



City of Virginia Beach

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August 10, 2017

The Honorable William D. Sessoms, Jr., Mayor
Members of City Council

Dear Mayor and Council Members:

Subject: Transit Planning Update for August 15, 2017

Attached is the Transit Planning briefing scheduled for your August 15, 2017 informal session. The briefing will focus on progress updates on several City initiatives as well as Hampton Roads Transit's overview of the region's 10-year Transit Development Plan.

If you have any questions, please do not hesitate to contact Brian Solis, Transportation and Transit Planning Manager (385-2907), or me.

Respectfully,

David L. Hansen
City Manager

Attachment

cc: Ronald H. Williams, Jr., Deputy City Manager
William Harrell, President and CEO, Hampton Roads Transit
Ray Amoruso, Chief Planning and Development Officer, Hampton Roads Transit

Transit Planning Update City Council Briefing August 15, 2017

Brian Solis, Transportation/Transit Planning Manager
Ray Amoruso, HRT Chief Planning and Development Officer



2017 Timeline of Transit Activities

- **Jan. 17** Council Briefing - Direction to get immediate public input prior to City Council Feb. 13-14 Goal Setting Retreat
- **Jan. 31** Multimedia transit workshop #1(Live, TV, Facebook Live, Twitter), including Public Works backlogged roadway needs
- **Feb. 10** Facebook statistics / online survey results summarized for Council's packets
- **Feb. – March** Council comments to facilitate another public engagement forum on transit
- **Mar. 22** Multimedia transit public engagement workshop #2 (live, FB live and online survey)
- **Mar. 30/May 3** Autonomous vehicle forums in Northern Virginia focused on how states and localities can ready themselves for autonomous and connected vehicles
- **April 4** FY 16 HRT budget true-up City staff briefing to Council. HRT re-establishes Management Financial Advisory Committee
- **April 7** HRT Pop up public engagement on Transit Development Plan at VB TCC
- **April 14** Facebook Live statistics and online survey results summarized for Council's packets
- **April 18** Megabus franchise agreement considered by City Council
- **April – June 2017** Transit Development Plan HRT stakeholder engagement including regional City staff stakeholder group, technical analysis and service change recommendations
- **May 22 and June 5** Bayfront-Oceanfront Shuttle and Megabus service begin, respectively
- **March – present** Little Creek-Fort Story JEB + Preservation Virginia – Cape Henry Landmark Shuttle discussions
- **May – Aug.** Sentara Princess Anne Hospital and Lynnhaven Mall to consider no-low-cost service changes
- **Jan. – present** Bus stop shelter/accessibility CIP project coordination with Public Works, HRT and contractors

City Council Goal #3: Improve the Transportation System

1. Secure adequate funding for transportation projects
2. Reduce congestion and improve traffic flow
3. Explore more alternative modes of transportation
4. Advocate for high speed linking Hampton Roads to Northern Virginia and beyond
5. Better mass transit by improving frequency and reliability
6. Become a “Test Center” for emerging transportation technologies



Overview

City Initiatives

- Early 2017 City public engagement results
- Bus stop improvements CIP
- Bayfront-Oceanfront Shuttle
- Megabus Update
- Fort Story (Little Creek) JEB Shuttle Partnership
- Strategic Bus Service changes this year
- Oceanfront Transportation Center planning
- East-West Shared Use Pathway
- Smart Cities Strategy - Autonomous/Connected Vehicles

Regional Transit Development Plan

- Virginia Beach overview and regional connections
- High Frequency Bus Service Concept
- Data-driven service planning decisions
- Bus fleet capital needs for State of Good Repair and high frequency service
- Next Steps

Improve the Transportation System: Better mass transit by improving frequency and reliability

Community Engagement Results

- January briefing to Council
- January – March public engagement
- Regional Transit Development Plan Stakeholders Work Group
- HRT March – June first wave of public engagement
- Transit Trends: Major Transit Systems revamping their approach to bus service – Hillsborough County, FL, Columbus, OH, Houston, TX

• What the public said:

