



Appendix D

Socioeconomic and Land Use Technical Report

CLEVELAND STREET PHASE IV IMPROVEMENTS

UPC 110803; U000-134-859;
PE STP-5A04(028); RW STP-5A04(113); CN STP-5A04(114)

Socioeconomic & Land Use Technical Report

VIRGINIA BEACH, VA



JUNE 2024

REVISED JUNE 2025

Prepared By:

Kimley»»Horn

Table of Contents

1	Introduction	4
1.1	Project Description and Location	4
1.1.1	Project Area	4
1.1.2	Project Description	6
1.2	Purpose and Need	7
2	Alternatives	9
2.1	Evaluation Criteria	9
2.2	Alternatives Evaluated	9
2.2.1	SMART SCALE FY 2018 Conceptual Design	9
2.2.2	SMART SCALE FY 2019 Conceptual Design	10
2.2.3	SMART SCALE FY 2019 and Mobile Home Avoidance Conceptual Design	11
2.2.4	No Build Alternative	12
3	Socioeconomic Resources	13
3.1	Communities and Community Facilities	13
	Methodology	13
	Existing Conditions	13
3.1.3	No Build Alternative	15
3.1.4	Build Alternative	15
3.2	Population and Housing	16
	Methodology	16
	Existing Conditions	16
	No Build Alternative	17
	Build Alternative	18
3.3	Income	18
	Methodology and Existing Conditions	18
	No Build Alternative	18
	Build Alternative	19

3.4	Racial and Ethnic Characteristics.....	19
	Methodology and Existing Conditions	19
	No Build Alternative	22
	Build Alternative.....	22
4	Public Outreach.....	24
5	References.....	25

Appendices

Appendix A – Project Figures

Appendix B – Conceptual Design Alignments

Appendix C – Sample January 2024 Certified Mailing to Property Owners

Appendix D – Summary of January 2024 Certified Mailing to Property Owners

1 INTRODUCTION

The City of Virginia Beach (the City), in coordination with the Virginia Department of Transportation (VDOT) and the Federal Highway Administration (FHWA) as the lead federal agency, is evaluating reconstructing portions of Cleveland Street and Columbus Street in Virginia Beach, Virginia. The project area under evaluation (from west to east) is from the intersection of Cleveland Street and North Witchduck Road to the intersection of Columbus Street and Independence Boulevard (herein referred to as the “project area” or “project corridor”). The proposed Cleveland Street Phase IV Improvements (the “project”) involves reconstructing the existing roadway from a two-lane undivided road to a three-lane undivided road and constructing new bicycle and pedestrian accommodations for a duration of approximately 1.2 miles. Pursuant to the National Environmental Policy Act (NEPA), as amended, and in accordance with FHWA regulations, this Socioeconomic and Land Use Technical Report has been prepared to analyze the potential social and economic effects associated with the improvements being evaluated. The project location and area are shown in **Figure 1** and **Figure 2** in **Appendix A**.

To support the environmental review, this Socioeconomic and Land Use Technical Report has been prepared to document the following:

- **Section 1** provides an overview of the project, introduces the project area, and addresses the Purpose and Need of the project;
- **Section 2** discusses the conceptual design alignments considered to fulfill the project's Purpose and Need;
- **Section 3** describes the socioeconomic characteristics of the project area including communities and community facilities, population and housing characteristics, income, and racial and ethnic characteristics .
- **Section 4** discusses the outreach conducted with the public to date and details future outreach initiatives; and,
- **Section 5** provides the references used within this Technical Report.

1.1 PROJECT DESCRIPTION AND LOCATION

1.1.1 PROJECT AREA

The project area (from west to east) comprises 1.2 miles of Cleveland Street and Columbus Street in Virginia Beach, Virginia. The project area includes portions of the following north-south cross streets where they intersect with Cleveland Street or Columbus Street: Southern Boulevard, Denn Lane, Jersey Avenue, Pennsylvania Avenue, Southgate Avenue, Brian Avenue, Dorset Avenue, Euclid Road, Opal Avenue, Aragona Boulevard, Maynard Avenue, Horace Avenue, Kellam Road, and Corporate Park Lane. The project area and north-south cross streets overlain on a 2023 aerial photograph is depicted on **Figure 2**. The project area generally consists of approximately 35 acres and is located in District Four within the City of Virginia Beach and is part of the City's urban center; with Virginia Beach Boulevard to the north, Independence Boulevard to the east, Witchduck Road to the west, and Interstate 264 (I-264) to the south. In the broader vicinity, the project area is situated between downtown Norfolk and the Virginia Beach oceanfront and is immediately west of Virginia Beach Town Center.

The project area is located within a mixed-use area of Virginia Beach and provides access to a variety of commercial, industrial, and residential facilities. The primary roadways servicing traffic in this area of Virginia Beach include I-264 and Virginia Beach Boulevard for west to east traffic and Witchduck Road and Independence Boulevard for north to south traffic. These roadways account for some of the highest traffic volumes and vehicle crashes in the city and several roadway reconstruction projects have occurred within the past decade to improve traffic and safety. This area of Virginia Beach is also a part of the Central Business District (CBD) zoning and the Central Village District, which are planned as a low-rise commercial and urban-residential areas of Virginia Beach. These two districts are areas that have been identified for urban redevelopment through the City's Comprehensive Plan.

The project area is a boundary around the proposed roadway improvement corridor. It does not represent the limits of disturbance (LOD) of the project or imply right-of-way (ROW) acquisition or potential construction impacts.

According to the City of Virginia Beach's publicly accessible "VBMap," which depicts zoning classifications throughout the city, the project area generally consists of approximately 35 acres of densely developed land with commercial and industrial uses. Four City of Virginia Beach zoning districts are within the project area: Light Industrial (I-1), Heavy Industrial (I-2), Community Business District (B-2), and CBD (B-3).

1.1.2 PROJECT DESCRIPTION

The proposed Cleveland Street Phase IV Improvement project would consist of the following elements:

- Roadway Reconstruction/Realignment: Cleveland Street and Columbus Street would be reconstructed from Witchduck Road to Independence Boulevard. The intersection of Cleveland Street, Dorset Avenue, and Euclid Road would be realigned and reconstructed to a single-lane roundabout that replaces the existing traffic signal. This would improve safety while also providing a better network alignment for Dorset Avenue to Southern Boulevard for improved access to I-264. The roadway reconstruction would also improve property access with the long-term goal of creating an urban grid with continuous block segments along Cleveland Street and Columbus Street. Individual parcel access would be provided to/from the north/south side streets which also improves safety and congestion through improved access management.
- Roadway Improvements: The project does not directly increase vehicle through capacity; however, capacity would be increased by constructing a center, two-way-left turn lane. Currently, left-turn movements are shared with the through movements throughout the corridor. The center left-turn lane would improve safety and traffic flow by providing a continuous refuge for left-turn movements throughout the project area. Sidewalks would be buffered from the vehicle lanes with a four to six-foot-wide landscape area. Existing overhead utilities would be relocated to a new overhead location and LED streetlights would be provided.
- Pedestrian and Bicycle Improvements: Improved bicycle and pedestrian infrastructure would be introduced with the roadway reconstruction. There is currently no bicycle infrastructure, the sidewalk network does not meet ADA standards, and there are sidewalk gaps that require pedestrians to either use the roadway or grass. The project would construct continuous five-foot wide (minimum) sidewalk on both sides of the roadway. On-street buffered bike lanes would be constructed on both sides of Cleveland Street from Witchduck Road to Dorset Avenue. Between Dorset Avenue and Independence Boulevard, all pedestrian and bicycle improvements would transition off street in the form of bike paths, sidewalks, and side paths. These facilities vary from eight-feet to 12-feet in width and provide the highest level of pedestrian and bicyclist safety being physically separated from vehicular traffic. These facilities would tie into the recently completed pedestrian facilities to the west over I-264 to Newtown Road and to the east across Independence Boulevard into Town Center, approximately 3-miles in length. There currently is not continuous ADA pedestrian and bicycle infrastructure within the project area.
- ROW Acquisition: The project requires thirteen (13) parcels to be permanently acquired for ROW. Of the 13 parcels being fully acquired, 11 of the parcels contain 12 industrial/commercial tenants, one parcel contains a mobile home community with 10 mobile homeowners and an unknown number of tenants requiring relocation, and one parcel is vacant and not occupied.

