





Virginia Beach Commercial Area Pattern Book

October 2022

**2022 Work Program Architects**

# VIRGINIA BEACH COMMERCIAL AREA PATTERN BOOK

2022

The City of Virginia Beach:

Planning Commission:

*Micheal Clemons*

*David Weiner*

*Jack Wall*

*David Redmond*

*Barry Frankenfield*

*George Alcaraz*

*David Bradley*

*John Coston*

*Holly Cuellar*

*Donald Horsley*

*Dee Oliver*

The City of Virginia Beach Planning Department

The City of Virginia Beach Comprehensive Planning

Work Program Architects





# TABLE OF CONTENTS

## **SECTION 1 INTRODUCTION 2**

---

Purpose of the Pattern Book	2
Goals and Objectives	2
Community Engagement Overview	4

## **SECTION 2 GENERAL PRINCIPLES 6**

---

Commercial Area Existing Conditions	6
General Redevelopment Phasing + Strategies	8
Commercial Area Redevelopment Principles	10
Commercial Area Redevelopment Phasing	12

## **SECTION 3 CHARACTER AREAS 14**

---

Character Area Location Map	14
Commercial Areas & Connecting Corridors	18

## **COASTAL 22**

Shore Drive	26
-------------	----

## **INLAND 30**

Pembroke - Rosemont	34
Holland - Independence	42
Holland - Windsor Oaks	48

## **AICUZ 54**

Holland - Rosemont	58
Holland - Lynnhaven	64
Lynnhaven	70
Hilltop - Resort Area	76

## **SECTION 4 STORMWATER MANAGEMENT 82**

---

Design Strategies	82
Low Impact Development (LID) Design Manual	82

# Section 1

## Purpose of the Pattern Book

The City of Virginia Beach Department of Planning & Community Development has retained Work Program Architects (WPA) to assist with this project. This research is focused on the primary study area of Bow Creek as a prototypical case study to develop guidelines which are applicable across the Suburban and Suburban-commercial transition areas mapped on *page 3*. The results of this research will be developed in the form of two deliverables. The first of which is the following:

### Virginia Beach Commercial Area Pattern Book

This pattern book identifies neighborhood compatibility strategies and presents design concepts based on community patterns, market trends, and community vision. It provides a step-by-step guide and implementation strategies to commercial site redevelopment for phased demolition and construction that includes public outreach and recommend appropriate regulatory approaches to commercial redevelopment. This document also provides typical illustrations for improving pedestrian connectivity and accessibility between commercial and residential areas.

### Who is this Pattern Book For?

This pattern book is intended to be used as a conversation-starter to work with Planning Staff early in the development process. It has been created by incorporating information from key stakeholders in the study area communities, allowing developers to have a better understanding of what the neighborhoods and communities are looking for to make the overall development process more predictable. It should be used by property owners and developers, citizens and citizen groups, City Council, Planning Commission, Architectural Review Boards, and City Staff when planning or reviewing proposed developments within the study areas.

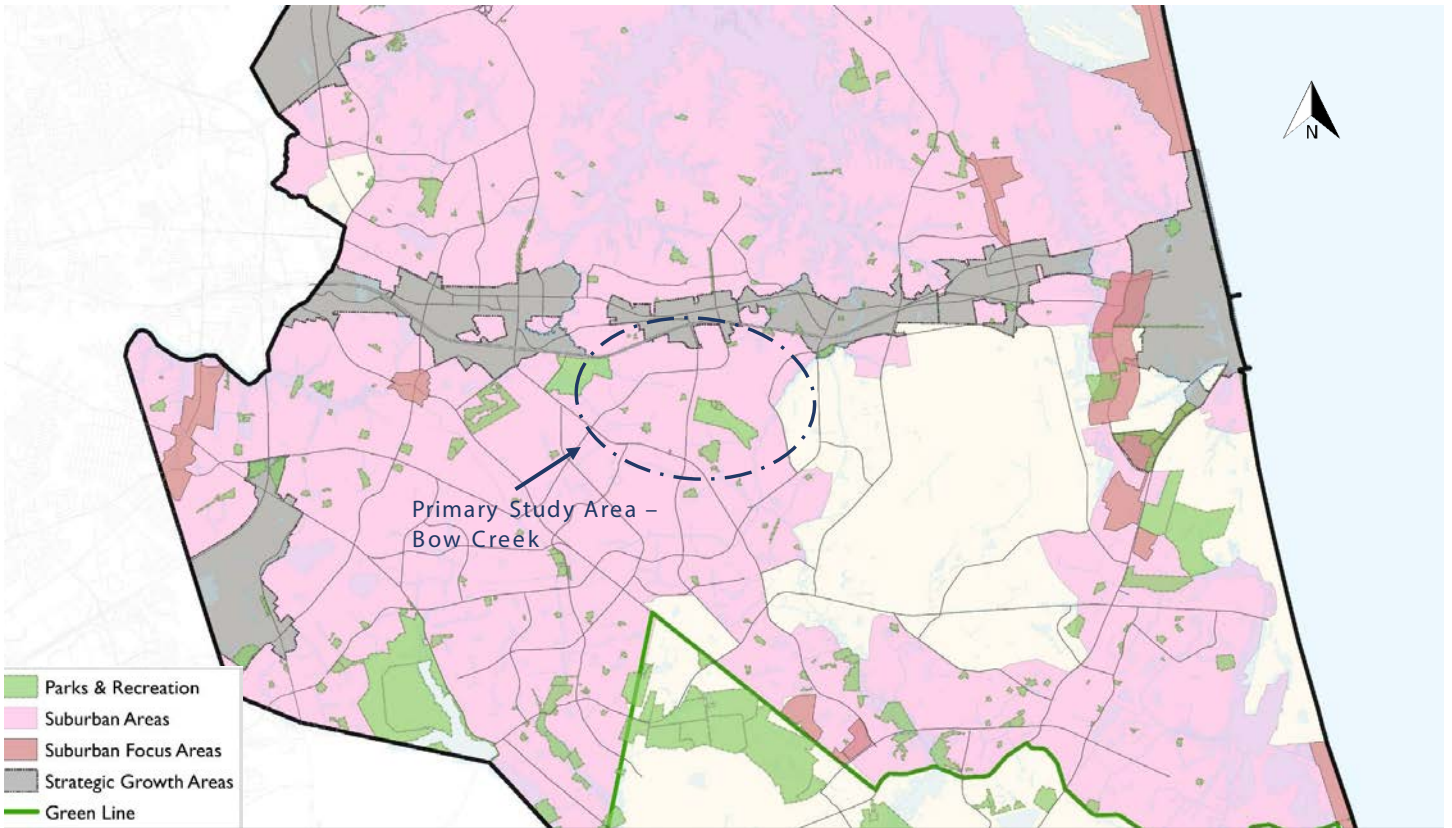
## Goals of the Pattern Book:

### Quality of Life

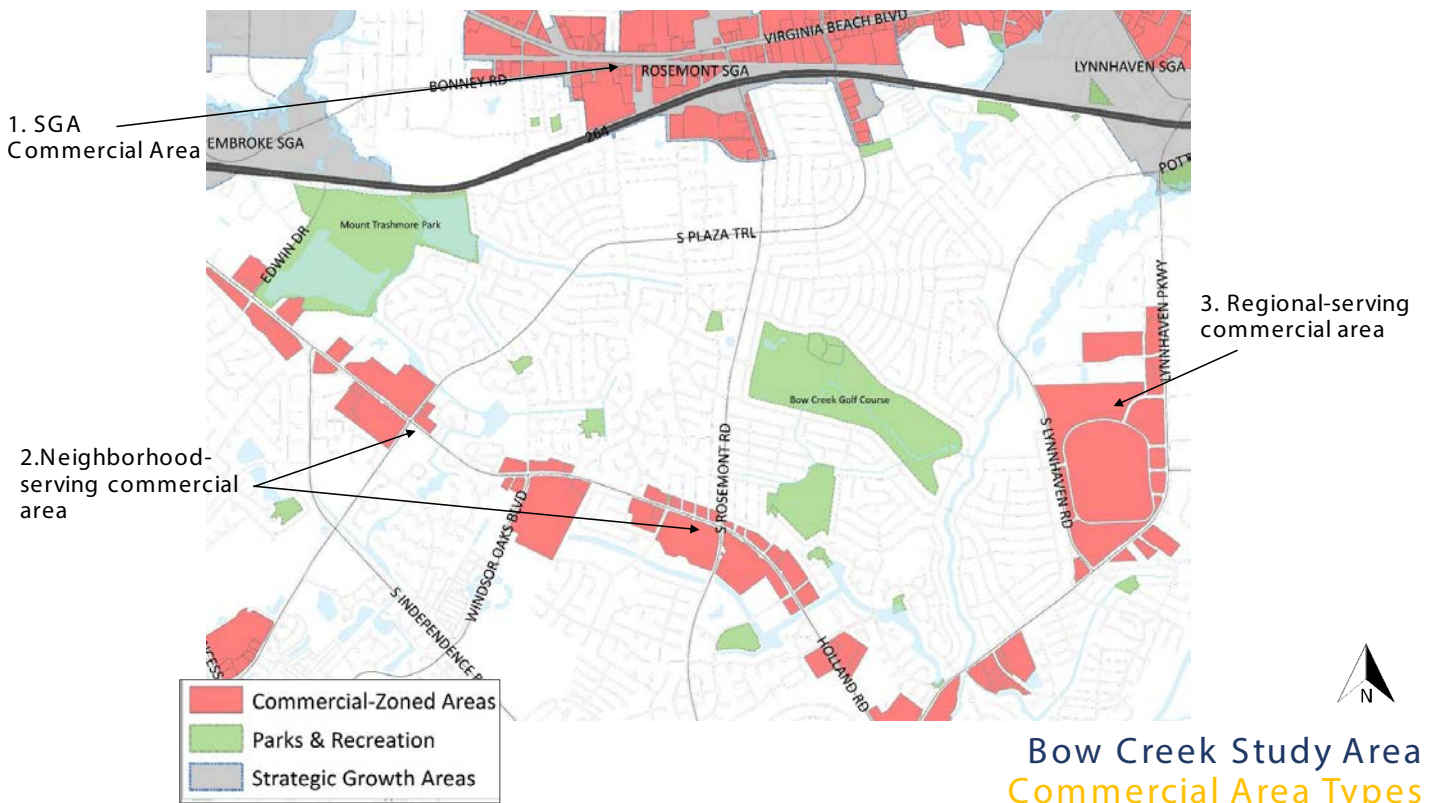
- Result in development that supports high-quality and diverse lifestyles
- Enhance opportunities to live, work, and play in every citizens neighborhood of choice
- Improve multimodal connectivity between residential and commercial areas

