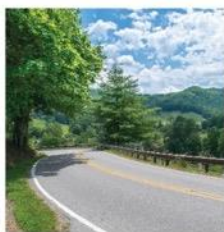




NORTH CAROLINA Department of Transportation



Rail Division Overview

Jason Orthner, P.E.
Rail Division Director

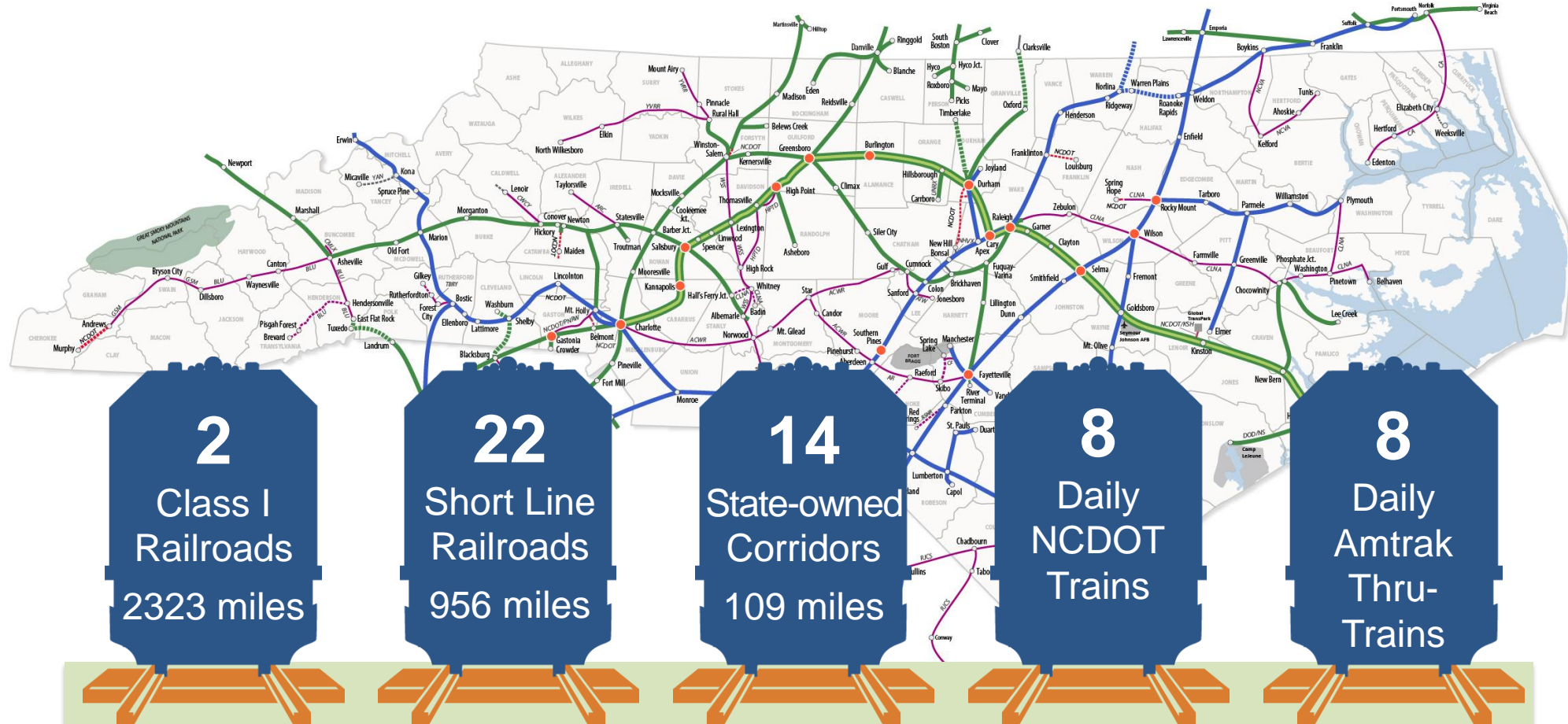
March 26, 2019

Rail Division Mission



The safe and efficient movement of people and goods on North Carolina's railroads through freight, passenger and safety programs, supporting job creation and economic growth.

Railroads Operate in 86 NC Counties



Direct Economic Impacts for Freight and Passenger Rail in North Carolina – \$1,875M

Freight – \$1,754M, Passenger – \$121M

Source: North Carolina Comprehensive State Rail Plan, 2015

Rail Programs & Services



Planning & Development

- Intermodal & Freight Planning
- STI & Project Development
- Freight Improvement Program Management
- Passenger Rail Planning
- Environmental Documentation



Engineering Coordination & Safety

- Crossing Safety Studies
- Crossing Surfaces & Rail Encroachments
- Grade Separation Design
- Inventory & Data
- RR/Transit Safety Oversight
- Safety Outreach & Training



Engineering Design & Construction

- Rail Project Engineering & Design
- Construction Management
- Highway Project Delivery Support
- Signals & Devices

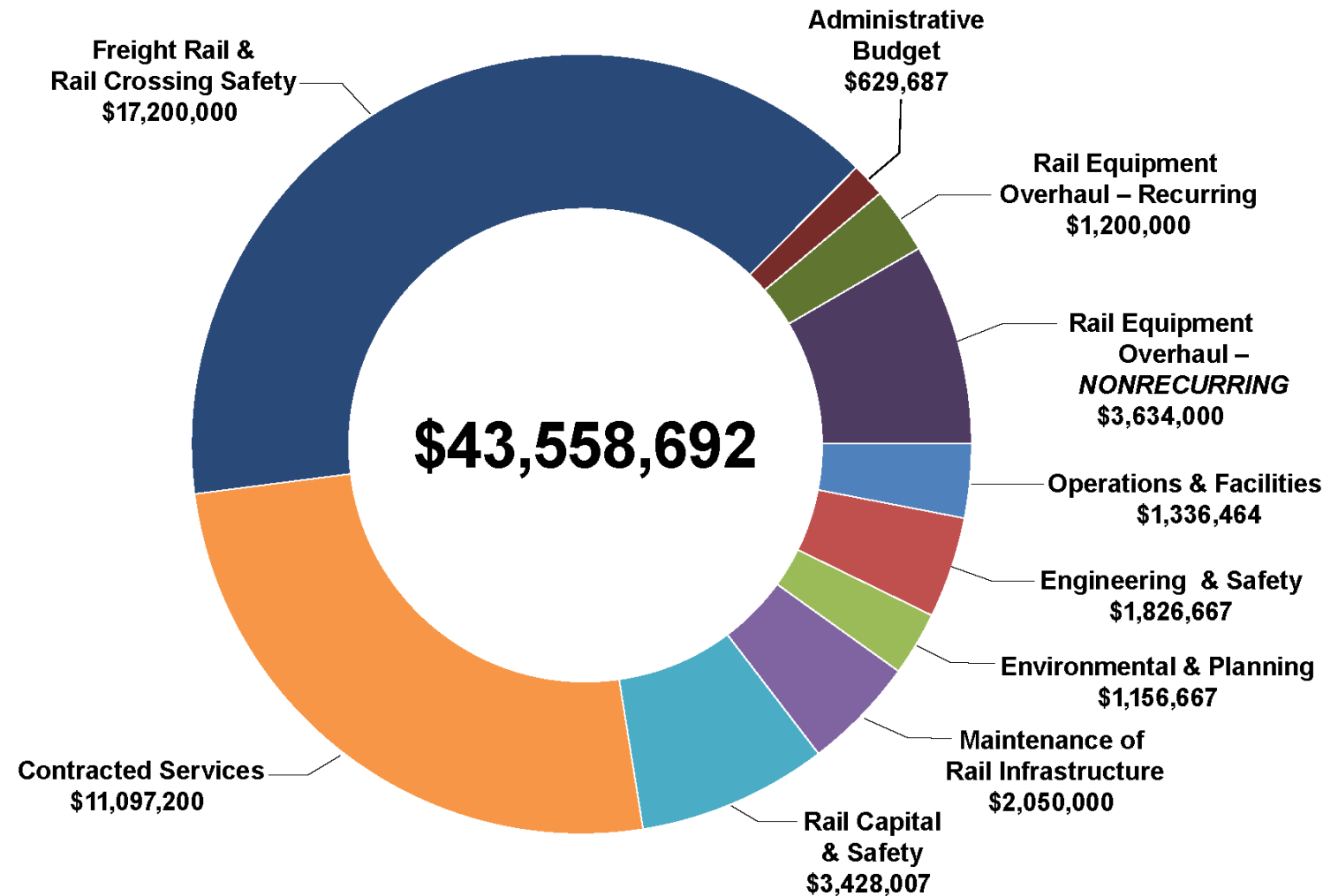
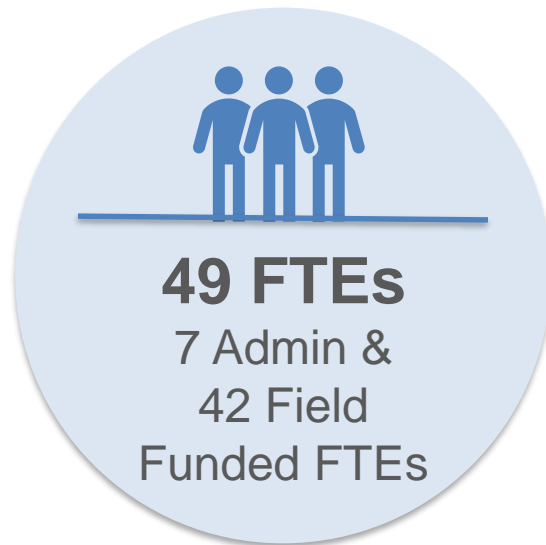