1.2 PURPOSE AND NEED

This project is intended to improve connectivity and multimodal transportation between Witchduck Road and Independence Boulevard, through the City's Central Village District. This project is the last piece of a larger regional transportation program designed to improve traffic operations and safety destined for I-264, its interchanges with arterial streets, and transitions to local collectors and local streets. Based on the existing and future needs, the purpose of the proposed project is to:

- Accommodate existing and future transportation connectivity needs by providing adequate transportation infrastructure to maintain safe and efficient traffic flows;
- Complete regional connectivity goals consistent with projects already constructed;
- Provide pedestrian and bicycle accommodations between Witchduck Road and Independence Boulevard;
- Enhance public safety; and
- Improve access management, roadway drainage, and reduce flooding issues.

The needs of the project are summarized in **Table 1.2**, below.

TABLE 1.2: SUMMARY OF PROJECT NEEDS

Project Need	Summary of Existing Need	Summary of Future Need
Improve Roadway Connectivity and Traffic	• Cleveland Street is the only east-west Urban Collector between Virginia Beach Boulevard, Independence Boulevard, Witchduck Road, and I-264. Cleveland Street from Witchduck Road to Independence Boulevard needs to be improved to provide motorists with the option of not taking Virginia Beach Boulevard or I-264. • Overall AM and PM intersection operations show vehicles travelling through the project area intersections at speeds conducive to LOS D, which impacts travel throughout the region. • The proposed project is the missing link to improve regional network connectivity to I-264, Newtown Road, and Town Center. Several roadway projects have been completed west of Cleveland Street and this project would connect to/support those improvements and investments made by the City and VDOT.	• Continual growth in traffic volumes associated with new developments would increase traffic demands on the corridor. Future operational conditions would continue to deteriorate for critical roadways in the project area as volumes increase on the network. This would require improved access management. • Without improvements, there would be a segment of unimproved roadway between Town Center and the Newton Road Strategic Growth Area (SGA) with higher amounts of traffic and collisions. The public would not benefit from the traffic improvements within the project area, which may motivate them to continue taking Virginia Beach Boulevard or I-264 as east-west alternatives in high traffic conditions. • Increased traffic in the corridor may undermine the Pembroke SGA's vision for Cleveland Street as an urban street grid that improves vehicular and pedestrian access.
Bicycle and Pedestrian Accommodations	• The project area does not have continuous sidewalk and the existing network contains gaps that require pedestrians to either use the roadway or grass. Therefore, the project area is not in alignment with the City's Complete Streets policy. • The existing sidewalk network does not meet ADA standards. • There are no bicycle facilities within the project area and public input received January 2009 expressed a desire for walkable neighborhoods with improved access to bicycle and pedestrian accommodations. In addition, many residents indicated their desire to ride due to lack of separated bicycle facilities. • VDOT's Pedestrian Safety Action Plan revealed that the portions of Cleveland Street and Columbus Street within the project area score in the top 5% of all scored corridors in the state needing pedestrian safety improvements. This tool also revealed five pedestrian crashes have occurred within the project area between 2016-2020. • The 2018 walking audit of the Central Village District revealed it is at an ideal walkable scale with most destinations within a 10-minute walk of another; however, lack of adequate sidewalk and organized vehicular access makes it difficult to walk or bike safely.	• Without improved pedestrian or bicycle accommodations, pedestrian and cyclists may continue to use the existing road for travel which would increase the likelihood of pedestrian crashes in future conditions as traffic and congestion increase throughout the project corridor. • The project area would remain noncompliant with the City of Virginia Beach's Complete Streets policy. • The City's vision of creating a connected, safe, and pedestrian-friendly environment within the project area would not be achievable. • Future growth, redevelopment, and land uses would increase walking and bicycle demands.
Improve Public Safety	• VDOT's Crash Analysis Tool revealed approximately 294 crashes have occurred within the project area since 2015. Of those, three resulted in severe injury, 92 resulted in visible injury, three resulted in nonvisible injury, two resulted in fatalities, and 194 resulted in only property damage. • VDOT's 2016-2020 Top Potential Safety Improvement Segments and Intersections revealed the following occurred within the project area between 2016-2020: -Cleveland Street from Dorset Avenue to Aragona Boulevard experienced 14 crashes, four resulted in injuries or fatalities. This roadway segment was ranked #252 in the VDOT Hampton Roads District for safety improvements. -Cleveland Street from Jersey Avenue to Southgate Avenue experienced eight crashes, three of which resulted in injuries or fatalities. This roadway segment was ranked #467 in the VDOT Hampton Roads District for safety improvements. -Cleveland Street from Jersey Avenue to Southgate Avenue experienced eight crashes, three of which resulted in injuries or fatalities. This segment of roadway was ranked #467 in the VDOT Hampton Roads District for safety improvements. • During heavy tailwater conditions, portions of the project area experience localized flooding which prevents access to and from the Virginia Beach Fire Station #7.	• Increased traffic growth could create safety issues at existing high crash locations. • The existing sidewalk network does not support long-term land use plan due to lack of multimodal safety. • Existing road network experiences intense flooding creating impassable areas along the corridor and impacting emergency response from Fire Station #7 to the surrounding community. • Simulated flooding of future sea-level-rise conditions depict more intense flooding within the corridor which would create impassable conditions, ultimately preventing access to and from the Virginia Beach Fire Station #7.

2 ALTERNATIVES

NEPA regulations require consideration of a reasonable range of alternatives prior to making any decisions to proceed with a particular course of action (40 Code of Federal Regulations (CFR) §1505.1). This section describes the history of the project's design, including the different conceptual design alignments considered for development, evaluation criteria, the screening process, and detailed descriptions of the No Build and Build Alternatives retained for detailed study.

A Build Alternative has been identified for further analysis and is discussed below. The Build Alternative was formulated based on a comprehensive evaluation process which incorporated input from the public as well as coordination with local, state, and federal agencies.

2.1 EVALUATION CRITERIA

The Cleveland Street Phase IV Improvements project proposes to improve an existing roadway corridor between Witchduck Road and Independence Boulevard in Virginia Beach, Virginia. The portion of Cleveland Street and Columbus Street under review are a space constrained corridor and property acquisition would be unavoidable to complete proposed improvements. Therefore, the City of Virginia Beach used property acquisition as an evaluation criterion when considering the conceptual design of different alignments during the planning of the project. The City of Virginia Beach aims to avoid and minimize property impacts to the maximum extent practicable when considering an alternative that fulfills the project's Purpose and Need.

2.2 ALTERNATIVES EVALUATED

2.2.1 SMART SCALE FY 2018 CONCEPTUAL DESIGN

The City of Virginia Beach submitted a successful System for the Management and Allocation of Resources for Transportation (SMART SCALE) application for the Cleveland Street Phase IV Improvements in fiscal year (FY) 2018 (approved in May 2017). The SMART SCALE application proposed construction of a four-lane divided roadway within a 90-foot ROW from Witchduck Road to Independence Boulevard. The typical section, proposed two 11-foot travel lanes in both the eastbound and westbound direction, separated by an eight-foot raised landscaped median with five-foot bike lanes adjacent to the curb and gutter, a four-foot buffer space, and an eight-foot sidewalk along both sides of the roadway.

The proposed 90-foot ROW against the centerline of the existing 60-foot ROW would require the full acquisition of twenty-nine (29) parcels. The 29 parcels proposed for full acquisition would impact forty-six (46) industrial/commercial tenants and 10 residential tenants. The parcels proposed for full acquisition are generally along both sides of Cleveland Street between Witchduck Road and Dorset Avenue, along the south side of Cleveland Street between Dorset Avenue and Opal Street, in addition to the parcels on both sides of Cleveland Street between Aragona Boulevard and Horace Avenue. The proposed typical section and location of the parcels proposed for full acquisition with implementation of the FY 2018 SMART SCALE Conceptual Design are provided in **Appendix B**.

While this alignment would achieve the project's Purpose and Need, the total number of parcels to be fully acquired and the cost burden associated with the acquisition was deemed to be excessive and

partially avoidable. Therefore, additional conceptual designs which refined the proposed alignment in the SMART SCALE FY 2018 Conceptual Design were considered to potentially reduce the number of full acquisition parcels.

