The State Rail Plan will be the process of determining that best path forward. Key to the effort will be the Rail Service and Investment Program, where West Virginia's stewardship and vision for its rail network come together with a grounded, implementable plan to achieve the State's goals.

*"In infrastructure, we stand on the shoulders of those who came before us and we have a responsibility to be the shoulders for those who come next. As such, strategic planning is foundational to a successful rail network. I'm passionate about the small details and the big questions that have to come together to steward and invest in our future rail service."*

- Michael Cornfield



**Chet Parsons, AICP CTP, Outreach and Coordination.** As a professional transportation planner, I am constantly thinking about connections. Making a case for multimodal transportation in West Virginia is something that gets me energized and excited about the future of our State. What an amazing resource it is to have a rail system that can lay the foundation for not only new freight opportunities, but tourism, economic development, and so many other growth prospects that impact West Virginia communities. I am so excited about the chance to get out around the State and get people involved in the development of this plan. Outreach for this project will engage the general public, community leaders, and decision makers to craft a long-term vision for rail in West Virginia. With 20 years of public engagement experience in this State, I am continuously amazed at the ongoing ability of West Virginians to develop thoughtful, connected plans when they have the opportunity to be involved from the beginning.

*"I look forward to getting stakeholders engaged in the planning process. It is a delight to see that lightbulb come on when someone is thinking about the future, and we've got a great opportunity to do that now for rail in West Virginia." - Chet Parsons*



**Laura McWethy, Passenger Rail.** I am eager to leverage more than a decade of experience across the country in supporting rail planning studies. I relish the challenge of creating a clear picture of current passenger rail service in West Virginia and evaluating the path forward to best serve future needs. I have actively been involved in every stage of the intercity passenger rail planning process, developing travel surveys, analyzing passenger and service data, estimating and applying travel demand models for scenario analysis, and interpreting results. I've worked on projects that combined all steps, as I did for NEC FUTURE, which examined Amtrak's Northeast Corridor as well as commuter rail. I also have been able to use the AECOM-developed Amtrak model in corridors across the country, from California to Michigan to Virginia, among other locations, and have worked to ensure it accurately reflects the local ridership picture. I am very interested in applying this knowledge in West Virginia for the new State Rail Plan.

*"I find it exciting to tell the story of who travels where and why, and I look forward to successfully evaluating and improving the passenger rail experience in West Virginia." - Laura McWethy*

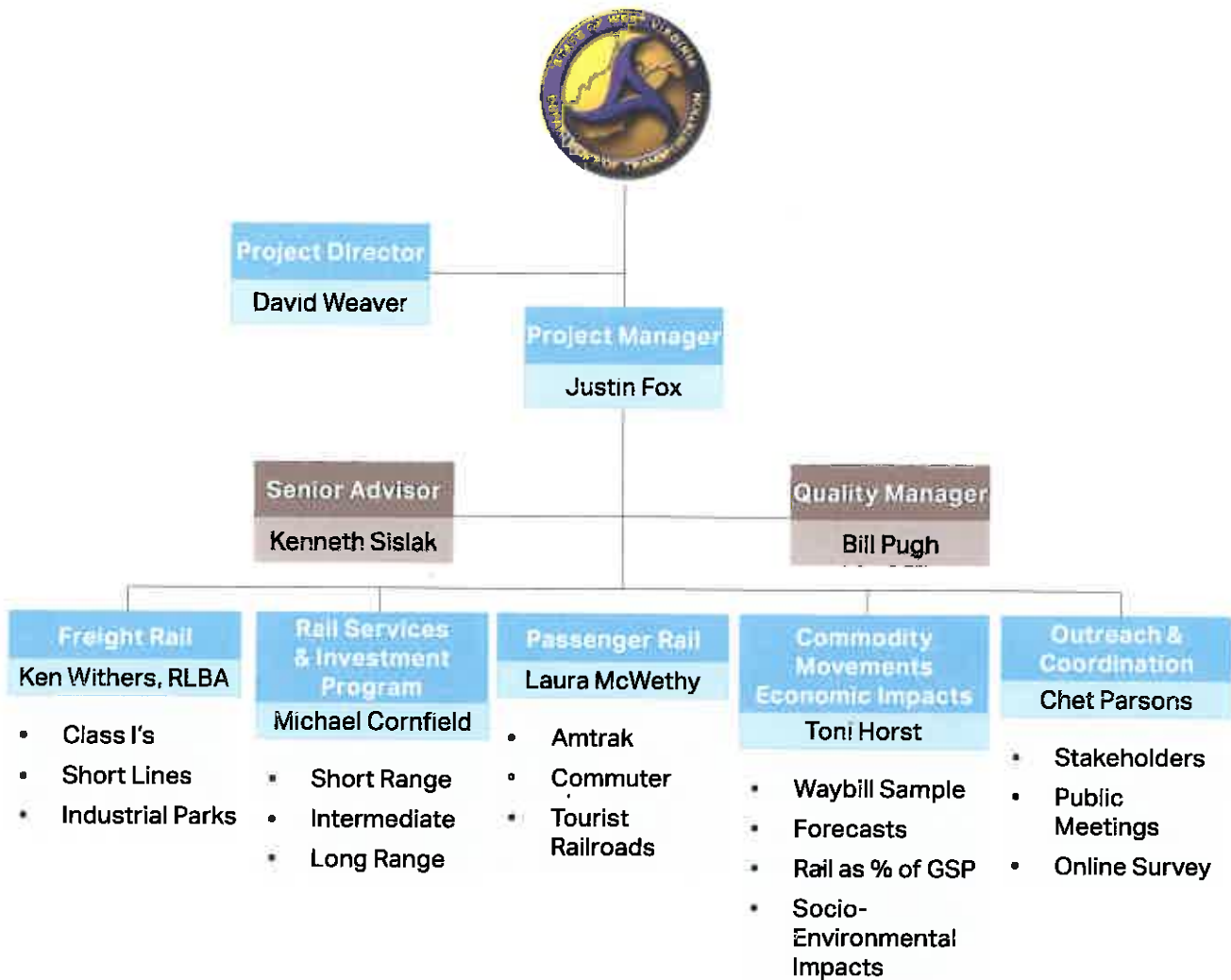


**Toni Horst, Commodity Movements Economic Impacts.** Transportation investment plays a central role in West Virginia's economic development strategy. The transportation system we are developing today is shaping West Virginia's future development—influencing its long-term economic competitiveness and sustainability. If we get it right, the transportation system and pattern of development that builds up around it will meet present needs while preserving options for future generations. Economic analysis helps to articulate the important role that rail plays in West Virginia's future as its operations both shape this future development and offer residents travel options beyond a daily car commute and shippers options beyond trucking.

*I enjoy developing technical analyses that addresses planners' and the public's questions to support the decision-making process for major public policy initiatives. - Toni Horst*

Resumes for these key staff appear in later in this proposal.





Importantly, AECOM has an office in Morgantown with 25 employees across a wide range of technical areas. In addition, the AECOM team will be assisted by Steve Roberts, who focused on intercity, commuter, and tourist rail elements in the 2018 West Virginia State Rail Plan.

Our team's unparalleled rail transportation expertise, combined with our commitment to deliver innovative planning solutions, means that we are ready to begin. In summary, we offer two vital attributes that will provide exceptional value: first, a team that has successfully

managed and delivered other state rail plans; and second, powerful tools and techniques for capturing current conditions, forecasting future rail volumes, and sampling public opinion – all of which is fundamental input for effective rail planning for West Virginia.



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## Relevant Experience/Performance Data

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Both AECOM and RBLA have wide-ranging experience in statewide rail planning projects and related studies. The following are selected project descriptions demonstrating the depth of our team's relevant knowledge and experience. All have elements that are similar to the 2018 West Virginia State Rail Plan in terms of budget, timeline, and resources.

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### New Mexico State Rail Plan

*2018 update currently underway New Mexico State DOT*



New Mexico's transportation system is critical to the state's economy and quality of life. The system is responsible for serving the ever-changing and growing needs of a diverse, geographically dispersed traveling public. Changes to New Mexico's socio-demographic people, economy and environment over the next 25 years will influence the transportation needs and travel patterns. New Mexico must anticipate these changes and adapt to a new transportation plans and services.

The New Mexico State Rail Plan is an important component of the New Mexico 2040 Plan for statewide transportation. The previous State Rail Plan was prepared in 2014. The update reflects changes in the underlying economic

growth, population distribution patterns, and the demands on New Mexico's rail system.

AECOM is developing a State Rail Plan identifying the rail vision for the State of New Mexico. AECOM profiled all rail operations in the state – freight and passenger- and identified carrier needs. AECOM then developed a short-range and long-range program of improvements and investments. The analytical work was supported by a comprehensive stakeholder outreach effort to railroads, shippers, industrial parks, public transportation planners, and the general public.

The State Rail Plan is fully compliant with the Federal Railroad Administration's 2013 State Rail Plan Guidance.

#### **Key Features**

- Develop a State Rail Plan identifying rail projects that are eligible for federal funding.
- Develop a State Rail Plan which is an important component of the New Mexico 2040 Plan for statewide transportation.
- Develop a State Rail Plan that will result in projects for state investment justified by the public benefits anticipated.
- Explore options for new rail services.
- Document changes in the New Mexico rail system (progress on abandonments and rail banking since the prior 2014 plan), as well as trends in railroad and crossing accidents and incidents over the last 10 years.

**Team Members:** Justin Fox - Project Manager, Ken Sislak - Project Director, Toni Horst - Economic Analysis, Ken Withers - Freight Work.

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## California State Rail Plan

*2018 plan underway Caltrans, Division of Rail and Mass Transportation (Caltrans)*



In 2013, AECOM worked closely with Caltrans to develop a comprehensive rail plan that was the first step to fully integrate the California high-speed rail system within the existing and proposed conventional rail system.

AECOM is now developing the 2018 California State Rail Plan. The planning horizons are 2022, 2027 and 2040. The rail plan set forth the state's vision, goals and policies regarding rail transportation throughout the state, with connections to other parts of the country. It provides an inventory and assessment of the current system, and encompasses high-speed, intercity-passenger, commuter and freight rail. Future or potential growth is quantified, and constraints and choke points are identified.

Future rail investment and specific improvement projects are described along with timing, source of funding, and benefits. Draft policies and implementation strategies defining major objectives and milestones were also developed. The rail plan serves as the basis for state and federal investment in California high-speed, intercity passenger, and goods-movement rail projects.

