DRAFT

Aquidneck Island & NAVSTA Newport

Compatible Use Study

Acknowledgments

The Aquidneck Island and Naval Station Newport Compatible Use Study was funded by a grant from the U.S. Department of Defense Office of Local Defense Community Corporation (OLDCC). The effort was guided by a Technical Committee comprised by the grantee (the Town of Middletown), the grant's sponsor (the Newport County Development Council, acting as an arm of the Greater Newport Chamber of Commerce), and other key stakeholders on Aquidneck Island. A Technical Committee for the study met on a bi-weekly basis, comprised of the following members:

Aquidneck Island Land Trust - Paige Myatt

City of Newport Planning & Development Department - Patricia Reynolds, Rebeccah Trefethen

Fourth Economy - Rich Overmoyer, Eve Critton

Greater Newport Chamber of Commerce - Erin Donovan-Boyle

Naval Station Newport - Cornelia Mueller

Town of Middletown Planning Department - Ronald Wolanski

Town of Portsmouth Planning Department - Lea Hitchen, Kristen Black

This document was prepared by Stantec Consulting Services Inc.

Contents

1. CONTEXT

Study Purpose..... 8
History of Planning on Aquidneck Island..... 20
Study Needs..... 24
Study Goals..... 34
Study Engagement 36

2. STRATEGY EVALUATIONS

Transportation Strategies..... 39
Land Use Strategies..... 86
Infrastructure Strategies 108
Resilience Analysis 128

3. IMPLEMENTATION

Overview..... .. 145
Prioritization Summary 146
Implementation Sequence 148
Catalyst Projects..... 150
Early Actions..... 157

4. APPENDICES

List of Figures

Figure 1.1 NAVSTA Newport . . . 11
Figure 1.2 Installation Gate Access . . . 15
Figure 1.3 Traffic Volumes as Percentage of Daily Total . . . 17
Figure 1.4 Aquidneck Island Water System (Newport Water Division & Portsmouth) . . . 32
Figure 1.5 Aquidneck Island Sewer System (Newport and Middletown) . . . 33
Figure 2.1 Focus and Status of Other Planning Recommendations on Aquidneck Island . . . 45
Figure 2.2 Precedent Images of of Traffic Protection Interventions . . . 46
Figure 2.3 Examples of Employer Transportation Demand Management . . . 48
Figure 2.4 Proposed Improvements to West Main/Broadway Intersection . . . 54
Figure 2.5 Multimodal hub . . . 56
Figure 2.6 Proposed First and Last Mile Connections to Installation . . . 58
Figure 2.7 Existing Conditions of Burma Road . . . 60
Figure 2.8 Stringham Road Connector . . . 62
Figure 2.9 Traffic Volumes . . . 64
Figure 2.10 Example of Lane Reallocation . . . 66
Figure 2.11 Existing RIPTA Services . . . 68
Figure 2.12 Proposed New Gate 10 Truck Access . . . 70
Figure 2.13 Proposed Halsey Extension . . . 72
Figure 2.14 Road Island Moving Forward Statewide Bicycle Mobility Plan Summary . . . 74
Figure 2.15 Proposed Coddington Connector . . . 76
Figure 2.16 Proposed Coddington Connector Concept . . . 79
Figure 2.17 Existing Regional Transportation Links . . . 80
Figure 2.18 Potential Regional Links between Aquidneck Island and Broader Region . . . 82
Figure 2.19 Existing Curb Cuts . . . 84
Figure 2.20 Fort Adams Housing . . . 88

Figure 2.21 RK Middletown Square 90
Figure 2.22 Infill Opportunity Sites 92
Figure 2.23 Rendering of Proposed Blue Economy Campus at Former Naval Hospital 94
Figure 2.24 Proposed Redevelopment Opportunities at Melville and Tank Farm sites 96
Figure 2.25 Concept plans from Shoreline Park Master Plan 98
Figure 2.26 Initial general design concept for RIDOT Pell Bridge parcels 100
Figure 2.27 Proposed Redevelopment Opportunities at Aquidneck Corporate Park 102
Figure 2.28 Examples of Public Open Space in New Development 104
Figure 2.29 West Main Road / Browns Lane Parcel 106
Figure 2.30 Water Transmission Mains on Aquidneck Island 110
Figure 2.31 Proposed Pump Station at Reservoir Road 112
Figure 2.32 Water Infrastructure at North and South Eastons Ponds 114
Figure 2.33 Proposed Elizabeth Brook Daylighting and Resiliency Improvements 116
Figure 2.34 Infrastructure Greater than 50 or 100 Years Old 118
Figure 2.35 Aging Water Infrastructure 120
Figure 2.36 Aging Sewer Infrastructure 121
Figure 2.37 Proposed Wave Avenue Pump Station. 122
Figure 2.38 Surplus Navy Properties 124
Figure 3.1 Map of Catalyst Sites 146
Figure 3.2 Conceptual Rendering of Blue Economy Campus at Former Naval Hospital Site. 147
Figure 3.3 Conceptual Rendering of Halsey Extension. 148
Figure 3.4 Conceptual Rendering of Mixed-Use Village-Style Development along West Main Road 149
Figure 3.5 Conceptual Rendering of Weaver Cove Development 150

1 CONTEXT

STUDY PURPOSE

The communities of Aquidneck Island – Newport, Middletown, and Portsmouth – as well as Naval Station Newport (NAVSTA) are the joint beneficiaries of a Compatible Use Study (the Study) grant funded by the U.S. Department of Defense (DoD) Office of Local Defense Community Cooperation (OLDCC). The Study is targeted towards promoting integrative regional planning to ensure that the military and communities efficiently and effectively coexist and support one another over the next several decades. The Town of Middletown, RI is the OLDCC grantee having collaborated with Aquidneck Island's other municipalities, the City of Newport and Town of Portsmouth to secure the support. The Newport County Development Council (NCDC), a component of the Greater Newport Chamber of Commerce, is serving as the grant's project manager, supported by Stantec as the selected consultant.

The study area encompasses Aquidneck Island and focuses on fostering collaborative regional planning to ensure that military installations and neighboring communities can coexist efficiently and effectively into the future. Known as an Installation Readiness project, the initiative aims to generate mutual advantages for both the military and local residents. For the Department of Defense, key goals include supporting compatible community development and addressing any challenges that might affect the operational readiness of the installation. This includes promoting the health, safety, and well-being of military personnel and civilians who live or work in proximity to the base. From a community perspective, the study seeks to protect and enhance the connection between the local economy and the military installation, while mitigating the impact of the base on public resources.

The study addresses three topic areas: transportation, land use, and water and sewer infrastructure. In 2023, the Naval Station (NAVSTA) on Aquidneck Island received approximately $1.7 billion in federal funding, with around $1 billion allocated through various military contracts; notably, about half of this funding supported small businesses. The study builds on the statewide Safe Streets for All Action Plan released in 2025, which provides municipal-level action plans for Portsmouth, Middletown, and Newport. These plans identified safety issues along major corridors and intersections near the installation, including East Main Road and West Main Road in Middletown, several stretches along East Main Road, West Main Road, Coddington Highway, and the intersection of West Main Road and Union Street in Portsmouth.


GRAND
BELLEVUE


DRAFT


Gate 17
ALL TRUCKS
VIA
Green Ln
Gate 17
Access Road
ALL OTHER
TRAFFIC


67
64
NO IDLING
BOARD HERE

The Installation is comprised of the primary Naval Station west of the Newport Secondary Rail Line and the Coddington Cove neighborhood as well as the Naval Undersea Warfare Center (NUWC) north of Access Road. The Department of Defense (DoD) owns many additional parcels along the DoD-maintained Burma Road (also known as Defense Highway) northwards towards Stringham Road, which is also owned by DoD. Residential communities are also owned by DoD throughout the area west of West Main Road between Stringham Road and Coddington Highway, including the Coddington Cove development immediately east of the Installation. Additional DoD residential developments are located on Greene Lane, just north of the Installation and at Fort Adams in Newport. According to DoD there are roughly **13,000 active duty personnel and civilians** on an average weekday, making the Installation the state's third largest employer (and the largest on Aquidneck Island). The Naval War College serves over **17,000 students annually.**

Growth is occurring in and around the Installation. The National Oceanic and Atmospheric Administration (NOAA) is constructing its new Atlantic Marine Operations Center in the vicinity of the Installation for opening in 2027, employing an additional **180 people**. Additionally, four U.S. Coast Guard Offshore Patrol Cutters are anticipated to arrive between 2029 and 2034, bringing an **additional 500 military personnel and 800 family members** to the area. Given the continued importance of NAVSTA and NAVSTA-connected activities to Aquidneck Island, the Study seeks to ensure that quality of life concerns for living and working on the Island are adequately addressed.

The Study is focused on three topic areas – **TRANSPORTATION**, **LAND USE** and **WATER AND SEWER**.

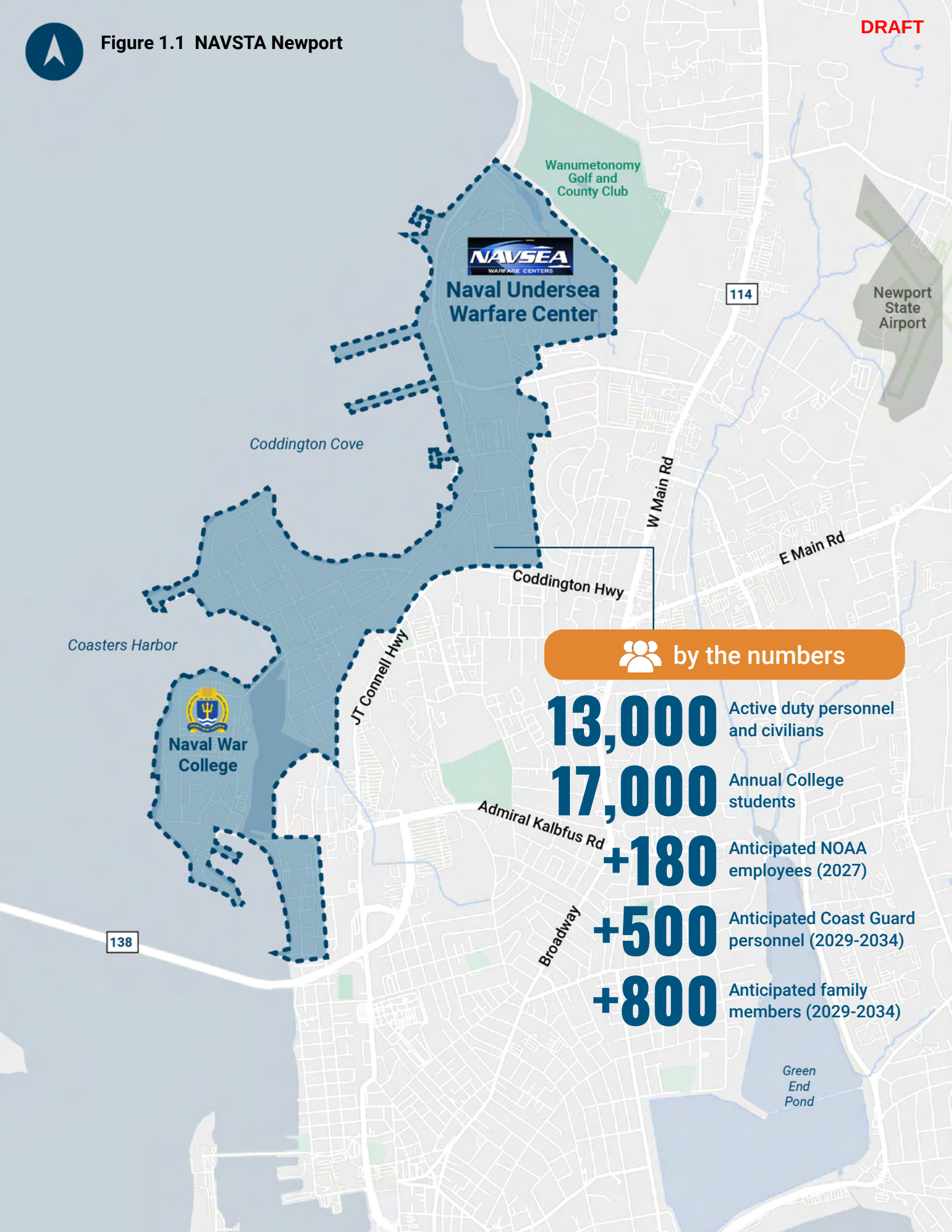
The following were identified by the Study's Technical Committee as critical desired outcomes from this effort:

- Establish comprehensive planning priorities for Island partners and the Navy to pursue collaboratively
- Promote study recommendations as a springboard for implementation funding
- Enable the long-term success of NAVSTA Newport as an economic development driver for the Island

Source: Newport Daily News

DRAFT

Figure 1.1 NAVSTA Newport



by the numbers

13,000 Active duty personnel and civilians

17,000 Annual College students

+180 Anticipated NOAA employees (2027)

+500 Anticipated Coast Guard personnel (2029-2034)

+800 Anticipated family members (2029-2034)

Benefits of the Military's Relationship with Rhode Island and Aquidneck Island

Naval Station Newport plays a significant role in supporting the economic vitality of Aquidneck Island. The installation receives nearly $2 billion in annual federal funding, providing thousands of high-paying military and civilian job opportunities, as well as millions towards local and regional contractors. The Installation is also home to Naval Health Clinic New England. This important military medical facility provides medical care for over 70,000 beneficiaries. This facility provides employment for healthcare professionals across the region and draws thousands of patients and visitors to the Island.

In 2023, NAVSTA received about $1.7 billion in federal funding, with roughly $1 billion of this funding comprised of various military contracts, with roughly half of this going towards small businesses.

Defense contracts make up a significant portion of Rhode Island's GDP. Seven of the top ten defense contractors in the state (by dollar amount awarded) have offices or headquarters on the Island. These contractors employ thousands of highly qualified scientists, engineers, and businesses professionals. Defense contracting is also a growing industry. When compared to the nation as a whole, Rhode Island has seen a comparatively large increase in defense contract value.

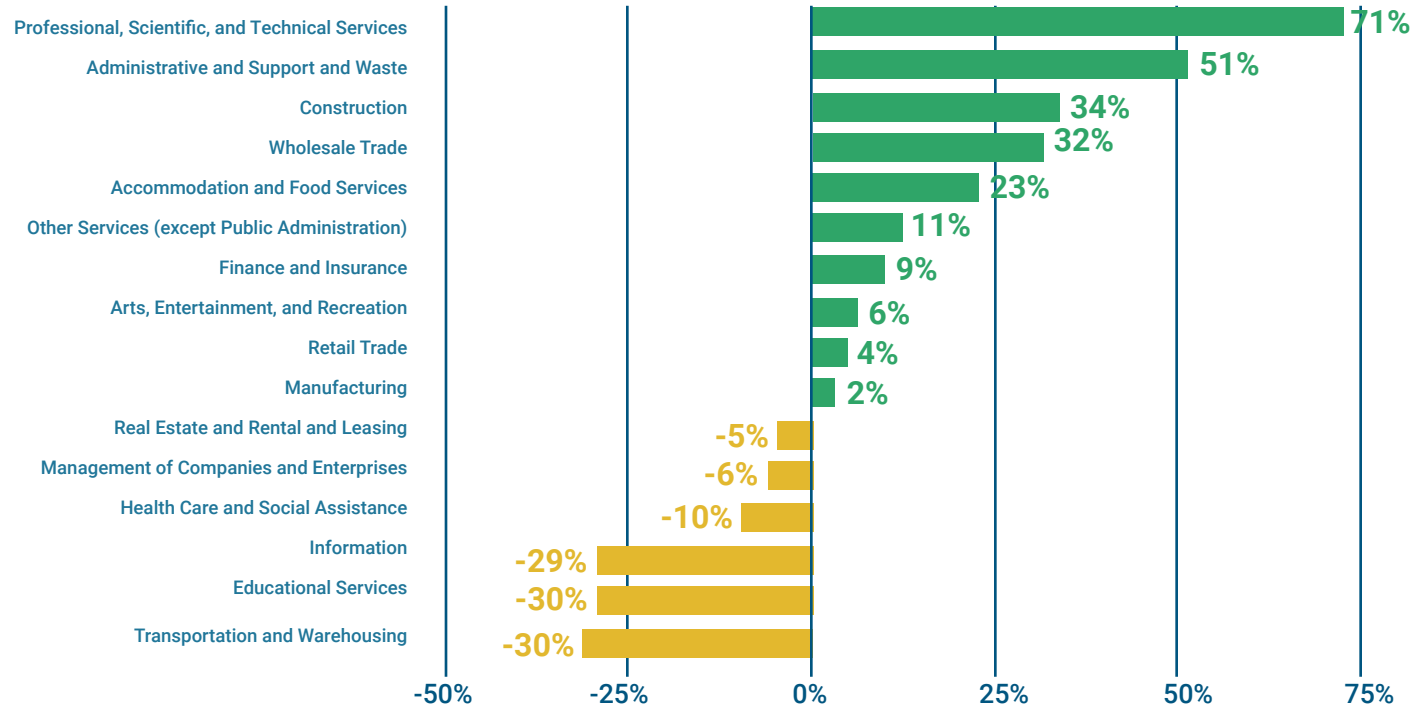
Between 2014 and 2024, ten major industries in the Greater Newport region saw growth. The professional, scientific, and technical services industry saw the largest growth during this time, seeing a 71% increase, which represents an additional 2,294 jobs. According to the Greater Newport Chamber of Commerce, this increase is largely driven by NAVSTA and its associated contractors.

The "ocean economy" stands as an important driving force for growth in the Aquidneck Island economy, referring to activities centered around long-term, sustainable use of the ocean for economic growth, among other reasons. Many of NAVSTA's activities touch on the ocean economy; on-site activities at NAVSTA lead to a concentration of highly-skilled personnel who directly and indirectly contribute to the growth of private industry. Although not centered on Aquidneck Island, the multi-decade development of General Dynamics Electric Boat at Quonset Point serves as a model for how the Navy's activities spur sustainable, innovative growth in the private sector.

The **Greater Newport Region** generally includes the City of Newport and nearby Newport County communities that are closely connected through shared economic activity, transportation networks, housing markets, and coastal resources.

The **ocean economy** refers to economic activities that depend on the ocean, coast, and waterways and that support sustainable use of marine resources. It includes industries such as marine technology, maritime transportation, fisheries and aquaculture, ocean research, renewable energy, and coastal tourism.

Table 1.1 Growth by Industry, 2014 to 2024 (Greater Newport Region)

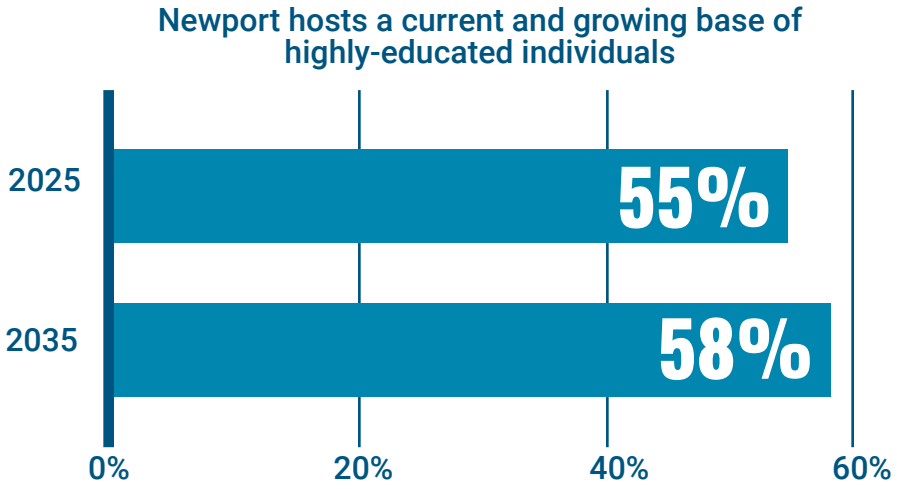


Growth by industry in the Greater Newport Region has been driven by professional, scientific, and technical services. *Source: State of the Greater Newport Economy: Momentum and Opportunity Greater (2025)*

Table 1.2 Bachelor's Degree or Higher (Greater Newport Region)

55% of the population aged 25 years or older has a Bachelor's degree or higher, compared to 38% for the state and 36%, nationally.

This share is projected to rise to 58% over the next ten years, demonstrating a highly-skilled workforce that positions the Newport region to withstand economic fluctuations and adapt to changes in the job market.



The Greater Newport Chamber of Commerce has identified Aquidneck Island as having a highly skilled workforce that collaboration with NAVSTA can help cultivate. *Source: State of the Greater Newport Economy: Momentum and Opportunity Greater (2025)*

Access to the Installation on Aquidneck Island

The Installation is primarily split into two components – the primary Naval Station west of the Newport Secondary Rail Line and the Coddington Cove neighborhood, north of Training Station Road/ Admiral Kalbfus Road and south of Access Road, and NUWC north and east of Access Road and Burma Road, respectively. Counts of parked vehicles (personal and those which appeared to be parked full-time on-site) using satellite data from Thursday, September 12, 2024 and Wednesday, April 23, 2025 found a similar amount of personal vehicles present on each campus, indicating the number of entering and exiting vehicles at each campus on a daily basis is roughly similar.

At present, four gates serve access into and out of the Installation.

- **Gate 1** (along Training Station Road) serves the primary Naval Station with 24/7 access, but does not process trucks.
- **Gate 17** (at the intersection of Access Road and Burma Road) serves the primary Naval Station with 24/7 access and truck screening.
- **Gate 23** (along Access Road opposite Chases Lane) serves NUWC with 24/7 access.
- **Gate 32** (along Burma Road) serves NUWC with peak hour access over a two-hour period in the morning and afternoon, only.

Figure 1.2 Installation Gate Access

A 2024 traffic study for the introduction of the Homeporting United States Coast Guard Offshore Patrol Cutters at NAVSTA profiled access to and from each gate. This analysis yielded the following key observations:

Numbers of entries and exits at the primary Naval Station (Gate 1 and Gate 17) are **roughly split between each gate**, with ~6,000 vehicles total entering and exiting the primary Naval Station on an average weekday.

Queue spillback from Gate 1 creates **congested conditions** between Third Street and JT Connell Highway along Admiral Kalbfus Boulevard, as evidenced by traffic modeling and anecdotal observations.

Approximately 6,000 vehicles enter and exit NUWC from Gates 23 and 32. Most vehicles (~5,000) access Gate 23 via Access Road. Just over **twice as many vehicles** (800) enter Gate 23 **during the morning peak hour** than those that exit in the afternoon (350 vehicles).

Congestion is present along Access Road, both at its intersection with Gate 23 and at West Main Road with the inclusion of Coast Guard traffic.

On the whole, instances of poor vehicular operations are limited to specific turn movements at intersections near the Installation, rather than for the intersections in sum.

Traffic counts at Gate 1 and Gate 17, collected on Tuesday, April 30, 2024 and Wednesday, May 1, 2024, found, peak hour traffic at each of these gates differed slightly. At Gate 1, traffic peaks in the morning between 6:30 AM and 7:30 AM and in the afternoon between 3:30 PM and 4:30 PM. At Gate 17, traffic peaks in the morning between 7:30 AM and 8:30 AM and in the afternoon between 3:15 PM and 4:15 PM. A midday peak also occurs roughly between 11:30 AM and 12:30 PM.

Figure 1.3 Traffic Volumes as Percentage of Daily Total

Source: Replica

Key vehicular movements in and out of the Installation (see map on opposite page) place strain on the local roadway network. NAVSTA staff indicated very few individuals access the Installation by means other than a personal automobile.

To understand how vehicles reach these gates, including the broader direction of travel once removed from the Installation, the Stantec team used Location-Based Service (LBS) data from Replica to determine **a) the home location of Installation commuters entering and exiting vehicles** and **b) the travel paths vehicles take on the Island**. The Study was unable to advance this analysis as robustly as envisioned due to privacy restrictions regarding vehicle travel to and from the Installation; tracking of vehicles is obscured on Navy land, meaning the start or end location of a vehicle is placed on the roadway network closest to this true location off of the Installation. For instance, a trip ending at the War College may show as ending along JT Connell Highway, with an associated path of travel to and from this point, without any use of roadways in the vicinity of Gate 1 and Gate 17.

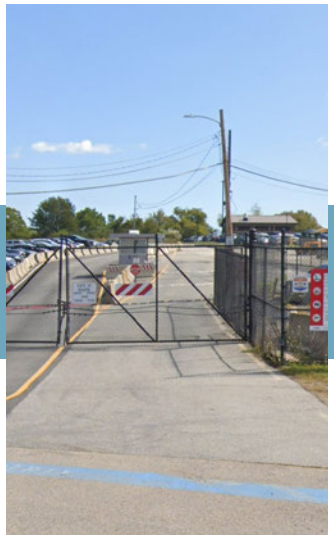
Nevertheless, the travel paths of Installation commuters can be derived based on the travel paths of non-Installation vehicles and the home location of Installation traffic.

The analysis reveals:

Chases Lane is a **significant cut-through** for travel to and from Gate 17 and Gate 23 in lieu of using West Main Road.

The total traffic volumes on Burma Road may be almost **exclusively destined** to and from the Installation.

Travel between the Pell Bridge and West Main Road north of Coddington Highway can take **many paths** – via JT Connell Highway using the roundabout with Admiral Kalbfus Road, through the North End neighborhood, or using Admiral Kalbfus Road and West Main Road exclusively.



Each gate also sees a midday peak at roughly 12:00 PM, indicating **three peak periods** of entry and exit at these gates.

~ This page intentionally left blank~

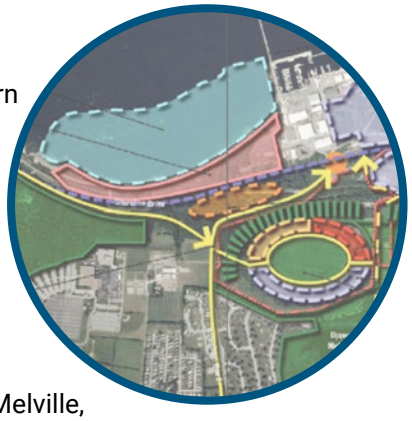
History of Planning on the Island

A number of previously completed planning studies were reviewed to provide a comprehensive understanding of transportation, land use, water, and sewer needs across Aquidneck Island, help establish priorities for the Study, and to inform the development of strategies and eventual recommendations.

A key purpose of the Compatible Use Study was defining priorities from these efforts and evaluating their ongoing value to sustaining the relationship between NAVSTA and the Island. As some of these planning studies are nearly two decades old, considerable value can be put forward to ensuring that earlier planning assumptions still hold valid. Transportation-focused studies are detailed below, but many of these concern all three topic areas.

2005 West Side Master Plan (Aquidneck Island Planning Commission)

This Plan provides the most comprehensive evaluation of lands adjacent to Navy property along the entirety of Narragansett Bay, and acts as *"...a master key: unlocking the door to sustainable growth and positive change for our residents and communities".*

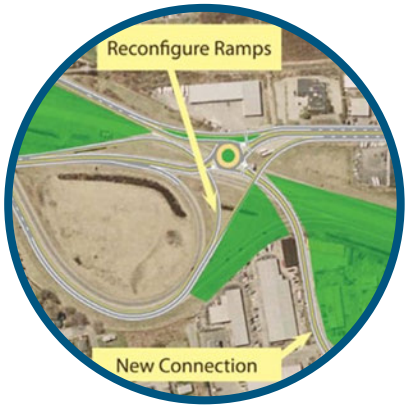


RELEVANT TRANSPORTATION RECOMMENDATIONS:

- A **new connection** along Simonpietri Drive (today comprising the eastern edge of NAVSTA abutting Coddington Cove) between Burma Road and Coddington Highway to create a third north/south roadway on the Island along with East Main Road and West Main Road.
- Improved **conditions at the hairpin turn** at the intersection of Burma Road and Stringham Road
- Improved **roadway management** and intersection enhancements for West Main Road
- Improve **multimodal transportation** adjacent to the Installation and at Melville, including: water access (a "blue trail"), preservation of the Newport Secondary rail line, bike trails, and the provision of future transit nodes adjacent to the Pell Bridge Ramps (currently provided following the reconstruction project).

2011 Aquidneck Island Transportation Study (Aquidneck Island Planning Commission)

This plan provides a "blueprint" for transportation system enhancements across the Island with a more comprehensive approach.



RELEVANT TRANSPORTATION RECOMMENDATIONS:

With consideration of existing and anticipated future-year conditions in 2020 and 2030, the Plan recommended a range of policy, transit, bicycle/pedestrian, and roadway improvements, including:

- **Preserving environmental quality** and the Island's character
- Supporting **multimodal improvements**
- Addressing existing and future **capacity constraints**

Note: Both of the plans above recommended the since-constructed transportation improvements associated with the Pell Bridge Ramps and the JT Connell Highway/Coddington Highway corridor.

2014 Rhode Island State Rail Plan

This Plan evaluated the potential for future passenger rail service along the Newport Secondary line from Newport northwards to the Massachusetts state border. Ultimately, the idea of track rehabilitation for freight service (including construction of a rail bridge across the Sakonnet River) was identified in the long-range investment program as a low priority. A ***2002 Aquidneck Island Passenger Rail/Bicycle Path Project*** recommended restoration of passenger rail service on the corridor with an adjacent bicycle path, although this study was released prior to the Sakonnet River Bridge superstructure removal and demolition of piers.

2015 Middletown Community Comprehensive Plan

Middletown's Community Comprehensive Plan establishes the framework for how land should be used, how housing, services, and economic activities should grow, and how natural, cultural, and recreational resources should be protected and enhanced. The plan is in the process of being updated with anticiapted adoption in 2026.

2020 City of Newport North End Urban Plan

This plan advocates for the advancement of an **Innovation District** to support land use changes and "blue economy" development in Newport's North End neighborhood. With the removal of highway infrastructure associated with the Pell Bridge reconstruction project, new traffic patterns and development opportunities are present for the City to capitalize on. Key recommendations focus on economic opportunity, connectivity, resiliency, equity, and design quality.

An **Ad Hoc Bridge Realignment Property Advisory Commission** made up primarily of City of Newport officials released a report in 2025 noting the need for significant public investment in this neighborhood to prevent instances of future flooding and position underutilized parcels for redevelopment.

2020 Transit Forward RI 2040 (RIPTA)

This strategic plan proposes regional **rapid bus service along Route 60** (encompassing East Main Road and West Main Road) which would feature high-quality stations, limited stops, the use of queue jump lanes, transit signal priority, and special branding. Frequencies would be at least every 30 minutes at peak.

2021 Infrastructure Conditions Assessment

The Infrastructure Assessment was carried out in response to the then-ongoing Base Realignment and Closure divestiture of Navy assets in the vicinity of Burma Road, including water lines, sewer lines, roadways, stormwater systems, and other utility-supported infrastructure. Performed through the **Rhode Island Infrastructure Bank**, the assessment included an accounting of infrastructure value for these assets, including full replacement value, current operations and maintenance costs, and **options to increase capacity to support future economic growth along the west side of Aquidneck Island**.

2022 City of Newport Comprehensive Land Use Plan

Newport's Comprehensive Plan, initially adopted in 2017 and updated in 2021, provides a **blueprint for managing growth, preserving community character, and coordinating land use policy with zoning and investement decisions** over the long term.

2022

Town of Portsmouth Comprehensive Community Plan

The plan lays out a vision for Portsmouth through 2040, including a framework for **protecting the town's natural environment**, preserving its historic and cultural character, **supporting a diverse range of housing options**, **promoting economic stability, and proactively responding to natural hazards and climate change**.

2023

Ride Island Bike Plan (Bike Newport and Grow Smart Rhode Island)

This plan proposed a combination of pilot projects, quick build efforts, and capital construction concepts for a network of priority corridors on the Island. Corridors include East Main Road, West Main Road, and Burma Road, comprising the three primary north/south corridors along the Island.

2024

East Main Road Safety Assessment/Road Diet

Two distinct efforts have been carried out since 2020 to identify and propose safety improvements along East Main Road in Portsmouth and Middletown. A safety assessment completed in 2020 in Portsmouth found challenges related to inadequate pedestrian facilities and accommodations, speeding, inadequate bicycle accommodates, and access management. The Ride Island effort spurred advancement of a road diet concept along a 1.5-mile segment of East Main Road in Middletown, proposing reconfiguring the roadway from four through lanes to two through lanes with a center-running, two-way left-turn lane. The Middletown Town Council voted against proceeding with the road diet concept in April 2024.

2025

Rhode Island Safe Streets for All

This statewide Safe Streets for All Action Plan issued municipal action plans for Portsmouth, Middletown, and Newport outlining safety hazards along key roadways connecting to or in the vicinity of the Installation. These intersections and corridors include East Main Road in the vicinity of West Main Road (Middletown), several hundred feet along the East Main Road, West Main Road, and Coddington Highway corridors stretching east, north, and west of this intersection, and West Main Road at Union Street (Portsmouth).

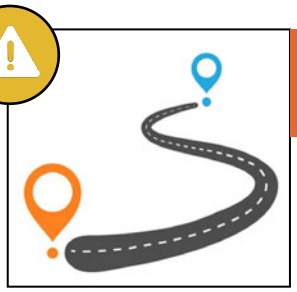
~ This page intentionally left blank~

Core Challenges and Opportunities of the Area

Collectively, analysis of the Installation's influence on Aquidneck Island's transportation, land use, and water/sewer networks, along with the reviewed studies, highlighted several key points demanding emphasis as part of the Compatible Use Study:

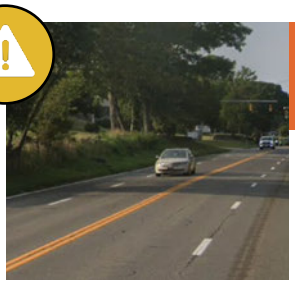
The sum of potential transportation improvements exceeds available RIDOT funding.

The Aquidneck Island Transportation Study (2011) notes potential transportation projects across the entirety of the Island exceed funding in the Transportation Improvement Program (TIP).



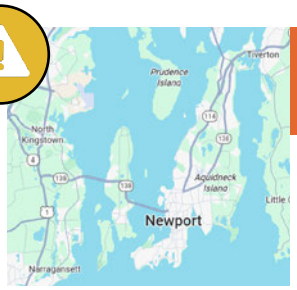
A shortage of workforce housing leads to longer commutes for workers.

Aquidneck Island has experienced limited housing growth, with total housing units increasing by only about 3 percent since 2010. The Housing Analysis for Greater Newport Region (2024) estimates that the region will need between 6,000 and 9,000 additional housing units to meet workforce demand over the next decade. Without a sufficient supply of local and affordable housing, workers will increasingly be forced to seek housing off-Island.



The travel network does not facilitate active transportation options as well as it could.

The streetscape of East Main Road and West Main Road, the Island's primary north/south corridors, are heavily oriented toward automobile travel. Sidewalks are not present in many areas and are unpleasant to traverse, with bicycling accommodations non-existent and transit services operating at 60-minute frequencies on each road. Other roadways on the Island are more conducive to non-vehicular travel, including recent streetscape improvements associated with the Pell Bridge Ramps Realignment Project and Coddington Highway, but many roadways remain primarily automobile oriented.



Regional coordination is needed to address challenges common to Newport, Middletown, and Portsmouth.

Travel on the Island, particularly in connection with NAVSTA, is rarely confined to one municipality. A regional approach, where the three communities can collectively lobby for the region's best interest with the Navy, RIDOT, RIPTA, and other broader actors, stands as the most optimal approach for strengthening the Island's built infrastructure.

The Burma Road corridor provides abundant economic development, transportation, and open space opportunities.

The Burma Road corridor provides abundant economic development, transportation, and open space opportunities. Several surplus properties of the Navy are present along the DoD-owned Burma Road, as well as in the vicinity of Stringham Road. These sites present excellent opportunities for redevelopment or creation of open space resources, especially given the proximity to water and sewer infrastructure, although due to environmental contamination, uses such as housing are not feasible. With approximately 6,000 vehicles on a daily basis, Burma Road features capacity for future vehicle growth. Finally, use of the Newport Secondary rail corridor and Narragansett Bay allow for non-vehicular transportation opportunities.

The presence of the ocean economy serves as a rallying point for the Island's economic competitiveness.

As noted above, investments in ocean economy activities are driven by NAVSTA's presence and the abundant built infrastructure (such as the burgeoning Weaver Cove section of Melville) and human capital present in the region. According to the Greater Newport Chamber of Commerce, the Greater Newport Region has nearly 450 ocean economy establishments, comprising 24% of jobs in the region. Statewide, the University of Rhode Island cites that the ocean economy is responsible for nearly nine percent of the state's GDP and 36,500 jobs.

There is a history of successful collaboration between the Navy and the State of Rhode Island.

Quonset Point stands as a success story of the Navy's collaboration with local economic development. When the Quonset Point facility was decommissioned in the 1970s, General Dynamics Electric Boat set up a hull-fabrication and outfitting facility to serve as one of the Navy's most prolific submarine builders. In the ensuing half century, the facility has continued to grow and fulfill the Navy's needs, generating direct and indirect jobs in the State not unlike the relationship between local contractors who serve NAVSTA.

Core Challenges

Transportation

The **use and upkeep of Burma Road** is an ongoing Island challenge. With fewer and fewer Navy-owned assets returning value to DoD along Burma Road, north of NUWC, the justification for the DoD to carry out maintenance and upgrades is increasingly absent. This is occurring at a time when development is occurring at Weaver Cove, near the northern terminus of Burma Road, and as the corridor is envisioned by other Island stakeholders as a westerly north/south travel corridor to relieve peak period congestion on East Main Road and West Main Road.

Access between West Main Road and Burma Road is also lacking. On the northern end, Stringham Road meets Burma Road at an awkward hairpin turn, adding travel time for all users and creating safety hazards, particularly at the northern approach from Burma Road. On the southern end, trucks accessing Gate 17 at the Installation struggle to turn left from Access Road into the gate, necessitating the use of Greene Lane for a longer travel journey via West Main Road to reach Gate 17.

The Aquidneck Island Infrastructure Assessment identified over

$5 million

in state of good repair improvements along the Burma Road corridor.

Peak period **congestion along West Main Road and East Main Road** impedes travel flow, particularly in the mid-afternoon when many shifts at the Installation turn over. The reliance of these two streets to facilitate north/south travel along the Island, as well as the deficient walking, bicycling, and transit conditions along the corridors, overburdens their use. This is exacerbated on a seasonal basis when more visitors are present on the transportation network. The Aquidneck Island Transportation Study (2011) cited deficient operations at signalized intersections in the peak hour along each corridor.

An **awkward transition is present in the vicinity of the Admiral Kalbfus Road/West Main Road/ Broadway intersection**, owing to the many functions this intersection is aiming to serve. The transition to the more dense built environment of Newport abruptly meets the automobile-oriented uses

of West Main Road, with Admiral Kalbfus Road accommodating traffic coming to and from the Pell Bridge while itself being fronted by many single-family residences.

The multimodal transportation network on the Island is lacking. With approximately one-quarter of all trips destined for the Installation beginning off the Island, not many viable options exist to facilitate non-vehicular, mid- and long-distance trips.

The Newport Secondary rail corridor presents an opportunity for introducing new transportation services but also an impediment along the edge of the Installation. Dinner trains operating along the corridor must wait for gates to be manually opened on each edge of the Installation in order to traverse through. The corridor itself is disconnected from Fall River as it does not presently bridge the Sakonnet River. Bridging this gap would create a direct connection to the recently implemented MBTA commuter rail line, expanding the commuter shed and improving access to NAVSTA.

In 2023,

84%

of commute-based trips on Aquidneck Island were taken using a private automobile.

Meanwhile, water transportation opportunities are abundant, with pier infrastructure present along the Installation's edge as well as at other points along the Island, such as at Weaver Cove. Improved water connections in and around Narragansett Bay could alleviate pressure off the Island's transportation network.

The long-term resiliency of the transportation system is fragile. Recent improvements at the JT Connell Highway/Admiral Kalbfus Road roundabout can flood during heavy precipitation. Low points on Burma Road are vulnerable to inundation, which can be costly during an evacuation event (particularly with West Main Road and East Main Road as the only other two north/south corridors on the Island). Many transportation low points are present in and around the Installation.

Source: Newport Daily News

Core Challenges

Housing

HOUSING COSTS

Like elsewhere across the country, housing costs have escalated substantially in Portsmouth, Middletown, and Newport, with median home prices increasing by more than 50% over the past five years and more than doubling over the past two decades.

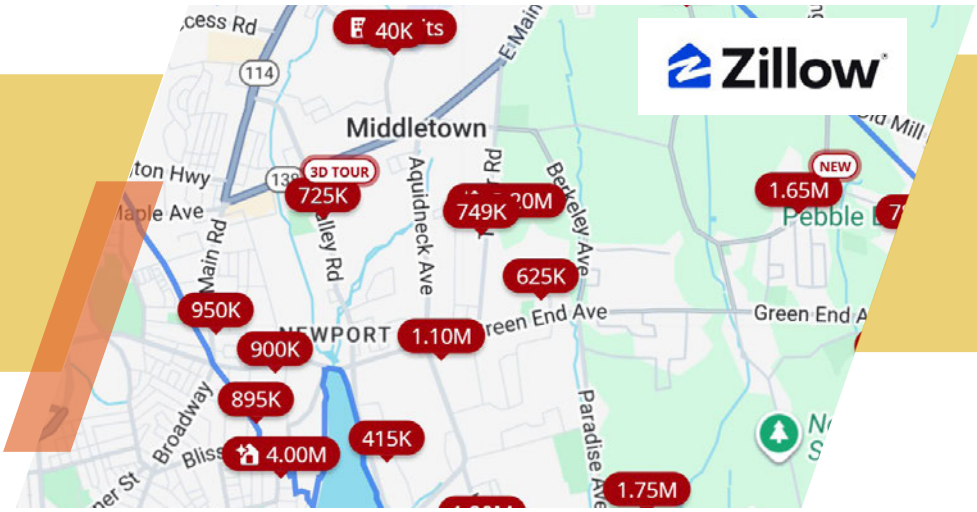
Housing costs are taking up an increasing larger share of household income widening the region's affordability gap. According to the RI HousingWorks 2024 Fact Book, only 17% or 17,033 Households in Southeast RI can afford the region's median home price of $607,000. This challenge is even more pronounced on Aquidneck Island, where median home prices are among the highest in the region. In Portsmouth, Middletown, and Newport, a household earning the local median income would need to more than double its earnings to afford the median-priced home in their community.

About 25–30% of homeowners and 40–50% of renters are cost-burdened, spending more than 30% of their income on housing. This leaves many households with limited resources for other essential expenses.

In the past five years, median home prices have increased **50%**

Only **17%** of Southeast RI households could afford the region's median home prices

40-50% of renters are cost-burdened



HOUSING DEVELOPMENT

Most housing development is planned in Middletown and Portsmouth, underscoring the need for coordinated planning around transportation, circulation, and infrastructure capacity.

Aquidneck Island has experienced slow housing growth, with total housing units increasing by only about 3% since 2010. This trend aligns with a steady decline in the number of residential building permits issued each year.

High development and land costs continue to constrain affordable housing production. The market alone cannot deliver housing at affordable or workforce price points without significant public subsidy or cost-saving measures. Developers face high labor, materials, and land expenses, as well as regulatory constraints related to zoning and development review, all of which contribute to elevated project costs. At the same time, funding to support affordable housing is limited, and resources for workforce housing are even more scarce.

Community resistance to higher-density development further limits opportunities to expand the Island's housing supply and meet local affordability needs. With limited developable land and strong local priorities for open space preservation, infill and redevelopment are essential to support growth. However, efforts to increase density in more urban areas of the Island have faced significant community pushback, limiting opportunities for new housing development.

Since 2010, total housing units on the Island have only increased

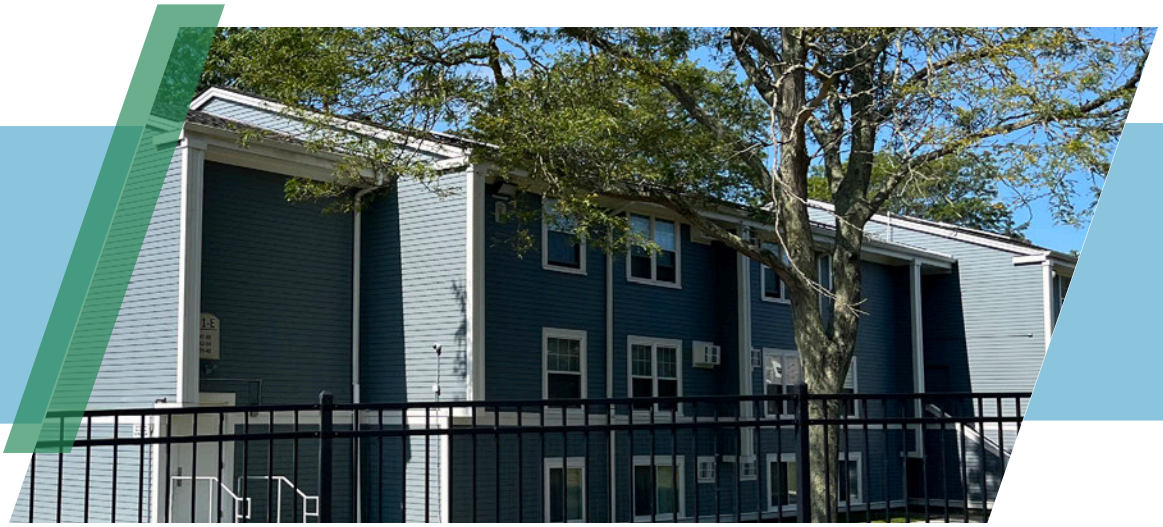
3%

Greater Newport is projected to need

9,000

additional housing units

over the next decade to meet workforce demand



Core Challenges

Water/Sewer

Much of the underground water and sewer infrastructure on Aquidneck Island was installed more than 50-years ago, some over a century ago. Based on the best available data, 23% of water and sewer pipes in Newport and Middletown are more than 50 years old, and 4% of pipes are more than 100 years old dating back to the 1800s and early 1900s. As pipes age, they become more prone to failure. The consequences of **aging infrastructure** could vary broadly, from hidden leaks to water main breaks on the drinking water front, to excessive infiltration and inflow and untreated sewer overflows on the wastewater front, all of which are detrimental to the Island's communities and the environment.

AQUIDNECK ISLAND'S DRINKING WATER SUPPLY SYSTEM

The public water supplied to Newport, Middletown, and Portsmouth comes from Newport through the Newport Water Division (NWD). NWD also supplies water to the NAVSTA Newport. NWD relies on nine public drinking water supply reservoirs, all owned bv the Citv of Newport and managed by NWD.

The water supply on Aquidneck Island is highly dependent on NWD's nine surface water reservoirs, which experience additional vulnerabilities since many are located in coastal zones, such as **North and South Easton Ponds.**

The Newport Water Division (NWD) operates two water treatment plants with a combined capacity of 16 million gallons per day (MGD), and supplies water to an estimated 40,000 customers, which represents a majority of users on the Island. NWD's average water demand typically ranges from about 5 to 6 MGD. NWD directly supplies water to retail customers in Newport and Middletown through three pressure zones (Low, Medium, High). NWD supplies their wholesale customers, Portsmouth Water and Fire District and NAVSTA Newport through the Medium and Low Pressure Zones respectively.

Transferring water between pressure zones requires pumping from lower pressure zones to higher pressure zones. Moving water from higher pressure zones to lower zones can be achieved using control valves or pressure reducing valves. As such, the key bottlenecks for the interzonal transfer of drinking water become these pump

82
miles of drinking water transmission mains maintained by NWD

100
miles of wastewater collection pipes (Middletown DPW)

stations and valve facilities, and any failure at these facilities would cause a cascading effect upstream and downstream, leading to a significant overall impact on the Island's water supply. The **Reservoir Road Pump Station** would eliminate single points of failure that would limit the transfer of water between pressure zones.

Raw water and finished water transmission mains are key to transporting large volumes of water over long distances, from water supply reservoirs to water treatment plants and from water treatment plants to the vast network of tanks and pumps. Transmission mains are the lifeline of any drinking water system.

The Newport Water Division (NWD) maintains 82 miles of transmission mains, ranging in size from 12-inches up to 30-inches. These transmission mains extend across Newport and Middletown and are critical to the transfer of water to Portsmouth Water and Fire District and to NAVSTA Newport. The failure of any given transmission main could be catastrophic due to the high consequence of failure generally associated with them. As such, regular inspection and testing of these transmission mains is critical to identify deficiencies and mitigate risk. **Raw and finished water transmission main upgrades** would serve as a proactive measure to maintain constant water supply and to limit the extent and duration of any emergency outages.

In recent years NAVSTA has been evaluating the divestiture of non-mission critical assets, including water and sewer assets at various parcels. The transfer of Navy properties and utility impacts strategy discusses the existing conditions of these assets, while highlighting the feasibility of providing utility services to these parcels.