2.2.2 SMART SCALE FY 2019 CONCEPTUAL DESIGN

In an effort to reduce the amount of full acquisition parcels, a conceptual alignment alternative was prepared which shifted the proposed four-lane divided roadway section to the north and south to potentially reduce the number of full acquisition parcels. The shifts north and south still require the proposed lanes to align with the existing lanes at the signalized intersections on either end of the corridor. Ultimately, shifting the proposed 90-foot ROW improvements to the north and south resulted in the same 29 parcels requiring full acquisition. These impacts are attributed to the proximity of adjacent businesses to the existing roadway and minimal access management to the private parking across the parcel frontage of the corridor.

Therefore, the typical section of the proposed corridor was reduced from a four-lane divided roadway, to a three-lane undivided roadway. This reduces the overall corridor width from a 90-foot ROW to a 70-foot ROW and includes the following components:

- Three 11-foot travel lanes, one in each direction and a center turn lane,
- A variable width sidewalk along both sides of the roadway (six-foot min. / 10-foot max),
- A four-foot grass buffer,
- Curb and gutter, and
- An un-buffered four-foot bike lane adjacent to the curb and gutter on both sides of the roadway.

The City of Virginia Beach submitted a successful SMART SCALE application for this alignment in FY 2019 (approved 2018). The proposed typical section for this alignment is depicted in **Appendix B**.

Additionally, continuous five-foot wide (minimum) sidewalk would be constructed on both sides of the roadway. On-street buffered bike lanes would be constructed on both sides of Cleveland Street from Witchduck Road to Dorset Avenue. Between Dorset Avenue and Independence Boulevard, all pedestrian and bicycle improvements would transition off street in the form of bike paths, sidewalks, and side paths. These facilities would vary from eight-feet to 12-feet in width and provide the highest level of pedestrian and bicyclist safety being physically separated from vehicular traffic. These facilities would tie into the recently completed pedestrian facilities to the west over I-264 to Newtown Road and to the east across Independence Boulevard into Town Center and provide ADA accessible accommodations to the project area.

The center turn lane was proposed to allow access to the side streets and adjacent parcels without additional widths necessary for U-turn movements in the previous median divided section. With the reduction of a through travel lane from the typical section proposed in the SMART SCALE FY 2018 application, the evaluated existing and future traffic volumes verify acceptable LOS. Additionally, to reduce delay and congestion at the Cleveland Street intersection with Witchduck Road, replacement of the existing traffic signal with a roundabout at the Dorset Avenue intersection was proposed. This would require improving the connection along Dorset Avenue and Southern Boulevard to realign traffic destined for I-264 and Witchduck Road to the Southern Boulevard intersection at Witchduck Road and the I-264 westbound on-ramp, which were recently improved in Fall 2021.

The reduction in corridor width from the typical section proposed in the SMART SCALE FY 2018 application reduced the total number of full acquisition parcels from 29 to twelve (12). The 12 parcels proposed for full acquisition would consist of 10 parcels with 12 industrial/commercial tenants, one parcel consisting of a mobile home community with 10 residential tenants, and one parcel that is vacant and unoccupied.

The SMART SCALE FY 2019 Conceptual Design was found to meet the project needs to reduce congestion and improve safety within the corridor while also reducing the overall number of full acquisition parcels. Therefore, the City of Virginia Beach determined the SMART SCALE FY 2019 Conceptual Design was the preferred alternative and was carried forward for detailed design and evaluation. The proposed acquisitions from the SMART SCALE FY 2019 Conceptual Design are depicted as **ALT2** in **Appendix B**.

2.2.3 SMART SCALE FY 2019 AND MOBILE HOME AVOIDANCE CONCEPTUAL DESIGN

FHWA requires the range of reasonable alternatives considered as part of a project be based on: 1) consideration of alternatives that avoid impacts; 2) consideration of the alternatives that minimize impacts; and 3) consideration of the potential mitigation of impacts of each alternative, all while meeting the project purpose and need (FHWA, 2024). Therefore, after the number of full acquisition parcels were reduced as part of the SMART SCALE FY 2019 Conceptual Design development, an additional conceptual design alignment was developed in efforts to avoid direct impacts to the mobile home community parcel (4873 Cleveland Street / GPIN 14771485900000) east of Aragona Boulevard.

In existing conditions, four of the 10 mobile homes positioned on the parcel are located within the “clear zone” (14-feet to 18-feet wide) of Cleveland Street. According to FHWA, a clear zone is an unobstructed, traversable roadside area that allows a driver to stop safely or regain control of a vehicle that has left the roadway. The width of the clear zone is based on risk. Key factors in assessing risk include traffic volumes, speeds, and slopes (FHWA, 2023).

The mobile home community parcel was proposed for full acquisition as part of the FY 2018 SMART SCALE application and subsequent FY 2019 SMART SCALE reevaluation. In the FY 2019 SMART SCALE reevaluation, the proposed roadway improvements would directly impact four of the 10 existing mobile homes across the Cleveland Street frontage, with a fifth mobile home falling within the roadway clear zone which poses a hazard both to motorists and residents. During preliminary engineering design, the existing stormwater infrastructure was identified as deficient to effectively contain simulated flooding throughout the project corridor. Further, one of the major project outfalls was identified the parcel easterly to the mobile homes (GPIN 14772405820000). Therefore, combination of the mobile home parcel and GPIN 14772405820000 was planned to include a stormwater management facility to alleviate roadway flooding and improve water quality.

The alignment to avoid direct impacts to mobile home community parcel begins with the introduction of additional reverse horizontal curves west of the Aragona Boulevard intersection. This would require shifting the proposed roadway improvements north by approximately 17-feet across the mobile home community parcel frontage of Cleveland Street. Once east of mobile home community parcel, a second pair of reverse horizontal curves ties the realigned corridor segment back to the proposed alignment, east of Horace Avenue. This alignment is depicted in **Appendix B**.

This conceptual design would not require ROW acquisition from the mobile home community parcel or GPIN 14772405820000 but would likely require temporary and permanent easements from the mobile home parcel to facilitate roadway construction and utility relocations.

The northern alignment shift would impact the entirety of the existing parking across the frontage of three parcels (GPINS 1477206490000, 14772416060000, and 14772417500000) on the north side of Cleveland Street between Aragona Boulevard and Horace Avenue. Therefore, full acquisition of these parcels would be anticipated. In addition, to offset the loss of area for the stormwater management facility on the mobile home community parcel, two separate stormwater management facilities would be required to provide the same treatment and storage volume. This would require the total acquisition of four parcels in two separate locations for stormwater management facilities: GPINs 14772428510000 and 14772426880000 (immediately east of GPINS 1477206490000, 14772416060000, and 14772417500000) and GPINs 14771466280000 and 14771466990000 (immediately west of Aragona Boulevard).

Therefore, this alignment between Aragona Boulevard and Horace Avenue would result in the full acquisition of seven parcels to offset the loss of GPINs 14771485900000 and 14772405820000 for stormwater, depicted as **ALT3** in **Appendix B**. This would include three commercial businesses which are spread across five parcels and two parcels which are vacant and unoccupied. This conceptual design would ultimately require the full acquisition of 17 parcels across the length of the project corridor, consisting of 15 parcels with 15 industrial and commercial tenants and two parcels that are vacant and unoccupied. The cost burden associated with the acquisition of the seven additional parcels is estimated to be over two times the cost to acquiring the mobile home community parcel (or an increase of over \$2M when utilizing two times the current City assessed values for acquisition).

Further, the introduction of an additional pair of reverse curves near the existing reverse curves in front of the properties to the east would increase the probability and frequency of roadway departure crashes primarily towards GPINs 14771466990000 and 14771466280000; however, it is possible a partial departure towards the mobile home parcel could also occur. Given the anticipated construction duration and complexity, the mobile home community parcel would likely experience construction vibration, dust, and noise combined with other negative construction side effects for a three-year period during the daytime and nighttime. Therefore, to avoid the additional seven parcels proposed for full acquisition and to minimize impacts and disruptions to the residents on the mobile home community parcel, the SMART SCALE FY 2019 with Mobile Home Avoidance Conceptual Design was not carried forward for detailed design or evaluation.

2.2.4 NO BUILD ALTERNATIVE

Under the No Build Alternative, no improvements to the Cleveland Street and Columbus Street corridor would occur. The project corridor would retain its existing infrastructure and would continue to experience traffic and safety issues and would not provide adequate linkage between the Newtown and Pembroke SGAs.

Therefore, the No Build Alternative does not meet the project's Purpose and Need and was not considered a viable alternative. In accordance with the implementing regulations for NEPA (40 CFR §1502.14(d)), the No Build Alternative has been retained for detailed study and serves as a benchmark for comparison with the Build Alternative. Only planned maintenance improvements, and those proposed independently by the City of Virginia Beach, would occur within the project corridor.