### Community Resiliency

- Provide strategies and techniques to help adapt to changing the environment
- Support environmentally sustainable design and development
- Improve the overall health, safety, and welfare of the community



Bow Creek Primary Study Area



Bow Creek Primary Study Area and Surrounding Commercial/SGA Areas

## COMMUNITY ENGAGEMENT OVERVIEW

To begin this process, the team first needed to meet with those most affected by the pattern book in order to understand their vision for the transformation of nearby commercial areas for the future. It was important to talk with users of every level which include:

- Property owners
- Residents
- Business owners
- City of Virginia Beach staff in various departments including those working on the new Bow Creek Resilience Park



*Open House meeting with City of Virginia Beach staff to review focus group results and pattern book/toolkit concepts*

To address the varying availability and size of each of these constituencies, a multi-day, multi-part engagement process was developed:

City of Virginia Beach Department of Planning staff presented the goals and objectives of the project, introduced the WPA team as consultants and explained their roles, and indicated an outline of the scope and timeline for completing this effort. **This information was presented in monthly meetings to the Princess Anne and Thalia Civic Leagues and the Bayfront Advisory Committee, as a briefing to the Virginia Beach Vision group, and in presentations by staff to the Housing Advisory Committee, the Bicycle/Trails Advisory Committee, and Virginia Beach Planning Commission.**

Following the introductory presentations, a hybrid public meeting was held at the Meyera E. Oberndorf Central Library to start the project, present the pattern book concept to the public, seek feedback from citizens, and answer questions from the public. At the meeting, surveys were distributed to attendees along with links to online surveys with the same questions. The results of these surveys were tallied and incorporated into the work done with focus groups.

Following the public meeting, two focus groups were established; one to address residential resilience and resident interests in commercial sites in the Bow Creek focus area, and the other to represent the interests of the business community and broader residential interests. Several sessions were conducted with the focus groups and detailed reports from these meetings can be found in the ***Public Input and Focus Group Synthesis Report in the Appendix***. Input from these focus group sessions forms the basis for the recommendations provided here.





## PRIMARY STUDY AREA - BOW CREEK SURROUNDING COMMERCIAL AREAS FLOOD ZONES

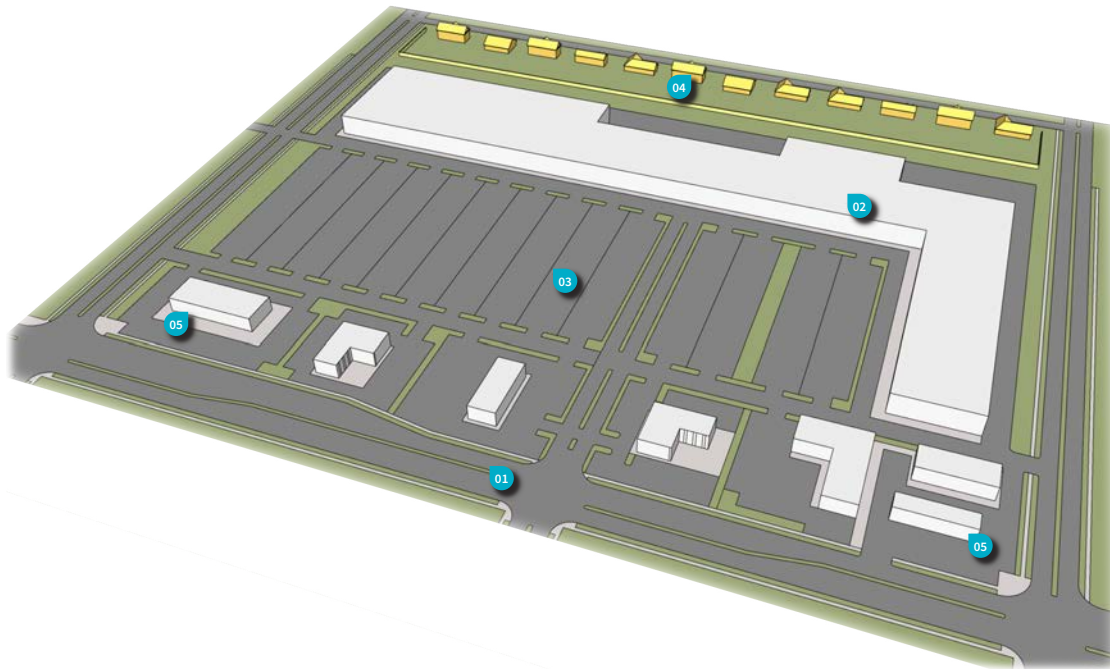


The map above illustrates the Bow Creek Neighborhood and commercial areas surrounding it. This pattern book aims to address several issues within these areas including pedestrian connections to and from these commercial areas as well as open space and stormwater management. This project was partially funded by a federal grant to study this primary area of Bow Creek and possible identify possible improvements to stormwater management practices as well as creating a toolkit for residents, business owners and developers to help provide flood mitigation strategies for commercial areas and surrounding neighborhood communities that can be applied throughout the city of Virginia Beach.

## Section 2 - General Principles

### Commercial Area Typical Existing Conditions

Big Box or Strip Shopping Center with Outparcel Development and Surface Parking



1. Primary Street with small scale retail frontage. Individual, segmented ingress/egress
2. Big box commercial or strip retail building
3. Surface parking lot with impervious pavement
4. Single family development turned away and with limited/no direct access to commercial areas
5. Out Parcel Buildings

The existing commercial site conditions are based on observation by the study team as well as input from the public and focus group members. Full notes can be found in the synthesis document in the Appendix.

Existing commercial properties in the study area primarily contain suburban-style strip shopping centers typically consisting of a primary structure towards the rear of the site, farthest from the primary street, with paved surface parking between the structure and the street. Some sites contain outparcel developments, typically 1,500 SF to 5,000 SF standalone buildings, some of which host drive-through service lanes. The illustration above represents a generic version of the typical commercial site studied for redevelopment. Mixed in to the study sites are some office uses which contain multi-story office buildings, typically with surface parking lots around the building.

Sites which reflect the pattern of the diagram above are most likely to be subject to substantial redevelopment in the near future due to declining retail demand and shifting public preferences away from strict consumption-based shopping and towards increasingly experiential shopping and entertainment. These guidelines aim to produce a site that is complementary to adjacent existing residential development and provides needed and desired services and places to the residents who are already close to the new development.



Most existing commercial properties are separated from adjacent residential development by a fence and buffer strip. These properties were typically developed with the primary structures as far to the rear of the site as possible with back-of-house functions such as loading and garbage collection taking place in the narrow space remaining between the building and the properties behind. The lack of visibility in these areas makes the fences a sensible means of security for both the businesses and the residents, despite their separating a potential source of steady customers from the commercial destination. Many routes from these adjacent properties measured out to 1/2 mile or more.

Most older developments feature expansive surface parking lots that were constructed as continuous paved surfaces. Newer developments have required tree islands periodically located through the parking lots to provide shade and slow down stormwater runoff. These parking lots in both cases have been typically designed for access by automobile only and lack the pedestrian infrastructure necessary such as sidewalks and bike racks to make them accessible to nearby residents who may walk or ride a bicycle to the development.



## General Redevelopment Phasing + Strategies

The following are general steps to developing a plan for redevelopment of commercial sites

### Develop an Overall Vision

1. Coordinate the overall vision with as many neighboring properties as possible to provide uninterrupted access
2. Use the guiding principles in this document as they have been vetted by the communities impacted by development in the study areas
3. Include architects, civil engineers, and City staff in the visioning process



Example concept vision for redeveloped site

### Start Underground

1. Understand and develop the vision around the soils on the site
  - Low lying areas of the site or those near waterways may not be able to economically support taller buildings
2. Understand and develop the vision around natural site drainage and historic waterways
  - Water will tend to move toward historic waterways, even underground, so design to use this to your advantage
3. Include architects, civil engineers, and City staff in the visioning process

### Develop around future Storm Water Needs

1. When designing for a phased development, understand the storm water needs of the completed development vision to be sure area is available for storm water treatment when needed

