Welcome to South Carolina

from South Carolina Lead Stakeholder

Doug Frate, Director, Intermodal & Freight Programs
Welcome to the University of South Carolina

Dr. Robert Mullen, Professor and Chair, Department of Civil and Environmental Engineering
Welcome to the University of South Carolina

Dr. Dimitris Rizos, Associate Chair, Civil and Environmental Engineering, USC
Study Team Introductions

Jessie Fernandez-Gatti, FRA Lead Planner
Key Contacts

Kyle Gradinger
FRA Project Manager
(202) 493-6191
Kyle.Gradinger@dot.gov

Jessie Fernandez-Gatti
FRA Community / Project Planner
(202) 493-0454
Jessie.Gatti@dot.gov
Key Contacts

Dave Solow
Consultant Project Manager
(949) 202-8262
David.Solow@ch2m.com

Sherry Appel
Stakeholder Engagement
(202) 441-3160
Sherry.Appel@ch2m.com

Sunserea Dalton
Consultant Deputy Project Manager
(321) 279-7566
Sunserea.Dalton@ch2m.com

Scott Richman
Baseline Conditions Task Lead
(503) 872-4747
Scott.Richman@ch2m.com
Stakeholder Group

Introductions
# Lead Stakeholders

<table>
<thead>
<tr>
<th>State</th>
<th>Name</th>
<th>Position</th>
</tr>
</thead>
<tbody>
<tr>
<td>District of Columbia</td>
<td>Anna Chamberlin, Transportation Planner</td>
<td>DDOT</td>
</tr>
<tr>
<td></td>
<td>Jamie Henson, Manager, Systems Planning</td>
<td>DDOT</td>
</tr>
<tr>
<td>Florida</td>
<td>Ed Lee, Administrator, Rail and Motor Carrier Planning/Safety</td>
<td>FDOT</td>
</tr>
<tr>
<td>Georgia</td>
<td>Meg Pirkle, Chief Engineer</td>
<td>GDOT</td>
</tr>
<tr>
<td>North Carolina</td>
<td>Paul Worley, Director</td>
<td>Rail Division, NCDOT</td>
</tr>
<tr>
<td>South Carolina</td>
<td>Doug Frate, Director</td>
<td>Intermodal &amp; Freight Programs, SCDOT</td>
</tr>
<tr>
<td>Tennessee</td>
<td>Liza M. Joffrion, Director</td>
<td>Division of Multimodal Transportation Resources, TDOT</td>
</tr>
<tr>
<td>Virginia</td>
<td>Pete Burrus, Chief of Rail</td>
<td>VDRPT</td>
</tr>
</tbody>
</table>
Stakeholder Group Self Introductions
Today’s Agenda

Dave Solow, CH2M Project Manager
Today’s Agenda
Study Overview

Kyle Gradinger, FRA Project Manager
Study Approach and Objectives
National Passenger Rail Funding

$10.1 Billion Funding
33 States & 5 Key Mega-Regions

$950 Million
Upgrades in NEC
Increased Speeds, Improve On-Time Performance & Add More Passenger Seats

$1.9 Billion
Expand High-Speed Rail Service in Midwest

$3.9 Billion
220 mph High Speed Rail in California from LA to San Francisco

$3.4 Billion
"Next Generation" Locomotives & Rail Cars Boosting U.S. Manufacturing
Buy America to PRIIA-Funded Projects where Steel, Iron & Manufactured Goods Required to be Produced in U.S.
Improving Safety, Service Frequency, Reliability & Accessibility of Rail Corridors Around the Country
## Southeast Passenger Rail Funding