AQUIDNECK ISLAND'S SEWER SYSTEM

The sewer system in the City of Newport consists of nearly 8 miles of force main and approximately 80 miles of gravity sewer. The Middletown Department of Public Works owns and manages their wastewater collection system, which consists of nearly 100 miles of pipe. Following collection, Middletown conveys its wastewater to Newport for treatment, through two force mains. Most properties within Portsmouth have individual septic systems (Onsite Wastewater Treatment Systems or OWTSs). Raytheon Corporation, located within Portsmouth, maintains a Rhode Island Pollutant Discharge Elimination System (RIPDES) Permit for its wastewater treatment facility. However, the facility is used only for temporary storage of wastewater which is eventually pumped into trucks and transported to the Newport wastewater plant for treatment. Naval Station Newport's wastewater collection system consists of 6 miles of force main and 33 miles of gravity sewer. Wastewater is conveyed from Naval Station to Newport for treatment, through three force mains.

Newport's Long Wharf pump station is the low point in the sewer system and the primary pump station to convey sewer to Newport's Water Pollution Control Plant. The **Wave Avenue pump station** is Middletown's primary pump station to convey sanitary sewer from Middletown to Newport through a force main and gravity sewer.

In terms of stormwater challenges on the Island, daylighting **Elizabeth Brook** promises to mitigate flooding by restoring riparian habitat and floodplain, in addition to expanding open space and supporting economic redevelopment.

Figure 1.4 Aquidneck Island Water System (Newport Water Division & Portsmouth)

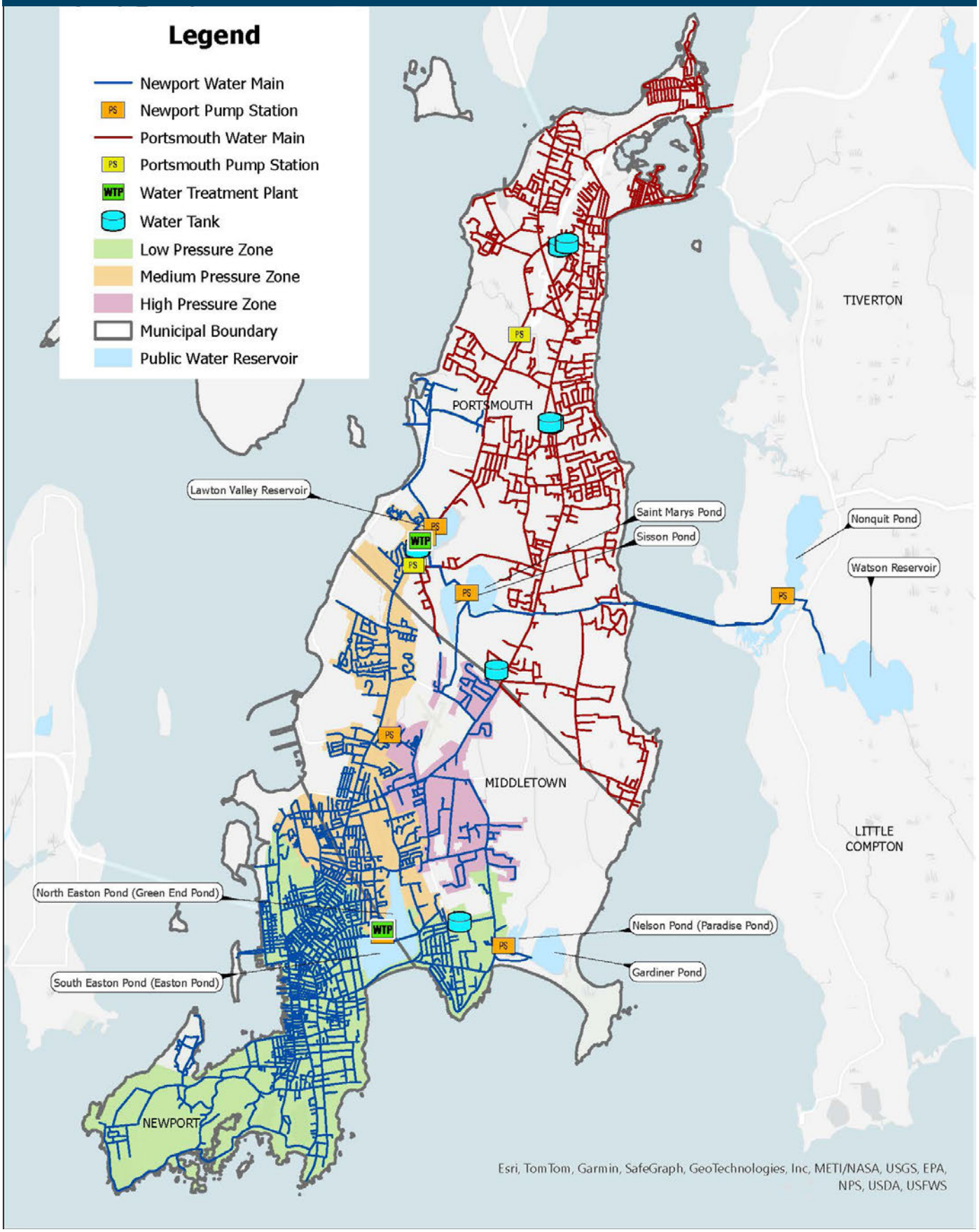
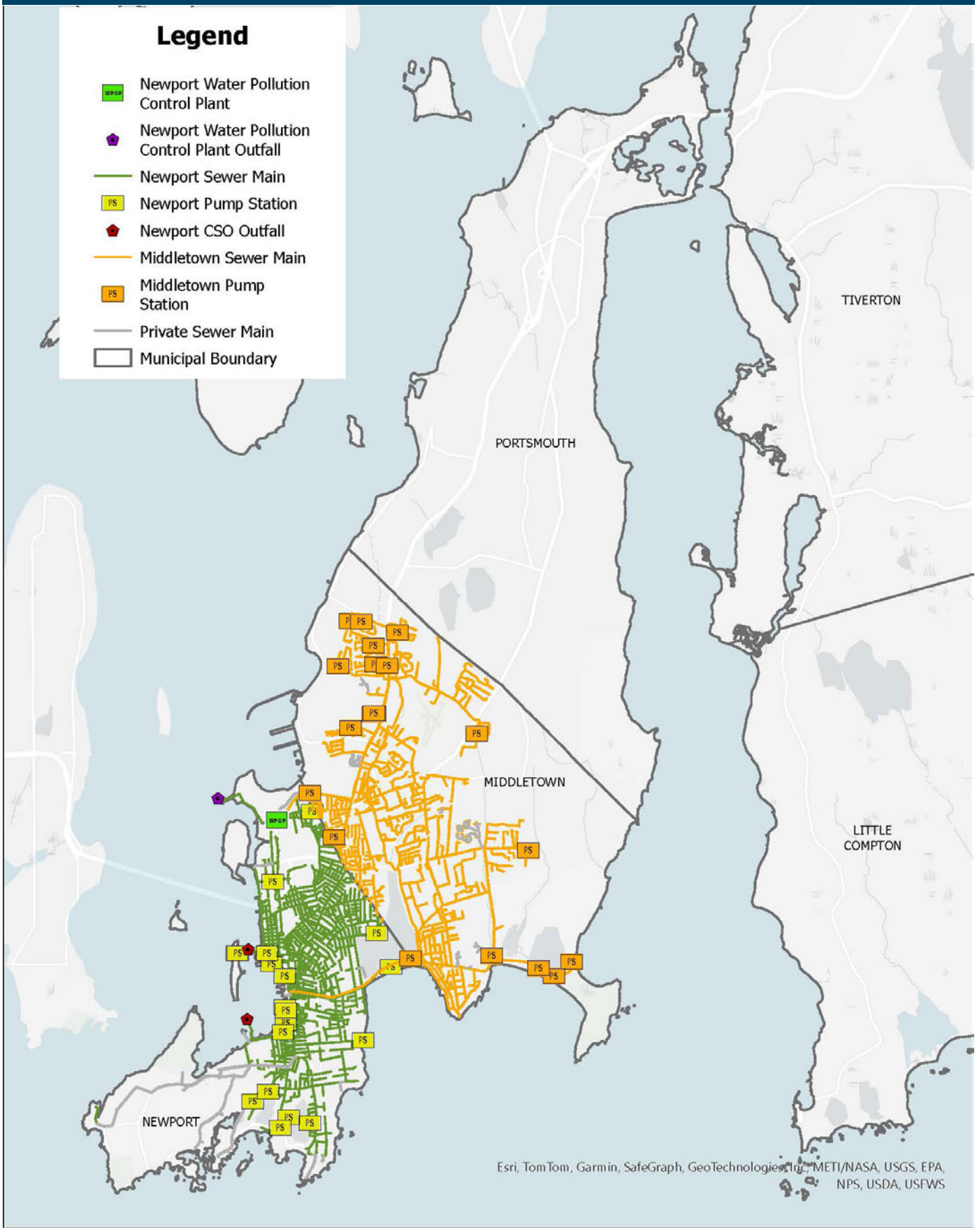


Figure 1.5 Aquidneck Island Sewer System (Newport and Middletown)



STUDY GOALS

The Compatible Use Study's Technical Committee was consulted on a bi-weekly basis over the course of the study. The Technical Committee was made up of the Greater Newport Chamber of Commerce, the City of Newport, the Town of Middletown, the Town of Portsmouth, the Aquidneck Island Land Trust, and NAVSTA.

At the study's outset, in response to the needs and challenges addressed in the previous section, the Technical Committee developed six study goals to guide the strategy evaluation process and influence recommendations:

1. Position Burma Road to best serve as a long-term link between NAVSTA and the Island
2. Address constraints on the Aquidneck Island transportation network, including within the three communities
3. Promote multimodal transportation, including bicycling and water transportation as well as aviation
4. Clarify ongoing viability of the Island's water and sewer network with regards to anticipated growth and resiliency from climate impacts
5. Reconcile land use needs in the context of statewide zoning changes
6. Support economic development across the Island

DRAFT

GREATER NEWPORT
Chamber of Commerce

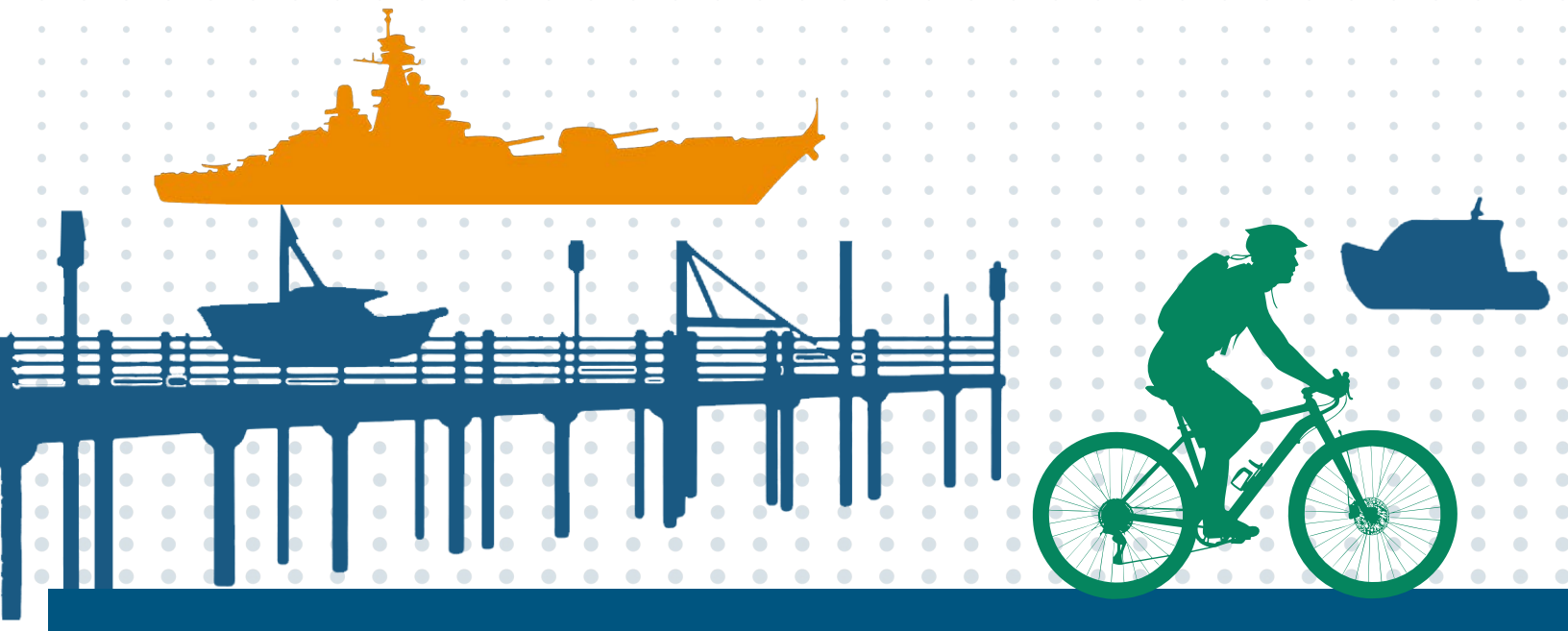
NAVAL STATION NEWPORT
Service
Since 1883

Aquidneck Island
Land Trust

FOUNDED *on the* COMPACT
1638
PORTSMOUTH
R.I.

CITY OF NEWPORT R.I. INCORPORATED
SETTLED
1639
CHARTERED

TOWN OF MIDDLETOWN R.I.
INCORPORATED
1743



STUDY ENGAGEMENT

The Study featured a Technical Committee made up of the Greater Newport Chamber of Commerce, Naval Station Newport, representatives of the planning departments of Newport, Middletown, and Portsmouth, and the Aquidneck Island Land Trust. This group met on a bi-weekly basis over the course of the Study to guide the identification of goals and core challenges in each topic area, refine details of strategies, and speak to recommendations and implementation.

The Study also engaged with an Advisory Committee made up of key local stakeholders and focus groups for each of the three topic areas, comprised of representatives as identified by the Technical Committee. This group met virtually on April 24, 2025 and in-person on January 21, 2026.

Several focus group discussions were also held with key stakeholders during the existing conditions phase, as well as informational presentations to broader groups. These included:

- A **transportation focus group** discussion held in lieu of a regularly-scheduled Connect Greater Newport meeting at Innovate Newport on May 1, 2025. This meeting included a tabletop exercise among attendees about the role of Burma Road in the Island's transportation system, the importance of first and last mile connections to facilitate transit use, and safety and congestion problem spots (particularly on East Main Road and West Main Road).
- A **land use focus group** held virtually on May 14, 2025.
- A **water/sewer focus group** held virtually on May 29, 2025.
- A virtual conversation with City of Newport staff leadership, including the City Manager, on June 5, 2025.
- An informational briefing of transportation strategies with a regular meeting of Connect Greater Newport at Innovate Newport on September 25, 2025.

Further, meetings were conducted with NAVSTA leadership on June 9, 2025 and December 1, 2025 to review the Study's priorities and gather feedback on transportation strategies and recommendations. The Installation's Community Planning Liaison Officer facilitated these meetings in addition to serving on the Study's Technical Committee. Additional discussions were held with three members of the local development community – Ed Lopes, Chris Bicho, and Jamie Karam – as well.

Two public meetings were held on June 10, 2025 at the Community College of Rhode Island's Newport Campus to present existing conditions and another on XXX to present strategies and recommendations. A tabletop exercise was held on XXX to work through scenario planning with key stakeholders regarding next steps surrounding transfer of Navy assets.

PLACEHOLDER FOR ADDITIONAL OUTREACH IN MARCH 2026

2 STRATEGY EVALUATIONS

DRAFT

TRANSPORTATION STRATEGIES

1. Coddington Cove Neighborhood Traffic Protection

2. Transportation Demand Management for Employers

3. Aquidneck Island Transportation Management Association (TMA)

4. West Main/ Broadway Improvements

5. Multimodal Hub at Pell Bridge Ramps and/or Melville

6. Additional First/Last Mile Connections to Installation

7. Upgrade Burma Road Condition

8. Stringham Road Connector

9. Road Diet/Lane Reallocation Along East and West Main Road

10. Greater RIPTA Service Frequency

11. New Truck Access at Gate 10

12. Halsey Street Extension

13. Multi-Use Path Along East and West Main Road

14. Coddington Connector

15. Regional Transportation Links

16. Curb Cut Consolidation Along East and West Main Road

Transportation Evaluation Criteria

Each strategy in this section was evaluated against the same seven criteria, as detailed below. A score for each factor was determined on a scale of 1-5, with 1 indicating the strategy has the lowest level of positive impact/ benefits and 5 indicating a maximum level of positive impact/benefits. The numbers correspond to colored bars (right) throughout this section.

TRAVEL CAPACITY

Does the strategy support more person throughput to/from the Installation and across the Island? Strategies which add to transportation system capacity, including to make better use of presently underutilized resources, score well under this criteria.

SCORE JUSTIFICATION

5. *Directly provides new travel capacity*
4. *Improves access to particular assets or for specific modes*
3. *Does not demonstrably support increased person throughput*
2. *Removes travel capacity for specific modes*
1. *Removes travel capacity for most or all modes*

AUTOMOBILE RELIANCE

Does the strategy lessen automobile reliance for Installation commuters and Island travelers? Strategies directly aimed at supporting non-vehicular modes score well in this criteria, while others which may shift vehicle demand within the roadway network have more limited benefits.

SCORE JUSTIFICATION

5. *Supports multimodal travel through the creation of new capacity*
4. *Supports multimodal travel by lessening influence of vehicles*
3. *May support multimodal travel, but only as an ancillary benefit*
2. *Does not support multimodal travel*
1. *Detracts from the multimodal travel experience*

TRAVEL TIME

Does the strategy improve travel times of the mode(s) involved? This metric identifies a per trip time savings (when applicable). Vehicle travel time benefits were calculated using the speed limit of affected streets and the following assumptions based on intersection type:

- Intersections on major streets that link to minor streets (e.g., East Main Road @ West Main Road)
  = 10 second average delay
- Intersections on minor streets that link to major streets (e.g., Access Road @ Coddington Connector)
  = 30 second average delay
- STOP-controlled intersections (all)
  = 30 second delay

SCORE JUSTIFICATION

5. *Positive change in travel time of over 250 daily travel hours*
4. *Positive change in travel time of between 100 and 250 daily travel hours*
3. *Positive change in travel time of up to 100 daily travel hours*
2. *Minimal change in travel time*
1. *Loss of travel time*

For example, this calculation yields the estimated vehicle travel times, all of which are longer than a Google Maps estimate would indicate:

- **17-minutes** between the Route 24/Route 114 (West Main Road) and the JT Connell Highway/ Admiral Kalbfus Road roundabout via West Main Road;
- **21.5-minutes** between these locations via use of Stringham Road, Burma Road, and Access Road; and
- **19.5-minutes** between the Turnpike Avenue/East Main Road intersection and the JT Connell Highway/Admiral Kalbfus Road roundabout via East Main Road.

This study did not analyze further travel time impacts based on time of day, day of week, or month. For non-vehicular modes, a broader estimate of per trip travel time savings was used.

TRAVEL SAFETY

Does the strategy support safe travel movements to/from the Installation and across the Island? Strategies with targeted safety benefits score well in this metric.

SCORE JUSTIFICATION

5. *Demonstrated safety intervention*
4. *Supports safety by lessening influence of vehicles*
3. *May support safety, but only as an ancillary benefit*
2. *Does not support safety*
1. *Detracts from safe travel*

Other Considerations

COST

How costly is the strategy to implement? Five cost categories are cited: under $1 million, $1-5 million, $5-15 million, $15-50 million, and over $50 million. These categories generally correspond to the level of effort which may be necessary to secure funding:

TIMELINE

How long would the strategy take to complete construction? Although not tied to a score, each strategy identifies a likely implementation range from <1 year to over ten years.

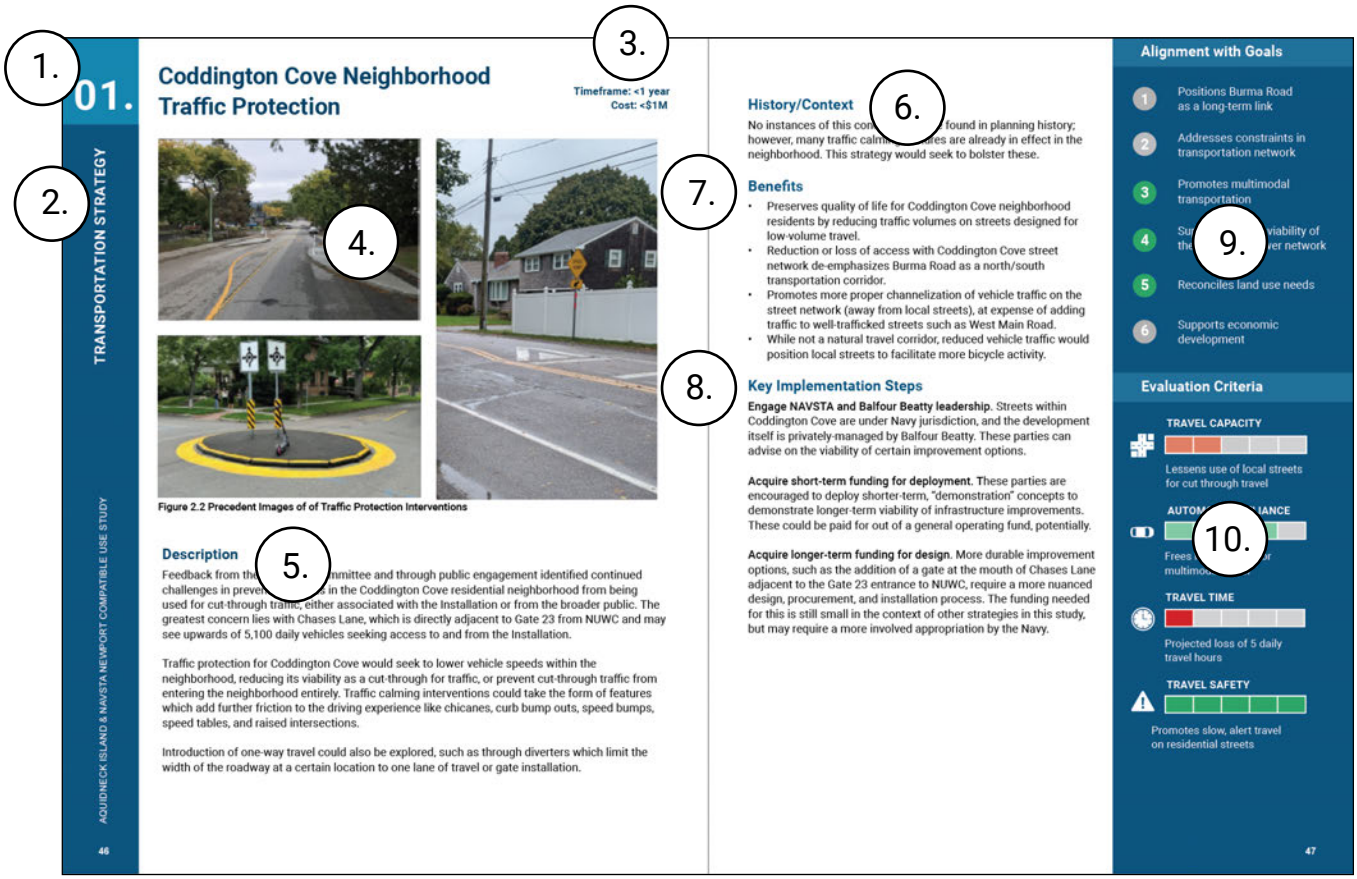
How to Read This Section

This section intends to provide an objective overview of all strategies recommended as a result of this study. This Plan takes a holistic approach to the strategies, with each one anticipated to contribute value to the community. For the purpose of organization in this section, strategies are organized starting with those anticipated to be addressed in a shorter timeframe and with a lower cost, and followed by those which require longer timeframes and higher costs. Strategies which are anticipated to be ongoing (i.e., not associated with a specific timeline) are located at the end of each section.

To allow for easier comparison between strategies, each one (example of page layout below) addresses the same information, including:

1. A strategy number which corresponds to information in later sections of this document
2. Which of the study's three focus areas (Transportation, Land Use, or Resilience) the strategy supports
3. The likely approximate timeframe required to implement and likely broad estimate of cost
4. An image of the issue the strategy aims to address, potential early concepts of the strategy, or strategy examples
5. A description of what the strategy entails
6. A narrative to outline the reasoning for the strategy
7. An outline of anticipated benefits of the strategy
8. An overview of likely, key next steps required to begin implementing the strategy
9. Identification of which of this Plan's project goals align with the strategy (highlighted green)
10. Summary of how the strategy scores for each point of criteria

In some strategies, further details and context is also provided.



With the undersanding that most of the strategies will require additional consideration in terms of further analysis, discussions, and identification of other details, the information provided in this section is intended to be used a tool to support conversations with parties who would be responsible for defining an approach of prioritizing when and how each strategy is pursued.

The following page indicates **all transportation-related recommendations from past studies**, with those called out as strategies in this report highlighted

VEHICLE

1. Improved Burma/Stringham connection to address hairpin turn
2. Construct new Burma Road connection to north and south
3. Widen West Main Road to provide left turn lanes at Access Road, Valley Road, and Admiral Kalbfus Blvd
4. Extend West Main Road left turn lanes at Access Road, Valley Road, and Admiral Kalbfus Blvd
5. Create Simonpietri Drive connector to Coddington Highway
6. New truck access at Gate 10
7. Halsey extension between Pell Bridge and Coddington Highway
8. West Main/Brosdway intersection improvements
9. Broadway Streetscape Improvements

MULTIMODAL

1. Improved transportation between Newport, Melville, and Fall River
2. Continuous bicycle link along west side of Island
3. Preserve the rail corridor as a contiguous right of way
4. East Main Road shared-use path between Turnpike Avenue and Middletown Town Hall
5. Aquidneck Island Bikeway - Melville Connector
6. West Main Road shared-use path between Cory's Lane and Greene Lane
7. Implement ferry service to Melville;
   Create new multimodal hub at Melville
8. Extend on-Island bus service window on Route 60;
   Implement transit signal priority on Route 60 with queue jump lanes where possible;
   RI Transit Forward - rapid bus implmentation
9. Shoreline Bikeway (Burma Road) Shared Use Path
10. "Blue Trail" water transportation improvement along west side
11. East/West Main Road- road diet/lane reallocation
12. East/West Main Road- multi-use path
13. Coddington Cove neighborhood traffic protection
14. Additional first and last-mile connections to Installation
15. Multimodal connections throughout North End

POLICY

1. Rehabilitation of Newport Secondary for freight rail access
2. Transit-focused redevelopment at Tank Farms 1 & 2 and Melville
3. Burma Road upgrades
4. Transit-focused redevelopment at Two Mile Corner
5. Investments to spur economic development in the North End
6. Transit-focused redevelopment at Pell Bridge ramps
7. Naval Hospital reuse

RESILIENCY

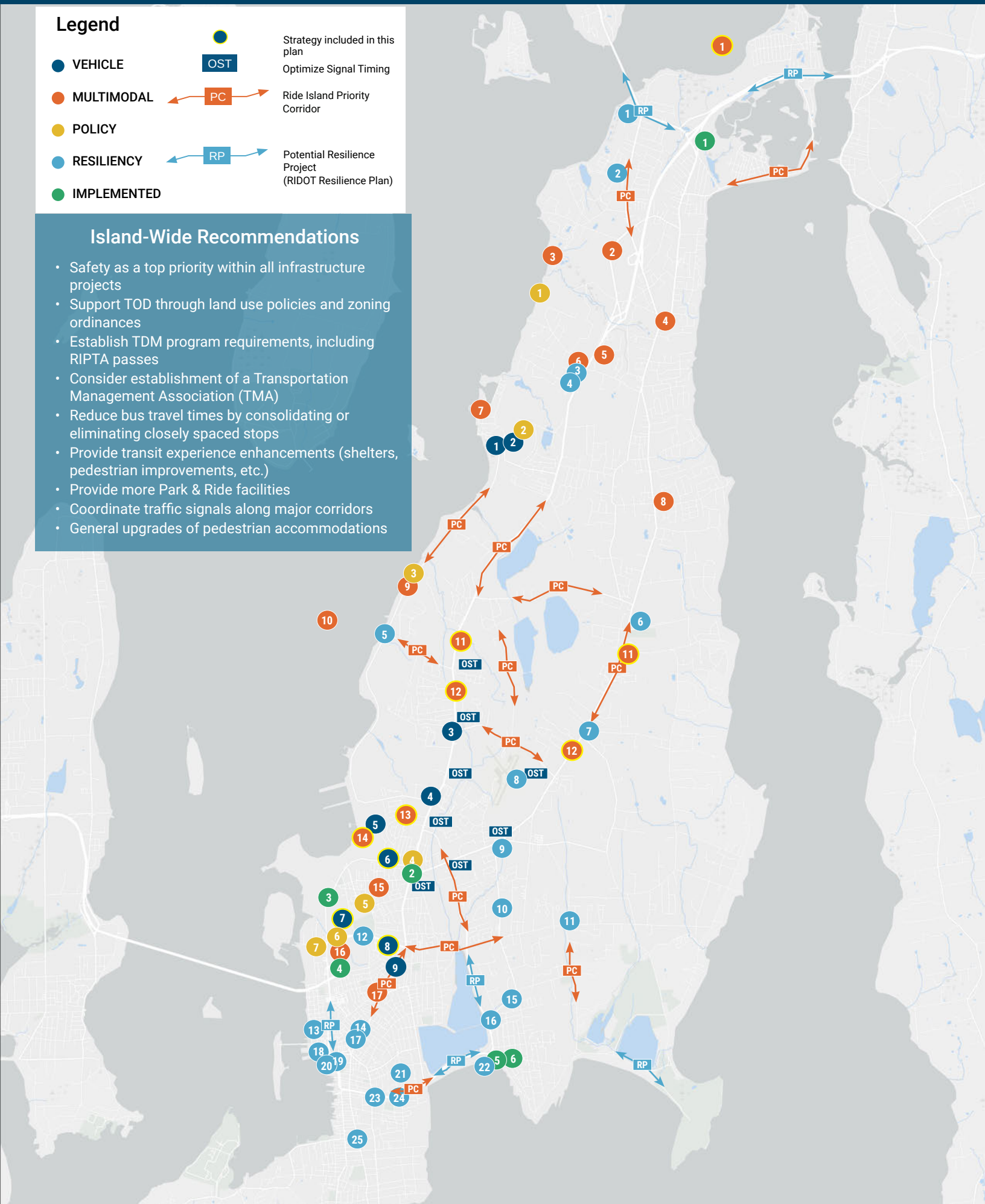
1. Reconfigure Mt Hope Bridge/Boyds Lane/Bristol Ferry Road intersection
2. Road diets along Bristol Ferry and West Main
3. Realign Corys Lane with Hedley Street, with widening to provide turn lanes
4. Improved roadway management along West Main Road, including Intelligent Transportation Systems (ITS)
5. Pedestrian and bike connection improvements along Redwood Road and Greene Lane
6. Sight distance improvements at Seveney Sports Complex Drive
7. Road Safety Audit improvements on East Main Rd between Turnpike Rd and Middletown Town Line
8. Aviation improvements for regional competitiveness
9. Extend right turn lane pocket on Aquidneck Avenue at East Main Road
10. Sidewalk improvements along Valley Road/Aquidneck Avenue
11. Roundabout installation at Green End Ave/Berkeley Ave/Paradise Ave
12. Safety and multimodal improvements along Admiral Kalbfus Blvd
13. Multimodal improvements along Farewell St and JT Connell Hwy
    Multimodal improvements along America's Cup Ave
14. RI Transit Forward - rapid bus improvements (Broadway and Farewell)
15. Provision of separated bicycle infrastructure or a shared use path along Aquidneck Avenue
16. Roundabout installation at Valley Road/Aquidneck Avenue intersection
17. Install bike lanes with angle parking and streetscape/lighting improvements on Broadway between Equality Park Place and Farewell Street
    Signal timing and phasing improvements along Broadway
18. Update Newport Gateway Center
    Provide more off-Island limited stops or express service between Newport and TF Green Airport /Kingston Amtrak Station
19. Endorse Newport Jitney bus-trolley service from the Gateway Center to the beaches and Middletown hotels
20. Implement additional Newport ferry services (Providence, Jamestown)
21. Multimodal improvements along Rhode Island Ave
22. District improvements for Atlantic Beach
23. Signal timing and phasing improvements at Bellevue/Memorial
24. Road diet along Memorial Blvd
25. People-centric design along Thames St and Spring St

IMPLEMENTED

1. Finalize Boyds Lane Park & Ride
2. Signal improvements at Two Mile Corner
3. Sidewalk improvements along Coddington Hwy/JT Connell Highway
4. Pell Bridge approach reconstruction
5. Provision of sidewalk and bicycle improvements along Purgatory Road (progress, but not complete)
6. Realignment of Aquidneck Avenue/Purgatory Road intersection

Figure 2.1 Focus and Status of Other Planning Recommendations on Aquidneck Island

DRAFT



DRAFT

Coddington Cove Neighborhood Traffic Protection

Timeframe: <1 year
Cost: <$1M

Figure 2.2 Precedent Images of of Traffic Protection Interventions

Description

Feedback from the Technical Committee and through public engagement identified continued challenges in preventing streets in the Coddington Cove residential neighborhood from being used for cut-through traffic, either associated with the Installation or from the broader public. The greatest concern lies with Chases Lane, which is directly adjacent to Gate 23 from NUWC and may see upwards of 5,100 daily vehicles seeking access to and from the Installation.

Traffic protection for Coddington Cove would seek to lower vehicle speeds within the neighborhood, reducing its viability as a cut-through for traffic, or prevent cut-through traffic from entering the neighborhood entirely. Traffic calming interventions could take the form of features which add further friction to the driving experience like chicanes, curb bump outs, speed bumps, speed tables, and raised intersections.

Introduction of one-way travel could also be explored, such as through diverters which limit the width of the roadway at a certain location to one lane of travel or gate installation.

History/Context

No instances of this concept could be found in planning history; however, many traffic calming features are already in effect in the neighborhood. This strategy would seek to bolster these.

Benefits

- Preserves quality of life for Coddington Cove neighborhood residents by reducing traffic volumes on streets designed for low-volume travel.
- Reduction or loss of access with Coddington Cove street network de-emphasizes Burma Road as a north/south transportation corridor.
- Promotes more proper channelization of vehicle traffic on the street network (away from local streets), at expense of adding traffic to well-trafficked streets such as West Main Road.
- While not a natural travel corridor, reduced vehicle traffic would position local streets to facilitate more bicycle activity.

Key Implementation Steps

Engage NAVSTA and Balfour Beatty leadership. Streets within Coddington Cove are under Navy jurisdiction, and the development itself is privately-managed by Balfour Beatty. These parties can advise on the viability of certain improvement options.

Acquire short-term funding for deployment. These parties are encouraged to deploy shorter-term, "demonstration" concepts to demonstrate longer-term viability of infrastructure improvements. These could be paid for out of a general operating fund, potentially.

Acquire longer-term funding for design. More durable improvement options, such as the addition of a gate at the mouth of Chases Lane adjacent to the Gate 23 entrance to NUWC, require a more nuanced design, procurement, and installation process. The funding needed for this is still small in the context of other strategies in this study, but may require a more involved appropriation by the Navy.

Alignment with Goals DRAFT

1. Positions Burma Road as a long-term link
2. Addresses constraints in transportation network
3. Promotes multimodal transportation
4. Supports greater viability of the water and sewer network
5. Reconciles land use needs
6. Supports economic development

Evaluation Criteria

TRAVEL CAPACITY

Lessens use of local streets for cut through travel

AUTOMOBILE RELIANCE

Frees local streets for multimodal travel

TRAVEL TIME

Projected loss of 5 daily travel hours

TRAVEL SAFETY

Promotes slow, alert travel on residential streets

Transportation Demand Management for Employers

Timeframe: <2 years
Cost: $1-5M

Figure 2.3 Examples of Employer Transportation Demand Management

Description

Transportation Demand Management (TDM) as a policy framework that seeks to improve transportation network efficiency by influencing how people travel. These programs have been widely adopted across the country, finding success in geographies with high travel demand but limited options for expanding the roadway network. With its constrained costal geography, tourism destinations, and large employers such as NAVSTA, Aquidneck Island is well-suited to benefits from TDM for residents and employees.

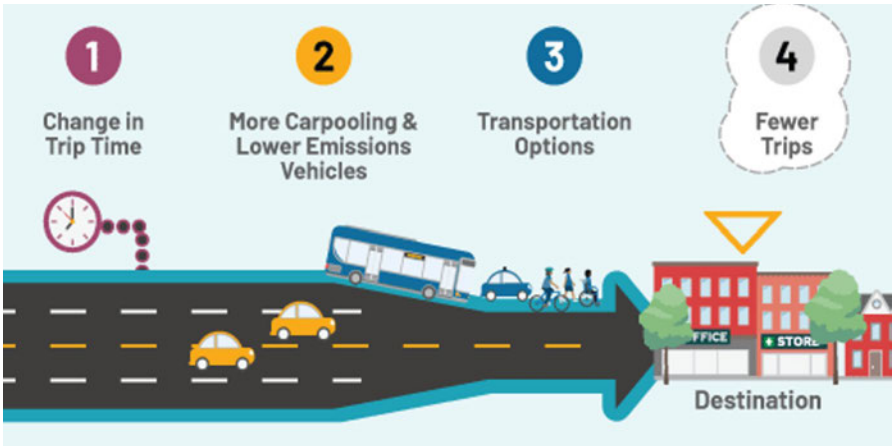
TDM works to reduce single-occupant vehicle usage by encouraging shifts to active and public transportation, as well as shuttles and other on-demand transit services. There are several measures that employers can adopt which can push employees away from using single-occupancy vehicles (SOVs), such as pre-tax employer-facilitated transit pass purchases, transit pass subsidies, provision of parking cashout, and carpooling incentives. Collectively, these strategies nudge employees to use alternative modes of transportation for some or most commute trips in order to reduce traffic congestion and promote the predictability and efficiency of the roadway network. The viability of alternative transportation networks on Aquidneck Island is also boosted, with investments in non-SOV travel modes (such as bicycle accommodations) seeing increased usage and transit networks experienced increased revenues which can be funneled back into service enhancements.

History/Context

The Aquidneck Island Transportation Study emphasizes policy recommendations consistent with reducing SOV commuting among Aquidneck Island workers. This includes the provision of transit-oriented development, the establishment of zoning ordinances demanding TDM requirements for new, large projects, and an abundance of associated multimodal measures to support alternative modes of travel. Use of Wave to Work (formerly EcoPass), the employer-based RIPTA pass program is called out, as well as related TDM measures such as guaranteed ride home, transit pass subsidies, and parking cashout.

Benefits

- Elevates transportation services and infrastructure aimed at alternative modes of travel by incentivizing their use.
- Addresses peak period traffic congestion associated with work commuting.
- Provides more ready travel options for workers without access to a personal automobile for financial, physical, or other reasons.



Key Implementation Steps

Organize partners. RIPTA representatives, key commercial and institutional partners like NAVSTA and Salve Regina University, large private businesses, as well as staff from municipal governments of Middletown, Portsmouth, and Newport can best theorize on how to deliver TDM services for employees. These partners would be best coordinated by an entity with wide regulatory purview and/or regional economic and transportation interests, such as the Greater Newport Chamber of Commerce.

Consider changes to zoning ordinance. Zoning ordinances in the three communities can obligate the implementation of TDM measures as part of new development projects, whereas the formation of a Transportation Management Association (TMA), detailed in the next strategy, can support implementation of TDM at existing developments.

Alignment with Goals DRAFT

1. Positions Burma Road as a long-term link
2. Addresses constraints in transportation network
3. Promotes multimodal transportation
4. Supports greater viability of the water and sewer network
5. Reconciles land use needs
6. Supports economic development

Evaluation Criteria

TRAVEL CAPACITY

May reduce vehicle congestion along key corridors

AUTOMOBILE RELIANCE

Supports increased use of multimodal travel assets

TRAVEL TIME

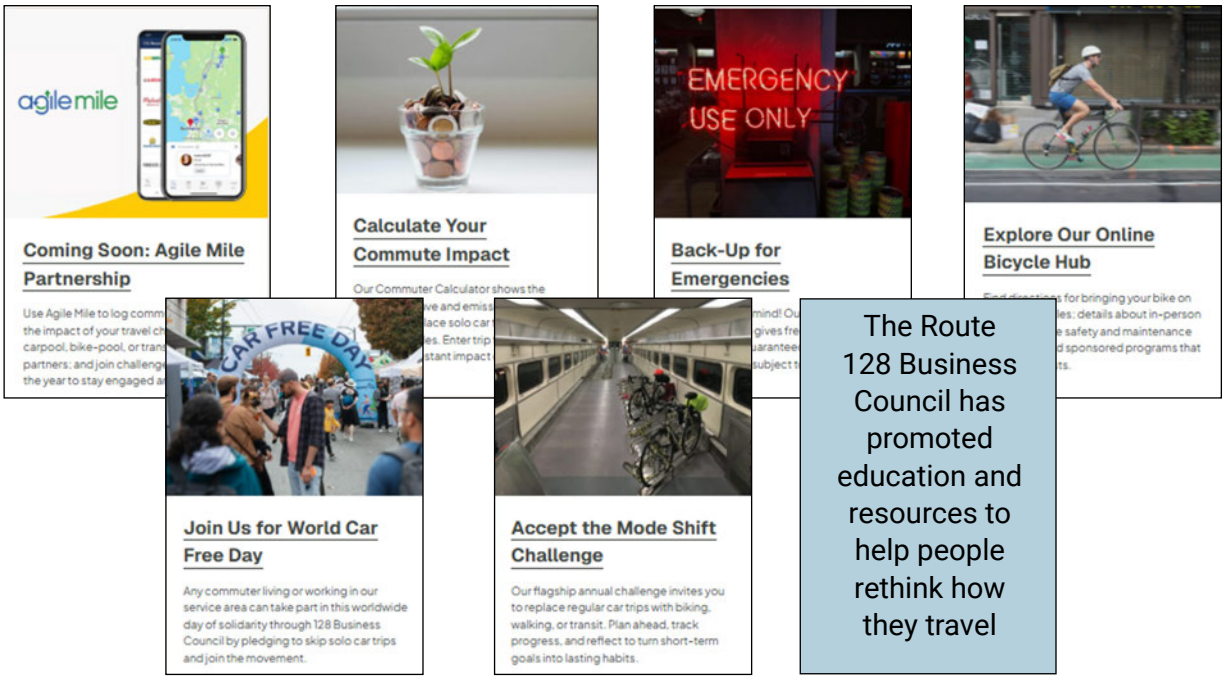
Projected 80 daily travel hours saved

TRAVEL SAFETY

May remove trips that would have otherwise been taken by car

Aquidneck Island Transportation Management Association (TMA)

Timeframe: <2 years
Cost: $1-5M



The Route 128 Business Council has promoted education and resources to help people rethink how they travel

Description

A transportation management association (TMA) is a non-profit, member-controlled organization which provides transportation services across a geographic area. Often comprised of local employers, TMAs generally assist members with encouraging TDM usage among local employees by pooling resources and providing services that singular employers could not provide.

TMAs are greatly helpful in ensuring widespread adoption of TDM measures. While organizations such as the Greater Newport Chamber of Commerce can aid in the coordination of partners, it may not have the organizational capacity to provide and enforce TDM measures in the long term. The TMA acts as the glue between transit agencies, private employers, institutions, and municipal governments. The TMA hires dedicated staff to manage coordination, operate shuttle services, and facilitate TDM measure implementation. To fund these services, TMAs rely on membership dues from employers, municipal and state government support, and assistance from transit agencies.

While prominent in nearby metro areas, there are no established TMAs which provide services in Rhode Island. However, RIPTA does act as a quasi-TMA, as it coordinates TDM measures across the state with the Commuter Resource RI program. This program connects employers and institutions to RIPTA fixed-route transit, as well as providing TMA-like services such on-demand transit and partner coordination.

Due to Aquidneck Island's unique geographic and economic landscape, the creation of an Island-specific TMA would be a straightforward method of creating a more integrated transportation environment. An Aquidneck Island TMA would be able to effectively manage the transportation demand among the employees of private local businesses, federal contractor companies, Naval station personnel, and institutions.

History/Context

The West Side Master Plan suggests the implementation of a TMA for NAVSTA and possibly for other major employers which could provide scheduling and carpooling alternatives to commuters. Relatedly, the Aquidneck Island Transportation Study calls out the establishment of a TMA for large employers such as the Navy and Raytheon.

Benefits

- Provides employers with a dedicated institution supporting TDM success.
- Addresses deficiencies in the regional TDM network as they arise.
- Advocates for policies and projects which support travel by non-SOV modes.

Key Implementation Steps

Organize partners – RIPTA representatives, key commercial and institutional partners like NAVSTA and Salve Regina University, large private businesses, as well as staff from municipal governments of Middletown, Portsmouth, and Newport can best theorize on how to deliver TDM services for employees. These partners would be best coordinated by an entity with wide regulatory purview and/or regional economic and transportation interests, such as the Greater Newport Chamber of Commerce.

Establish the TMA. Form a committee and include key stakeholders from organizational partners and establish a governance structure. Look towards examples such as A Better City TMA in Boston. Create a legal entity for the TMA (typically a non-profit). Create funding structure and secure funding from partners, state, and other organizations.

Launch pilot programs. These could include highly visible initiatives such as shuttle services, transit passes. Monitor and expand upon successful pilot programs.

Formally Integrate the TMA into zoning ordinances. Require membership for new developments and employers, for example.

Alignment with Goals DRAFT

1. Positions Burma Road as a long-term link
2. Addresses constraints in transportation network
3. Promotes multimodal transportation
4. Supports greater viability of the water and sewer network
5. Reconciles land use needs
6. Supports economic development

Evaluation Criteria

TRAVEL CAPACITY

May reduce vehicle congestion along key corridors

AUTOMOBILE RELIANCE

Supports increased use of multimodal travel assets

TRAVEL TIME

Projected 80 daily travel hours saved

TRAVEL SAFETY

May remove trips that would have otherwise been taken by car

Multimodal Travel

Facilitating travel by means other than single-occupancy vehicle usage to and from military installations can be challenging. Security gates are traditionally designed to accommodate vehicles, rather than walk-up traffic. Where buses are allowed on bases, all occupants must be screened individually, leading to traffic back-ups. Once those are on a base after screening, they may find themselves several thousand feet from their destination, and in need of accessing multiple locations on the base over the course of a working day.

The following strategies concern means to overcome these obstacles for NAVSTA Newport:

Source: DVIDS

Encourage and Expand Use of the Navy's Transportation Incentive Program (TIP)

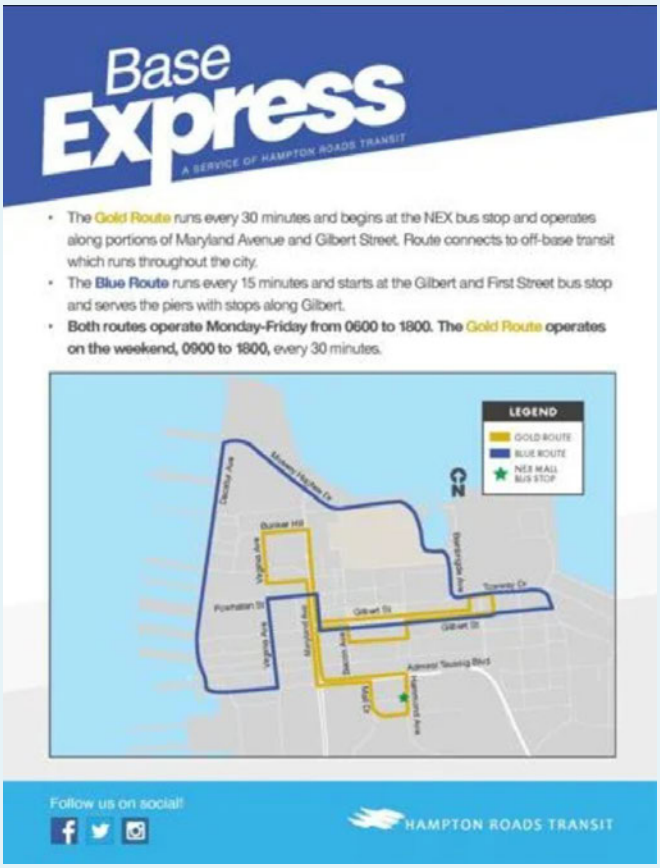
This program offers mass transit benefits to encourage alternative commuting options like bus, bike, rideshare, or vanpool for eligible personnel commuting to NAVSTA Newport. Eligible personnel include military and civilian employees. This includes active-duty Navy and Marine Corps personnel, Navy civilians, Non-Appropriated Fund (NAF) employees, and reservists on active duty. Participants register on the TIP portal. Upon approval by supervisors and reviewing officials at Newport, participants receive a TRANServe debit card. Cards are loaded monthly to cover mass transit costs[1]. Participants must use mass transit or rideshare at least 50% of commuting days each month and certify mileage/usage to receive benefits.

