Southside Network Authority Regional Connectivity Ring
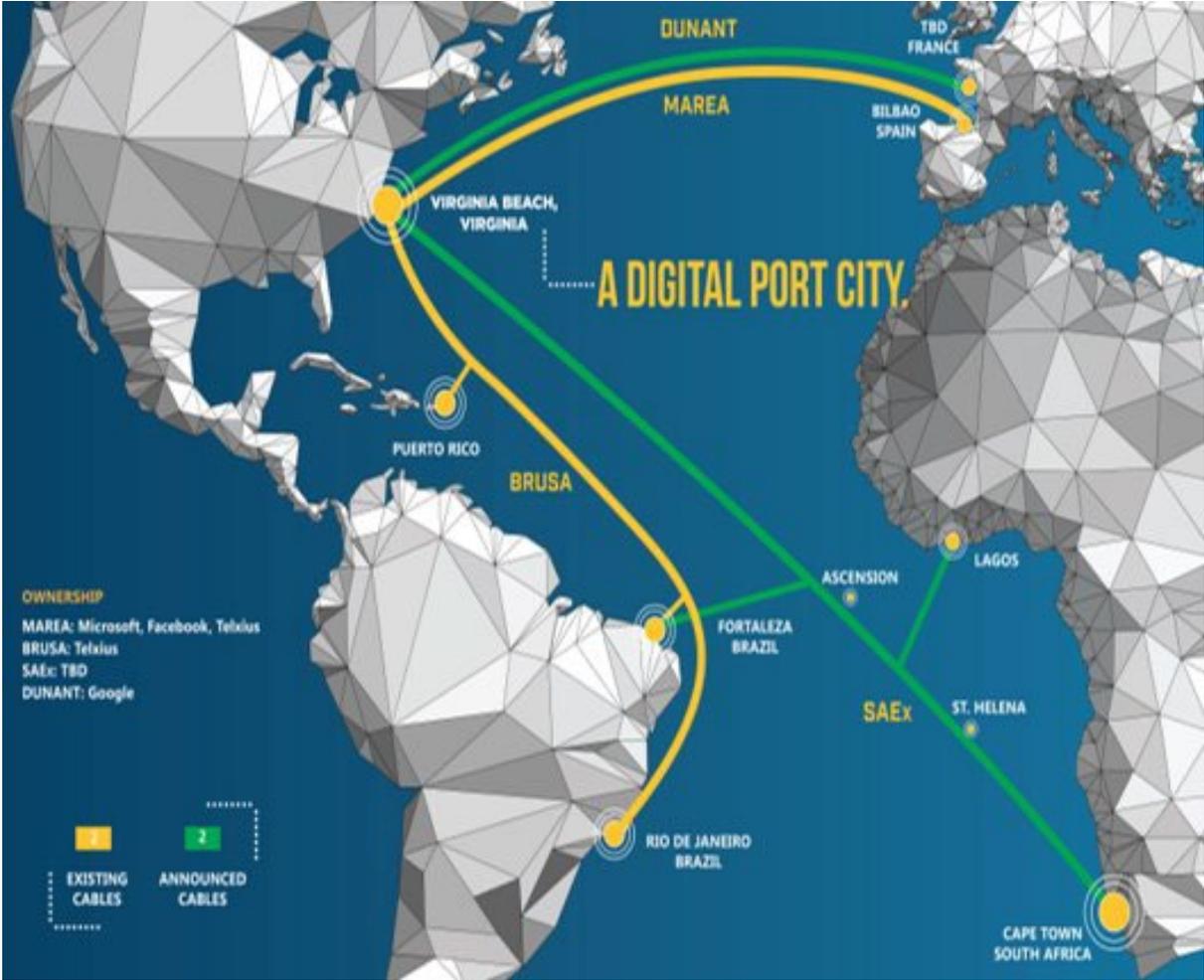
Virginia Association