<table>
<thead>
<tr>
<th>State</th>
<th>Program</th>
<th>Project Name</th>
<th>Project Corridor</th>
<th>Awarded Funding</th>
</tr>
</thead>
<tbody>
<tr>
<td>AL</td>
<td>HSIPR</td>
<td>Birmingham-Montgomery-Mobile Intercity Passenger Rail Feasibility Study</td>
<td>Birmingham - Montgomery - Mobile</td>
<td>$100,000</td>
</tr>
<tr>
<td>DC</td>
<td>HSIPR</td>
<td>Long Bridge Study - Washington, DC</td>
<td>Charlotte - Raleigh - Richmond - Washington DC</td>
<td>$2,900,000</td>
</tr>
<tr>
<td>DC</td>
<td>TIGER</td>
<td>Long Bridge NEPA</td>
<td>Charlotte - Raleigh - Richmond - Washington DC</td>
<td>$2,800,000</td>
</tr>
<tr>
<td>DC</td>
<td>FASTLANE*</td>
<td>Arlington Memorial Bridge Reconstruction Project</td>
<td>n/a</td>
<td>$90,000,000</td>
</tr>
<tr>
<td>FL</td>
<td>HSIPR</td>
<td>Florida High-Speed Rail – Phase I, Tampa-Orlando</td>
<td>Tampa - Orlando - Miami</td>
<td>$31,892,085</td>
</tr>
<tr>
<td>FL</td>
<td>TIGER</td>
<td>South Florida Freight &amp; Passenger Rail Enhancement Project</td>
<td>n/a</td>
<td>$13,750,000</td>
</tr>
<tr>
<td>FL</td>
<td>FASTLANE*</td>
<td>Truck Parking Availability System (TPAS)</td>
<td>n/a</td>
<td>$10,778,237</td>
</tr>
<tr>
<td>GA</td>
<td>HSIPR</td>
<td>Atlanta - Charlotte Corridor Investment Plan</td>
<td>Atlanta - Charlotte</td>
<td>$4,100,000</td>
</tr>
<tr>
<td>GA</td>
<td>HSIPR</td>
<td>Evaluation of HSR Options in the Atlanta - Nashville - Louisville Corridor</td>
<td>Atlanta - Chattanooga - Nashville - Louisville</td>
<td>$249,489</td>
</tr>
<tr>
<td>GA</td>
<td>HSIPR</td>
<td>Evaluation of HSR Options in the Atlanta - Birmingham Corridor</td>
<td>Atlanta - Birmingham</td>
<td>$249,489</td>
</tr>
<tr>
<td>GA</td>
<td>HSIPR</td>
<td>Evaluation of HSR Options in the Atlanta - Macon - Jacksonville Corridor</td>
<td>Atlanta - Macon - Savannah - Jacksonville</td>
<td>$249,489</td>
</tr>
<tr>
<td>NC</td>
<td>HSIPR</td>
<td>NCDOT Piedmont Third and Fourth Frequency Program</td>
<td>Charlotte - Raleigh - Richmond - Washington DC</td>
<td>$520,000,000</td>
</tr>
<tr>
<td>NC</td>
<td>HSIPR</td>
<td>NCDOT Piedmont Improvement Program Sugar Creek Road Grade Separation</td>
<td>Charlotte - Raleigh - Richmond - Washington DC</td>
<td>$22,000,000</td>
</tr>
<tr>
<td>NC</td>
<td>HSIPR</td>
<td>Southeast High Speed Rail Corridor PE/NEPA - Richmond, VA to Raleigh, NC</td>
<td>Charlotte - Raleigh - Richmond - Washington DC</td>
<td>$4,000,000</td>
</tr>
<tr>
<td>NC</td>
<td>HSIPR</td>
<td>NCDOT Intercity Passenger Rail Congestion Mitigation</td>
<td>Charlotte - Raleigh - Richmond - Washington DC</td>
<td>$26,560,839</td>
</tr>
<tr>
<td>NC</td>
<td>TIGER</td>
<td>Lexington, NC Multi-Modal Transportation Station Area Plan</td>
<td>Charlotte - Raleigh - Richmond - Washington DC</td>
<td>$700,000</td>
</tr>
<tr>
<td>NC</td>
<td>TIGER</td>
<td>Raleigh Union Station Phase I</td>
<td>Charlotte - Raleigh - Richmond - Washington DC</td>
<td>$26,500,000</td>
</tr>
<tr>
<td>NC</td>
<td>TIGER</td>
<td>Raleigh Union Station Phase 1B</td>
<td>Charlotte - Raleigh - Richmond - Washington DC</td>
<td>$11,500,001</td>
</tr>
<tr>
<td>NC</td>
<td>TIGER</td>
<td>The Northeastern NC Rail Improvement Project</td>
<td>n/a</td>
<td>$5,800,000</td>
</tr>
<tr>
<td>NC</td>
<td>TIGER</td>
<td>The Piedmont Study</td>
<td>Charlotte - Raleigh - Richmond - Washington DC</td>
<td>$200,000</td>
</tr>
<tr>
<td>NC</td>
<td>TIGER</td>
<td>Charlotte Gateway Station Track and Safety Improvements</td>
<td>Charlotte - Raleigh - Richmond - Washington DC</td>
<td>$25,000,000</td>
</tr>
<tr>
<td>SC</td>
<td>TIGER</td>
<td>Moving the Carolinas Forward: A Rural Freight Rail Project</td>
<td>n/a</td>
<td>$9,765,620</td>
</tr>
<tr>
<td>VA</td>
<td>HSIPR</td>
<td>Southeast HSR I-95 Corridor PE/NEPA - Washington, DC to Richmond, VA</td>
<td>Charlotte - Raleigh - Richmond - Washington DC</td>
<td>$44,308,000</td>
</tr>
<tr>
<td>VA</td>
<td>HSIPR</td>
<td>Arkendale to Powell's Creek Third Track</td>
<td>Charlotte - Raleigh - Richmond - Washington DC</td>
<td>$74,840,119</td>
</tr>
<tr>
<td>VA</td>
<td>FASTLANE*</td>
<td>Atlantic Gateway: Partnering to Unlock the I-95 Corridor</td>
<td>n/a</td>
<td>$165,000,000</td>
</tr>
<tr>
<td>WV</td>
<td>HSIPR</td>
<td>WVDOT State Rail Plan</td>
<td>n/a - State Rail Plan</td>
<td>$666,662</td>
</tr>
</tbody>
</table>