As part of this project, AECOM met with numerous rail transportation stakeholders from all

parts of the state to understand their plans for the future and their needs. Stakeholders included the JPAs running the California Corridor services, the commuter rail operators, regional transportation planning agencies, freight railroads, Amtrak, and urban mass transit agencies, among others. Multiple public meetings were held in Northern California, the Central Valley, and Southern California outlining the State Rail Vision for truly integrated passenger rail and transit services by 2040.

A particularly challenging task is to connect services and create a seamless network. The AECOM team helped to define timed connections for the State Rail Plan's 2040 horizon between high-speed rail, intercity corridors, commuter rail services, and urban mass transit systems.

**Team Members:** Justin Fox - Senior Advisor, Michael Cornfield - Lead Planner, Ken Sislak - Project Manager

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## Arizona Statewide Rail Framework Study and State Rail Plan

*Completed: 2010 (Framework Study); 2011 (State Rail Plan) ADOT*

As a follow-on step to the Statewide Rail Framework Study, ADOT retained AECOM to prepare a State Rail Plan that responds to the requirements of the 2008 Passenger Rail Investment and Improvement Act. The State Rail Plan is based on the research and findings of the Statewide Rail Framework Study completed in October 2009. It provides a 20-year implementation program and capital plan for statewide rail investment that includes the enhancement of freight rail



infrastructure, identifies the steps to institute intercity passenger rail services along key routes, coordinates efforts to implement commuter rail and plan an intermountain west high-speed rail network, recommends establishing a program to assist short line railroads to serve existing and future industry, and identifies an attendant set of safety and environmental preservation measures. The State Rail Plan resulted in development of a Rail Action Plan for immediate, intermediate and long-range timeframes, together with funding strategies for implementation. The Phoenix-Tucson Intercity Rail AA/EIS is the first project to be implemented from the State Rail Plan.

The goals of the State Rail Plan include: develop a seamless passenger rail system serving intercity and regional travel; improve efficiency, safety and sustainability of Arizona railroads; retain and attract industry by improving opportunities to distribute goods and locate transshipment and other rail-related facilities; and ensure that by 2030, elected officials, policymakers and the public view rail as equal in importance to other travel modes. A Freight and Passenger Rail Advisory Committee (FRAC) was constituted for the purpose of this project and future rail initiatives.

Additionally, the public involvement component of the project involved focus groups in Flagstaff, Phoenix, Tucson and Yuma, as well as development of a project website. The State Rail Plan puts the state in a better position to secure FRA grants for rail development and improvements, including funding for intercity and high-speed rail planning.

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## **Pennsylvania Intercity Passenger and Freight Rail Plan**

*Completed: 2010 - Pennsylvania DOT*



The Pennsylvania Intercity Passenger and Freight Rail Plan is PennDOT's 20-year plan for the state's rail system through 2035. The Plan meets state and federal rail planning requirements including the Rail Safety Improvement Act of 2008 and the Passenger

Rail Investment and Improvement Act of 2008. The plan describes goals and objectives for implementing the state's vision for improved intercity rail passenger and freight service developed with extensive participation from railroad operators and agencies, stakeholders and the general public. The plan contains an inventory of the freight and passenger rail system, a description of rail opportunities and issues and a statewide capital investment plan.

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## **North Carolina Statewide Rail Plan**

*Completed: 2015 • North Carolina DOT*

The plan addresses all federal requirements, responds to North Carolina's unique context, and provides a vision of how stakeholders can work together to efficiently move people and freight in an economically and environmentally sound way. It was prepared using NCDOT modal units to ensure components can help with regionalized project prioritization, in accordance with NCDOT's 2040 Plan, and serve as components of a multimodal freight plan that



complies with Moving Ahead for Progress in the 21st Century (MAP-21).

The plan includes: an inventory of current freight/passenger rail and community/economic conditions; an assessment of current/future rail needs; information from a visioning process to determine the rail system's future; and a set of implementation strategies and action items. It identifies passenger/freight program needs and their potential benefits, quantifies benefit-cost ratios for near term freight projects and service additions, and identifies potential supplemental funding sources. Stakeholder involvement included coordination with a technical advisory committee with representatives from Class I and short line railroads, North Carolina Railroad, Amtrak, US Department of Agriculture, US Department of Commerce and NCDOT Strategic Planning.

**Team Members:** Ken Sislak - Senior Advisor

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### **Economic and Market Analysis for an Inland Intermodal Port in Prichard, WV for the West Virginia Department of Transportation**

*Completed 2007 - WV DOT*

In 2007 the West Virginia legislature passed Senate Bill 569 requiring the West Virginia Public Port Authority to conduct a study relating to the feasibility of the intermodal facility at the unincorporated community of Prichard, Wayne County, West Virginia, including assessment of initial planning, development, construction and operation and the long-term sustainability of the facility. The results of the study indicate that investment in the Prichard Intermodal Terminal will generate a net increase of between 700 and 1,000 jobs by 2025; at the end of the 20 year outlook the economic output of the state economy will increase by between \$47 and \$69 million with investment



versus no investment.

The West Virginia economy, at nearly \$53 billion, is large enough that it is difficult for even an investment such as being considered for the Prichard Intermodal Terminal, to produce significant benefits in the State's economy. However, measuring the comparative "return" on the invested public capital gives an indicator as to the project's ability to convert public monies to statewide benefits. In the case of the Prichard Intermodal Terminal, a \$30 million investment yields a statewide benefit of \$47- 69 million (GSP impact) by 2025. One of the largest benefactors for the Prichard Intermodal Terminal investment is the private sector, who will benefit from reduced logistics costs with the introduction of intermodal competition to the area. The projections are that the region's private sector logistics costs will be reduced by approximately \$17.5 million annually by 2025.

Obviously some of these savings produce local public sector benefit, through increased taxes, faster economic growth, and accelerated employment growth that are captured in the public sector benefits. The promise of this benefit could encourage private sector investment in the terminal construction, and further improve the public sector benefit performance.

**Team Member:** Dave Weaver - Project Manager

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### **West Virginia State Rail Plan**

*Completed: 2013 • West Virginia DOT*



As part of a consultant team, RLBA assisted in the preparation of West Virginia's State Rail Plan, in conformance with the Passenger Rail Investment and Improvement Act of 2008 (PRIIA). RLBA 1) prepared the inventory and profile of West

Virginia’s regional, short line and tourist railroads; 2) performed the commuter railroad assessment; 3) evaluated capacity on West Virginia’s principal rail corridors; and 4) interviewed railroad shippers with regard to specifics of their rail service. The RLBA work included grade crossing inventories with regard to each railroad, and determinations regarding compliance with the Federal Railroad Bridge Safety Management Program. In addition, RLBA analyzed national and regional railroad trends in order to determine what opportunities exist with regard to future railroad service in West Virginia, and assisted in examination

of issues raised before the State Steering Committee. Included in the RLBA analysis was an identification of major passenger and freight intermodal rail connections and facilities, and an evaluation of possible improvements in commuter rail services, and strategies to achieve those improvements.

Justin Fox worked alongside Ken Withers of RLBA on this project. He led the evaluation of line capacity as well as the evaluation of intercity passenger rail, commuter rail and tourist railroads.

**Team Members:** Ken Withers, Justin Fox

<b>References</b>	
<p><b>Andy Cook, Chief</b>                      Office of Rail Planning &amp; Operations Support                      Division of Rail &amp; Mass Transportation                      California Department of Transportation                      (916) 653-0806                      Andrew.Cook@dot.ca.gov.</p>	<p><b>Bill Craven, Rail Bureau Manager</b>                      Transit and Rail Division                      New Mexico Department of Transportation                      (505) 629-3982                      William.Craven@state.nm.us .</p>

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# Approach to the State Rail Plan

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## PROJECT COMMUNICATION

The AECOM Project Manager will report to the WVDOT/SRA Project Manager. A project kickoff meeting will be held to confirm expectations, tasks, budget, and a schedule for the West Virginia State Rail Plan. To ensure conformance to schedule and budget, the AECOM team and the WVDOT/SRA Project Manager will conduct monthly progress calls/meetings. AECOM will prepare agendas for the meetings and summary notes after the meetings, which it will circulate to the WVDOT/SRA Project Manager for approval.

To facilitate communication and the overall study effort, AECOM will establish a SharePoint website, on which all project documents – including call/meeting agendas, meeting notes, and draft and final chapters of the State Rail Plan – will appear. The SharePoint site will ensure speedy access to work projects for review. AECOM has used this electronic posting method for hundreds of projects, including the state rail plans for California and New Mexico.

## PROJECT HIGHLIGHTS

There are six major activities that will be involved with development of the West Virginia State Rail Plan Update. These are denoted by the chapters in the FRA's State Rail Plan Guidance.

### **1. Role of Rail in the State's Multimodal Transportation Network**

The intention here is describe how rail planning is done within the state, and how that rail planning is integrated with other state transportation planning inclusive of the Statewide Transportation Improvement Program and the West Virginia State Freight Plan.

Here, the AECOM approach is to illustrate the role of rail in state's multimodal transportation system and describe the state's organization to provide political, legal, and financial support to rail development. AECOM will describe who is charged with producing the state rail plan, and who is charged with approving the plan.

AECOM typically includes a description of rail's role within the state's transportation system. This description would include a brief history of the development of the state's rail system as well as an outline of the system itself in its freight and passenger components.

The aforesaid description of the West Virginia rail planning effort and how it integrates with the state's multimodal planning effort will appear as Chapter 1 of the State Rail Plan.

### **2. The State's Existing Rail Network**

#### *Profiling the Carriers*

The intent here is to profile the state's freight and passenger rail network. AECOM's approach to this task is to engage all the rail operators in the state directly. AECOM works with each carrier to define operations on its lines in the state. For example, for each Class I and Class II subdivision, AECOM obtains endpoints, route mileage, maximum operating speeds, track configuration, signalization, trains per day, line density in millions of gross tons, and representative commodities handled. Major yards and interchange points are also noted. Similar data for Class III railroads, or short lines, are also captured. The data is displayed on datasheets, which become an appendix to the plan.

A key part of the description will be a description of rail-borne commodities to, from, and within the state. Typically, the STB Waybill Sample is used for this task. AECOM will describe commodity movements down to the county level, if desired.

Amtrak intercity operations and commuter rail operations are described as well with a similar level of detail. Train routes and ridership trends over time noted; as are performance levels such as revenue recovery ratios, on-time performance, and customer satisfaction scores from survey data, as available. Further, stations are inventoried in terms of their location, ownership, parking capacity, and degree of compliance with ADA requirements.



Photo courtesy: Ira Silverman

Also, AECOM will include a 10-year summary of rail accidents and incidents in the state, including hazmat, trespasser, and highway-rail accidents and incidents, compiled from the FRA's national accident database.