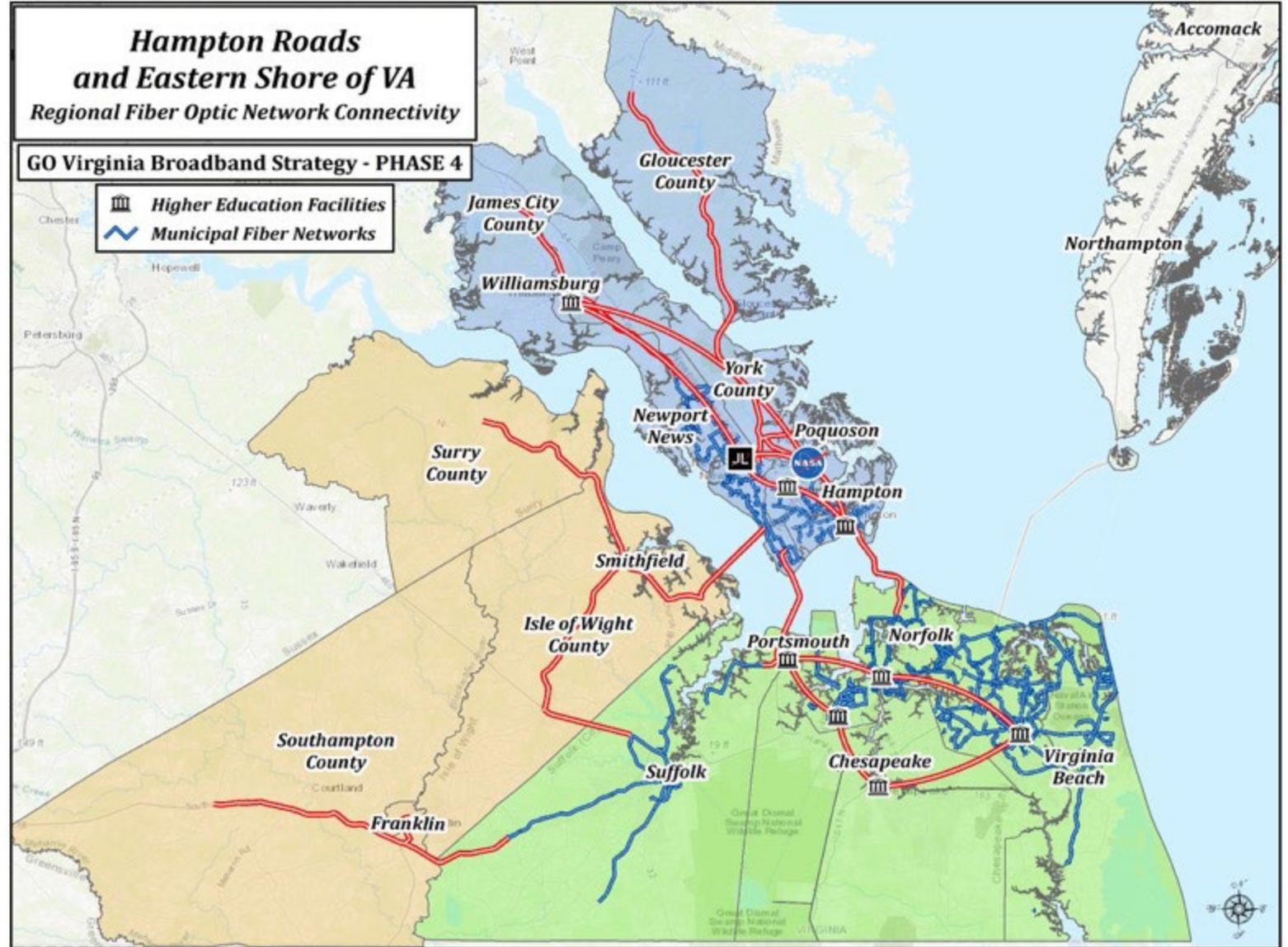**Planning District Commissions**

July 27, 2023

Subsea Cables

Fastest Internet Speeds on East Coast

Our Vision

Ultimately, this will be a **Fiber Optic Network Ring** that will connect our entire 757 Region.