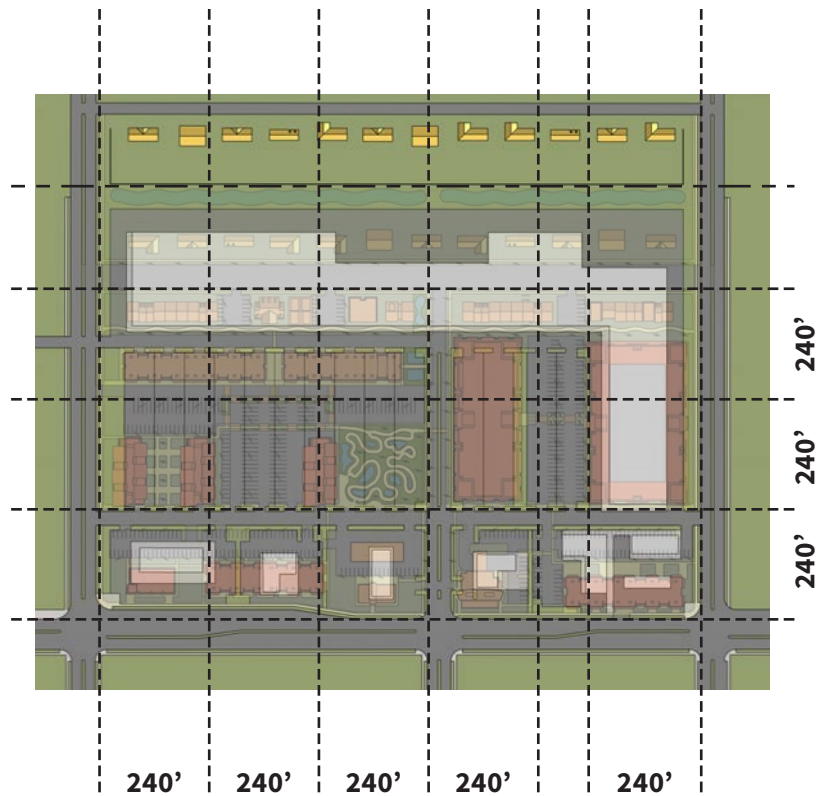


 Storm water treatment areas set aside during phased development

# General Redevelopment Phasing + Strategies

## Dividing the Site

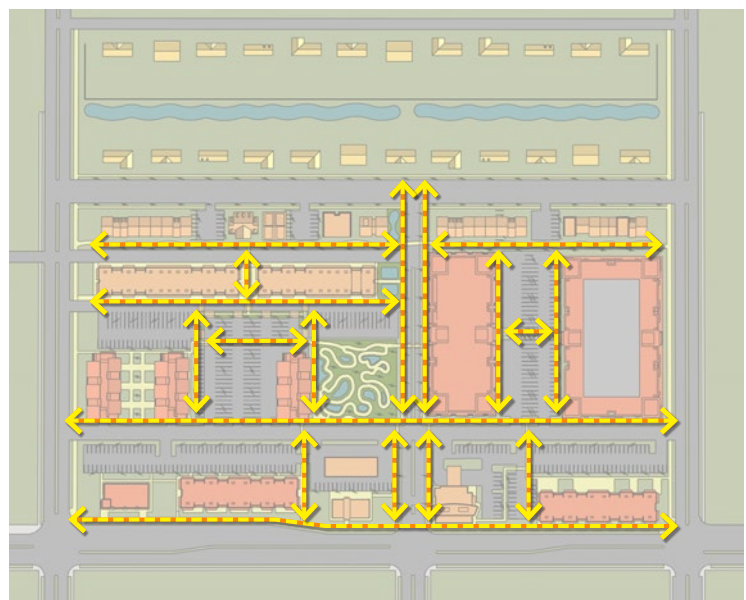
1. A key principle in better integrating a development with the adjacent neighborhood is to create a human-scaled place
2. 240 feet (240') is a good distance to start with when dividing a site into "blocks"
  - This dimension works well with typical property depths, building dimensions, parking lot and garage dimensions, and makes for walkable places when pedestrian paths generally align with the module
  - Buildings and blocks should generally not exceed 600 feet in length if they are to be places where people are comfortable walking



240' module overlaid on site to illustrate how conceptual "blocks" can be developed

## Make it a comfortable place to shop or work

1. Visitors and workers should feel comfortable walking to multiple businesses on the site or on multiple sites without feeling like it is necessary to get back in their car and drive to the other side of the site
2. Provide comfortable walking paths lined with trees for shade
3. Align walking paths along buildings as much as possible rather than out in the middle of an open space
  - People tend to feel most comfortable along the edges of an open area



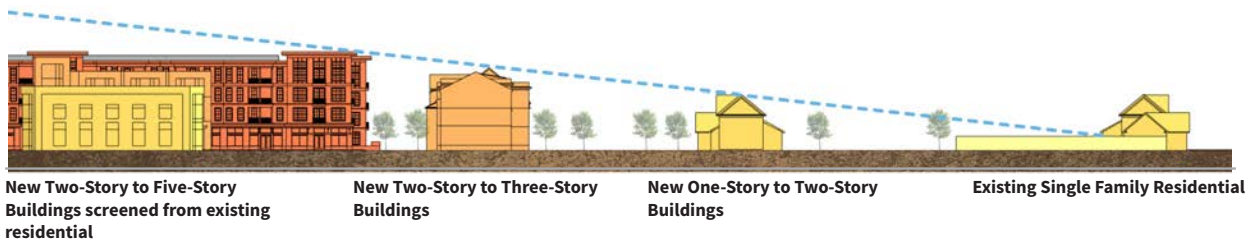
A network of pedestrian paths connect the buildings and businesses together within the site, and to the perimeter

# Commercial Area Redevelopment Principles



1. Parking areas shaded with tree planting and built with underground storage for runoff collection
2. New stormwater systems developed as amenity spaces -- Pump track, skate park, playground, walking path, etc.
3. New multi-use path connects new residential with stormwater amenities and commercial uses
4. Outparcels redeveloped with facades on primary street calm traffic and create a face to the development to prepare it for future uses
5. Layered building scales at rear of development buffers existing residential from new uses; Increasing scale from one-story at rear to multi-story buildings at the street creates tiers of screening
6. Medium scale mixed-use buildings near primary streets with first floor parking under the building make effective use of available space





Layering building scales to screen existing residential from larger scale buildings in the new development

The following are general principles for redevelopment of commercial sites that came out of the focus group process.

**Modify parking areas to add trees and underground water storage:** ideally working towards the Pixelated Parking model from the Low Impact Development manual (see reference below). Trees provide shade for customer and employee vehicles, pedestrian paths, and building facades reducing energy consumption and heat island effects. They also retain stormwater naturally, both in their root systems and on their leaf surfaces, slowing the rate at which storm systems are filled with runoff. Underground storage detains runoff before slowly releasing it to the filtration area prior to entering the City stormwater system.

**Outdoor Amenities:** Larger stormwater systems that will need to be constructed to satisfy requirements of redevelopment regulations should be designed as or part of outdoor amenities that attract residents and customers. In cases, these amenities may become a portion of the business model themselves with elements such as skate parks and pump tracks, amphitheatres, and playgrounds able to produce revenue whenever they are not inundated with stormwater.

**Outparcels should be developed to become the face of the development and the neighborhood:** The end result of this redevelopment is more like an extension of the neighborhood out to the primary street than a completely separate zone. The outparcels (or street frontage if all the same property) create this new neighborhood address with facades that define a strong street edge. In a multi-phase transformation, this can become a first step to create the room necessary at the interior of the site for the other improvements.

**Layer buildings of increasing scale from the rear or edges of the site towards the street:** The lowest scale buildings closest to the perimeter of the site should be close to the height of the adjacent residential development. Another row of buildings a story or two taller set in towards the interior of the site blocks views from the existing residential to larger scale buildings beyond. The largest buildings should be at the street edge or the interior of the site where they are best screened from view of the adjacent residential. Building orientation and balcony placement of these largest buildings should be carefully considered to not cause residents of lower scale buildings to feel watched by eyes on the upper stories.

**Parking should be located within building footprints:** whenever possible to maximize use of the site and reduce stormwater runoff and pollution.

**Connect Adjacent Development:** Create connections to the primary ystreet with any nearby residential and include comfortable shaded walking paths that pass through the stormwater amenities.

# Commercial Area Redevelopment Phasing

The following are a possible phasing strategy for redevelopment of a commercial site. These general concepts can be applied to sites of all scales.

## Existing Condition

**Start from what currently exists:** Identify any existing buildings that may be usable in the new development. If none, then start planning around a completely reconfigured site. Before planning to reuse an existing building, particularly for a new use, hire a design professional to research whether or not the building can be modified to meet the requirements of current building codes for the uses in mind. Many commercial retail buildings were purpose built and are very difficult to adapt to new uses.



## Phase One

**Storm Water Amenity area and Outparcel redevelopment:** In this example, a storm water amenity area is developed as a floodable pump track-type amenity with some permanent water retention areas. This is to provide storm water treatment for the redevelopment of some of the outparcel sites. The portions of the site closest to the primary street are developed with buildings that establish an identity for the new development. They should be architecturally welcoming to the public, and provide active frontages that indicate the types of activities to be found in the new development.



## Phase Two

**Additional outparcel redevelopment:** Completion of the primary street frontage puts a new face on the development. These buildings can continue to drive customers to the development site while the rest of the phases are implemented.





### Phase Three

**Partial strip center redevelopment and buffer building construction:** Small-scale buildings at the edges of the site that abut existing residential properties are developed to screen large buildings closer to the primary streets from view from the existing residential properties. A portion of the strip center is demolished or reconfigured to accommodate the new businesses.



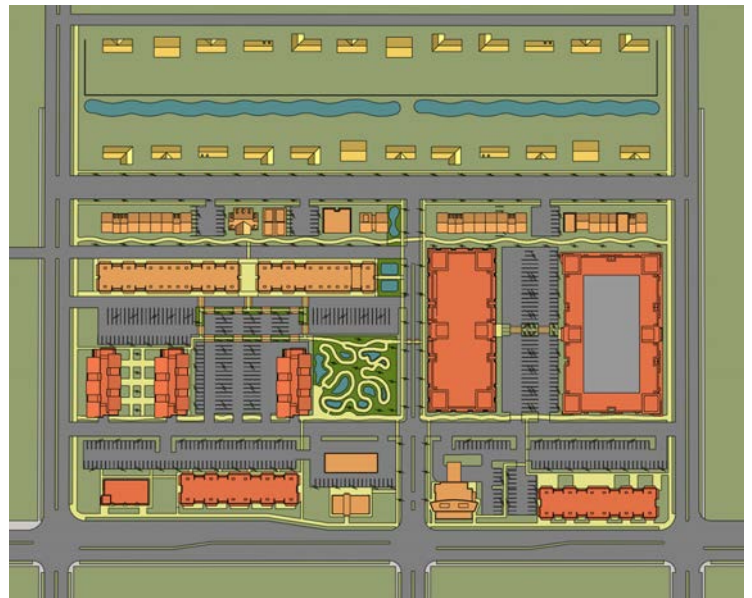
### Phase Three

**Continued strip center redevelopment and buffer building construction:** Continue the pattern of constructing buffer buildings at the edges of the site, then large scale buildings towards the primary streets.



### Phase Three

**Construct larger-scale buildings:** Once the buffer is complete, larger-scale buildings are constructed where they do not intrude on the privacy of the adjacent residential developments.



## **Section 3 - Character Areas**

---

The following Character Areas were created as part of this pattern book in order to group and classify similar areas of development. Each of these areas incorporates development with similar characteristics and styles among other similarities. The study areas indicated on pages 14-18 were analyzed to help create these three character areas. They do not have a defined edge and should be utilized as a guiding factor in commercial redevelopment opportunities.

### **COASTAL CHARACTER AREA**

- Somewhat isolated from other commercial developments
- Typically small to medium scale
- Fewer commercial options
- More multi family and multi story residential nearby
- Subject to coastal environmental conditions; wind, driven rain, blowing sand, airborne salt
- Stronger pedestrian connections

### **INLAND CHARACTER AREA**

- Significant supply of commercial options
- Stronger vehicular connections
- Greater proportion of large scale developments
- Mostly adjacent to one to two story single family residential; some adjacent to multi story multi family residential

### **AICUZ CHARACTER AREA**

- Majority of developments closely resemble the “Inland Character Area”
  - Significant supply of commercial options
  - Stronger vehicular connections
  - Greater proportion of large scale developments
- Majority of properties are in APZ 2; some are in Noise Contour zones only

# Site Scale Designation

The following site scales were created for each Character Area. These were derived from taking the approximate parcel depth for each specific location as part of this study.