Operations & Facilities

- Passenger Operations
- Equipment, Facilities & Stations
- Customer Service
- Rail Corridor Preservation



Rail Division Budget – SFY 2019





Rail Division Receipts – SFY 2019

Type	Source	Amount
Ticket Revenues	Riders	\$ 24,832,880
23 USC 130 Federal/State program	FHWA	\$6,500,000
Congestion Mitigation and Air Quality	FHWA	\$5,157,843
State Planning & Research	FHWA	\$1,000,000
Rail Corridor and Facility Leases and Licenses	Lessees	\$250,000
Total Receipts & Leveraged Funds		\$37,740,723

Expansion Budget Item Included in Governor's Budget



\$1.72M
FY 2021

- Assist with *Piedmont* fuel costs
- Leverage opportunity for federal (CMAQ) funding for train operations and heavy maintenance
- Average cost of diesel for Jan.-Feb. rose from \$1.18 in 2016 to \$1.92 in 2019.



Freight Rail & Rail Crossing Safety Fund Accomplishments to Date

- Private Capital Investment – \$637.3M
- Supported 21 new industry expansion projects
- Created over 1,000 jobs
- Added over 12,500 annual carloads to the network
- Upgraded 107 miles of short line railroad
- Modernized 72 bridges
- Improved 1,010 railroad crossings
- Removed 13 railroad crossings
- Invested \$3M in NC Ports





FRCCSI Funding and Expenditures to Date

Year	2014	2015	2016	2017	2018	2019	TOTAL
Appropriations	\$19.20M	\$3.75M	\$3.75M	\$17.50M	\$17.50M	\$17.20M	\$78.90M
Receipts		\$0.14	\$0.06	\$0.67	\$0.16		\$1.04M
Expenditures To Date		\$1.16M	\$6.45M	\$7.97M	\$8.18M	\$7.26M	\$31.02M

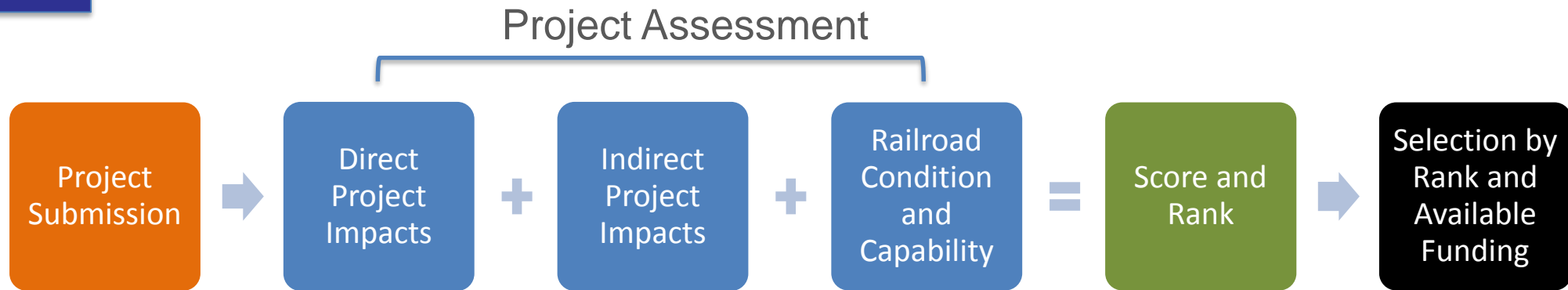
Type	Total Funding Committed*	Expenditures To Date	Private Match
Short Line Infrastructure Assistance Program	\$30.42M	\$13.80M	\$31.65M
Crossing Safety & Signal Improvements	\$31.10M	\$13.30M	\$0.07M
Rail Industrial Access Improvements	\$8.75M	\$4.45M	\$20.10M
Grand Total	\$70.23M	\$31.55M	\$51.82M

**Total funding includes completed projects and projects underway.*



FRRCSI Project Evaluation and Selection

Short Line Infrastructure Assistance Program



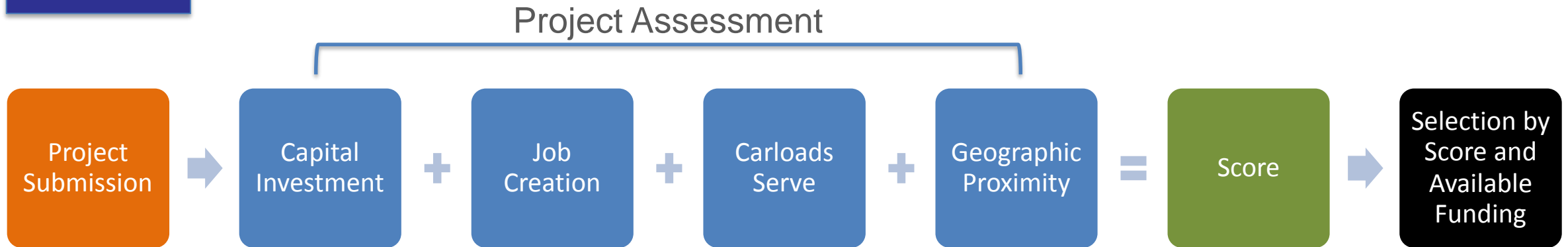
- Requires 50% match per GS 136-44.39
- Largest project match to date: \$3.6M
- Performance Measures and Targeted Results:
 - Additional annual carloads: **Approximately 12,000**
 - Additional miles 286K track and bridges: **107**