3 SOCIOECONOMIC RESOURCES

The FHWA Technical Advisory T6640.8A *Guidance for Preparing and Processing Environmental and Section 4(f) Documents* indicates that NEPA documents should consider social impacts, to the extent they are distinguishable, for changes to neighborhoods or community cohesion; travel patterns and accessibility (e.g., vehicular, commuter, bicycle, or pedestrian); impacts to school districts, recreation areas, places of worship, businesses, police, and fire protection stations, etc. (FHWA, 1987). The following is a description of the social characteristics of the project area and an assessment of how the project could affect those characteristics.

For the Socioeconomic Resources analysis, data from the U.S. Census Bureau data tables were reviewed.

3.1 COMMUNITIES AND COMMUNITY FACILITIES

METHODOLOGY

Communities and community facilities were identified through a review of data provided through coordination with the City of Virginia Beach, desktop searches, and secondary mapping sources (e.g., Geographic Information Systems [GIS] data provided by the City of Virginia Beach, Google Maps, Google Earth, and review of local and regional planning documents).

EXISTING CONDITIONS

Communities are typically places that have shared characteristics such as neighborhood residential areas or business centers. Community facilities are comprised of buildings or places that provide a variety of services to the public. Public community facilities generally provide services for the general public benefit, and include public schools, healthcare facilities, emergency services facilities, government service facilities, airports, museums, sports centers, public non-profits, and regional or local parks and trails. Privately held community facilities also serve as important institutions within the community, and include religious facilities, cemeteries, private non-profits, and private schools.

The project area is located within the Pembroke SGA and supports the Central Village District. The project area does not contain any neighborhoods but contains the mobile home parcel with 10 residential tenants. A review of the above listed sources revealed the following community resources within the vicinity of the project area (from west to east), as depicted on **Figure 3 in Appendix A:**

- A portion of the Virginia Beach Renaissance Academy public high school is within the western portion of the project area, northwest of the intersection of North Witchduck Road and Cleveland Street at 5100 Cleveland Street.
- The City of Virginia Beach Housing Resource Center is located immediately adjacent to the project area, northeast of the intersection of North Witchduck Road and Southern Boulevard at 104 North Witchduck Avenue.
- The Gate of Heaven Ministry is located north of the project area at 5030 Cleveland Street.
- The Iglesia Cristiana Ciudad de Hebron is located south of the project area at 4999 Cleveland Street.

- The Living World Gospel Church is located immediately south of the project area, southeast of the intersection of Cleveland Street and Opal Avenue at 4971 Cleveland Street.
- The U.S. Postal Service Facility is located within the project area, south of the Walmart at 4831 Columbus Street.
- The Virginia Beach Fire Station #7 is located within the project area, south of Cleveland Street at 4817 Cleveland Street.
- Bon Secours in Motion at Town Center is located south of the project area at 4677 Columbus Street, Suite 201.
- Hampton Roads Transit (HRT) Bus Stop # 1340 at Independence Boulevard and Columbus Street is located 95 feet south of the project area, along Independence Boulevard.
- The City of Virginia Beach Business Resource Center is located immediately adjacent to the project area, northwest of the intersection of Columbus Street and Independence Boulevard at 140 Independence Boulevard within Town Center.
- City of Virginia Beach Town Center is located immediately east of the project area and contains a business park, a variety of restaurants, shops, and hotels, the Sandler Center for the Performing Arts, Strayer University, and the Art Institute of Virginia Beach.
- The Thalia Creek Greenway is located approximately 1,400 feet southwest of the project area.
- The former Pembroke Mall is located approximately 900-feet north of the project area. Pembroke Mall is a shopping mall that was closed by the city in 2022 for planned redevelopment. The City plans to redevelop the mall into “Pembroke Square” and will include shopping and dining options, a senior living community, luxury apartments, hotels, and parking garages. Scheduled for completion in 2025 (Pembroke Square, 2024).

There are no libraries, cemeteries, police stations, civic centers, publicly owned parks, recreational trails, or bike facilities located within the project area. However, the City is planning to extend the existing Virginia Beach Trail, which parallels Cleveland Street 600-feet to the south along the former Norfolk Southern Railroad, from Newtown Road to Norfolk Avenue. The extension of the Virginia Beach Trail would provide an additional community service within walking distance of the project area.

The project area is served by the Virginia Beach Police Department – Third Precinct, located approximately two miles north of the project area.

In the broader vicinity, Apartment Districts (A-12, A-18, A-24, and A-36), Residential Districts (R-10, R-5D, and R-7.5), and the Mixed-Use District (B-4) surround the entirety of the project area. Notable residential communities within the vicinity of the project area include the following, as depicted on **Figure 3** in

Appendix A:

- Aragona Village – This residential area is a medium-density suburban neighborhood zoned as R-7.5. Aragona Village is a well-established neighborhood in Virginia Beach and is situated between Virginia Beach Boulevard to the south and Haygood Road to the north. It is home to several parks and was developed in 1955. Aragona Village is located approximately 1,100 feet north of the project area.
- County View Mobile Home Park – This residential area is a high-density mobile home community zoned as A-12. County View Mobile Home Park is located approximately 200 feet south of the project area and is located off Euclid Road.

- Independence Square Apartments – This residential area is an apartment complex zoned as A-18 and is located approximately 300 feet south of the project area, off Independence Boulevard.
- Pocahontas Village – This residential area is a medium-density suburban neighborhood zoned as R-7.5. Pocahontas Village is located approximately 350 feet south of the project area, off Kellam Road.
- Two Hundred West Apartments – This residential area is a high-end apartment complex zoned as A-36 and is located approximately 800-feet south of the project area.
- Mobile Home Community – This residential area contains 10 tenants and is zoned as B-3. It is located within the project area, off Cleveland Street.

3.1.3 NO BUILD ALTERNATIVE

Existing pedestrian accommodations within the project area are fragmented and prevent safe pedestrian access to the various community facilities within the project corridor. These conditions would remain with implementation of the No Build Alternative, which may indirectly discourage pedestrians and cyclists from accessing the project area or its various community resources. Additionally, the project area would remain the only segment of unimproved roadway between Town Center and Newtown Road. Therefore, the City and VDOT's investments west of the project corridor (including Cleveland Street Phases I-III, Witchduck Road Phase II, I-64 and I-264 Interchange Improvements (Phase I), and I-264 and Witchduck Road Interchange and Ramp Extension (Phase II)) would not be supplemented with the pedestrian accommodations and roadway improvements proposed with the Cleveland Street Phase IV Improvements. This would also affect regional network connectivity between I-264, Newtown Road, and Town Center.

3.1.4 BUILD ALTERNATIVE

The Build Alternative would improve the fragmented pedestrian accommodations throughout the project area by providing dedicated sidewalks and on-street buffered bike lanes throughout. This would make accessing the various community resources throughout the project area safer for pedestrians which may increase overall pedestrian visitation to the community resources. Additionally, the Build Alternative would complete the missing network gap in pedestrian accommodations and roadway improvements between Town Center and Newtown Road, which would complete one of the final phases in the regional connectivity plan associated with I-264, Newtown Road, and Town Center. This would make accessing the community resources within the project area and the Newtown Road SGA safer and easier for the motoring public as well.

Granularly, the Build Alternative would directly improve safety and access to the Virginia Beach Fire Station #7 by alleviating localized flooding throughout the corridor and upgrading the existing traffic signal. Construction of the Build Alternative would require minor amounts of ROW acquisition from some of the community resources; however, the acquisition is not anticipated to affect the overall use or nature of the community resources within the project area.

3.2 POPULATION AND HOUSING

METHODOLOGY

For the Population and Housing analysis, demographics to the census block level were obtained using data from the 2020 American Community Survey (ACS) 5-Year Estimates obtained from the U.S. Census Bureau data tables. ACS data is a sampling of the population, as opposed to the decennial Census, a per person/per household capture effort. The use of sampling makes small area census data less precise. However, the ACS data sources are more recent, are the most comprehensive published data sources, and are relied on by VDOT and FHWA for comprehensive analyses.

For the purpose of this report, 2020 ACS 5-Year Estimates Census data were used wherever possible, as opposed to 2010 decennial counts since this data more closely represents the existing population within the project area given the change in demographics since 2010. If available, data was supplemented with 2022 ACS 5-Year Estimates obtained from the U.S. Census Bureau data tables to provide more recent estimations. Data sources are specified in the below tables.