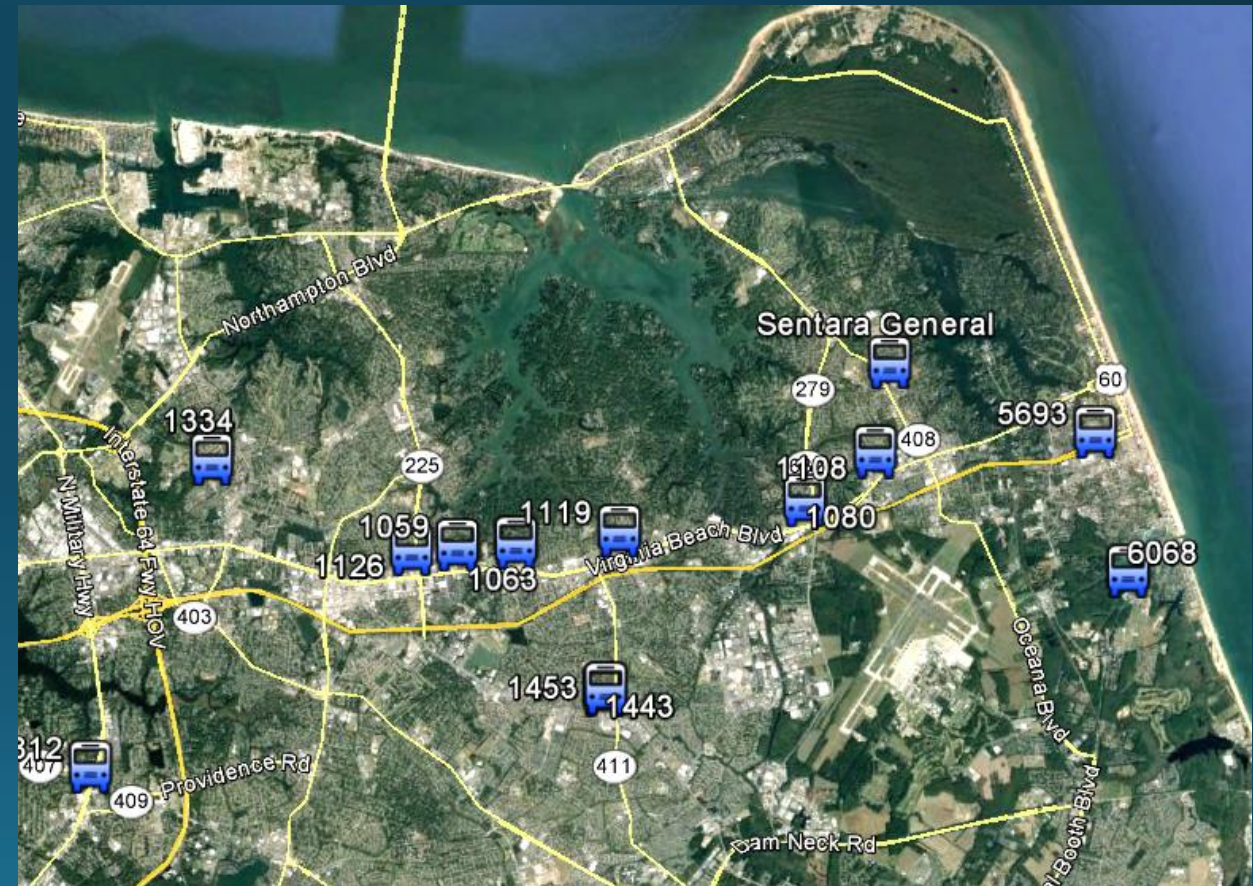
- Shorten my ride - - quicker trips and more frequent buses
- Make riding transit dependable
- Make riding simpler through technology
- Build the former rail right-of-way bikeway/trail –it will connect neighborhoods, businesses and make it easier to get across the city

Improve the Transportation System: Better mass transit by improving frequency and reliability



Bus Stop Shelter and Accessibility Capital Improvement Project

- ✓ Completed:
 - ✓ Bus stop ADA connections recommended by Mayors Committee for Persons with Disabilities
 - ✓ Bus stop access improvements for Bayfront-Oceanfront Shuttle
- ✓ 16 busiest bus stops improved with 13 new bus shelters, two stops with new benches and sidewalk enhancements in three phases starting in September/October



Improve the Transportation System: Better mass transit by improving frequency and reliability

✓ New seasonal Bayfront – Oceanfront Shuttle

- ✓ Started last week of May
- ✓ 8 a.m. to midnight daily every 45 minutes
- ✓ Vista Circle/Lesner Bridge to 19th Street
- ✓ First Landing State Park stop
- ✓ Averaging 100 riders/day

Improvements to Consider for 2018:

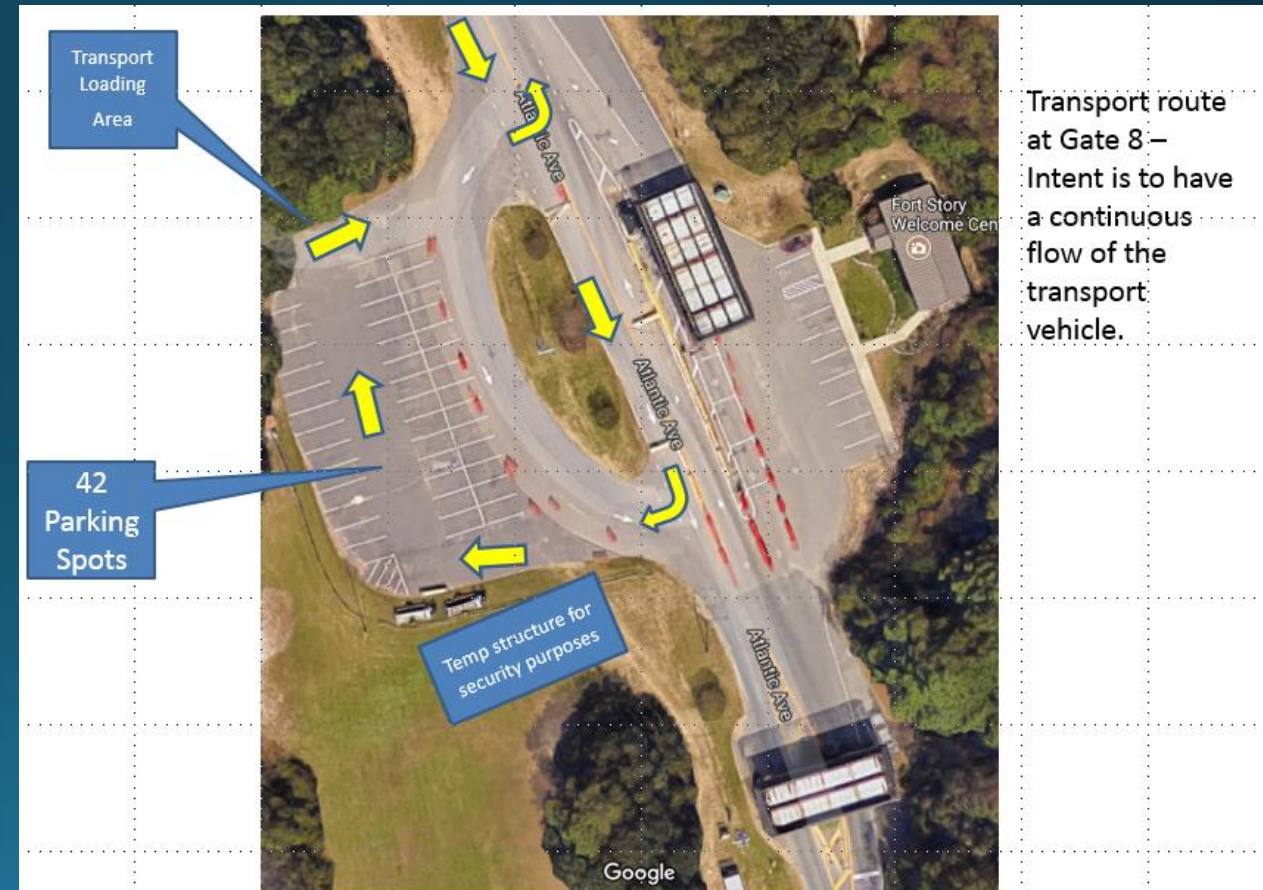
- ✓ Extending Service west of Lesner Bridge to Shore Dr. Bus Transfer
- ✓ 30 minute Frequency
- ✓ Community training on using transit