Year	Applications	Funded
2014	13	11
2015	11	11
2016	15	6
2017	13	13
2018	13	13
2019	14	14



FRRCSI Project Evaluation and Selection

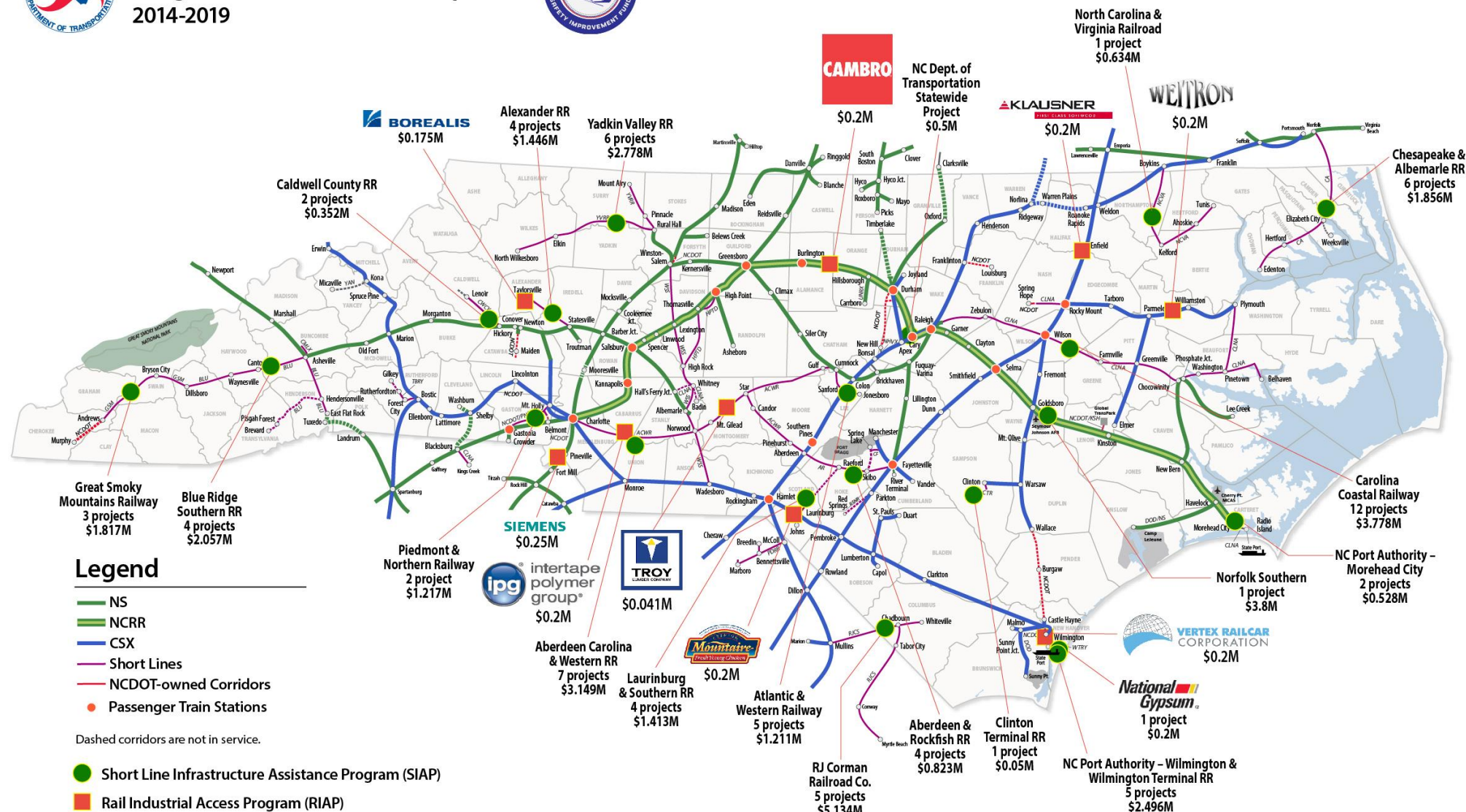
Rail Industrial Access Program



- Projects funded since 2014: 21
- Maximum state investment/project: \$400,000
- Performance Measures and Targeted Results:
 - Jobs: 1,100
 - Additional annual carloads: **Approximately 14,000**
 - Private Capital Investment: **\$637.3M**
 - Investments in Tier 1/2 Counties: **\$514.3M**



State of NC Investment in Freight Rail Economic Development 2014-2019

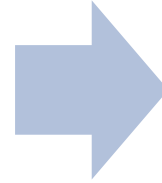




FRRCSI Project Evaluation and Selection

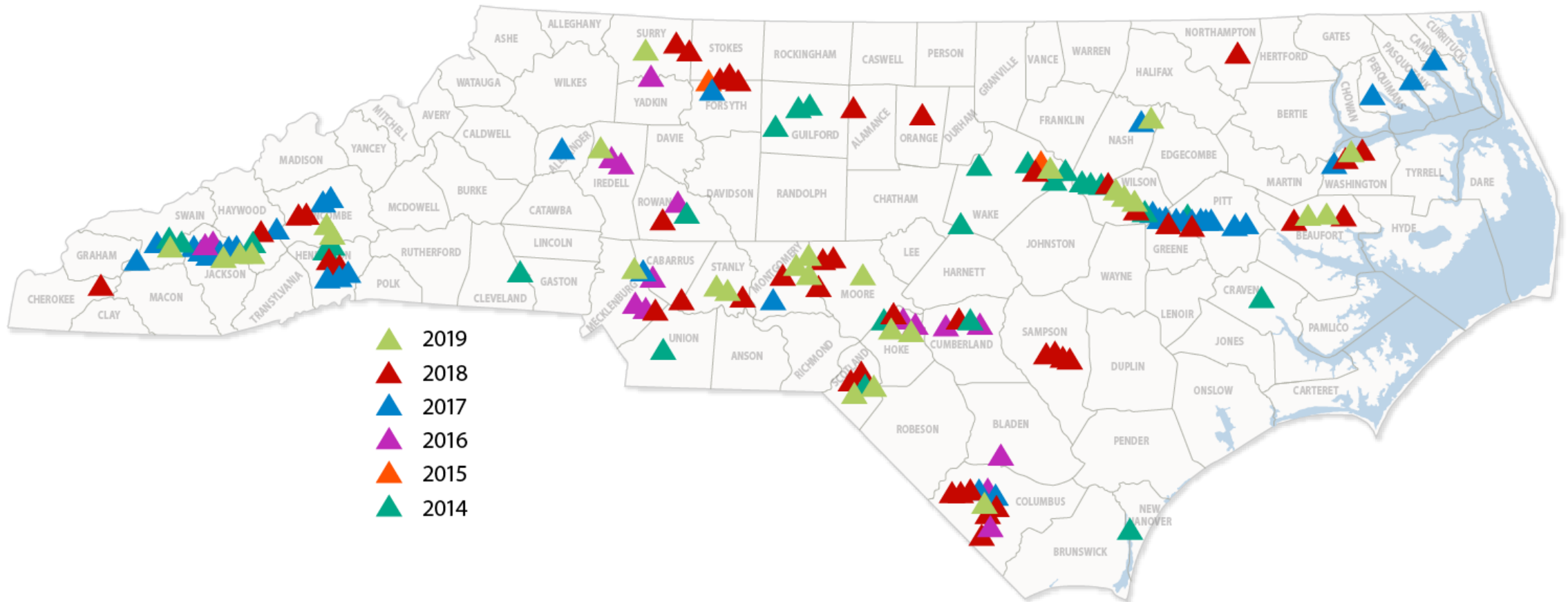
Crossing Safety and Signals Improvements Program