The majority of project area (from North Witchduck Road to Independence Boulevard) is located within Census Tract (CT) 410.02 Census Block Groups (CBG) 1 and 2. The western terminus of the project area is located within CT 406 CBG 2 and the eastern terminus of the project area is located within CT 456.03 CBG 2. The project area's CBGs are depicted on **Figure 4 in Appendix A**.

EXISTING CONDITIONS

The project area is located in a developed and expanding area of the City of Virginia Beach. As the population grows in Virginia Beach and the surrounding areas, the likelihood is commuter traffic and multi-modal transportation options would increase as well. **Table 3.2-1** illustrates the population trends for Virginia Beach, Norfolk, Chesapeake, and Virginia from 2000 to 2020. Chesapeake has seen a larger percent change (17%) in total population between 2000 and 2020 than Virginia Beach (7%) and Norfolk (4%) (U.S. Census Bureau, 2000-2020). As shown in **Table 3.2-2**, population projections anticipate Virginia Beach and surrounding areas would continue this pattern of growth, although at a slower pace.

TABLE 3.2-1: HISTORIC POPULATIONS

Locality	2000	2010	2015	2020	% Change Between 2000 & 2020
Virginia Beach	425,257	437,994	452,745	459,470	7%
Norfolk	234,403	243,135	246,393	244,300	4%
Chesapeake	199,184	222,986	235,426	242,647	17%
Virginia	7,078,515	8,001,024	8,382,993	8,631,393	17%
Source: 2000-2020 ACS 5-Year Estimates, Population and Housing					

TABLE 3.2-2: POPULATION PROJECTIONS

Locality	2020	2030	2040	Projected % Change Between 2020 & 2040
Virginia Beach	467,134	482,578	491,054	4%
Norfolk	250,760	257,478	260,509	3%
Chesapeake	253,355	277,475	297,274	14%
Virginia	8,744,273	9,546,958	10,201,530	14%
<i>Source: 2017, University of Virginia, Weldon Cooper Center for Public Service, Virginia Population Projection Data</i>				

Table 3.2-3 presents housing data for the project area's CBGs (CT 410.02 CBGs 1 and 2, CT 410.02 CBG 2, CT 406 CBG 2, and CT 456.03 CBG 2), Virginia Beach, and Virginia. The project area CBGs have an average 90% occupied housing units, which is slightly lower than Virginia Beach (94%) and Virginia's percent occupied housing units at 92%. The average median home value of the project area's CBGs is lower than the City of Virginia Beach's and the Commonwealth of and Virginia's average, except for CT 456.03 CBG 2 with a median home value of \$288,600.

There is a limited amount of housing available within the project area. The only residential community is the existing mobile home community located east of Aragona Boulevard. In existing conditions, four of the existing mobile homes are within the roadway clear zone, which poses unsafe conditions with the potential for vehicle collisions.

No residential zoning districts or other housing accommodations exist within the project area.

TABLE 3.2-3: PROJECT AREA AND LOCALITIES HOUSING DATA

Census Tract	Block Group	Total Housing Units	Total Occupied Housing Units	Percent Occupied	Owner Occupied	Percent Owner Occupied	Median Home Value
410.02	1	498	463	93%	201	40%	\$229,900
	2	439	423	96%	238	54%	\$25,000
406	2	565	498	88%	287	51%	\$167,700
456.03	2	1,133	933	82%	75	7%	\$288,600
Virginia Beach		190,059	178,353	94%	111,517	59%	\$287,400
Virginia		3,618,247	3,321,218	92%	2,123,771	59%	\$282,800
<i>Source: 2020 ACS 5-Year Estimates, Population and Housing</i>							

NO BUILD ALTERNATIVE

The No Build conditions are consistent with the existing conditions. The No Build Alternative is not expected to impact populations or housing; however, the mobile home community would remain within the roadway clear zone and would remain subject to unsafe conditions with the potential for vehicle collisions.

BUILD ALTERNATIVE

With implementation of the Build Alternative, construction of the proposed improvements would occur and would require the relocation of the 10 residential tenants within the mobile home community parcel to another mobile home community in proximity. This would remove the mobile home community from the roadway clear zone, which would improve overall safety for tenants. No other residential populations or housing would be directly impacted; however, the Build Alternative would improve access and pedestrian safety in this area of the City which would benefit adjacent housing communities.

3.3 INCOME

METHODOLOGY AND EXISTING CONDITIONS

Income data from 2020 ACS 5-Year Estimates, *Median Household Income in the Past 12 Months (in 2020 Inflation-Adjusted Dollars)* were used to generate median household income data for each of the CBGs within the project area and the City of Virginia Beach. These values are listed in **Table 3.3** and serve to supplement the other analyses which are based on 2020 data. In 2020, the median household income of the four block groups within the project area fell below the median household income for Virginia Beach, \$78,136.

The 2022 ACS 5-Year Estimates, *Median Household Income in the Past 12 Months (in 2022 Inflation-Adjusted Dollars)* were available for the project area's CBGs and the City of Virginia Beach. Therefore, to provide a more recent estimation of median household income the 2022 Median Household Income for the project area's CBGs and the City of Virginia Beach are also provided in **Table 3.3.1**. In 2022, the median household income of the four block groups within the project area fell below the median household income for Virginia Beach, \$83,245.

TABLE 3.3.1: MEDIAN HOUSEHOLD INCOME IN 2020 AND 2022

Census Tract	Block Group	2020 Median Household Income ^A	2022 Median Household Income ^B
406	2	\$59,457	\$65,750
410.02	1	\$46,711	\$54,815
	2	\$38,750	\$44,006
456.03	2	\$61,098	\$77,136
City of Virginia Beach		\$78,136	\$83,245
<i>Sources:</i> <i>A = 2020 ACS 5-Year Estimates, Median Household Income in the Past 12 Months (in 2020 Inflation-Adjusted Dollars)</i> <i>B = 2022 ACS 5-Year Estimates, Median Household Income in the Past 12 Months (in 2022 Inflation-Adjusted Dollars) – for the Project Area's CBGs and 2022 ACS 5-Year Estimates, Income in the Past 12 Months (in 2022 Inflation-Adjusted Dollars) – for the City of Virginia Beach</i>			

NO BUILD ALTERNATIVE

While there would not be any direct impacts to employment, travel to work, or income, the No Build Alternative would not improve travel time reliability, nor would there be an improvement to multi-modal accommodations within the Cleveland Street corridor.

BUILD ALTERNATIVE

The Build Alternative requires the full acquisition of 12 parcels, 10 being industrial and commercial tenants. The remaining two parcels include the mobile home community parcel with 10 residential tenants and a vacant parcel. While the proposed acquisitions with implementation of the Build Alternative would affect the respective property owners, all affected owners would be compensated for the fair market value of the acquired portion of land and any structures acquired for the construction of the Build Alternative. The acquisition of property and any necessary relocations would be conducted in accordance with applicable Federal laws, regulations and requirements, including but not limited to 23 CFR Part 710 the *Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970*, as amended and its implementing regulations found in 49 CFR Part 24. All persons displaced would be treated fairly, consistently, and equitably so they do not suffer injuries as a result of the project, which is designed for the benefit of the public as a whole. Relocation resources would be available to all residential and business relocatees without discrimination.

While the Build Alternative would result in full acquisitions with relocations to existing businesses, the proposed improvements would have a lasting benefit to the Cleveland Street corridor. The project would complete a vital connection within the Pembroke SGA and would support the development of the Central Village District. This growth area plan promotes walkable neighborhood centers, interconnected streets and blocks, diversity of land use and easy access to jobs, housing, and recreation by a variety of travel options (City of Virginia Beach, 2009). Furthermore, construction of these improvements would result in temporary jobs, as well as improved access and connectivity to the primary employment centers located along Cleveland Street including Walmart Supercenter and Wegmans grocery.