Source: U.S. Navy

RIPTA's / Enterprise Commuter Vanpool

Since July 2017, RIPTA has partnered with Enterprise to offer vanpool services across the state, including NAVSTA Newport. Group size typically ranges from five to 15 commuters. RIPTA offers a discount (around $300/month) for new vanpools with Enterprise. Under the Navy's TIP (as described above), vanpools are an approved form of mass transit, including those operated by vendors like Enterprise.[2] This means NAVSTA Newport commuters can use RIPTA/ Enterprise vanpools and get reimbursed via the TIP debit card.

1. Transportation Incentive Program (https://cnrsw.cnic.navy.mil/Operations-and-Management/Transportation-Incentive-Program/)
2. RIPTA's Commuter Resource Team Welcomes Enterprise Vanpool Program to Rhode Island (https://www.ripta.com/node/576)



Source: Military News

On-Base Shuttle

Currently, on NAVSTA Newport, primary transportation modes include personal vehicles, ridesharing, or off-base public transit. The implementation of an on-base shuttle would be beneficial to provide access throughout the installation while not requiring a single-occupancy vehicle to move among the dispersed installation facilities. This would support other TDM strategies as well.

An example of an on-base shuttle is present at Naval Station Norfolk in Virgina, which collaborates with Hampton Roads Transit to operate two routes to connect to destinations both within and outside of security perimeters. The service is free to use and funded by a grant from the Virginia Department of Rail and Public Transportation. [3]

GSA Rideshare Administered by Uber

One of the challenges with transit or vanpools can be last-minute needs for transportation. The Government Services Administration (GSA) has a government-wide Rideshare Blanket Purchase Agreement that applies to all installations in the continental United States, which includes Newport.[4]

Other strategies to help bridge first and last mile gaps include:

- **Park-and-ride shuttles** which connect off-site lots to Installation gates (such as the Pell Bridge Lot). Event-based shuttles could offer temporary service during peak demand.
- **Provision of app-based, flexible routing** for low-density areas. This is ideal for an installation like NAVSTA Newport that has dispersed facilities.
- **Pedestrian infrastructure** within and adjacent to the Installation such as sidewalks, crosswalks, lighting near gates and transit stops, as well as bike facilities such as lanes, racks, and connections to regional trails, in addition to shared micromobility such as bike and scooter share partnerships for short trips.
- **Collaboration** with local transit agencies, metropolitan planning organizations, and Department of Defense Transportation Offices; this can involve leveraging the TIP for vanpool and rideshare subsidies, and support public-private partnerships for micro transit and shared mobility.
- **Provision of real-time shuttle tracking apps** with integrated trip planning tools for multimodal connections.

3. Free Transit Service Officially Launches on Naval Station Norfolk (https://www.militarynews.com/norfolk-navy-flagship/news/top_stories/free-transit-service-officially-launches-on-naval-station-norfolk/article_0ec0869e-7651-11ed-8f08-5fff168dff3f.html)
4. Rideshare | GSA (https://www.gsa.gov/travel/travel-and-lodging-services/rideshare)

West Main/Broadway Improvements

Timeframe: <3 years
Cost: $1-5M

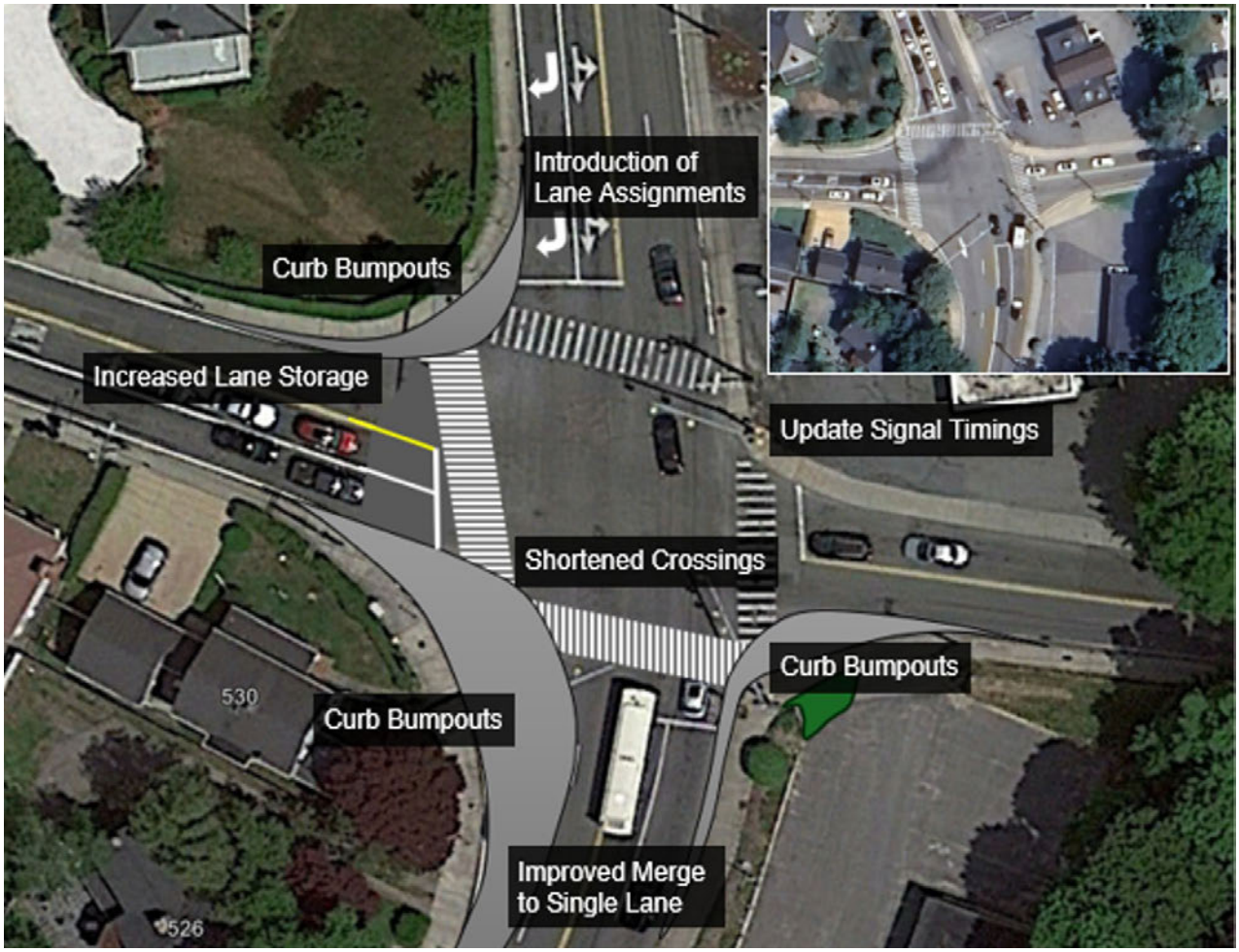


Figure 2.4 Proposed Improvements to West Main/Broadway Intersection

Description

The West Main Road/Broadway/Admiral Kalbfus Road/Miantonomi Avenue intersection processes thousands of vehicles daily in an environment where several different roadway cross-sections converge. The four-lane thoroughfare of West Main Road to the north transitions into a two-lane, neighborhood-centric Broadway to the south, leading into Newport. Meanwhile, heavy traffic to and from the Pell Bridge travels along Admiral Kalbfus Road to the west, despite the presence of single-family homes dotting the street, while opposing Mantonomi Avenue to the east sees less volume, but experiences cut-through to and from the east side. The intersection struggles to accommodate multimodal travel with these conflicting motivations.

This strategy proposes to update signal timings, clarify lane assignments, and provide curb bumpouts to better serve motorists, bicyclists, and pedestrians. These improvements are intended to better promote a sense of place which can support more contextual economic development at the intersection and allow it to function as a gateway, rather than an impediment, to accessing Newport to the south and Middletown to the east.

History/Context

The Aquidneck Island Transportation Study cites operational delays at this intersection during peak periods, with the Admiral Kalbfus Road left-turn lane exceeding the storage bay during each peak period and the West Main Road approach operating over capacity during the evening peak period. City of Newport staff have indicated that residents along Admiral Kalbfus Road have long identified the traffic to and from this intersection, particularly heavy vehicles, as posing a quality of life challenge for living alongside the street.

Benefits

- Improve operations at the intersection, particularly if signals were to be coordinated with other intersections along West Main Road to the north and/or Admiral Kalbfus Road to the west.
- Improve the pedestrian experience at the intersection by providing more generous sidewalk accommodations and shortening travel distances, including adding a crosswalk across the southern Broadway approach.
- Position the intersection as a gateway to the neighborhood district along Broadway, in contrast to the automobile-oriented nature of West Main Road to the north.

Key Implementation Steps

Conduct Aquidneck Island North/South Mobility Study. Recommended elsewhere in this study, the project should be contextualized with other efforts to improve north/south travel on the Island (Halsey Extension, East/West Main Road specific strategies, multimodal opportunities, etc.); for instance, other strategies may reduce truck traffic at this intersection in the long-term, enabling a more compact design at this location.

Engage RIDOT, Newport, and Middletown as key project partners. Of the four approaches serving the intersection, RIDOT has jurisdiction over two (Admiral Kalbfus and West Main), Newport over Broadway, and Middletown over Miantonomi. These parties need to coordinate planning and design for potential improvements at the intersection.

Traffic study and conceptual feasibility. Detailed analysis of intersection safety, "turning movements (to accommodate the appropriate design vehicle)," multimodal accommodation, and signal operations are needed, followed by the conceptual design of improvements; if feasible, engineered survey and design would follow.

Acquire short-term funding for deployment. The parties are encouraged to deploy shorter-term, "demonstration" concepts to demonstrate longer-term viability of infrastructure improvements. These could be paid for out of municipal general operating funds, with any long-term solution the subject of State or grant funding.

Alignment with Goals DRAFT

1. Positions Burma Road as a long-term link
2. Addresses constraints in transportation network
3. Promotes multimodal transportation
4. Supports greater viability of the water and sewer network
5. Reconciles land use needs
6. Supports economic development

Evaluation Criteria

TRAVEL CAPACITY

Potential reduction in delay at intersection

AUTOMOBILE RELIANCE

Supports safer walking and bicycling at intersection

TRAVEL TIME

Projected 150 daily travel hours saved

TRAVEL SAFETY

Potential safety benefits with more legible intersection

Multimodal Hubs at Pell Bridge Ramps and/or Melville

Timeframe: <3 years
Cost: $1-5M

Figure 2.5 Multimodal hub
Source: PTV Group

Description

Multimodal hubs in the vicinity of the Pell Bridge Ramps and in the Melville neighborhood, potentially at Weaver Cove, would allow motorists and other users accessing these sites by means other than a personal automobile to transfer to alternative modes of transportation to reach their final travel destination further away on the Island. A multimodal hub would provide alternative travel options to users such as bikeshare (including e-bikes), secured bicycle parking, micro-mobility such as e-scooters, car sharing, connections to local transit services, and potentially serve as park-and-ride locations for access via these modes or walking to final destinations. It allows for these alternative travel options to be pooled in a single location for the reliability of users to access on a frequent basis.

In the case of the existing park-and-ride facility at the Pell Bridge Ramps, a multimodal hub is well-positioned to allow users to transfer from one travel mode to another to complete a last-mile connection to a local resource, such as NAVSTA Newport or Downtown Newport. Multimodal hubs do not necessarily need to include parking but the automobile-oriented nature of Aquidneck Island would favor parking then transferring to multimodal resources.

History/Context

A new multimodal hub was proposed in the vicinity of the Pell Bridge as part of the Aquidneck Island Transportation Study, with connections to bicycling, pedestrian, taxi, and carsharing services, and integration of motorcoach and intercity bus parking. The park-and-ride facility constructed as part of the Pell Bridge Ramps Realignment Project provides bicycle parking and a RIPTA bus stop. A new multimodal hub was also discussed by stakeholders during this compatible use study in the vicinity of Melville. The RI Transit Forward 2040 plan from RIPTA proposes a mobility hub at the Pell Bridge Ramps location as well.

Benefits

- Reduces demand for on-site parking within NAVSTA, Weaver Cove, or other nearby activity centers (such as Downtown Newport given the bike path adjacent to the Newport Secondary rail line).
- Reduces vehicle travel on connecting roadways to these activity centers, including those under Navy jurisdiction.
- Supports alternative travel through NAVSTA gates in less-invasive ways (on foot, on bike) than via a personal automobile or local transit route.
- Creates economic development opportunities local to multimodal hub locations themselves or in the nearby area along popular travel paths.

Key Implementation Steps

Local connections analysis for Pell Bridge ramps location. Given the presence of today's park-and-ride facility, a study of the facility's current usage and alternative travel options to nearby destinations should be conducted. This would include an evaluation of space allotment in the facility today to potentially site new amenities.

Conceptual planning for Melville location. The Melville location could be sited in the vicinity of Weaver Cove or elsewhere in the Melville neighborhood; a transfer using the RIPTA Route 64 service may be a sensible benchmark for a successful facility, which may limit the deviation this route would take off of West Main Road. Land ownership, topography, and other constraints which may limit the siting of a facility, as well as the connecting roadway network for alternative travel, should be evaluated.

Alignment with Goals DRAFT

1. Positions Burma Road as a long-term link
2. Addresses constraints in transportation network
3. Promotes multimodal transportation
4. Supports greater viability of the water and sewer network
5. Reconciles land use needs
6. Supports economic development

Evaluation Criteria

TRAVEL CAPACITY

Provides more means to access key travel destinations

AUTOMOBILE RELIANCE

Creates new multimodal travel assets

TRAVEL TIME

Minimal change in daily travel hours

TRAVEL SAFETY

May remove trips that would have otherwise been taken by car

Additional First/Last Mile Connections to Installation

Timeframe: <5 years
Cost: $1-5M

Figure 2.6 Proposed First and Last Mile Connections to Installation

Description

Currently, the Installation is largely removed from Aquidneck's multimodal network. While the NUWC is served directly by a RIPTA stop at one of its gates, the closest stop to the Installation is over a quarter mile away from a gate. More so, many of the streets connecting the Installation to RIPTA stops lack adequate sidewalks or bike facilities. This strategy would address these gaps in the travel network and provide viable travel alternatives to driving to access the Installation or NUWC. New connections could include pedestrian links via Coddington Cove and the North End neighborhood, improved walking connections to Gate 1, Gate 2, Gate 17, and Gate 32 along local roadways (including to and from the Pell Bridge Park & Ride). Means to streamline screening protocols, such as for buses entering the Installation, would be explored. Collectively, these improvements would seek to reduce automobile demand to and from the Installation and NUWC.

History/Context

The reconstruction of the railroad bridge connecting Peary Street to the Installation is discussed in the NAVSTA Newport Facility Master Plan, although this conversation is not targeted as facilitating a pedestrian-only connection over the railroad tracks. The West Side Master Plan features a number of recommendations concerning the Newport Secondary Rail Line which operates through and adjacent to the Installation, including converting the line into a bike path or as a busway.

Benefits

- Improves viability of alternative travel options, reducing automobile dependency and removing vehicles from Island roadways.
- Reduces automobile needs along area roadways and at destinations, such as by allowing for less on-site parking to be constructed.
- Supports other transportation strategies, such as regional transportation links.

Key Implementation Steps

Navy and legislative support. For any last-mile connection to be completed, investments are needed on Navy land, potentially including additional security personnel and/or equipment. Meanwhile, funding for connections on State or municipal lands needs to be secured. Working in combination, legislators and NAVSTA personnel can identify State and Federal funding opportunities to make these needed connections.

Alignment with Goals DRAFT

1. Positions Burma Road as a long-term link
2. Addresses constraints in transportation network
3. Promotes multimodal transportation
4. Supports greater viability of the water and sewer network
5. Reconciles land use needs
6. Supports economic development

Evaluation Criteria

TRAVEL CAPACITY

Provides more means to access Installation

AUTOMOBILE RELIANCE

Creates new multimodal travel assets

TRAVEL TIME

Minimal change in daily travel hours

TRAVEL SAFETY

May remove trips that would have otherwise been taken by car

Upgrade Burma Road Condition

Timeframe: <5 years
Cost: $5-15M

Figure 2.7 Existing Conditions of Burma Road

Description

The 2021 Naval Property Infrastructure Assessment included an evaluation of Burma Road (or the Defense Highway, as the assessment refers to it), Stringham Road, and a portion of Greene's Lane with recommendations to bring the corridors up to a state of good repair. This may be needed to increase traffic levels of Burma Road beyond the approximately 6,000 to 7,000 average daily vehicles it currently accommodates, particularly in the context of any economic development which takes place adjacent to the roadway or associated transportation improvements which make Burma Road a more viable north/south travel option to and from the Installation or for Island travelers altogether. The replacement value of these roads as a whole is $5.1 million in 2021 dollars. During the planning stages of improvements to Burma Road, consideration should be given to improving the utilities within the roadway. An offshoot of this strategy is to make the permitting process for abutters to create curb cut access to these Navy assets more transparent to encourage economic development.

History/Context

The West Side Master Plan envisions the Burma Road corridor as a third north/south link along Aquidneck Island and proposes, particularly in the context of this strategy, implementing access controls to limit the number of curb cuts from future development in order to preserve the character and capacity of the road. This is in contrast with the concept of making access permitting more transparent. The Plan additionally cites improvements along Burma Road which would retain the current two-lane configuration while retaining sufficient right-of-way for longer-term widening. These improvements include improving sight distances (such as by clearing brush), drainage, access controls, and minor grade and geometric improvements.

Benefits

- Bring Burma Road (and other nearby Navy roadways such as Stringham Road) to a state of good repair, to facilitate increased vehicle traffic.
- Improve the driving, bicycling, and walking experience along Burma Road.
- Increased access and economic development opportunities along the corridor.
- Improved north-south roadway capacity on Aquidneck Island.

Key Implementation Steps

Concerted outreach to development community. NAVSTA, in combination with a partner such as the Greater Newport Chamber of Commerce, should conduct developer-specific outreach to clarify the access permit process along Navy roadways and invite questions from interested applicants.

Conduct Aquidneck Island North/South Mobility Study. Recommended elsewhere in this study, the project should be contextualized with other efforts to improve north/south travel on the Island (Halsey Extension, East/West Main Road strategies, the Coddington Connector, multimodal opportunities, etc.).

Engage RIDOT as key partner alongside project champions. Coupled with the Coddington Connector and Stringham Road Connector, Burma Road could become a significant reliever of West Main Road traffic, benefiting RIDOT's highway system. Funding outside of the Navy may be necessary given it falls outside of the Navy's core mission.

Establish an achieveable timeline. Given variability in schedules for the Coddington Connector, Stringham Connector, and new developments along Burma Road, upgrading Burma Road is necessary only if these proceed.

Alignment with Goals DRAFT

1. Positions Burma Road as a long-term link
2. Addresses constraints in transportation network
3. Promotes multimodal transportation
4. Supports greater viability of the water and sewer network
5. Reconciles land use needs
6. Supports economic development

Evaluation Criteria

TRAVEL CAPACITY

May position Burma Road as more viable north/south corridor

AUTOMOBILE RELIANCE

Primarily aimed at supporting vehicle travel

TRAVEL TIME

Minimal change in daily travel hours

TRAVEL SAFETY

No demonstrated safety component

Stringham Road Connector

Timeframe: <5 years
Cost: $5-15M

Figure 2.8 Stringham Road Connector

Description

This strategy proposes to remove the last 1/4 mile of Burma Road and replace it with a new shorter connector to Stringham Road 1/4 mile to the south. The West Side Master Plan cites reduced travel distances by nearly half a mile which could result from realigning the roadways and introducing an intersection improvement. Presently, motorists approaching the intersection from the south along Burma Road face poor sight distances to observe traffic approaching from each direction of Stringham Road. This is primarily due to the nearly parallel alignments of Burma Road and Stringham Road east of the intersection, forcing drivers on the Burma Road approach to look past 90 degrees to the right to observe westbound Stringham Road traffic. It is not uncommon for vehicles approaching from Burma Road to be positioned partially in the Stringham Road eastbound lane prior to turning left or right. The new Connector would likely eliminate and stop control on Burma Road and make it the through connection to the rest of Stringham Road, leaving Stringham's northerly extension as the minor approach from Melville.

To accomplish this improvement requires coordination with the recently-permitted development of over 600 housing units in this immediate vicinity by Weaver Cove. While the redesign and new roadway adds cost, substantial private benefit results from discontinuing the end of Burma Road, which can allow for over 200 additional housing units on a better site than exists today.

History/Context

A realigned Burma Road/Stringham Road is positioned as a key recommendation of the West Side Master Plan to facilitate the creation of a viable third north/south corridor along Aquidneck Island, relieving congestion on West Main Road and East Main Road. The Plan notes that the Navy would need to voluntarily relinquish land for construction. Similarly, Portsmouth and the private developer of Weaver Cover would be important parties to the solution, especially since both could see substantial benefit.

Benefits

- Creates more developable land between Narragansett Bay and Burma Road, and potentially creates better gateway for Melville.
- Eliminates nearly 3,500 feet of travel distance between Stringham Road and Burma Road.
- Better positions Burma Road as a north/south travel corridor on the Island.
- Better serves traffic to and from NUWC and Gate 17, including truck activity to and from the north.
- Removes awkward hairpin turn between Burma Road and Stringham Road.

Key Implementation Steps

Engage nearby property owners. The Weaver Cove development controls most of the land the connector would utilize, but the benefit of discontinuing the remainder of Burma Road is significant. The developer is an essential party to this recommendation.

Conduct Aquidneck Island North/South Mobility Study. Recommended elsewhere in this study, the project should be contextualized with other efforts to improve north/south travel on the Island (Halsey Extension, East/West Main Road specific strategies, Coddington Connector, Burma Road upgrades, multimodal opportunities, etc.).

Alternatives analysis for route alignment. This exercise, which may or may not be part of the Mobility Study, would define alternatives with regards to the right-of-way, configuration options, and potential property impacts. It should involve the Weaver Cover developer.

Engage Portsmouth and RIDOT as key partner alongside project champion. RIDOT support would be helpful to carry this idea forward as more benefits are generated on West Main Road than on Burma Road. The Town of Portsmouth may ultimately take over jurisdiction of Burma Road and/or Stringham Road in a future condition.

Alignment with Goals DRAFT

1. Positions Burma Road as a long-term link
2. Addresses constraints in transportation network
3. Promotes multimodal transportation
4. Supports greater viability of the water and sewer network
5. Reconciles land use needs
6. Supports economic development

Evaluation Criteria

TRAVEL CAPACITY

Positions Burma Rd as more viable north/south corridor

AUTOMOBILE RELIANCE

Primarily aimed at supporting vehicle travel

TRAVEL TIME

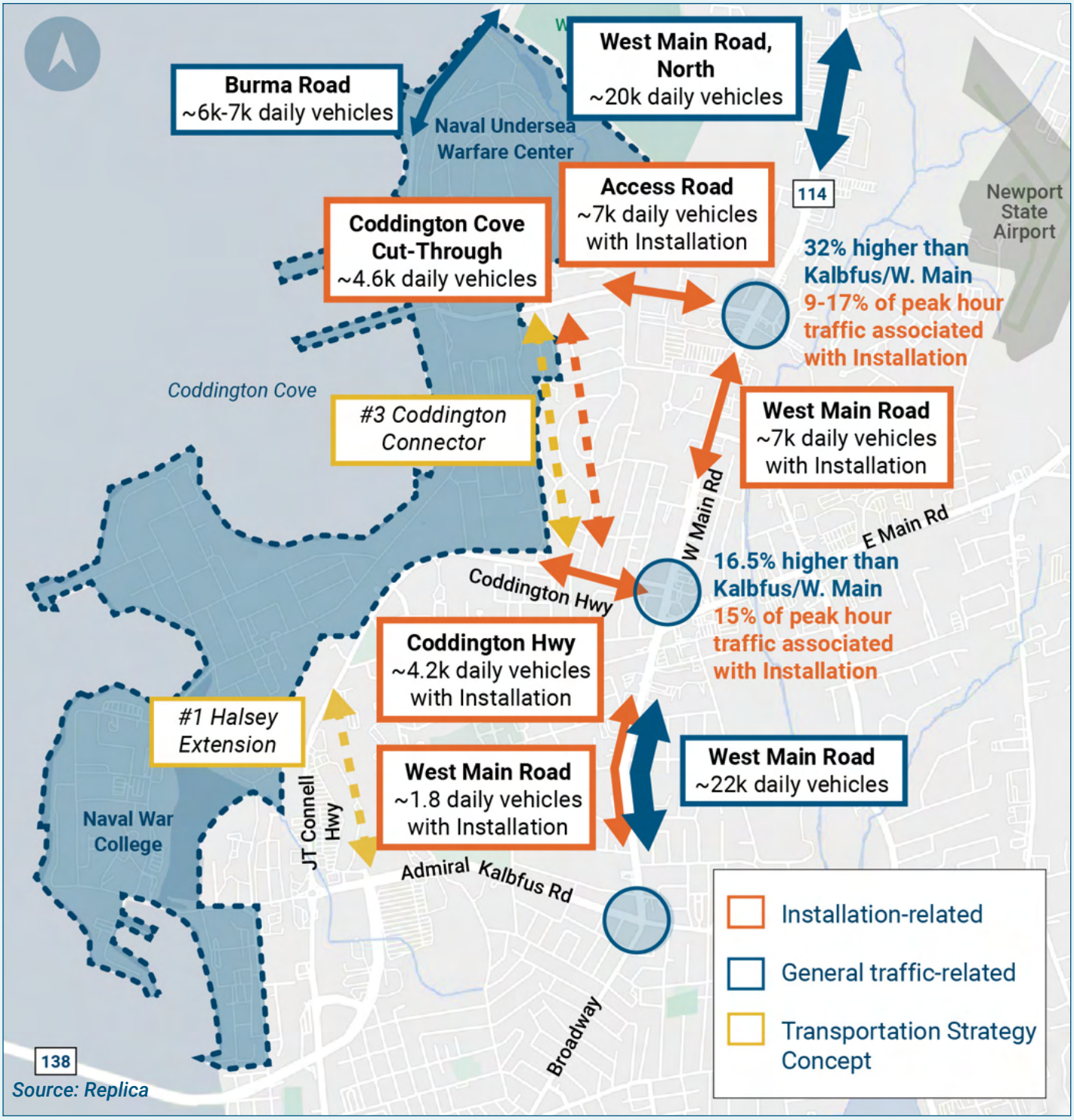
Projected 130 daily travel hours saved

TRAVEL SAFETY

Removal of hairpin turn and associated safety deficiencies

Traffic

Figure 2.9 Traffic Volumes



Transportation strategies in this Study have sought to support improved travel to and from the Installation, which largely sits along Narragansett Bay, and the primary north/south corridors of the Island. The Study queried historical traffic data provided as part of the Aquidneck Island Transportation Study (2011) and RIDOT as well as collected traffic counts at three West Main Road intersections to determine how north/south traffic was balanced between West Main Road and Burma Road, particularly with regards to congestion choke points. Today, these corridors operate under the following characteristics:

Burma Road

Although traffic count information is scant for recent years, the Aquidneck Island Transportation Study cites approximately 6,000 to 7,000 daily vehicles along the Burma Road and Stringham Road corridors. Given entry and exit data for the Installation, the majority of these vehicles are associated with the Installation.

West Main Road

RIDOT count data from the fall of 2024 points to between 20,000 daily vehicles on the corridor north of Union Street and 22,000 daily vehicles between East Main Road and Admiral Kalbfus Road. These numbers are likely higher between Access Road and East Main Road given the pinchpoint in the north/south travel network between Access Road and Coddington Highway. Installation peak hour traffic counts collected in October 2025 at the Coddington/West Main and Access/West Main intersections are 32% and 16.5% higher than peak hour traffic counts at the Admiral Kalbfus/West Main/Broadway intersection, for instance.

The influence of Installation traffic using the West Main Road corridor between Access Road and Coddington Highway can be considerable. Gate 1 and Gate 17 activity measured in the spring of 2024, presumed to apply to Gate 23 activity as well, applied to the October 2025 turning movement counts collected at the Access/West Main and Coddington/West Main intersections, finds:

- In the **AM peak hour for combined Gate 1 and Gate 17 activity, (6:45-7:45)** it is presumed nine percent of daily Installation-associated vehicles are on the roadway network. At this time, nine percent and seventeen percent of vehicles at the Access/West Main and Coddington/West Main intersections, respectively, are coming to or from the Installation, totaling 222 vehicles at Access/West Main and 339 vehicles at Coddington/West Main.

- In the **PM for combined Gate 1 and Gate 17 activity (3:15-4:15)** it is presumed 10.5 percent of daily Installation-associated vehicles are on the roadway network. At this time, fifteen percent of vehicles at each of the Access/West Main and Coddington/West Main intersections are coming to or from the Installation, totaling 435 vehicles at Access/West Main and 408 vehicles at Coddington/West Main.

These calculations do not account for the significant number of vehicles which cut through the Coddington Cove residential neighborhood along local streets for a more direct travel path (especially when accessing Gate 17 or Gate 23) instead of using West Main Road.

Instituting strategies associated with reductions in travel time along roadways west of West Main Road – the Halsey Extension, Coddington Connector, and the Stringham Road Connector concepts – may collectively reduce travel time over existing roadway movements by between four and five minutes. While the Halsey Extension strategy is not targeted at Burma Road itself, the sum of the Coddington Connector and Stringham Road Connector improvements may position the Burma Road corridor as equally competitive to West Main Road for north/south travel time.

Although Burma Road does not have the travel capacity that West Main Road features, during periods of congestion it may be better able to alleviate traffic. As an alternative to West Main Road between Access Road and Coddington Highway, the Halsey Extension and Coddington Connector improvements could negate much of the Installation's traffic impacts on West Main Road south of Access Road, in addition to discouraging unwelcome traffic in the Coddington Cove neighborhood.

Road Diet/Lane Reallocation Along East and West Main Road

Timeframe: <5 years
Cost: $5-15M

Figure 2.10 Example of Lane Reallocation

Description

The provision of four lanes along East Main Road and West Main Road is ostensibly to create additional traffic flow during more congested travel periods. However, the provision of dozens of curb cuts accessing development and intersecting streets, without the inclusion of dedicated turn lanes along each corridor, creates situations where vehicles are stopped behind other vehicles seeking to cross two lanes of opposing traffic. This makes travel flow unpredictable, creates aggravation of motorists, and leads to higher crash rates.

A road diet or lane reallocation would reduce the four-lane cross section of these corridors to three lanes, with the interior lane serving as a center turn-lane. The space left behind by the removed lane could be used for right-turn pockets, acceleration/deceleration lanes, wider sidewalks, plantings and more, depending on the location. This would allow traffic to flow more freely and provide dedicated space for vehicles to turn, especially at intersections. This type of intervention has been introduced as part of the recent reconstruction of Coddington Highway, which sees approximately 36% of the vehicle traffic observed along West Main Road. The FHWA advises that roadways with average daily traffic above 20,000 should carefully scrutinize conversion from a four-lane to a three-land cross section for a road diet. As such, implementation of a road diet may only be appropriate for certain segments along East or West Main Road.

History/Context

The West Side Master Plan discusses capacity and safety improvements through the introduction of left turn lanes and geometric improvements along West Main Road between Raytheon in Portsmouth and Forest Avenue in Middletown. The Aquidneck Island Transportation Study proposes left-turn lanes at Oliphant Lane and Forest Avenue and extending the existing left-turn lanes at Access, Valley, and Admiral Kalbfus Roads along West Main Road.

An interim road diet concept was put forward for the 1.5-mile segment in Middletown but voted down by Town Council in May 2024. This would have included two through lanes, a center-running left-turn lane, and bicycle lanes in each direction. Advocacy towards implementation of road diets along East Main Road (and to a lesser extent West Main Road) have been put forward as an offshoot of the Ride Island Bike Plan, which proposed multi-use paths along the length of each corridor.

Benefits

- Provides greater predictability for traffic flow by directing turning vehicles to their own lane.
- Reduces instances of rear-end collisions.
- Enables turning vehicles to cross fewer lanes of traffic to access developments or side streets.
- Can provide space for dedicated right-turn lanes, plantings, wider sidewalks, etc.

Key Implementation Steps

Study Corridor-Wide Feasibility. While revising pavement markings may not be a considerable expense, close scrutiny of the operational feasibility of a road diet along these well-trafficked corridors is important and can identify where co-benefits like plantings or wider sidewalks are possible and where right-turn or merge lanes are needed instead.

Select Segments for Short-Term Implementation. A road diet along the length of these corridors may not be advisable owning to high vehicle volumes or other factors. Municipalities should consider where and how to implement road diets along appropriate segments, minding the transition between a three-lane and four-lane cross-section and its associated impact on driver legibility.

Monitor Results. Tracking of operational and safety benefits of a road diet can make the case for broader implementation of the road diet concept.

Alignment with Goals DRAFT

1. Positions Burma Road as a long-term link
2. Addresses constraints in transportation network
3. Promotes multimodal transportation
4. Supports greater viability of the water and sewer network
5. Reconciles land use needs
6. Supports economic development

Evaluation Criteria

TRAVEL CAPACITY

May position E/W Main Rds as more viable corridors

AUTOMOBILE RELIANCE

Supports safer walking and bicycling along E/W Main Rds

TRAVEL TIME

Minimal change in daily travel hours

TRAVEL SAFETY

Significant improvement in travel safety

Greater RIPTA Service Frequency

Timeframe: Up to 10 years
Cost: $1-5M

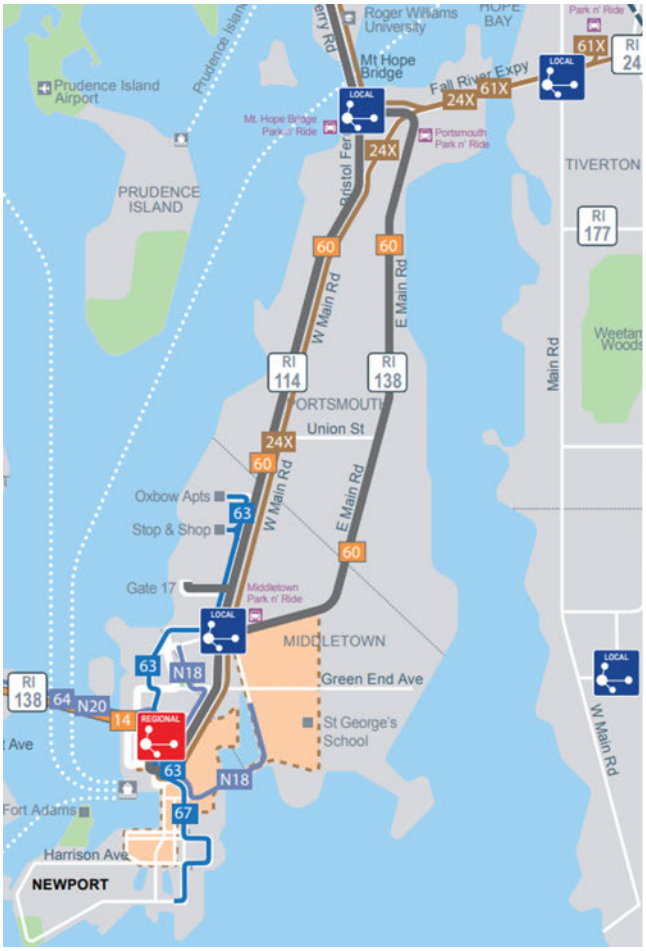


Figure 2.11 Existing RIPTA Services

Description

Aquidneck Island is not well served by transit. RIPTA's most frequent bus route, the Route 60, operates with 30-minute frequencies from the Newport Transportation Center while splitting service between East Main Road and West Main Road, meaning each of these primary north/south corridors for the Island see only hourly frequencies. Other services, such as the Route 63 and Route 64, operate in the vicinity of the Installation but feature more convoluted routing or frequencies greater than an hour in length.

Improving the frequencies and routing of key RIPTA routes serving the Island, including to and from Newport Transportation Center and in the vicinity of the Installation, could serve to position transit as a more viable alternative to driving for both Installation and non-Installation generated trips. As discussed elsewhere in this study, strengthening bus transit's role as a connector to other trip types such as ferries and park-and-ride facilities increases its viability as an alternative to automobile travel, allowing destinations to reduce or eliminate the need for on-site parking.

History/Context

The Aquidneck Island Transportation Study recommends extending the bus service window on Route 60 (traveling along East and West Main Roads) and providing more express services between Newport, TF Green Airport, and Kingston Amtrak Station. Bus rapid bus service is suggested along Route 60 with transit signal priority, queue jumps where possible, and consolidation or elimination of closely spaced stops. The RI Transit Forward 2040 plan from RIPTA proposes regional rapid bus service along Route 60 (encompassing East Main Road and West Main Road) which would feature high-quality stations, limited stops, the use of queue jump lanes, transit signal priority, and special branding.

The Moving Forward RI 2025 Long-Range Transportation Plan details $10.6 million for improvements associated with the state's Transit Master Plan implementation.

Benefits

- Improves viability of transit as a travel option, reducing automobile dependency and removing vehicles from Island roadways.
- Reduces automobile needs along area roadways and at destinations, such as by allowing for less on-site parking to be constructed.
- Supports other transportation strategies, such as the provision of first and last-mile connections to the Installation.

Key Implementation Steps

Conduct Aquidneck Island North/South Mobility Study. Recommended elsewhere in this study, the project should be contextualized with other efforts to improve north/south travel on the Island (Halsey Extension, East/West Main Road specific strategies, multimodal opportunities, etc.).

Alternatives analysis for East Main Road and West Main Road alternatives. Several alternatives concern streetscape enhancements along these corridors; should enhanced service be pursued on these corridors in alignment with the BRT recommendations put forward in RI Transit Forward 2040, any bus stop design improvements or service enhancements should be coordinated with these other improvements.

Legislative support. RI Transit Forward 2040 is not cost-constrained, so any service improvements on Aquidneck Island will be competing with other statewide needs. To encourage investment in Island routes, legislative support will be needed.

Alignment with Goals DRAFT

1. Positions Burma Road as a long-term link
2. Addresses constraints in transportation network
3. Promotes multimodal transportation
4. Supports greater viability of the water and sewer network
5. Reconciles land use needs
6. Supports economic development

Evaluation Criteria

TRAVEL CAPACITY

Positions transit as a more viable option

AUTOMOBILE RELIANCE

Creates new multimodal travel asset

TRAVEL TIME

Projected 200 daily travel hours saved

TRAVEL SAFETY

May remove trips that would have otherwise been taken by car

New Truck Access at Gate 10

Timeframe: 5-10 years
Cost: $5-15M

Figure 2.12 Proposed New Gate 10 Truck Access

Description

Gate 17 features the Installation's truck screening infrastructure which is required of all heavy vehicles entering the facility. Approaching from the south via Pell Bridge, RIDOT regulations route trucks in a manner requiring approximately 6.5 miles of travel before reaching Gate 17, despite the Installation boundary being within a third of a mile of the Pell Bridge (Halsey Street) intersection with Admiral Kalbfus Road. This routing places trucks along streets which accommodate single-family homes and conflict with some of the most congested travel corridors on the Island.

By shifting screening operations from Gate 17 to Gate 10, accessed via Coddington Highway, heavy vehicles approaching from the south would see up to a five-mile reduction in travel distance, compared to a one-quarter mile additional travel distance for heavy vehicles from the north. Screening infrastructure at Gate 10 would need to be relocated from Gate 17 or built entirely new by the Navy, and the internal road network of the Installation would need to be reconfigured to allow heavy vehicles to reach their destination following screening at Gate 10.

History/Context

The specific concept is not called out in any historical planning documents. The NAVSTA Newport Facility Master Plan, completed in 2008 just prior to the opening of Gate 17, outlined recommendations which match the current operations of truck traffic at the gate, including directing heavy vehicles to and from the south to use Greene Lane to access Gate 17 via Burma Road. Gate 17 served as a replacement for Gate 10, meaning this strategy would reverse these improvements.

Benefits

- Reduces the distance needed to access the Installation by up to five miles for trucks approaching from the Pell Bridge, with approximately one-quarter mile of travel added for trucks approaching from the north.
- Removes heavy vehicles from Admiral Kalbfus Road and West Main Road, south of Coddington Highway.

Key Implementation Steps

Engage NAVSTA Leadership. Considerable work would be needed by the Navy to make this idea feasible, including to relocate or reconstruct screening operations at Gate 10, potentially reconfigure the internal Installation roadway network, and ensure adequate force protection at this location. NAVSTA leadership should be willing participants in any further study of this concept.

Engage Rhode Island's Federal delegation. A Congressional appropriation is likely required to reopen Gate 10, as this is outside of the Department's core mission; the State's Federal delegation would need to be willing to advocate for this action for the concept to be feasible.

Conduct Aquidneck Island North/South Mobility Study. Recommended elsewhere in this study, the project should be contextualized with other efforts to improve north/south travel on the Island; for instance, Gate 10 potentially removes much truck-related congestion from West Main Road.

Carry out internal design study for NAVSTA. The feasibility of relocating truck screening from Gate 17 to Gate 10 would be evaluated, including the viability for trucks to reach their intended destination within the Installation. This study would inform NAVSTA on whether the Installation itself would benefit from a gate relocation irrespective of costs, allowing it to better advocate for its own interests regardless of the broader systemwide impacts.

Alignment with Goals DRAFT

1. Positions Burma Road as a long-term link
2. Addresses constraints in transportation network
3. Promotes multimodal transportation
4. Supports greater viability of the water and sewer network
5. Reconciles land use needs
6. Supports economic development

Evaluation Criteria

TRAVEL CAPACITY

Creates new point of entry/exit at Installation for heavy vehicles

AUTOMOBILE RELIANCE

May redistribute heavy vehicle volumes

TRAVEL TIME

Projected 65 daily travel hours saved

TRAVEL SAFETY

Potential safety benefits with less truck traffic

Halsey Street Extension

Timeframe: 5-10 years

Cost: $15-50M

Figure 2.13 Proposed Halsey Extension

Description

The 2024 completion of the Pell Bridge Ramps Realignment project created a northbound leg to the Halsey Street/Admiral Kalbfus Road intersection, the eastern terminus of the Pell Bridge, which presently serves as a secondary entrance to a shopping center. Extending this “nub” intersection northwards would connect the Pell Bridge directly with JT Connell Highway.

The Halsey Street Extension would provide the most direct travel path to areas north of Admiral Kalbfus Road, including all areas along West Main Road north of Coddington Highway as well as Gate 17 of the Installation and Gate 23 of NUWC. A potential design could seek to ensure the adjacent North End neighborhood to the east is preserved from cut-through traffic and allow the JT Connell Highway corridor to the west to evolve into more of a local business district.

History/Context

The North End Urban Plan includes a section on connectivity which makes an explicit link between traffic calming on Admiral Kalbfus Road and the need for northerly roadway connections from the Pell Bridge towards Coddington Highway. Extension of Halsey Street north of the current intersection with Admiral Kalbfus Road provides this transportation link for freight uses as well as facilitating local access to redevelopment opportunities in the North End neighborhood. The provision of this roadway would have the added benefit of reducing cut-through traffic on North End neighborhood roadways, if designed appropriately.

Benefits

- Removes vehicles from intersections along Admiral Kalbfus Road with reduced capacity and benefiting all users of this corridor.
- Provides direct access to the JT Connell and/or Coddington Highway corridors to and from the north, negating the need for motorists to cut through the residential North End neighborhood via Girard Avenue.
- Allows JT Connell Highway just north of Admiral Kalbfus Road to develop more as a local business district, in accordance with the City's desire.

Key Implementation Steps

Engage Newport Bridge Realignment Property Advisory Committee. This Committee has been working to define necessary steps to fold State-owned property vacated by the Pell Bridge Ramps Realignment effort under City ownership and advance the vision of the North End Urban Plan. The Halsey Street Extension could proceed under this group's umbrella or as a follow-up to this work.

Conduct Aquidneck Island North/South Mobility Study – Recommended elsewhere in this study, the project should be contextualized with other efforts to improve north/south travel on the Island.

Form JT Connell Highway Working Group. The Extension would reshape how motorists use the roundabout at JT Connell Highway and Admiral Kalbfus Road (potentially less overall traffic) and potentially impact the large RK Newport Towne Center development. Future economic development opportunities along both JT Connell Highway and the parallel Halsey Extension are significant and worthy of on-going planning and coordination.

Alternatives analysis for route alignment. This exercise would follow or compliment the North/South Mobility Study and define alternatives with regards to the right-of-way, configuration options, utilities, stormwater mitigation, potential property impacts, and other engineering and environmental factors.

Alignment with Goals DRAFT

1. Positions Burma Road as a long-term link
2. Addresses constraints in transportation network
3. Promotes multimodal transportation
4. Supports greater viability of the water and sewer network
5. Reconciles land use needs
6. Supports economic development

Evaluation Criteria

TRAVEL CAPACITY

Creates new travel corridor

AUTOMOBILE RELIANCE

Primarily aimed at supporting vehicle travel

TRAVEL TIME

Projected 375 daily travel hours saved

TRAVEL SAFETY

Potential safety benefits through traffic redistribution

Multi-Use Path Along East and West Main Road

Timeframe: Up to 10 years
Cost: $50M+

Figure 2.14 Road Island Moving Forward Statewide Bicycle Mobility Plan
The plan identified improvement concepts along East Main Road, including a road diet/lane reallocation.

Description

Multi-use paths along East and/or West Main Roads would provide a crucial, largely-missing north/south corridor for pedestrians and bicyclists along the Island. Currently Burma Road poses the most feasible option for north/south travel for bicyclists but, owing to its location on the west side of the Island adjacent to Narragansett Bay, it is not centrally-located for seeking bicycling access, relative to the density of residents and job destinations on the Island. The lack of a regional bicycling option limits this mode of transport for all but short-distance trips.

Further, safe and comfortable walking options along each corridor would allow for short-distance walking trips to be taken, such as between developments on each corridor. This improvement would boost the viability of transit services along East and West Main Road, allowing transit riders to access bus stops more comfortably. Presently, a sidewalk is missing along one or both sides of many stretches of each roadway.

A major consideration for the addition of multi-use paths along these corridors is the right-of-way available. Presently, the curb-to-curb width of these roadways is typically 40'; a road diet would not add enough width to accommodate a safe multi-use path. A follow-up study would examine the viability of right-of-way expansion along East and West Main Road, and inform the need for any takings, if needed.

History/Context

Shared use paths have been proposed along East Main Road from Turnpike Avenue in Portsmouth to Middletown Town Hall (a six mile segment) and along West Main Road between Corys Lane and Greene Lane in the Aquidneck Island Transportation Study.

The Moving Forward RI 2025 Long-Range Transportation Plan details $3 million for the creation of a shared-use path for pedestrians and bicyclists within the East Main Road corridor between Hedley Street Enterprise for implementation by 2031. Another $2.18 million is obligated for the design and construction of a shared-use bicycle pedestrian facility linking along West Main Road at Old West Main Road then to Burma Road at Stringham Road in Portsmouth. This project is anticipated to be completed in 2028.

Benefits

- Provides viable travel option for pedestrians and bicyclists along the length of the Island.
- Facilitates longer-term bicycle trips across the Island.
- Serves shorter pedestrian trips in the vicinity of East and West Main Roads.
- Boosts the viability of transit services along East and West Main Roads by providing needed last-mile connections.

Key Implementation Steps

Conduct Aquidneck Island North/South Mobility Study. Recommended elsewhere in this study, the project should be contextualized with other efforts to improve north/south travel on the Island.

Alternatives analysis for route alignment. This exercise, which may or may not be part of the Mobility Study, would define alternatives with regards to the right-of-way, configuration options, and potential property impacts --to be informed by the Long-Range Transportation Plan.