Project Submission



Selection by Rank Based on
Safety Risk Assessment
and Available Funding

- Maximum state investment per project to date - **\$3.5M**
- No more than 50% of the annual budget, with no more than 20% allocated to one project.
- **Performance Measures and Targeted Results:**
 - Poor crossing surfaces upgraded: **181 projects**
 - Separate highway and rail traffic: **17 crossings removed**
 - Improve safety at existing crossings: **1,010 crossings improved**





5-Year Spending Plan

FRRCSI Capital Plan, SFY 2018-2022

Category	SFY 2018	SFY 2019	SFY 2020	SFY 2021	SFY 2022
	Actual Submittals				
Short Line Infrastructure Assistance Program	\$14.6M	\$45.8M	\$30.5M	\$31.1M	\$27.5M
Crossing Consolidation and Safety	\$8.6M	\$6.6M	\$6.5M	\$3.5M	\$0.5M
Corridor Preservation	\$0.3M	\$4.3M	\$0.3M	\$0.3M	\$0.3M
Freight Diversion	\$1.2M	\$46M	\$44M	\$41M	\$26M
Rail Industrial Access Program		\$2M	\$2M	\$2M	\$2M
GRAND TOTAL	\$24.7M	\$104.6M	\$83.2M	\$77.8M	\$56.2M



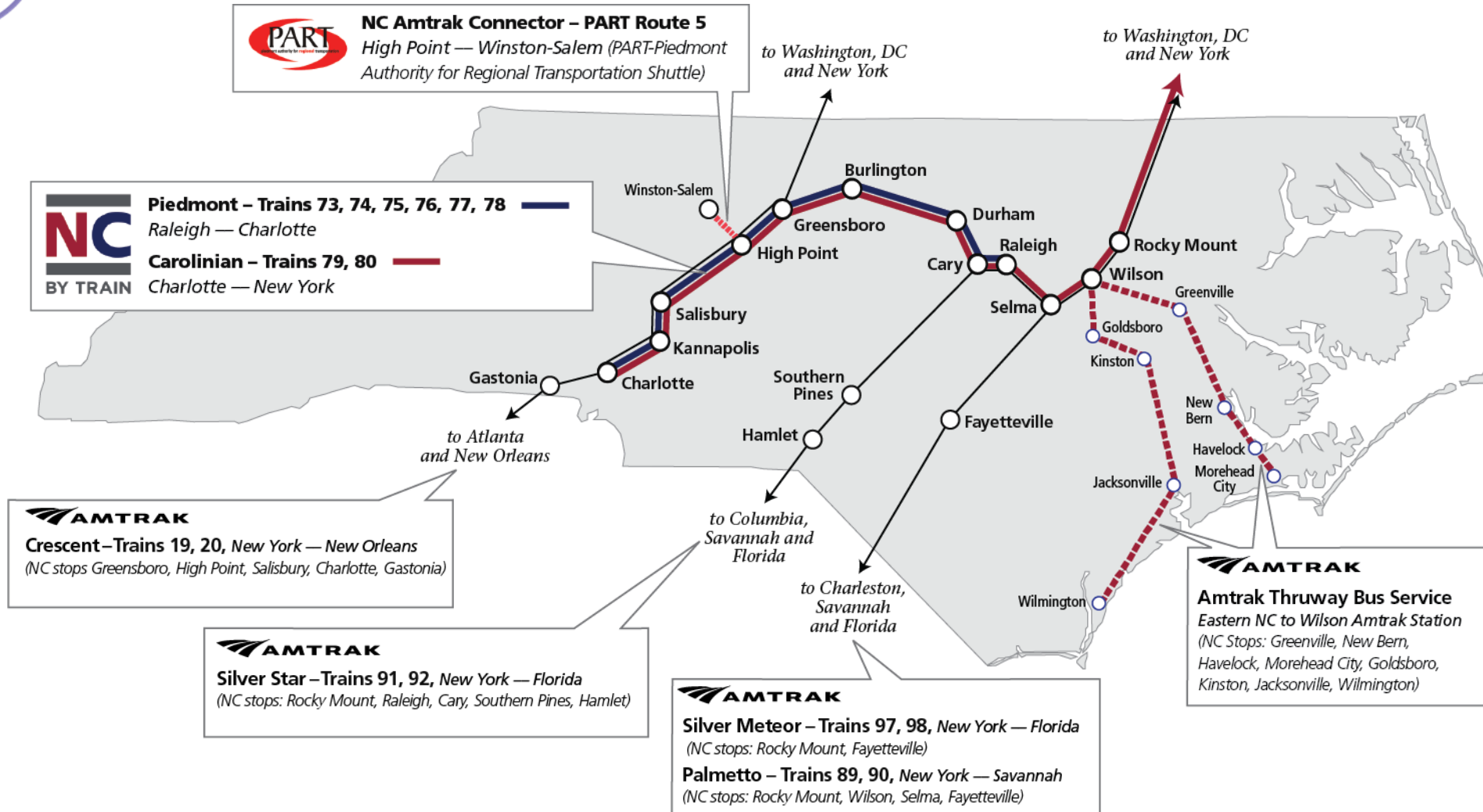
Program Opportunities / Possible Changes

- Continue ongoing consistent additional appropriations beyond dividends to assist longer-term planning
- Appropriations for corridor acquisitions for network preservation
- Possible modification of required 50% match from short lines as incentive for larger projects
- Consider appropriation for emergency repair due to natural disasters





North Carolina Passenger Rail Service





Rail Passenger Operations

Recent Successes

- Added 3rd *Piedmont* round trip in June 2018
- Opened Raleigh Union Station July 2018
- *Piedmont* – Highest Customer Satisfaction in nation – November-December 2018



