



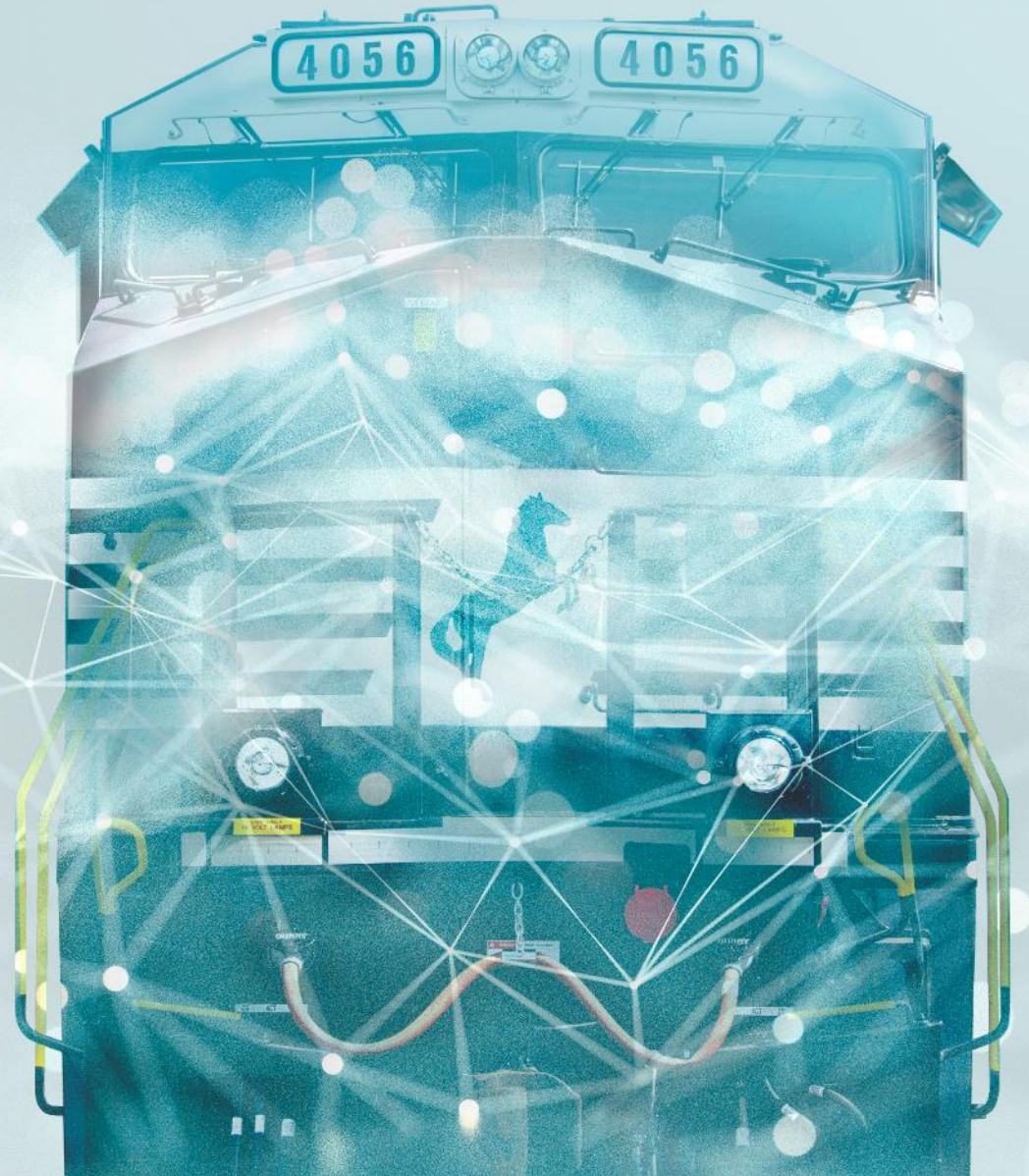
Norfolk Southern Engineering

NRC First Look 2022

January 6, 2022

Ed Boyle

VP - Engineering



NS Engineering Department Mission

***Provide a safe, fast and reliable
infrastructure network at the lowest
possible cost***

Mission Critical Needs

1. Strong Capital Investment
2. Our Partners

#1 Strong Capital Investment

NS Engineering Capital Program

2022 CAT 1 PROGRAM BUDGET SUMMARY

	<u>'15-'19 Average</u>	<u>2020 Actual</u>	<u>2021 B.A</u>	<u>2021 Actual</u>	<u>2022 B.A.</u>
<u>TOTAL RAIL MILES</u>	426	381	390	439	500
<u>TOTAL T&S MILES</u>	2,652	2,227	2,560	2,219	2,700
<u>TOTAL CROSSTIES</u>	2,291,197	1,691,430	2,150,000	1,927,491	2,250,000
<u>TOTAL SURFACING MILES</u>	2,355	2,558	2,125	1,903	1,850
<u>PANEL TURNOUTS</u>	466	410	425	405	450
<u>BRIDGE TIES</u>	29,880	27,213	30,000	30,200	30,000