Shared-use path alongside Coddington Highway

Alignment with Goals DRAFT

1. Positions Burma Road as a long-term link
2. Addresses constraints in transportation network
3. Promotes multimodal transportation
4. Supports greater viability of the water and sewer network
5. Reconciles land use needs
6. Supports economic development

Evaluation Criteria

TRAVEL CAPACITY

Positions E/W Main Rds as more viable corridors

AUTOMOBILE RELIANCE

Creates new multimodal travel asset

TRAVEL TIME

Projected 45 daily travel hours saved

TRAVEL SAFETY

Significant improvement in multimodal travel safety

Coddington Connector

Timeframe: >10 years
Cost: $50M+

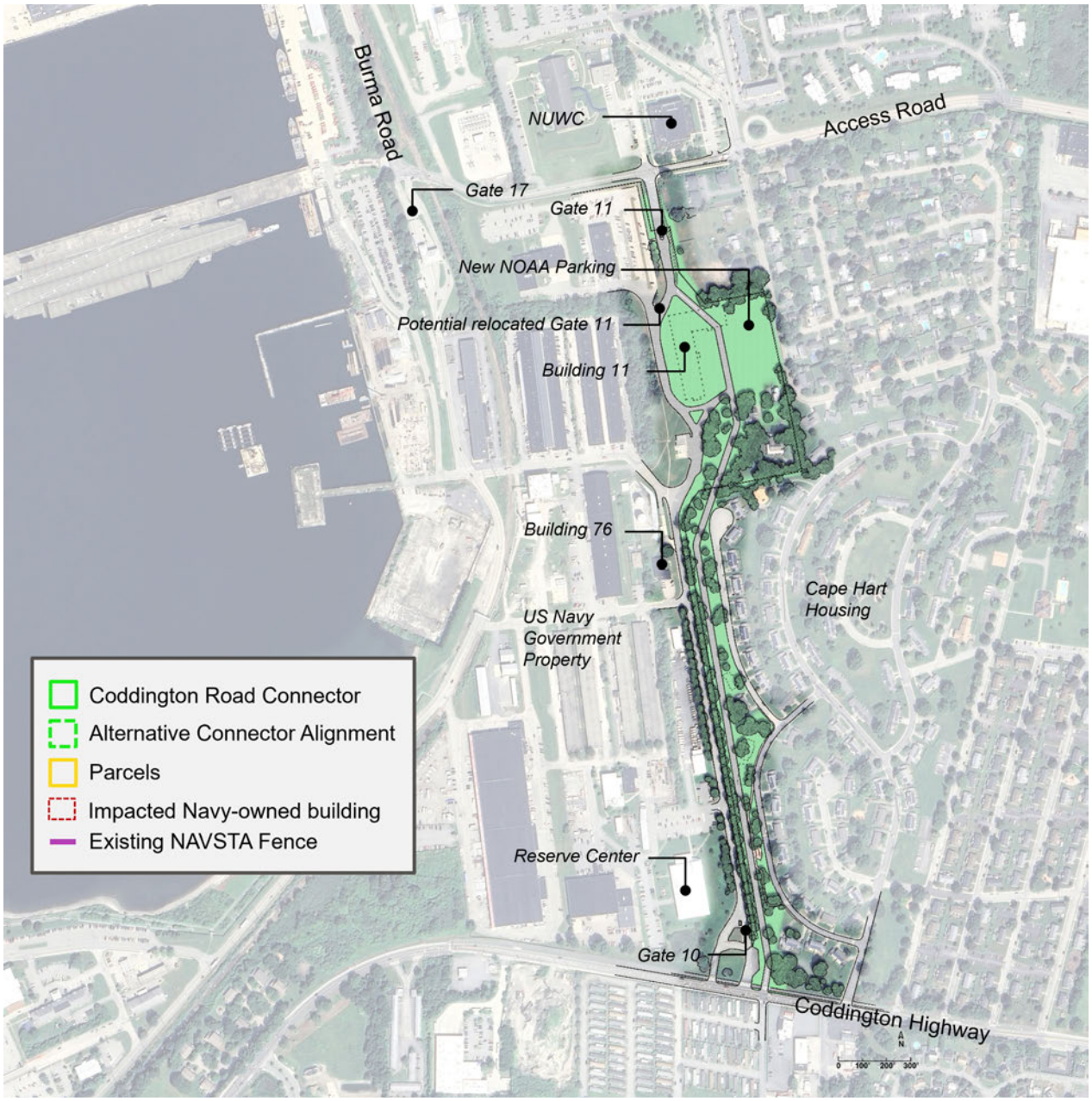


Figure 2.15 Proposed Coddington Connector

Description

This strategy proposes to connect Coddington Highway with Access Road via a new, direct street, that avoids using Burma Road within the Installation as previously envisioned in the West Side Master Plan. Presently, Burma Road and Gate 17 motorists seeking access between Coddington Highway and Access Road must use West Main Road to traverse the gap between the two roadways, eliminating the benefit of using Burma Road as a third north-south connection on the Island. As a result, the intervening segment of West Main Road can be prone to congestion during peak travel times as one of only two primary north/south corridors on the Island. A new north/south connection west of West Main Road has been long-sought as a third Island corridor for congestion relief.

History/Context

Access between the Access Road and Coddington Highway corridors is blocked by Navy owned or affiliated property, whether the Installation itself or the Coddington Cove Housing Development. General traffic is allowed through the Coddington Cove neighborhood, though this is a point of contention as cut-through traffic is often seen at peak hours avoiding West Main's congested intersections at Access Road and Coddington Highway. This new corridor could increase the viability of the Burma Road as a north/south corridor along the west side of the Island, as users of the corridor would enjoy shorter travel times between Coddington Highway and points south, and northerly destinations on and beyond Aquidneck Island.

The proposed connector is positioned in place of a major recommendation of the West Side Master Plan, which termed the corridor "Shoreline Drive". While Shoreline Drive would restore Burma Road between Gate 17 and JT Connell Highway, the proposed connector would instead connect at the Bushnell Street intersection with Access Road southwards towards Gate 11. Then it would divert slightly easterly on Navy property--through Building 11, which would be removed--proceeding further south outside the Navy fenceline through military housing parcels in Coddington Cove to Coddington Highway. This routing would provide the shortest, most direct and non-impactful routing between Coddington Highway and Access Road, but significant and costly impacts to Navy property remain. First, notable property impacts are likely, including transfering Navy property to the State or Middletown, potential minor impacts to private properties near Access Road, and transferring a long slice of land along the western edge of the military housing parcel. Furthermore, in addition to removal and potential relocation of Building 11 and some military housing in Coddington Cove, force protection requirements would mean relocating several other Navy functions that are parallel to the new public street further into the Installation, which requires significant site and building development. These costs require significant new funding--albeit less than using the historic Burma Road alignment through the heart of the Installation.

Benefits

- Diversion of traffic from West Main Road to Burma Road for extended north/south travel along the Island, including to access Weaver Cove.
- Diversion of traffic entering and exiting Gate 17, 23 and 32 to and from the south from West Main Road to the Connector, shortening travel distances and potentially lessening peak period congestion on West Main Road.

Alignment with Goals DRAFT

1. Positions Burma Road as a long-term link
2. Addresses constraints in transportation network
3. Promotes multimodal transportation
4. Supports greater viability of the water and sewer network
5. Reconciles land use needs
6. Supports economic development

Evaluation Criteria

TRAVEL CAPACITY

Creates new travel corridor

AUTOMOBILE RELIANCE

Primarily aimed at supporting vehicle travel

TRAVEL TIME

Projected 750 daily travel hours saved

TRAVEL SAFETY

Potential safety benefits through traffic redistribution

Key Implementation Steps

Form key stakeholder group. Made up of RIDOT, Navy, Newport, Middletown, and others directly affected by any modifications to the transportation network along Burma Road, Access Road or Coddington Highway; each of these entities have jurisdiction over roadways which may be affected. This group may administer the below study.

Engage Rhode Island's Federal delegation. A significant Congressional appropriation and new legislation would be required to implement needed force protection requirements, including relocation of many Navy functions away from the new roadway and transfer of property from the Navy; the State's Federal delegation would need to advocate for this action for the concept to be feasible.

Conduct Aquidneck Island North/South Mobility Study. Recommended elsewhere in this study, the project should be contextualized with other efforts to improve north/south travel on the Island; for instance, a potential southern terminus of the Coddington Connector could pair well with the Halsey Extension, discussed previously.

Public access to Burma Road ends abrupty at Gate 17, forcing through traffic back to West Main Road, adding cut-through pressure to the Coddington Cove neighborhood.

Figure 2.16 Proposed Coddington Connector Concept

The proposed Coddington Connector alignment seeks to add minimal additional force protection requirements to NAVSTA Newport by utilizing property along or immediately outside of its eastern fence line, against the Coddington Cove neighborhood. Nonetheless, some force protection upgrades would be needed, including the relocation of certain operations. In addition, Building 11 and a few military residences in Coddington Cove would need to be removed in this proposal. A more direct alternative (shown) would require further changes behind the fence line. Assuming either of these alignments is feasible, extensive study would be required to determine all impacts, engineering requirements, property impacts, costs, etc., in addition to needing Congressional support. While substantial benefits may accrue for both Navy workers and other travelers on the Island, a detailed evaluation of the benefits against all potential costs is needed.

Regional Transportation Links

Timeframe: Ongoing
Cost: $1-5M

Figure 2.17 Existing Regional Transportation Links

Description

The isolated nature of Aquidneck Island, with three bridges serving travel on and off the Island with an available rail link, often forces longer-distance trips to be taken by automobile. **Spring 2025 Replica data finds over 16,000 daily work trips commute from elsewhere onto Aquidneck Island, with nearly 9,000 daily work trips beginning on Aquidneck Island but ending elsewhere**. Long-distance intercity bus and ferry services are facilitated out of the Newport Transportation Center and Perrotti Park, respectively, but few locations elsewhere on the Island allow for longer-distance trips. This strategy seeks to introduce new and boost existing regional transportation links. The accompanying one-pager indicates potential new services and service enhancements at locations across the Island concerning ferry (including to and from new piers closer to the Installation or by Weaver Cove), rail (making use of the Newport Secondary Line), or air (via Newport State Airport). Collectively, these links can help reduce automobile demand on Aquidneck Island roadways and reduce automobile dependency for Island residents and visitors as a whole. Collectively, these links can help reduce automobile demand on Aquidneck Island roadways and reduce automobile dependency for Island residents and visitors as a whole.

History/Context

The West Side Master Plan cites the Newport Secondary rail line as a corridor for potential rail shuttle services, a dedicated bus lane, and/or provision of a bus rapid transit system. The BRT could operate as a reversible, one-way express bus network. Expansion of ferry and water shuttle services along the west side of the Island are also put forward. The Aquidneck Island Transportation Study likewise recommends preservation of the Newport Secondary rail corridor as a contiguous right-of-way. It also recommends enhanced ferry services; although a Providence to Newport route is called out, consideration of an intra-Island ferry service between Melville and Newport is mentioned.

$75 million is identified as an unfunded project in the Moving Forward RI 2025 Long Range Transportation Plan for the construction of a new bascule bridge over the Sakonnet River to reconnect the Newport Secondary line with the mainland segment, creating the possibility for future extension of South Coast Rail service from Fall River. This is identified for completion in the 2040-2050 timeframe.

Benefits

- Improves viability of alternative travel options, reducing automobile dependency and removing vehicles from Island roadways.
- Reduces automobile needs along area roadways and at destinations, such as by allowing for less on-site parking to be constructed.
- Supports other transportation strategies, such as the provision of first and last-mile connections to the Installation.

Key Implementation Steps

Regional transportation study. In coordination with or as part of a north-south Island Mobility study, a more regional assessment for the benefit of adding transit links to Fall River, Providence or other longer-distance points is needed. All potential Island destinations should be considered in addition to Newport, including Melville/ Weaver Cove, the Navy Hospital site, and NAVSTA itself.

Coordination with connection points. The value of regional links relies on the value of its terminals. With Providence and Newport providing sufficient local attraction for existing service, other points need development to draw demand, so co-development that generates demand should be pursued at places like Melville or the Navy Hospital to help justify new regional links.

Alignment with Goals DRAFT

1. Positions Burma Road as a long-term link
2. Addresses constraints in transportation network
3. Promotes multimodal transportation
4. Supports greater viability of the water and sewer network
5. Reconciles land use needs
6. Supports economic development

Evaluation Criteria

TRAVEL CAPACITY

Provides more means to access key travel destinations

AUTOMOBILE RELIANCE

Creates new multimodal travel assets

TRAVEL TIME

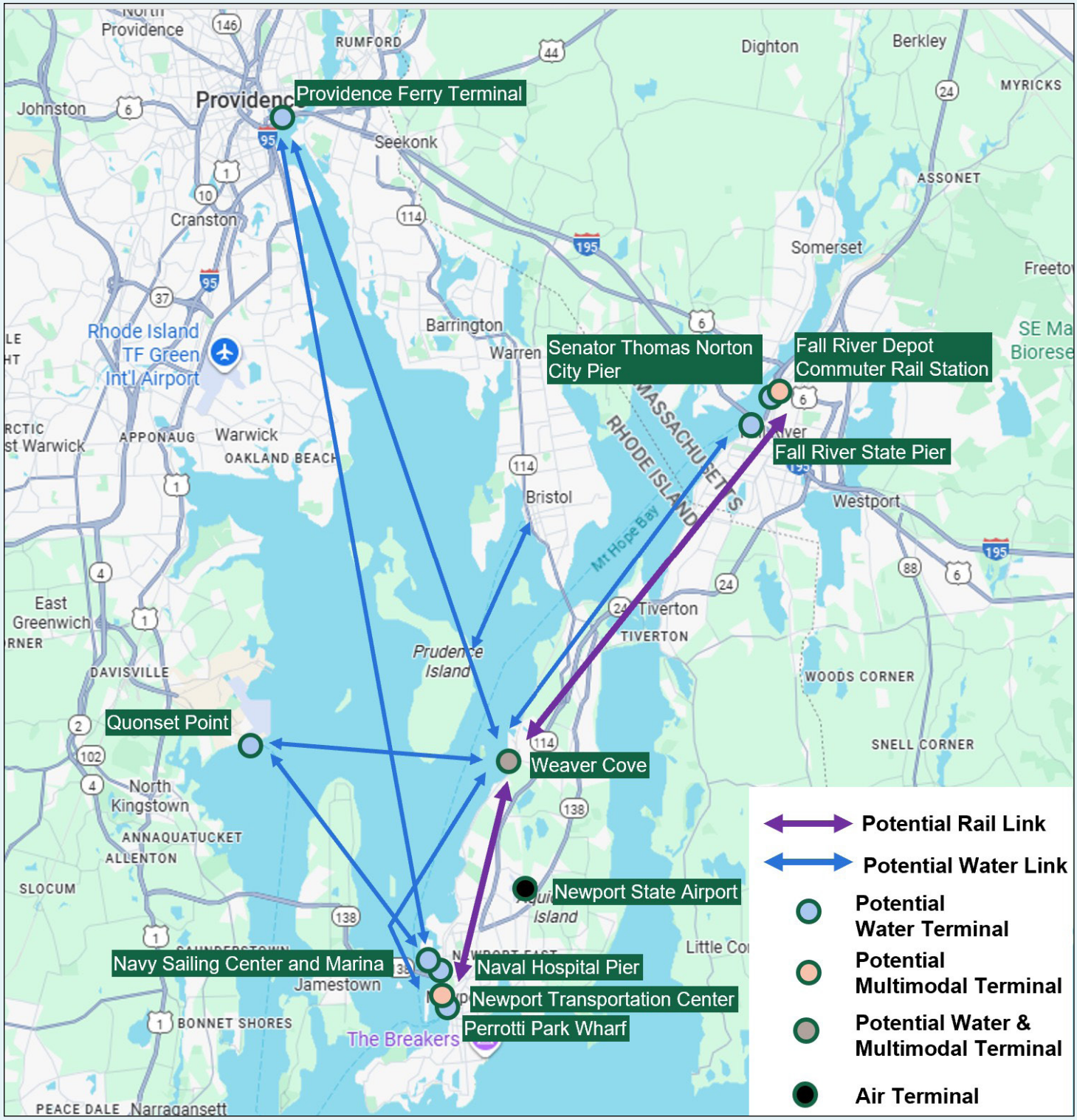
Minimal change in daily travel hours

TRAVEL SAFETY

May remove trips that would have otherwise been taken by car

Regional Links

Figure 2.18 Potential Regional Links between Aquidneck Island and Broader Region



Several regional connections are feasible between Aquidneck Island and the outlying Rhode Island and South Coast area. Many of these ideas are currently active and ripe for increased investment, carry historical precedent, or model successful services elsewhere:

Ferry Connections within Narragansett Bay

The seasonal Seastreak ferry service operates between Providence, Bristol, and Perrotti Park Wharf in Newport; additional services operate between Perrotti Park Wharf and Jamestown. Ferry services could expand to encompass a number of other regional destinations:

- **Naval Hospital Pier**: the historic Biello Road adjacent to the Naval Hospital site could conceivably connect to the Newport Secondary Line, the park and ride facility at the Pell Bridge Ramps, and future redevelopment of the hospital site. The pier is just a little more than one half-mile from Gate 1. Unlike Perrotti Park Wharf, services would not need to skirt around Goat Island.

- **Navy Sailing Center and Marina:** Within the Installation itself, the Navy Sailing Center and Marina would provide a direct connection to NAVSTA.

- **Weaver Cove:** Burgeoning marine industrial, recreational, and marine restaurant uses in Weaver Cove are oriented towards the water, allowing for walking access from a ferry terminal.

- **Quonset Point:** Both a base for marine industrial uses, with companion industries on Aquidneck Island, and an existing ferry terminal to access Martha's Vineyard; a ferry connection to Quonset Point could allow commuters and visitors to forego driving trips across Narragansett Bay.

Ferry Connections within Mount Hope Bay

Services to the above Aquidneck Island locations could be facilitated from Fall River State Pier or the Senator Thomas Norton Pier, less than one half-mile from the Fall River Depot Commuter Rail Station (but presently lacking a direct walking connection). Ferry services in these location could facilitate improved, non-vehicular trips from the Greater Boston region.

Rail Services Along Newport Secondary Line

Rhode Island's 2050 long-range transportation plan (published in 2025) includes funding for restoration of the Sakonnet River Rail Bridge, with a cost estimate of $75 million. Demolished in 2007 following years of disrepair, the bridge would link the Newport Secondary Line with the mainland. The Fall River Depot MBTA Commuter Rail Station, opened with the initiation of South Coast Rail service in March 2025, is situated 6.5 miles to the north of the bridge. These efforts open the possibility for future rail services between Newport and Greater Boston.

Another possibility is use of the Newport Secondary Line for short-distance passenger rail services within Aquidneck Island itself, such as between Weaver Cove and/or points north and Newport or NAVSTA, intercepting motorists to facilitate the last leg of travel journeys.

Improved Aviation

The Newport State Airport does not current feature scheduled airline service but is situated within two miles of NAVSTA and four miles of Downtown Newport, allowing for the possibility of longer-distance trips to forego vehicular travel on any of the connecting bridges to Aquidneck Island.

Curb Cut Consolidation Along East and West Main Road

Timeframe: Ongoing
Cost: $5-15M

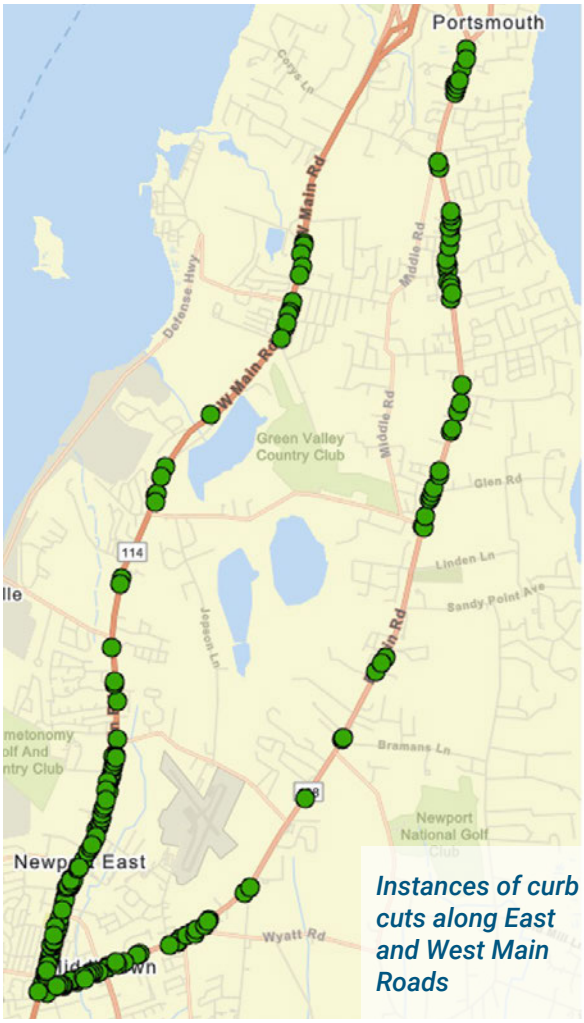


Figure 2.19 Existing Curb Cuts

Description

West Main Road, and to a lesser extent, East Main Road, can each experience peak period congestion owing in part to traffic waiting to turn into the numerous, closely-spaced curb cuts along each corridor. The need for vehicles to navigate left turns across two lanes of opposing traffic, either on the corridor itself or exiting developments along the corridor, creates potentially dangerous situations for motorists. Pedestrians and bicyclists are challenged to traverse these numerous curb cuts, with oftentimes distracted motorists entering and exiting. Vehicle traffic is slowed and often stopped for vehicles seeking to make these left turns across opposing traffic.

Consolidating the number of curb cuts on these corridors allows for improved access management for employees, and other traffic reaching local businesses. This can also support better safety for users of the planned shared use paths on each roadway. On a higher-speed corridor such as West and East Main Roads, longer distances are advised between driveways and other driveways or adjacent streets to account for vehicle acceleration and deceleration. Given the corridors are largely built out, retrofitting where opportunities allow to provide for curb cut consolidation should be pursued. This could include reducing the number of curb cuts associated with a single project or allowing multiple developments to access fewer collective curb cuts with intra-site travel occurring off the main corridor.

History/Context

The East Main Road Road Safety Assessment noted and recommended access management improvements along the Portsmouth segment of the roadway given the multiple curb cuts and driveways creating conflict points for vehicles and vulnerable road users. Enhanced signage and driveway consolidation were recommended. A lack of unsignalized intersection visibility was also called out, with maintenance improvements such as signage and pavement restriping recommended.

Benefits

- Improves vehicle safety through fewer left-turns across opposing traffic and right-turns out of developments in a high-traffic, high-speed environment.
- Improves pedestrian and bicycle safety by reducing number of driveways to cross.
- Improves travel times with fewer delays between signals.

Key Implementation Steps

Revise Zoning Ordinances. Zoning ordinances in Newport, Middletown, and Portsmouth can address the number of curb cuts serving a single site and distance between a project's driveway and adjacent driveways or street intersections. Additional language can address related factors such as turn radii for vehicles.

Incentivize Intra-Development Collaboration. Changes of use for development projects along each corridor could be incentivized to consolidate curb cuts and rely on shared intra-parcel access through waivers, easements, and other methods which ease any redevelopment concerns.

Coordinate with roadway projects. Planned infrastructure projects along each corridor could design for access management in a way which allows for property owners to easily support fewer curb cuts with minor driveway and/or parking modifications on abutting private property.

Alignment with Goals DRAFT

1. Positions Burma Road as a long-term link
2. Addresses constraints in transportation network
3. Promotes multimodal transportation
4. Supports greater viability of the water and sewer network
5. Reconciles land use needs
6. Supports economic development

Evaluation Criteria

TRAVEL CAPACITY

May position E/W Main Rds as more viable corridors

AUTOMOBILE RELIANCE

Supports safer walking and bicycling along E/W Main Rds

TRAVEL TIME

Minimal change in daily travel hours

TRAVEL SAFETY

Significant improvement in travel safety

DRAFT

LAND USE STRATEGIES

1.
Increase Residential Density of Existing Housing Developments

2.
Redevelop Underutilized Commercial Sites into Housing and Mixed-use

3.
Redevelop Former Naval Hospital Site

4.
Expand Marina and Marine-Based Businesses

5.
Transform Burma Road into Multi-Modal Green Corridor

6.
Redevelop RIDOT Pell Bridge Parcels

7.
Create More Flexible Uses at Existing Corporate Parks

8.
Incorporate Public Open Space & Resilience Infrastructure

9.
Redevelop Browns Lane Parcel into Mixed-Use Village

Land Use Evaluation Criteria

Each strategy in this section was evaluated against the same four criteria, as detailed below. A score for each factor was determined on a scale of 1-5, with 1 indicating the strategy has the lowest level of positive impact/ benefits and 5 indicating a maximum level of positive impact/benefits. The numbers correspond to colored bars (right) throughout this section.

HOUSING SUPPLY DIVERSIFICATION

Does the strategy support potential to increase the diversity of housing types? Strategies which add to the local housing supply and include opportunities for workforce and affordable housing, score well under this criteria.

SCORE JUSTIFICATION

5. *Directly creates new workforce and affordable housing units*
4. *Directly creates new market-rate housing units*
3. *Creates opportunities for new housing*
2. *Creates limited opportunites for new housing*
1. *Does not demonstrably add to the local housing supply*

JOB CREATION

Does the strategy create or support new jobs? Strategies that directly support new or existing businesses or create new job opportunities score well in this criteria, while those with only indirect impacts on employment have more limited benefits.

SCORE JUSTIFICATION

5. *Directly creates new jobs*
4. *Creates opportunities for potential job growth*
3. *May create opportunities for potential job growth*
2. *May create opportunites that indirectly support job growth*
1. *Does not demonstrably impact job growth*

SUPPORT FOR OCEAN ECONOMY

Does the strategy support or advance ocean economy opportunities? Strategies that directly support new or existing ocean economy businesses or create new job opportunities within this sector score well in this criteria, while those with only indirect impacts on ocean economy sector growth have more limited benefits.

SCORE JUSTIFICATION

5. *Directly creates new ocean economy jobs*
4. *Creates opportunities for ocean economy job growth*
3. *May create opportunities for ocean economy sector growth*
2. *May create opportunities that indirectly support ocean economy sector growth*
1. *Does not demonstrably support the ocean economy*

PROVISION OF OPEN SPACE

Does the strategy support the creation, preservation, or improvement of publicly accessible open space? Strategies which create new publicly accessible open space, support conservation, or improve existing open space score well under this criteria.

SCORE JUSTIFICATION

5. *Directly creates or improves new publicly accessible open space or conservation land*
4. *Creates opportunities for new open space or conservation land development*
3. *May create modest opportunities for new open space or conservation land development*
2. *May facilitate open space, but only as an ancillary benefit*
1. *Does not demonstrably support open space and conservation*

Other Considerations

COST

How costly is the strategy to implement? Five cost categories are cited: under $1 million, $1-5 million, $5-15 million, $15-50 million, and over $50 million. These categories generally correspond to the level of effort which may be necessary to secure funding:

TIMELINE

How long would the strategy take to complete construction? Although not tied to a score, each strategy identifies a likely implementation range from <1 year to over ten years.

Increase the residential density of existing housing developments

Timeframe: Short/Mid-Term
Cost: $5-15M

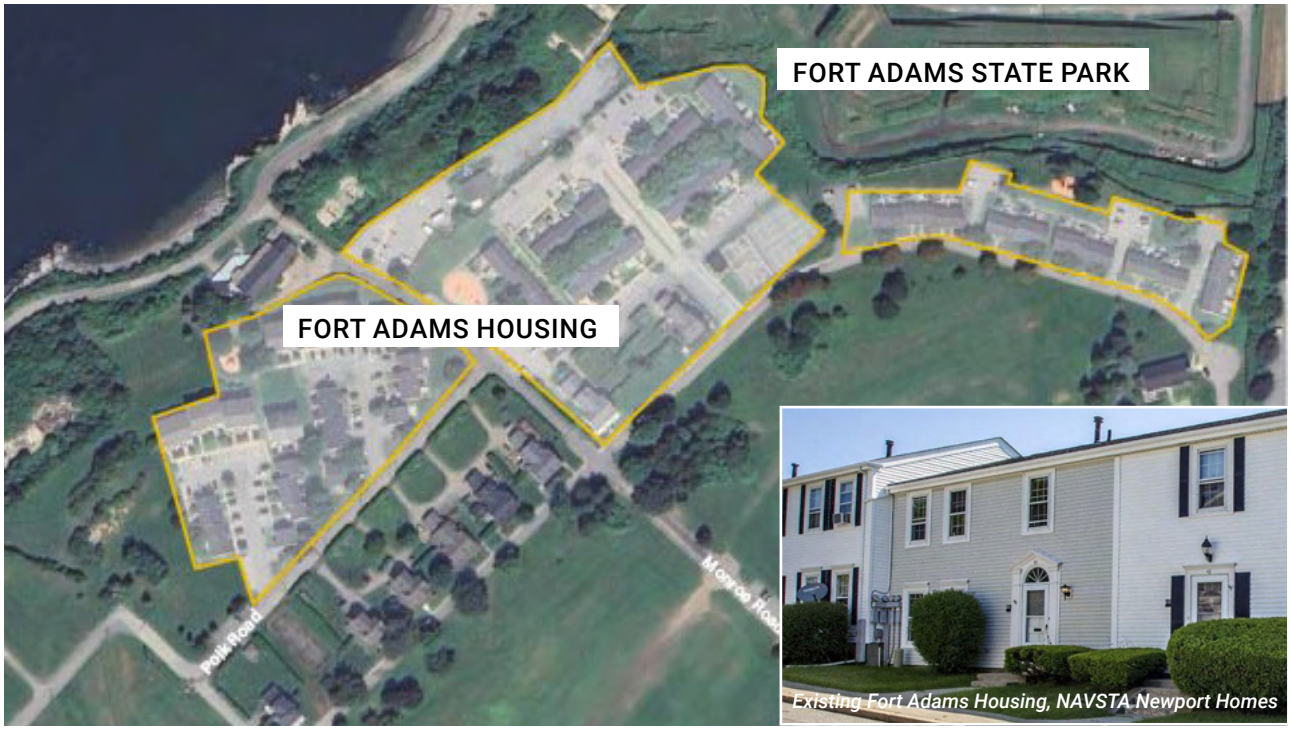


Figure 2.20 Fort Adams Housing

Description

This strategy proposes increasing the density of existing housing developments, as feasible, based on infrastructure capacity. While much of Aquidneck Island's housing stock is low or medium density residential, some areas of medium to higher density residential exist along primary transportation corridors. Many of these developments were initially developed as military housing and make up a significant proportion of the housing stock on the Island's the West Side. These housing developments could reasonably increase density to add units to accommodate more military personnel. Other non-military/civilian housing developments in proximity present additional opportunities to potentially increase more housing opportunities, while also supporting better transitions between more intensive commercial and mixed-use properties along main travel corridors and nearby residential neighborhoods.

Implementation of this strategy could be first considered at the Navy-owned Fort Adams Housing Development in Newport. The existing multi-family residential development provides housing for active duty Navy personnel and is in need of significant improvement. Opportunities to increase density exist across this 24-acre site through infill or redevelopment would increase the total number of housing units that can be provided while preserving the existing historic homes on the site. Housing along Coddington Highway could present additional redevelopment opportunities.

History/Context

The Aquidneck Island Development Impact Analysis examined the potential of increasing residential density as part of its scenario planning models. By applying smart growth principles and directing a larger share of new housing into higher-density and mixed-use forms, the analysis showed that more undeveloped land could be preserved while creating a wider range of housing options compared to a continuation of current development trends.

Targeted increases in residential density where density already exists would help advance local and state goals for housing production and open space preservation. It would also advance infill residential development recommendations outlined in the West Side Plan and others.

Housing, especially for the local workforce, which includes Navy active duty and civilian personnel is continuously cited as a critical need across Aquidneck Island. A recent housing analysis by the Greater Newport Chamber of Commerce estimates that 6,000-9,000 new units will be needed across the region to keep up with the workforce demands. Working with existing workforce housing providers, including NAVSTA and its partners, can increase the capacity of existing developments to help close this gap.

Benefits

- Creates more housing, both affordable and workforce, which has been expressed as a top priority across the Island.
- Increases housing supply for NAVSTA employees, many of which are required to live in proximity to the base but are often forced to live off Island due to limited local and affordable options on-Island.
- Increases density which supports today's transit network and the case for improving/investing in multimodal transportation.
- Increases demand for services at local businesses.
- Supports employers in attracting and retaining talent by creating a greater variety of housing options at different price points.

Key Implementation Steps

Coordination between City of Newport, NAVSTA Newport, and associated housing partners. Fort Adams Housing is Navy-owned, but located in Newport. Coordination between entities will be required to determine a clear process for redevelopment and what is ultimately feasible based on the existing site's location, zoning, and proximity to Fort Adams State Park.

Confirm water and sewer infrastructure capacity. Further evaluation of the Navy's water distribution system is needed to identify any pipe, flow, or pressure limitations and potential impacts on the City of Newport's system. An updated hydraulic model is required to confirm that the existing gravity sewer, pump station, and force main can accommodate an increase in flows.

Identify potential Navy funding resources to support redevelopment of existing workforce housing. Engage NAVSTA is identifying potential federal funding sources to support workforce housing. Work with local partners to identify additional resources for non-Navy workforce housing.

Alignment with Goals DRAFT

1. Positions Burma Road as a long-term link
2. Addresses constraints in transportation network
3. Promotes multimodal transportation
4. Supports greater viability of the water and sewer network
5. Reconciles land use needs
6. Supports economic development

Evaluation Criteria

HOUSING DIVERSIFICATION

Adds more units to existing mid, high density housing, including Navy housing (+/- 200-400 units)

JOB CREATION

May create construction jobs, increases demands for goods and services that can support jobs and business growth

SUPPORT FOR OCEAN ECONOMY

Creates additional housing for workers that could work in ocean economy jobs

PROVISION OF OPEN SPACE

Creates opportunities for open space integration in redevelopment

Redevelop underutilized commercial sites into housing and mixed-use

Timeframe: Ongoing
Cost: $5-15M

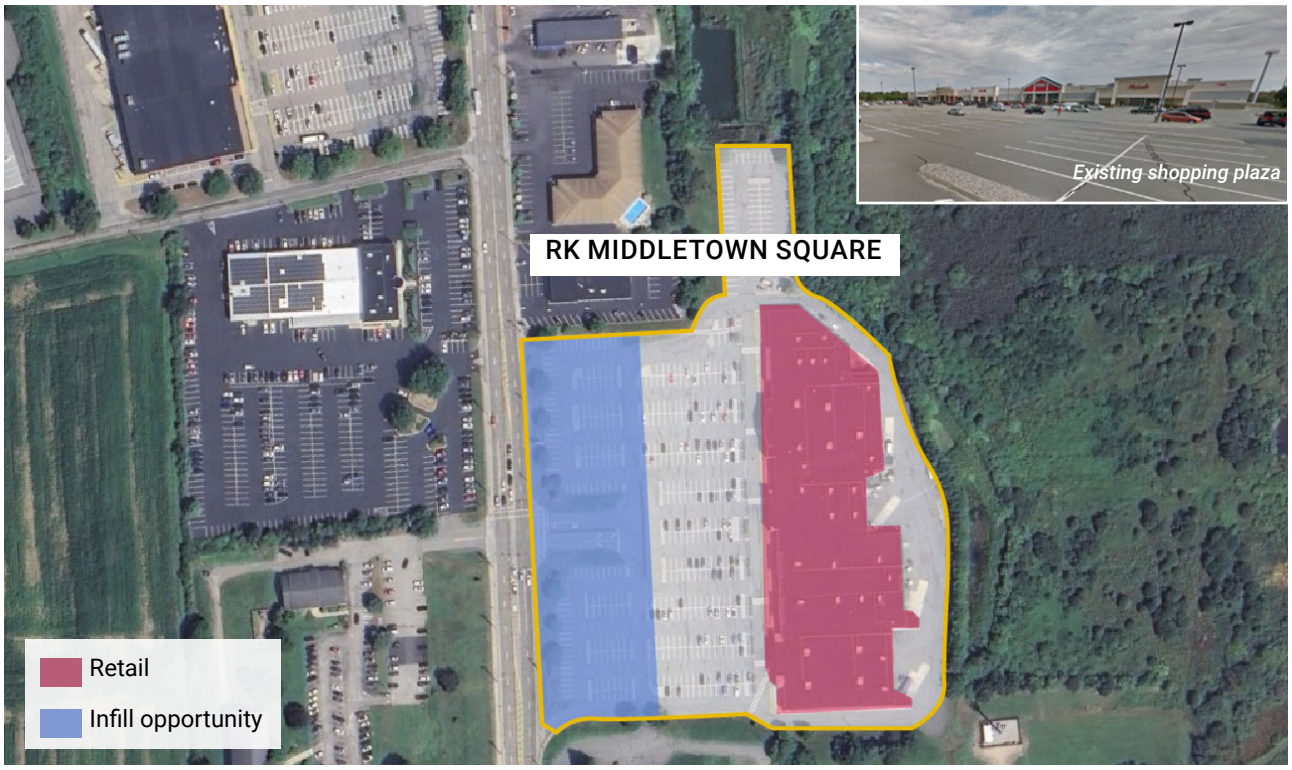


Figure 2.21 RK Middletown Square

Description

This strategy recommends prioritizing the redevelopment of vacant and underutilized commercial and retail sites across all three Aquidneck Island communities into housing and mixed-use developments. Many vacant and underutilized properties within Newport, Middletown, and Portsmouth are likely to remain that way without intentional effort and support to transform them. Rather than focusing new development on the Island's limited remaining greenfield sites, local development priorities should facilitate residential and mixed-use infill development on already built up and underutilized parcels.

Several strip mall developments along West Main Road and East Main Road in Middletown could be potential candidates. As predominately one story structures with large, underutilized parking lots, these parcels have the physical capacity to support additional development on site. Redeveloping or adding housing or mixed-use to the site would add development in this already built up area, increase overall parcel value for property owners, and add to the municipal tax base.

The RK Middletown Square shopping Mall, parcels at 1360 and 1400 West Main Road, is one location with significant potential for both multifamily housing and mixed-use. The RK Newport Towne Center property, former casino parcel at 150 Admiral Kalbus Road, and municipal yard on Halsey Street, in Newport represent other opportunities. There may be limitations, however, due to infrastructure and flooding challenges. In Portsmouth, opportunities for small-scale infill exist along East Main Road at existing commercial clusters. By directing infill development to these areas, the Island can preserve its open space and character while addressing existing land use needs. The map on page 82 shows potential opportunity sites on Aquidneck Island. Further analysis is required to assess feasibility and refine potential priority sites.

History/Context

The demand for workforce housing, including for NAVSTA, the U.S. Coast Guard, and NOAA's expanding workforce, has continued to rise, and its limited availability poses a significant challenge to local economic growth.Addressing the workforce housing crisis is identified as a key strategy in the Connect Greater Newport Strategic Plan.

Benefits

- Reallocates underutilized sites for housing and mixed-use which support community needs and are better suited for the market.
- Supports State's affordable housing goals and state-mandated low-and-moderate income housing requirements for municipalities.
- Creates new spaces for businesses and homes for existing and future residents out of underperforming parcels.
- Reduces pressure on undeveloped land.
- Increases density along commercial corridors which supports existing transit services and the case for improving/investing in multimodal transportation improvements.

Key Implementation Steps

Update zoning to support mixed-use and multifamily housing. Density restrictions in local land use regulations often make development unfeasible even if the uses, themselves, are allowed. Local zoning in Portsmouth, Middletown, and Newport should be reviewed for potential barriers and consider the following changes in commercial areas, as appropriate: increase height limits, lot coverage, and density; reduce minimum lot sizes and parking requirements; regulate housing density by units per acre; and "fast-track" permitting for projects that advance these goals.

Reduce development costs for private developers. The cost of land tends to be the largest inhibitor to making the development of workforce and affordable housing financially feasible. Municipalities can support developers by reducing these upfront costs through public-private partnerships, incentives, land banking, and supporting adaptive reuse of already developed properties.

Identify funding sources to help subsidize housing projects. Work with local partners to identify funding sources to support workforce and affordable housing development. Explore opportunities for public-private partnerships and the potential to create an Island-wide affordable housing trust to support workforce housing development across Aquidneck Island. While individual municipalities may not have capacity to act alone, greater coordination would allow for shared resources and a unified approach towards collective goals.

Alignment with Goals DRAFT

1. Positions Burma Road as a long-term link
2. Addresses constraints in transportation network
3. Promotes multimodal transportation
4. Supports greater viability of the water and sewer network
5. Reconciles land use needs
6. Supports economic development

Evaluation Criteria

HOUSING DIVERSIFICATION

Creates a variety of housing types and affordability levels

JOB CREATION

Creates new spaces for businesses to locate, brings jobs

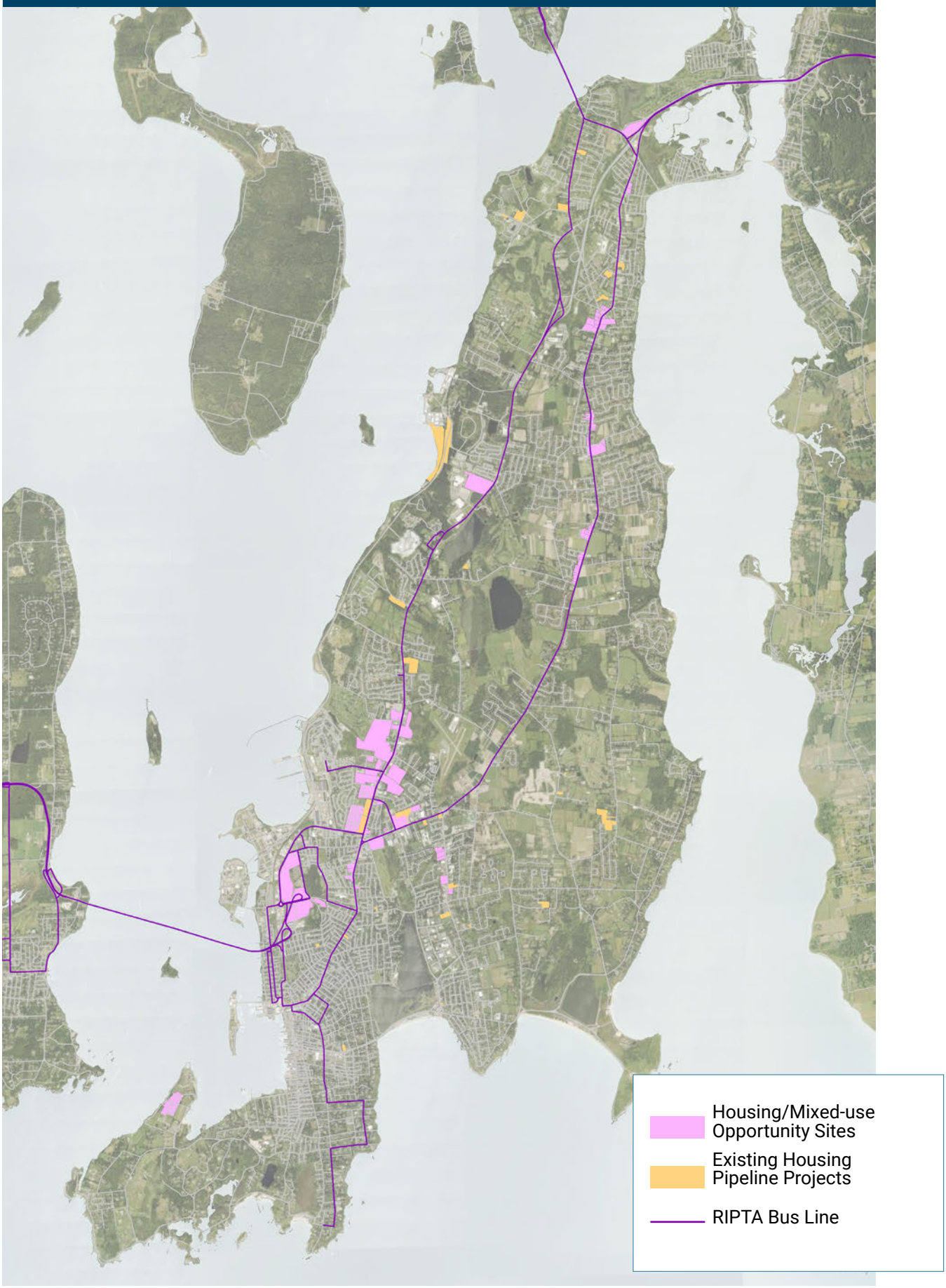
SUPPORT FOR OCEAN ECONOMY

Supports housing for workforce and spaces for businesses, potentially for ocean economy

PROVISION OF OPEN SPACE

Creates opportunities for open space integration on redeveloped parcels

Figure 2.22 Infill Opportunity Sites



Oversized parking lots present potential opportunities for infill development as demonstrated by sites such as RK Middletown Square.

Underutilized commercial sites on East Main Road that could integrate housing or mixed-use.

Redevelop former Naval Hospital into ocean economy campus with publicly accessible waterfront

Timeframe: Short/Mid-Term
Cost: $5-15M

Figure 2.23 Rendering of Proposed Blue Economy Campus at Former Naval Hospital

Description

This strategy recommends prioritizing the North End Urban Plan's proposed redevelopment of the former Navy Hospital into a ocean economy innovation campus with public waterfront access and facilities to support ocean economy research, development, and education. Only about 14% of the site is developed as the principal hospital building. New facilities for ocean economy could be created through adaptive reuse of the existing hospital buildings and/or their expansion onto the undeveloped portions of the site. Redevelopment of the pier would provide direct water access to support testing for ocean economy businesses and a potential future ferry landing. The grounds would provide waterfront public space, bringing open space and waterfront access to a part of Newport where it is currently lacking. Preliminary development potential estimates approximately 10-20 new business spaces for ocean economy, innovation, or R&D could be developed within existing structures. There is a greater opportunity to expand beyond the existing building.

Transformation of the waterfront into a publicly accessible open space is most feasible to undertake in the near-term, followed by a phased approach to redevelopment of the full site over the mid-to-long-term.

History/Context

The North End Urban Plan recommended the reuse of the former Navy Hospital site into a waterfront campus for ocean economy within a new Newport North End innovation district. The proposed use was informed from the West Side Plan as well as community input for increased public access to the waterfront, which is very limited in Newport and along the Island's West Side. The City of Newport adopted an innovation overlay district to their zoning ordinance to allow for ocean economy, maker, and tech uses to support forward motion on the North End Urban Plan.

Rhode Island's unique coastal assets have positioned the State as a federally designated Ocean Technology Hub (Ocean Tech Hub), qualifying it for federal funding. To support the Hub's development, the State has identified water access as a top priority.

Benefits

- Redevelops an underutilized site for community use.
- Creates direct water access and opportunities for innovation and ocean economy, many of which are in high demand in the current market.
- Creates infrastructure for new businesses and jobs.
- Expands access to water and waterfront which supports tourism, the potential for a ferry landing, and quality of life for residents.

Key Implementation Steps

Establish a process for granting public access to waterfront. The Navy has already expressed support for creating a public open space with waterfront access along the Naval Hospital property and is in conversations with the City of Newport on how to move forward. These discussions should be re-initiated to establish a clear and coordinated process and timeline.

Engage NAVSTA leadership and City of Newport on future site ownership. Before long-term planning or redevelopment can proceed, a plan for future site ownership must be clearly determined through coordination with NAVSTA leadership and City officials.

Develop a waterfront master plan. A waterfront master plan should be developed as a first step to establish a clear vision and framework for creating a publicly accessible waterfront park.

Initiate master planning process. Develop a master plan for the full site that evaluates potential constraints for future development and establishes a phased plan that builds on the North End Urban Plan's vision for a ocean economy campus.

Alignment with Goals DRAFT

1. Positions Burma Road as a long-term link
2. Addresses constraints in transportation network
3. Promotes multimodal transportation
4. Supports greater viability of the water and sewer network
5. Reconciles land use needs
6. Supports economic development

Evaluation Criteria

HOUSING DIVERSIFICATION

Does not demonstrably add to the local housing supply

JOB CREATION

Expands capacity for ocean economy jobs and businesses (+/- 10-20 units)

SUPPORT FOR OCEAN ECONOMY

Creates spaces to accommodate more ocean economy businesses and related businesses, research institutions, and training (+/- 10-20 units)

PROVISION OF OPEN SPACE

Creates new public waterfront access and open space (2.25 acres + 670 ft of waterfront)

DRAFT

Expand marine and marina-related businesses at Melville and the Portsmouth Tank Farm sites

Timeframe: Short/Mid-term
Cost: $15-50M

Figure 2.24 Proposed Redevelopment Opportunities at Melville and Tank Farm sites

Description

Aquidneck Island has become well known for its boating and marine industry. According to the Greater Newport Chamber of Commerce, the Greater Newport Region has nearly 450 ocean economy establishments, comprising 24% of jobs in the region. Its continued growth indicates ongoing demand that can continue to scale local businesses in this sector and further solidify the Island's position as a specialized destination within the maritime and marine economy.

This strategy builds off the existing momentum of Melville Marina businesses by expanding infrastructure and capacity to support additional businesses in this area. Both Melville and the surplus Navy Tank Farms #1 and #2 present opportunities to scale up the existing recreational boat building businesses, marine trades, and other related marine industries and to introduce additional military-related research or ocean economy uses.