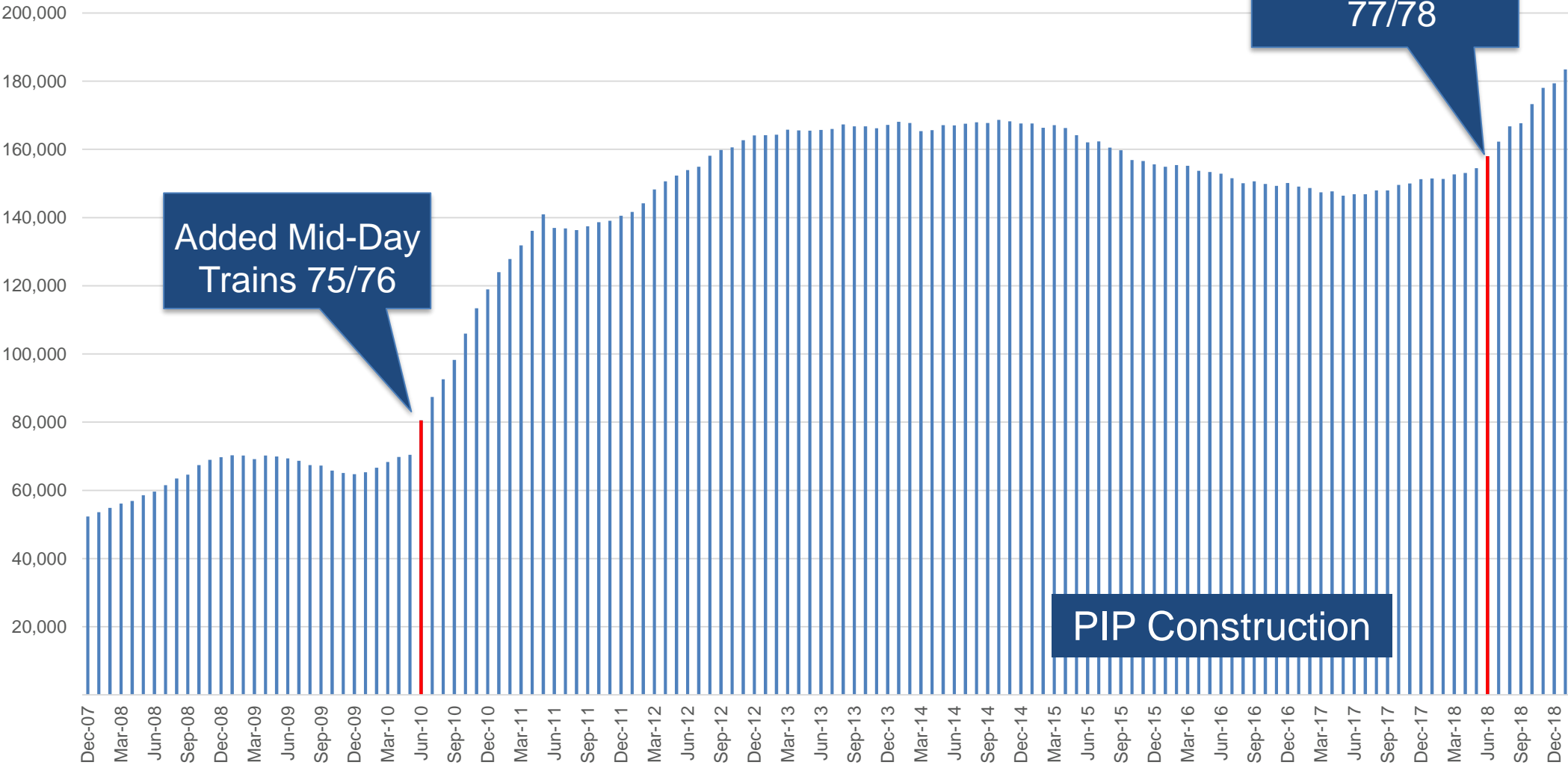
Piedmont Service and Ridership

Rolling 12 Months Total

Added Trains
77/78

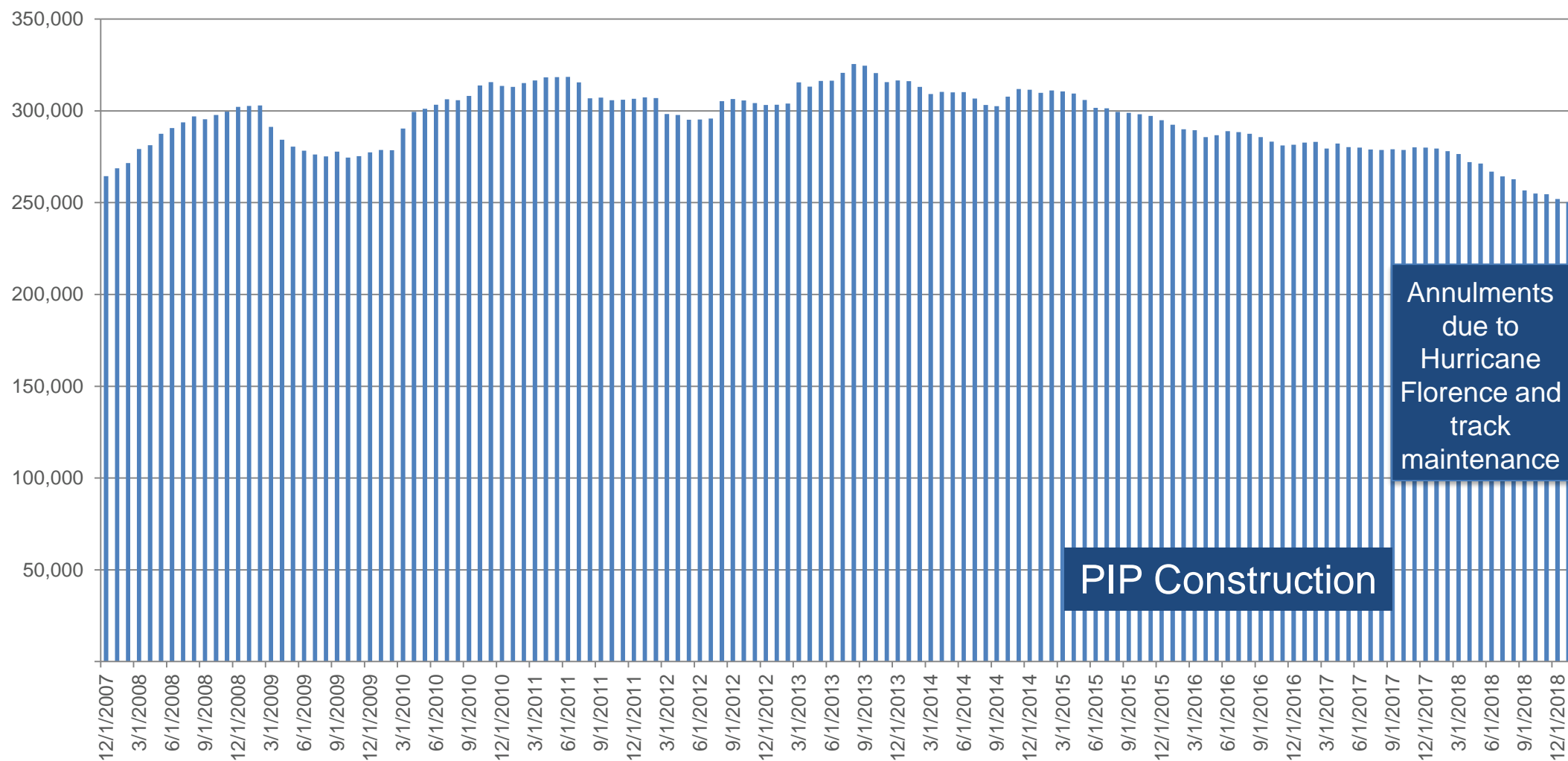
Added Mid-Day
Trains 75/76

PIP Construction



Carolinian Ridership and Service

Rolling 12 Months Total





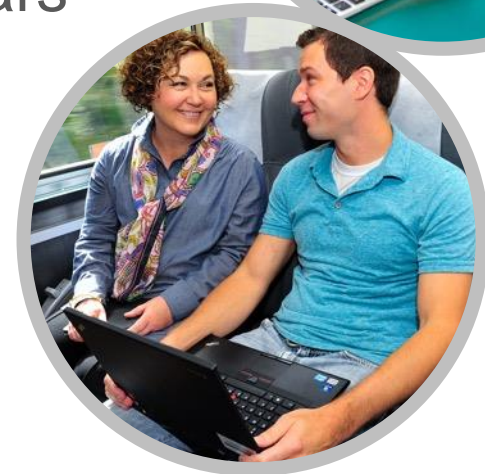
Charlotte Gateway Station

- Moving station to Uptown
- Anticipated to significantly increase ridership
- Current station not easily accessible – small and outdated, and subject to flooding
- Phase 1 under construction; targeted for completion in 2022
- Working with City of Charlotte to develop station area