## COASTAL CHARACTER AREA

Small (~300' Lot Depth)



Medium (~600 Lot Depth)



## INLAND CHARACTER AREA

Small (~300' Lot Depth)



Medium (~600 Lot Depth)



Large (~900'+ Lot Depth)



## AICUZ CHARACTER AREA

Small (~300' Lot Depth)




Medium (~600 Lot Depth)




Large (~900'+ Lot Depth)

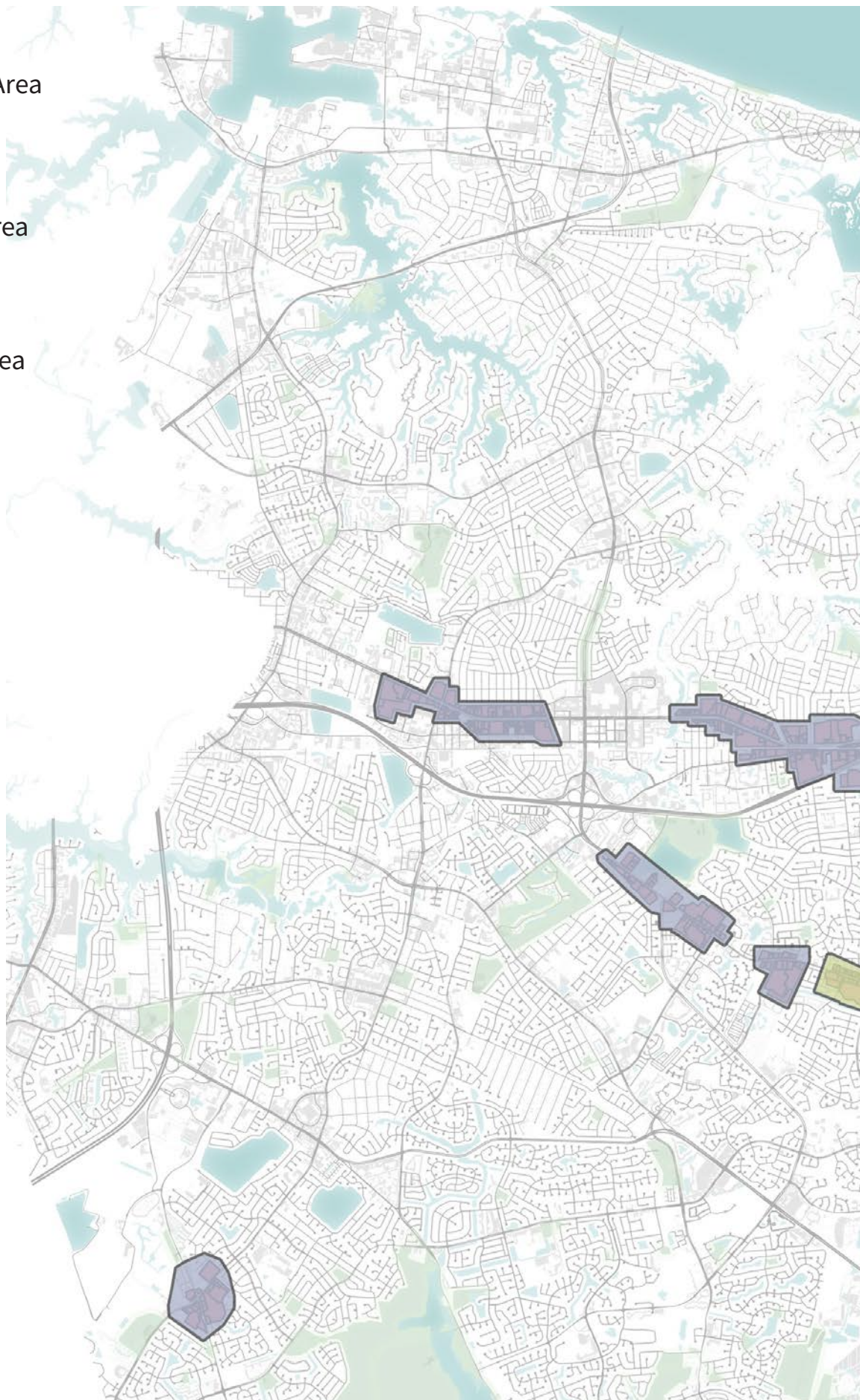


# Character Area Location Map

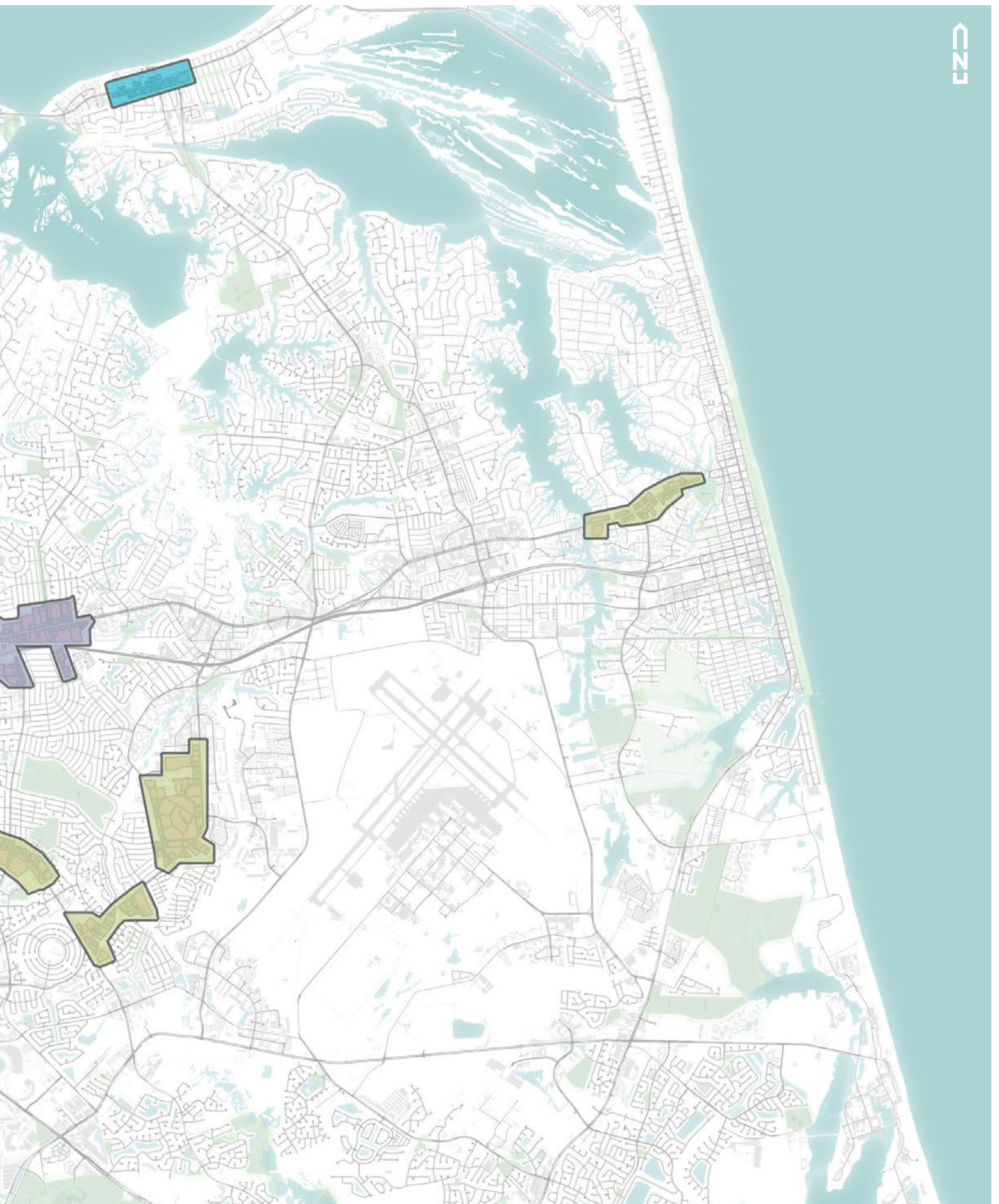
 Coastal Character Area

 Inland Character Area

 AICUZ Character Area



This maps illustrates the locations of each commercial area and connecting corridor included in this study and the Character Areas associated with them within the City of Virginia Beach



# Commercial Areas & Connecting Corridors

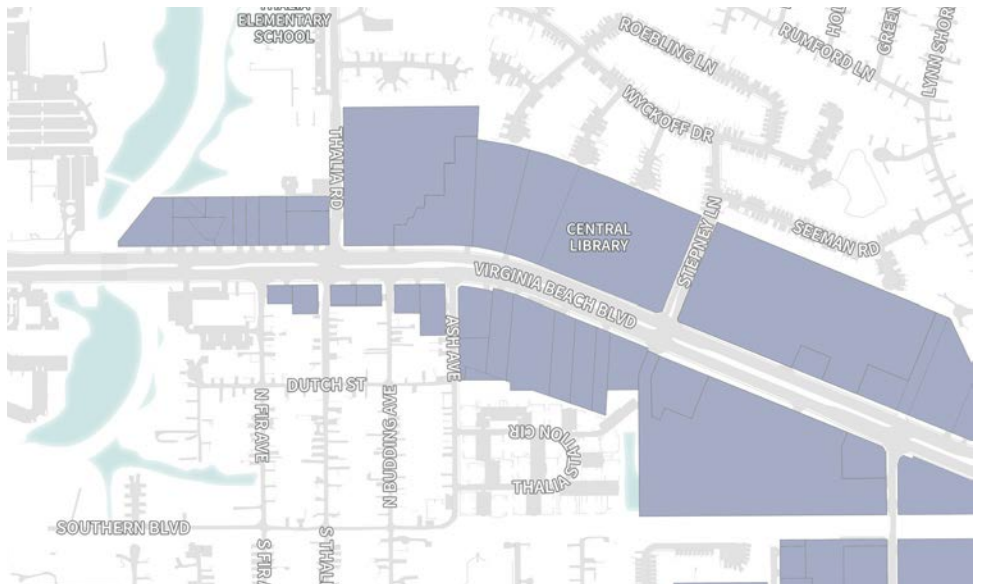
These maps illustrate the locations of each commercial area and connecting corridor included in this study and the Character Areas associated with them within the City of Virginia Beach