The surplus Tank Farm sites are currently undeveloped and, with the right partnerships, present an opportunity to be redeveloped into a new campus for ocean economy, maritime defense research and development, and other emerging sectors that complement and strengthen existing Melville-area businesses and NAVSTA over the long term. In the near term, the sites could also support energy-related uses, such as battery storage, enhancing energy resilience for the NAVSTA and surrounding neighborhoods. The reduced need for site remediation and infrastructure investment, combined with the ability to leverage existing utility partnerships, significantly improves overall

History/Context

A central economic development recommendation of the West Side Plan focuses on expanding existing industry and positioning Melville Marina and Weaver Cove as a "Marina Village" and hub for recreational boating. The Portsmouth Tank Farm Redevelopment Plan further identifies the former tank farm sites as priority areas for economic development and specifically supports the expansion of marina-related businesses and waterfront enhancements at Melville. These objectives are reinforced through Portsmouth's waterfront and redevelopment zoning districts, which encompass Melville and the Tank Farm sites, respectively, and were established as part of the Redevelopment Plan process. The planned Weaver Cove development advances these goals by introducing residential units, a marina, and complementary retail and industrial uses south of Melville and the Tank Farm sites along Burma Road.

Benefits

- Re-purposes surplus Navy property to support local economic development creates new NAVSTA collaboration opportunities.
- Expands opportunities for ocean economy and marine-related uses, many of which are of high demand in the current market.
- Supports expansion of existing Melville businesses and creates infrastructure to support new businesses and jobs.

Key Implementation Steps

Engage NAVSTA leadership in short-and-long term planning. Further coordination among NAVSTA, local officials, and other key stakeholders is needed to clarify NAVSTA's objectives for the Tank Farm sites and identify opportunities to align Navy interests with community redevelopment priorities over the long-term.

Site remediation. Clean up of the Tank Farm sites is required before significant development can take place. The degree to which they can be remediated will be a key factor in determining what type of future redevelopment can occur.

Privatize and upgrade Navy-owned water and sewer utilities. Under current arrangements, Navy utility services cannot support new industry uses on the tank farm sites. Privatizing the system would significantly expand development potential and attract a broader range of interested parties. Concurrent sewer capacity upgrades will likely be required to accommodate additional flows.

Identify potential development partners or interested businesses. Existing Melville businesses may have interest in future expansion and could partner in new development at Melville. Other maritime defense, marine-related, or blue tech businesses or investors could be key partners in long-term redevelopment of the tank farm site.

Alignment with Goals DRAFT

1. Positions Burma Road as a long-term link
2. Addresses constraints in transportation network
3. Promotes multimodal transportation
4. Supports greater viability of the water and sewer network
5. Reconciles land use needs
6. Supports economic development

Evaluation Criteria

HOUSING DIVERSIFICATION

Does not demonstrably add to the local housing supply

JOB CREATION

Expands space and infrastructure capacity or marine-related jobs and businesses

SUPPORT FOR OCEAN ECONOMY

Creates specialized spaces for ocean economy and related businesses (+/-30-200 units)

PROVISION OF OPEN SPACE

Creates opportunities to integrate open space within redevelopment of Tank Farm sites

DRAFT

Transform Burma Road into a multi-modal green corridor with public shoreline access

Timeframe: Mid-Term
Cost: $5-15M

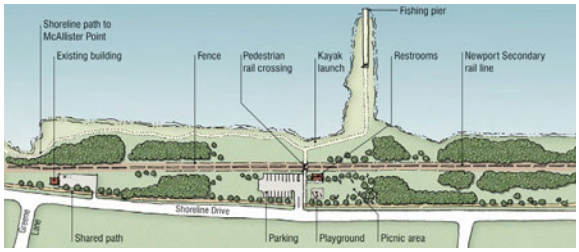


Figure 2.25 Concept plans from Shoreline Park Master Plan

Description

This strategy proposes opening Burma Road to public use and transforming it into new multi-modal scenic corridor with preserved open spaces, walking trails, picnic areas, and new public shoreline access points. Diverting traffic from West Main Road would ease congestion making travel for visitors, workers, and residents more efficient between Portsmouth and NAVSTA Newport. It would also increase public access and recreational opportunities on the Island's west side, between McAllister Point and Weaver Cove, and support community priorities for open space conservation.

History/Context

The West Side Mater Plan proposed opening Defense Highway (Burma Road) to public traffic and seeking designation as a scenic highway. It also proposed redevelopment of the Midway Pier near Green Lane into a public open space with a scenic outlook, and fishing pier which was further explored by the Town of Middletown through the Defense Highway Redevelopment Plan and Shoreline Park Master Plan. These planning initiatives also proposed a shoreline path and additional walking trails connecting McAllister Point to Weaver Cove that would allow for public recreational use while preserving the coastal ecosystem.

Benefits

- Creates and preserves open space and waterfront access.
- Creates new public shoreline access, open space, and bike/ped infrastructure to support recreation and tourism.
- Helps ease congestion on West Main Road by diverting some traffic.

Key Implementation Steps

Establish a process for granting public access to waterfront. Discussions should establish a clear and coordinated process and timeline for access and use.

Engage RIDOT as key partner alongside project champion. RIDOT support would be helpful to carry this idea forward as the benefits are generated on state-owned roadways, rather than for the Navy.

Reassess feasibility of Shoreline Drive Park Master Plan. Recommendations proposed in this plan should be re-examined in context of results of previous steps. Changes should be proposed in line with what is feasible and include phasing.

Conduct Aquidneck Island North/South Mobility Study. Recommended elsewhere in this study, the project should be contextualized with other efforts to improve north/south travel on the Island (Halsey Extension, East/West Main Road specific strategies, multimodal opportunities, etc.).

Alignment with Goals

DRAFT

1. Positions Burma Road as a long-term link
2. Addresses constraints in transportation network
3. Promotes multimodal transportation
4. Supports greater viability of the water and sewer network
5. Reconciles land use needs
6. Supports economic development

Evaluation Criteria

HOUSING DIVERSIFICATION

Does not demonstrably add to the local housing supply

JOB CREATION

Does not demonstrably add to the local job supply

SUPPORT FOR OCEAN ECONOMY

May create opportunities that indirectly support ocean economy sector growth

PROVISION OF OPEN SPACE

Greenway provides new publicly accessible open space and waterfront access
(+/- 15 acres)

DRAFT

Redevelop RIDOT Pell Bridge Parcels in alignment with Newport North End Urban Plan

Timeframe: Mid-term
Cost: Over $50M

Figure 2.26 Initial general design concept for RIDOT Pell Bridge parcels

Source: Newport North End Urban Plan

Description

This strategy prioritizes continued action towards implementation of the North End Urban Plan through the redevelopment of the RIDOT surplus Pell Bridge parcels for mixed-use innovation, ocean economy, and maker/manufacturing uses with substantial resilient components. New development should focus on the parcels to the south where broader transformation could take place with underutilized sites along Halsey Street and J.T. Connelly Highway, and where connections to existing water and sewer infrastructure are more feasible. The northern parcels, which include emerging wetlands and stormwater retention facilites, should continue to focus on stormwater management alongside adaptation into publiclly accessible open space.

Alternatively, the RIDOT parcels present an opportunity for a large-scale resilience project that brings flood mitigation and public open space to the North End. A combination of stormwater infrastructure for water storage, wetland restoration, and areas for passive recreation would allow these parcels to manage stormwater for the area and add much needed green space to a highly impervious neighborhood. The existing physical conditions of the parcels create limited realistic opportunities for new development, but impactful opportunities for flood control.

History/Context

The North End Urban Plan identified the potential for Newport's North End to be transformed into a high-wage, year-round jobs center for blue and green economic sectors through the creation of a dense, walkable neighborhood following the Pell Bridge realignment project. The plan includes an extensive resilience component for stormwater management and flood mitigation. It builds on the earlier recommendations of the West Side Plan which identified the North End as a key growth area due to the available publicly-owned land anticipated through the reconfiguration of the Pell Bridge access ramps. The final report by the Ad Hoc Bridge Realignment Advisory Committee highlights the unique but extremely challenging opportunity to leverage the excess RIDOT parcels

and other nearby underdeveloped properties to support advancement of the North End Urban Plan. It notes that successful redevelopment would require reducing the substantial upfront costs for developers that would be needed to ready the site, likely through City or State action and investment.

Benefits

- Expands opportunities for innovation and ocean economy, many of which are of high demand in the current market.
- Creates infrastructure to support new businesses and jobs.
- Provides stormwater management and flood mitigation.
- Creates new open space for Newport's North End neighborhood.

Key Implementation Steps

Inter-Agency Coordination. Redeveloping the RIDOT parcels is complex given the significant level of inter-agency coordination that will be required. A clear plan and process for transfer or ownership from RIDOT to a recieving entity will need to be established.

Establish a Central Authority to Manage Project. In the near term, the City of Newport will need to establish a project manager and leadership structure to coordinate efforts. In the long term, a central authority, sponsored by the City of Newport or a State quasi-government entity, should be developed to oversee and coordiante the project.

Site Remediation, Due Dilligence & Infrastructure Investment. As identified in the Ad Hoc Bridge Realignment Advisory Committee report, the RIDOT parcels face significant environmental and geotechnical challenges that will require remediation, due diligence, and substantial upfront investments to unlock their development potential. This area of Newport is not serviced by infrastructure and utilities, so infrastructure capacity will need to be addressed prior to or as a part of any redevelopment plans.

Explore resilience project potential. Pursuing a large-scale resilience project on these parcels would require less infrastructure and site preparation. The Navy could likely leverage DoD funding for resilience to support the project and implement it in conjunction with the Elizabeth Stream daylighting project which is already underway. One of the main gates to NAVSTA, the hospital, and visitor control center is located in this area making flood mitigation and resilience especially of interest to the Navy.

Successful redevelopment would require reducing the substantial upfront costs for developers that would be needed to ready the sites, likely through City or State action and investment.

Alignment with Goals DRAFT

1. Positions Burma Road as a long-term link
2. Addresses constraints in transportation network
3. Promotes multimodal transportation
4. Supports greater viability of the water and sewer network
5. Reconciles land use needs
6. Supports economic development

Evaluation Criteria

HOUSING DIVERSIFICATION

Does not demonstrably add to the local housing supply

JOB CREATION

Expands capacity for innovation economy, R&D, and marine-related jobs and businessess

SUPPORT FOR OCEAN ECONOMY

May create spaces to accommodate more ocean economy and related businesses

PROVISION OF OPEN SPACE

Creates opportunities for open space integration within new development (+/-8.5 acres). OR High; resilience/wetland restoration

DRAFT

Create more flexible uses at existing corporate parks to support growing industry sectors

Timeframe: Short-Term/Ongoing
Cost: $1-5M

Figure 2.27 Proposed Redevelopment Opportunities at Aquidneck Corporate Park

Description

Many of the Island's corporate parks and office buildings support older business structures and uses that have reduced demand in today's market. This leaves this real estate underutilized and less compatible with new businesses and emerging sectors that have fewer needs for larger physical spaces, traditional office layouts, and extensive parking. Adapting and retrofitting existing office spaces and corporate parks to accommodate a greater variety of uses and space types will strengthen their capacity to attract new tenants and businesses to the Island from higher growing sectors. It will also support an entrepreneurial environment for start-ups and small businesses by creating opportunities for smaller and more affordable business spaces, industrial-flex, or co-working spaces to develop. Exploring the capacity of existing corporate parks to integrate mixed-use or multi-family residential development should additionally be explored to create opportunities for Towns to capitalize on the resulting higher property values.

The 91-acre Aquidneck Corporate Park presents a significant opportunity for reconfiguration to better align existing large office spaces to meet evolving industry needs. Existing office buildings cover just 14% of the total land area within the park, indicating significant acreage available for infill possibilities. The Newport Corporate Park/One & Two Corporate Place and Enterprise Center present similar opportunities.

History/Context

The Greater Newport Chamber of Commerce and Connect Greater Newport 10-Year Regional Plan emphasizes the importance of increasing jobs in the defense sector due to its multiplier effect which produces external benefits in other areas of the economy. Continuing to support and expand ocean economy businesses was also cited as a key area of focus to support job creation in higher-paying industry. An accompanying strategy included "pursuing state and federal support to growth ocean economy through program-related and infrastructure investments." To support these sectors, existing infrastructure, like commercial and industrial spaces, must meet their needs.

Office buildings on Middletown's Enterprise Drive behind Town Hall are already starting to transform from traditional office use to mixed-use. The forthcoming Middletown Comprehensive Plan additionally includes recommendations for increasing flexibility at Aquidneck Corporate Park and redeveloping underutilized commercial spaces to better align with today's business needs.

Benefits

- Creates more opportunities for commercial and business uses that will support economic development; reduce vacant and underutilized commercial spaces.
- Creates spaces better suited for emerging industries with greater growth potential.

Key Implementation Steps

Engage existing corporate park/commercial property owners and existing tenants. Establishing ongoing working relationships between municipal staff, property owners, and tenants will help identify retrofit opportunities, clarify redevelopment potential, and identify challenges.

Increase flexibility of corporate park zoning regulations. Review existing zoning and amend to allow for a greater variety of principle and accessory uses permitted by right. Reduce lot coverage, minimum lot size, and parking requirements to facilitate infill development.

Alignment with Goals DRAFT

1. Positions Burma Road as a long-term link
2. Addresses constraints in transportation network
3. Promotes multimodal transportation
4. Supports greater viability of the water and sewer network
5. Reconciles land use needs
6. Supports economic development

Evaluation Criteria

HOUSING DIVERSIFICATION

Does not demonstrably add to the local housing supply

JOB CREATION

Expands capacity for more businesses to locate; job creation potential (+/- 100-500 units)

SUPPORT FOR OCEAN ECONOMY

Creates opportunities for more flexible spaces that could accommodate ocean economy and related businesses (+/- 100-500 units)

PROVISION OF OPEN SPACE

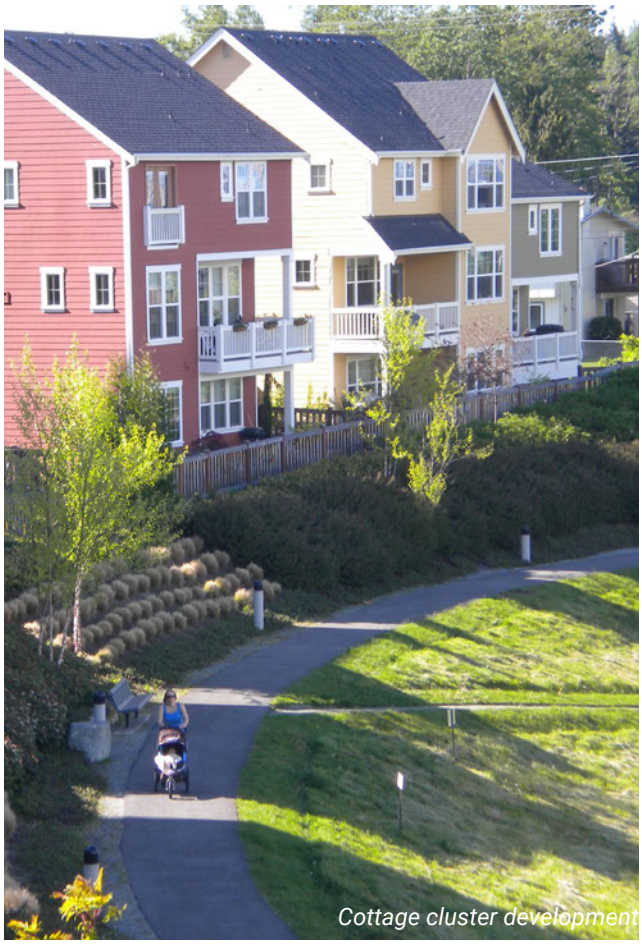
Opportunities to preserve open space as an amenity space and component of redevelopment

DRAFT

Incorporate public open space and resilience infrastructure within new development projects

Timeframe: Ongoing

Cost: Under $1M


Cottage cluster development


Common public space


Green stormwater infrastructure

Figure 2.28 Examples of Public Open Space in New Development

Description

This strategy leverages new development to expand and enhance the open space network across Aquidneck Island. By incorporating public open spaces—such as plazas, parks, greenways, or landscaped setbacks— and promoting compact or clustered development styles, development projects can create new resources for recreation, social connection, and ecological value. These spaces can serve as critical links that fill gaps in the existing open space system, improve walkability, and connect neighborhoods to nature.

Additionally, prioritizing open spaces within development projects can support climate resilience and land conservation goals. Features like stormwater retention areas, tree canopies, permeable surfaces, and restored natural habitats can reduce flooding, improve air and water quality, and enhance biodiversity. When integrated into site design early on, these elements can serve both functional infrastructure needs and public space goals.

Through zoning incentives, site plan review, or public-private partnerships, communities can work with developers to ensure that new projects contribute meaningfully to a broader, connected open space network—one that supports livability, health, and long-term resilience.

History/Context

Preserving open space and expanding open space and recreational resources continues to be a top community priority.

Benefits

- Creates and enhances open space network.
- Creates opportunities for integration of green infrastructure and other measures to facilitate greater climate resilience.
- Increases property values.

Key Implementation Steps

Review zoning to facilitate open space development on both residential and commercial properties. Review open space requirements and consider changes that increase accessibility and activation as a community resource.

Develop design guidelines for open space. Developing coordinated Island-wide design guidelines will provide a shared resource municipalities can cite in their development review process.

Explore public-private partnerships. Negotiate agreements with developers to dedicate land for parks, greenways, or conservation areas and provide public access easements or trail connections in exchange for increased density, more flexible zoning, or streamlined approvals.

Alignment with Goals DRAFT

1. Positions Burma Road as a long-term link
2. Addresses constraints in transportation network
3. Promotes multimodal transportation
4. Supports greater viability of the water and sewer network
5. Reconciles land use needs
6. Supports economic development

Evaluation Criteria

HOUSING DIVERSIFICATION

Does not demonstrably add to the local housing supply

JOB CREATION

Does not demonstrably add to the local job supply

SUPPORT FOR OCEAN ECONOMY

Does not demonstrably support ocean economy

PROVISION OF OPEN SPACE

Creates new open space resources within developed areas

DRAFT

Redevelop West Main Road / Browns Lane Parcel into mixed-use village

Timeframe: Short/Mid-Term
Cost: $5-15M

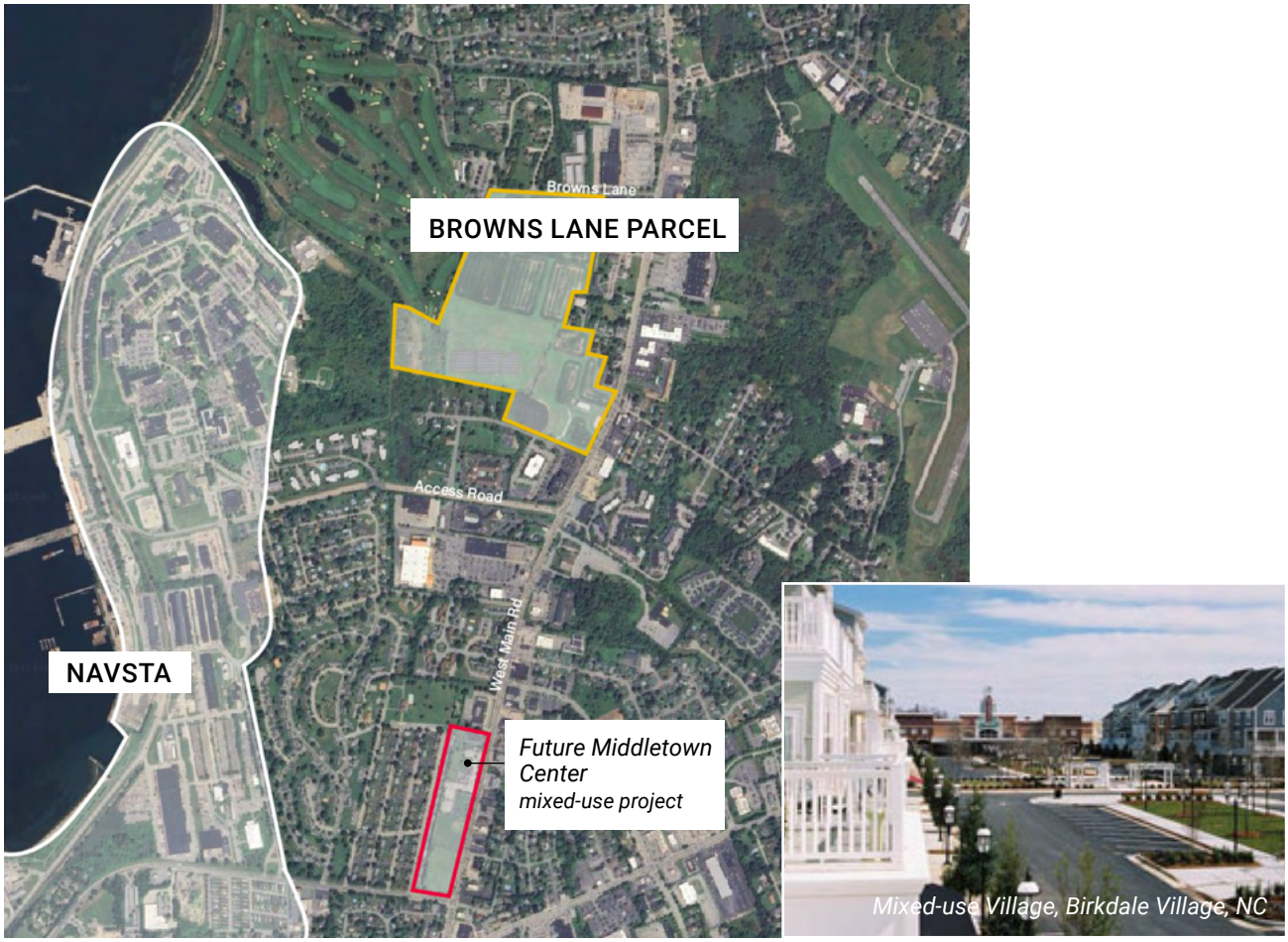


Figure 2.29 West Main Road / Browns Lane Parcel

Description

This strategy proposes redeveloping a 70-acre parcel located off West Main Road and Browns Lane for residential and mixed-use development. The privately owned site abuts Navy property and currently includes a solar installation. Due to the presence of wetlands and the existing solar farm, approximately 50 acres of the site are likely developable. It represents one of the last significant parcels with greenfield development potential in Middletown. New development at this site should support Middletown's and wider Aquidneck Island's need for housing while promoting village-style mixed-use development that balances the preservation of open space. Preliminary calculations on development potential estimate approximately 1,000 new housing units could be accommodated along with several hundred square feet of commercial space.

History/Context

A key objective of the West Side Master Plan was to combine land uses in ways that create commercial areas with better character, reduce highway traffic, reduce infrastructure costs, and preserve remaining undeveloped land. These multiple goals can be accomplished with mixed use development that combines commercial with other land uses such as residential and public open spaces.

Promoting mixed-use and muli-family housing development along existing commercial corridors, including West Main Road, was a key priority determined in Middleton's recent comprehensive planning process. Recently completed and upcoming development projects in Middletown have focused on mixed-use in commercial areas. The forthcoming Middletown Center project, which is just south of this site, will include village style mixed-use development.

Benefits

- Creates opportunites for new housing, including workforce affordable housing.
- Supports mixed-use development along West Main Road corridor.
- Preserves open space while creating economic development benefit to local tax base.

Key Implementation Steps

Review zoning regulations. Review zoning and reduce potential barriers to mixed-use development.

Identify interested development partners. Engage the existing property owner in future plans and other potential developers who may be interested in the site.

Alignment with Goals DRAFT

1. Positions Burma Road as a long-term link
2. Addresses constraints in transportation network
3. Promotes multimodal transportation
4. Supports greater viability of the water and sewer network
5. Reconciles land use needs
6. Supports economic development

Evaluation Criteria

HOUSING DIVERSIFICATION

Creates variety of housing types and affordability levels

JOB CREATION

Creates new spaces for businesses to locate, brings jobs (+/- 50-100 units)

SUPPORT FOR OCEAN ECONOMY

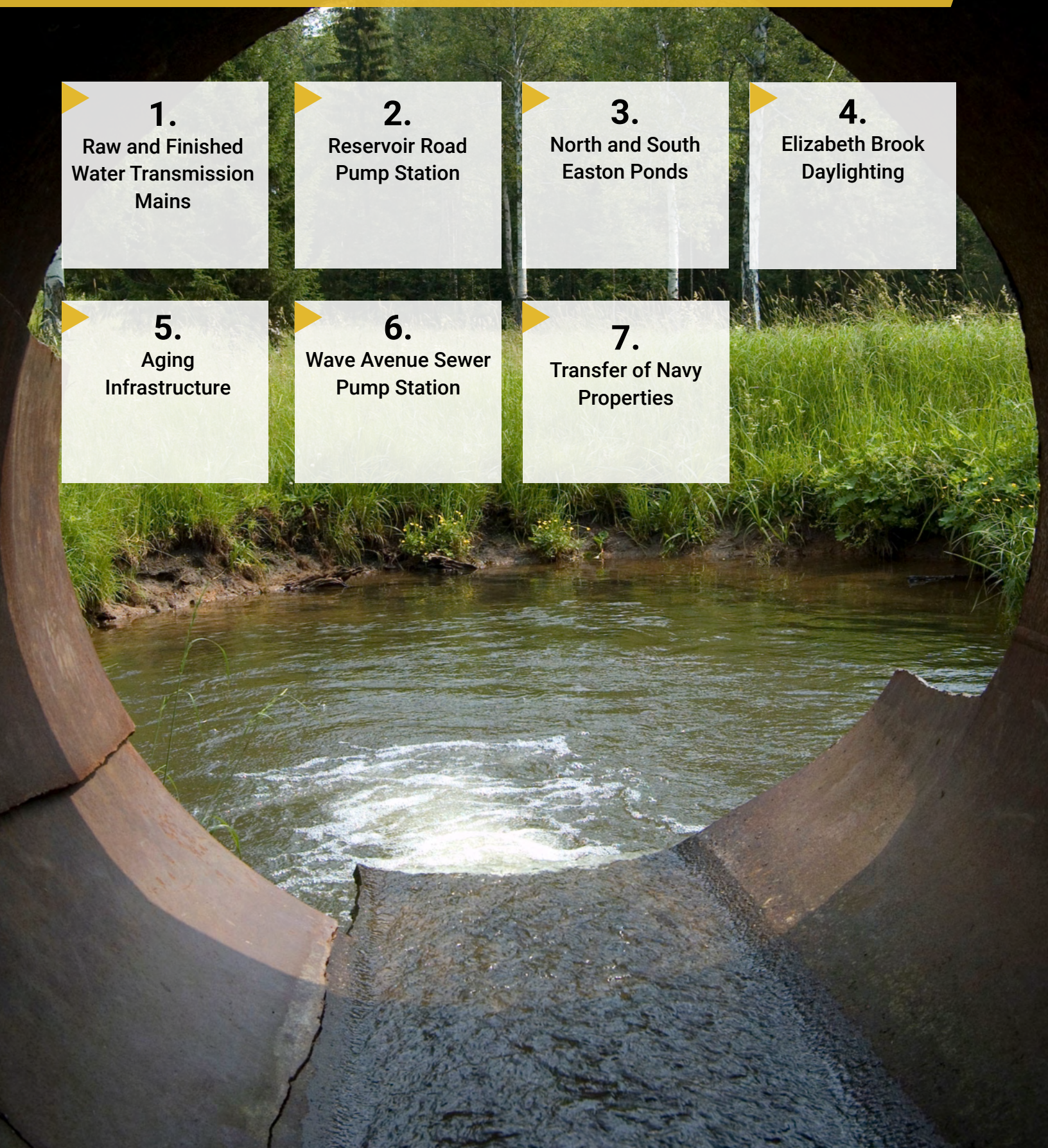
Supports housing for workforce and spaces for businesses, potentially for ocean economy

PROVISION OF OPEN SPACE

Opportunities to integrate open space in redevelopment

DRAFT

WATER / SEWER STRATEGIES



1. Raw and Finished Water Transmission Mains

2. Reservoir Road Pump Station

3. North and South Easton Ponds

4. Elizabeth Brook Daylighting

5. Aging Infrastructure

6. Wave Avenue Sewer Pump Station

7. Transfer of Navy Properties

Water/Sewer Evaluation Criteria

Each strategy in this section was evaluated against the same six criteria, as detailed below. A score for each factor was determined on a scale of 1-5, with 1 indicating the strategy has the lowest level of positive impact/ benefits and 5 indicating a maximum level of positive impact/benefits. The numbers correspond to colored bars (right) throughout this section.

RESILIENCY OF UTILITY NETWORK

Does the strategy enhance the overall resilience of the utility network? Resilience broadly refers to the ability of utilities to withstand and quickly recover from natural and human-made disasters. Resilience includes redundancy, reliability, and emergency response in relation to drinking water, wastewater, and stormwater infrastructure.

SCORE JUSTIFICATION

5. *Substantially increases utility network resilience*
4. *Moderately increases utility network resilience*
3. *Does not impact utility network resilience*
2. *Moderately interferes with utility network resilience*
1. *Substantially interferes with utility network resilience*

CONNECTION TO NAVSTA MISSION

Does the strategy contribute to Naval Station Newport's overall mission? This includes providing safe drinking water, and reliable sewer services to enable NAVSTA to deliver on its mission.

SCORE JUSTIFICATION

5. *Substantially supports NAVSTA's mission*
4. *Moderately supports NAVSTA's mission*
3. *Does not impact NAVSTA's mission*
2. *Moderately interferes with NAVSTA's mission*
1. *Substantially interferes with NAVSTA's mission*

WATER QUALITY

Does the strategy enhance, or at a minimum protect, the Island's overall water quality? This includes the overall water quality in water supply reservoirs, rivers, streams, and the ocean.

SCORE JUSTIFICATION

5. *Substantially preserves water quality*
4. *Moderately preserves water quality*
3. *Does not impact water quality*
2. *Moderately deteriorates water quality*
1. *Substantially deteriorates water quality*

Other Considerations

COST

How costly is the strategy to implement? This includes taking the project from conceptual planning to detailed design and construction. In general terms, the higher the cost the greater the effort to secure necessary funding.

TIMELINE

How long would the strategy take to complete construction? Although not tied to a score, each strategy identifies a likely implementation range from <3 years to over fifteen years.

DRAFT

Raw and Finished Water Transmission Mains

Timeframe: 3-5 years
Cost: $15-50M

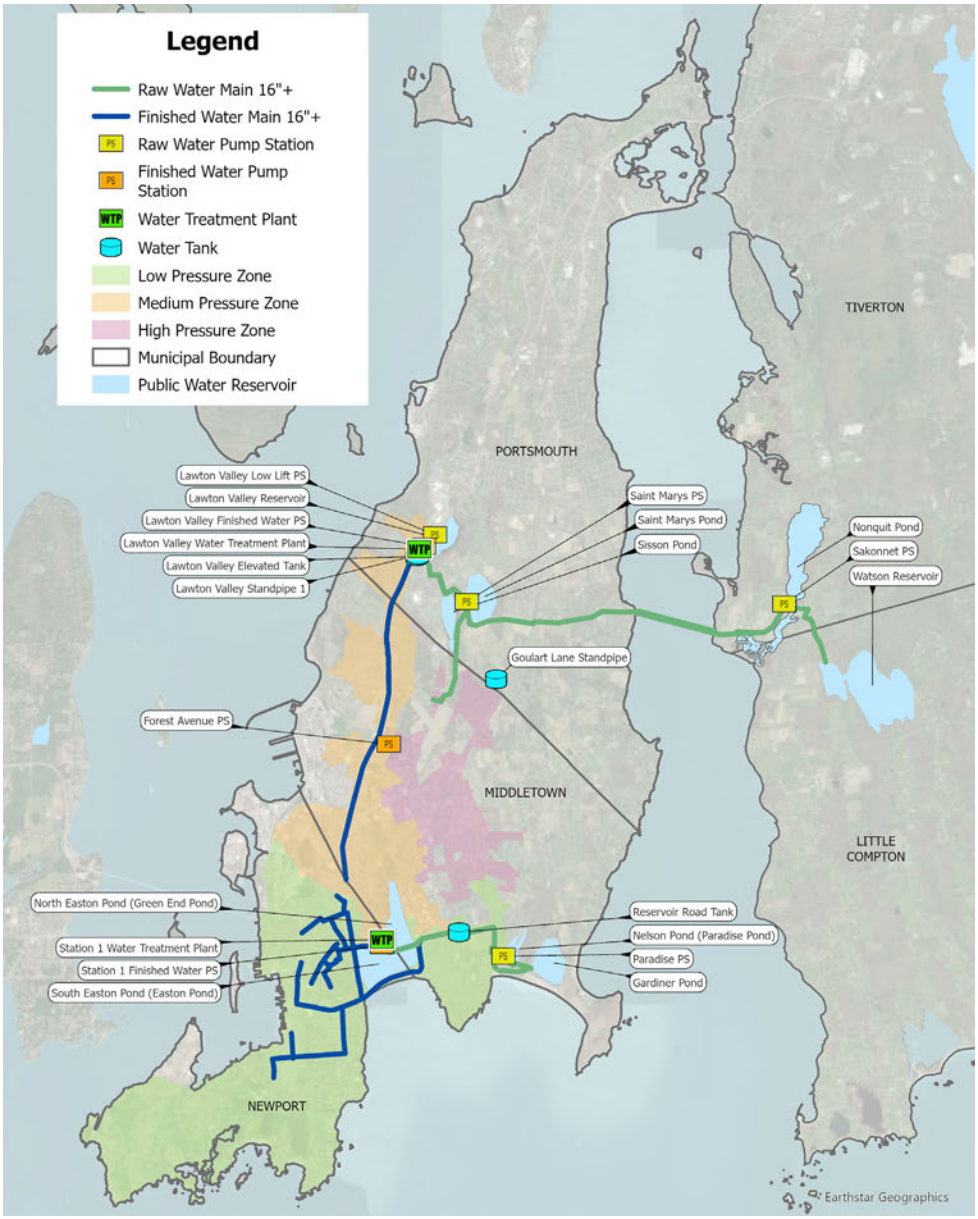


Figure 2.30 Water Transmission Mains on Aquidneck Island

Description

Raw water and finished water transmission mains are key to transporting large volumes of water over long distances, from water supply reservoirs to water treatment plants and from water treatment plants to the vast network of tanks and pumps. Transmission mains are the lifeline of any drinking water system.

The Newport Water Division (NWD) maintains 82 miles of transmission mains, ranging in size from 12-inches up to 30-inches. These transmission mains extend across Newport and Middletown and are critical to the transfer of water to Portsmouth Water and Fire District and to Naval Station Newport. The failure of any given transmission main could be catastrophic due to the high consequence of failure generally associated with them. As such, regular inspection and testing these transmission mains is critical to identify deficiencies and mitigate risk. Risk mitigation could be achieved through rehabilitation or replacement of aging transmission mains or even through the addition of isolation valves to limit the extents of drinking water outages and to streamline emergency response.

The condition of NWD's transmission mains is critical to a resilient drinking water supply on the Island. Several key transmission main upgrades have been identified and prioritized under this strategy, which would serve as proactive measures to maintain constant water supply and limit the extent/duration of emergency outages.

- Replace or line 22,200 linear feet of 24-inch water main along West Main Road, between Miantonomi Avenue and Almeida Terrace.
- Upsize 18-inch valves to 24-inch valves along existing 24-inch main on West Main Road, between Miantonomi Avenue and Almeida Terrace.
- Replace or line 5,000 lf of Asbestos Cement Pipe on Forest Avenue, between West Main Road and East Main Road.

History/Context

The Raw and Finished Water Transmission Mains strategy surfaced as a key project during discussions between Stantec and Newport Water Division. NWD has consistently tackled raw water and finished water transmission main projects, from non-destructive condition assessments to rehabilitation techniques, and even the addition of isolation valves. All of these projects have contributed to the resilience of the Island's drinking water supply, but more work remains to maintain and strengthen the drinking water system for all customers on the Island.

Benefits

- Limit service disruptions and the corresponding impacts on water pressure, water quality and fire flow by strengthening transmission mains.
- Support economic development throughout the Island by maintaining a reliable and resilient water supply system.
- Streamline emergency response through the addition of isolation valves, which would limit the extents of water supply outages associated a transmission main failure.
- Facilitate the transfer of water supply to the entire Island, Newport's retail customers and wholesale customers.

Key Implementation Steps

Perform a preliminary engineering study. The study should fully encompasses all past reports to solidify the technical approach, including project budget, funding source, construction timeline, permitting requirements, and operational changes.

Coordinate project schedules. Coordinate with all other recommended water and sewer projects to limit impacts on the Island's supply, especially during peak tourism season.

Engage stakeholders. Engage key stakeholders, namely, NWD's wholesale customers and the public, to increase awareness of the need and corresponding benefits of this project.

Alignment with Goals DRAFT

1. Positions Burma Road as a long-term link
2. Addresses constraints in transportation network
3. Promotes multimodal transportation
4. Supports greater viability of the water and sewer network
5. Reconciles land use needs
6. Supports economic development

Evaluation Criteria

RESILIENCY OF UTILITY NETWORK

Eliminates transmission bottlenecks and streamlines transfer of drinking water

CONNECTION TO NAVSTA MISSION

Ensures safe, reliable drinking water supply

WATER QUALITY

No direct impact on water quality

Reservoir Road Pump Station

Timeframe: 3-5 years
Cost: $15-50M

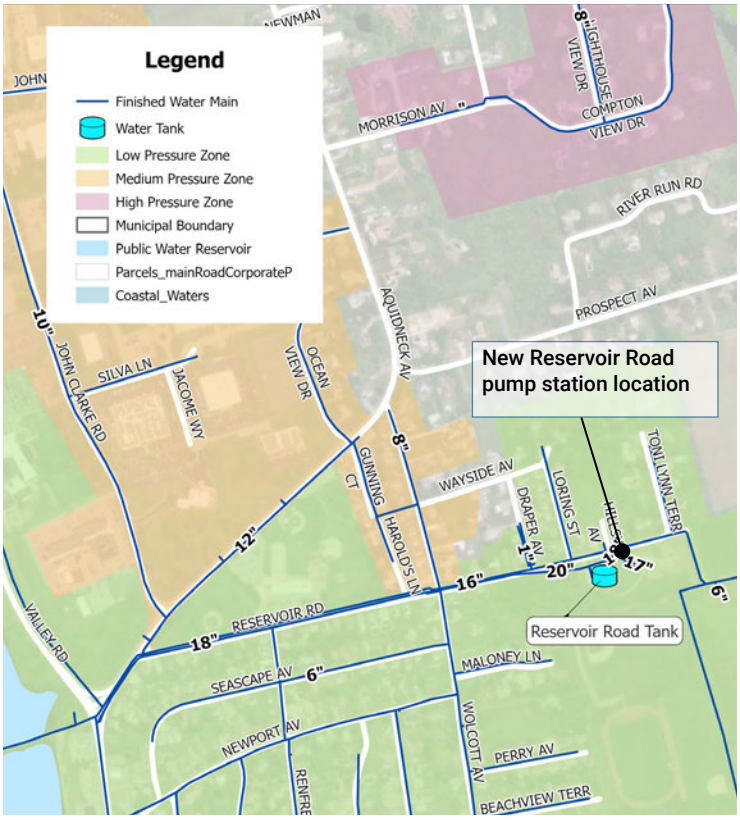


Figure 2.31 Proposed Pump Station at Reservoir Road

Description

The Newport Water Division (NWD) operates two water treatment plants with a combined capacity of 16 million gallons per day (MGD), and supplies water to an estimated 40,000 customers, which represents a majority of users on the Island. The public water supplied to Newport, Middletown, and Portsmouth comes from the Newport water system although not all of it is distributed to customers by Newport Water Division. NWD directly supplies water to retail customers in Newport and Middletown through three pressure zones (Low, Medium, High). The public supply in the majority of Portsmouth comes through NWD's Medium Pressure Zone, and is purchased wholesale from Newport by the Portsmouth Water and Fire District for distribution. Additionally, NWD supplies water to the Naval Station Newport through the Low Pressure Zone.

Transferring water between pressure zones requires pumping in series, from the lower pressure zones to the higher pressure zones. On the other hand, moving water from higher pressure zones to lower zones can be achieved using control valves or pressure reducing valves to make sure pressures upstream and downstream are within the acceptable range. As such, the key bottlenecks for the interzonal transfer of drinking water become these pump stations and valve facilities, and any failure at these facilities would cause a cascading effect upstream and downstream, leading to a significant overall impact on the Island's water supply.

Presently, NWD can pump water from the Low Pressure Zone to the Medium Pressure Zone through the Station 1 Water Treatment Plant. The Lawton Valley Water Treatment Plant directly feeds the Medium Pressure Zone, and the High Pressure Zone can only be fed directly from the Medium Pressure Zone through the Forest Avenue Pump Station. NWD's ability to move water from higher pressure zones to lower pressure zones is somewhat limited to the newly installed pressure reducing valves. The Reservoir Road Pump Station project would eliminate critical bottlenecks in the transfer of water between pressure zones and throughout the Island.

The referenced project consists of a new pump station in addition to nearly 8,000 lf of water main upgrades in the vicinity of the pump station, along Reservoir Road and Paradise Avenue. This would build redundancy and allow NWD to directly pump water from the Low Pressure Zone to the Medium Pressure Zone, eliminating the Station 1 Water Treatment Plant bottleneck. The proposed

project would also allow direct pumping from the Low Pressure Zone to the High Pressure Zone, eliminating the Forest Avenue Pump Station bottleneck. Furthermore, the Reservoir Road Pump Station would support the direct transfer of water from the Medium Pressure Zone to the Low Pressure Zone, and from the High Pressure Zone to the Low Pressure Zone, thus eliminating any single point of failure that would limit the transfer of water between pressure zones.

History/Context

The Reservoir Road Pump Station surfaced as a key project during discussions between Stantec and Newport Water Division. A brief review at NWD's capital expenditure priorities over the past two decades would support the placement of this project as the critical next step to building redundancy and resiliency to the Island's water supply system. Since 2014, several critical capital improvement projects have been implemented by NWD, such as the Station 1 Water Treatment Plant upgrades, the Lawton Valley Water Treatment Plant upgrades, aeration and active mixing at Reservoir Road Tank, addition of multiple pressure reducing valves, and systemwide water main replacements. All of these projects were completed in due order before the referenced Reservoir Road Pump Station could be constructed as another key project to further strengthen the redundancy and reliability of the Island's water supply.

Benefits

- Limit service disruptions and the corresponding impacts on water pressure, water quality and fire flow by diversifying and strengthening interzonal water transfer.
- Provide operational flexibility to maintain the appropriate level of service throughout the Island.
- Build resiliency and redundancy into the Island's water supply to support peak tourism water demands, which surge from 40,000 customers to nearly 100,000 customers.
- Support economic development throughout the Island by maintaining a reliable and resilient water supply system.

Key Implementation Steps

Perform a preliminary engineering study. The study should fully encompass all past reports to solidify the technical approach, including project budget, funding source, construction timeline, permitting requirements, and operational changes.

Coordinate project schedules. Coordinate with all other recommended water and sewer projects to limit impacts on the Island's supply, especially during peak tourism season.

Engage key stakeholders. Engage NWD's wholesale customers and the public, to increase awareness of the need and corresponding benefits of this project.

Alignment with Goals DRAFT

1. Positions Burma Road as a long-term link
2. Addresses constraints in transportation network
3. Promotes multimodal transportation
4. Supports greater viability of the water and sewer network
5. Reconciles land use needs
6. Supports economic development

Evaluation Criteria

RESILIENCY OF UTILITY NETWORK

Eliminates bottlenecks and strengthens interzonal transfer of drinking water

CONNECTION TO NAVSTA MISSION

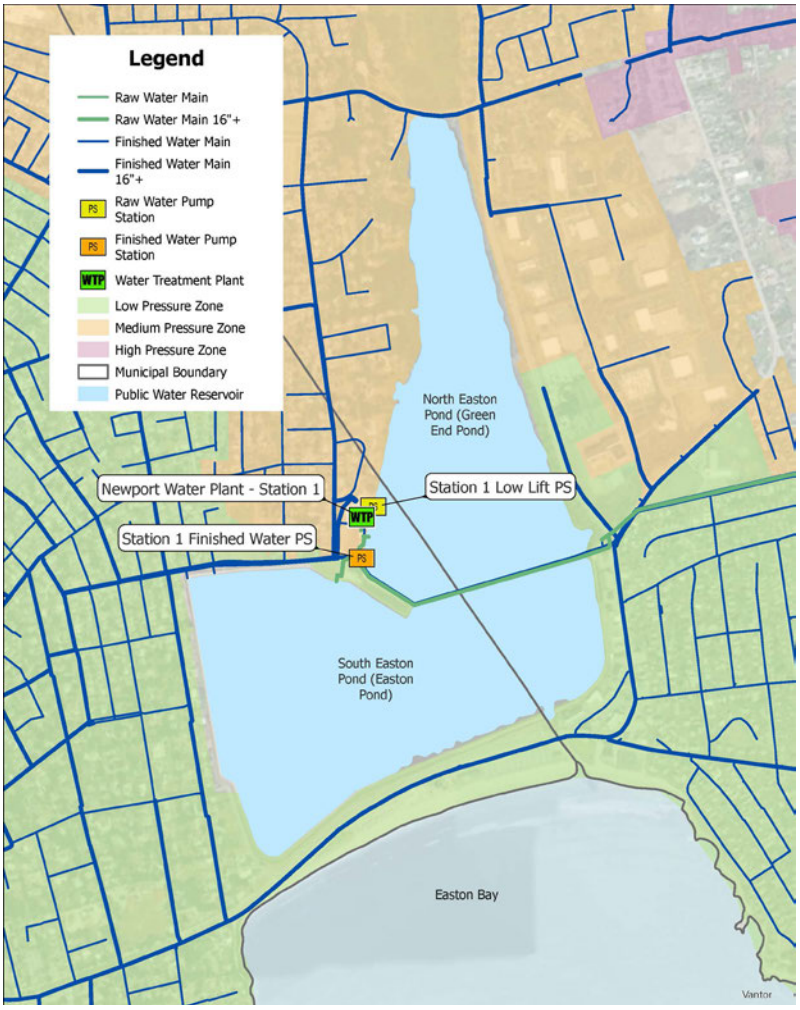
Ensures safe, reliable drinking water supply

WATER QUALITY

No direct impact on water quality

North and South Easton Ponds

Timeframe: 5-10 years
Cost: > $50M



Description

The public water supplied to Newport, Middletown, and Portsmouth comes from Newport through the Newport Water Division (NWD). NWD also supplies water to the Naval Station Newport. NWD relies on nine public drinking water supply reservoirs, all owned by the City of Newport and managed by NWD.

- Lawton Valley Reservoir, Saint Mary's Pond, and Sisson Pond in Portsmouth.
- North Easton Pond (Green End Pond) in Middletown and South Easton Pond (Easton Pond) in Newport.
- Nelson Pond (Paradise Pond) and Gardiner Pond in Middletown.
- Watson Reservoir in Little Compton and Nonquit Pond in Tiverton.

Figure 2.32 Water Infrastructure at North and South Eastons Ponds

NWD's higher production plant, the Station 1 Water Treatment Plant, draws suction directly from North and South Easton Ponds. Although the North and South Easton Ponds are naturally filled through Bailey's Brook, NWD could directly or indirectly fill the two ponds from any of the seven reservoirs (five on-Island and two off-Island). Such operational flexibility provides a layer of resiliency; however, North and South Easton Ponds remain vulnerable to saltwater contamination, climate change, sea level rise, storm surge, and flooding. The occurrence of such vulnerabilities could disrupt operations at the Station 1 Water Treatment Plant and negatively impact water service on the Island.

The water supply on Aquidneck Island is highly dependent on NWD's nine surface water reservoirs, and as such, is subject to the vulnerabilities of these reservoirs, especially those in coastal zones, such as North and South Easton Ponds. The referenced project would mitigate water supply vulnerabilities at the North and South Easton Ponds, including risks associated with saltwater contamination, climate change, sea level rise, storm surge, and flooding through dam stability improvements within both ponds.

History/Context

The North and South Easton Ponds strengthening project was referenced in the City of Newport's Water Supply System Management Plan (2020). The 2025 update of the City of Newport's Water Supply System Management Plan confirmed the vulnerabilities of North and South Easton Pond dams to sea level rise and storm surge. The City pursued federal funding through the Building Resilient Infrastructure and Communities (BRIC) grant program in 2023 and 2024, but received feedback to restructure their approach, before the BRIC program was then halted by FEMA earlier in 2025. The 2025 draft of the Aquidneck Island Watershed Plan also highlighted vulnerabilities associated with the North and South Easton Ponds, especially, given their proximity to the coast. Additionally, the City of Newport's Hazard Mitigation Plan acknowledges that Easton's Pond has been contaminated with salt water from storm surge during past hurricanes. A vulnerability study was conducted and recommendations from that study were presented to the City in the Climate Resiliency Assessment Technical Memorandum (2019).