*Project Totals That Include Both Highway and Railroad Improvements

TOTAL $1,093,910,030
Develop Regional Rail Plan for Southeast

- Long-term visioning process
- Conceptual planning of high-performance passenger rail at the regional (multi-state) level
- Supports National Rail Planning objectives
- Final Regional Rail Plan supports existing statewide processes
  - State Rail Plans
  - Long Range Transportation Planning
- Facilitates future planning
Study Objectives

1) Identify potential multi-state rail network of “candidate corridors” for further evaluation and planning

2) Identify potential institutional, governance and financial challenges and opportunities related to multi-state rail development and delivery
Study Participants

• Core Study Area states (FL, GA, NC, SC, TN, VA) and DC are Lead Stakeholders
  – Stakeholder Group participation
  – Analyze strategic Core Based Statistical Areas (CBSA) connections

• Participatory States
  – AL and WV (Informed through study process)
Regional Rail Plan Framework

• Long-Range Horizon
  – 40 year time-frame
  – Regional intercity multi-state passenger rail focus
  – Explores potential for high-performance rail
  – Facilitates intermodal connections
  – Supplements long-distance intercity passenger service
  – Builds on the Southeast High-Speed Rail Corridor and existing state/regional planning efforts

• Integrated Network
  – Includes induced demand

• Network Design Concepts
  – Involves market analysis
  – Potential corridor connections
  – No specific routes or alignments identified
Project Background

• October 16, 2008 – Passenger Rail Investment and Improvement Act of 2008 (PRIIA)
  – "develop a long-range national rail plan consistent with approved State rail plans and the rail needs of the Nation as determined by the Secretary in order to promote an integrated, cohesive, efficient, and optimized national rail system for the movement of goods and people[.]"

• October 16, 2009 – Preliminary National Rail Plan

• September 15, 2010 – Long-Range National Rail Plan

• 2011 – FRA initiated national planning effort for regional high-performance rail

• September 2012 – National Rail Plan Progress Report

• September 17, 2013 – State Rail Plan Guidance
Project Background

• **2014** – Southwest Multi-State Rail Planning Study

• **October 20, 2014** – Call for Statements of Interest and Qualifications for Federally-Led Regional Rail Planning Projects

• **November 12, 2014** – Statements of Interest and Qualifications due to FRA

• **May 2016** – Southeast Regional Rail Planning Study initiated
Southwest Multi-State Study – 2011/2012

• SW Study Area
  – CA, NV & AZ
  – Extended area UT, CO & NM

• FRA’s initial multi-state study
  – Longstanding collective interest in development of HPR services
  – CA, NV & AZ have existing passenger rail services and advanced plans to develop enhanced intercity passenger rail, commuter rail, and HPR services