## Shore Drive

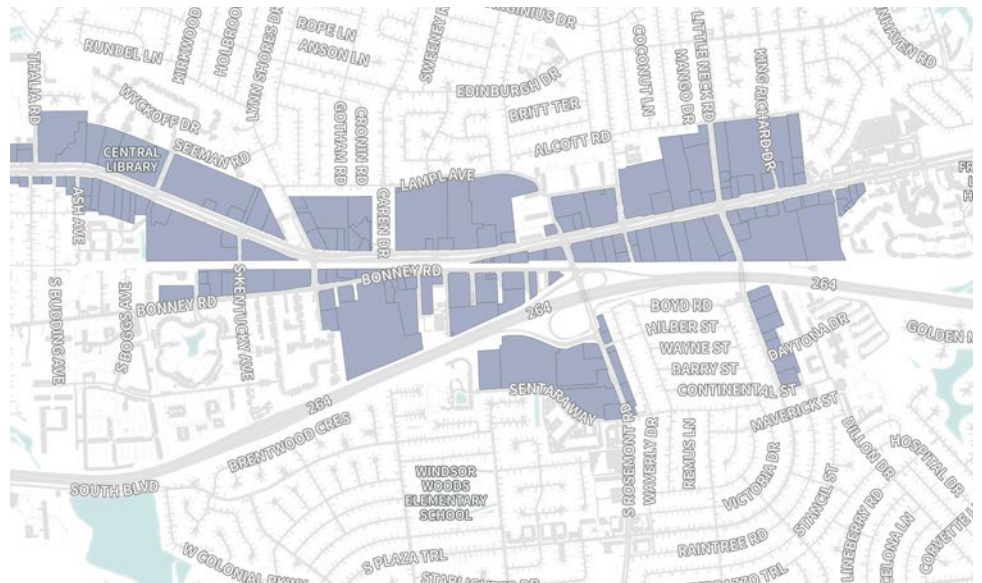
(East, N Great Neck Rd)



## Commercial Area between Pembroke and Rosemont SGA



## Rosemont



- Coastal Character Area
- Inland Character Area
- AICUZ Character Area

# Commercial Areas & Connecting Corridors

## Holland Road - S Independence Boulevard



## Holland Road - Windsor Oaks Boulevard



## Holland Road - S. Rosemont Road



- Coastal Character Area
- Inland Character Area
- AICUZ Character Area

# Commercial Areas & Connecting Corridors

## Holland Road - Lynnhaven Parkway






## Lynnhaven Mall Area



## Commercial Areas between Hilltop and Resort SGA



-  Coastal Character Area
-  Inland Character Area
-  AICUZ Character Area



## Commercial Areas & Connecting Corridors

---

- 1. Shore Drive (East, N Great Neck Road):** This oceanfront shopping center benefits from tourists visiting the beaches as well as a year-round residential neighborhood of single family homes, multi-family apartments and condos, as well as a senior-living facility. There has recently been a public trail developed along the edge of this commercial area, which may benefit future development.
- 2. Lynnhaven Mall Area:** This area takes its name and heritage from the Lynnhaven River system that is a major presence throughout. The entire area is heavily impacted by AICUZ restrictions associated with flight patterns at NAS Oceana. This gateway to the Great Neck peninsula exhibits an excessive number of nonconforming signs, overhead utilities, roadway access points and building and site designs
- 3. Commercial Area between Pembroke and Rosemont SGA:** This central area in Virginia Beach is part of a residential community with a local elementary school, high school, and library. The commercial area is between two highway exits and currently experiences a consistent amount of vehicular traffic. There are infrastructure improvements planned in the area such as public trails and kayak launches.
- 4. Commercial Areas between Hilltop and Resort SGA:** This area is located close to a successful oceanfront resort community and another successful retail center. The commercial study area is immediately adjacent to a golf & yacht club community that is experiencing traffic congestion as a result of the communities success. There are plans to create a network of interconnected trails and paths to offer alternative modes of transportation to the commercial area.
- 5. Holland Road - S Independence Boulevard:** This central commercial area is directly next to Mt. Trashmore Park which attracts visitors from around the region. There is a well established residential community of apartment buildings, town homes, and single family homes nearby. The existing businesses currently only have vehicular access, so there is often congestion as people travel from one business to another.
- 6. Holland Road - Windsor Oaks Boulevard:** This commercial area has seen recent success and new investment in shopping centers and apartment complexes nearby. Currently the adjacent residences are separated from the commercial developments and must be accessed by car. As this area continues to grow, commercial areas will need to provide alternative means of access, reducing commute times to an appropriate amount.
- 7. Holland Road - S Rosemont Road:** This commercial area is attractive to businesses serving the vast residential areas surrounding it. There are successful parks nearby, but not within the commercial areas currently. New commercial development may benefit from offering residential style amenities to serve the surrounding market.
- 8. Holland Road - Lynnhaven Parkway:** This commercial area is close to Oceana Naval facility and development must be done in accordance to the Department of Defense's (DoD) Air Installations Compatible Use Zones(AICUZ) discretionary program designed to promote development compatible with military flight operations. The commercial area is at the intersection of two major thoroughfares and partially bordered by London Bridge Creek. New development should offer connections to adjacent development to limit the congestion on the public roads.

# COASTAL

## OVERVIEW

The Coastal Character Area is defined by proximity to the coastline, typically being located within one to two streets from the water. These developments should be designed in coastal architectural styles to complement the surrounding context. These areas are frequently more isolated than the Inland areas and provide more neighborhood-scale commodity commercial than many of the Inland properties. However, they do tend to be fewer commercial options available to those in the Coastal areas. Coastal Character Areas are typically more walkable in their existing form than other parts of the City due to higher numbers of tourists and residents who value living in a smaller beach front community. These areas also tend to have more existing multi-story residential already in place. Development sites tend to be smaller in the Coastal areas, with Small to Medium sites being most prevalent, and site widths falling into the 250 foot to 500 foot range. Given their increased exposure to environmental conditions such as wind and driven rain from storms, Coastal sites tend to have a more discernible architectural identity than other areas.

## KEY ELEMENTS

Commercial Developments in the Coastal Character Area are typically located along major roads running parallel to the coastline. The commercial parcels in the Coastal Character Area are smaller than others presented in this pattern book and it's quite common to see two to four separate commercial parcels on one block in the Coastal area. The commercial parcels along the main road frequently serve both single-family and multi-family neighborhoods.

The Coastal Area is closest to the Oceanfront and Bayfront, which attract tourists and visitors year-round. This influx of visitors causes a strain on parking lots here. Consideration should be given to increasing parking options with night-time and/or weekend on-street parking.



# COASTAL

## NEIGHBORHOOD COMPATIBILITY

### STREETScape IMPROVEMENTS

Multi-Use Paths should be built to connect commercial areas to the residential neighborhoods around them.

The Cape Henry trail serves the coastal area around First Landing Park. This trail should see increased usage in the near future and should incorporate site furnishing improvements, such as:

- pedestrian-scale lighting
- benches
- trash receptacles



EXISTING



PROPOSED

### PEDESTRIAN CONNECTIONS

Shopping centers and retail establishments should offer attractive and inviting pedestrian scale features, spaces, and amenities. These features and community spaces shall connect to internal or public walkways and, if present, to the bikeway network, and shall be constructed of materials of at least equal quality to that of the principal materials of the building and landscape.

Pedestrian walkways shall provide access from the street-side sidewalk and the parking area to the primary building in such manner that pedestrians are afforded the shortest possible walk across the drive aisles.

Walkways should be anchored by special design features such as towers, arcades, porticos, pedestrian light fixtures, planter walls or other architectural elements that define circulation ways and outdoor spaces. Walkways shall be landscaped and be readily distinguishable from driving aisles where they traverse such aisles through the use of durable, low-maintenance surface materials such as pavers, bricks, scored concrete or similar architectural treatments.



EXISTING



PROPOSED (Traffic Calming with speed table and landscaping)



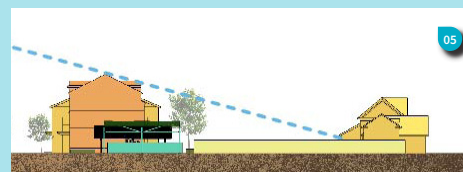
PROPOSED OPTIONS FOR SMALL LOT - 300' DEEP

# COASTAL

## DESIGN PRINCIPLES



1. Parking areas should be reconstructed as Pixelated Parking and be planted with native salt tolerant species. Omit permeable paving stormwater practices as they will likely clog with sand too quickly to be effective.
2. Large stormwater systems should be designed to function as salt tolerant wetlands when designed as permanently wet or as a dry swale. All systems should be vegetated with native salt tolerant plants. Boardwalks, gazebos, volleyball courts, and other beach-friendly recreational activities should be incorporated into the stormwater management systems so that they are an integral part of the function of the site.
3. Connections to the Cape Henry Trail may be made alongside existing streets, but in most cases a short bridge over the existing stormwater bio swale that separates Cape Henry Drive from the rear of the Shore Drive commercial sites will be the most comfortable site access (see 3 below). Pedestrian access along Shore Drive should be continuous and consistent.
4. Development should form a strong frontage on Shore Drive and commercial buildings are encouraged to approach right-of-way lines along with increased landscaping as depicted in the *Shore Drive Corridor Plan and Shore Drive Design Guidelines*. These guidelines are used as primary tools in the development process and should be followed for any redevelopment within the Shore Drive Corridor.
5. Several types of development would be appropriate along Shore Drive. Example 4A shows a one story development providing neighborhood scale retail and services. It is pulled close to the street, but does maintain a row of teaser parking on the primary street for convenience. Example 4B illustrates taller buildings pulled to the street and oriented perpendicularly to the primary street so that they impact existing residential development behind the site the least. They are buffered by shallow, mid-size buildings along the rear of the lot which are oriented so that they face out towards the primary street to maintain the privacy of the existing residential. This example also allows for increased sight lines and visibility of parking areas, potentially increases safety in certain cases. Example 4C illustrates a taller building parallel to the primary street with deeper one to two story buildings at the rear of the site to buffer the existing residential. This building type would be most appropriate for small neighborhood retail, craft manufacturing, or entertainment uses.
6. Parking is a challenge for many businesses along the Shore Drive Corridor. Incorporating parking into building footprints to the greatest extent possible would help.