AECOM will develop a rail system map noting the location and routes of all freight and passenger carriers; major freight yards such as the Prichard Intermodal Terminal, along with Amtrak and MARC stations will be identified. For the Class I railroads, AECOM will develop a map showing their subdivisions. Also, AECOM will develop a map showing the ton-mile density for each Class I and II main line in the state.

### *Service Objectives*

It is here that AECOM identifies the passenger rail service objectives for the state. Development of these objectives requires AECOM to engage state's rail planning officials in what they want the services in the state (Amtrak and MARC) to achieve in terms of operating and financial performance. These objectives also provide a framework for state rail planners to engage Amtrak and MARC in implementing service enhancements.

### *Economic Impacts*

Also key in this section will be an assessment of the importance of freight and passenger rail to the state's economy. For example, how many jobs are directly related to rail transportation? These include the employees of the railroads themselves. But more significant are the jobs of those industries that are dependent on rail transportation. More significant still are the jobs in those industries that support the rail shippers and receivers and the railroads. AECOM will quantify these direct, indirect, and value-added employment figures in order to estimate rail's contribution to West Virginia's Gross State Product. Passenger and tourist railroads' contributions will also be assessed.

### *Trends and Forecasts*

AECOM will forecast commodity volumes handled by rail to, from, and through the state for the next 22 years (i.e., to 2040). Freight volumes have shown volatility over the last several years, driven in large part by the rise and then decline of both crude-by-rail and coal shipments; and the impacts of structural changes such as the enlargement of the Panama Canal have yet to be fully understood. Our evaluation of future freight rail volumes will describe our specific assumptions driving our forecasts. In the same way, AECOM will forecast passenger rail volumes, both intercity and commuter.



### *Needs and Opportunities*

AECOM will match future volumes against the existing infrastructure. AECOM will probe with the Class I's to determine if rail lines and planned improvements are sufficient to handle the forecasted volumes and, if not, what capacity enhancements might be required to mitigate congestion and bottlenecks. Assessment of opportunities will go beyond determining needs. That is, given assumptions of the future demand for freight and passenger mobility, are there things that West Virginia could be doing to seize the initiative, such as: develop transload facilities or even inland ports in strategic locations, develop higher speed passenger services, enhance stations for greater accessibility, including bike/ped amenities and well as transit and ridesharing services like Uber and Lyft?

The description of the West Virginia freight and passenger rail system will appear as Chapter 2 of the State Rail Plan.

### **3. Passenger Rail Proposed Projects**

Here, AECOM will summarize the proposed passenger rail projects – convention intercity rail, and commuter rail; the summary will appear as Chapter 3. AECOM will rely on various sources for this information, including:

- Projects that are either planned for programmed by state
- Recent year reports and studies that have identified, including Amtrak reports done in response to PRIIA Section 210
- Comments from Amtrak and MARC on what they intend to do to enhance service offerings and quality
- Comments from tourist train operators

### **4. Freight Rail Proposed Projects**

In a similar way, AECOM will summarize all proposed freight rail projects; the summary will appear as Chapter 4. AECOM will rely on various sources for this information primarily from comments from the freight railroads about

projects they intend to implement. AECOM will also request any studies that the WVDOT/SRA might have concerning planned or proposed freight rail improvements in the state.

### **5. Rail Service and Investment Program**

AECOM will develop the Rail Service and Investment Program (RSIP) appearing as Chapter 5 of the State Rail Plan. Per the solicitation for the Expression of Interest for this project, it will consist of three major elements: the short-range plan consisting of the first four years (2018 through 2021); and intermediate range (2022 through 2030), and the long-range plan consisting of the subsequent years (2031 through 2040). Furthermore, short range project will be financially constrained. Long-range projects (for years 2023 through 2037) can show with funding sources to be determined.

Rail projects to be financed by public support will be prioritized by the public benefits anticipated: ridership increased, enhanced economic development and competitiveness, congestion mitigated, travel times and emissions savings, accidents avoided, etc. Funding strategies for the projects will be identified.

The RSIP will begin with an articulation of the State Rail Vision, which will define what users of the state rail system (railroads, shippers, commuters, tourists, and the general public) want and need. The vision will in turn be supported by rail service Goals and Objectives; these can be aimed at improving grade crossing safety and reducing rail line congestion, for example. The heart of the RSIP will be the specific rail projects,



Photo courtesy: the ed 17

prioritized by the public benefits anticipated, that will be the realization of the State Rail Vision and its Goals and Objectives. In this way, a line can be drawn directly from the State Rail Vision, to its underlying Goals and Objectives, down to individual rail projects in a cohesive program of projects for the next 22 years.

Future planning studies, aimed at identifying future needs and solutions to rail transportation planning issues, will be identified and included with the RSIP. AECOM will include a Rail Vision Map, identifying where proposed freight and passenger rail projects will be implemented.

Chapter 5 will also identify how the State Rail Plan will be integrated with other transportation plans, including those of other states. Rail lines that are part of the Strategic Rail Corridor Network (STRACNET), i.e., lines deemed essential by the Department of Defense for rail transportation, will be identified by a map.

## 6. Outreach and Coordination

In Chapter 6, AECOM will summarize the outreach effort conducted with rail stakeholders.

The outreach will be to stakeholder groups including the following:

- Freight railroads: Class I, II, and III railroads
- Passenger railroads, inclusive of Amtrak, MARC, and tourist railroads
- Freight stakeholders, i.e., major shippers in the state
- Passenger rail stakeholders, including passenger rail advocates and the local representative of the National Association of Rail Passengers (NARP)
- Local and regional government, i.e., MPO transportation planners
- Other state agencies, including state agencies involved with safety and security on the rail system
- SRA and WVDOT personnel
- The FRA Regional Office (Region 2)

- Neighboring states
- The general public

AECOM will work with the WVDOT/SRA to refine the list above.

The AECOM anticipates reaching out to representatives of the freight railroads directly. AECOM will prepare letters to the railroads requesting key information. The WVDOT/SRA State Rail Plan project manager will sign and post the letters. Requested will be specific data on lines (track configuration, signalization, trains per day, MGT/M, typical commodities handled, interchanges with other railroads, bottlenecks, needs and planned improvements, among other things). This information will enable the AECOM team to develop datasheets for each Class I and Class II subdivision and each Class III short line, which will be straightforward to update in future years.

In order to describe passenger rail performance, needs and projects, the AECOM team will develop the information from various reports, such as the Amtrak's monthly performance reports and FRA quarterly performance reports, as well as from the Great American Stations website. As required, the team will contact the Amtrak government representative for any needed clarifications.

The team will interview the MARC for information on its operations, needs, and projects. As tourist train operations are important to the local economies, the team will interview these railroads for input.



Photo courtesy: Ira Silverman

The team will interview up to 10 rail shippers for their thoughts on rail service in West Virginia. The shippers will include Class I, II and III shippers handling a representative mix of commodities originating and terminating in the state.

AECOM will also interview passenger rail advocates (e.g., NARP), MPO transportation planners, other state agencies and SRA and WVDOT personnel, and, consistent with FRA State Rail Plan Guidance, rail managers from neighboring states. Most interviews will be by telephone. To facilitate these interviews, the team will develop a list of questions or an interview guide for each interviewee which it will present to the WVDOT/SRA Project Manager for approval prior to outreach.

The AECOM team will develop a survey which will be posted on the Rail Plan webpage of the WVDOT website. The survey will be aimed at capturing the public comments on rail service in the state. The survey will be in a Survey Monkey format. To attract the most responses possible, the team will develop a press release for WVDOT announcing the State Rail Plan and the survey. The press release will be distributed by WVDOT to the local press, via social media and to the four MPOs covering transportation planning in West Virginia for their distribution to rail stakeholders and other interested parties in their jurisdictions.

Lastly, the AECOM team recommends two rounds of public meetings. Each round of meetings will take place in up three locations to be selected by the SRA and WVDOT. The first round, to take place during the early stages of the project, will introduce the study and solicit initial input on the state's rail service – its challenges and opportunities. The second round, which will occur toward the end of the study, will explain findings and recommendations for the state's Rail Service and Investment Program and gather public comment on that plan.

Apart from describing the outreach effort, AECOM will describe how this State Rail Plan is integrated with other state and regional planning efforts, such as freight planning, statewide transportation planning, and multimodal planning efforts of neighboring states.

## **7. Executive Summary**

Once all the chapters have been reviewed and finalized, AECOM will develop an Executive Summary, an element in a state rail plan required by the FRA guidance. The executive summary will encapsulate the State Rail Vision and the Rail Service and Investment Program articulated to realize that vision.

## VALUE-ADD TOOLS AND TECHNIQUES

Since the passage of the Passenger Rail Investment and Improvement Act (PRIIA) in 2009, AECOM team members proposed for this project have worked on more than 20 state rail plans. Appearing below are selected tools and techniques they have used to craft successful strategic state rail planning documents, and which AECOM proposes to use for the update of the 2013 West Virginia State Rail Plan.

### **1. Intercity Rail Ridership Forecast**

A state rail plan will need to forecast intercity passenger volumes. Amtrak uses typically a 2 percent growth factor for its long distance trains. While this methodology has proved reliable enough on a service basis, a modification is needed for projections at individual stations. This kind of projection can be done by increasing station boardings and alightings by weighted average population growth rates of counties within a 30-mile radius of a station. Our proposed project manager, Justin Fox, used this method for several recent state rail plans, including Georgia and New Mexico. See the exhibit below from the 2015 Georgia State Rail Plan (Justin Fox was PM for that plan, while working at another firm). AECOM is using the same forecasting technique for the ongoing New Mexico State Rail Plan.

Georgia Intercity Ridership Forecast by Station					
Station	2013	2015	2030	2040	% Growth/Year
Toccoa	4,266	4,438	6,040	7,418	2.10
Gainsville	6,464	6,725	9,768	12,528	2.50
Atlanta	99,005	103,005	142,156	176,212	2.20
Savannah	71,658	74,553	96,352	114,320	1.70
Jesup	10,692	11,124	14,192	16,693	1.70
<b>Total</b>	<b>192,085</b>	<b>199,845</b>	<b>268,508</b>	<b>327,171</b>	<b>1.99%</b>

It is important to note that actual future ridership performance will be based not only on population growth but also by changes in income growth, changes in the number of train frequencies and train schedule times at the station (day vs. night), changes in Amtrak fares vs. other modes, and changes in the quality of Amtrak service (i.e., on-time performance). Still, the numbers are grounded on state estimates of population growth by specific location, which take into account changing conditions relevant to jobs, university enrollment, and other factors affecting localized populations.