• Study focused on analyzing conceptual connections between MSAs
  – Initial use of FRA's CONNECT Model
**Definitions of High Performance Rail (HPR) Service Tiers**

<table>
<thead>
<tr>
<th>Top Speeds (mph)</th>
<th>Other Common Characteristics</th>
<th>Primary Markets Served</th>
<th>Minimum Reliability Target (On-time Performance)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Core Express corridors</td>
<td>over 125 Frequent service; dedicated tracks, except in terminal areas; electric-powered</td>
<td>Serving major metropolitan centers</td>
<td>99%</td>
</tr>
<tr>
<td>Regional corridors</td>
<td>90–125 Frequent service; dedicated and shared tracks; electric- and diesel-powered</td>
<td>Connecting mid-sized urban areas with each other or with larger metropolitan areas</td>
<td>95%</td>
</tr>
<tr>
<td>Emerging/Feeder corridors</td>
<td>Up to 90 Shared tracks</td>
<td>Connecting mid-sized and smaller urban areas with each other or with larger metropolitan areas</td>
<td>85%*</td>
</tr>
</tbody>
</table>

*On-time performance target might increase in the future.*
Southwest Multi-State Study – 2011/2012

• **Study Purpose and Objectives:**
  – Identify network of “candidate corridors” for further evaluation and planning using CONNECT Tool
  – Identify institutional challenges and opportunities related to multi-state rail development and delivery

• More than 20 stakeholders from six states met multiple times over seven months

**Figure 2 Stakeholder involvement milestones**

- **Kick-Off Conference Call**
  - Oct. 24, 2011
  - Introduced Study & stakeholder involvement process

- **Workshop #1**
  - Nov. 2, 2011
  - Las Vegas, NV
  - Identified potential connections
  - Identified areas of multi-state coordination

- **Workshop #2**
  - Jan. 12, 2012
  - Los Angeles, CA
  - Focused on topic areas
    1. Transportation connectivity & intermodal stations
    2. Transportation capacity
    3. Institutional & governance

- **Workshop #3**
  - Mar. 15, 2012
  - Phoenix, AZ
  - Provided input on preliminary results of SW network analysis
  - Focused on governance & institutional issues

- **Workshop #4**
  - Apr. 19, 2012
  - Sacramento, CA
  - Presented refined SW network analysis results
  - Focused on developing the vision

- **Workshop #5**
  - May 15, 2012
  - Los Angeles, CA
  - Provided input on study report & recommendations
Southwest Multi-State Study – 2011/2012

Planning Context

• Land Development Patterns
• Demographics
• Economic Activity
• Existing and Forecast Travel

Figure 8 Total trips between selected MSAs

Source: CONNECT Beta Version, 2012
Network Analysis Approach

• Performance Metrics
  – Ridership
  – O&M recovery ratio
  – Initial capital investment
  – O&M profit/(subsidy)
  – Rail share of total intercity travel market

• Network Benefits
  – Allowing transfers between corridors, increases the number of market pairs substantially
  – Multiple services on network (shared stations, track segments, etc.) increases infrastructure utilization and drives down costs
Southwest Multi-State Study - Key Findings

• Benefits and efficiencies of network connectivity
  – Greater at multi-state/network level
  – Leads to capital and O&M cost-savings

• Identified key market connections
  – Expanded service area (92% of population)
  – 60% of Travelers within 800 miles would use CHSR or LA/Las Vegas infrastructure
  – Potential Core Express corridors would supplement key network connections
    o Las Vegas-Reno
    o Las Vegas-Salt Lake City

• Evaluated strengths of alternative configurations
  – New markets resulted in 50% higher network ridership
  – Improved performance on all corridors
  – Significant travel time savings to LA
Recognized potential to alleviate future demand (2050) on aviation/highway system

- Future air demand to grow:
  - 74% with SW HPR network
  - 111 percent without SW HPR network
- Alleviates future highway demand (6 billion vehicle miles)
- Identified potential rail hub to connect modes in major markets
  - Inland Empire - San Bernardino and Riverside Counties
  - Phoenix to LA and San Diego
  - San Diego-Inland Empire
- Evaluated modal comparisons
  - Phoenix–Las Vegas Rail Competitive With Air Travel Time
    - 3 ½ hrs on Core Express vs 3 to 4 hrs by Air
    - Greater service frequencies with Core Express
Overview of Study Work Plan