SNA

Phase I
Southside Fiber Ring
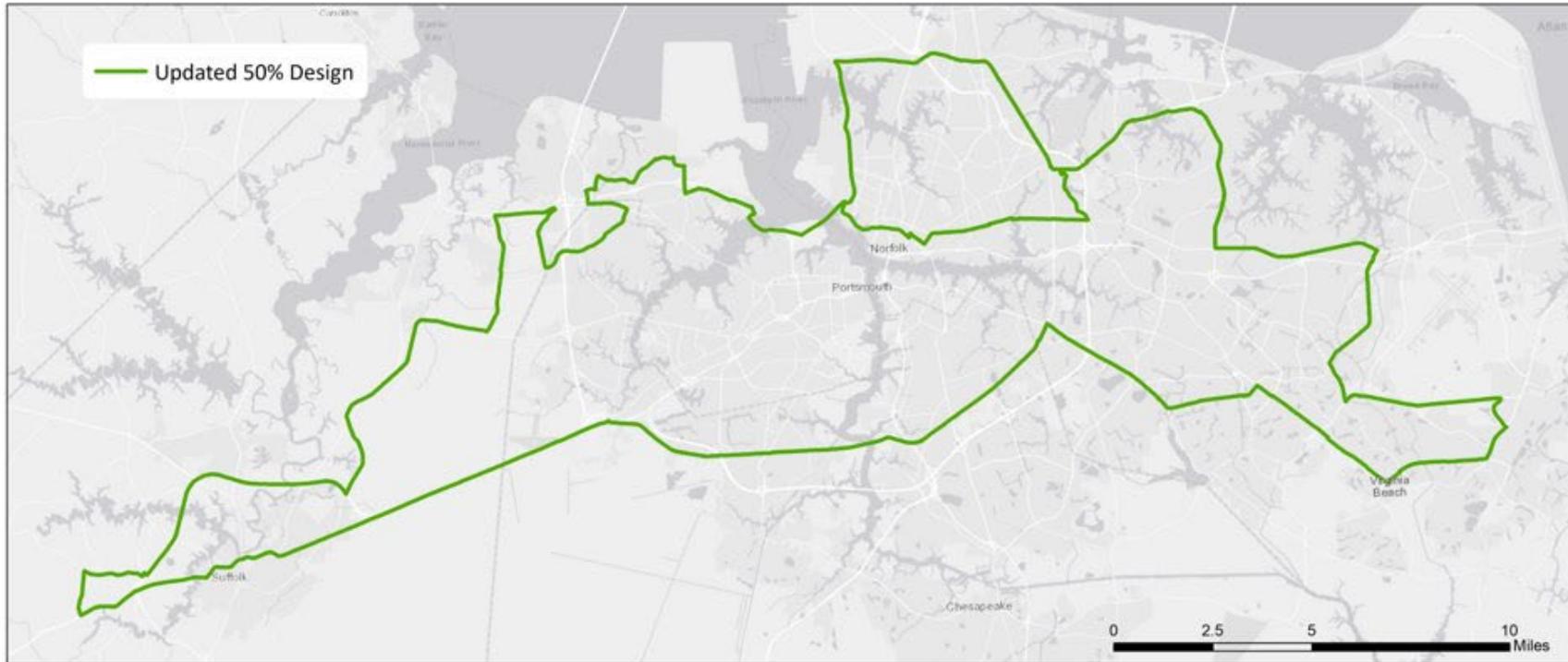
Our Goal - Smart Region
Use Technology to Address Our Challenges and Opportunities

- Sea Level Rise/Recurrent Flooding
- Emergency Communications
- Transportation – Managed Lanes
- Autonomous Vehicles
- Remote Learning
- High Tech Companies

- Teleworking
- Job Creation
- Public Safety
- College/University Research
- Center for Innovation
- Technology Ecosystem

SNA

Think National Highway System Without Any Secondary Roads
Our Interstates are the Backbone of the Entire U.S. Roadway System

Our Network Ring has the Unanimous Support of 17 Local Jurisdictions that make up the 757 Region
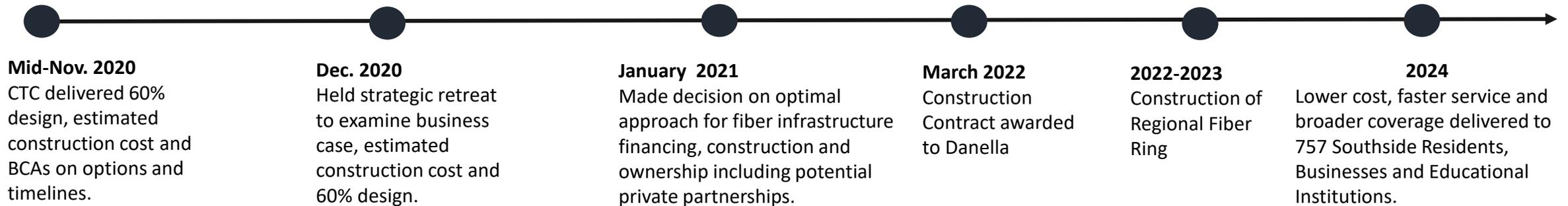
Our 5-Year Pathway to Lower Cost, Faster Service and Expanded Broadband Coverage for 757 Southside Residents, Businesses and Educational Institutions

Major Milestones

July 2017
City Chief Information Officers (CIOs) from across the region started to discuss a regional broadband concept.

Fall 2017
City of Virginia Beach announces construction completed on 1st transatlantic cable (Marea).

Fall 2017
HRPDC endorses 3-Phased Regional Fiber Ring Plan to GoVA

Early 2018
Hampton Roads City Managers requested their CIOs to identify how regional connectivity can benefit public safety, higher education, and economic development.