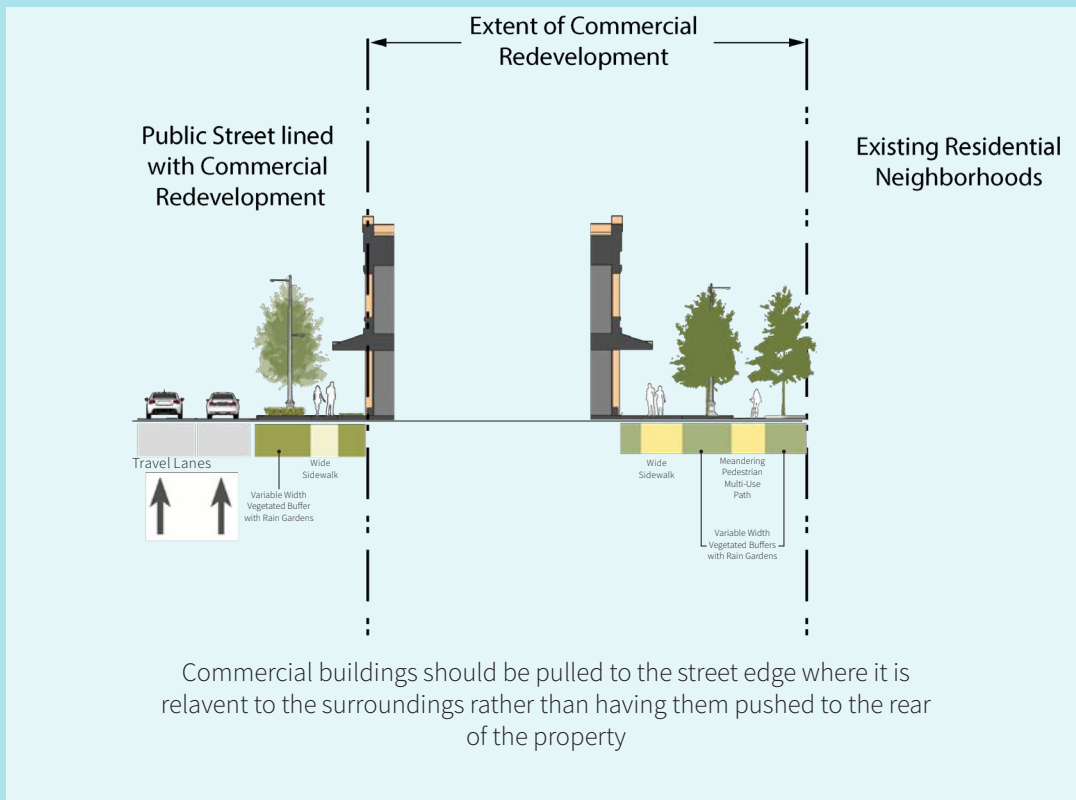
**New Taller Buildings at street edge**

**Existing Single Family Residential**

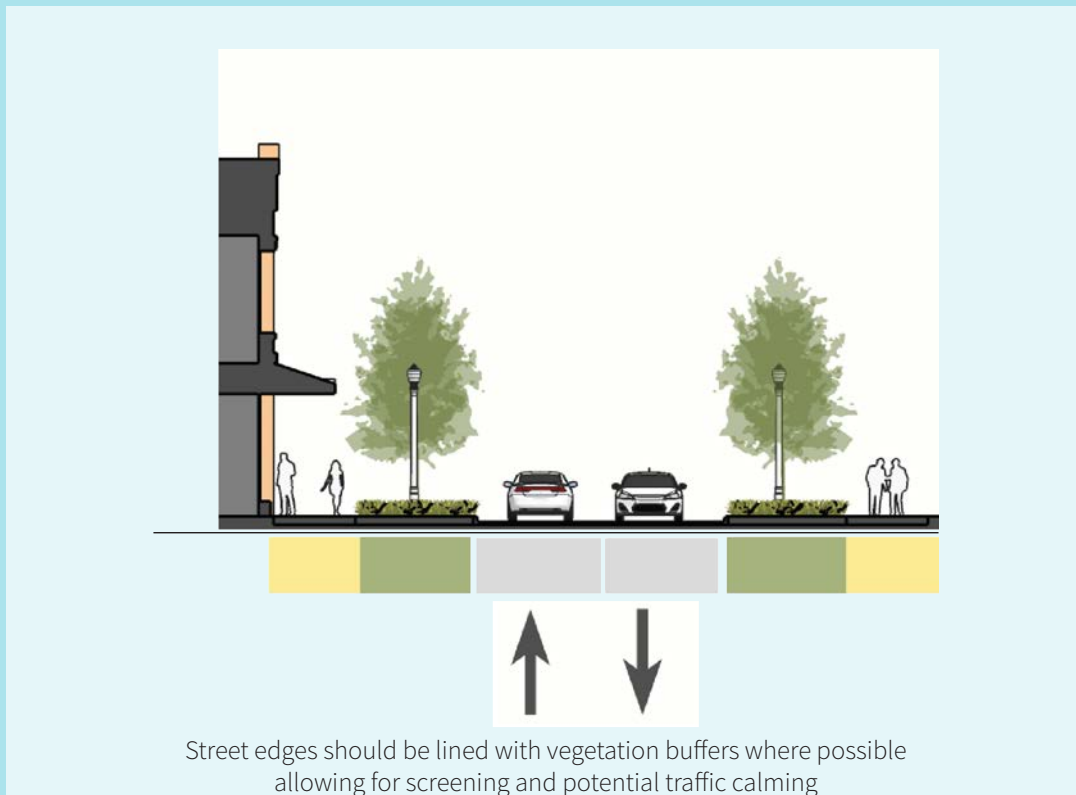
# COASTAL

## STREETSCAPE IMPROVEMENTS

### PROPOSED - STREET SECTIONS



### PROPOSED - STREET SECTIONS



# SHORE DRIVE CORRIDOR

## OVERVIEW

The Shore Drive Corridor is truly a unique area within the City of Virginia Beach. Not only is it a favorite destination among locals for its numerous restaurants and retail, but it also serves as a popular connection to and from the oceanfront as well as a gateway to the city for travelers accessing the area via the Chesapeake Bay Bridge Tunnel. The vision for the Shore Drive Corridor is to re-establish a coastal character to the commercial frontage through architectural styles and site configurations that accommodate a relaxed beach-front lifestyle. The corridor has strong east-west pedestrian connections by way of the Cape Henry Trail. Residents and tourists both use the Cape Henry trail to hike, walk pets, and bike with friends and family. This is one commercial area located along Shore Drive but design principles and guidance in the Coastal Character Area should be applied throughout commercial areas located nearby.

The Cape Henry Trail is a successful public amenity that is routed through this commercial area. Commercial properties here pre-date the Cape Henry trail's construction and are not directly connected to the trail. They are separated by a drainage ditch, fence, and/or vegetation.