Benefits

- Mitigate water supply vulnerabilities, including risks associated with saltwater contamination, climate change, sea level rise, storm surge, and flooding.
- Limit service disruptions and the corresponding impacts on water pressure, water quality and fire flow by building resiliency into Aquidneck Island's higher production treatment plant, the Station 1 Water Treatment Plant.
- Provide operational flexibility to maintain the appropriate level of service throughout the Island, irrespective of seasonal demand fluctuations or weather conditions.
- Support economic development throughout the Island by maintaining a reliable and resilient water supply system.

Key Implementation Steps

Perform a preliminary engineering study. The study should fully encompasses all past reports to solidify the technical approach, including project budget, funding source, construction timeline, permitting requirements, and operational changes.

Coordinate project schedules. Coordinate with all other recommended water and sewer projects to limit impacts on peak tourism season.

Engage key stakeholders. Engage NWD's wholesale customers and the public, to increase awareness of the need and corresponding benefits of this project.

Alignment with Goals DRAFT

1. Positions Burma Road as a long-term link
2. Addresses constraints in transportation network
3. Promotes multimodal transportation
4. Supports greater viability of the water and sewer network
5. Reconciles land use needs
6. Supports economic development

Evaluation Criteria

RESILIENCY OF UTILITY NETWORK

Protects the main raw water supply for the Station 1 Water Treatment Plant

CONNECTION TO NAVSTA MISSION

Ensures safe, reliable drinking water supply

WATER QUALITY

Protects North and South Easton Ponds from saltwater contamination and flooding

Elizabeth Brook Daylighting

Timeframe: 5-10 years
Cost: > $50M

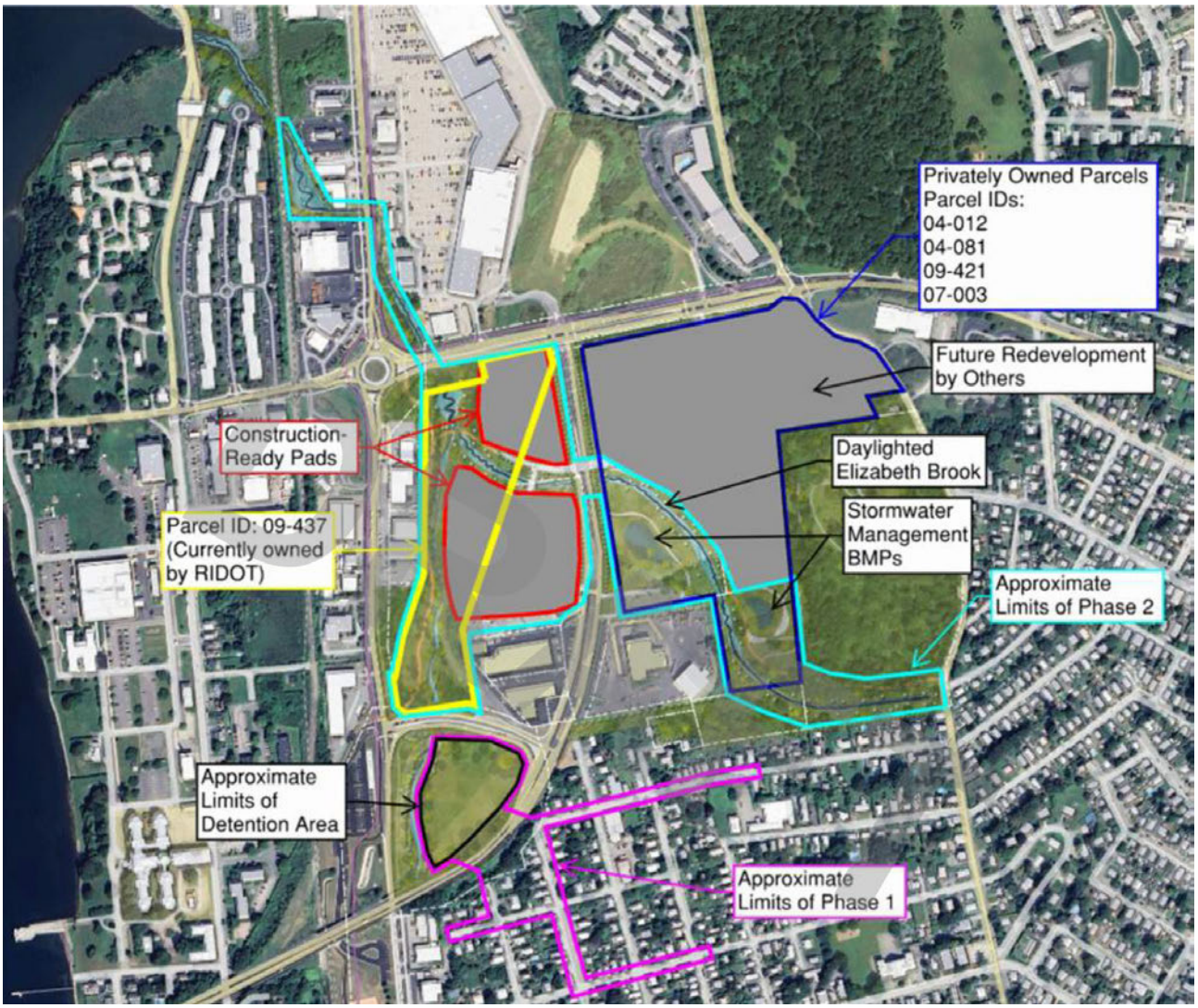


Figure 2.33 Proposed Elizabeth Brook Daylighting and Resiliency Improvements
Source: Jacobs Engineering Group

Description

The City of Newport's Department of Utilities is working to develop a cohesive multi-phase vision for the redevelopment of the North End. Phase 1 includes stormwater infrastructure improvements in the Prescott Hall neighborhood and grading an area within the Pell Bridge Ramp to provide additional stormwater detention. Phase 2 includes daylighting and resiliency improvements to Elizabeth Brook, and additional gray infrastructure upgrades, both within City-owned roadways and RIDOT-owned culverts.

The referenced project would provide a holistic approach to flood mitigation, stream restoration, public open space and redevelopment in the North End. Phase 1 is currently in the 60% design stage. Phase 2 is currently in the concept-level design stage with initial field investigations ongoing. Once completed, the project will alleviate flooding that impacts the roundabout at Gate 1 and threatens the operation of the Connell Highway treatment plant.

A brief overview of the project phases is summarized below, as outlined by the City and Jacobs Engineering Group.

- **Phase 1:** Upsize 700 linear feet of drainage pipe; install 1,800 linear feet of new drainage pipe; and grade a 3-acre new stormwater detention area.
- **Phase 2:** Daylight Elizabeth Brook as much as possible, as depicted in the "Approximate Limits of Phase 2", and restore riparian habitat and floodplain adjacent to the brook to improve natural functions and help mitigate flooding in the watershed, while expanding open space and creating a network of green spaces that will benefit the community.

History/Context

The Elizabeth Brook Daylighting strategy surfaced as a key project during discussions between Stantec and Newport's Department of Utilities. This was also validated by technical reports and memorandums, including the Permitting Approach Technical Memorandum dated 2025.

Benefits

- Restore riparian habitat and floodplain adjacent to the brook to improve natural functions and help mitigate flooding in the watershed.
- Expand open space and create a network of green spaces that will benefit the community.
- Support economic redevelopment in the North End.

Key Implementation Steps

Implement a phased approach. Follow the appropriate phasing and recommendations that have been presented by the City of Newport and Jacobs Engineering Group.

Finalize land purchase. Evaluate and finalize purchasing the parcel of land currently owned by RIDOT, where the SR 138 ramp was removed (Parcel ID 09-437).

Relocate Newport's DPW yard. Relocate the City of Newport's DPW yard (Parcel ID 04-045 and 09-317) to another location or Newport or Middletown to support the redevelopment component of this project.

Acquire rights on privately-owned parcels. Acquire rights to portions of the privately owned parcels to daylight Elizabeth Brook. The privately owned parcels are Parcel IDs 04-012, 04-081, 09-421, and 07-003.

Alignment with Goals DRAFT

1. Positions Burma Road as a long-term link
2. Addresses constraints in transportation network
3. Promotes multimodal transportation
4. Supports greater viability of the water and sewer network
5. Reconciles land use needs
6. Supports economic development

Evaluation Criteria

RESILIENCY OF UTILITY NETWORK

Eliminates bottlenecks that contribute to localized urban flooding

CONNECTION TO NAVSTA MISSION

Ensures urban flooding does not limit transportation to and from the station

WATER QUALITY

Preserves the brook's water quality through use of green infrastructure

DRAFT

Aging Infrastructure

Timeframe: 3-5 years
Cost: $15-50M

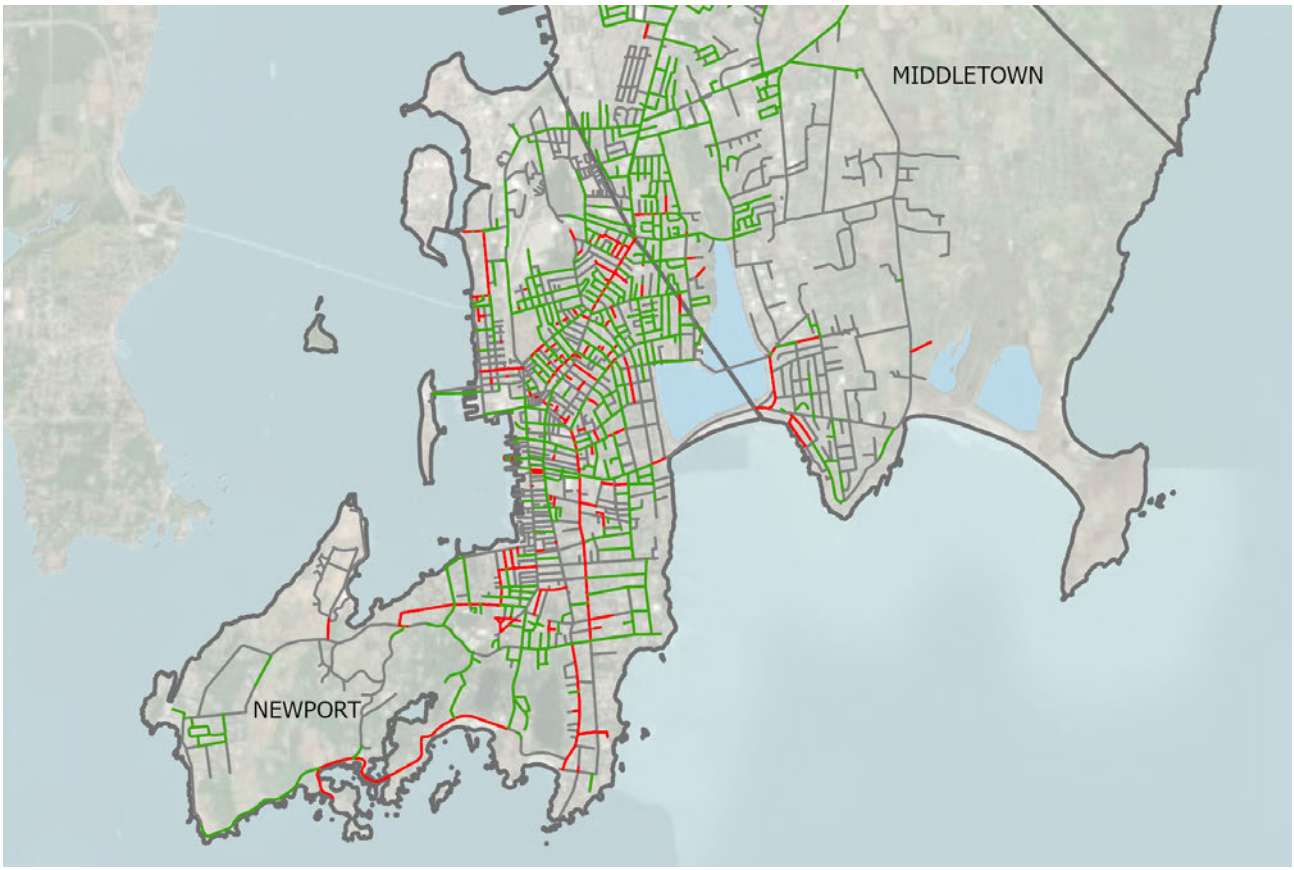


Figure 2.34 Infrastructure Greater than 50 or 100 Years Old

Description

Much of the underground water and sewer infrastructure on Aquidneck Island was installed more than 50-years ago, some over a century ago. These pipes are either near their design life or have surpassed their design life. Based on the best available data, 23% of water and sewer pipes in Newport and Middletown are more than 50 years old, and 4% of pipes are more than 100 years old dating back to the 1800s and early 1900s. As pipes age, they become more prone to failure. The consequences of aging infrastructure could vary broadly, from hidden leaks to pipe bursts on the drinking water front, to congested pipes and untreated sewer overflows on the wastewater front, all of which are detrimental to the Island's communities and the environment. As such solid asset management practices are critical to prioritize the replacement and rehabilitation of aging pipes based on their likelihood of failure and consequence of failure.

The renewal or replacement of aging infrastructure can cause a tremendous financial burden on utilities, which explains why respondents to the 2025 American Water Works Association (AWWA) State of the Water Industry survey highlighted "infrastructure renewal and replacement" as the second most critical challenge facing the water industry today. With intentional cross-disciplinary collaboration, Aquidneck Island can overcome the challenges associated with aging infrastructure by clustering and prioritizing water and sewer main renewals or replacements in conjunction with transportation and land use projects. This collaborative approach promises to maintain and strengthen the Island's utility network by efficiently delivering critical water and sewer infrastructure projects in conjunction with other infrastructure projects.

In areas where transportation or redevelopment projects are implemented, stakeholders are encouraged to review the age and condition of the existing water and sewer infrastructure in the area. If this infrastructure is beyond its design life, or has had a history of breaks, leaks or maintenance issues, the infrastructure should be rehabilitated or replaced.

History/Context

The referenced strategy surfaced as a key project during discussions between Stantec and the public utility owners across the Island. This was also validated by numerous national and regional industry reports, including the 2025 AWWA State of the Water Industry report.

Benefits

- Mitigate risks associated with aging infrastructure, which include hidden leaks, water main breaks, infiltration/inflow, and untreated sewer spills.
- Strengthen the sense of collaboration between the various Island stakeholders across water, sewer, transportation, and land use.
- Streamline the planning, design and construction phases of critical infrastructure projects.

Key Implementation Steps

Assess infrastructure conditions. In areas where transportation or redevelopment projects are implemented, stakeholders are encouraged to review the age and condition of the existing water and sewer infrastructure in the area.

Infrastructure rehabilitation. Water and sewer infrastructure that is beyond its design life, or has had a history of breaks, leaks or maintenance issues should be rehabilitated or replaced.

Alignment with Goals DRAFT

1. Positions Burma Road as a long-term link
2. Addresses constraints in transportation network
3. Promotes multimodal transportation
4. Supports greater viability of the water and sewer network
5. Reconciles land use needs
6. Supports economic development

Evaluation Criteria

RESILIENCY OF UTILITY NETWORK

Efficiently and proactively tackle the aging infrastructure challenge

CONNECTION TO NAVSTA MISSION

Strengthens the Island's water and sewer network

WATER QUALITY

Preserves water quality by mitigating risks of pipe bursts and untreated sewer spills

Figure 2.35 Aging Water Infrastructure

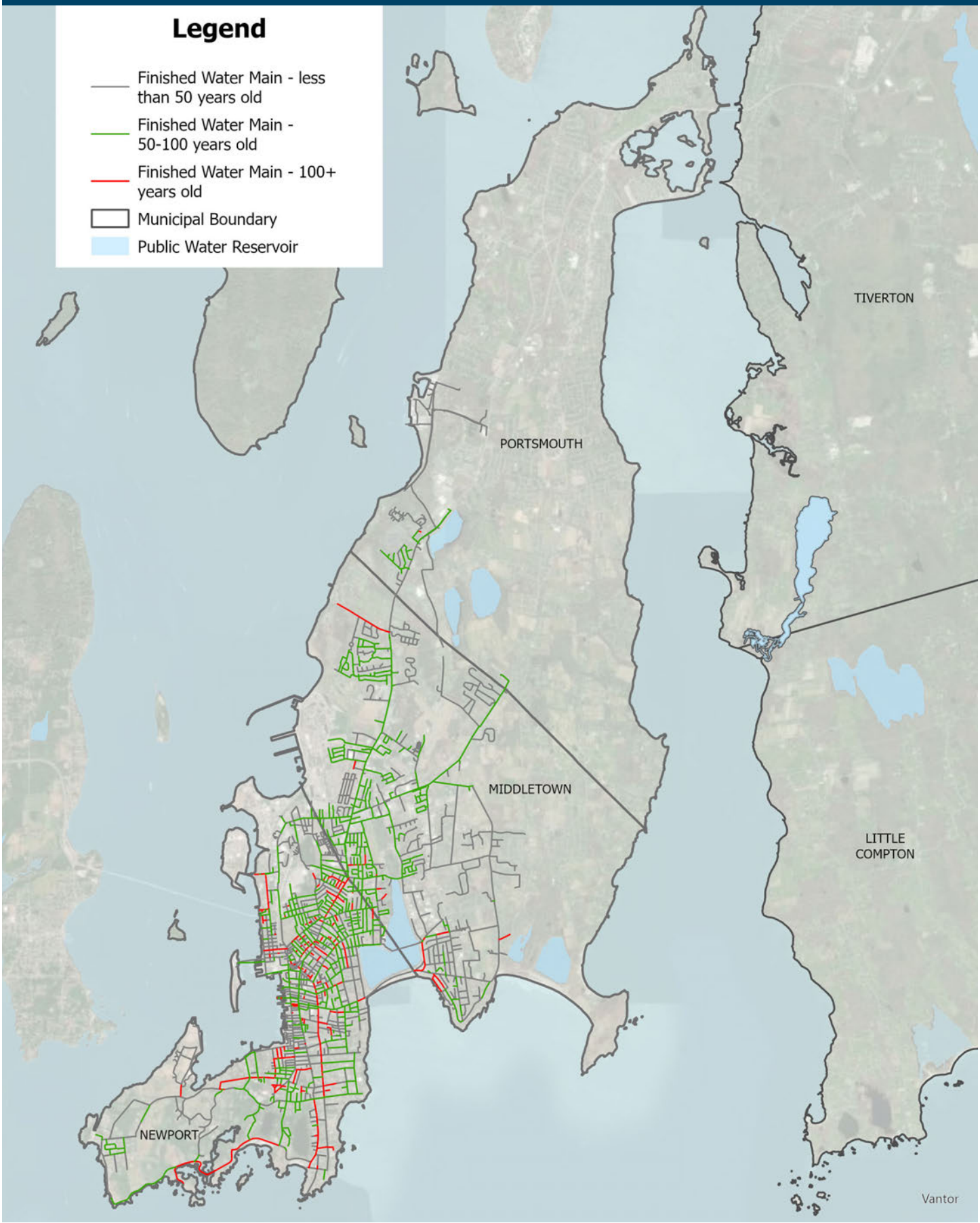
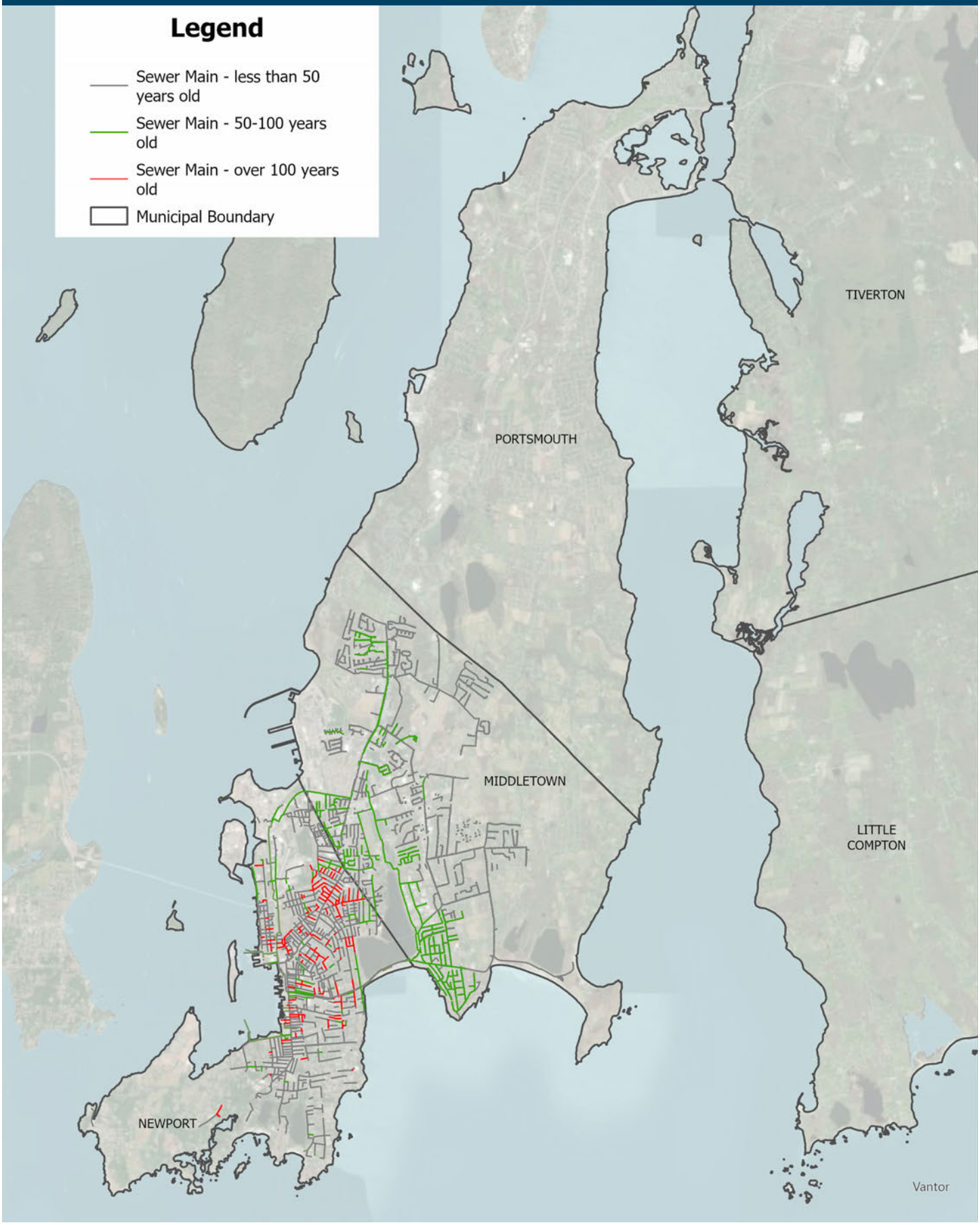


Figure 2.36 Aging Sewer Infrastructure



DRAFT

Wave Avenue Sewer Pump Station

Timeframe: 3-5 years
Cost: $15-50M

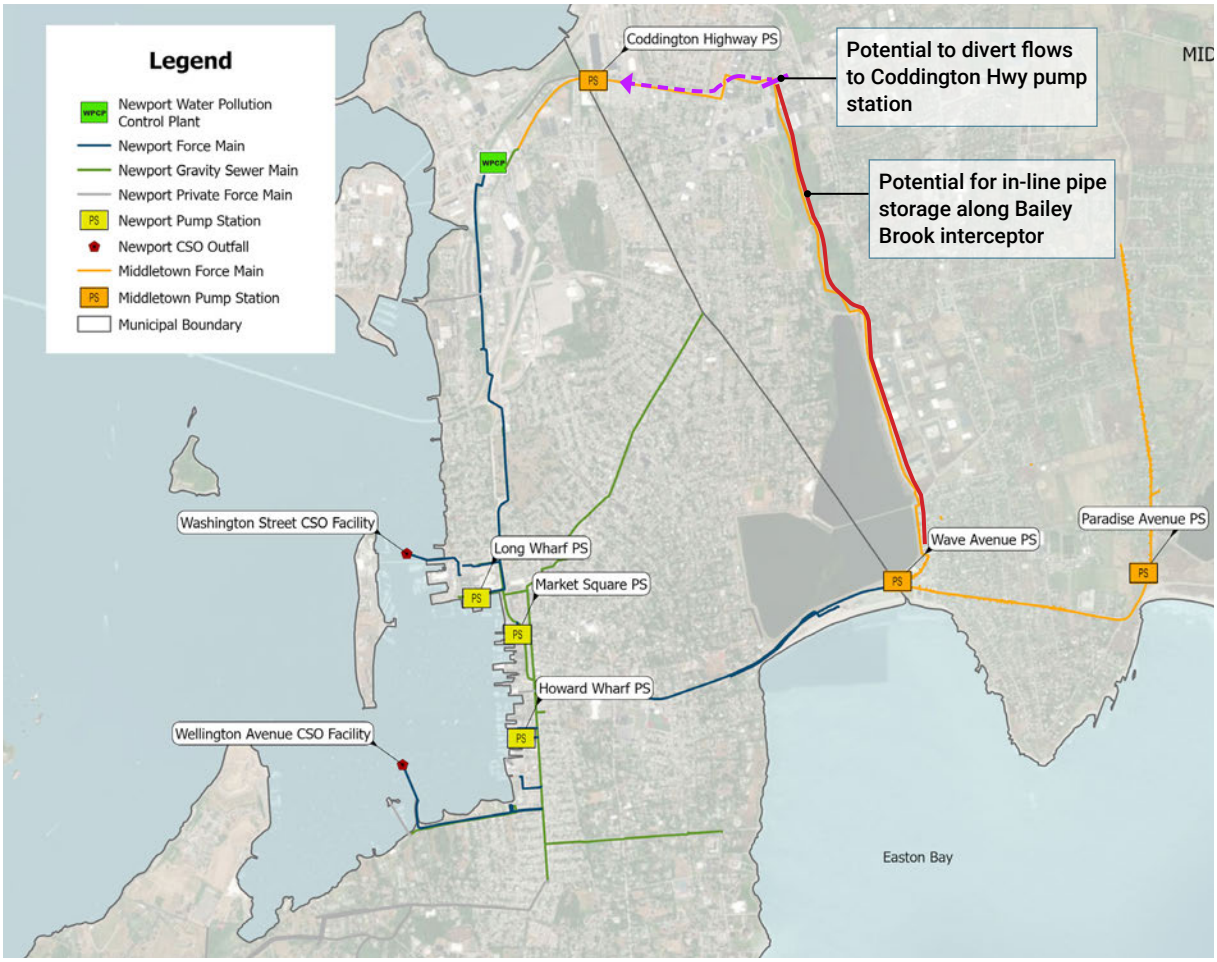


Figure 2.37 Proposed Wave Avenue Pump Station

Description

The sanitary sewer system in Middletown consists of newly 100 miles of pipe. All of Middletown's sanitary sewer is conveyed to the Newport's sewer system. The sanitary sewer system in the City of Newport consists of nearly 8 miles of force main and approximately 80 miles of gravity sewer.

The City of Newport's Long Wharf pump station is the low point in the sewer system and the primary pump station to convey sewer to the Water Pollution Control Plant. The Wave Avenue pump station is Middletown's primary pump station to convey sanitary sewer from Middletown to Newport through a force main and gravity sewer. There are two key interceptors in Middletown that feed the Wave Avenue pump station, namely, the Bailey Brook interceptor and the Paradise Avenue interceptor. Historical data indicate that Wave Avenue Pump Station flows can reach as high as 8 mgd. Given the frequency and scale of historic sanitary sewer overflows (SSOs) associated with capacity restrictions at the Wave Avenue pump station, two alternatives were recommended for further evaluation to mitigate SSOs.

Outlined below are the two potential alternatives:

- Re-route flows away from capacity restricted locations, primarily Wave Avenue pump station. This can be achieved by diverting peak flows from the Bailey Brook interceptor into the collection system of the Coddington Highway pump station.

- Provide storage volume to capture part of the elevated flow that occurs after a storm event and then slowly return that volume to the collection system after the peak flow event has subsided. This can be achieved by providing an in-line pipe storage system along the Bailey Brook interceptor.

History/Context

The Wave Avenue Sewer Pump Station strategy surfaced as a key project during discussions between Stantec and Middletown. This was also validated by technical reports, including the Sanitary Sewer Overflow Alternatives Report (2011). Middletown has historically tackled infiltration and inflow (I&I) reduction projects to mitigate sanitary sewer overflows (SSOs) attributed to capacity restrictions at the Wave Avenue Pump Station. Middletown has also rehabilitated the force main connecting the Wave Avenue Pump Station to Newport's Long Wharf Pump Station. The next critical capital project becomes one of the above alternatives to further mitigate SSOs.

Benefits

- Mitigate sanitary sewer overflows into the streets and into water bodies such as Easton Bay, thus protecting the Island's habitats and inhabitants.
- Support tourism and economic development by limiting beach closures associated with overflows and water quality concerns.
- Save capital costs by locally tackling sanitary sewer overflows at the Wave Avenue pump station instead of delivering major capital improvements downstream at the Newport Water Pollution Control Plant.

Key Implementation Steps

Undertake hydraulic modeling evaluations. Perform detailed hydraulic modeling evaluations to confirm the 1.5 MG estimated design volume needed to mitigate sanitary sewer overflows. This estimated design volume could be captured through either alternatives, re-routing or storage.

Conduct preliminary engineering study. Perform a preliminary engineering study that fully encompasses all past reports to solidify the technical approach, including project budget, funding source, construction timeline, permitting requirements, and operational changes.

Coordinate project schedules. Coordinate with all other recommended water and sewer projects to limit impacts on the Island, especially during peak tourism season.

Engage stakeholders. Engage key stakeholders to increase awareness of the need and corresponding benefits of this project.

Alignment with Goals DRAFT

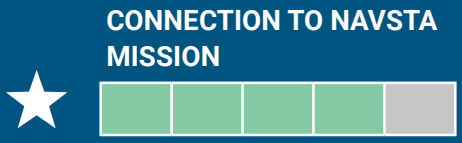
1. Positions Burma Road as a long-term link
2. Addresses constraints in transportation network
3. Promotes multimodal transportation
4. Supports greater viability of the water and sewer network
5. Reconciles land use needs
6. Supports economic development

Evaluation Criteria

RESILIENCY OF UTILITY NETWORK

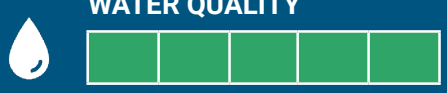
Eliminates bottlenecks that contribute to sanitary sewer overflows

CONNECTION TO NAVSTA MISSION



Ensures efficient wastewater collection

WATER QUALITY



Preserves water quality by mitigating sanitary sewer overflows

Transfer of Navy Properties - Utility Impacts

Timeframe: 3-5 years
Cost: $15-50M

Figure 2.38 Surplus Navy Properties

Description

This strategy focuses on the transfer of former Navy properties in Portsmouth, Middletown, and Newport to State or Municipal entities. The referenced Navy properties are the Tank Farm sites, Burma Road Green Corridor, and the Naval Hospital. While the transfer of Navy properties includes water and sewer, transportation, and land use components, the focus of this strategy will be to establish a high-level framework to identify any foreseeable water and sewer challenges associated with the transfer of these properties.

These properties provide significant redevelopment opportunities to Aquidneck Island but the transferring of properties will require significant coordination among local, state and federal entities to be successful.

NAVSTA has also been considering the privatization of the water and sewer assets at the installation. This privatization initiative may provide opportunities to serve additional nearby areas, beyond the current installation property boundaries, with water and sewer service.

History/Context

In recent years NAVSTA has been evaluating the divestiture of non-mission critical assets. The Aquidneck Island Infrastructure Assessment report, completed in May 2021, evaluated the pavement, stormwater, water and wastewater assets at various parcels considered for divestiture This study focused on the existing condition associated with these assets. If these parcels were transferred, they would either need to be connected to nearby municipal water and sewer infrastructure or would have to remain connected to NAVSTA's water and sewer network. The following table summarizes the utility impacts associated with transferring these properties.

Evaluation of Utility Impacts

EVALUATION	TANK FARMS 1 & 2, AND MELVILLE AREA	BURMA ROAD	NAVY HOSPITAL
WATER MAIN ASSETS			
Existing water connection	Water is provided by existing NAVSTA water system for Tank Farm Properties, Melville Area and nearby entities such as Melville Elementary School, Capehart North Housing area, Leland Point area.	Water is provided by existing NAVSTA water system and pipeline in Burma Road provides North/South connection within NAVSTA's water system.	Water is provided by existing NAVSTA water system service connection.
Existing municipal water main network located in the vicinity?	Yes; Portsmouth Water Fire District.	Yes; Newport	Yes; Newport
Is it feasbile to connect to municipal water system?	No; Melville area is located beyond the jurisdictional limits of Portsmouth Water & Fire District.	Yes; New water main extension will be required.	Yes; New water main extension will be required.
Additional Water Comments	Without connection to Portsmouth Water & Fire District, existing Navy water system is only feasible water supply option.	Depending on the redevelopment of Burma Road, the existing water main in Burma Road could be considered for re-use and/or replacement. Hydraulic studies will be required to evaluate how the municpal system can supply this area and how the NAVSTA system will function without the existing water infrastructure in Burma Road.	Only limited water main connections will be required to connect Navy Hospital to muncipal system. Consideration should be given to providing hydrants in the vicinity if supplied by municipal system.

EVALUATION	TANK FARMS 1 & 2, AND MELVILLE AREA	BURMA ROAD	NAVY HOSPITAL
SEWER MAIN ASSETS			
Existing sewer connection	Sewer is provided by existing NAVSTA sewer system for Tank Farm Properties.	Sewer is provided by existing NAVSTA sewer system and is part of the larger network of sewer system piping for the installation.	Sewer is provided by existing NAVSTA sewer system connection.
Existing municipal sewer network located in the vicinity?	No; NAVSTA sewer system is the only sewer system in the area. Portsmouth does not have municipal sewer. Middletown sewer is a far distance away.	Yes; Newport	Yes; Newport
Is it feasbile to connect to municipal sewer system?	No; distance to Middletown sewer is not feasible.	Yes; new sewer connection to municpal system will be required and pumping station may be required.	Yes; new sewer connection to municpal system will be required and pumping station may be required.
Additional Sewer Comments	While there is no municipal sewer in the vicinity, the Raytheon site does has a NPDES discharge permit related to their previously operational wastewater treatment plant. Investigation could be conducted to determine whether there are other feasible options for providing sewer services beyond NAVSTA's network.	Depending on the redevelopment of Burma Road, hydraulic studies will be required to evaluate how the municpal system can supply this area, how the NAVSTA system will function without the existing sewer infrastructure in Burma Road, and whether any of the existing sewer infrastructure can be re-used.	Only limited sewer connection will be required to connect Navy Hospital to muncipal system. Hydraulic evaluation will need to be completed to determine a new sewer pump station will be required.

Benefits

- Facilitate transition of ownership and operations of water and sewer assets within targeted Navy properties, namely, Tank Farm Sites, Burma Road Green Corridor, and Navy Hospital.
- Strengthen collaboration between Municipal, State and Federal delegations to tackle water, sewer, transportation and land use priorities associated with the ownership transfer of targeted Navy properties.
- Streamline the planning, design, construction, and operations phases of targeted redevelopment projects for referenced Navy properties.

Key Implementation Steps

Develop a transfer framework for utility ownership. Develop a framework for transferring utility ownership from the Navy and establishing new water and sewer connections with neighboring municipal systems in targeted redevelopment areas, namely, Tank Farm Sites, Burma Road Green Corridor, and Navy Hospital. Proactively engage with neighboring municipal systems and corresponding stakeholders to clarify water quality impacts, additional operational burden, and potential rate impacts.

Conduct hydraulic modeling evaluations. Perform detailed hydraulic modeling evaluations to confirm that the level of service criteria are met for proposed developments without compromising neighboring municipal systems.

Conduct a preliminary engineering study. Perform a preliminary engineering study that fully encompasses hydraulic modeling recommendations to solidify the technical approach, while incorporating project budget, funding source, construction timeline, permitting requirements, and operational changes.

Coordinate project schedules. Coordinate project schedule with all other recommended water and sewer projects to limit impacts on the Island, especially during peak tourism season.

Alignment with Goals DRAFT

1. Positions Burma Road as a long-term link
2. Addresses constraints in transportation network
3. Promotes multimodal transportation
4. Supports greater viability of the water and sewer network
5. Reconciles land use needs
6. Supports economic development

Evaluation Criteria

RESILIENCY OF UTILITY NETWORK

Does not impact utility network resilience

CONNECTION TO NAVSTA MISSION

Substantially supports NAVSTA's mission

WATER QUALITY

Does not impact water quality

DRAFT

RESILIENCE ANALYSIS

1. Transportation

2. Land Use

3. Water & Sewer

Aquidneck Island NAVSTA Resilience Analysis

DEFINING RESILIENCE FOR THIS REPORT

Per FEMA, Resilience is the "Ability to prepare for and adapt to changing conditions and withstand and rapidly recover from disruption; 1) ability of systems, infrastructures, government, business, and citizenry to resist, absorb, recover from, or adapt to an adverse occurrence that may cause harm, destruction, or loss of national significance 2) capacity of an organization to recognize threats and hazards and make adjustments that will improve future protection efforts and risk reduction measures 3) due to emergencies (Refer to PPD-8) (Lexicon page 627)" (Source: Resilience Framework).

5 RESILIENCE FRAMEWORK PROCESS

Resilience is the ability to adapt to changing conditions and withstand and rapidly recover from disruption. Resilience for both physical and social systems can be conceptualized as having the following four infrastructural qualities.

- *Robustness* is the inherent strength or resistance in a system to withstand external demands without degradation or loss of functionality.
- *Redundancy* is system properties that allow for alternate options, choices, and substitutions under stress.
- *Resourcefulness* is the capacity to mobilize needed resources and services in emergencies.
- *Rapid Recovery* is the speed with which disruption can be overcome and safety, services, and financial stability restored.

Table 2 describes these four resilient qualities with examples related to the technical, organizational, social, and economic dimensions of infrastructure. When determining resilience solutions, these characteristic qualities of resilient infrastructure and systems should be considered.

Table 2. Resilience Qualities with Examples Related to Infrastructure Dimensions

Dimension/Quality	Technical	Organizational	Social	Economic
Robustness	Building codes and construction procedures for new and retrofitted structures	Emergency operations planning	Social vulnerability and degree of community preparedness	Extent of regional economic diversification
Redundancy	Capacity for technical substitutions and "work-arounds"	Alternate sites for managing disaster operations	Availability of housing options for disaster victims	Ability to substitute and conserve needed inputs
Resourcefulness	Availability of equipment and materials for restoration and repair	Capacity to improvise, innovate, and expand operations	Capacity to address human needs	Business and industry capacity to improvise
Rapidity	System downtime, restoration time	Time between impact and early recovery	Time to restore lifeline services	Time to regain capacity, lost revenue

FEMA's framework for defining resilience according to several characteristics is useful for understanding the attributes of a project. This framework can be traced back to a 2013 World Economic Forum Global Risks report that explained the connections to the state of resilience (robustness, redundancy, resourcefulness) and performance of the asset (response/rapidity and recovery). FEMA's framework combines response/rapidity and recovery into one dimension.

Map images for each of the strategy locations showing the annual chance floodplains and future inundation expected under several sea level rise scenarios. These are included in the Appendix.

RESILIENCE OF PROPOSED STRATEGIES

FEMA's resilience framework was to each of the proposed strategies and grouped them according to their most relevant resilience dimension.

Transportation Strategies

- ***Robustness***
  - Infrastructure repair or hardening to better withstands hazards (flooding, erosion)
  - Raise roads to reduce flood risk from storm surge, sea level rise, or severe precipitation events
  - Implement green infrastructure to reduce localized flooding and reduce heat island effect impacts
  - Traffic safety improvements
  - Increasing tree canopy to mitigate extreme heat
- ***Redundancy***
  - Restore the grid to increase transportation network connectivity
  - Provide new routes to increase connectivity
  - Increase transportation options (transit, bike lanes, sidewalks)
- ***Resourcefulness***
  - Training or programs that help the community improvise, innovate, or expand operations
- ***Rapid Recovery***
  - Improvements that help the community to regain capacity and minimize downtime
- ***Co-Benefits***
  - Reduced heat island effect
  - Improved air quality
  - Reduced GHG emissions

Land Use Strategies

- ***Robustness***
  - Increasing economic diversity of an area
  - Stormwater management, flood mitigation and ocean economy development for increased physical and economic resilience
  - Improving drainage infrastructure, and installing higher pavements and sidewalk-grade bike lanes, could support flood resilience and accessibility during storm events.
- ***Redundancy***
  - Increasing housing alternatives in less hazardous areas
  - Improving multimodal routes
- ***Resourcefulness***
  - Addressing the commercial and/or residential needs of an area
  - Expanding ocean economy in a flood hazard area
- ***Rapid Recovery***
  - Potential emergency response staging area with additional open space
- ***Co-Benefits***
  - Increased green space supports a healthy, livable environment
  - Increased density lowers energy consumption

Water and Sewer Strategies

- ***Robustness***
  - Addressing water supply vulnerabilities
  - Stormwater management, flood mitigation and ocean economy development for increased physical and economic resilience
  - Increase robustness of pump station to mitigate sanitary sewer overflows
  - Restoring floodplain to help mitigate flooding
- ***Redundancy***
  - Providing increased operational flexibility with flood protection/hardening of the reservoirs
- ***Resourcefulness***
  - Limiting service disruptions
- ***Rapid Recovery***
  - Potential emergency response staging area with additional open space
- ***Co-Benefits***
  - Increased green space supports a healthy, livable environment
  - Habitat protection

RESILIENCE MATRIX

Transportation

#	Strategy	Robustness	Redundancy	Resourcefulness	Rapid Recovery	Co- Benefits
1	*Halsey Street Extension*		X			Improved air quality
2	*New Truck Access at Gate 10*		X			
3	*Coddington Connector*		X			Improved air quality
4	*Coddington Cove Neighborhood Traffic Protection*	X	X			Improved air quality
5	*Upgrade Burma Road Condition*	X				

Combined Resilience Analysis
This strategy expands the travel network and gives road users more choices. Large portions of JT Connell Highway are at risk of inundation. Between 93 JT Connell Highway and Walmart, JT Connell Highway passes through the FEMA 0.2% Annual Chance floodplain. JT Connell Highway then enters the 1% annual chance floodplain. South of Halsey street, JT Connell Highway alternates between the 1% and 0.2% annual chance floodplain, until it reaches Van Zandt Avenue. Under future Sea Level Rise conditions, 1% annual chance storm events will inundate greater portions of JT Connell Highway. JT Connell Highway is not expected to experience sunny day inundation until sea level increases by 10 feet. With 10 feet of sea level rise, JT Connell Highway would be inundated between Halsey Street and Walmart. At present, extending Halsey Street provides an alternate connection between Admiral Kalbfus Road and non-inundated portions of Connell Highway, one which is more likely to stay accessible under future storm and SLR conditions. Routing the Halsey Street extension should take care to avoid nearby section of the 0.2% annual chance floodplain, as well as portions of the Walmart parking lot that will experience inundation under a combined 100-year storm surge event plus three feet of SLR.
The new truck access gate is not in area expected to experience sea level rise and provides an alternate route. Under the general 1 to 10 feet of SLR flood model, the existing truck access route is expected to be passable. However, the 100-year storm surge event plus SLR by 2100 inundation layer shows that a risk of potential inundation for portions of the Defense Highway. Under those circumstances, access to the existing truck route could potentially be impacted. Providing truck access at Gate 10, which is located further from the coast and accessible via more inland routes, could help preserve truck access under flood conditions.
This strategy expands the travel network and gives road users more choices. Limited flood-related impacts are expected here. The potential Coddington Connector passes through an area that experiences moderate levels of heat intensity. Construction of an additional paved road should be done with ample replacement of the tree canopy to reduce the impacts of high heat.
Traffic protections improve multimodal safety and increase redundancy. Chase Lane does not appear to experience high heat or flood exposure. Improving pedestrian conditions here supports walkability in a low-exposure setting.
This strategy results in a more robust, structurally repaired road. Existing FEMA maps show portions of Burma Road/Defense Highway near the following locations to be to be within the 1% and 0.2% annual chance floodplains: Chandler Street, the Wanumetonomy Club, Green Lane, Frank Carson Playground, and Lawton Brook. As sea level rise increases, a 100-year storm surge event would cause increasingly lengthy sections of Burma Road/Defense Highway to experience inundation. Permanent inundation of sections of Burma Road/Defense Highway is not anticipated, with the exceptions of areas around Lawton Brook, Frank Carson Playground, Green Lane, and Peary Street, at 5 to 10 feet of SLR. Improving drainage infrastructure, study road raising or elevation, and installation of additional culverts could support flood resilience, especially at low points and brook crossings.

RESILIENCE MATRIX

Transportation

#	Strategy	Robustness	Redundancy	Resourcefulness	Rapid Recovery	Co- Benefits
6	*Stringham Road Connector*		X			
7	*Curb Cut Consolidation Along East and West Main Road*	X				
8	*Road Diet/Lane Reallocation Along East and West Main Road*	X				
9	*Multi-Use Path Along East and West Main Road*		X			
10	*West Main/Broadway Improvements*	X	X			
11	*Multimodal Hub at Pell Bridge Ramps and/or Melville*		X			Improved air quality, less personal car usage
12	*Greater RIPTA Service Frequency*		X			Improved air quality, less personal car usage

Combined Resilience Analysis
This strategy expands the travel network and gives road users more choices. The Stringham Road Connector is not within a potential inundation area, and is not expected to cause any changes in hazard exposure.
Unsignalized turn visibility and general road maintenance increases robustness. Existing curb cuts along East and West Main Road are outside of the 1% and 0.2% annual chance floodplains, and are not anticipated to be impacted by sea level rise.
An added center left turn lane increases robustness through increased road safety. East and West Main Road are generally outside of mapped inundation areas. Investing in the improvement of these inland routes could strengthen north-south redundancy during storm events, and support mobility of pedestrians and cyclists.
Multimodal options increase the redundancy of travel routes. East and West Main Road are generally outside of mapped inundation areas. Investing in the improvement of these inland routes could strengthen north-south redundancy during storm events, and support mobility of pedestrians and cyclists.
Multimodal options increase the redundancy of travel routes and improved safety. East and West Main Road are generally outside of mapped inundation areas. Investing in the improvement of these inland routes could strengthen north-south redundancy during storm events, and support mobility of pedestrians and cyclists.
Multimodal options increase the redundancy of travel routes. Multimodal hubs could feature solar panels for EV/e-bike/e-scooter charging as well as shade. Road segments and bridges around the Pell Bridge Ramps are at risk of inundation, and the majority of the surround area is within both the 1% and 0.2% annual chance floodplains, as well as in mapped inundation areas. Mapping of 100-year storm surge events shows inundation of the surrounding area as well.
Multimodal options increase the redundancy of travel routes. Existing RIPTA routes pass through areas within both the 1% and 0.2% annual chance floodplains. To support long-term reliability of RIPTA service provisioning, it could be valuable to begin identifying alternate routes in the event of flooding. Elevated bus stops can also improve user experience in the event of nuisance flooding. Bus routes and stops are also located within areas with high heat exposure. Providing bus shelters and street tree plantings in these areas can help reduce heat strain on passengers.

RESILIENCE MATRIX

Transportation

#	Strategy	Robustness	Redundancy	Resourcefulness	Rapid Recovery	Co- Benefits
13	*Regional Transportation Links*		X			Improved air quality, less personal car usage
14	*Additional First/Last Mile Connections to Installation*		X			Improved air quality, less personal car usage
15	*Transportation Demand Management for Employers*		X			Improved air quality, less personal car usage
16	*Aquidneck Island Transportation Management Association (TMA)*		X			Improved air quality, less personal car usage

Combined Resilience Analysis
Multimodal options increase the redundancy of travel routes. The rail alignment option, which involves reinvesting in the Newport Secondary Track, presents existing and future condition resilience challenges due to high risk of coastal flooding. The Newport Secondary Track passes through several areas within the 1% and 0.2% annual chance floodplains, including the area around Admiral Kalbfus Road/Route 138, the Wanumetonomy Country Club, and State Route 24 from the Montaup Country Club to the mainland. These areas are also mapped as likely to experience inundation under future sea level rise and storm surge conditions. Efforts to expand service along the railroad would be accompanied by in-depth assessments of present-day and future flood risk. Alternative means for expanding regional transit, such as ferries or inland-aligned BRTs, may be better able to avoid existing and anticipated coastal flooding. Expanding ferry-based connections to the mainland at multiple departure points could increase the redundancy of connections to the mainland. RIGIS's "Bridge Assets Exposed to SLR by 2100" highlights several off-island connections as SLR exposed. While data assessing flood exposure of bridges over open water can sometimes be unreliable, supporting alternate routes may be beneficial.
Multimodal options increase the redundancy of travel routes. Several of the roads identified for improving pedestrian/cyclist connection to the installation travel through the 1% and 0.2% annual chance floodplain, as well as areas likely to experience inundation under future sea level rise conditions. Drainage improvements, heightened sidewalks, and sidewalk-level bike paths can help keep these routes accessible.
Multimodal options increase the redundancy of travel routes.
Multimodal options increase the redundancy of travel routes.