Passenger Service Development

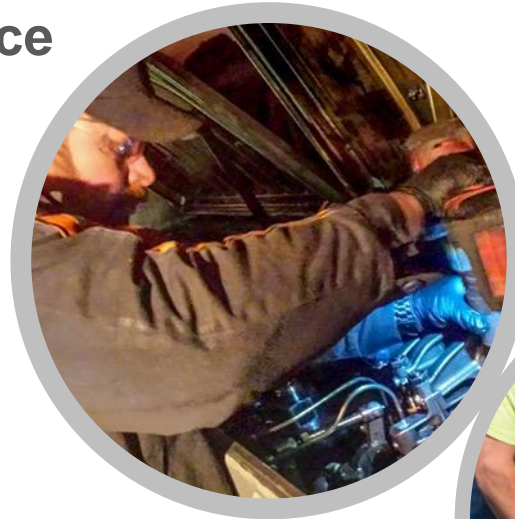
- Evaluating start date of fourth *Piedmont* round trip allowed under DSOA
- Analyzing schedules to meet travel demand
 - Intercity trains free up highway capacity
 - Maximize ridership opportunities
- Evaluating rail equipment options to replace aging fleet
 - Phased replacement of *Piedmont* fleet; original cars from 1950s
 - Considering replacement of *Carolinian* fleet with NC-branded equipment
- Working with communities on new stations, Amtrak Thruway service, interest in commuter rail



Ongoing Maintenance Improvements

Since 2017 completion of Piedmont Improvement Program

- **Track and Signal Maintenance Contribution**
 - Currently approximately \$2M per year from base budget
 - Annual costs are indexed to AAR Rail Pricing Index
- **Equipment, Overhaul and Maintenance**
 - 2018: \$1.4M, 2019 FYTD: \$3.2M
 - Additional funds will be expended for component replacement/repair and as leverage to match future Federal grant opportunities



Passenger Rail Station Maintenance Needs Study

Covered 8 municipally-owned Stations on *Piedmont/Carolina* routes with identified maintenance needs

Studied three categories of needs:

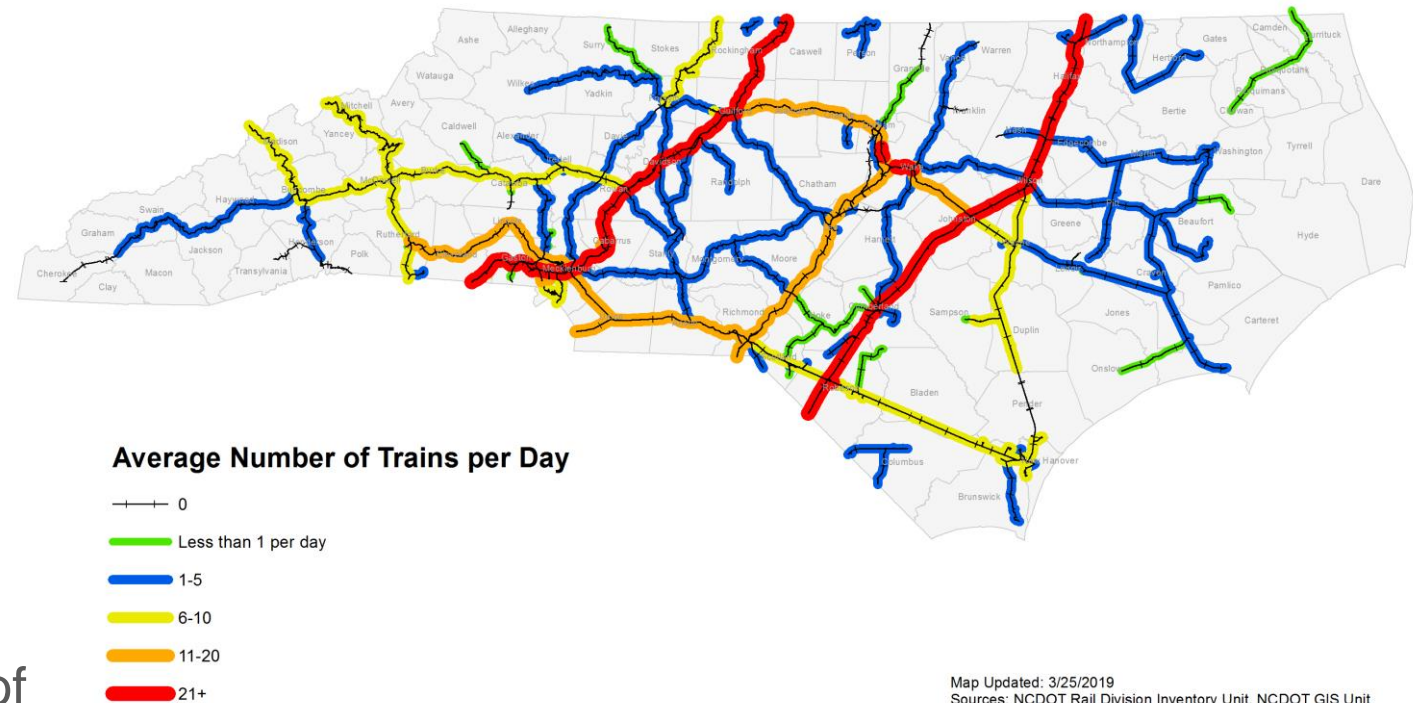
- **Major Repairs—\$6.7M**
 - HVAC systems, roofs, platform canopies, painting
- **Annual Recurring Maintenance—\$64-80K**
 - Restriping platform, power washing exterior, touch-up painting
- **One-time maintenance—\$89K**
 - ADA compliant platform signage, LED lighting conversion, general restroom repair (vital to customer experience)

Station Location	# Projects	Est. Cost
Rocky Mount	18	\$293K
Wilson	16	\$420K
Selma	22	\$455K
Durham	13	\$25K
Greensboro	17	\$3,062K
High Point	5	\$820K
Salisbury	24	\$1,580K
Kannapolis	7	\$50K
TOTAL	122	\$6,705K

Anticipated Changes to Class I Rail Networks

Class I railroads are in the process of shedding lower-volume corridors and focusing on core routes

- Core routes carry large volumes of through freight trains
- Lower-volume lines need to be preserved to serve existing and prospective industries and provide passenger rail expansion opportunities
- Some corridors may be strategic for state acquisition
- The S-Line, vital to development of Southeast Corridor, is in this category



Map Updated: 3/25/2019
Sources: NCDOT Rail Division Inventory Unit, NCDOT GIS Unit

Southeast Corridor

Value of developing the S-Line Corridor

- Federal Record of Decision 2017
- Enhances economic development opportunities in rural NC and VA
- Provides north-south freight capacity and network resiliency
- Connects manufacturing and job centers to population centers
- Provides expansion opportunities for freight and passenger rail
- Reduces trip times and improves on time performance