July 2018
Five Hampton Roads Southside Cities formed the Broadband Steering Committee.

Oct. 2018
Region wins National Smart Infrastructure Challenge

Jan. 2019
Completed 30% design and Master Plan for Regional Fiber Ring.

Nov. 2019
Southside Broadband Authority formed.

June 2020
Hired Interim Executive Director

July 2020
Hired Columbia Telecomm Corp (CTC) to conduct 60% design, develop construction cost estimate and Business Case Analysis

Major Milestones

Mid-Nov. 2020
CTC delivered 60% design, estimated construction cost and BCAs on options and timelines.

Dec. 2020
Held strategic retreat to examine business case, estimated construction cost and 60% design.

January 2021
Made decision on optimal approach for fiber infrastructure financing, construction and ownership including potential private partnerships.

March 2022
Construction Contract awarded to Danella

2022-2023
Construction of Regional Fiber Ring

2024
Lower cost, faster service and broader coverage delivered to 757 Southside Residents, Businesses and Educational Institutions.

SNA

The Regional Network Ring Will

Improve the Interoperability of Our Region's Emergency Response System

EOC and 911 Center

SNA

The Regional Network Ring Will

Help The Region Navigate Flooding and Sea Level Rise

SNA

TITAN:
Tidal inundation tracking application – storm surge tracking

Improving Real Time Response

sensors every where

STORM SENSE
Weather Event Analysis, Maps

Water Level Monitoring System(WLMS)

The Regional Network Ring Will
Help Support the Future of Autonomous Vehicles

The Regional Network Ring Will

Help Make a Case For BRAC.

BRAC will return in three to four years. The Navy wants 30% of their local workforce to telework. Regions that can support this goal will have a stronger case to make when BRAC reappears.

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The Regional Network Ring Will

Help Each Jurisdiction Achieve Its Vision

Every jurisdiction can use the Network Ring in a way that helps them advance their own priorities, initiatives and vision.

SNA

The Regional Network Ring Will
Support Growing Industries in the 757

- Financial Services: High Frequency Trading

- Data Transfer & Storage: Microsoft / Facebook / Amazon

- Cybersecurity Industry: An immediate need for 17,000 more cyber security professionals in Virginia alone

- Medical/Bioscience & Health Industries: Data analytics are key to driving down cost while improving care

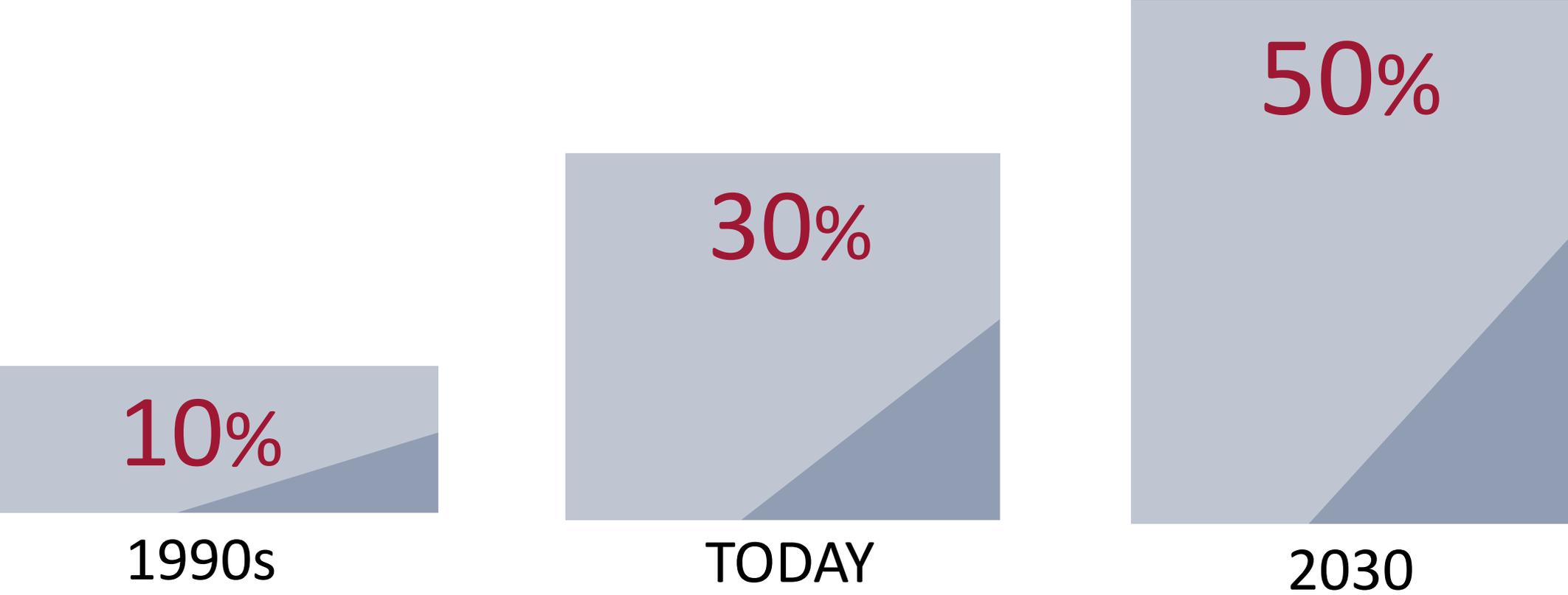- Ecosystem for Business Investment and Entrepreneurs: Backbone connectivity at speeds of 10Gbps and beyond