RESILIENCE MATRIX

Land Use

#	Strategy	Robustness	Redundancy	Resourcefulness	Rapid Recovery	Co- Benefits
1	*Redevelop underutilized commercial sites into housing and mixed-use*	X	X	X		Increased density lowers energy consumption
2	*Increase the residential density of existing housing developments*	X	X	X		Increased density lowers energy consumption
3	*Expand marina and marine-based businesses*	X		X		
4	*Redevelop RIDOT Pell Bridge parcels*	X			X	Recreational open space
5	*Redevelop former Naval Hospital site*	X				

Combined Resilience Analysis
Increased housing provides suitable alternatives. Economic diversity increases robustness to hazards. Addressing commercial and residential needs is resourcefulness. Recommend resilience analysis on a per-parcel basis. Development of housing/mixed-use structures outside of flood hazard zones can provide safer dwelling and retail opportunities, while preserving existing open spaces.
Increased housing provides suitable alternatives. Economic diversity increases robustness to hazards. Addressing residential needs is resourcefulness. Despite its coastal location, the housing complex by Fort Adams State Park is not included in areas expected to be inundated under future Sea Level Rise conditions, with the exception of the area at the end of Jefferson Road. The elevation here makes this site appealing for redevelopment. However, one of the key access routes, Moorland Road, is shown as at-risk under RIGIS' "Road Assets Exposed to SLR by 2100" dataset. Moorland Road, and Harrison Road, both pass through the 1% and 0.2% annual chance floodplain. 10 feet of sea level rise would also cause these roads to experience inundation. Increasing housing density at Fort Adams should be accompanied by long-term planning efforts to ensure access to the rest of the island under future flooding conditions. Efforts to increase the residential density of other existing developments should also assess both flood exposure to the parcel itself, and to its access routes.
Expanding economic diversity and marine-based businesses can contribute to resourcefulness while in a flood hazard area. The parcels south of the marina and west of Defense Highway are in the 1% annual chance floodplain. They are predicted to experience inundation during 100-year storm surge events and are expected to be under water with 7 feet of SLR. The tank farm locations are outside of these areas of flood exposure, and are more suitable for some kinds of development. Note that contaminants of concern on the tank farm site may limit the highest and best use for the property. Future development is contingent on additional assessments of remediation needs, including the potential impacts of sea level rise on groundwater levels and consequent exposure to subsurface contamination.
Stormwater management, flood mitigation, and blue economy development can result in increased physical and economic resilience. There is potential to use new public open spaces as emergency response staging area in case of a hazardous event. These parcels are located within the 1% and 0.2% annual chance floodplains. Much of these parcels are expected to flood under 100-year storm surge events. With an additional 3 feet of sea level rise, all of the parcels will flood when a 100-year storm surge event. Portions of these parcels are predicted to experience permanent inundation under 10 feet of sea level rise. A large-scale resilience option would be beneficial. Open vegetated spaces would be a beneficial use. Permitting of residential development within the existing flood hazard area may not be feasible.
Expanding the economic diversity of the area with blue economy campus. These parcels are located within the 1% and 0.2% annual chance floodplains. Much of these parcels are expected to flood under 100-year storm surge events. As sea level rise increases, the remaining portions of the parcels will flood under such a storm surge event. Portions of these parcels are predicted to experience permanent inundation under 10 feet of sea level rise. A waterfront park with resilience measures could be beneficial.

RESILIENCE MATRIX

Land Use

#	Strategy	Robustness	Redundancy	Resourcefulness	Rapid Recovery	Co- Benefits
6	*Create more flexible uses at existing corporate parks*	X				
7	*Transform Burma Rd into a multi-modal green corridor*		X		X	Increased green space supports healthy, livable environment
8	*Redevelop W Main Rd and Browns Lane parcel into mixed-use Village*	X	X	X	X	Increased density lowers energy consumption, Increased green space supports healthy, livable environment
9	*Incorporate public open space and resilience infrastructure*	X			X	Increased green space supports healthy, livable environment

Combined Resilience Analysis
Expanding economic diversity and more housing alternatives on higher ground can increase resilience. These parcels are not located within existing or future anticipated floodplains. Some portions of this area experience moderate heat exposure, so retaining and expanding the tree canopy and landscaping may be beneficial.
Improving multimodal routes can enhance transportation network redundancy. There is potential to use new public open spaces as emergency response staging area in case of a hazardous event. Under increase 2100 sea level rise conditions, a 100-year storm surge event could cause sections of Burma Road/ Defense Highway to experience inundation. Existing FEMA maps show portions of the road within the 1% and 0.2% annual chance floodplains. Expanding greenspace, reducing impervious surface coverage, and incorporating living shoreline elements could help strengthen this section of the road. Improving drainage infrastructure, and installing higher pavements and sidewalk-grade bike lanes, could support flood resilience and accessibility during storm events.
Increased housing provides suitable alternatives. Economic diversity increases robustness to hazards. Resourcefulness through addressing commercial and residential needs. There is potential to use new public open spaces as emergency response staging area in case of a hazardous event. This area is not within existing or anticipated future floodplains. Redevelopment here supports the creation of additional housing in a lower-risk area.
Climate resilient infrastructure will make the area more robust. There is potential to use new public open spaces as emergency response staging area in case of a hazardous event. Increasing stormwater retention via expanded open space can help retain stormwater/reduce strain on sewer system.

RESILIENCE MATRIX

Water / Sewer

	Strategy	Robustness	Redundancy	Resourcefulness	Rapid Recovery	Co- Benefits
1	*North and South Easton Ponds*	X		X		
2	*Reservoir Road Pump Station*	X	X	X		
3	*Raw and finished water transportation mains*	X	X	X		
4	*Wave Avenue sewer pump station*	X	X			Habitat protection
5	*Elizabeth's Brook daylighting*	X	X			Increased green space supports healthy, livable environment
6	*Aging infrastructure*	X				
7	*Transfer of Navy Properties*	X		X		

Combined Resilience Analysis
This recommendation is addressing water supply vulnerabilities and providing increased operational flexibility with flood protection/hardening of the reservoirs.
This recommendation is addressing water supply vulnerabilities and providing increased operational flexibility and limiting service disruptions. This project would not be located within an area at risk of flood exposure.
Addressing water supply vulnerabilities and limiting service disruptions. None of the water tanks that provide potable water are in an area at risk of flooding.
Increasing the robustness of the pump station to mitigate sanitary sewer overflows and reroutes flow from at capacity areas can enhance system resilience. Siting of pump should include consideration of flood risk.
Restoring the floodplain to also help mitigate flooding can enhance resilience. The parcels surrounding Elizabeth Brook have a high degree of flood exposure. Daylighting the brook, installing Stormwater Management BMPs, and increasing stormwater detention capacity will positively impact local flooding. Limiting development within existing hazardous areas can improve resilience longer-term.
Addressing aging infrastructure to increase robustness can enhance resilience. Replacing leaking, broken, and clog-prone water and sewer infrastructure supports resilience by promoting better stewardship of water resources, which is especially pertinent as droughts becomes more frequent. Rising sea levels pose a potential risk of increasing groundwater salinity.
This recommendation is addressing water supply vulnerabilities and providing increased operational flexibility by transferring ownership from NAVSTA Newport. Any improvements made to the system should include consideration for flood risk.

3 Implementation

OVERVIEW

The Compatible Use Study builds on the depth of local expertise present on Aquidneck Island and the universe of past planning studies which have sought to advance infrastructure improvements on the Island. Many of these improvements have been discussed for years but had not been given sufficient technical and political support until now to take them closer to implementation. This section seeks to establish action items, recommended involved parties, and a priority framework for advancing transportation, land use, and water/sewer strategies to that next step. This includes the following key elements:

- **Prioritization Summary** - each strategy has been roughly scored against the disciplines evaluation criteria by its ability to achieve the highest impact for improving identified NAVSTA/Aquidneck Island compatibility issues, as described earlier in the report. This summary re-orders the projects according to their potential impact, which supports their level of emphasis going forward. This emphasis is reflected in the early action items.

  A critical part of this prioritization is the level-of-effort and/or cost associated with a strategy. Detailed estimates will require further study, but initial discussions have placed a wide range of cost and complexity on various recommendations in this report, so scoring them on a simple scale of 1-5 is only so effective. Nonetheless, the resulting sequence presented herein is a worthwhile guide for all stakeholders to consider what it means and what it does not address. For example, increasing RIPTA frequency scores highest across all transportation measures, but ultimately its cost has to compete with projects that improve driving, which historically have undercut transit projects. Similarly, opening Gate 10 to trucks scores lower for its relatively smaller impact, but the political impact of alleviating residences along Admiral Kalbfus Boulevard could make this project the highest political priority.

- **Implementation Sequence** – all strategies in the order they are presented in the report have been given timelines in Gannt chart format to help with future planning across all disciplines for needed studies, designs, and future implementation/construction. These sequences are only early planning estimates and should be refined over time, beginning with early action items.

- **Early Actions** – Within each discipline, early action steps have been called out for all strategies, helping to guide stakeholders right out of the gate when planning discussions with legislators and the community, scoping future studies, identifying funding, and preparing capital plans. These early actions are influenced by the prioritization score and reflect the first implementation item in sequence and include the likely lead party(s) responsible.

The plan is intended to be used by these parties and the study's Technical Committee as a foundational guide, with specific details relating to responsibilities and strategy-specific tasks identified and assigned in due course.

PRIORITIZATION SUMMARY

Based on the criteria scoring in this report, each strategy has been re-ordered below to reflect their estimated ability to achieve the goals of this study.

Transportation

Strategy	Travel Capacity Score	Automobile Reliance Score	Travel Time Score	Travel Safety Score	Level of Effort	Overall Score
West Main/Broadway Improvements	4	4	4	4	4	**20**
Greater RIPTA Service Frequency	4	5	4	3	4	**20**
Stringham Road Connector	4	3	4	5	3	**19**
Multi-Use Path	5	5	3	5	1	**19**
Halsey Extension	5	3	5	3	2	**18**
Multimodal Hubs at Pell Bridge Ramps and/or Melville	4	5	2	3	4	**18**
Regional Transportation Links	5	5	2	3	3	**18**
New Truck Access at Gate 10	4	3	3	4	3	**17**
Coddington Cove Neighborhood Traffic Protection	2	4	1	5	5	**17**
Curb Cut Consolidation	3	4	2	5	3	**17**
Road Diet / Lane Reallocation	3	4	2	5	3	**17**
First/Last Mile Connections to Installation	3	5	2	3	4	**17**
Transportation Demand Management Programming for Employers	3	4	3	3	4	**17**
Aquidneck Island Transportation Management Association	3	4	3	3	4	**17**
Coddington Connector (Burma Rd. Extension)	5	3	4	3	1	**16**
Upgrade Burma Road Condition	3	3	2	2	3	**13**

Land Use

Strategy	Housing Diversification Score	Job Creation Score	Support for Blue Economy Score	Provision of Open Space Score	Level of Effort	Overall Score
Redevelop W Main Rd and Browns Lane parcel into mixed-use village	5	3	2	5	4	**19**
Redevelop underutilized commercial sites into housing and mixed-use	5	3	2	3	4	**17**
Create more flexible uses at existing corporate parks	1	4	4	3	5	**17**
Facilitate the expansion of marina and marine-based businesses	1	5	5	3	2	**16**
Increase the residential density of existing housing developments	5	2	1	3	3	**14**
Redevelop RIDOT Pell Bridge parcels	1	4	3	4	1	**13**
Redevelop former Naval Hospital	1	2	2	5	3	**13**
Incorporate public open space and resilience infrastructure	1	1	1	5	5	**13**
Transform Burma Road into multi-modal green corridor	1	1	2	5	2	**11**

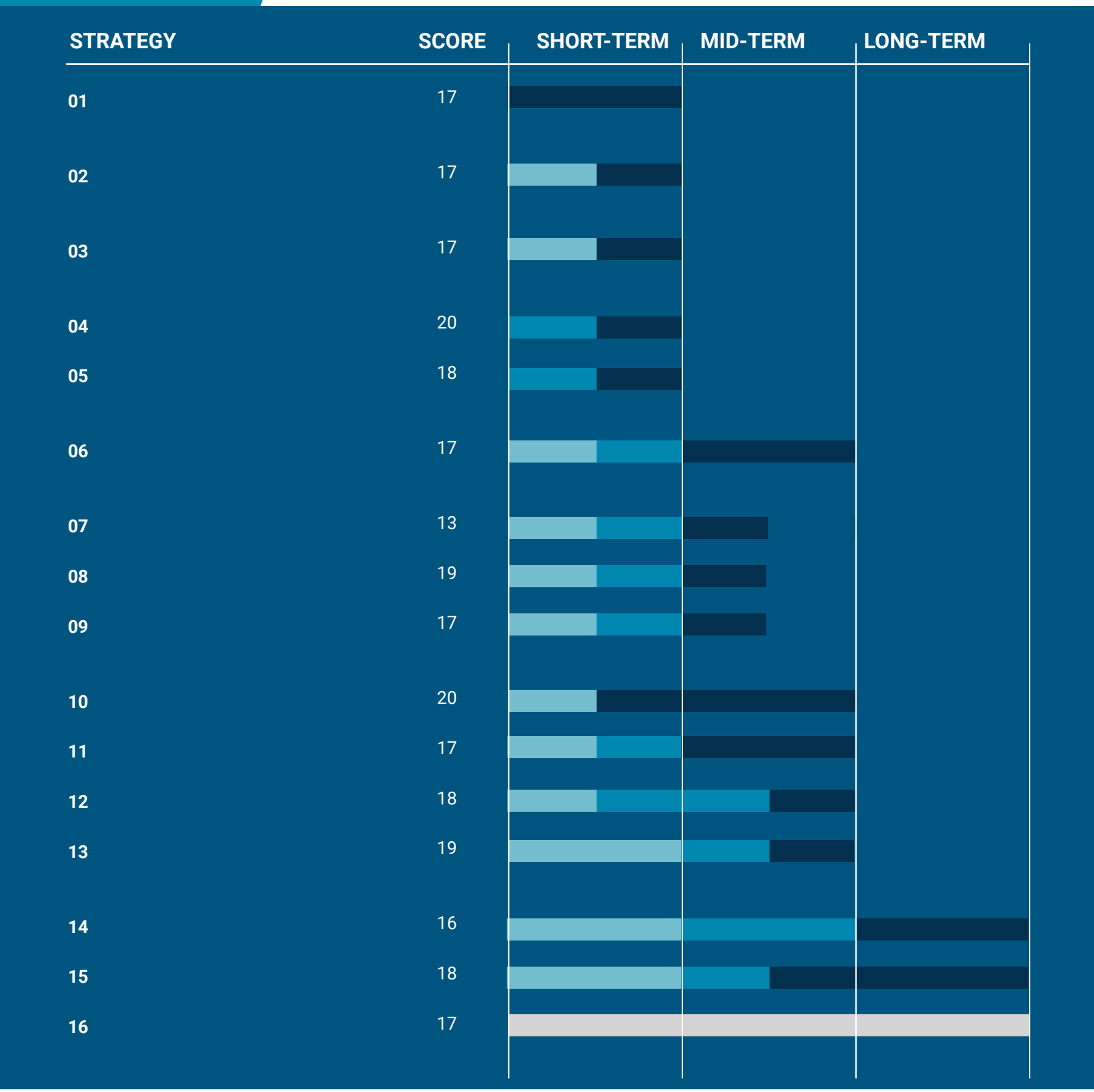
Water / Sewer

Strategy	Resilience of Utility Network Score	Connection to NAVSTA Mission Score	Water Quality Score	Level of Effort	Overall Score
North and South Easton Ponds	4	5	5	3	**17**
Elizabeth Brook Daylighting	5	4	5	3	**17**
Wave Avenue Sewer Pump	5	4	5	2	**16**
Reservoir Road Pump Station	5	5	3	3	**16**
Aging Infrastructure	5	4	4	2	**15**
Raw and Finished Water Transmission Mains	4	5	3	3	**15**
Transfer of Navy Properties	3	5	3	2	**13**

IMPLEMENTATION SCHEDULE

All strategies in order have been assigned rough implementation timelines to help guide future planning.

Transportation



Phase:
- Coordination
- Design
- Construction/Implementation
- Ongoing efforts of the above

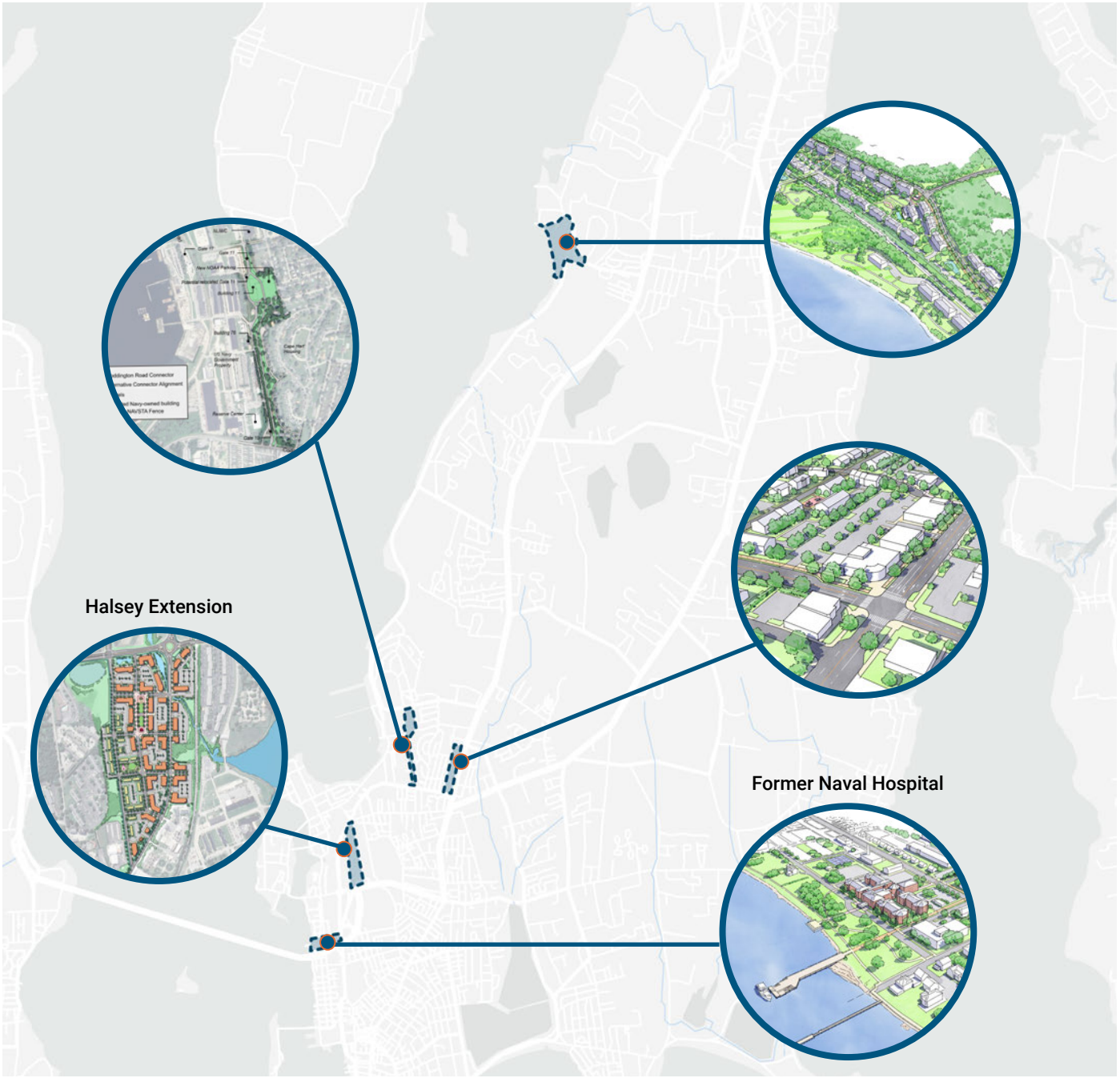
Timeline:
Ongoing: Ongoing effort
Short-term: 1-3 years
Mid-term: 3-10 years
Long-term: 10+ years

Land Use

Water / Sewer

CATALYST PROJECTS / PACKAGING

Figure 3.1 Map of Catalyst Sites



NAVAL HOSPITAL REDEVELOPMENT

Figure 3.2 Conceptual Rendering of Blue Economy Campus at Former Naval Hospital Site

The Naval Hospital has sat vacant for several years as surplus property of the Department of Defense. Land use strategies in this Study detail redeveloping the property for new building uses of the property and enhancing the waterfront. The economic development potential of this property is high, given the transportation access to the Pell Bridge and proximity to Downtown Newport and the Installation. Means to bring more users to this area, and potentially link these new users to the Installation a short walk away, are present given the proximity to water transportation services and the park and ride facility at the Pell Bridge.

- There is an existing pier on the southwest side of the property which could support transportation strategy #13 – Regional Transportation Links. Ferry routes today accessing Downtown Newport from the north must continue southwards, under the Pell Bridge and around Goat Island into Perrotti Park in Newport Harbor. A more northerly pier would reduce travel time for services from the north, such as from Providence, and link to new economic development at the Naval Hospital, in addition to being situated as a 10-15 minute walk from Gate 1.
- The park and ride at the Pell Bridge Ramp is proposed as a multimodal hub concept for transportation strategy #11 to facilitate first and last mile connections to the Installation or other locations such as Downtown Newport. Conversion of the rail right-of-way to a new transportation resource, such as a multi-use path or a commuter shuttle (rail or bus to the north or south) would support the lot as a means to limit the need for new parking at off-site locations. Crossing the rail right-of-way towards the east to connect to Third Street would facilitate another walking connection to the Naval Hospital.

HALSEY EXTENSION

Figure 3.3 Conceptual Rendering of Halsey Extension

From a transportation perspective, the combination of the Halsey Extension effort with other strategies such as the Coddington Connector, the Stringham Road Connector, and West Main/Broadway improvements can improve general travel flow along the west side of the Island, taking pressure off of Admiral Kalbfus Road and West Main Road to take vehicle traffic from the Pell Bridge to points north. This includes traffic to and from NUWC and Gate 17, which must travel east or west via Admiral Kalbfus Road, Coddington Highway, and Access Road for a primarily north/south connection from the Pell Bridge.

WEST MAIN ROAD AT CODDINGTON HIGHWAY

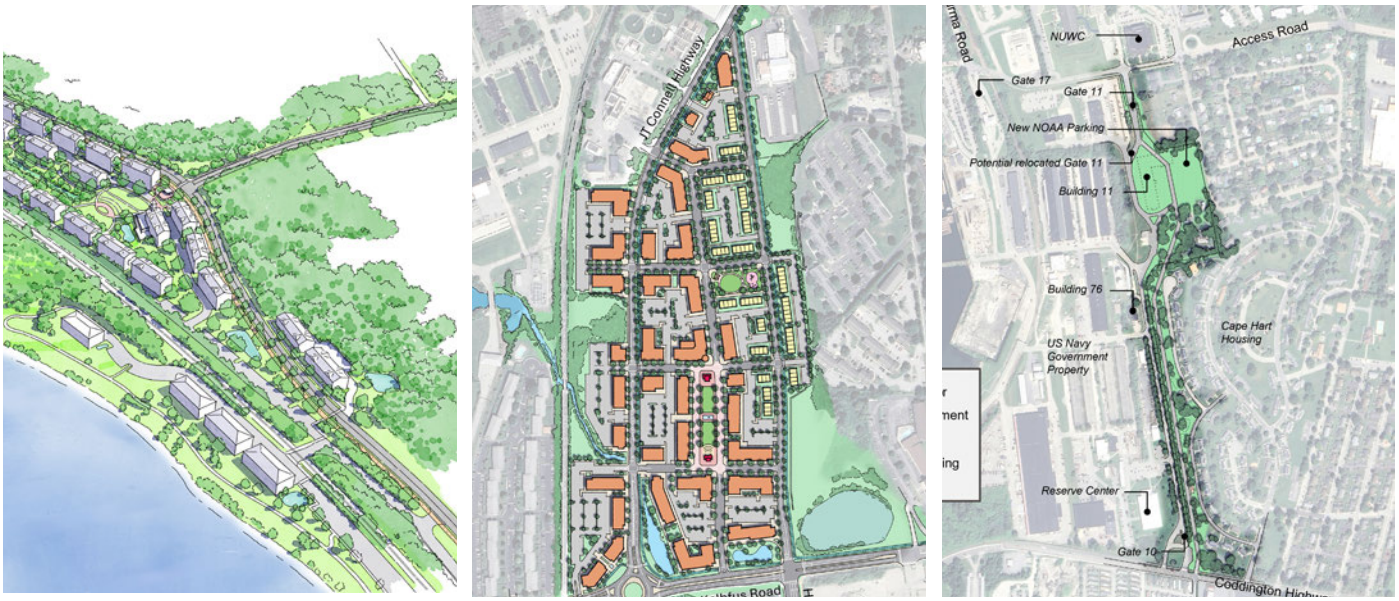
Figure 3.4 Conceptual Rendering of Mixed-Use Village-Style Development along West Main Road

WEAVER COVE ECONOMIC DEVELOPMENT

Figure 3.5 Conceptual Rendering of Weaver Cove Development

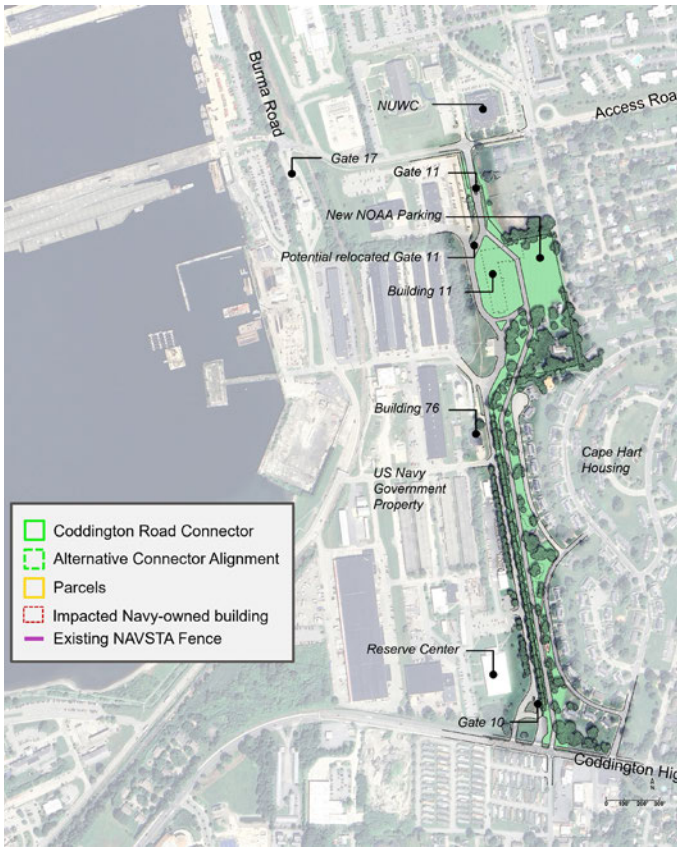
WEST SIDE TRANSPORTATION CORRIDOR

Figure 3.6 Transportation strategies contributing to the transportation corridor



WEST SIDE TRANSPORTATION CORRIDOR

HALSEY EXTENSION



EARLY ACTIONS

EARLY ACTIONS

Transportation

Land Use

Water / Sewer

~ This page intentionally left blank~

4 Appendix

A. TRAVEL TIME METHODOLOGY

3. Aquidneck Island Transportation Management Association (TMA)

- Travel Time Difference: 5 second savings per work-related, private vehicle trip associated with reduction in congestion
- Number of Users Affected: 56,000 work-related, private vehicle trips on Aquidneck Island (fall 2024 Replica data)
- Projected Daily Travel Hours Saved: 80 daily person hours saved

Notes: Travel time savings require further evaluation; five seconds cited as a conservative figure used to quantify some sort of impact.

4. West Main/Broadway Improvements

- Travel Time Difference: 10 second maximum savings associated with improved motorist clarity, updated signal timings, and increased lane storage.
- Number of Users Affected: 53,850 trips, reflected as 35,900 vehicles through the intersection (fall 2024 Replica data) multiplied by a 1.5 average vehicle occupancy factor for all trips per 2022 National Household Travel Survey.
- Projected Daily Travel Hours Saved: 150 daily person hours saved

Notes: Travel time savings require further evaluation.

5. Multimodal Hubs at Pell Bridge Ramps and/or Melville – likely savings associated with new travel options which don't currently exist, but unable to accurately quantify.

6. Additional First/Last Mile Connections to Installation – likely savings associated with new travel options which don't currently exist, but unable to accurately quantify.

7. Upgrade Burma Road Condition – no anticipated travel time difference.

8. Stringham Road Connector

- Travel Time Difference: 50 second savings from anticipated divergence along Stringham Road and Burma Road (2,900 feet of roadway), minus new 500-foot connector.
- Number of Users Affected: 9,450 trips, reflected as 6,300 average daily traffic volumes on Burma Road per 2009 counts from Aquidneck Island Transportation Study multiplied by a 1.5 average vehicle occupancy factor for all trips per 2022 National Household Travel Survey.
- Projected Daily Travel Hours Saved: 130 daily person hours

Notes: Calculation would benefit from updated traffic volumes along Burma Road and Stringham Road.

9. Road Diet/Lane Reallocation Along East and West Main Road – inconclusive whether travel time would differ; delays associated with turning vehicles may become less frequent while intersection delays could worsen.

10. Greater RIPTA Service Frequency

- Travel Time Difference: 5 minute savings per transit trip associated with reduction of Route 60 frequencies from 30 minutes to 15 minutes along each of East Main Road and West Main Road
- Number of Users Affected: 2,400 transit riders on Aquidneck Island (spring 2024 RIPTA data)
- Projected Daily Travel Hours Saved: 200 daily person hours saved

Notes: Number of users affected assumes all transit riders benefit from the improvement, although travel time difference is derived from service frequencies along East Main Road and West Main Road.

11. New Truck Access at Gate 10

- Travel Time Difference: 4 minute, 45 second savings to enter via Gate 10 instead of continuing on Coddington Highway towards West Main Road and Access Road to enter via Gate 17.
- Number of Users Affected: 800 trucks, as identified in spring 2024 Gate 17 vehicle classification data.
- Projected Daily Travel Hours Saved: Up to 65 daily person hours

Notes: Travel time difference does not mimic path of travel for many heavy vehicles via Admiral Kalbfus Road and West Main Road. Calculation assumes trucks enter via Access Road when many continue northwards to Greene Lane. In reality, travel time difference may be significantly higher. Truck counts include those entering from north, who will require a further travel distance should screening at Gate 17 be closed.

12. Halsey Street Extension

- Travel Time Difference: 55 second savings to use new roadway over existing travel path on Admiral Kalbfus Road and JT Connell highway
- Number of Users Affected: 33,150 trips, reflected as 22,100 vehicles given Replica data and Installation-associated traffic, multiplied by a 1.5 average vehicle occupancy factor for all trips per 2022 National Household Travel Survey.[1]
- Projected Daily Travel Hours Saved: 505 daily person hours saved.

Notes: Halsey Extension assumed to be the major street intersecting the minor street at Connell Highway, involving less delay. New trips also forego roundabout at Kalbfus/Connell (with 10-second impact)

13. Multi-Use Path Along East and West Main Road

- Travel Time Difference: 20 second maximum savings for bicyclists and pedestrians, associated with easier walking and bicycling trips
- Number of Users Affected: 8,450 daily bicycle and pedestrian trips on the two corridors (fall 2024 Replica data)
- Projected Daily Travel Hours Saved: 45 daily person hours saved

Notes: Travel time savings require further evaluation; savings likely stem from less frequent stops associated with less vehicle conflicts, but travel distances for trips may vary significantly. Bicycle and pedestrian trips on the corridors likely capture trip ends wholly contained within parking lots and associated building entrances.

1. 2022 National Household Travel Survey (https://nhts.ornl.gov/assets/2022/pub/2022_NHTS_Summary_Travel_Trends.pdf)

14. Coddington Connector

- Travel Time Difference: 2 minute, 35 second savings from approximate Gate 10 location on Coddington Highway to approximate former Gate 11 location on Access Road via West Main Road, minus travel time on Coddington Connector itself.
- Number of Users Affected: 17,400 trips, reflected as 11,600 vehicle trips requiring north/south access on West Main Road between Coddington Highway and Access Road to access the Installation, multiplied by a 1.5 average vehicle occupancy factor for all trips per 2022 National Household Travel Survey.
- Projected Daily Travel Hours Saved: 750 daily person hours saved.

Notes: Number of vehicles impacted requires further evaluation; only Installation-associated vehicles are calculated with a general average vehicle occupancy figure of 1.5 to denote broader benefit than just Installation-associated vehicles. General traffic trip diversions will be dependent on time of travel and level of congestion, intended destination of trip, and presence of associated improvements such as the Halsey Extension.

15. Regional Transportation Links – likely savings associated with new travel options which don't currently exist, but unable to accurately quantify.

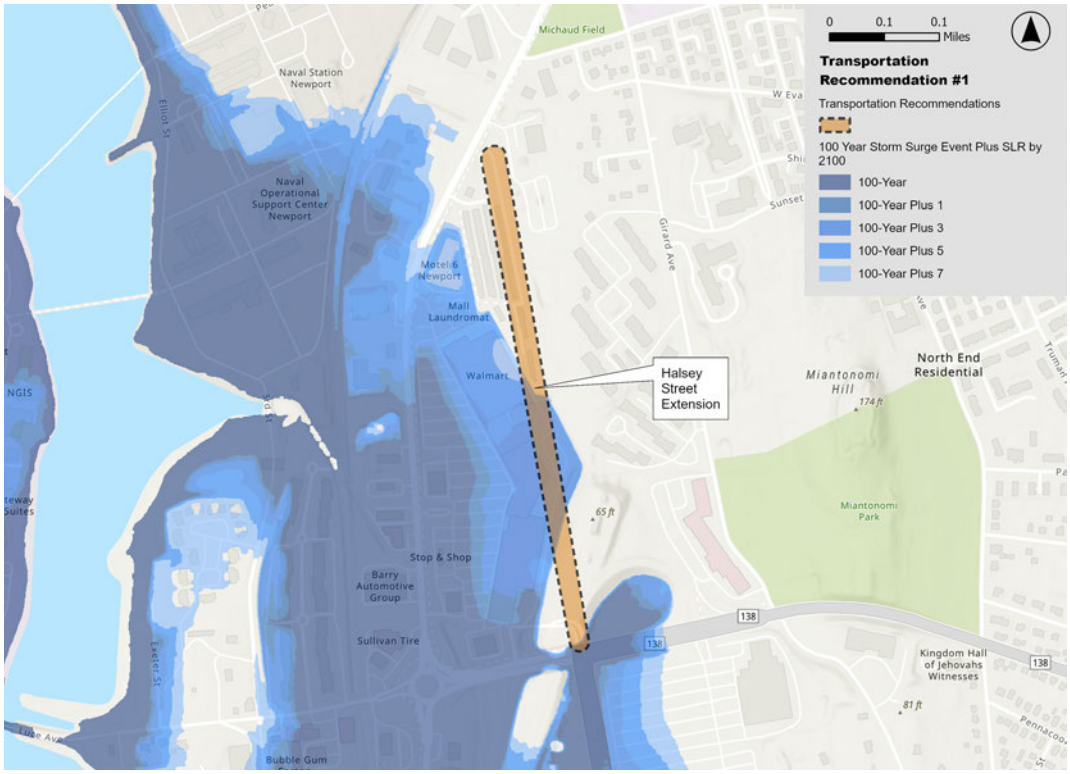
16. Curb Cut Consolidation Along East and West Main Road – inconclusive whether travel time would differ; delays associated with turning vehicles may become less frequent.

~ This page intentionally left blank~

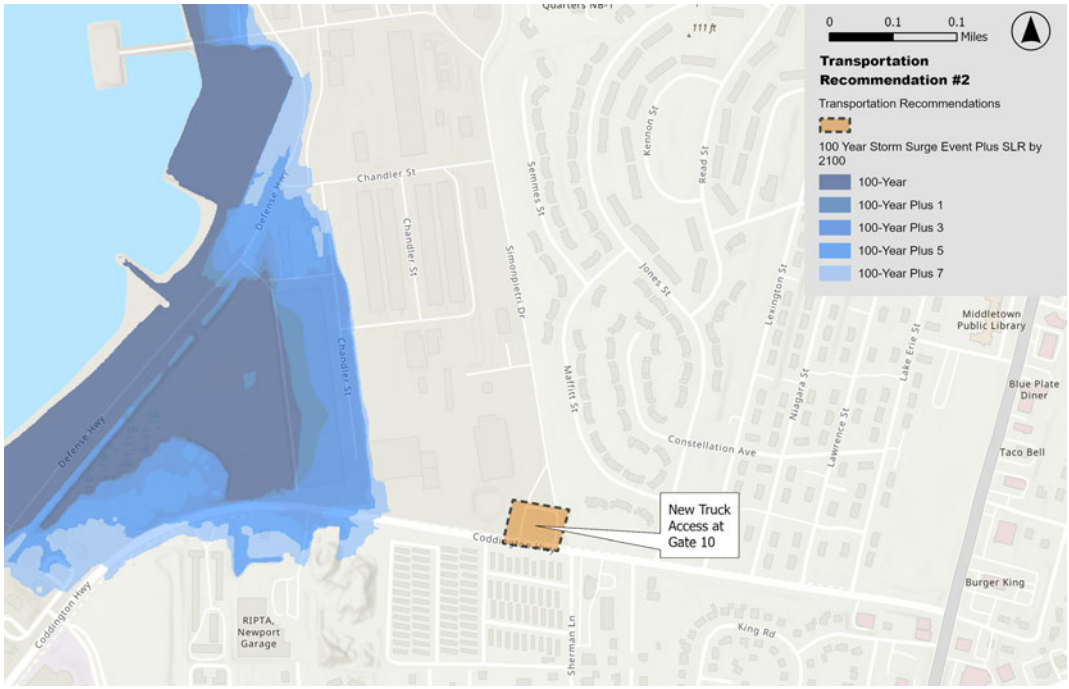
B. RESILIENCE MAPS

TRANSPORTATION STRATEGIES

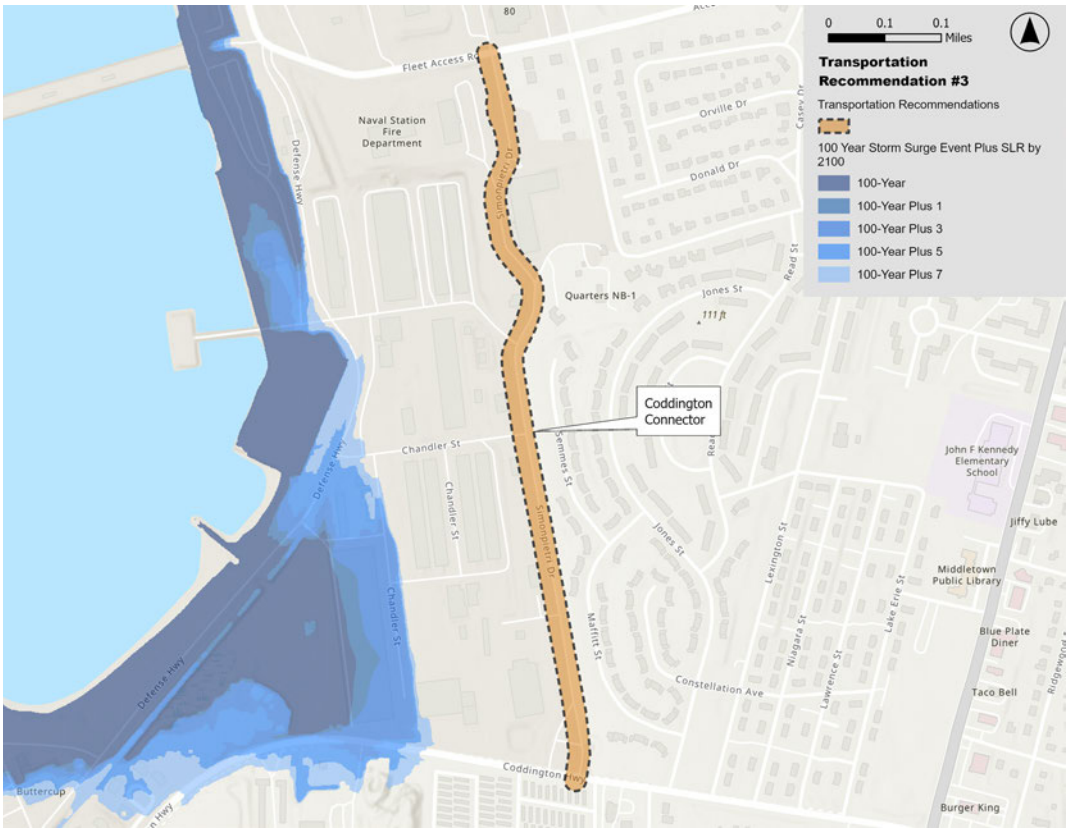
1. Halsey Street Extension



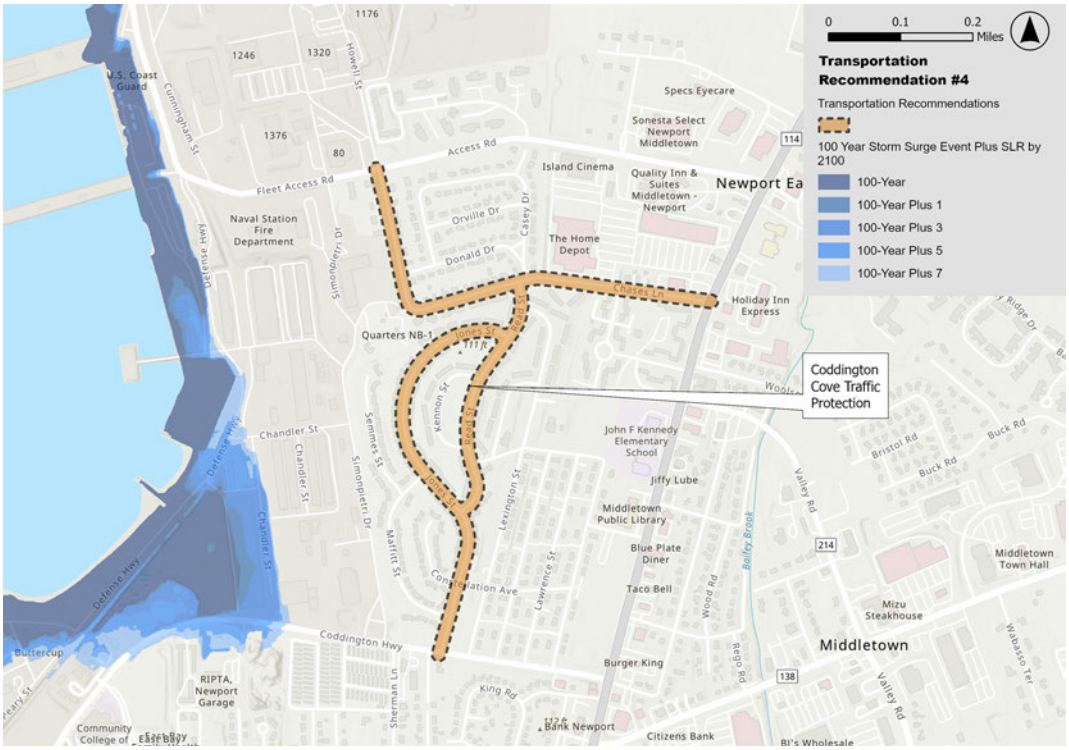
2. New Truck Access at Gate 10



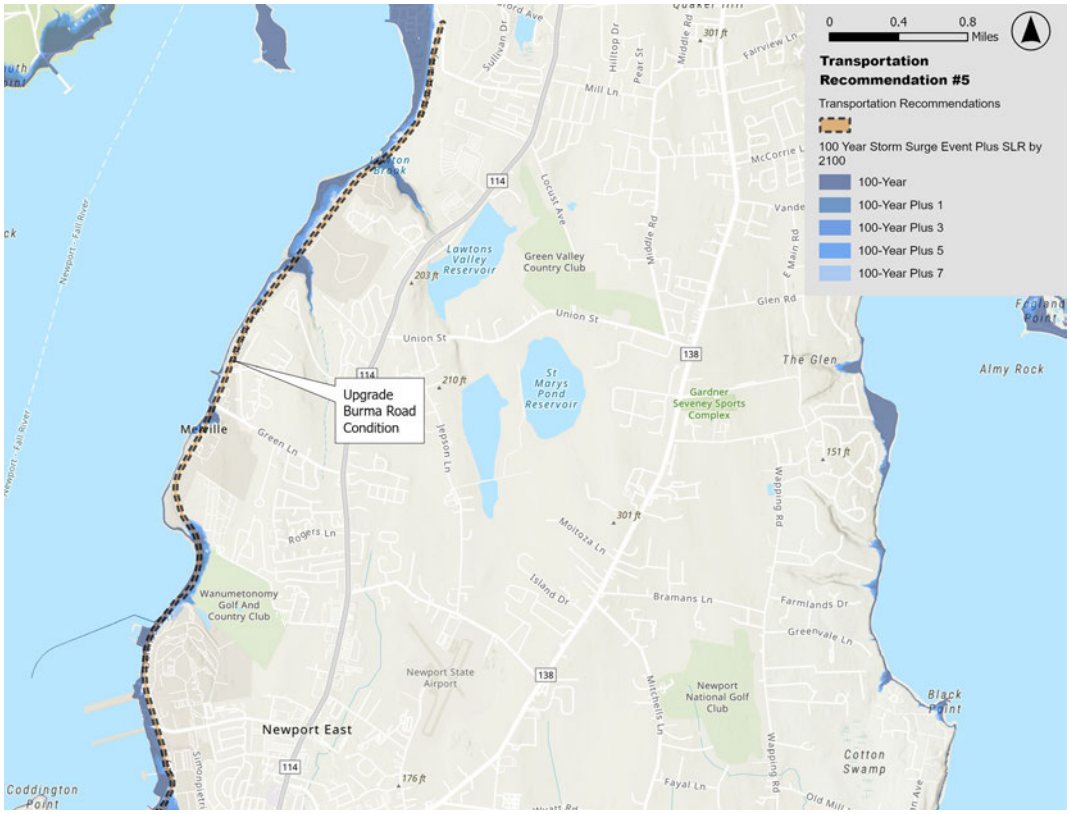
3. Coddington Connector



4. Coddington Cove Neighborhood Traffic Protection



5. Upgrade Burma Road Condition

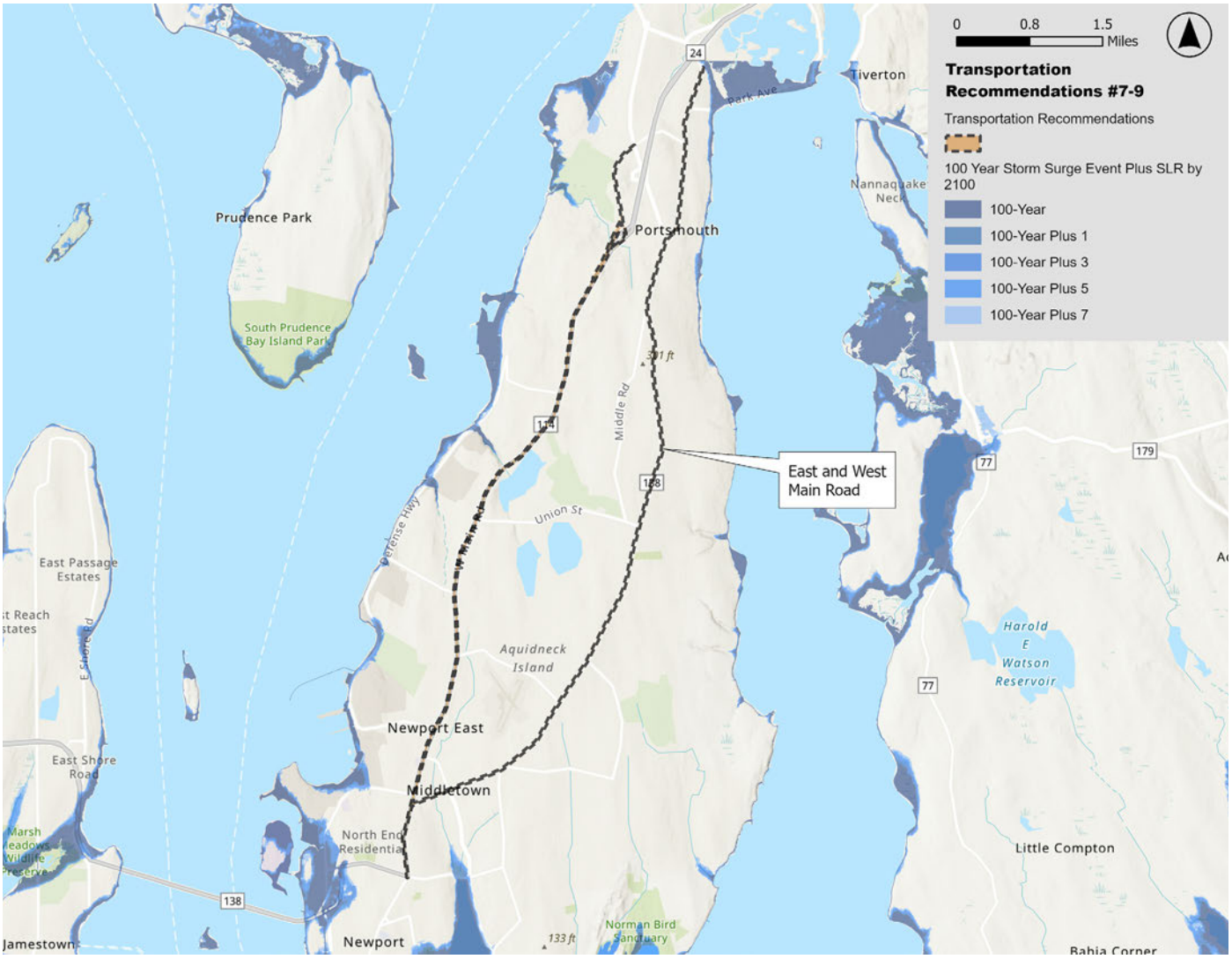


6. Stringham Road Connector

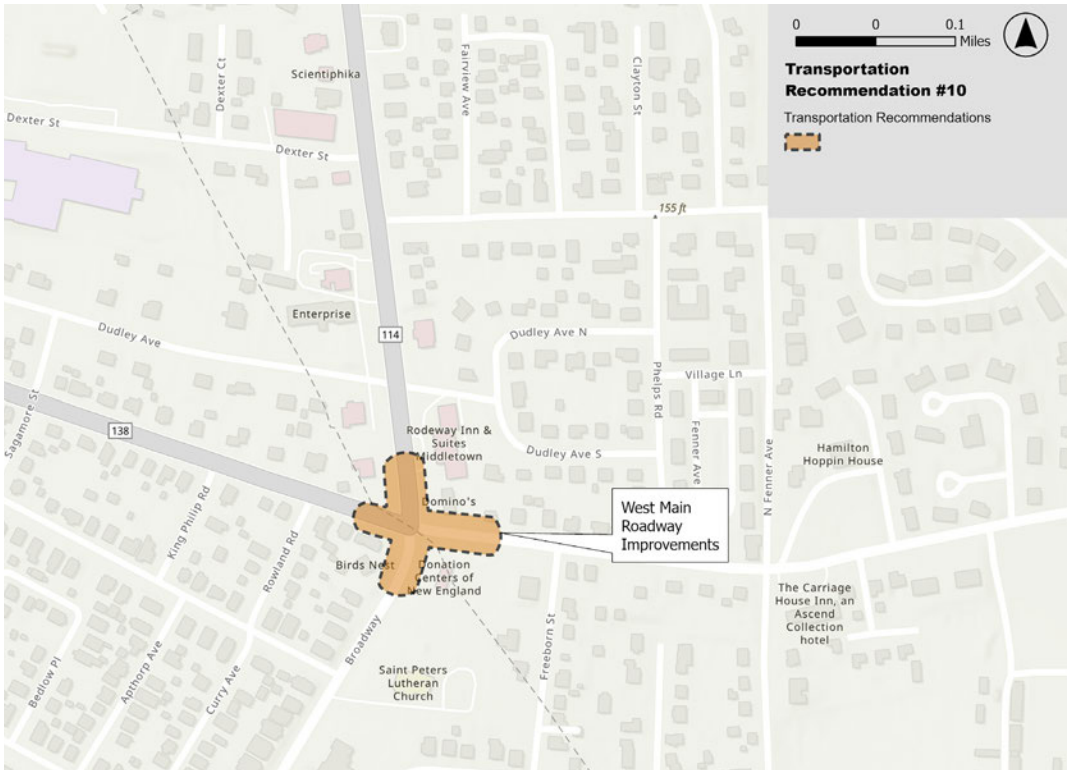
7. Curb Cut Consolidation Along East and West Main Road