## 2. Outreach Techniques

A state rail plan should give users of a state's rail system a reasonable opportunity to offer their thoughts on rail service in the state. For AECOM, that means reaching out to both rail passengers and rail shippers. Such outreach is most effectively done by interviews and online surveys. On the passenger side, prime target for interviews are rail advocacy groups, such as the National Association of Rail Passengers. For freight railroads, the prime targets are shippers, who can be identified through the state freight planning efforts and the railroads themselves. In each case, an interview guide can be crafted. Key questions focus on users' thoughts on their current rail service – what is going well, what is not so going so well, and potential fixes. But just as important is learning from these riders and shippers what the WVDOT/SRA could be doing that might improve rail service. Answers from Georgia and New Mexico have included expanded



state support for short lines to ensure their competitiveness, plus more passenger service.

Another effective channel for gathering public thoughts on rail service are on-line surveys.

Justin Fox has loaded these surveys on state rail plan web pages of various DOTs' websites. To drive people to the webpage survey, the DOTs distributed press releases, including to social media, reporting that the state rail plan efforts are underway and encouraging the public to participate. Survey questions could include the following among others:

- **How interested are you in the improvement or expansion of rail passenger service in West Virginia?** (Answers would range from very interested to slightly interested.)
- **Why would you choose to utilize MARC commuter rail service?** (Respondents were asked to rank factors such as cost, travel time, and avoiding driving, etc., from very important to not important.)
- **How important are each of the following goals regarding improving freight rail transportation?** (Respondents were asked to rank goals such as enhanced economic

development, reduced highway congestion, and improved environmental sustainability, etc., from very important to not important.)

Interviews and surveys provide a complement to public input that will be gathered at public meetings. They are also an extremely cost effective means to gather stakeholder input.

### 3. Railroad Datasheets

A state rail plan needs to profile the rail lines in its respective state. This information will come from the railroads. The innovation we offer is how we capture and display this information. We will do so using datasheets. That is, for each subdivision of the Class I and II railroads in the state, we will note, as per the Georgia State Rail Plan in 2015 below. AECOM is using the same datasheet collection method for the ongoing New Mexico State Rail Plan.

At the time of the next update, the SRA and WVDOT can share the subdivision profiles from the 2018 plan with NS, CSXT, and Wheeling & Lake Erie Railway and simply ask, "What has changed?", thus saving time, effort and budget in



Photo courtesy: Ira Silverman

the future. We will do something similar with short lines.

### 4. Rail Line Capacity Analysis

A state rail plan should identify capacity bottlenecks on mainlines. One way to do so would be to ask the Class I railroads where bottlenecks exist and what the potential mitigation might be. The potential for congestion can be tested by matching daily train volumes against the practical capacity of lines as noted in the National Rail Freight Infrastructure Capacity and Investment Study. For example, a typical single track rail line with Centralized Traffic

CSXT's A&WP Subdivision in Georgia	
Division	Atlanta Division
Owner	CSXT
Operator	CSXT
Heritage Line	Atlanta & West Point (AWP) in Georgia
Subdivision Route / Mileage	Stonwall (Atlanta, Georgia) - M&M Subdivision (Montgomery, Alabama); 157.6 miles
FRA Track Class	Class 4
Number of Main Tracks	One main track with passing sidings
Maximum Authorized Speed Freight	50 mph
Maximum Authorized Speed Passenger	NA
Wayside Signals	Automatic Block Signals (ABS) with Control Point Signals (CPS) at some siding switches
Operational Authority	Track Warrant Control (TWC) / Direct Traffic Control (DTC)
Maximum Allowable Gross Weight	286,000 lbs.
Clearances	Double stack compliant (20'2" ATR)
Current Traffic Density (2011 data range)	25-43 MGT
Average Number of Trains per Day (2013)	16.9 (Atlanta-Lagrange), 9.2 (Lagrange-Montgomery)
Commodities Transported	Intermodal, automotive, and general merchandise freight

Control (CTC) has a practical capacity of 30 mixed freight trains per day, while a double track line with CTC can handle 75 mixed trains per day. The metrics noted in the study can be applied to rail lines and their respective volumes through West Virginia to identify where train volumes approach the practical capacity limits creating potential congested conditions, i.e. bottlenecks. Train volume data will come from the subdivision datasheets as noted above.

### **5. Amtrak Ridership Model Applications**

AECOM is the developer of the Amtrak intercity ridership forecasting model. AECOM has continued to use and develop the model over the last 40 years. With such experience behind it, the model can accurately forecast changes in route ridership given changes in service parameters. Our proposed passenger rail lead, Laura McWethy, operates the model for developing ridership forecasts for a variety of intercity and commuter rail applications.

The model would be extremely useful in assessing the impacts of increasing the Amtrak *Cardinal's* frequency from the current tri-weekly service to daily service, as was discussed in the previous West Virginia State Rail Plan. Another application would be to assess the impact of daily service with Thruway bus feeder routes (to Roanoke, for example) and also including the impact of Summit Bechtel Reserve, the large Boy Scout high adventure base located near Beckley, West Virginia. A third application would be to estimate commuter rail ridership for such concepts as service between Huntington and Charleston and between Morgantown and Pittsburgh, which was also explored previously.

## Justin C. Fox

### Project Manager

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#### Education

MBA, Finance, 1981  
BA, Journalism, 1976

#### Years of Experience

With AECOM: 1  
With Other Firms: 38

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Mr. Fox has more than 36 years of international transportation and industrial management experience. He has worked on more than 100 rail planning projects since 1997. Previously Mr. Fox served for eight years at the former the Southern Pacific Railroad in a variety of management capacities, including Director of Strategic Planning. Currently, Mr. Fox works with private and public sector clients on rail economics and operational analyses. He specializes in the development of strategic plans for public agencies sponsoring passenger services. He has been either project manager or key staff in the development of 17 PRRIA-compliant state rail plans since 2009.

#### Project Experience

**New Mexico Department of Transportation, New Mexico State Rail Plan 2018, Santa Fe, NM (Project Manager).** Mr. Fox is leading the development of a state rail plan for New Mexico. Work involves profiles of all railroads in the state, freight and passenger; identifying the needs of these railroads and of rail shippers; and development of a Rail Service and Investment Plan to address these needs. The work effort included a comprehensive outreach effort soliciting issues and comments from railroads, shippers, public transportation planners, economic development agencies, and the general public. An online survey effort generated more than 300 responses from the public.

**West Virginia State Rail Authority, West Virginia State Rail Plan 2013, Charleston, WV (Passenger Rail Lead, Project Manager).** This plan focused on the needs of the state's

short lines and tourist railroads, as these have important local economic impacts. The needs of Amtrak intercity and MARC commuter rail services were also noted. Besides serving as PM for later stages of the work effort, Mr. Fox led the passenger rail analysis.

**California Department of Transportation, California State Rail Plan 2018, Sacramento, CA (Senior Advisor).** This plan articulated an integrated rail system – inclusive of Amtrak long-distance trains, California corridor trains, commuter trains, and urban rail transit linking, and supplemented by buses – reaching all areas of the state. Mr. Fox reviewed all chapters to ensure compliance with FRA requirements for state rail plans. Also, he analyzed highway and airport congestion trends and their likely impacts on freight and passenger rail service. Further, he described impacts to the state's rail network of sea-level rise.

**Indiana Department of Transportation, Hoosier State Economic Benefits Analysis 2013, Indianapolis, IN (Rail Operations Lead).** Mr. Fox developed an analysis of best practices of intercity rail corridor service implementations and other services comparable to the Hoosier State. He profiled were the Downeaster, Northern Indiana Commuter Transportation District (NICTD), the Capitol Corridor, and the Heartland Flyer, among others. He also performed a one-way grid time analysis of capacity requirements for expansion of the service to two and three round trips per day. The analysis served as input in INDOT's decision to support for the corridor service, as required under PRRIA Section 209.

## Justin C. Fox, Continued

**Georgia Department of Transportation, Georgia State Rail Plan 2015, Atlanta, GA (Project Manager).** The plan focused on the needs of short line railroads. Needs of the existing Amtrak passenger services, along with new conventional and high speed services, were documented. The work effort involved an extensive outreach effort to railroads, ports, shippers, neighboring states, and the general public.

**Iowa Department of Transportation, Iowa State Rail Plan 2016, Ames, IA (Passenger Rail Lead).** Mr. Fox led the development of the passenger elements for the Iowa State Rail Plan. The plan focused on the needs of regional and short line freight railroads as well as higher speed intercity passenger rail systems. He explored a concept to link Minneapolis with Ames and Kansas City with a new intercity service. Assessed were schedule, potential ridership, and rail line capacity needs.

**Florida Department of Transportation, Florida Rail System Plan Update 2016, Tallahassee, FL (Technical Project Manager).** Mr. Fox led the development of a State Rail System Plan for Florida. The plan is focusing on the needs of regional and short line freight railroads as well as intercity passenger and commuter rail systems. He personally assessed needs of each of the 18 Amtrak stations in the state.

**Louisiana Department of Transportation and Development, Louisiana State Rail Plan 2015, Baton Rouge, LA (Project Manager).** Mr. Fox led the development of a State Rail Plan for Louisiana. The plan focused on the needs of short line railroads. Needs of the existing Amtrak

passenger services, along with new conventional and high speed services, were documented. The work effort involved an extensive outreach effort to railroads, ports, shippers, neighboring states, and the general public.

**Alaska Department of Transportation and Public Facilities, Alaska State Rail Plan 2016, Anchorage, AK (Senior Rail Planner).** Mr. Fox developed a commuter rail concept of operations as the major new passenger rail initiative for the State Rail Plan. The concept included an operating plan, detailing a schedule, rolling stock requirements, and station improvements. The plan also included forecasts of ridership and the required subsidy to support the service.

**Mississippi Department of Transportation, Mississippi State Rail Plan 2011, Jackson, MS (Project Manager).** As part of Mississippi's Unified Long-Range Transportation Infrastructure Plan, MULTIPLAN 2035, Mr. Fox led the development of this plan, articulating freight and passenger rail visions for Mississippi. Mr. Fox's team profiled existing freight and passenger services, quantified demand for new rail services, and assessed capital needs to support the new services. He interviewed key freight and passenger rail stakeholders for their insights on service needs.

**Wyoming Department of Transportation, Wyoming State Rail Plan 2014, Cheyenne, WY (Senior Rail Planner).** Mr. Fox developed forecasts of rail-borne commodities for a 20-year period. Also he developed four case studies illustrating why shippers of non-coal commodities choose to route their traffic by rail and truck.