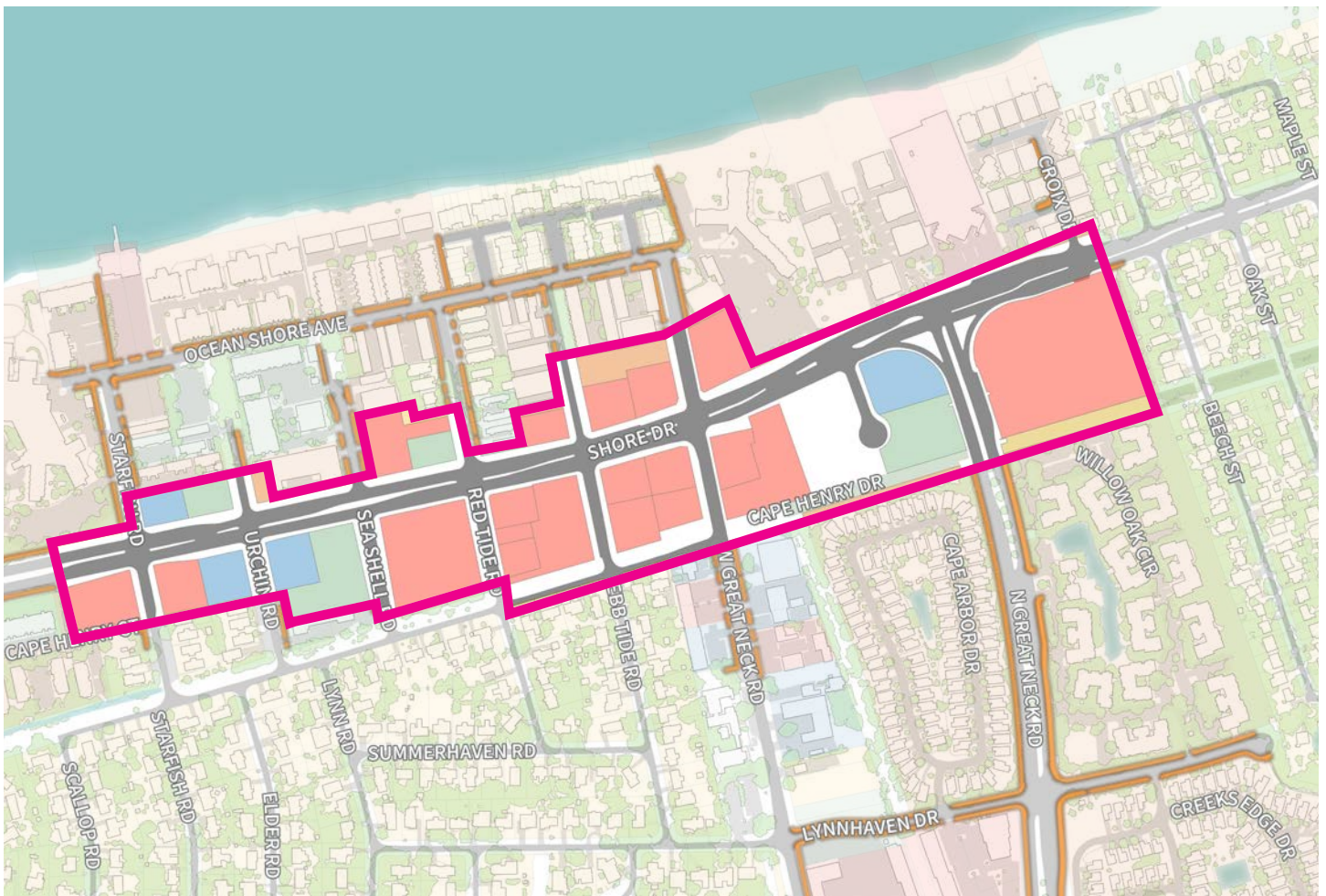
## Site Scales



# SHORE DRIVE CORRIDOR

## DESIGN PRINCIPLES

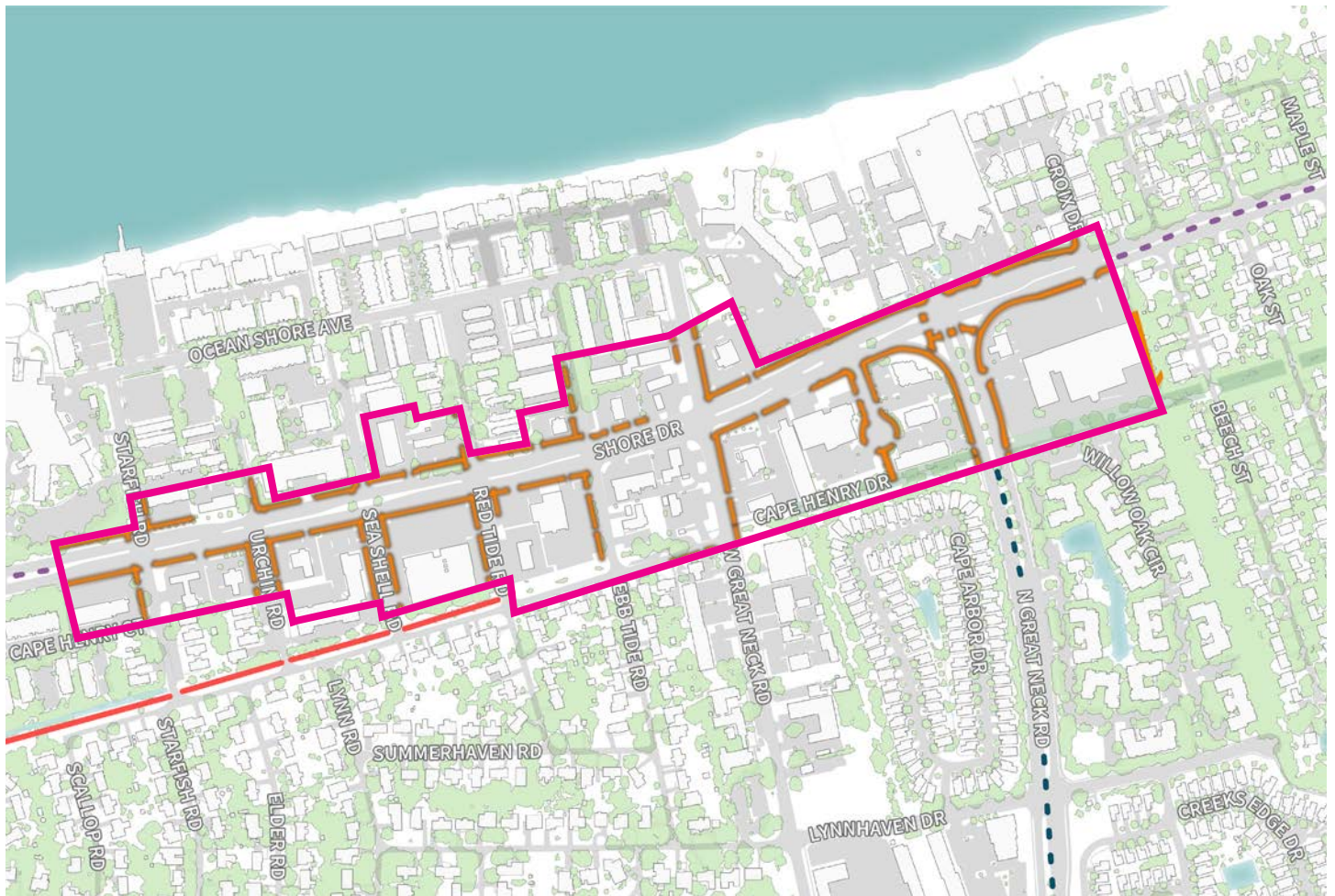
The unique characteristics of the existing development in this area should continue, and new development should take surrounding parcels into consideration early in the process. The previous plans created for Shore Drive (*Shore Drive Corridor Plan-2000, Shore Drive Corridor Design Guidelines-2002*) should continue to be implemented and followed in order to preserve the naturally occurring environment and established character of the area. The majority of commercial sites are of the small scale and are typically less than 350 feet in depth and width. The north side of Shore Drive has areas where buildings are brought to the street edge and created a fairly continuous facade line. As future development occurs and the Shore Drive Corridor Improvements Plan is implemented, landscape, building facades, and streetscape improvements should be incorporated to establish a continuous edge to Shore Drive. This continuous edge is critical in creating an environment in which drivers naturally drive at slower speed which are the safest for pedestrians walking along and across the street, and are also the most conducive to supporting the businesses located along the street.



# SHORE DRIVE CORRIDOR

## IMPROVED CONNECTIONS

The goal for this area is to re-establish a coastal character to the commercial frontage through architectural styles and site configurations that accommodate a relaxed, beach-front lifestyle. The Shore Drive corridor currently has a well-loved east-west pedestrian path, called the Cape Henry Trail. This trail may be a safe pedestrian path to shopping along Shore Drive, with north-south connections from the Trail to the commercial properties. Residents would most like to see neighborhood-serving commercial such as small hardware stores, grocers, and other businesses which make life convenient without needing to leave the Shore Drive Corridor.



City of Virginia Beach Active Transportation Plan

Existing Facilities	
	Shared Use Paths
	Conventional Bike Lanes (On Road)
	Sidepaths
	Nature Trails
	Recreational Loop
Proposed Facility Type (Current)	
	Shared Use Path
	Protected Bike Lane
	Bike Lane
	Sidepath



# SHORE DRIVE CORRIDOR

## NEIGHBORHOOD COMPATIBILITY

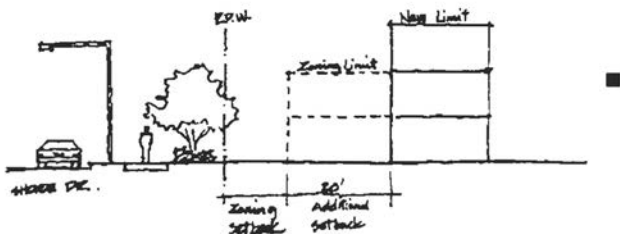
The Shore Drive residential neighborhood is made up of primarily multi-family dwellings and single family homes. Shore Drive is the main road of this area and divides the neighborhood. One section is waterfront and home to primarily multifamily dwellings, the other is land-bound and hosts a majority of the single family homes. The shared line of Shore Drive is currently commercial uses that benefits all residents and is also host to many tourists in the warmer seasons.

The study area offers commercial uses in the form of retail, gas stations, lodging, restaurants and bars. Planning for these transient, sometimes late night, uses to exist close to single family neighborhoods that expect peace and quiet will be an important part of redevelopment that intends to contribute to the neighborhood.

Redevelopment may also benefit from the existing Cape Henry Trail. It's a well traveled pedestrian path that new development should connect to with a series of sidewalks, paths, trails and crosswalks.

Currently most commercial properties in the area don't have a residential component, but a developer may seek to re-zone property in order to include residential space. Most residences here are no taller than three stories, so the height and scale of any new construction should be similar to the surrounding areas. Taller buildings should be located closer to Shore Drive where applicable, to minimize any negative impacts on privacy felt by neighboring small homes. A simple model illustrated in the *Shore Drive Corridor Plan on page 111* states that buildings can add one floor on top of existing zoning height limits for every 20 feet of additional setback from required setback line adjoining right-of-way.

The city may be able to provide increased parking by looking at peak traffic times and peak hours for businesses. The additional residential use offers an opportunity to share parking. For example, commercial properties next to a small apartment may use the same parking lot because most people in the apartment will be driving to work while patrons visit the businesses.



*Shore Drive Corridor Plan on page 111*

Illustrates adding an additional floor for an additional 20 feet of setback from adjoining right-of-way



*Shore Drive Corridor Plan on page 111*

Illustrates low and moderate height buildings should be encouraged throughout the corridor in order to better reflect the existing residential character and neighborhood scale

# INLAND

## OVERVIEW

The inland Character Area represents land-bound parcels that are not subject to the requirements of lots within the AICUZ area. Out of the three areas outlined in Virginia Beach, a significant amount of large commercial properties are located in the Inland Character Area. This area also contains an extensive network of housing in the form of multi-family and single-family developments, at primarily one-two stories. The residential uses and commercial uses are typically separated on different parcels of land.

To support the connection between residential and commercial areas, the vehicular infrastructure of the Inland Area is quite robust. The pedestrian infrastructure is currently strengthened with the implementation of the Active Transportation Plan.

As development continues in this area, careful consideration should be given to reducing the impact that stormwater runoff has within the watershed. Stormwater management practices should be designed as park-like spaces, with pathways, shading, and site furnishings that further strengthen the pedestrian infrastructure.

Current development trends suggest that redevelopment of commercial properties will include structures built at three stories or more. Care should be taken with the location and orientation of these buildings, when built on lots adjacent to residential communities, to preserve any privacy that adjacent residents currently enjoy.

## Key Elements

Developments in the Inland Character Area are typically separated from adjacent parcels by natural features or constructed barriers. Most parcels are accessible with one or two driveway aisles, with asphalt being the most common surface material and a raised 5' concrete walking surface lining the building's main facades.

As a result of this development style, a shopping trip to buildings on separate parcels, within walking distance of each other, is often more convenient by vehicle. This currently is a burden on the vehicular infrastructure and also represents an opportunity for improvement in new developments.



# INLAND

## EXISTING CONDITIONS



*S Lynnhaven Parkway Multi-Use Path*

Multi-Use Paths should be built to connect commercial areas to the residential neighborhoods around them.