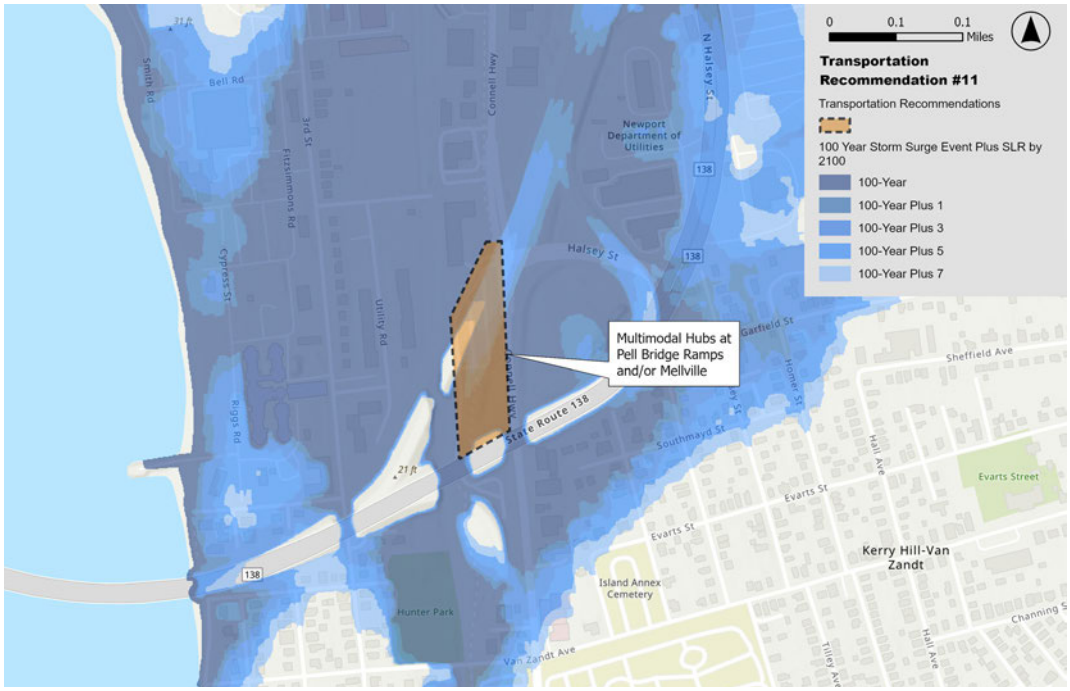
8. Road Diet/Lane Reallocation Along East and West Main Road

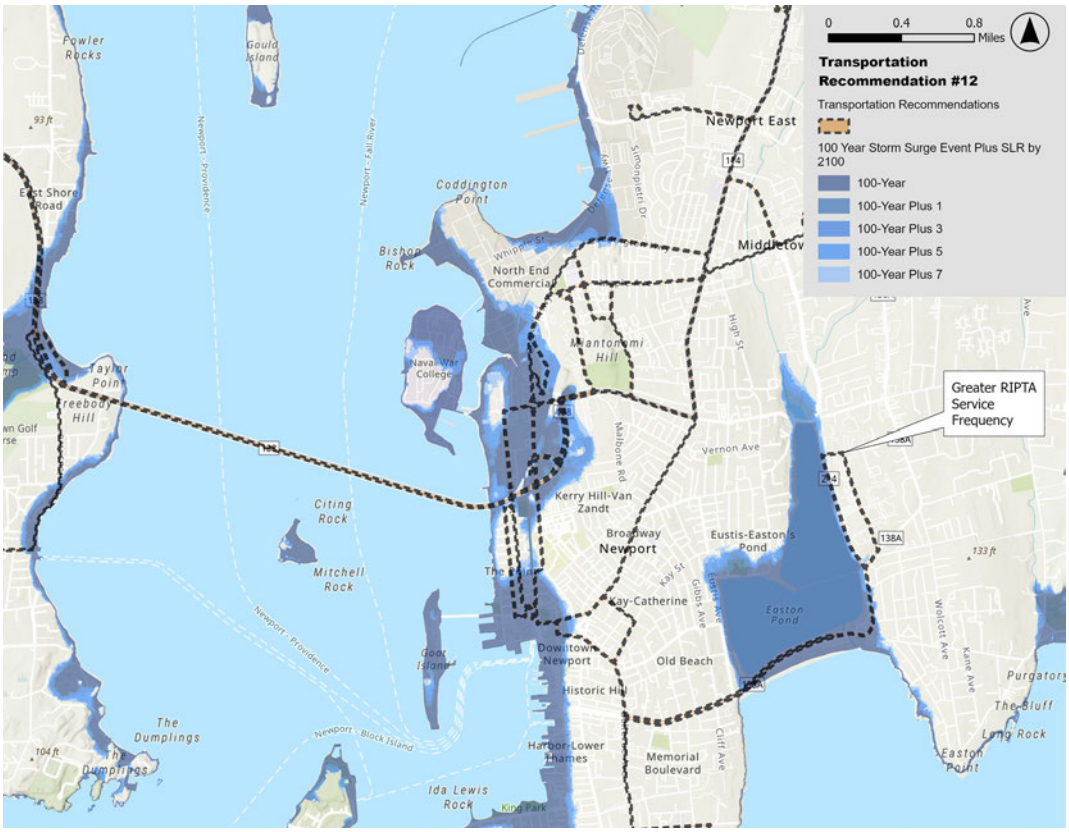
9. Multi-Use Path Along East and West Main Road



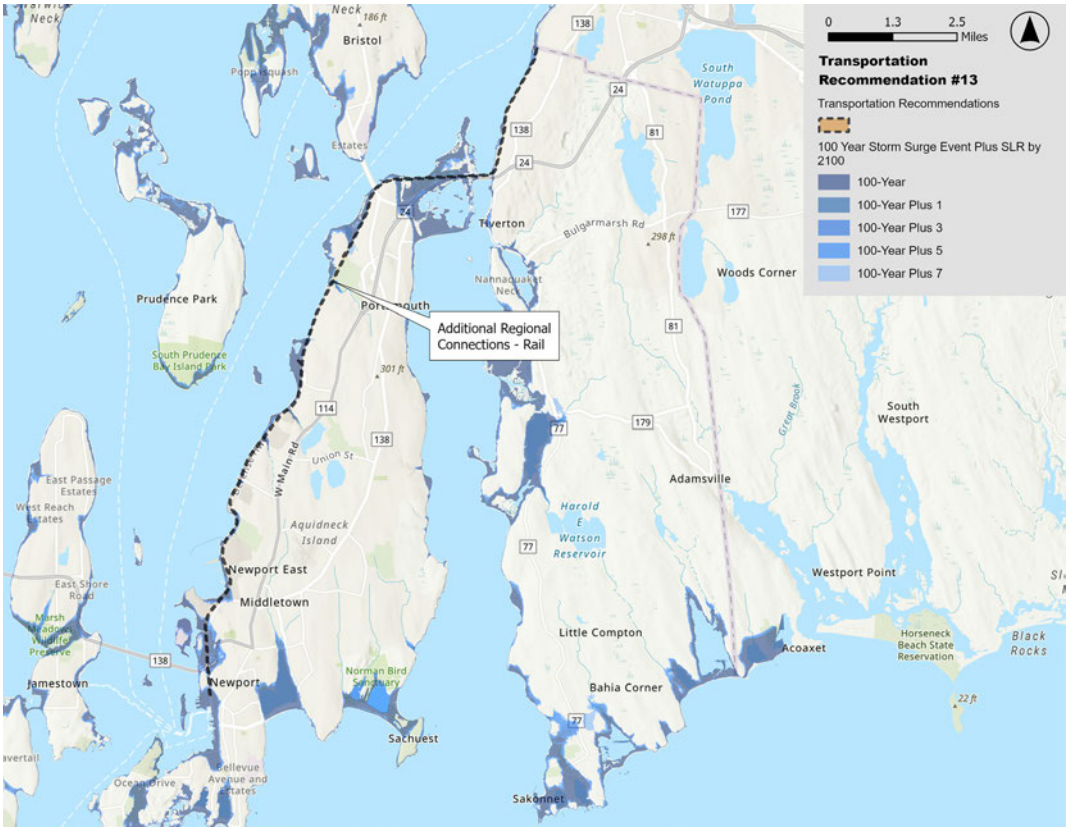
10. West Main/Broadway Improvements



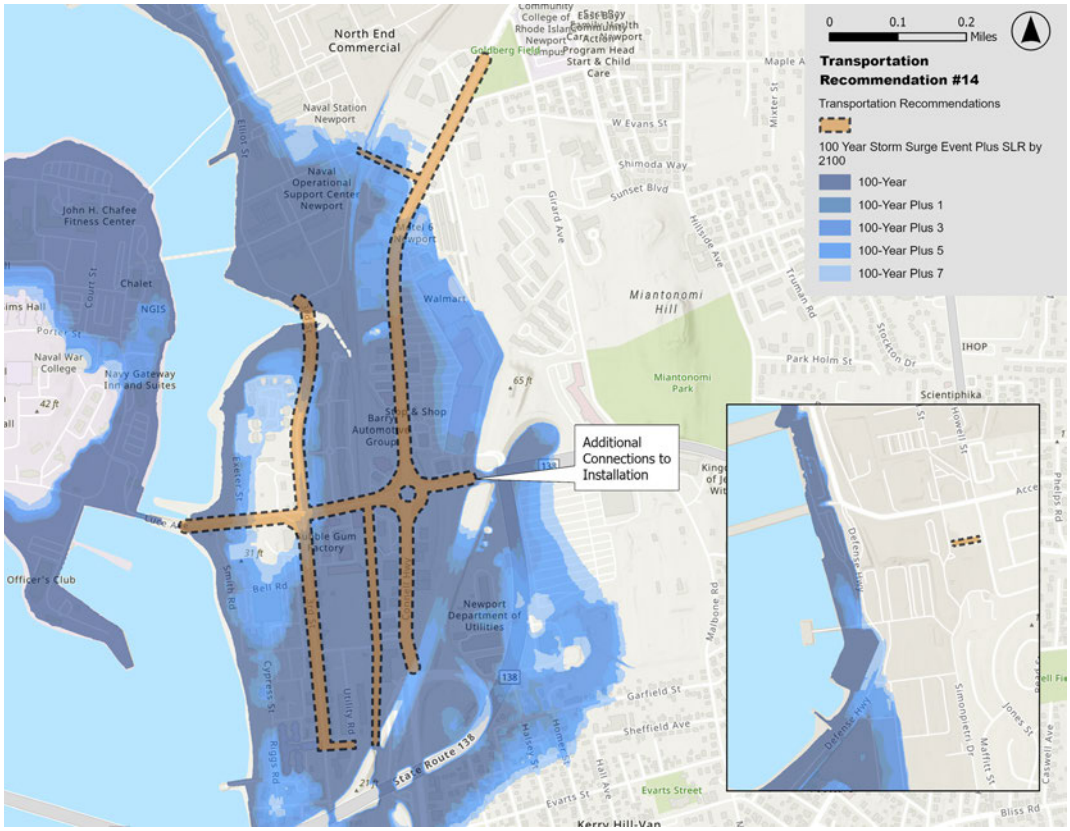




13. Regional Transportation Links

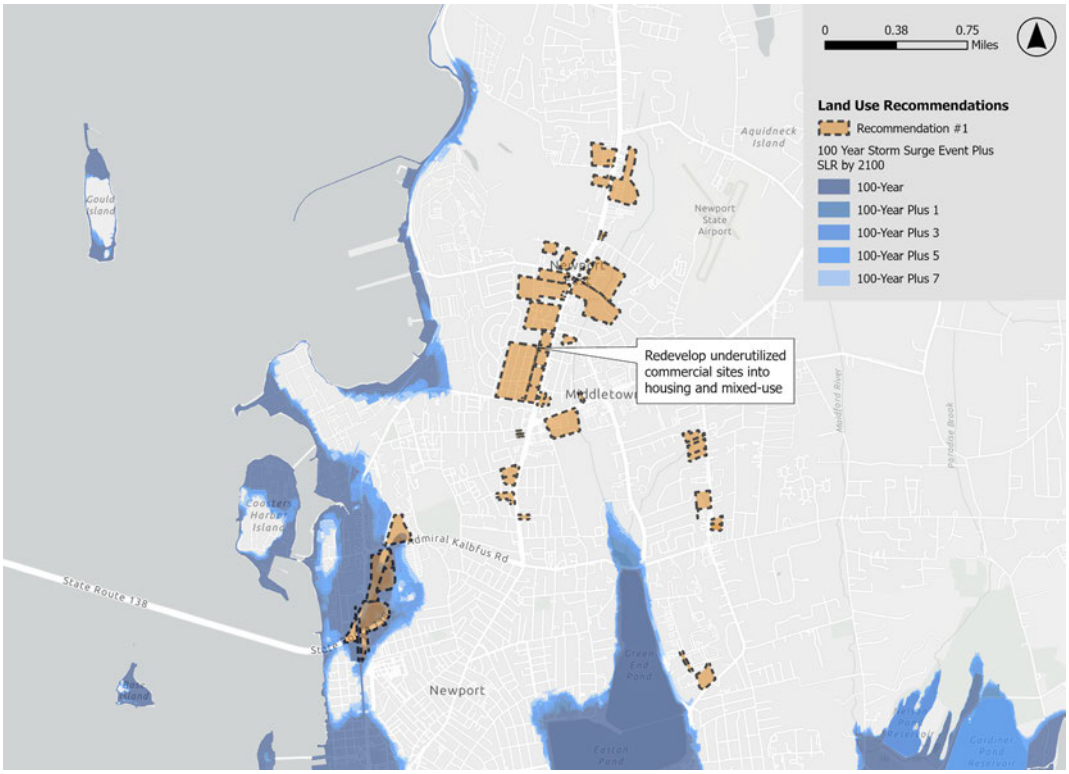


14. Additional First/Last Mile Connections to Installation

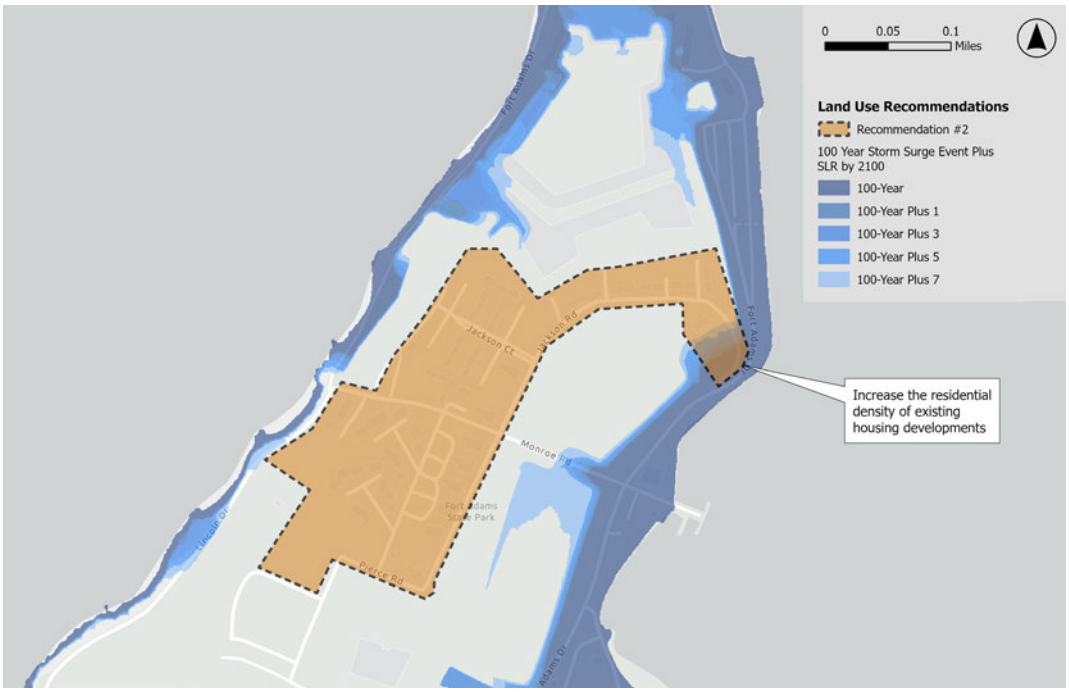


LAND USE STRATEGIES

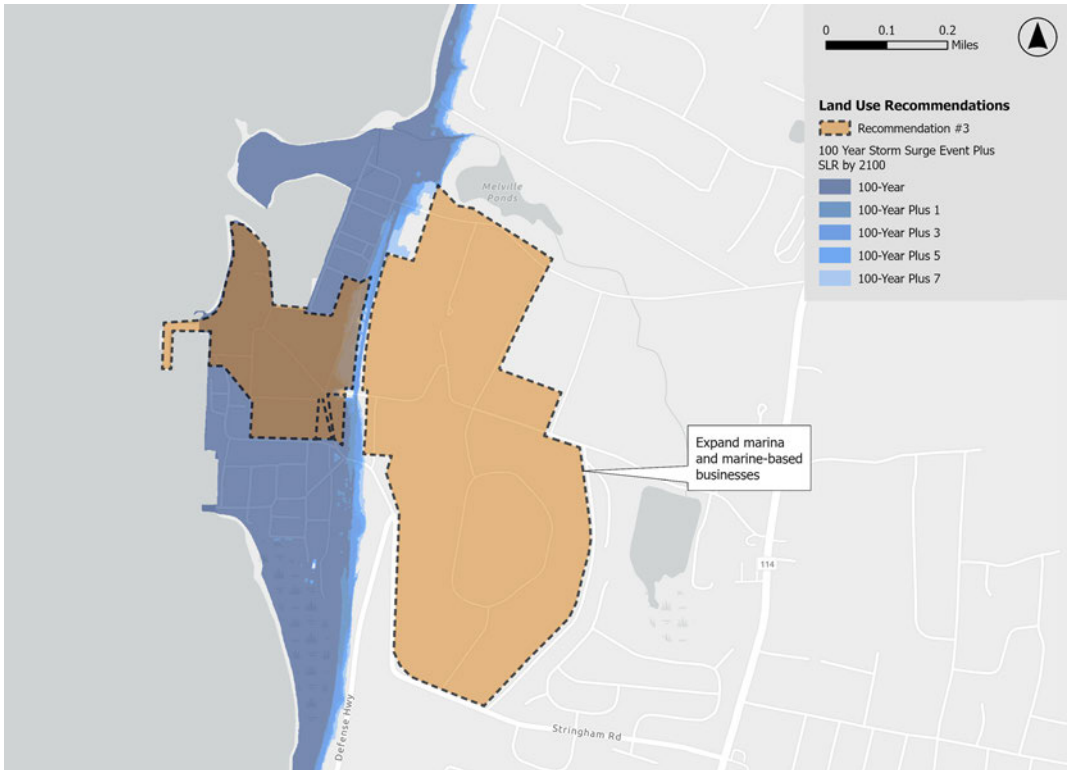
1. Redevelop underutilized commercial sites into housing and mixed-use

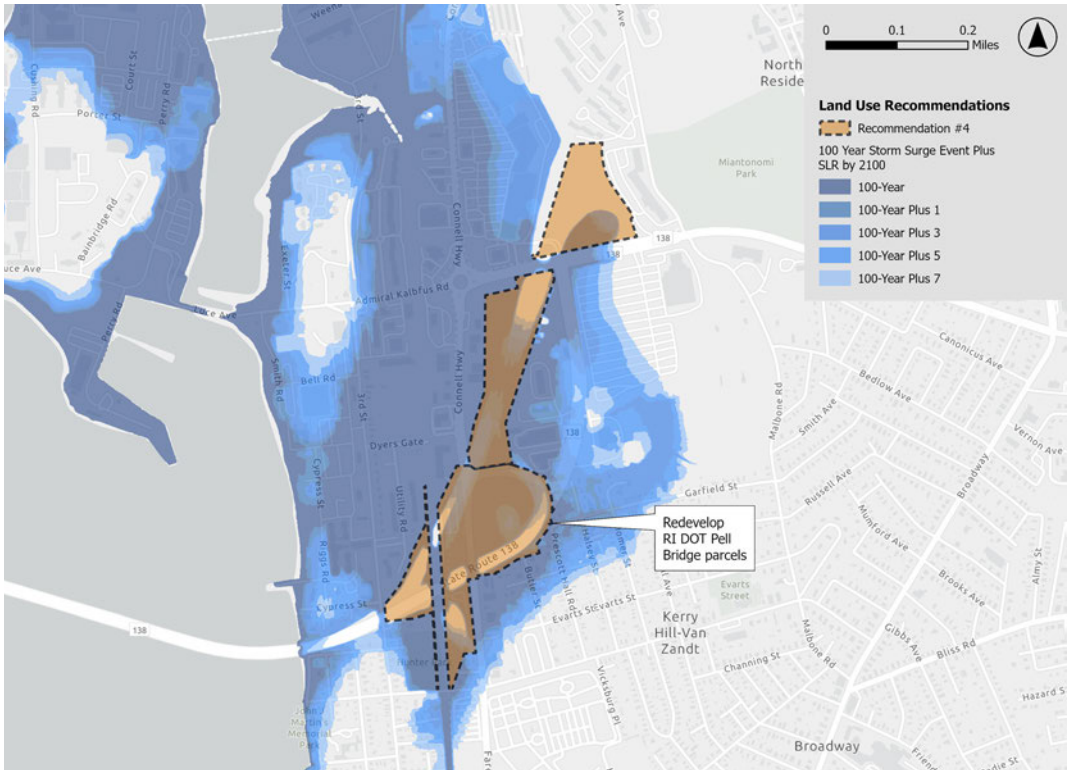


2. Increase the residential density of existing housing developments

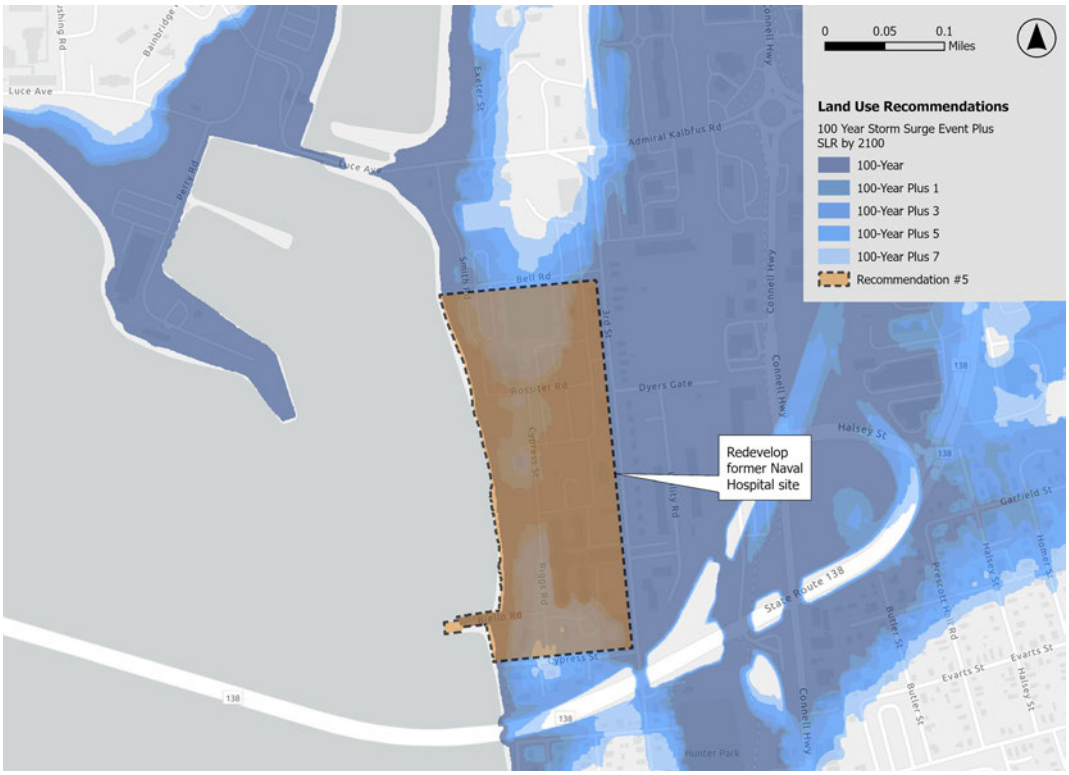


3. Expand marina and marine-based businesses

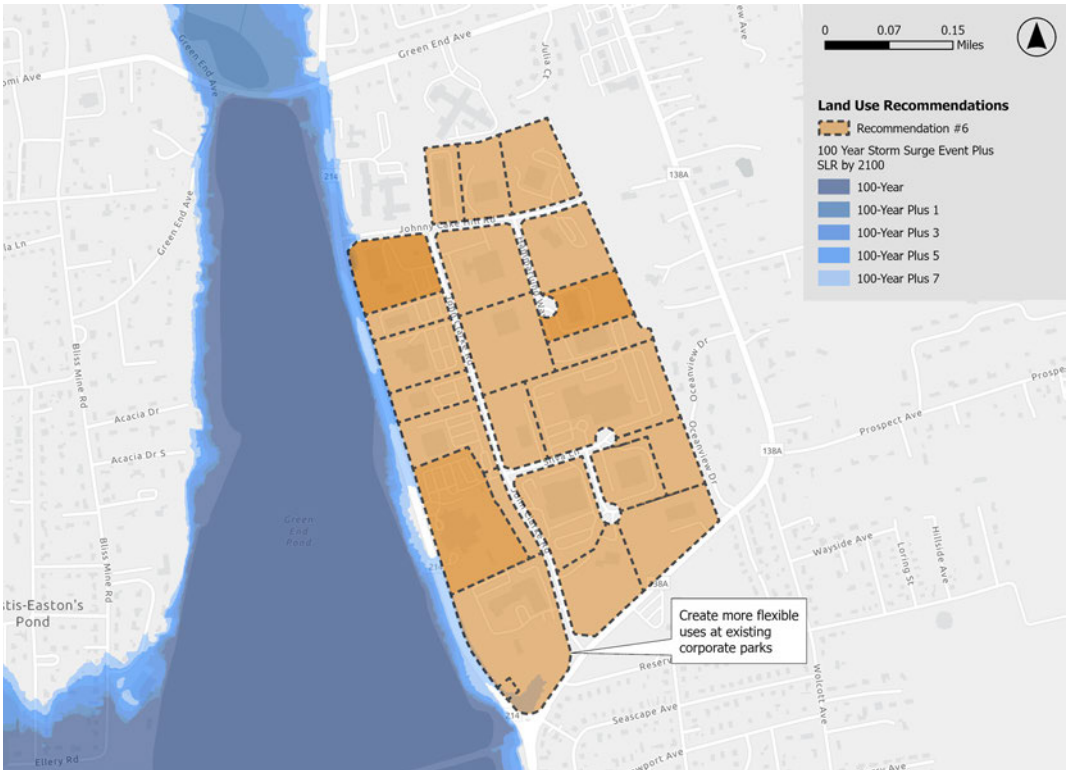




5. Redevelop former Naval Hospital site

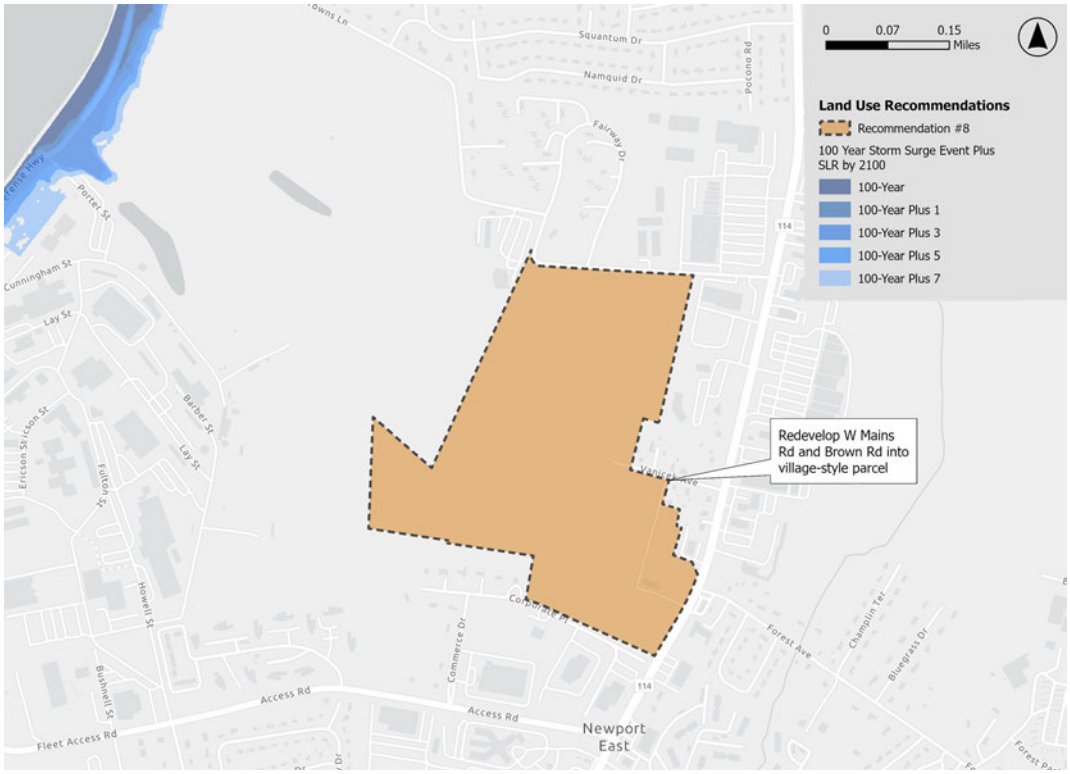


6. Create more flexible uses at existing corporate parks

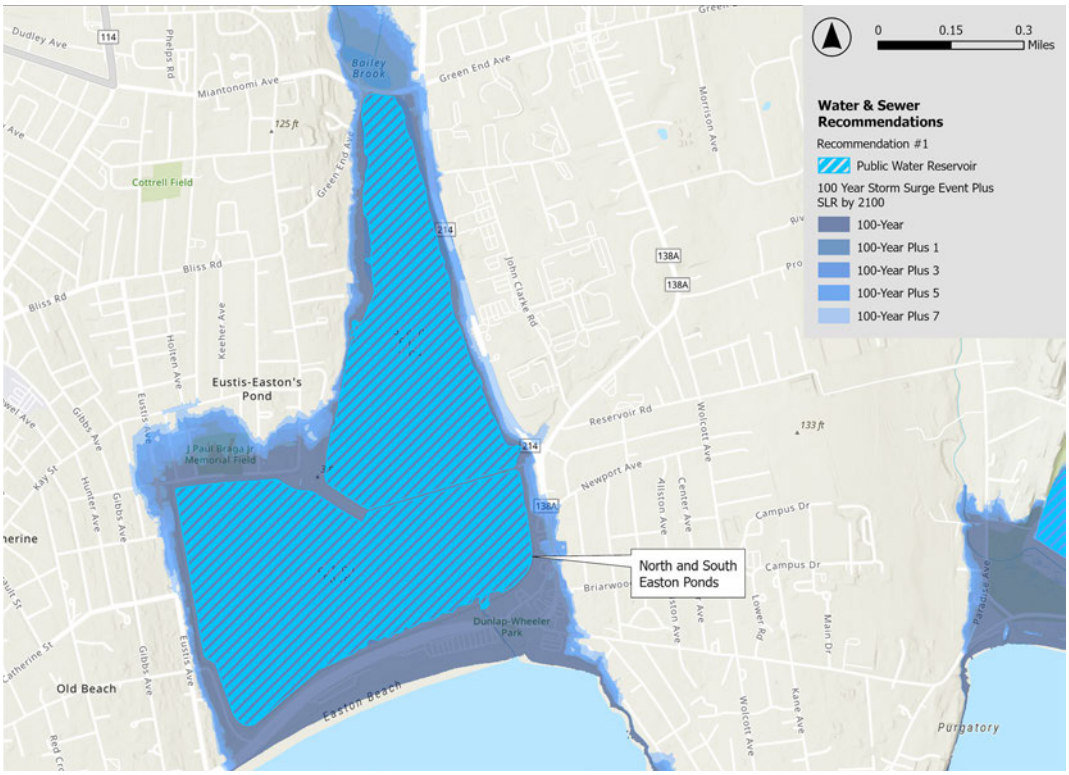


7. Transform Burma Rd into a multi-modal green corridor

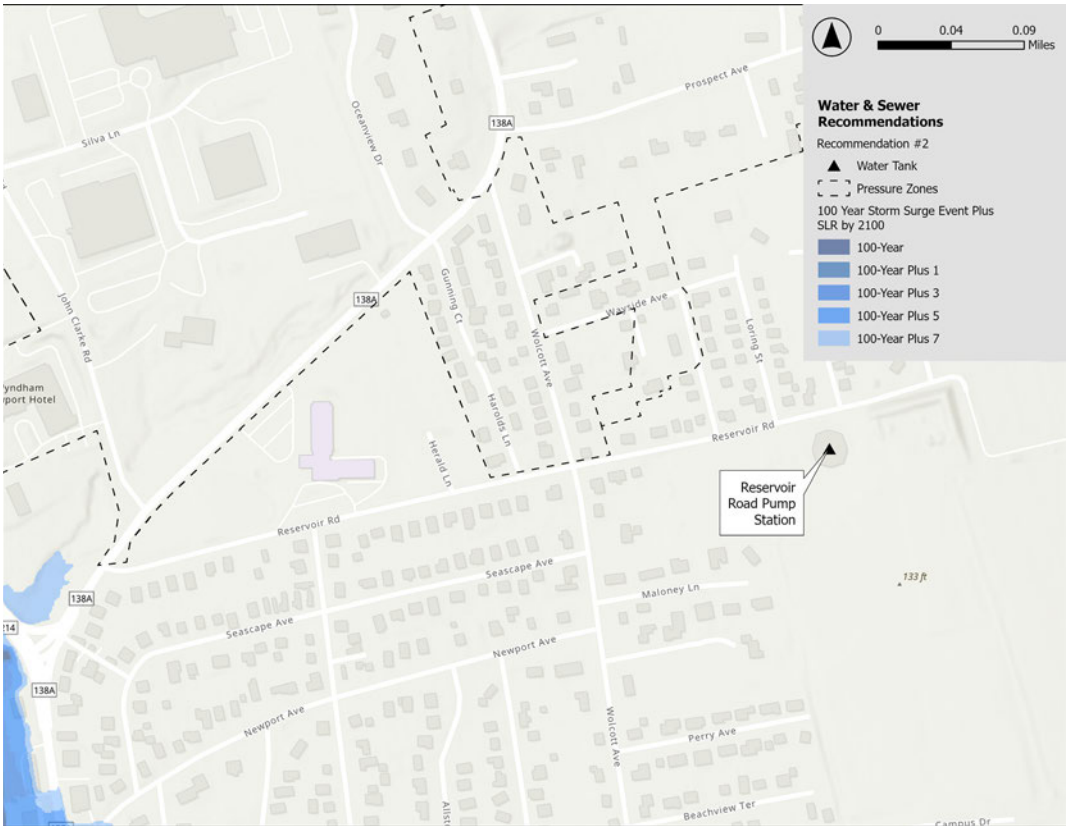
8. Redevelop W Main Rd and Browns Lane parcel into mixed-use Village



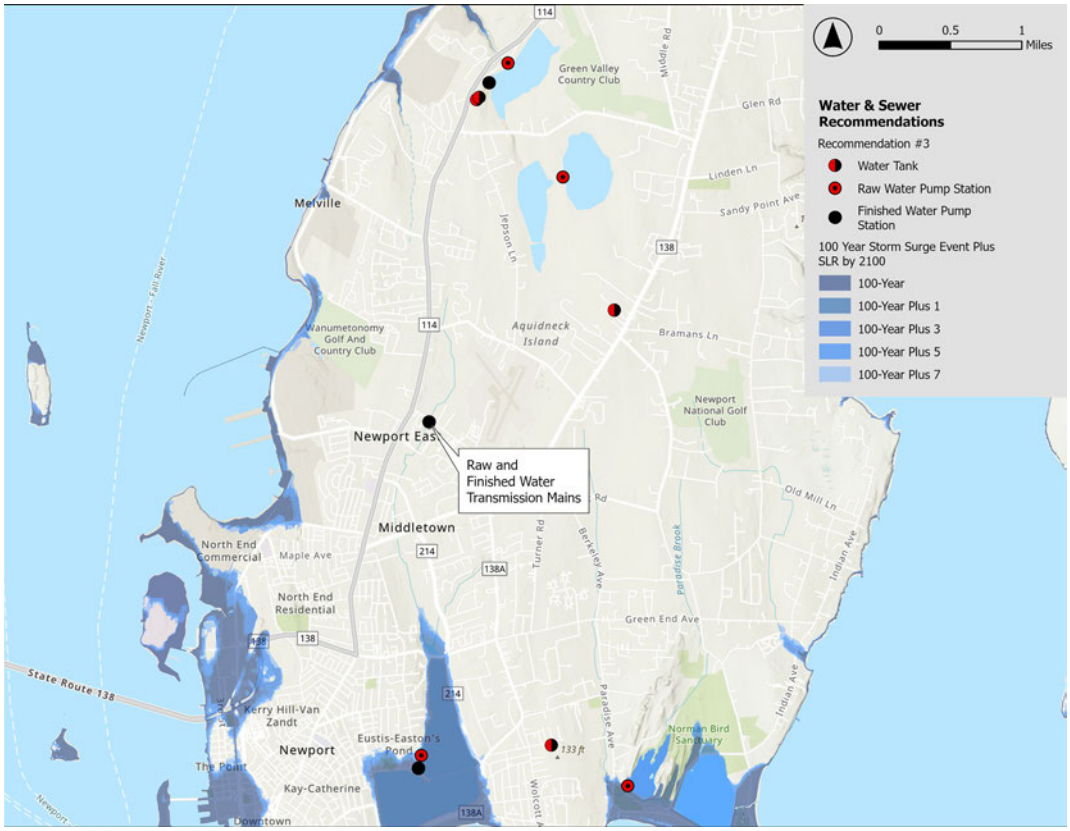
WATER & STRATEGIES



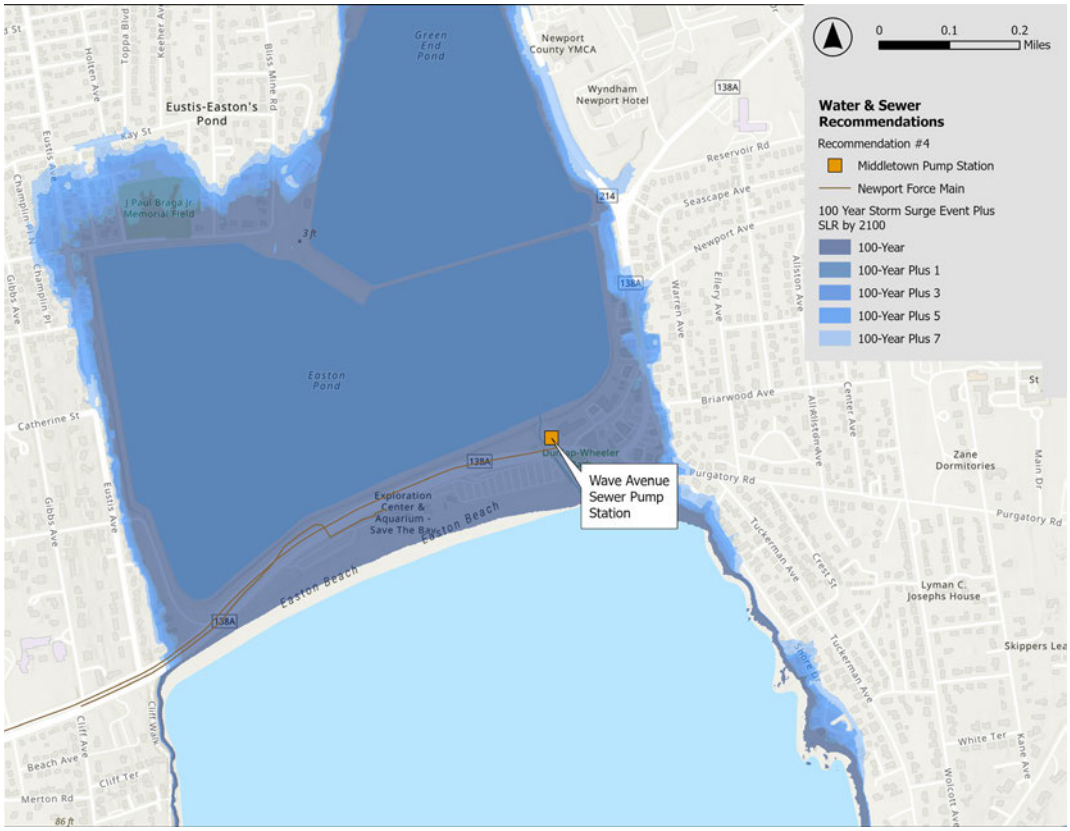
2. Reservoir Road Pump Station



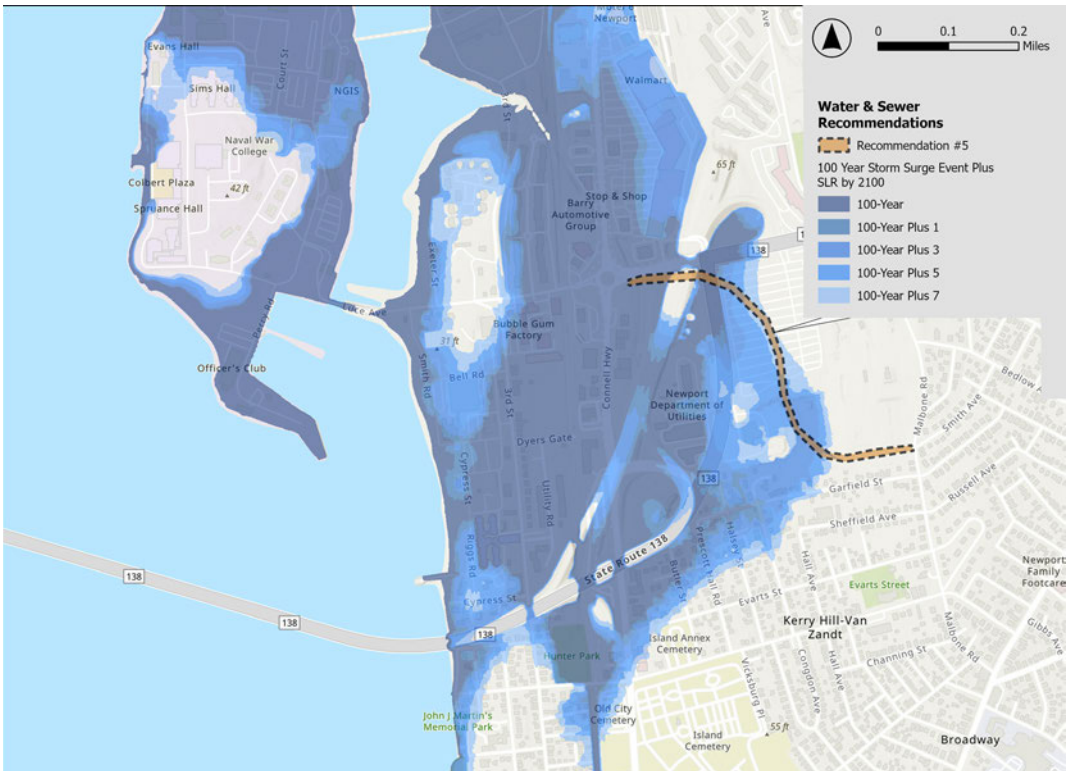
3. Raw and finished water transportation mains



4. Wave Avenue sewer pump station



5.Elizabeth's Brook daylighting



DRAFT