## David Weaver, PE

### Project Director

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#### Education

MS, Civil Engineering, 1988  
BS, Civil Engineering, 1986

#### Years of Experience

With AECOM:19  
With Other Firms: 11

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Mr. Weaver is an experienced project manager who oversees and develops planning studies, engineering design, design-build and construction management for a variety of project types and disciplines. As Transportation Market Sector Lead and Site Manager of the Morgantown, WV office, he supervises the operations in that office and coordinates with other AECOM offices around the country.

#### Project Experience

**CSXT Transportation, Inc. National Gateway Project (Stuart, Randolph, Carothers Tunnels, Morgan County, WV; Graham Tunnel, Alleghany County, MD).** Engineer in responsible charge for the site work design, track plans, drainage design, erosion and sediment pollution control plans, and the post construction stormwater management design/plan preparation for four CSXT tunnel lining modification project locations in West Virginia and Maryland. Overall project involves clearance improvements and infrastructure enhancements along the CSXT track system in Ohio, Pennsylvania, Maryland, West Virginia, Virginia, and Washington DC.

**West Virginia Department of Transportation - Public Port Authority, Inland Intermodal Port Economic and Market Analysis, WV.** Project Manager responsible for a study of the feasibility, planning, development, construction and operation of a proposed intermodal facility at Prichard. The study included a port market analysis, site feasibility analysis, construction and finance analysis, operations and sustainability analysis, and economic impact analysis.

**WVU Morgantown Personal Rapid Transit, Creation and Implementation of a Fixed Guideway Structural Maintenance Program, Morgantown, WV.** Project Manager responsible for the creation and implementation of a structural maintenance program. The WVU-MPRT is a completely automated transit system having passenger stations on each of the three University campuses and in the Morgantown central business district and provides passenger transport service for University students, staff, faculty, city residents and visitors. Initially conceived and constructed as an Urban Mass Transit Administration demonstration project, it was built in three phases between 1971 and 1979. Of the system's 8.7 miles of single lane guideway, about 54% of the guideway is elevated. The project also included inspection of all guideway structural components.

**West Virginia Department of Transportation - Division of Highways, Toll Feasibility Studies for Various Corridors, WV.** Project Manager responsible for a variety of toll studies for routes throughout the state. These studies included traffic and revenue forecasting for toll feasibility analyses of the US 35 corridor in central West Virginia, and US 522, WV 9, and US 340 in the eastern panhandle.

**FHWA Eastern Federal Lands, Canaan Valley Wildlife Refuge, Reconstruct Camp 70 Road, Tucker County, WV.** Project Manager responsible for the development of Phase I deliverables, in preparation for Phase II, Alternatives Development and Environmental Document Preparation. As part of Phase I,

AECOM developed: Quality Assurance (QA) Plan, Resource Survey Plan, Survey Plan, Field Investigation Plan (FIP), Utility Investigation Plan, EA/Design Schedule. Project scope was to improve Camp 70 Road by re-grading, resurfacing with gravel, and realigning a portion to provide improved access of the road, currently accessible only by four-wheel drive vehicles. The project also included decommissioning of a portion of the road, improvements to an existing parking lot, addition of a new Americans with Disabilities Act (ADA)-grade compliant parking lot, a new trail and boardwalk.

**Monongahela Rivers Trails Conservancy, Monongahela River Rail-Trail, Monongalia County, WV.** Project Manager responsible for development of plans, specifications, and cost estimates for a 3.5-mile section of the Mon River Trail from Van Voorhis to the Pennsylvania state line, the final section of trail development. Services also include bidding/negotiation support and construction administration. This \$250,000 project was completed in 2007.

**City of Morgantown, The Upper Monongahela River Center, Morgantown, WV.** Project Manager for a \$4.5 Million multi-use waterfront facility in the historic Wharf District. Civil engineering services included development of the site layout plan, site grading, site drainage design, boat dock design, and construction inspection.

**Project Director, Statewide Planning Services, West Virginia Division of Highways.** Consulting services utilized to provide planning on-call services for various programs and miscellaneous projects across the state of West Virginia. The work generally consists of preparation of planning studies, analyses, reports, environmental services, modeling for air quality and traffic, GIS, asset management, program management and related work.

**Project Director, Statewide Traffic Engineering Services, West Virginia Division of Highways.** Consulting services utilized to provide traffic engineering on-call services for various programs and miscellaneous projects across the state of West Virginia. The work generally consists of the preparation of, but not necessarily be limited to, contract plans (signing, traffic signal and roadway lighting), traffic impact studies, traffic engineering studies, Intelligent Transportation System (ITS) projects (planning studies, systems engineering and contract plans), incident management planning, highway safety improvement projects (studies, data analysis, and contract plans) as well as other related services.

**Project Director, Street Flooding Mitigation Plan, KYOVA Interstate Planning Commission.** Project to analyze issues crossing the boundaries between transportation and stormwater management in relation to street flooding in the City of Huntington. The study will assess a defined study area in key locations throughout the city and focus on stormwater capacity, traffic movements, emergency services provision, traveler notification, and needs assessment. It will include both the KYOVA traffic model as well as a specialized stormwater model developed for a defined CSO area. Green infrastructure will be included as a component of any developed outcomes, as well as an analysis of travel times and estimated improvements.

## Kenneth G. Sislak

### Senior Advisor

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#### Education

MBA, Finance, 1976  
BA, Economics, 1974

#### Years of Experience

With AECOM: 13  
With Other Firms: 32

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Mr. Sislak has extensive public transit and rail operations, planning, and consulting experience. His project involvement includes management of major investment studies, the development of project operating and maintenance plans, and the examination and review of project finance plans. Prior to joining AECOM, Mr. Sislak held progressively responsible positions in the transportation industry in both the private and public sectors. He is the former director of rail transportation at the Greater Cleveland Regional Transit Authority

#### Project Experience

##### **California State Rail Plan 2018, Caltrans.**

Project Manager for the preparation of the 2018 State Rail Plan. The 2018 plan is a strategic planning document that incorporates a Vision for the future of passenger and high-speed rail services utilizing timed transfers as part of the strategic service plan for California. The State Rail Plan will be compliant with current FRA guidance, which will examine the role of rail in California and evaluate the future of both freight and passenger rail service.

##### **New Mexico State Rail Plan 2018, New**

**Mexico DOT.** Project Principal supervising the preparation of a state rail plan for New Mexico in compliance with current FRA guidance. Participated in the public outreach program by traveling across the state to present the goals and objectives of the State Rail Plan and to invite stakeholder and public participation.

**North Carolina State Rail Plan 2015, North Carolina Department of Transportation.** Senior advisor for the preparation of a state rail plan for

North Carolina in compliance with current FRA guidance. Assisted in the economic analysis of the benefits of improvements to the North Carolina Railroad.

##### **California State Rail Plan, 2013, Service Development Plan for San Joaquin Service, Caltrans.**

Task Manager. Prepared the required service development plan (SDP) for the San Joaquin service as part of the State Rail Plan update. The San Joaquin is conventional intercity passenger service operating between Oakland/Sacramento and Bakersfield through the Central Valley in California. The SDP incorporated "blended service" concepts as part of the Northern California Unified Service Program that includes integrated operations of Capitol Corridor, Altamont Commuter Express (ACE) service and the operation of San Joaquin express trains on the first construction segments of the California high-speed rail initial operating section between Madera – Bakersfield.

##### **South Carolina State Rail Plan 1996, South Carolina Department of Transportation.**

Task manager and principal investigator in developing a statewide rail passenger plan for South Carolina by examining route extensions of existing Amtrak service and the establishment of 403(b) trains in South Carolina.

##### **North Carolina Department of Transportation.**

Locating and Planning Public Transportation Centers - Criteria and Standards, North Carolina. Project manager responsible for a study project that developed standards and location criteria for siting multimodal transportation centers supporting rail passenger service in the state.

## Kenneth Sislak, Continued

Reviewed existing and planned rail passenger and freight service in the study corridor and identified site-specific conditions that could affect standardized location criteria. Used geographic information system to determine market centroid for rail passengers for each potential station catchment area.

**Seattle – Vancouver Ultra High-Speed Rail Feasibility Study, Washington State DOT.** Task Leader coordinating technology assessment and economic analysis. Technology assessment evaluated technologies capable of sustained speeds of at least 250 mph, which included high-speed rail, Maglev and hyperloop. Economic analysis included using the FRA CONNECT sketch planning tool that provided cost recovery data, ridership and consumer surplus as part of the benefit/cost analysis. Wider economic impacts were also considered.

**California High Speed Rail Authority, Sacramento - Fresno High Speed Rail, California.** Project manager evaluating potential alignment alternatives for 220 mph trains. This is the project level tier II draft environmental impact statement and preliminary engineering at a 30 percent level for the Sacramento - Fresno segment of the 800-mile California high-speed train system. The environmental impact report/ environmental impact statement document will outline the potential impacts of the proposed high-speed train service on the natural environment and historical and community resources. The evaluation of alignment alternatives includes comparisons of capital, operating and maintenance costs, ridership, and cost effectiveness. A record of decision was received in September 2011.

**Atlanta – Chattanooga High Speed Ground Transportation Tier 1 EIS Georgia Department of Transportation.** Georgia and the Tennessee Departments of Transportation are examining the feasibility of developing high-speed ground transportation alternatives including MagLev and high-speed rail in the corridor between Atlanta and Chattanooga. As a senior advisor, reviewed the project purpose and need and goals and objectives for the Tier 1 EIS. A Record of Decision was approved in September 2017.

**Virginia Department of Rail and Public Transportation, Richmond - Hampton Roads Passenger High-Speed Rail, Virginia.** Project manager that evaluated potential alternatives for higher speed rail service on two alignments using CSXT and NS tracks. The DRPT is studying a program of improvements that would be necessary to improve passenger rail service between Richmond and Hampton Roads. Prepared a tier 1 programmatic environmental impact statement to document the potential impacts of the proposed service on the natural, historic, and community resources. The evaluation of alternatives included comparisons of capital, operating and maintenance costs, ridership, and other evaluation criteria. A record of decision was received on December 7, 2012.

## Bill Pugh, AICP CTP Quality Manager

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### Education

MRP, Regional Planning, 2001  
BA, Ecology, 1996

### Years of Experience

With AECOM: 9  
With Other Firms: 6

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Mr. Pugh serves as the Local Quality Manager for AECOM's DC Metro transportation practice. He has diverse experience and capabilities in transportation planning. As a project manager with the Transportation group, Mr. Pugh is responsible for transit and rail corridor studies and systems planning, facilities planning, station area planning, transportation environmental planning, and general multi-modal planning. Other specialized skills include technical writing and editing and Spanish language communication.