SNA

Our Region's Quality of Life Will Attract Remote Workers…

Our Regional Network Ring Will Support Them.

Pre-COVID-19, the Distributed Workforce Was Growing and Projected to Be 50% By 2030

10%

1990s

30%

TODAY

50%

2030

Source: SIR

SNA

COVID-19 Impact: The Distributed Workforce Is Projected to Reach 50% By 2025

In the middle of COVID-19, Hampton Roads Business Leaders report that over 50% of their workforce currently works remotely.
Source: Alliance Wave 3 Survey

10%

1990s

30%

TODAY

50%*

2025

Source: SIR

SNA
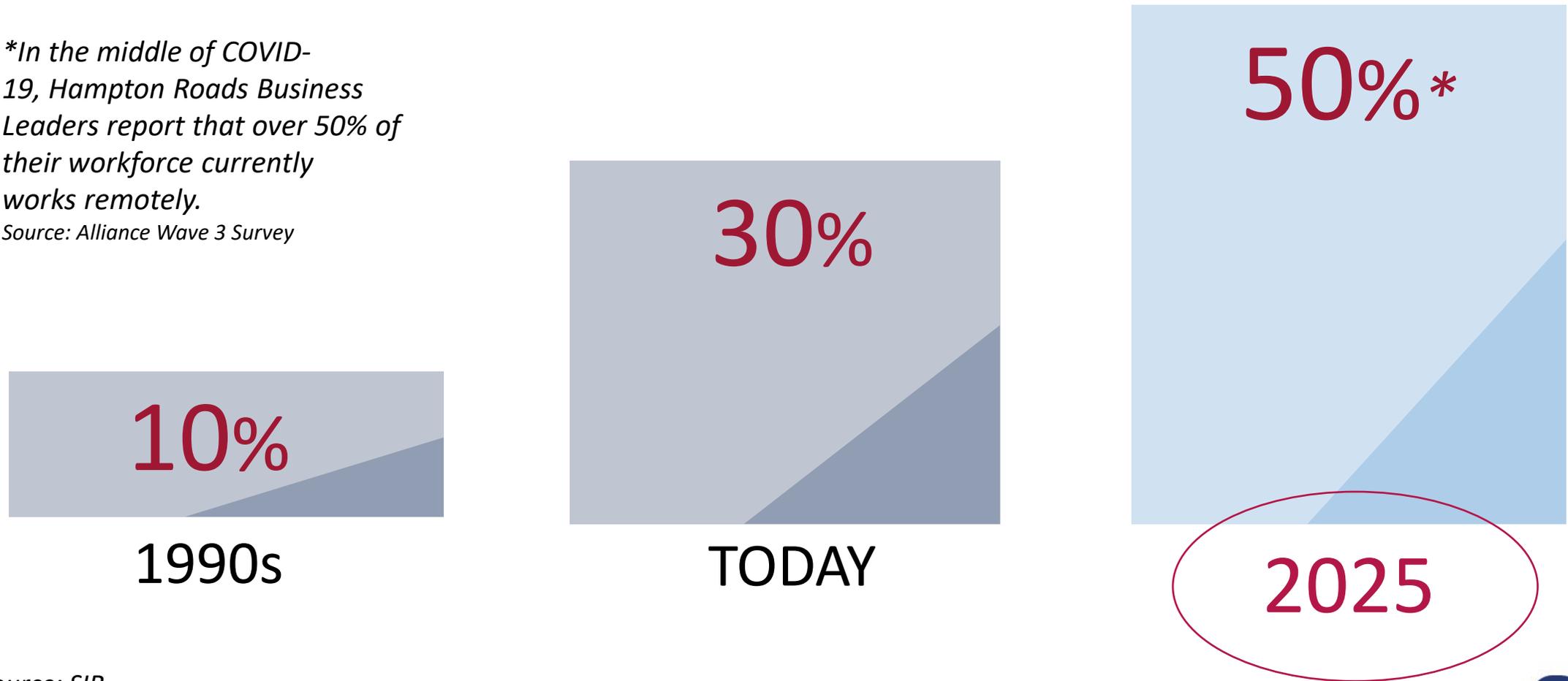
On-going Project Actions

- Permitting and construction underway

- Working with multiple stakeholders (VDOT, DHCD, USACE, DEQ, RRs, etc.)

- Public Private Education Facilities and Infrastructure Act (PPEA) Negotiations with Global Technical Systems
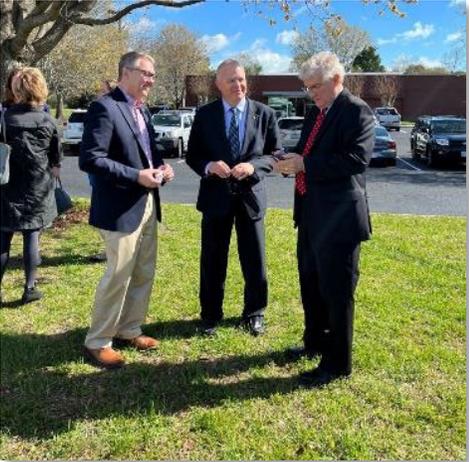
Spring/Summer 2022

- 3 Groundbreakings

- Over 3,000 linear miles of fiber under construction

SNA

Fiber Ring Groundbreaking
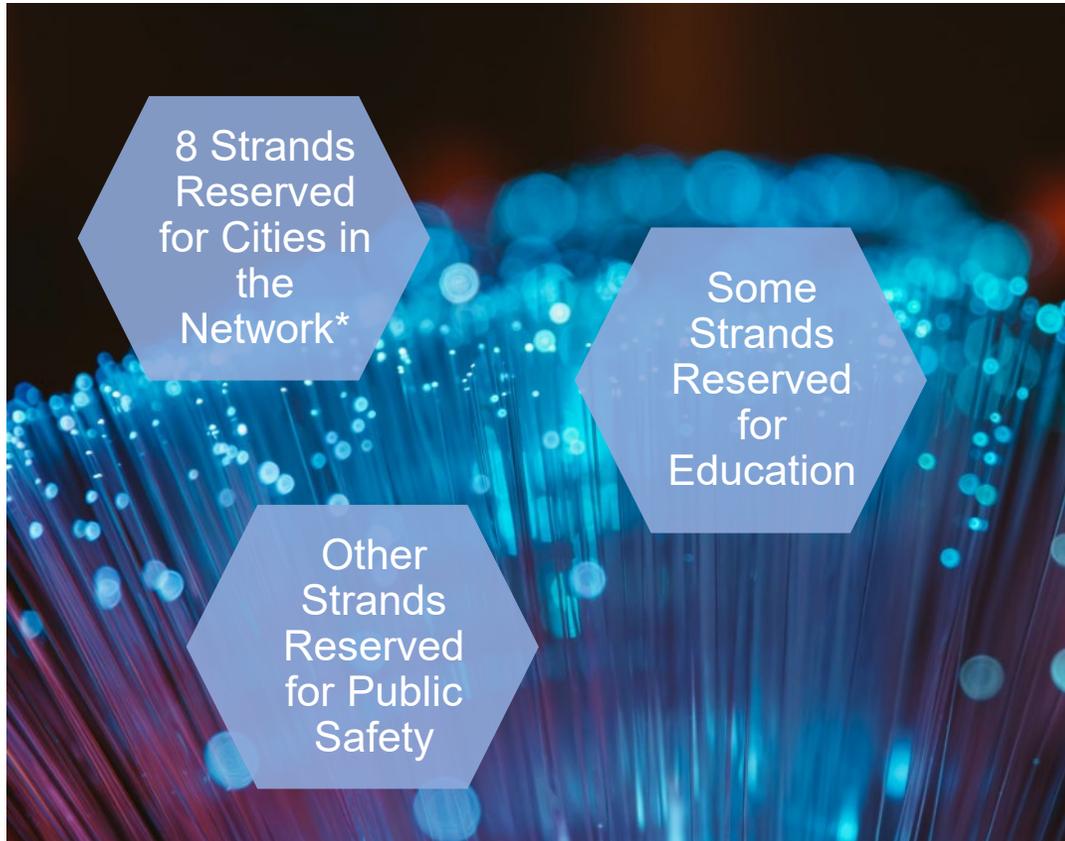## April 6, 2022