Improve the Transportation System: Explore more alternative modes of transportation

✓Fort Story (Little Creek) JEB Shuttle Partnership

- Military installation security requirements for visiting Cape Henry landmarks.
- Partnership under consideration
 - Navy investment: parking lot/access/security changes
 - Preservation Virginia manages shuttle drivers/guides
 - City funds up to two multi-passenger vans and maintenance for shuttles



Improve the Transportation System: Advocate for high speed linking Hampton Roads to Northern Virginia and beyond

Megabus Service Starts to/from Virginia Beach

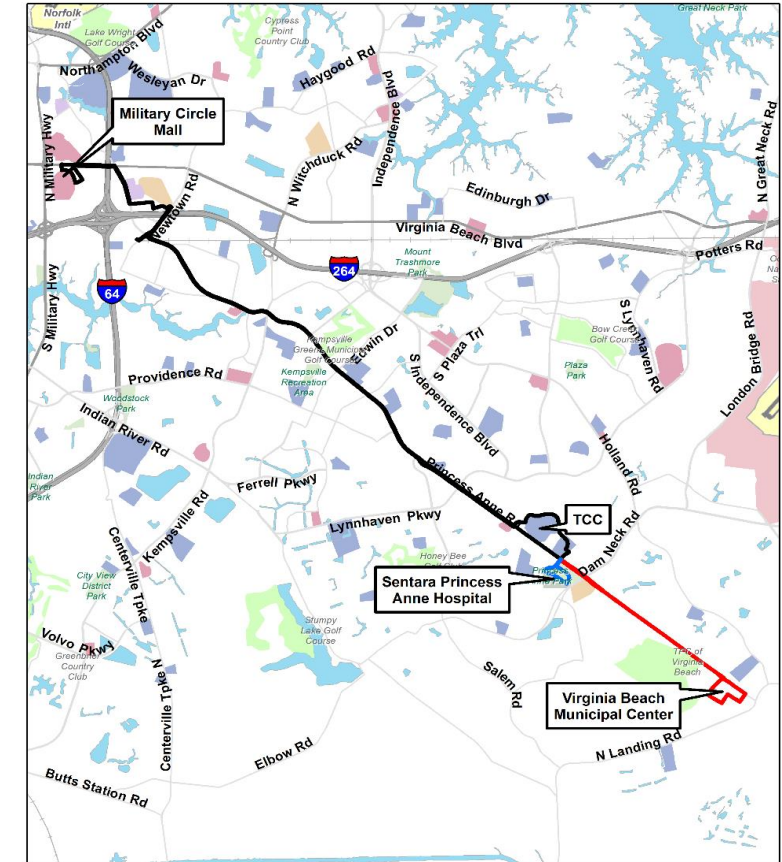
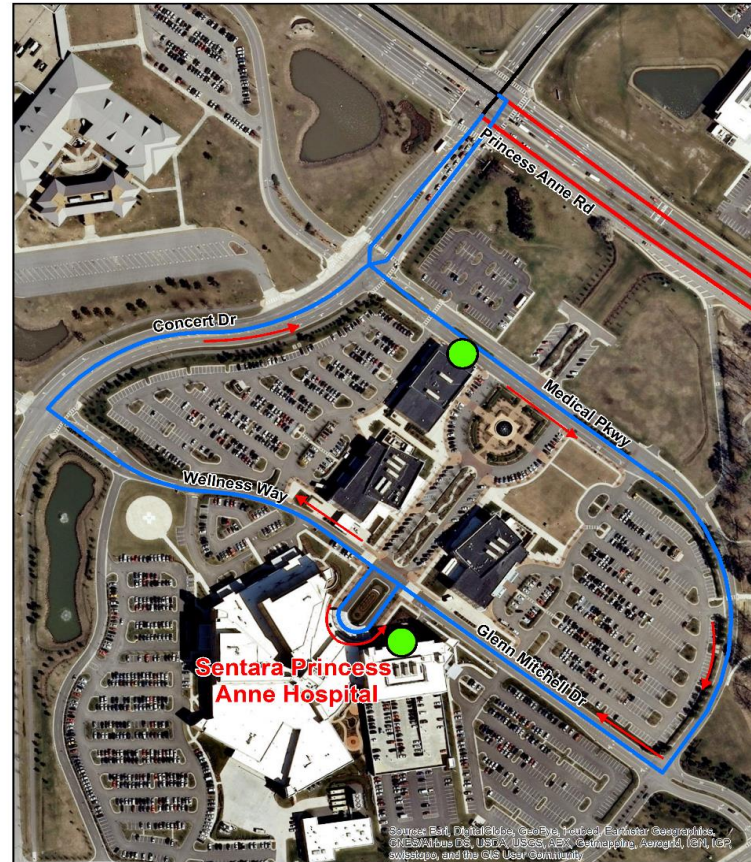
- Direct service to/from Virginia Beach to Hampton/Richmond/Washington/Baltimore and Philadelphia began June 5 from Pacific Ave. at 19th-20th Streets
- Major transfers in Richmond and DC Union Station
- Service: Two buses each to/from Fri. and Sun and one bus arriving/one departing Mon. – Thurs. + Sat.
- June – July ridership: 986 passengers arrived and 860 passengers departed