Sunserea Dalton, CH2M Deputy Project Manager
Study Process

- Baseline Conditions and Market Assessment
- Network Design and Service Plan Concepts
- Prioritized Corridor Investments and Map
- Costs, Benefits, and Funding
- Governance Strategies

Regional Rail Plan

Stakeholder Outreach
Milestone Schedule

**KEY MILESTONES**

- Project Meeting #1: Project Kick-Off
- Detailed Work Plan Development
- Stakeholder Involvement Plan and Coordination
- Workshop #1
- Base Line Conditions and Market Assessment Report
- CONNECT Tool Training and Update
- Governance Strategies
- Workshop #2
- Network Design and Service Plan Concepts Report
- Costs, Benefits, and Funding Analysis Report
- Workshop #3
- Refined SE Network Analysis
- Prioritized Coordination Investments Plan and Map
- Workshop #4
- Draft SE Regional Plan
- Workshop #5
- Final SE Regional Plan
- Project Completion

**QUARTERS**

- 2016: MAR MAY JUL SEP NOV 2017: MAR MAY JUL SEP

**Legend:**
- Initial Work Product
- Update If Needed
- Major Event
- Deliverable
Overview of Stakeholder Involvement Plan

Sherry Appel, CH2M Stakeholder Engagement Lead
Stakeholder Activities

• Approximate 35-person Stakeholder Group (SG)
  o Includes a Lead Stakeholder from each Core Study Area state plus D.C.
  o Remainder includes representatives from local/regional interests, rail or transit operators, the business community, environmental groups and/or community organizations
  o Balanced by the FRA for geography, agency, and interest area

• Interested Parties – Additional agency representatives, interested individuals or special interest groups identified by lead stakeholders to receive information on an ongoing basis throughout the study

• Five (5) SG workshops, one hosted in each state/region
Stakeholder Participation

• Stakeholder Group (SG)
  – Provides input to FRA during study
  – Regular attendance at meetings, in-person attendance strongly recommended
  – Provide data collection, input and guidance throughout study

• Interested Parties
  – Expands participation to include range of audiences, including other railroads or rail interests, business, community, environment, local government, or metropolitan planning interests
  – Includes any recommended stakeholders not included in SG
  – Included on the e-mail list to receive key information distributed throughout the study
Communication Tools

- Website: www.SouthEastRailPlan.org
- Stakeholder Group secure page
- Interested Parties comments through website
- Monthly electronic update (emails and/or e-newsletter)
<table>
<thead>
<tr>
<th>Location</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Columbia, SC</td>
<td>September 20, 2016</td>
</tr>
<tr>
<td>Northern VA</td>
<td>December 15, 2016</td>
</tr>
<tr>
<td>Orlando, Tampa or Jacksonville, FL</td>
<td>February 2017</td>
</tr>
<tr>
<td>Atlanta, GA</td>
<td>May 2017</td>
</tr>
<tr>
<td>Raleigh, NC</td>
<td>July 2017</td>
</tr>
</tbody>
</table>
Overview of FRA Charge and Guiding Principles to Stakeholder Group

Jessie Fernandez-Gatti, FRA Lead Planner
Stakeholder Group Charge

• Provide input on FRA’s development of a conceptual SE vision for an integrated high-performance, regional intercity passenger rail network
• Share, collaborate on and consider all needed analysis inputs
• Identify potential institutional, governance, and financial arrangements
• Identify potential future joint or distinct passenger/freight corridors
• Review the full range of opportunities and constraints, as well as state and regional priorities
• Strategize future planning activities and priorities
• Consider potential roles for public-private partnerships
Guiding Principles

1. SUPPORT
   Support development of safe, reliable, efficient, and inter-connected multi-modal travel options

2. BALANCE
   Balance cost-effectiveness and return on investment with benefit of developing premier regional transportation system

3. ENVISION
   Envision a multi-state rail network that supports environmental, social, and economic sustainability

4. ENCOURAGE
   Encourage cross-state coordination to achieve the most optimal outcomes in network planning
Thank You