Suffolk, Isle of Wight, Southampton
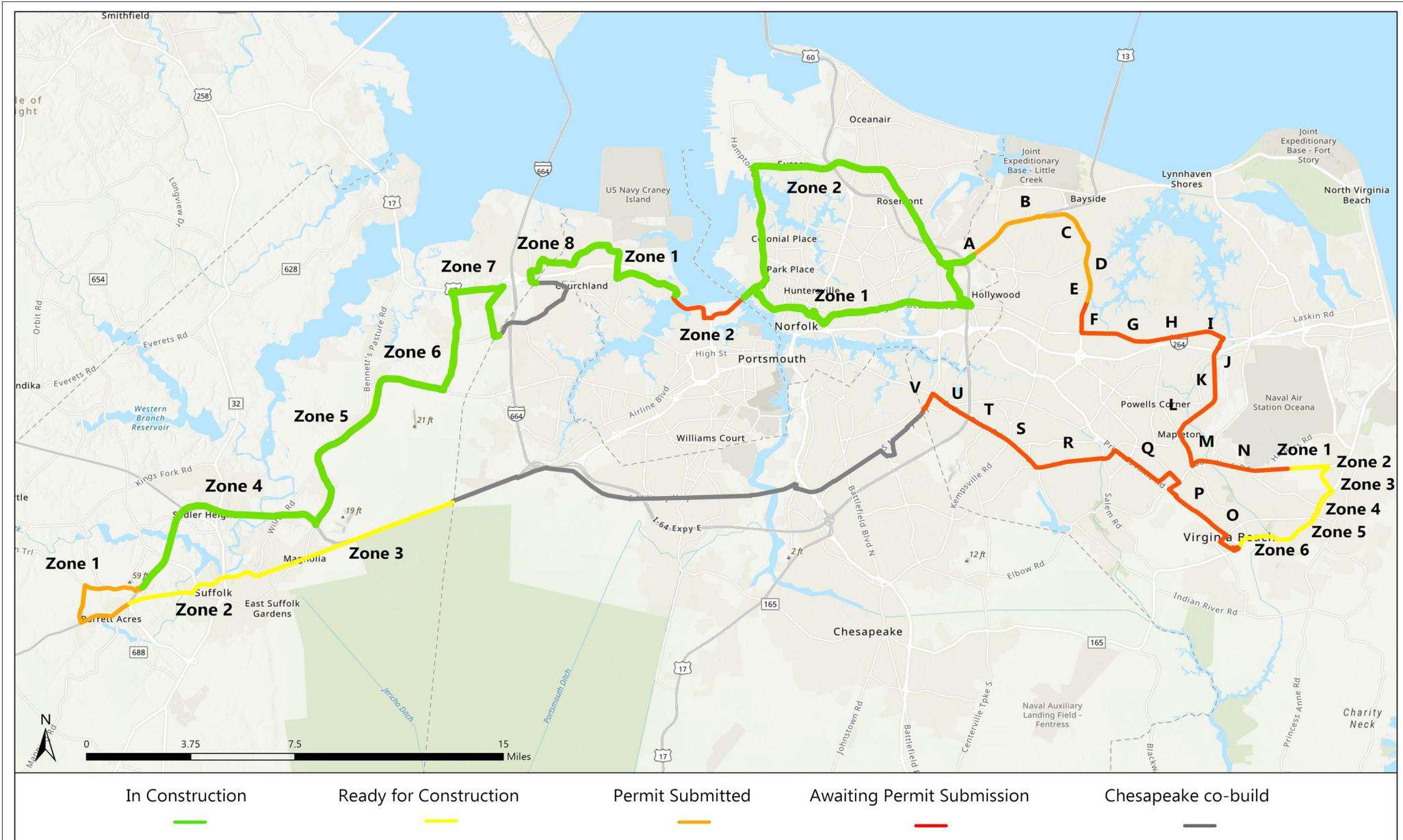## July 14, 2022