Improve the Transportation System: Better mass transit by improving frequency and reliability

- Making strategic service improvements now that are cost-neutral or cost-saving
- Providing direct service to **Sentara Princess Anne Hospital**
The Tide and bus route 25 will now connect three major medical campuses with direct public transportation service
- **Lynnhaven Parkway Corridor:**
Evaluating north-south year-round service improvements; potential park and ride lot and better corridor connectivity and bus stop amenities

Route 25 Sentara Princess Anne Hospital



— Route 25 — Proposed New Routing — Proposed Eliminated Routing

● Proposed Bus Stop



Improve the Transportation System: Better mass transit by improving frequency and reliability

Oceanfront Transportation Center Planning

- ✓ Identify long-term preferred location
- ✓ Move transportation uses in coordination with Dome site redevelopment
- ✓ Coordination with potential partners
 - ✓ HRT – Year round + seasonal routes
 - ✓ Amtrak
 - ✓ Megabus
 - ✓ Commercial transportation providers
- ✓ Next Steps
 - ✓ Conceptual Planning
 - ✓ Apply for grant funding



Improve the Transportation System: Explore more alternative modes of transportation

East-West Shared Use Pathway is Top Priority of the City's Bikeways and Trails Plan

1. Develop a low cost approach
2. Properly plan and coordinate utilities and technology infrastructure improvements
3. Remove old rail infrastructure
4. Leverage existing capital funding to maximize grant opportunities and partnerships
5. Build in phases



Improve the Transportation System: Explore more alternative modes of transportation, Become a “Test Center” for emerging transportation technologies

Develop a Smart Cities Strategic Plan

1. Comprehensively addresses connectivity – transportation and technology
2. Build off of existing Intelligent Transportation System (ITS) and IT fiber network
3. Include a component specific to advancing autonomous and connected vehicles in Virginia Beach
4. Identify resources and implement the Plan



Photo credit: UBER and Advanced Technologies Center (Carnegie – Mellon and Pitt) with Volvo in Pittsburgh and San Francisco

Regional Transit Development Plan

Virginia Beach overview and regional connections

- High Frequency Bus Service strategy
- Data-driven service planning decisions
- Bus fleet capital needs for State of Good Repair
- Regional Coordination needed
- Next Steps

Regional Transit Development Plan

What is a Transit Development Plan

- The Transit Development Plan (TDP) is a ten-year plan required by the Department of Rail and Public Transportation. The plan outlines existing transit service, plans for service enhancements, future service and anticipated costs

The TDP guides HRT Service Planning by:

- Analyzing existing service, socioeconomic and demographic data to understand transit supply and demand throughout the region
- The plan is guided by stakeholder and general public input

Transit Development Plan (TDP) Public/Stakeholder Input

- ❖ The major goal of the TDP outreach effort was to capture feedback from key stakeholders and members of the public, both existing and potential riders
- ❖ Feedback was collected through a series of focus groups and meetings that took place in the April through June timeframe
- ❖ Feedback helped shape the service planning recommendations within the TDP

Existing Service in Virginia Beach

Currently 20 routes operate in the City of Virginia Beach: 11 local, 3 seasonal and 6 Max

Route 1 – Pembroke East to downtown Norfolk

Route 12 – VB TCC – South Norfolk

Route 15 – Evelyn Butts to Robert Hall

Route 20 – VB Oceanfront to downtown Norfolk

Route 22 – Newtown Rd Station to JEB Little Creek

Route 25 – Newtown Road to Municipal Complex

Route 26 – Lynnhaven Mall to VB TCC

Route 27 – Pleasure House Rd. to Newtown Rd. Station

Route 29 – Pleasure House Rd. to Newtown Rd Station

Route 30 –Atlantic Ave. Shuttle

Route 31 – Aquarium & Campground Shuttle

Route 33 – 68th street via Pacific/General Booth to Municipal Center

Route 35 – VB Oceanfront to Shore Drive/Bayfront

Route 36 – Pembroke East via Holland Road

MAX 918/919 – Silver Leaf p-n-r to Joint Forces Staff College Norfolk

MAX 922 - Chesapeake-Virginia Beach to Naval Station Norfolk

MAX 960 - Virginia Beach Oceanfront to downtown Norfolk

MAX 966 - Silverleaf Park & Ride / Newport News Transit Center

MAX 967 - Virginia Beach-Chesapeake to Newport News

Service Planning Concepts

Service planning concepts used to improve bus service included:

- ❖ Adjusting frequency of existing routes
- ❖ Adjusting service hours of existing routes
- ❖ Realigning existing routes
- ❖ Incorporating new routes
- ❖ Changing the length of a route
- ❖ Route eliminations
- ❖ Establishing a High Frequency Bus Network

Virginia Beach Routes

High Frequency Routes

| | |
|----|----|
| 15 | 30 |
| 20 | 36 |
| 21 | 38 |
| 25 | |

Unchanged Alignments

| | |
|-----|-----|
| 31 | 922 |
| 918 | 966 |
| 919 | 967 |

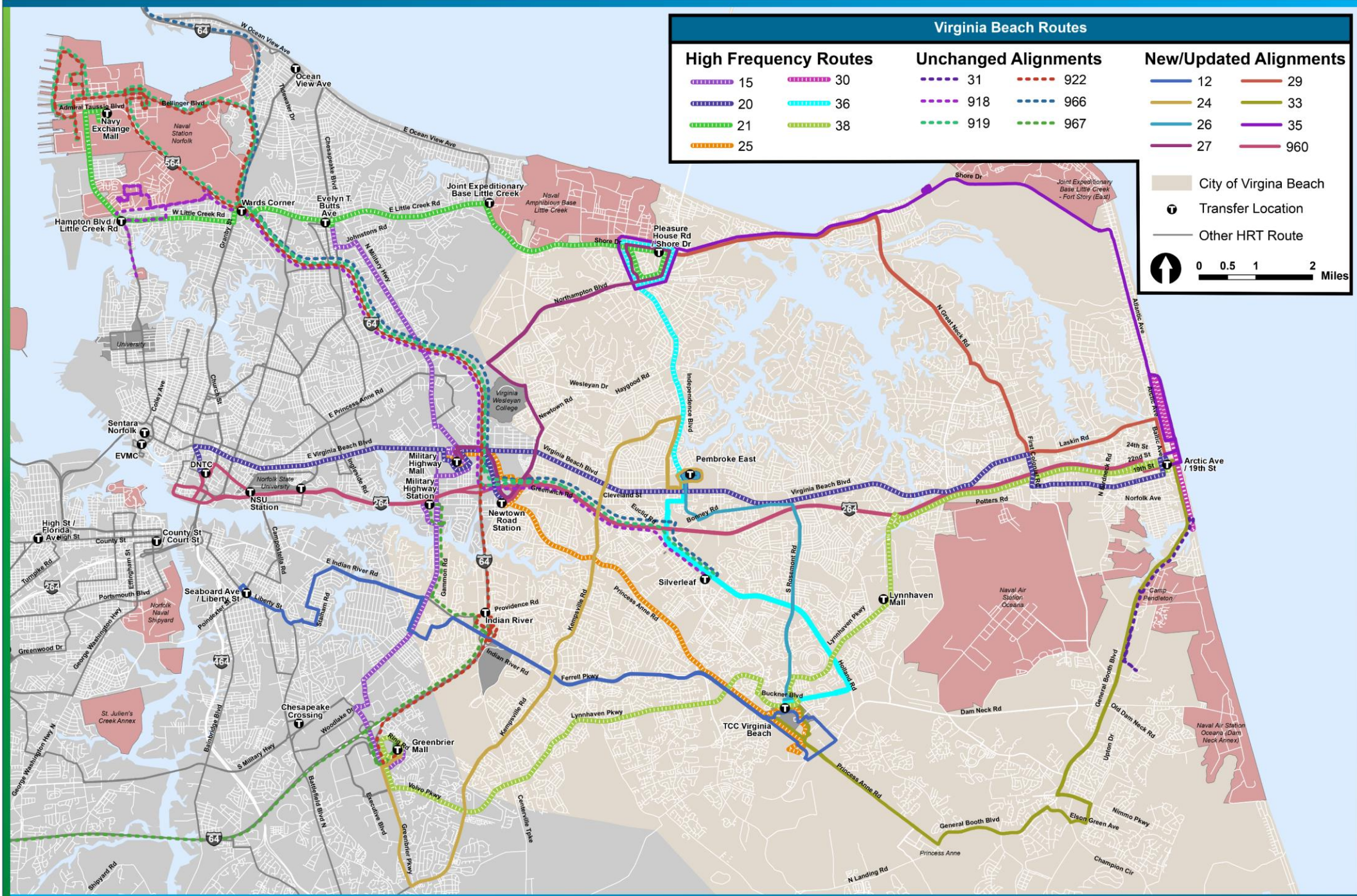
New/Updated Alignments

| | |
|----|-----|
| 12 | 29 |
| 24 | 33 |
| 26 | 35 |