### Project Experience

#### **Arizona Department of Transportation, 2010 Statewide Rail Framework Study, AZ.**

Project team member in research, analysis, and preparation of technical reports for statewide passenger and freight rail plan.

#### **Virginia Department of Rail and Public Transportation, Commonwealth of Virginia, Virginia Statewide Transit Plan, VA.**

Project team member in research, analysis, and preparation of final plan and technical reports regarding DRPT activities and statewide transit planning for the Commonwealth of Virginia.

#### **Virginia Railway Express, Manassas Line Expansion Capacity Study; City of Manassas and Prince William County, VA.**

Quality manager and NEPA task manager for design study to expand the Broad Run commuter rail yard and station facilities and construct a new mainline track.

#### **Washington Metropolitan Area Transit Authority, Metrorail Red Line Core Stations Capacity Study, DC.**

Project manager for

assessment of Red Line capacity needs at five key downtown stations. The study includes the update of ridership forecasts and station pedestrian simulation models and the design and simulation of architectural concepts to improve station passenger circulation.

#### **Washington Metropolitan Area Transit Authority, Washington Hospital Center Metrobus Turnaround Improvement Study, DC.**

Project manager for development of conceptual designs to improve bus operations and multi-modal circulation at MedStar Washington Hospital Center bus circle entrance.

#### **Washington Metropolitan Area Transit Authority and City of Alexandria, Mark Center Transit Center Expansion Feasibility Study, Alexandria, VA.**

Project manager for assessment of current and future bus service needs and development of conceptual designs to expand the capacity of Mark Center Station and improve its multi-modal circulation, including creating safer and more convenient pathways for pedestrians. [01/04/2017-11/30/17]

#### **Virginia Railway Express, Gainesville-Haymarket Extension Study; City of Manassas, Prince William and Fauquier Counties, VA.**

Task manager for environmental effects assessment of commuter rail extension, including expanded railroad corridor and alternative station and rail yard sites.

#### **District Department of Transportation, Environmental Documentation and Preliminary Engineering for the Southern Avenue SE Corridor, Phase II, Washington, DC.**

Task leader for preparation of Documented

## Bill Pugh, Continued

Categorical Exclusion and related environmental analyses for the redesign and reconstruction of 2.1-mile thoroughfare to improve vehicular, bicycle and pedestrian safety.

**Washington Metropolitan Area Transit Authority and City of Alexandria, Potomac Yard Infill Station Environmental Impact Statement, Alexandria, VA.** Deputy project manager for EIS alternatives development and analysis, environmental effects assessment, agency coordination, and preparation of NEPA and related documents required for federal approval of new heavy rail transit station. Task leader for multi-modal transportation analysis assessing impacts to existing and planned pedestrian, bicycle, bus, rail, and roadway networks.

**Washington Metropolitan Area Transit Authority, New Carrollton Metrorail Station Joint Development Environmental Evaluation, Prince George's County, MD.** Project manager for evaluation of environmental effects of proposed mixed-use development on station site and related modifications of station facilities.

**Washington Metropolitan Area Transit Authority, ConnectGreaterWashington: the Region's Transit System Plan, Washington, DC.** Deputy project manager for regional high-capacity transit plan for the year 2040. Project included assessment of future baseline conditions, development and modeling of alternative transit networks and land use scenarios, identification of multi-modal performance measures, development of regional transit corridor expansion guidelines for ridership and station area land use/accessibility, evaluation of alternatives, preparation of a recommended network plan, stakeholder engagement, and more detailed planning and conceptual engineering of proposed new Metrorail lines.

**Washington Metropolitan Area Transit Authority, West Hyattsville Metro Station Joint Development Site Floodplain Study, Hyattsville and Prince George's County, MD.** Project manager for feasibility study of proposed joint development concepts at the West Hyattsville Metrorail station regarding their potential floodplain impacts within the station area and consistency with WMATA and local jurisdiction development plans.

**Washington Metropolitan Area Transit Authority, Takoma Langley Transit Center Environmental Evaluation and Public Outreach, Prince George's County, MD.** Project manager for update of environmental documentation, qualitative traffic review, and support of public outreach for WMATA operations at new bus transit center. Project included bilingual public outreach on proposed bus service changes at one of the region's busiest bus transfer locations.

**Washington Metropolitan Area Transit Authority, Rail Maintenance Facility Site Selection and Environmental Evaluation, Washington, DC.** Deputy project manager for regional site selection process and environmental assessment of the alternatives, including project alternatives development and analysis, agency coordination, and environmental effects assessment for new Metrorail yard and car maintenance facility.

**Washington Metropolitan Area Transit Authority, 7000-Series Rail Car Fleet Assignment Study, Washington, DC.** Project manager for assessment of operating and maintenance costs and economic benefits and impacts of deployment of new 7000-series rail cars within the Metrorail fleet.

## Ken Withers, PE Freight Rail (RLBA)

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### Education

Master of Military Art & Science, 1975  
MS International Affairs, 1973  
MS Civil Engineering, 1962  
MS Nuclear Engineering, 1962

### Years of Experience

34

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Since joining RLBA in 1989, Mr. Withers has project-managed numerous freight and passenger rail studies, assisting clients in the planning high speed, intercity, commuter and light rail passenger services. He was the RLBA Project Manager in preparation of comprehensive state rail plans in Arizona (2007), Colorado (1998), Montana (2000), Pennsylvania (2003), Nebraska (1996), Nevada (1996), New Mexico (1995 and 2018)(in 2018, as subconsultant), Vermont (2005), West Virginia (1994 and 2013)(in 2013, as subconsultant) and Wyoming (2014, as subconsultant)

### Project Experience

#### **West Virginia Railroad Maintenance Authority**

Project Manager in the preparation of the 1994 West Virginia State Rail Plan Update, including Rail Freight Assistance Program objectives, state rail system, selection of rail lines for detailed analysis, application of benefit-cost methodology, passenger rail service, rail safety, grade crossings, hazardous materials, and the Strategic Rail Corridor Network.

#### **New Mexico Department of Transportation (NMDOT)**

As subconsultant, assisted in preparation of New Mexico's State Rail Plan Update in 2017-2018 by preparing freight rail portions, interviewing shippers, and describing rail and industrial parks and transload facilities.

#### **Wyoming Department of Transportation**

As part of the State Rail Plan consultant team, prepared the inventory and profile of Wyoming's short line railroads, identified "best practices" in state rail planning, inventoried Wyoming grade

crossings, provided information on railroad safety and security issues, and discussed Section 130 grade crossing improvement funding.

**West Virginia State Rail Authority** As member of consultant team preparing a comprehensive State Rail Plan in 2013, prepared an inventory and profile of West Virginia's regional, short line and tourist railroads, developed an overall freight rail assessment, evaluated capacity on the principal rail lines in the state, and interviewed rail shippers to determine the quality of rail service.

#### **Blue Water Area Transportation Commission, Port Huron, Michigan**

As subconsultant, identified facilities needed to support continued Amtrak passenger rail service, assisted in establishing most viable site for the Amtrak passenger rail station, and prepared an estimate of cost.

#### **Michigan Department of Transportation**

RLBA lead in support of Chicago-Detroit/Pontiac Passenger Rail Corridor Investment Plan. Evaluated alternative passenger rail corridors, developed operating plans, estimated costs.

#### **Virginia Railway Express**

Gathered data from five peer commuter rail operations with regard to track access fees, in cases where commuter rail operations pay for access to freight railroad corridors.

#### **North Carolina Department of Transportation (NCDOT)**

As a member of a consultant team, assisted in identifying railroad right-of-way maintenance costs.

## Ken Withers, PE - Continued

### **California High Speed Train Authority (CHSTA)**

Managed project to provide assistance to CHSTA Project Management Office in numerous assignments, all related to the broad range of plans and studies to implement the California High Speed Train Program.

### **Florida Department of Transportation**

Assisted a state in its negotiation with a railroad to institute new commuter rail service.

### **Michigan Department of Transportation**

**(MDOT)** Performed a series of detailed analyses of freight operations and infrastructure on the then Norfolk Southern Corporation (NS)-owned line between Kalamazoo and Dearborn, Michigan.

### **Arizona Department of Transportation**

Managed project to develop a State of Arizona railroad inventory and assessment (State Rail Plan).

### **Metro Atlanta Chamber of Commerce**

**(Georgia)** Project Manager of Commuter Rail Plan Update, which reviews and updates previous Atlanta region commuter rail studies of 1995, 2001 and 2003.

### **Wyoming Department of Transportation**

Project-managed statewide feasibility assessment of including Wyoming grade crossings in quiet zones.

### **Arizona High Speed Passenger Rail Strategic Plan**

Project Manager of studies to refine a number of issues associated with the State's plan for new high speed passenger rail service between Phoenix and Tucson.

### **Vermont Agency of Transportation**

Project Manager on comprehensive assessment of Vermont's railroads (State Rail Plan) including physical infrastructure upgrade requirements to improve future rail mode competitiveness.

**City of Cincinnati** Railroad planning services included determining the optimum location of Cincinnati's future passenger rail terminal, the feasibility of adding passenger rail services to the

western railroad corridor, and determining grade crossing requirements and responsibilities.

### **Pennsylvania Department of Transportation**

Project managed Pennsylvania's Comprehensive Freight Rail Study and State Rail Plan, examining state rail network, identifying low density branch lines at risk and evaluating traffic flows, maintenance costs, funding and major issues.

### **Montana Department of Transportation**

Updated Montana's State Rail Plan including the state's role in rail planning, the state's rail network, procedures to analyze rail lines, light density lines, rail user needs, the feasibility of providing passenger services and reviewing federal and state funding sources.

### **San Joaquin Regional Rail Commission**

Led effort to develop strategy to access freight railroads in connection with Altamont Commuter Express (ACE) service expansion.

### **Colorado Department of Transportation**

Project Manager for preparation of Colorado Statewide Rail Needs Study (State Rail Plan), including assessment of existing freight plan and intermodal network, existing freight operations, branch line analysis, rail abandonments, highway-rail crossings, passenger rail needs, and funding.

### **Nevada Department of Transportation**

Project Manager for preparation of Nevada State Rail Plan Update, including preservation of freight rail service, improvement of passenger rail service, grade crossings, intermodal service, rail line abandonments

### **New Mexico State Highway and**

**Transportation Department** Project Manager for preparation of New Mexico 1996 Rail Plan Update, including rail program objectives, state rail system, local rail freight assistance, passenger rail, detailed examination of proposed Texas-New Mexico Rail Project, and other contemplated rail projects.