Chesapeake Connects
September 15, 2022

About the Network

8 Strands Reserved for Cities in the Network*

Some Strands Reserved for Education

Other Strands Reserved for Public Safety

- Our digital highway consists of 288 digital strands

- Fiber optics (optical fibers) are long, thin strands of very pure glass about the diameter of a human hair
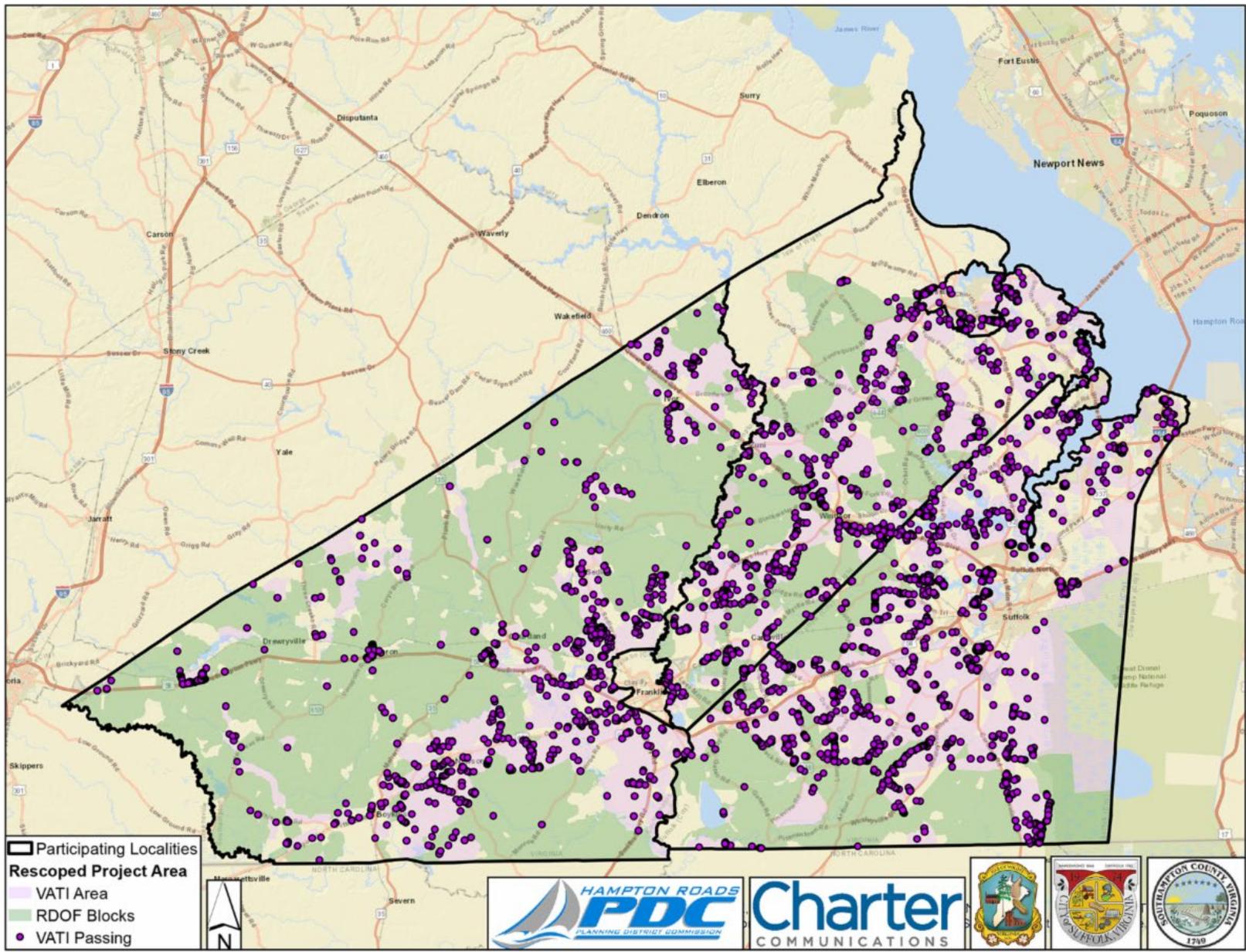
SNA

Permit Zones and Status

Legend:
- In Construction (green)
- Ready for Construction (yellow)
- Permit Submitted (orange)
- Awaiting Permit Submission (red)
- Chesapeake co-build (gray)

Basemap: ESRI World Topographic
Coordinate System: NAD 1983 State Plane Virginia South

Created By: CTC Technology and Energy, 20230627
Data Sources: Hampton Roads

SNA

Legend:
- Participating Localities
- Rescoped Project Area
  - VATI Area
  - RDOF Blocks
  - VATI Passing

Phase 1 Design Route Phase 2 Extension Phase 3 Extension

Basemap: ESRI World Topographic Map
Coordinate System: NAD1983 State Plane Virginia South

Created By: CTC Technology and Energy, 20220805
Data Sources: CTC Analysis, Client Data