| 27 | 960 |

City of Virginia Beach

Transfer Location

Other HRT Route



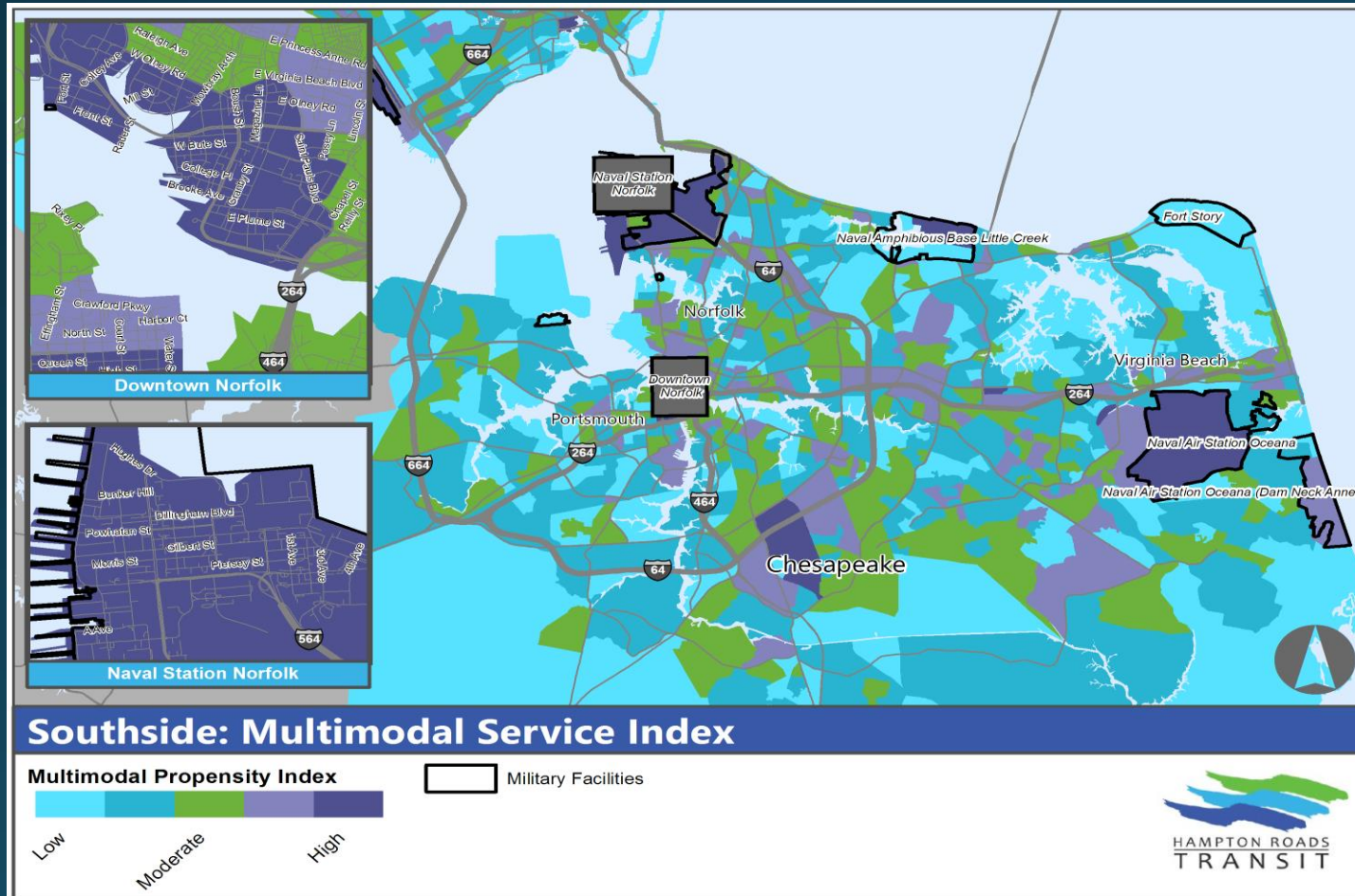
Concept Discussion – High Frequency Transit Network

- Implement a new High Frequency Transit Network (HFTN) that will connect the region's major employment centers, education, healthcare, and retail centers
- The HFTN would include:
 - ❖ New buses with better frequency and reliability
 - ❖ State-of-the-art technology and customer amenities
 - ❖ Seamless links with other transportation providers
 - ❖ Simpler ways to pay fares and access the system.