Raleigh to Richmond portion of Southeast Corridor

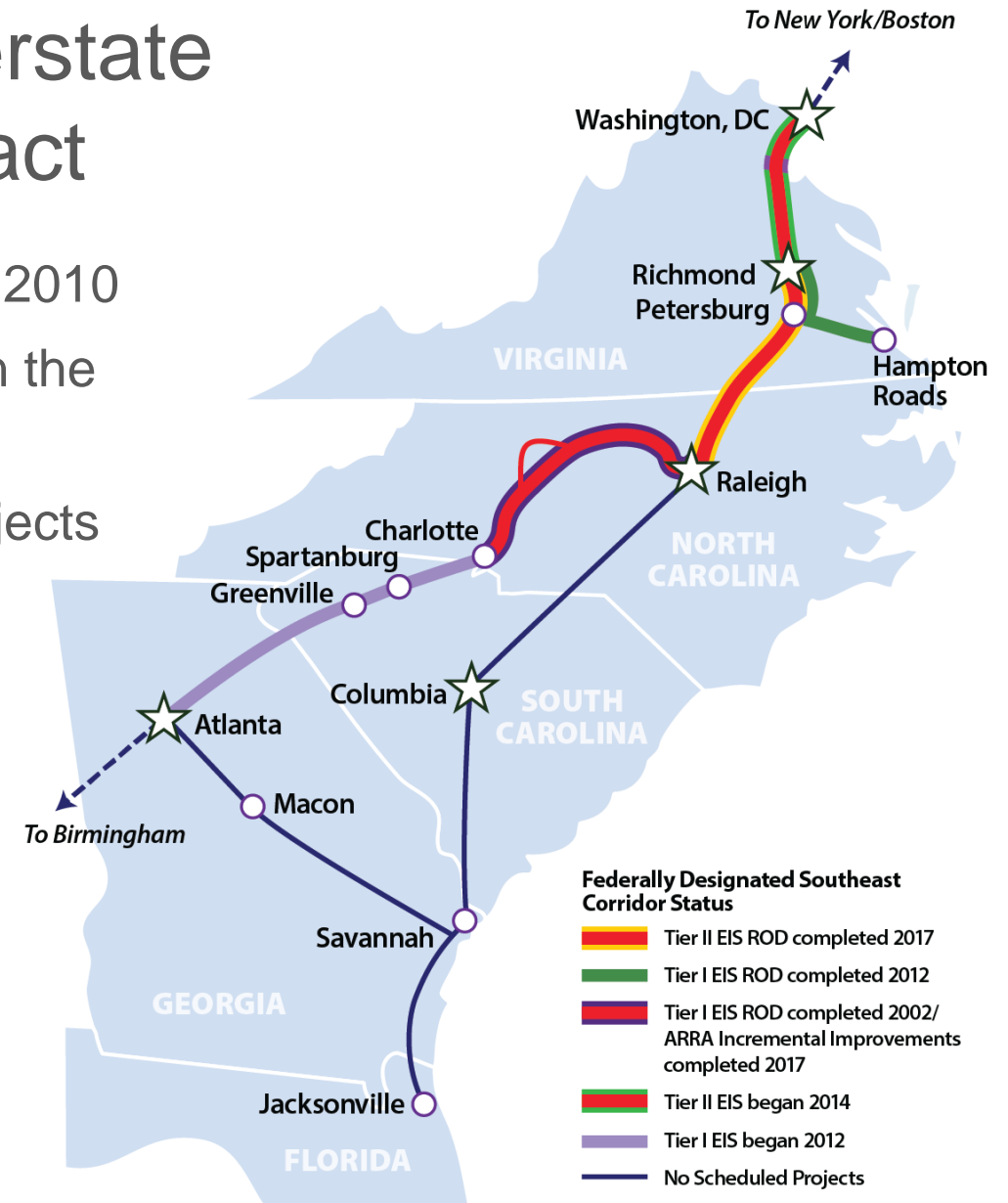
- Work is underway on ISDP:
 - Opportunities to phase infrastructure
 - Possible extension of Raleigh to Charlotte intercity service to Wake Forest and Henderson
 - Analyzes new service schedules to Washington, DC and connections to Virginia services
- Corridor acquisition strategy
- Leveraging projects for Federal funding opportunities



Federal Record of Decision complete for
Raleigh to Richmond portion of the
Southeast Corridor

Virginia-North Carolina Interstate High Speed Rail Compact

- Created 2004 (49 USC 24101); Inaugural meeting 2010
- One of two Congressionally approved Compacts in the nation (*other is Midwest*)
- Necessary to successfully advance multi-state projects
- The Compact's charter: support the development of a plan for the design, construction, financing, oversight and operation of the Southeast Corridor
- Typically meets two times per year; recently has met once per year



Compact Membership

Virginia <i>(5 Senators)</i>	North Carolina <i>(5 Senators, 2 House Representatives, 1 Governor's appointee)</i>
Senator John Cosgrove	Representative John Torbett
Senator Scott Surovell	Representative John Fraley
Delegate Jeion Ward	Senator Jim Davis
Delegate Bob Thomas	Senator Tom McInnis
Delegate David Yancey	Michael Fox, Chairman, Board of Transportation



Recent NC-VA Compact Activity

- **Compact Meeting, March 2016:**
 - Voted to start the process of inviting other states in the Southeast
 - Asked NCDOT and VA DRPT staff to develop a list of joint grant applications
- **In the FY17 Omnibus Bill, Congress provided \$1M Federal funding for the Southeast Corridor Rail Commission**
- **Compact Meeting, November 2017:**
 - Noted that political strategy will need to be executed to add other states
 - Voted to request FRA to provide \$1M grant to stand up a Southeast Rail Commission, NCDOT to administer





STI Rail Project Delivery

- Funded projects include:
 - Grade separations: **27 projects**
 - Terminals: **3 projects**
 - Track Improvements: **15 projects**
 - Station-related: **3 projects**
- Projects developed and administered by experts in Rail Division