3.4 RACIAL AND ETHNIC CHARACTERISTICS

METHODOLOGY AND EXISTING CONDITIONS

Existing demographics, from the 2022 ACS 5-Year estimates were obtained from the U.S. Census Bureau data tables. The Census data was reviewed to provide the racial and ethnic composition analysis for each of the project area's CBGs, City of Virginia Beach, and Virginia. Minority populations are comprised of members of the following population groups:

- Black or African American: a person having origins in any of the black racial groups of Africa;
- Hispanic or Latino: a person of Mexican, Puerto Rican, Cuban, Central or South America, or other Spanish culture or origin, regardless of race;
- Asian American: a person having origins in any of the original people of the Far East, Southeast Asia, or the Indian subcontinent;
- American Indian or Alaskan Native: a person having origins in any of the original people of North America, South America (including Central America), and who maintains cultural identification through tribal affiliation or community recognition; or
- Native Hawaiian or Other Pacific Islander: a person having origins in any of the original peoples of Hawaii, Guam, Samoa, or other Pacific Islands.

All four of the block groups within the project area contain minority populations. This includes the mobile home community parcel, which exists southeast of the intersection of Cleveland Street and Aragona Boulevard and is generally located at 4873 Cleveland Street. **Table 3.4.3** provides a summary of the racial and ethnic characteristics by block group within the project area compared to the Commonwealth of Virginia and the City of Virginia Beach. All CBGs within the project area contain minority populations are greater than the percent minority populations in the City of Virginia Beach in 2022.

TABLE 3.4.3: PROJECT AREA'S RACIAL & ETHNIC CHARACTERISTICS

Census Tract	Block Group ^A	Total Population No.	White – Not Hispanic or Latino		Black or African American		American Indian and Alaska Native		Asian		Native Hawaiian and Other Pacific Islander		Some Other Race		Two or More Races		Total Minority Population (based on 2022 ACS data)	
			No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
406	2	1,493	854	57.2%	295	19.8%	0	0.0%	9	0.6%	0	0%	0	0%	335	22.4%	639	42.8%
410.02	1	1,504	649	43.2%	438	29.1%	0	0.0%	39	2.6%	0	0%	64	4.2%	314	20.9%	855	56.8%
	2	1,054	546	51.8%	127	12.0%	6	0.6%	5	0.5%	0	0%	289	27.4%	81	7.7%	508	48.2%
456.03	2	1,307	745	57.0%	394	30.1%	2	0.2%	126	9.6%	0	0%	0	0.0%	40	3.1%	562	43%
Virginia Beach ^B		455,618	274,572	60.3%	85,511	18.8%	1,363	0.3%	32,676	7.2%	1,531	0.3%	13,030	2.9%	46,935	10.3%	181,046	39.7%
Virginia ^B		8,683,619	5,226,121	60.2%	1,620,131	18.7%	26,104	0.3%	610,671	7%	7,799	0.1%	392,164	4.5%	800,629	9.2%	3,457,498	39.8%

Sources:

A = For CBGs: U.S. Census Bureau, 2018-2022 ACS 5 Year Estimates, Race

B = For the Commonwealth of Virginia and the City of Virginia Beach: U.S. Census Bureau, 2018-2022 ACS 5 Year Estimates, Demographic and Housing Estimates

NO BUILD ALTERNATIVE

With implementation of the No Build Alternative, there would be no direct impacts to the racial and ethnic characteristics of the communities in the project area.. The mobile home community parcel would not be relocated; however, the parcel along with other minority communities within the project corridor would not benefit from the proposed improvements, particularly improved safety and pedestrian accommodations. Four of the existing mobile homes would remain in the roadway clear zone and would remain subject to unsafe conditions with the potential for vehicle collisions.

Under the No Build Alternative, the portions of Cleveland Street and Columbus Street within the project area would likely remain in VDOT's top 5% of state corridors needing pedestrian and safety improvements. In addition, during heavy tailwater conditions localized flooding would continue to worsen and prevent safe access throughout the project area, particularly to the Virginia Beach Fire Station #7. Continual growth in traffic volumes associated with new developments would increase traffic demands on the corridor and require improved access management. With implementation of the No Build Alternative, the mobile home community parcel would remain subject to pedestrian safety concerns, traffic safety concerns from being located within the roadway clear zone, and localized flooding. Therefore, while the No Build Alternative does not directly impact the racial and ethnic characteristics of the project area, it would not improve existing safety concerns.

BUILD ALTERNATIVE

With implementation of the Build Alternative the mobile home community parcel within the project corridor would be impacted. The Build Alternative requires full acquisition of the mobile home parcel for the construction of a stormwater management facility, which would permanently relocate the 10 tenants to another mobile home community in proximity. Acquisition of property and any necessary relocations would be conducted in accordance with applicable Federal laws, regulations and requirements, including but not limited to 23 CFR Part 710 the *Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970*, as amended and its implementing regulations found in 49 CFR Part 24. All persons displaced would be treated fairly, consistently, and equitably so they do not suffer significant injuries as a result of the project, which is designed for the benefit of the public as a whole. Relocation resources would be available to all residential and business relocates without discrimination.

To minimize impacts and disruptions to the residents of the mobile home community, the Build Alternative would minimize impacts and disruptions to the residents of the mobile home community by acquiring the parcel in its entirety and relocating the mobile homes. This would remove the existing mobile homes from the roadway clear zone, improving safety for both residents and motorists, and would provide a safer housing accommodation.

Apart from impacts to the mobile home community parcel, the Build Alternative is anticipated to provide the following benefits to existing demographics within and adjacent to the corridor:

- Provide continuous and ADA accessible five-foot sidewalk (minimum) on both sides of the roadway. On-street buffered bike lanes would be provided on both sides of Cleveland Street from Witchduck Road to Dorset Avenue, completing a vital pedestrian accommodation between I-264 and Town Center. This would promote multimodal transportation and improve access to the various community facilities throughout the project corridor, including the Housing Resource Center, Business Resource Center, and the HRT Bus Stops. This would particularly benefit the homeless population that was noted throughout the project corridor.

- o Input received from the public previously indicated the desire to create more walkable neighborhoods with improved access to bicycle and pedestrian accommodations.
- The project would upgrade the existing stormwater infrastructure to maintain an accessible route for the motoring public. In addition, the project's stormwater improvements would ensure emergency response is not impacted during inclement weather events. This would ensure safer access to the Fire Station #7 and support emergency response for the entire community.
- Overall traffic and safety within the corridor would be improved with the installation of a dedicated left-turn lane. Currently, left-turn movements are shared with the through movements throughout the corridor. The center left-turn lane would improve safety and traffic flow by providing a continuous refuge for left-turn movements throughout the project area, which would reduce congestion within the corridor and promote a more walkable environment.
 - o This would also provide the missing link to the regional connectivity plan associated with the I-64/I-264/Newtown Road, I-264 Witchduck Road, and Greenwich Road Flyover projects and provide a reliable parallel alternative to I-264 and Virginia Beach Boulevard.

Therefore, while the Build Alternative is anticipated to have a permanent effect on the mobile home community, it is not anticipated to result in a significant impact to the existing demographics in the project area. The Build Alternative improves overall housing safety for the mobile home community by removing it from the roadway clear zone. In the long-term, the Build Alternative is anticipated to have a positive effect on communities outside the project area by providing the benefits listed above.

4 PUBLIC OUTREACH

The City of Virginia Beach sent certified mail to the owners and tenants of properties that could be displaced or could require partial acquisition on January 23, 2024. The mailing invited owners and tenants to contact the assigned City project manager at any time during the development of the NEPA document to discuss the project, its potential impacts, and potential mitigation strategies. As of March 15, 2024, a total of 19 comments have been received by the affected property owners. The comments received largely consisted of the following:

- Concern over individual or adjacent property impacts. Especially due to loss of parking.
- A homelessness presence was noted throughout the project area, apparently due to the Housing Resource Center.
- Questions about overall project schedule and/or requesting an updated schedule.
- Requests for digital documentation.
- Property value
- Concern/need for pedestrian improvements.

A copy of the January 2024 certified mailing is provided in **Appendix C**. **Appendix D** summarizes the comments received from the January 23, 2024, certified mailing. An additional round of certified mail is planned to be sent to the owners and tenants of properties proposed for displacement or requiring partial acquisition in Summer 2025. This mailing would invite owners and tenants of affected properties to contact the assigned City project manager at any time during the development of the NEPA document and would invite them to visit the project's new website. The website is anticipated to launch in Summer 2025 and would provide a platform for viewers to read in-depth project descriptions, view maps of the project area, and leave comments on areas of concern throughout the project corridor. The website would also invite interested parties to attend the project's public hearing scheduled in Fall/Winter 2025.