## Michael Cornfield

### Rail Service and Investment Program

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#### Education

Masters of Urban Planning & Policy,  
Transportation  
Bachelor of Arts, American History,

#### Years of Experience

With AECOM: 2  
With Other Firms: 1

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Mr. Cornfield is a Transportation Planner with AECOM's San Francisco Bay Area rail and transit planning group, based in the San José office. He has supported or led a number of passenger rail planning studies for urban transit, commuter, intercity, and high speed rail services focused on strategic planning, capital planning, grant applications, service integration, service planning, land use and demographic analyses supporting ridership market assessments, and technology implementation. He has experience with phased service implementation planning, transit oriented development, freight rail coordination, and passenger rail funding analyses. He has served both public and private sector clients and is committed to scalable, implementable solutions to passenger rail, strategic transportation planning, and related land use development challenges.

#### Project Experience

**California Department of Transportation, California State Rail Plan 2018.** The 2018 California State Rail Plan is a long range strategic planning document establishing the vision for an integrated statewide passenger rail service network composed of regional transit networks, intercity services, and California High Speed Rail service. As a project planning lead, Michael led development of several planning chapters related to long range passenger rail development, capital investment planning, service delivery goals, and benefits analyses. He managed processes for developing the long range capital program, strategic policy, and future socio-economic, land use, and travel trend projections. He analyzed GHG reduction and VMT shift projections over

time comparing build and no-build scenarios. He has worked alongside and presented findings and recommendations directly to senior State agency leaders and stakeholders.

**New Mexico Department of Transportation, New Mexico State Rail Plan 2018.** The New Mexico State Rail Plan is a critical component of the New Mexico 2040 Plan, the statewide transportation plan. Serving as Passenger Rail Task Lead, Michael is coordinating strategic planning activities with local and state passenger rail providers to investigate the needs of relevant railroads, explore options for new rail services, and develop a program of projects for state investment justified by the public benefits anticipated.

**Altamont Corridor Express ('ACE'), ACEforward Program.** Administered by the San Joaquin Regional Rail Commission, the ACE service has launched a major expansion and modernization effort under the ACEforward program. As a project planner, Michael led market assessment analyses for future commuter and intercity passenger rail service extensions and expansions, analyzing rolling stock and technology implementation, and leading site specific existing conditions, future TOD, and field analysis tasks.

**Cook County, Long Range Transportation Plan, Chicago, IL.** 'Connecting Cook County' provides a strategic framework through which Cook County can plan for the future of County transportation needs and advocate for sound transportation policies. As a project planner, Michael developed an original transportation

## Michael Cornfield - Continued

project evaluation and prioritization metric and led presentations to County executives. He provided strategic policy analyses, transportation and land use planning analysis, and project management assistance incorporating transit oriented development, value capture, and transit expansion strategies into regional transportation plans.

**Metra, Commuter Rail Audit, Chicago, IL.** As part of ongoing evaluations of commuter parking operations, land use, and real estate management policy, Metra conducts audits of station area operations throughout its commuter rail network in the Chicago metropolitan area. Michael served as lead author of internal audit reports related to commuter parking operations, land use practices, intergovernmental and interagency coordination, and public sector real estate policy, and valuation.

**Valley Transportation Authority, Diridon Station Master Plan.** As the San Francisco Bay Area prepares for near term investments in major passenger rail expansions, Diridon Station in San Jose, California will become a major regional hub hosting electrified commuter rail, heavy rail transit, light rail transit, traditional long haul and intercity passenger rail, and high speed rail services. As a project planner on the Diridon Station Master Plan, Michael has performed existing conditions and field analyses to guide strategic planning, station design, and station area redevelopment.

**Chicago Transit Authority (CTA), Wilson Ave Station, Chicago, IL.** As part of the track realignment and station reconstruction at the CTA's Wilson Avenue Station, the CTA conducted

a study of possible transit oriented development (TOD) opportunities. Michael served as a planning lead and developed overall project strategy, led stakeholder outreach and presentations to agency executives and elected officials, and was lead author and editor of final report deliverables.

**BART Balboa Park Station Modernization Plan, San Francisco, CA.** BART is developing a long-term vision to modernize the station's function, safety and security, capacity, sustainability, appearance, and improve the customer experience. As a project planner, Michael organized research analysis, international best practices, report presentations, and stakeholder outreach materials for ongoing station modernization planning and transit oriented development at the Balboa Park Station in San Francisco.

**North Bayshore Area Traffic Monitoring, Mountain View, CA.** As technology firms have increased their Silicon Valley based workforce at the North Bayshore Campus in Mountain View, California, related traffic impact and transit prioritization policies have been managed under the North Bayshore Area Precise Plan. Michael has managed ongoing mode share and trip monitoring data collection, exhibit creation, and report writing for the North Bayshore Area Annual Report. He has also managed coordinating efforts with stakeholders at the City of Mountain View and Google and presented findings to the Mountain View City Council

## Laura McWethy

### Passenger Rail

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#### Education

ME, Civil Engineering, 2006

BS, Civil Engineering, 2005

#### Years of Experience

With AECOM: 7.5

With Other Firms: 3.5

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Ms. McWethy is a Consulting Manager at AECOM Consult specializing in statewide, intercity, and urban transportation planning, with experience in travel forecasting, ridership and revenue estimation, survey design and analysis, model development and application, and market analysis. She has conducted many statewide and intercity transportation planning studies for state departments of transportation and Amtrak; prepared ridership and revenue forecasts for proposed conventional rail and high-speed rail in several intercity corridors across the country. Ms. McWethy has also developed and applied integrated intercity travel demand models that addressed both modal shares and total travel volumes, including induced demand, for several intercity corridors and statewide study areas. She has conducted urban transportation planning activities for a variety of proposed transit and highway improvements in many urban areas.

#### Project Experience

**Ultra High-Speed Ground Transportation Study, Washington DOT (WSDOT).** Serving as technical lead for travel demand forecasting work supporting the Vancouver to Portland corridor analysis studying HSR and Maglev alternatives. She coordinated with FRA to develop detailed scenario inputs for the CONNECT tool for a variety of primary and connecting corridors, which produced ridership and revenue forecasts, as well as cost estimates. She also lead the team which post-processed the CONNECT outputs to prepare an Economic Impact Analysis and GHG analysis.

**ACEforward Ridership Analysis, Altamont Corridor Express (ACE).** Serving as technical lead for travel demand forecasting work supporting the proposed Modesto-Merced extension, as well as other scenarios for increased train frequencies and travel time improvements. She has improved the AECOM ACE incremental model to support additional forecast years and modeling improved connections to the BART system, as well as expanding the service area examined to the Sacramento area.

**Nationwide Ridership/Revenue Forecasting Support, National Railroad Passenger Corporation (Amtrak).** Ms. McWethy has provided support in application of travel demand model systems for forecasting intercity rail ridership in a number of corridors throughout the US. These forecasts include Acela Express high-speed and regular train service in the Northeast corridor; proposed changes in long distance train services throughout the US; and service improvements in other short distance corridors, including state-supported corridor service in the Northeast (Maine, New York, Pennsylvania, and Vermont), Southeast (North Carolina), Midwest (Illinois, Michigan, Missouri, and Wisconsin), and West Coast (California and Washington State). These forecasts have been used by Amtrak and its state partners to plan and budget for intercity passenger rail services throughout the US. Additionally, Ms. McWethy has performed analysis of survey data relating to train over-crowding, wi-fi service, and food service.

## Laura McWethy - Continued

**Travel Demand Forecasts, National Railroad Passenger Corporation (Amtrak) and California DOT (Caltrans).** Ms. McWethy has assisted in the refinement and application of travel demand model systems for forecasting intercity rail ridership in a number of corridors in California, including the Capitol (Sacramento-Bay Area) and San Joaquin (Bakersfield-Bay Area) corridors, the Pacific Surfliner (San Diego-Los Angeles-San Luis Obispo) corridor and other potential new corridors throughout the state. AECOM has prepared numerous forecasts for Amtrak and Caltrans supporting ongoing planning activities.

**Northeast Corridor Passenger Rail Corridor Investment Plan, Federal Railroad Administration (FRA).** Ms. McWethy led the intercity ridership analysis including model development, estimation of baseline trips for all relevant modes, and forecasting ridership and revenue. Tasks include compiling and reconciling data from different sources within the corridor, developing and documenting the modeling methodology used, collecting and analyzing new survey data to be used estimating the ridership model and forecasting system. Ms. McWethy played a key role in the survey development as well as was the primary team member in the model estimation phase. She also led the team in using the new ridership model for estimating ridership and revenue for each of the alternatives being considered.

**Virginia Statewide Model, Virginia Department of Transportation (VDOT).** Served as technical lead for developing the long distance portion of a new Virginia Statewide Model. This included coordinating the team developing a trip generation and trip distribution model, as well as adapting the existing Virginia Department of Rail and Public Transportation (DRPT) mode choice model to fit in with the new model system,

converting it from a spreadsheet model to Cube and calibrating it to current data. (2017/AECOM)

**Bedford Amtrak Station Ridership Forecasting, City of Bedford, VA:** Ms. McWethy served as technical lead in developing the ridership projection for a proposed Amtrak station in Bedford, VA. This included utilizing a national intercity rail model developed by AECOM for corridor analysis and calibrating it to match the base Amtrak ridership data for the Washington-Lynchburg existing service. The rail patronage study included passenger rail ridership forecasts for the proposed Bedford station, along with the proportion of ridership diverted from Roanoke or Lynchburg stations.

**Downtown Roanoke Intermodal Transportation Study, City of Roanoke, VA.** Ms. McWethy served as technical lead in developing the ridership project for an extension of the existing Washington-Lynchburg service to Roanoke, VA. This included utilizing a national intercity rail model developed by AECOM for corridor analysis and calibrating it to match the base Amtrak ridership data for the Washington-Lynchburg existing service.

**Ridership and Revenue Forecasts, Georgia High Speed Ground Transportation System (GA DOT).** Ms. McWethy led the ridership and revenue forecasts for three alternative corridors for the Atlanta to Chattanooga High Speed Ground Transportation Study Tier 1 Environmental Impact Statement. This included updating the existing modeling system and model inputs to be consistent with the MPO models in the project study area and incorporating updated socioeconomic data from the 2010 US Census, as well as analyzing and summarizing the ridership and revenue model results.

## Toni A. Horst, PhD

### Commodity Movements Economic Impacts

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#### Education

PhD, Regional Science, 1997  
BA, Economics and Government, 1986

#### Years of Experience

With AECOM: 17  
With Other Firms: 7

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Dr. Horst leads AECOM's National Transportation Economics Practice. She has nearly 25 years of experience. A regional economist, her work focuses on analyzing how infrastructure investment changes local economies. Her work focuses on the application of quantitative information to support transportation decision making. She is an economist with significant experience assessing projects and developing defensible analyses of project feasibility, economic impact, return on investment and benefit cost assessments.