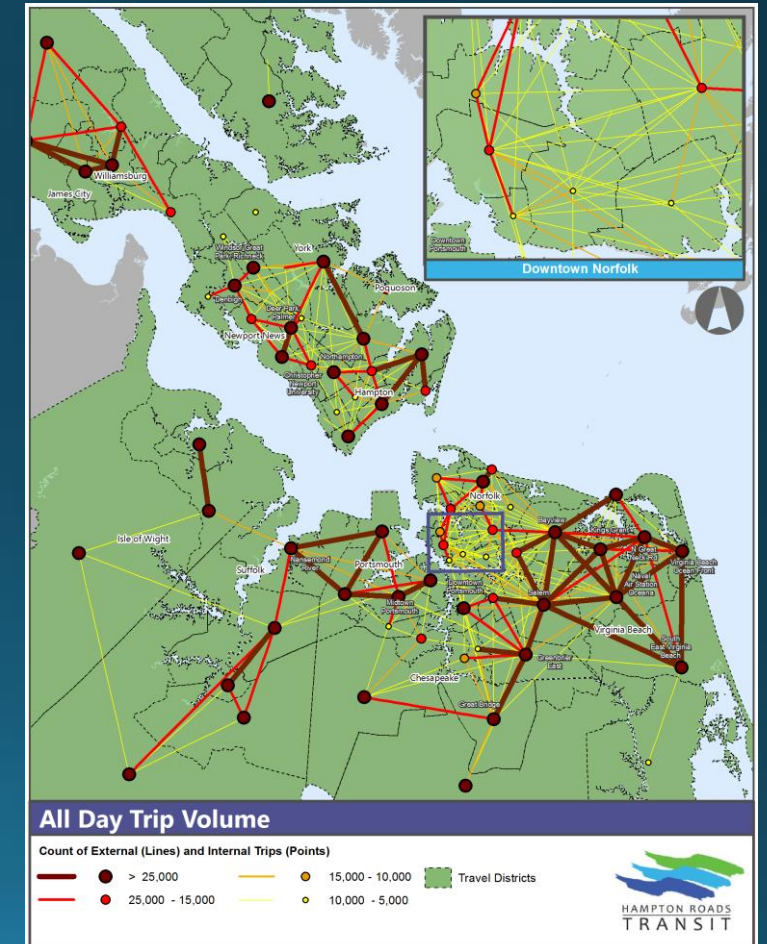


Market Assessment: Needs

Transit Propensity

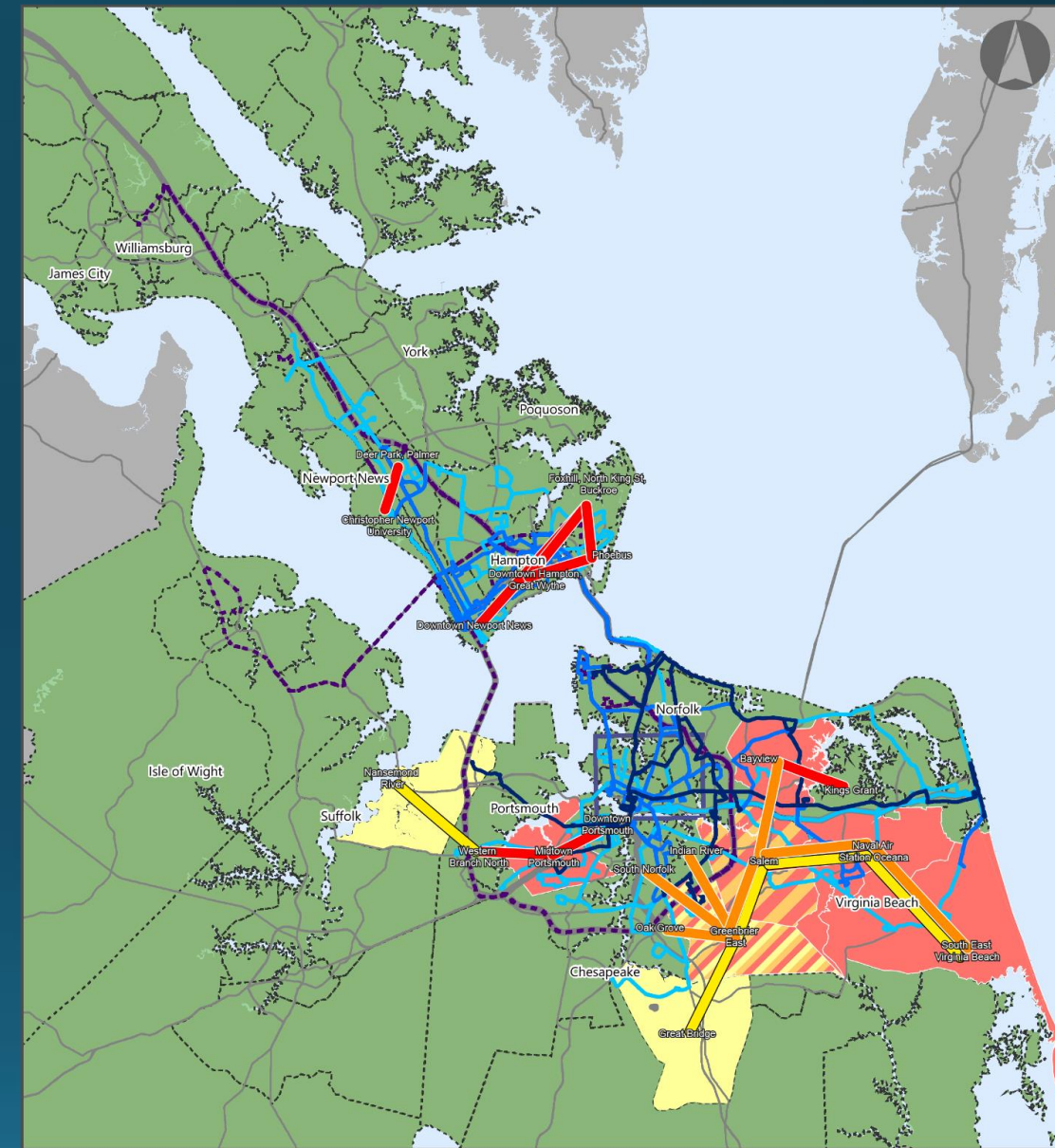


Travel Flows



Market Assessment: Service Gaps

- ❖ Combined transit needs and travel flows
- ❖ Compared against existing service
- ❖ Determined gaps:
 - Low level of service
 - Lack of connections
 - New service areas