5 REFERENCES

AASHTO. 2011. A policy on Geometric Design of Highway and Streets, Sixth Edition (Green Book). Accessed March 2024

City of Virginia Beach. 2009. Pembroke Strategic Growth Area 4 Implementation Plan. Accessed October 2023: <https://s3.us-east-1.amazonaws.com/virginia-beach-departments-docs/planning/Comprehensive-Plan/Strategic-Growth-Areas/Pembroke-SGA-Implementation-Plan.pdf>

City of Virginia Beach. 2024. VBMap. Accessed February 2024:
<https://vbgov.maps.arcgis.com/apps/webappviewer/index.html?id=642080e73b1640cc806b5468d0c6bff3>

Pembroke Square. 2024. Accessed October 2023 from: <https://www.pembrokesquarevb.com/>

University of Virginia, Weldon Cooper Center for Public Service. 2017. Virginia Population Projection Data. Accessed July 2022: <https://www.coopercenter.org/virginia-population-projections>

U.S. Census Bureau. 2018-2022. American Community Survey 5-Year Estimates, Demographic and Housing Estimates. Accessed March 2024

U.S. Census Bureau. 2018-2022. American Community Survey 5-Year Estimates, Race. Accessed March 2024

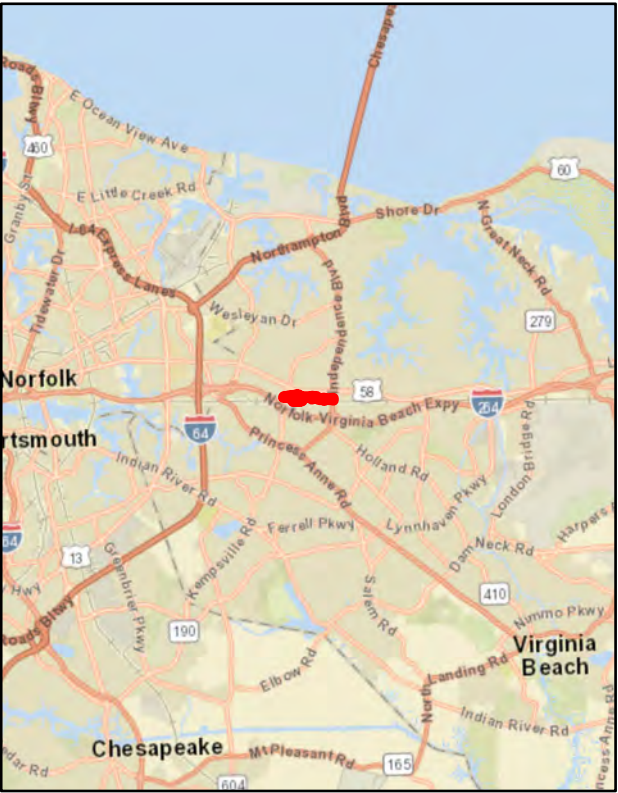
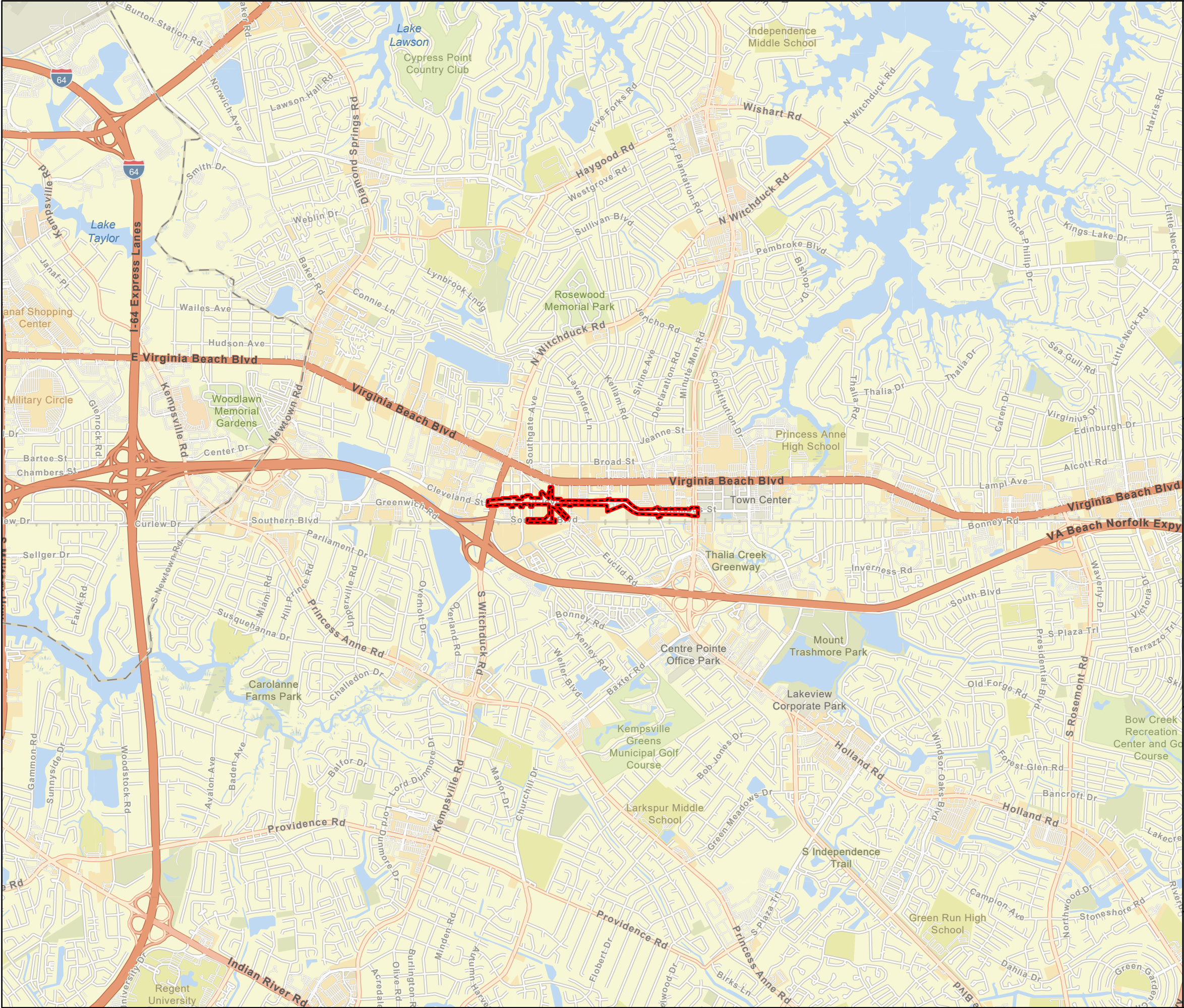
U.S. Census Bureau. 2018-2022. American Community Survey 5-Year Estimates, Income in the Past 12 Months (in 2022 Inflation-Adjusted Dollars). Accessed March 2024

U.S. Census Bureau. 2018-2022. American Community Survey 5-Year Estimates, Median Household Income in the Past 12 Months (in 2022 Inflation-Adjusted Dollars). Accessed March 2024

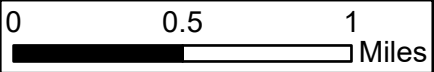
U.S. Census Bureau. 2016-2020. American Community Survey 5-Year Estimates, Median Household Income in the Past 12 Months (in 2020 Inflation-Adjusted Dollars). Accessed March 2024

U.S. Census Bureau. 2000-2020. American Community Survey 5-Year Estimates, Population and Housing. Accessed March 2024

APPENDIX A – PROJECT FIGURES



 PROJECT AREA (±35 AC)