Strategic Infrastructure Investments

2021 – Capacity Projects

Completed / In Progress:

- 15,000 TF Siding, Montpelier, IN
- 15,000 TF Siding, Sidney, IN
- 15,000 TF Siding, Crudup, AL
- 15,000 TF Siding, Carlisle, SC
- Yard Lead Upgrades, Cincinnati, OH

Focused Investment in Key Corridors:

- Chicago to Cincinnati via Fort Wayne
- Chattanooga to NOL via Birmingham
- Upstate SC to Port of Charleston



Strategic Infrastructure Investments

2022 – Planned Capacity Projects

In Design Phase / Construction Pending:

- 15,000 TF Siding, Arabi, GA
- 15,000 TF Siding, Fargo, GA
- 15,000 TF Siding, Wilton, AL
- 15,000 TF Siding, Jackson, AL
- 15,000 TF Siding, Campbellstown, OH
- 15,000 TF Siding, Max Meadows, VA
- 2nd Main, Nokesville - Calverton, VA



Intermodal and Auto Terminal Investments

2021 – Facility Projects

Completed / In Progress:

- 47th St. IMF Improvements, Chicago, IL
- 63rd St. IMF Expansion, Chicago, IL
- Calumet IMF Expansion, Chicago, IL
- Charlotte IMF Expansion - Ph 1, Charlotte, NC
- Inman Yard IMF Improvements, Atlanta, GA
- Rehabilitation Work at Voltz IMF, Kansas City
- Rehabilitation Work at Croxton IMF, Secaucus, NJ
- Rehabilitation Work at E-Rail IMF, Elizabeth, NJ
- Auto Facility Creation, Baltimore, MD
- Auto Facility Expansion, Ayer, MA (on PASLLC)

Focused Investment at Key Terminals to enable more efficient operations



Intermodal and Auto Terminal Investments

2022 – Planned Facility Projects

- 47th St. IMF Craneway Improvements, Chicago, IL
- 47th St. IMF Pad Track Rehabilitation, Chicago, IL
- Landers IMF Pad Track Rehabilitation, Chicago, IL
- Calumet IMF Expansion - Ph 3, Chicago, IL
- Charlotte IMF Expansion - Ph 2, Charlotte, NC
- GPA Mega Terminal and N.E. GA Inland Port
- Paving, Paving, and more Paving

Continued Investment at Key Terminals on extension of life projects and projects that facilitate efficient container handling

Improvements supporting operation of more environmentally friendly IMF equipment



Other Design and Construction Activity

Anticipated 2022 Work



Yard Office and Reporting Buildings

2-3 Mid-size Yard Office Buildings
4-6 Modular/Container-Based Buildings
Several Bulk Fuel Storage Tanks



Geotechnical Projects

Injection Grouting
Embankment Stabilization
Retaining Walls



Public Projects

CREATE (Chicago)
Numerous Grade Separation Projects
Passenger and Commuter Rail Support

Strategic Bridges and Structures Investments

2021 – Bridge Projects

Completed / In Progress:

- 37 Bridge Replacements
- 114 Bridge Rehabilitations
- 5 Movable Bridge Structural Component Replacements
- 1 Bridge Fender System Replacement

Unplanned in 2021:

- 9 Roadway Bridge Strikes Requiring Emergency Repairs
- 5 Barge Strikes at Waterway Bridges Requiring Emergency Repairs



Strategic Bridges and Structures Investments

2021 – Structural Projects

Completed / In Progress:

- 116 Culvert Replacements
- 2 Tunnel Rehabilitation
- Bulkhead Replacement at Lambert's Point Facility
- 7 Retaining Wall Replacements
- 5 Slide Fence Replacements
- 2 Pump System Replacements in Brosnan Yard
- Dock Wall Rehabilitation at Sandusky Facility



Strategic Bridges and Structures Investments

2022 – Planned Bridge Projects

- 21 Bridge Replacements
- 28 Bridge Rehabilitations

2022 – Planned Structural Projects

- 140 Culvert Replacements
- 1 Tunnel Rehabilitation
- 1 Retaining Wall Replacement
- 5 Slide Fence Replacements



#2 Our Partners

What we need from our Partners

- Honesty and Integrity
- Urgency and Quality
- Achieve **ZERO TODAY**

Q&A

Thank you. www.norfolksouthern.com