#### Project Experience

##### **Washington State Department of Transportation, Economic Assessment of Ultra High Speed Passenger Rail, Seattle, WA.**

Task lead for economic evaluation of maglev implementation in the Cascadia Corridor. This high-profile study was used to brief the Governor, the state legislature, and key stakeholders in the business community. Analysis focused on both U.S. and Canadian economic impacts. Assessment quantified jobs, earnings, output and change in competitiveness that would occur if Vancouver, BC and Seattle, WA were within an hour's travel time of one another.

##### **U.S. Department of the Treasury, Report on the Most Significant Proposed U.S. Infrastructure Projects, Washington, DC.**

Co-Principal Investigator of a study of the 40 most significant transportation and water infrastructure projects in the U.S. that are not advancing, and the economic cost to the national economy of their delay. The net economic impacts of multiple project types were evaluated including airports,

the NextGen air traffic system, intermodal centers, highways/interchanges, and rail projects.

##### **North Carolina Department of Transportation, State Rail Plan, Raleigh, NC.**

Task lead for economic assessment and project prioritization for the rail plan. Evaluated individual projects and smaller packages of spot improvements to improve fluidity of the system. The team described the economic role of freight and reviewed 25+ projects to identify those most critical to ensuring the overall performance of the multimodal system.

##### **Northeast Corridor Phase 2 Environmental Impact Statement, Federal Railroad Administration (FRA).**

Leading economics work to analyze the existing conditions of the northeastern United States, and economic impact assessment of candidate alternatives as part of the Phase 2 EIS for the Northeast Corridor (NEC). Study incorporated input from the development community, planners, and academic/non-profit research to select evaluation metrics of the long-term development potential of the alternatives considered. Economic metrics included construction impacts, operating impacts, subsidy, capacity, and development potential considerations. The analysis also illustrated travelers' tradeoff between time and cost when selecting a travel mode.

##### **Amtrak, The Gateway Program Economic Evaluation, Northeast Corridor.**

Technical advisor supporting study to estimate benefit cost of Gateway Program (tunnels under the Hudson River) under three scenarios. The team led multiple stakeholders through data collection

Toni A. Horst, PhD- Continued

and definition of scenarios and assumptions through a facilitated workshop. Analysis includes an economic evaluation of the importance of the New York region to the Northeast Corridor and to the U.S. national economy. The economic work entails a benefit cost analysis. The benefits estimated include, but are not limited to, the net travel time savings, net travel costs, net safety benefits, net emissions avoided, and the costs of a trip not taken.

**2015 TIGER Application for Willmar Rail Connector and Industrial Access Project, BNSF, Willmar, Mn.** Project manager for benefit cost, full application narrative, and technical support for overall TIGER strategy. The grant will support construction of a direct connection between the Marshall and Morris Subdivisions of the BNSF rail network eliminating the need for seven to 10 trains daily to pull into the railyard in downtown Willmar. The project also includes a new railroad spur west of Willmar, providing rail access to the city's industrial park. The project is the last element of a long-standing local effort to improve the quality of life of Willmar residents and open up opportunities for economic growth. The project was selected to receive TIGER funding.

**Economic Analysis in Support of TIGER 2013 Funding for Florida DOT (FDOT) Rail Improvements.** Project manager for economic benefit cost and economic impact analysis supporting FDOT's application to the US Department of Transportation's TIGER Discretionary Grant program. The investment will rehabilitate and create crossovers between the FEC and CSX rail lines, creating additional rail capacity to accommodate freight and passenger service and improve access to central Florida from the state's southern deepwater ports. The project was selected to receive TIGER funding.

**North Carolina Department of Transportation, Rail Division, Assessment of Global TransPark Aerotropolis Performance and Strategic Investments, Raleigh, NC.** Project manager for report mandated by the State's General Assembly to assess the feasibility of making investments to improve the performance of the Global TransPark, a multimodal logistics park established in the 1990s developed on the concept of an aerotropolis. Economics work has entailed analysis of the state's economy to identify existing industrial strengths and opportunities to build on the existing base, analysis of freight and trade trends, projections of trade volumes associated with the state's leading trade opportunities, benefit cost analysis of the improvements associated with infrastructure investments (at the port and landside) needed to capitalize on the trade opportunities, and analysis of the economic development outcomes (jobs, incomes, fiscal impact) associated with realizing those opportunities. The work has entailed significant coordination with shippers and industry specialists in the state to ensure that operational requirements are factored into the analysis.

**Economic and Market Assessment of Roanoke Intermodal Center, Roanoke Valley Area Regional Commission, and Virginia Office of Intermodal Planning and Investment (Richmond).** Project manager for a study for a new intermodal terminal along the Heartland Corridor (NS) and I-81. The project is assessed the market for a new intermodal terminal given the proximity of other established terminals, growth at the Port of Virginia, and local economic factors. The work combines extensive work with shippers, the trucking industry, and freight stakeholders with data analysis to project demand and likely freight flows as well as understanding delivery requirements. A Steering Committee helped to guide the study.

## Chet Parsons, AICP CTP

### Outreach & Coordination

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#### Education

MURP/Urban & Regional Planning/1998  
BS/Mechanical Engineering/1996

#### Years of Experience

With AECOM: 10  
With Other Firms: 10

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Mr. Parsons' transportation, resilience, and community development experience includes working closely with WVDOH, WVU, and the City of Morgantown as well as other local agencies to enact change. Prior to joining the firm as a Senior Planner / Project Manager, Mr. Parsons served for five years as Executive Director of the Greater Morgantown Metropolitan Planning Organization in Morgantown, West Virginia, as a county planner in Goochland County, Virginia, and as a regional transportation planner in Richmond, Virginia. He currently serves as the WV Liaison for the Hazard Mitigation and Disaster Recovery section of the American Planning

#### Project Experience

**Traffic & Transportation Lead, WVU HSC Master Plan, West Virginia University.** Served as transportation planner and traffic lead for Strada-led master planning process for the HSC campus. Worked closely with both HSC and Ruby administration to develop vision plans for future growth of the campus.

#### **Project Manager, Statewide Planning Services, West Virginia Division of Highways:**

Consulting services utilized to provide planning on-call services for various programs and miscellaneous projects across the state of West Virginia. The work generally consists of preparation of planning studies, analyses, reports, environmental services, modeling for air quality and traffic, GIS, asset management, program management and related work.

#### **Project Manager, Statewide Traffic Engineering Services, West Virginia Division of Highways:**

Consulting services utilized to provide traffic engineering on-call services for various programs and miscellaneous projects across the state of West Virginia. The work generally consists of the preparation of, but not necessarily be limited to, contract plans (signing, traffic signal and roadway lighting), traffic impact studies, traffic engineering studies, Intelligent Transportation System (ITS) projects (planning studies, systems engineering and contract plans), incident management planning, highway safety improvement projects (studies, data analysis, and contract plans) as well as other related services.

#### **On-Call Project Manager, City of Morgantown Community Development, Morgantown, WV:**

Providing on-call planning and zoning services to the City of Morgantown including code revisions and reviews, site plan review, drafting new ordinance components, and GIS projects. Work closely with the Planning Director and staff to address current and long-range department goals.

#### **Project Manager, Boyers Avenue Improvement Study, Star City, WV:**

Develop alternatives and strategies for corridor development along a major connector in the Morgantown urban area. The project involved extensive public involvement, transportation data collection and modeling, urban design, and implementation planning. Final recommendations were made to the community and approved by town council.

## Chet Parsons, Continued

### **Project Manager, Hurricane Interceptor**

#### **Study, West Virginia Division of Highways:**

Supplemental study of issues identified in the Culloden Interchange Study. Study includes a combined RIC-KYOVA model, turning movement counts, ATR counts, geometric data, land use data, signalized intersections data and truck routing. In particular the focus will be on the intersections of Hurricane Creek Road and WV 34 with Lynn Street and access to Virginia Avenue. It will include TransCAD and TransModeler runs.

### **Project Director, Mountain Line Transit Master**

#### **Plan, Greater Morgantown Metropolitan**

#### **Planning Organization, Morgantown, WV:**

Partnered with Mountain Line Transit Authority to develop a master transit plan to guide future expansion and services of bus facilities in the Greater Morgantown area. Areas of emphasis included service hours/frequency, transit-oriented development, connections to bike/pedestrian facilities, connections with the WVU Personal Rapid Transit system, funding options, and implementation priorities.

### **Project Manager, Culloden Interchange**

#### **Study, West Virginia Division of Highways:**

Project to analyze issues identified in several previous studies conducted by WVDOH and the Metropolitan Planning Organizations in the area, including KYOVA and RIC. Study includes an Automated License Plate Recognition (ALPR) data collection study at the Milton and Hurricane Interchanges, turning movement counts, ATR counts, geometric data, land use data, signalized intersections data and truck routing. It will also include both TransCAD and TransModeler runs using a modified RIC model that incorporates important aspects of the KYOVA model

### **Project Manager, Street Flooding Mitigation**

#### **Plan, KYOVA Interstate Planning Commission:**

Project to analyze issues crossing the boundaries between transportation and stormwater

management in relation to street flooding in the City of Huntington. The study will assess a defined study area in key locations throughout the city and focus on stormwater capacity, traffic movements, emergency services provision, traveler notification, and needs assessment. It will include both the KYOVA traffic model as well as a specialized stormwater model developed for a defined CSO area. Green infrastructure will be included as a component of any developed outcomes, as well as an analysis of travel times and estimated improvements.

### **Project Manager, Teays Valley Transportation Study, Regional Intergovernmental Council,**

**WV:** Develop a regional plan for transportation that encompasses all modes of travel and land use and looks out 20 years into the future. The plan will include a significant public involvement role and outreach to local government agencies and businesses. The scope includes existing conditions, public involvement, travel model development, alternatives testing, and developing recommended actions.

### **Deputy Project Manager, Goldsboro MPO MTP, Goldsboro, NC.**

Collaborated with a steering committee of active citizens and local officials to develop a long range transportation plan according to guidance from NCDOT and FHWA. The plan documents the ongoing transportation planning process carried out by the Goldsboro Metropolitan Planning Organization (GMPO) and its partners, and plans for strategies and projects to maintain and improve the transportation system between 2014 and 2040. Existing conditions and policies were reviewed, future network needs were documented and analyzed and strategies and opportunities for improving infrastructure were recommended.