All Day Service Gaps

| External Service Gap | Internal Service Gap | HRT Bus Headway | Travel District |
|--|--|---|--|
| — Low Level of Service | — Low Level of Service | — 15 | Travel District |
| — No Direct Connection | — No Direct Connection | — 30 | |
| — New Connection | — New Connection | — 60 | |
| | | - - - Peak Only | |

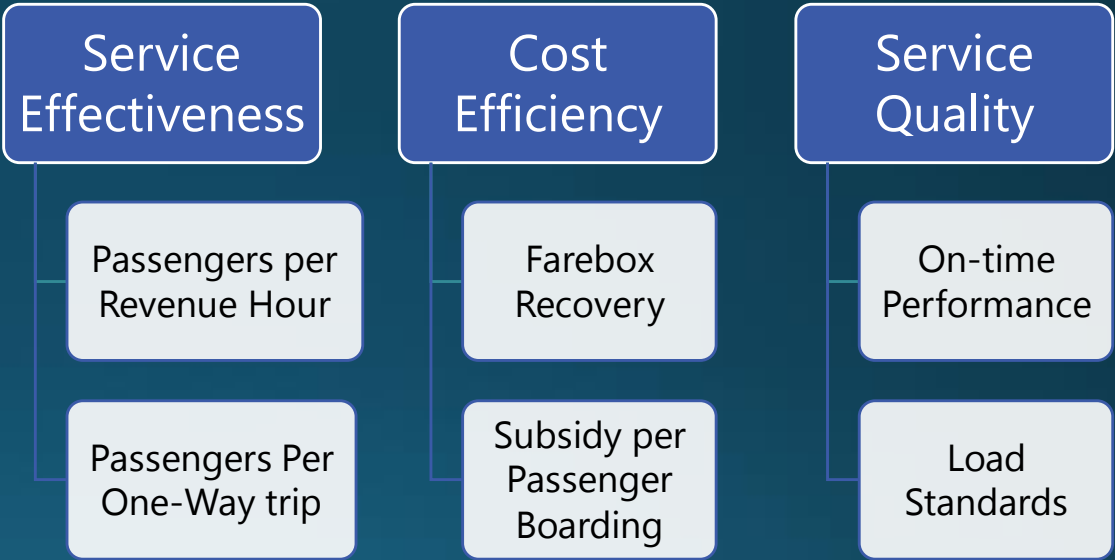
Maximize Resources

Assessed and evaluated service effectiveness and efficiency to maximize resources

High Frequency Transit Network will:

- ❖ Maximize ridership
- ❖ Be cost effective
- ❖ Be reliable and dependable
- ❖ Be comfortable

Key Bus Service Performance Indicators



HFTN Concept Overview

- ❖ Centered around a High Frequency Transit Network of 20 “core” routes
- ❖ Address issues:
 - ❖ More dependable, frequent, and on-time service
 - ❖ Gaps in service coverage and level of service
 - ❖ Inconsistent service spans
 - ❖ Duplicative services
 - ❖ Circuitous routings
 - ❖ Unrealistic run times and schedules
 - ❖ Underlying the HFTN will be improved local feeder bus
- ❖ MAX routes and peninsula commuter services will remain with some targeted improvements

Return on Investment

- ❖ Better coverage
- ❖ Better access to jobs
- ❖ Higher ridership
- ❖ ↑ 73%: Area served by high frequency transit
- ❖ ↑ 190%: Population within ¼ mile of high frequency transit
- ❖ ↑ 97%: Jobs within ¼ mile of high frequency transit

| Network | Service Area (mi ²) | Population | Jobs |
|----------------|---------------------------------|------------|---------|
| Existing | 30 | 121,000 | 174,000 |
| HFTN | 82 | 351,000 | 343,000 |
| Percent Change | 173% | 190% | 97% |

Services Characteristics of High Frequency Transit Network

Recommended Frequency

| Time Period | Frequency |
|----------------------------|------------|
| Morning & Evening Peak | 15 minutes |
| Midday & Evening | 30 minutes |
| Early Morning & Late Night | 60 minutes |
| Saturday | 30 minutes |
| Sunday | 60 minutes |

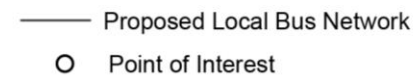
Recommended Span of Service

| Day | Span |
|----------|------------------|
| Weekdays | 6:00am – 11:00pm |
| Saturday | 6:00am – 11:00pm |
| Sunday | 7:00am – 8:00pm |



Southside Potential High Frequency Transit Routes / Corridors

High Frequency Transit Routes



Next Steps

1. Report back with costs associated with Transit Development Plan recommendations
 - a. Coordinate with HRT on public involvement on Transit Development Plan
 - b. Update City Council on proposed HRT transit service changes with FY 18 Budget process
 - c. Phased approach to implementing prioritized bus service changes
 - d. Legislative Agenda support for regional High Frequency Transit Network funding
2. Develop a Smart Cities Strategic Plan with an Autonomous Vehicle Implementation Strategy
3. Pursue grants and partnerships for east-west shared use pathway within former Norfolk-Southern right-of-way
4. Coordinate with Little Creek-Fort Story JEB & Preservation Virginia to implement shuttle for public access to Cape Henry historic landmarks
5. Complete Oceanfront Transportation Station study and update City Council on recommendations