\$700M

Managed
by Rail
Division



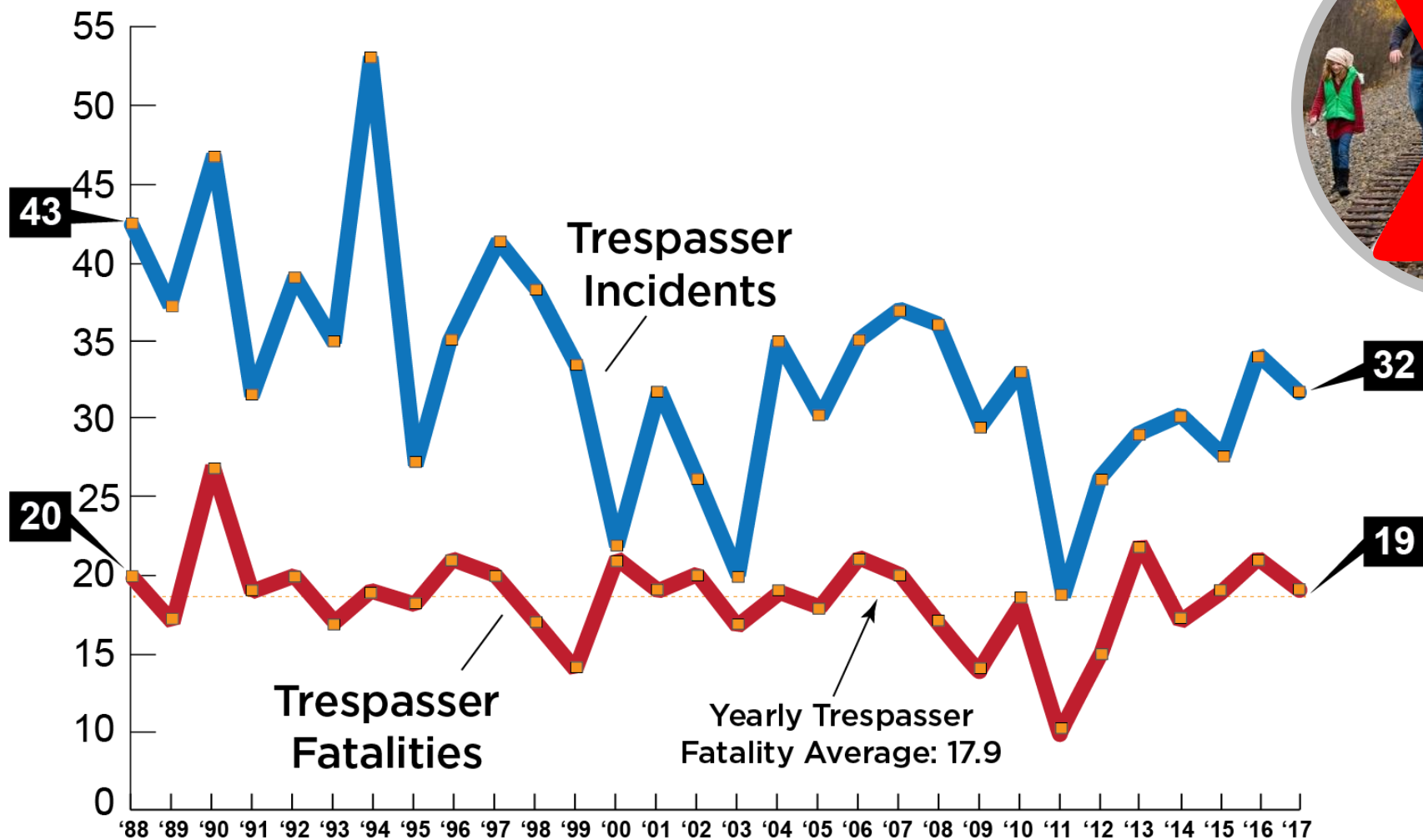
Rail Division Safety Programs

- **At-grade Crossings:**
 - Sealed Corridor Program: *High volume, higher speed routes*
 - Crossing Warning Devices: Statewide improvements and new technology
 - Traffic Separation Studies: Working with communities to separate highway and rail conflicts
 - Crossing Consolidations: Removed over 300 crossings to date
- **BeRailSafe**
 - Education, Enforcement, Engineering
 - Focus on pedestrian trespassing on rail corridors





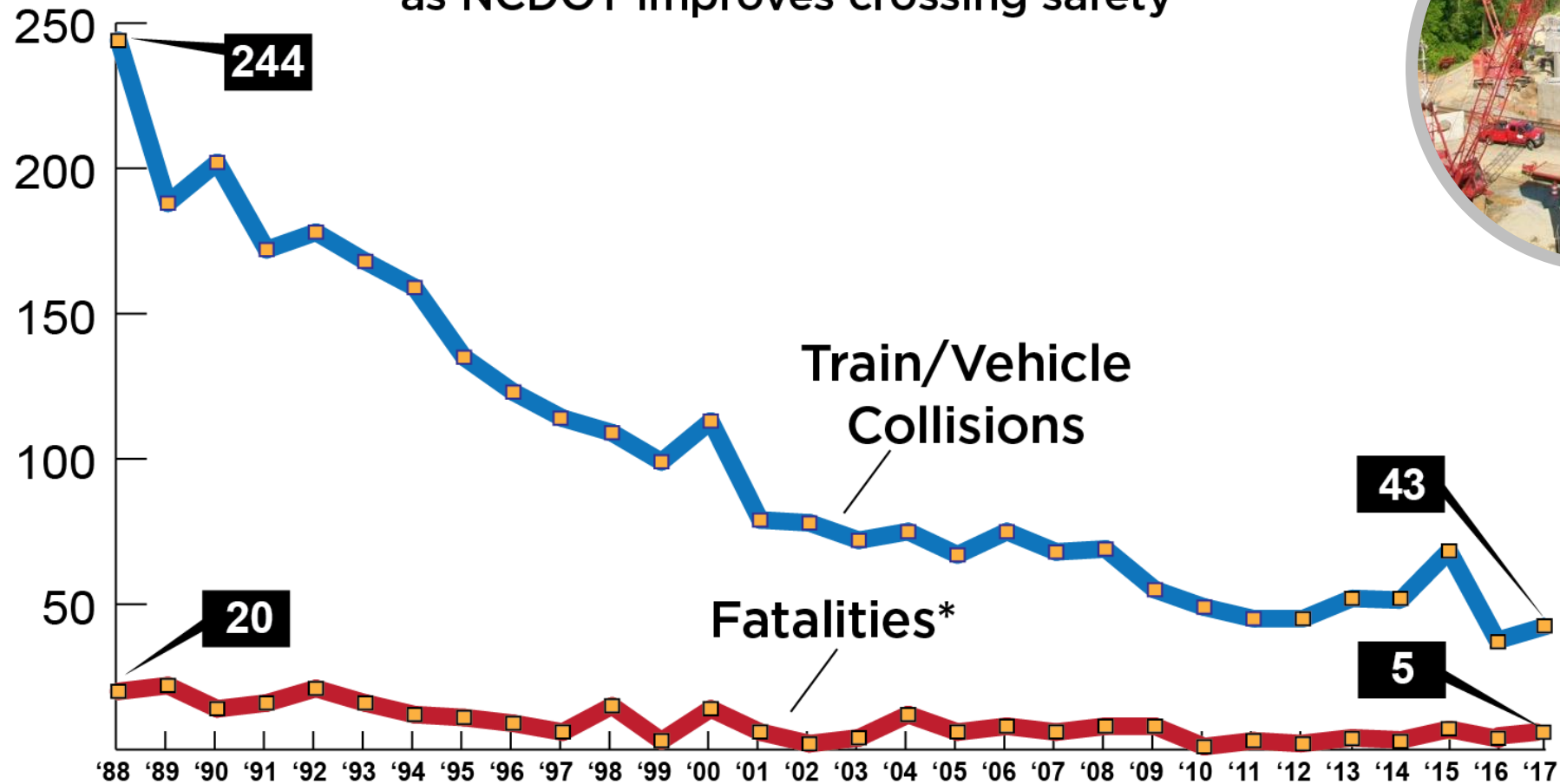
NC Trespasser Incidents and Fatalities 1988-2017 (FRA & NCDOT Rail Division data)





Train-Motor Vehicle Collisions

Grade crossing incidents have declined in North Carolina as NCDOT improves crossing safety



* Does not include trespasser fatalities.





Working with the NC Ports

Queen City Express

- Rail container service between Wilmington and Charlotte
- Rail route improvements underway
 - Passing siding improvements, power switches, grade separations

Wilmington Port access improvements

- Developing near-term improvements to existing route to improve safety and speeds
- Coordination with long-range rail realignment



Carolina Connector (CCX) Update

- **Terminal Funding**

- \$118.1M (NCDOT)
 - includes engineering, terminal and railroad construction
- \$40M (CSX)
 - includes land acquisition, a portion of terminal equipment, environmental work, administrative and development costs

- **NCDOT expenditures to date: \$25M**

- **Construction begins: Spring 2019**

- **Construction timeline: 18-20 months**

- **Groundbreaking: April 2019**

- **Marketing coordination underway**

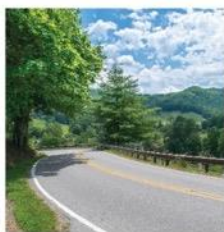
- Includes NCDOT, CSX, Carolinas Gateway Partnership and other regional economic development partners





NORTH CAROLINA

Department of Transportation



Rail Division Overview

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