1 IN =3,000 FT

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VIRGINIA BEACH, VA

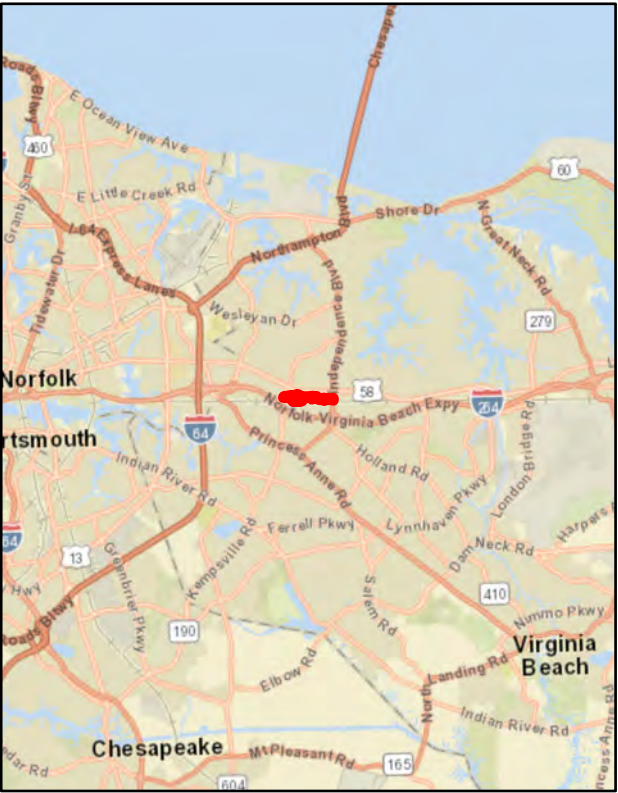
STREET VICINITY

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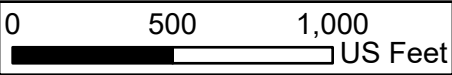
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01-30-2024

FIGURE:
1



 PROJECT AREA (±35 AC)

BASEMAP SOURCE: 2023 AERIAL PHOTOGRAPH



1 IN = 600 FT

UPC 110803
CLEVELAND STREET PHASE IV
VIRGINIA BEACH, VA

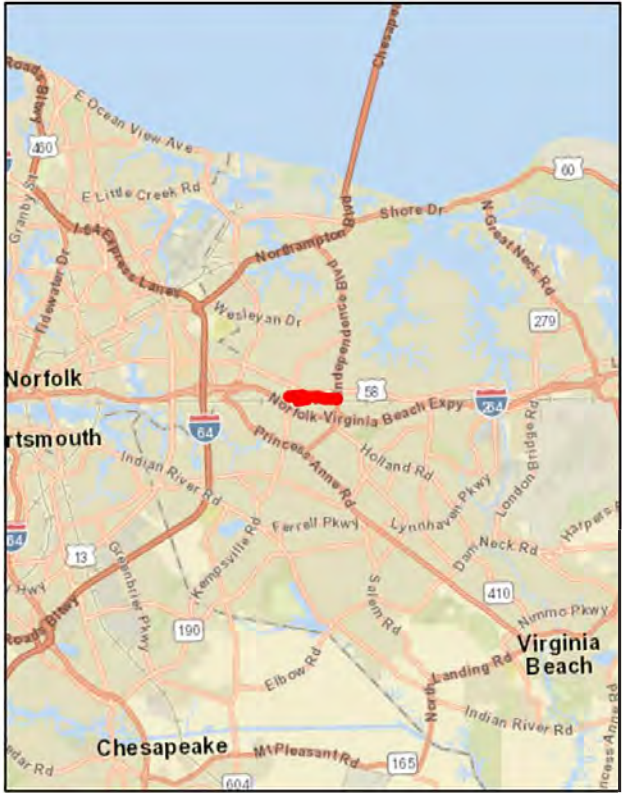
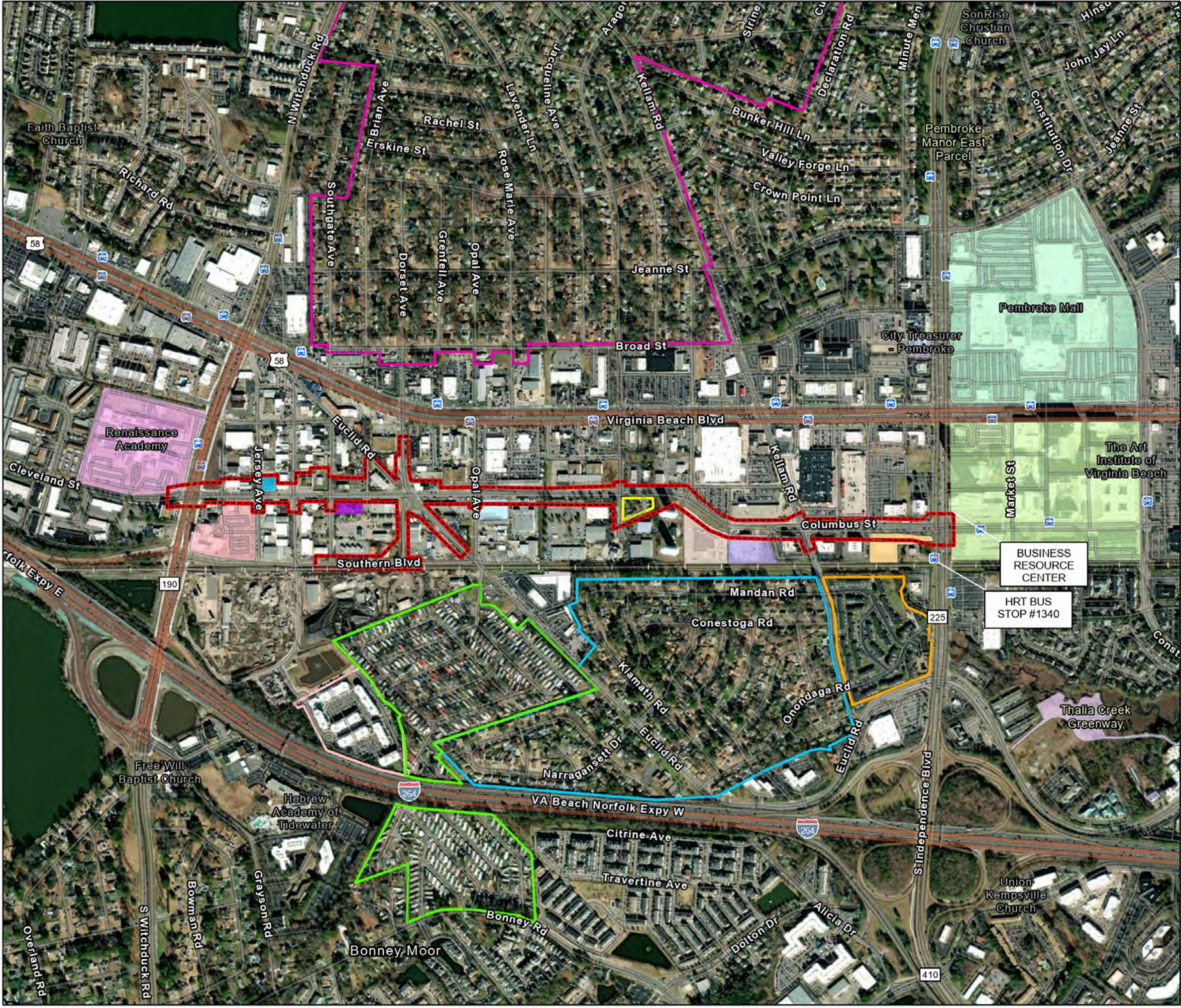
2023 AERIAL PHOTOGRAPH

Kimley»Horn



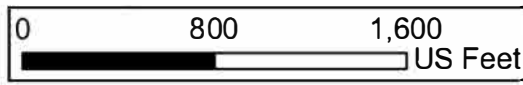
DATE:
03-05-2024

FIGURE:
2



- | | |
|---|--|
| <ul style="list-style-type: none">PROJECT AREA (±35 AC)COMMUNITY FACILITIES<ul style="list-style-type: none">RENAISSANCE ACADEMYHOUSING RESOURCE CENTERGATE OF HEAVEN MINISTRYIGLESIA CRISTIANA CIUDAD DE HEBRONLIVING WORLD GOSPEL CHURCHWITCHDUCK POST OFFICEFIRE STATION #7BON SECOURS IN MOTION | <ul style="list-style-type: none">THALIA CREEK GREENWAYTOWN CENTERPEMBROKE MALLRESIDENTIAL AREAS<ul style="list-style-type: none">ARAGONA VILLAGECOUNTY VIEW MOBILE HOME PARKINDEPENDENCE SQUARE APARTMENTSPOCAHONTAS VILLAGETWO HUNDRED WEST APARTMENTSMOBILE HOME COMMUNITY (10 TENANTS) |
|---|--|

BASEMAP SOURCE: 2023 AERIAL PHOTOGRAPH



1 IN = 800 FT

UPC 110803
CLEVELAND STREET PHASE IV
VIRGINIA BEACH, VA

COMMUNITY RESOURCES

Kimley»Horn



DATE:
06-04-2024

FIGURE:
3