A great example of these multi-use paths can be found to the south of the Bow Creek neighborhood along the west side of Lynnhaven Parkway. These connecting paths should incorporate site furnishing improvements for safety and increased aesthetic appeal, such as:

- pedestrian-scale lighting
- benches
- trash receptacles



Existing Connection to Adjacent Residential Neighborhood



Existing "Back of House" of Commercial

# INLAND

## PEDESTRIAN CONNECTIONS

Shopping centers and retail establishments should offer attractive and inviting pedestrian scale features, spaces, and amenities.

These include, but are not limited to:

- parks
- playgrounds
- shade structures
- tables
- seating
- bike storage
- fitness areas

All such features and community spaces shall connect to internal or public walkways and, if present, to the bikeway network, and shall be constructed of materials of at least equal quality to that of the principal materials of the building and landscape.

Pedestrian walkways shall provide access from the parking area to the primary building in such manner that pedestrians using walkways will be required to traverse the vehicular parking aisle to the minimum extent possible.

Walkways should be anchored by special design features such as towers, arcades, porticos, pedestrian light fixtures, planter walls or other architectural elements that define circulation ways and outdoor spaces. Walkways shall be landscaped and be readily distinguishable from driving aisles where they traverse such aisles through the use of durable, low-maintenance surface materials such as pavers, bricks, scored concrete or similar architectural treatments.



SMALL LOT - 300' DEEP

PROPOSED



MEDIUM LOT - 600' DEEP

PROPOSED



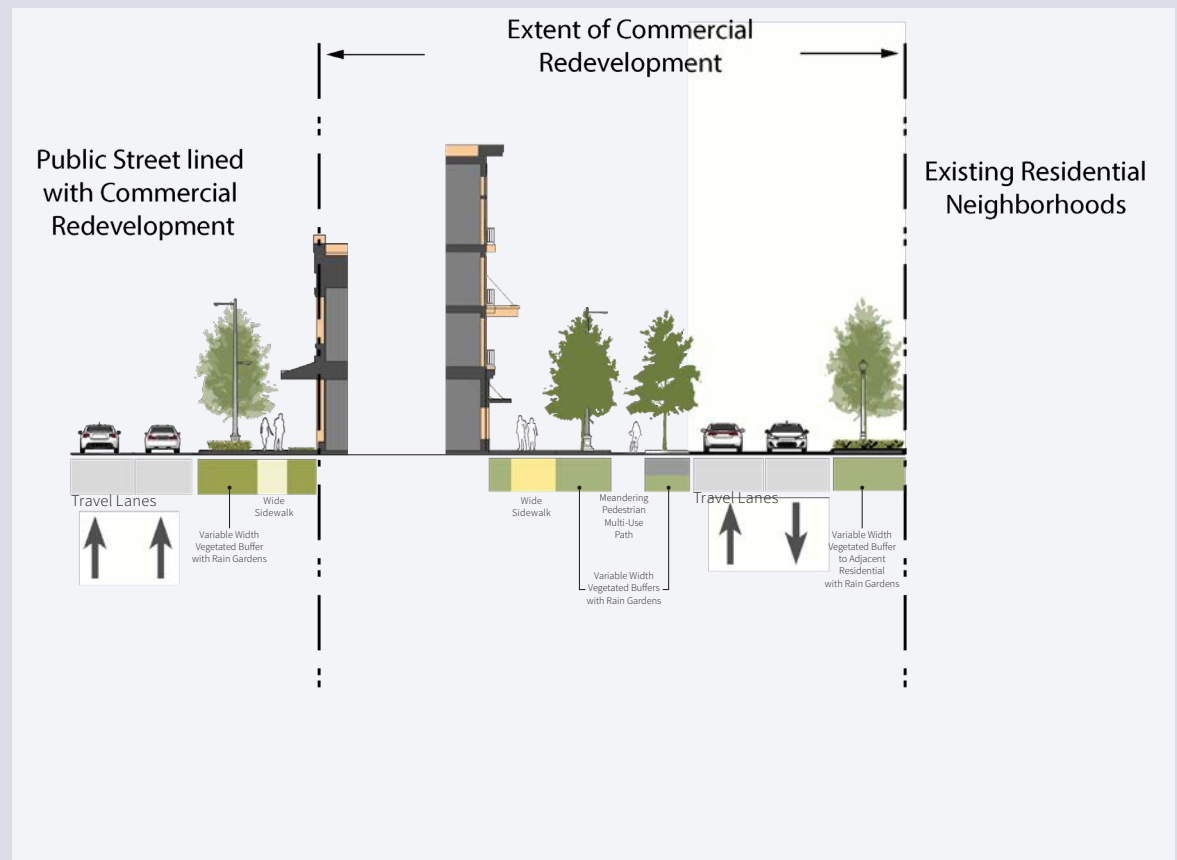
LARGE LOT - 900' DEEP

PROPOSED

# INLAND

## STREETSCAPE IMPROVEMENTS

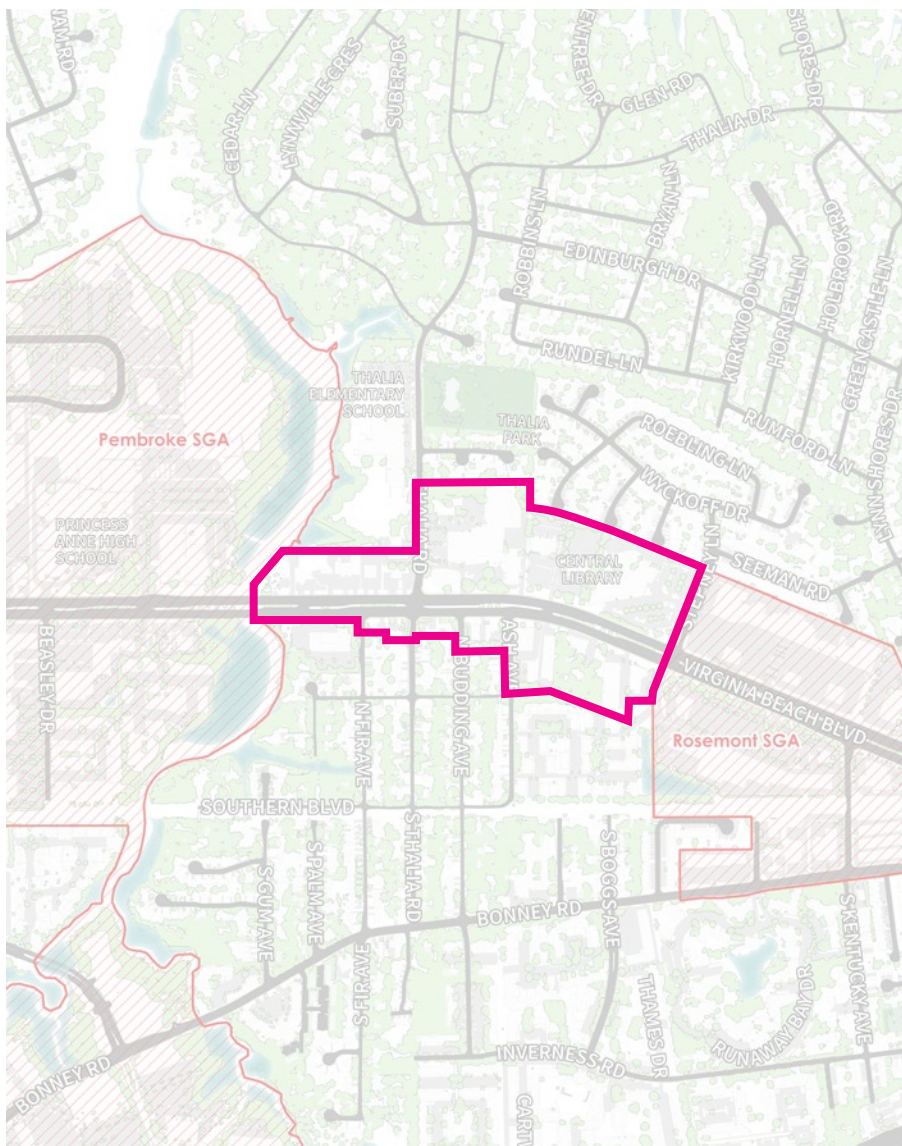
### PROPOSED - STREET SECTION



# PEMBROKE TO ROSEMONT

## OVERVIEW

The vision for the Commercial Area between Pembroke and Rosemont SGAs includes a medium-density buffer of mixed-use development within a park-like setting to serve the suburban residential neighborhoods immediately adjacent. Connections between residential and commercial uses should be increased, using separated multi-use paths to mitigate vehicle congestion concerns along roads connecting Virginia Beach Boulevard to the adjacent neighborhoods.



## DESIGN PRINCIPLES

This area is located at the center of the city and east of Pembroke SGA. As the area has developed, there have been several investments in vehicular roadways in the area. As a result the development pattern in the Rosemont SGA is vehicle-oriented with a series of commercial strip malls.

There are many sidewalks interrupted by asphalt; a ground finish that's easy for cars to travel on but difficult for people, especially in the warmer seasons. If there are sidewalks in a commercial area, they often line the perimeter of the property with no continuous pedestrian connection to the actual businesses within the strip malls and commercial areas.

The city also owns the land area that was once a railroad corridor. This is an approximately 36 foot wide linear strip of public land that will see infrastructure improvements to create a tangible return on investment.

## GOALS

- Increase market potential of the area by phasing public investment to create a “transit ready” framework
- Create a list of criteria for an environment that’s designed to facilitate walking along Virginia Beach Boulevard in this area
- Improve vehicular and pedestrian connections from the well-established neighborhoods, within an easy walking distance, to the Virginia Beach Boulevard corridor.

# PEMBROKE TO ROSEMONT

## SITE SCALES



**Small**



**Medium**



**Large**



## DESIGN PRINCIPLES

This neighborhood-serving commercial area is located along the east-west thoroughfare of Virginia Beach Boulevard. There is a well established infrastructure for vehicular travel in the area. A majority of these commercial parcels are developed to be convenient to the patron visiting by vehicle.

Small parcels may become quickly burdened by traffic congestion if each visitor must travel by personal car. Increasing pedestrian connections between commercial areas and nearby residences should reduce car trips for locals.

As the destinations and public trails adjacent to this area develop, new investment should be made to infrastructure that supports appropriate pedestrian connections. These may be bike paths to trails, or private sidewalks that connect to the public right-of-way. Offering alternate means of access that are as convenient & comfortable as of travel that's as enjoyable as driving will help mitigate increasing traffic congestion.

# PEMBROKE TO ROSEMONT

## EXISTING CONDITIONS

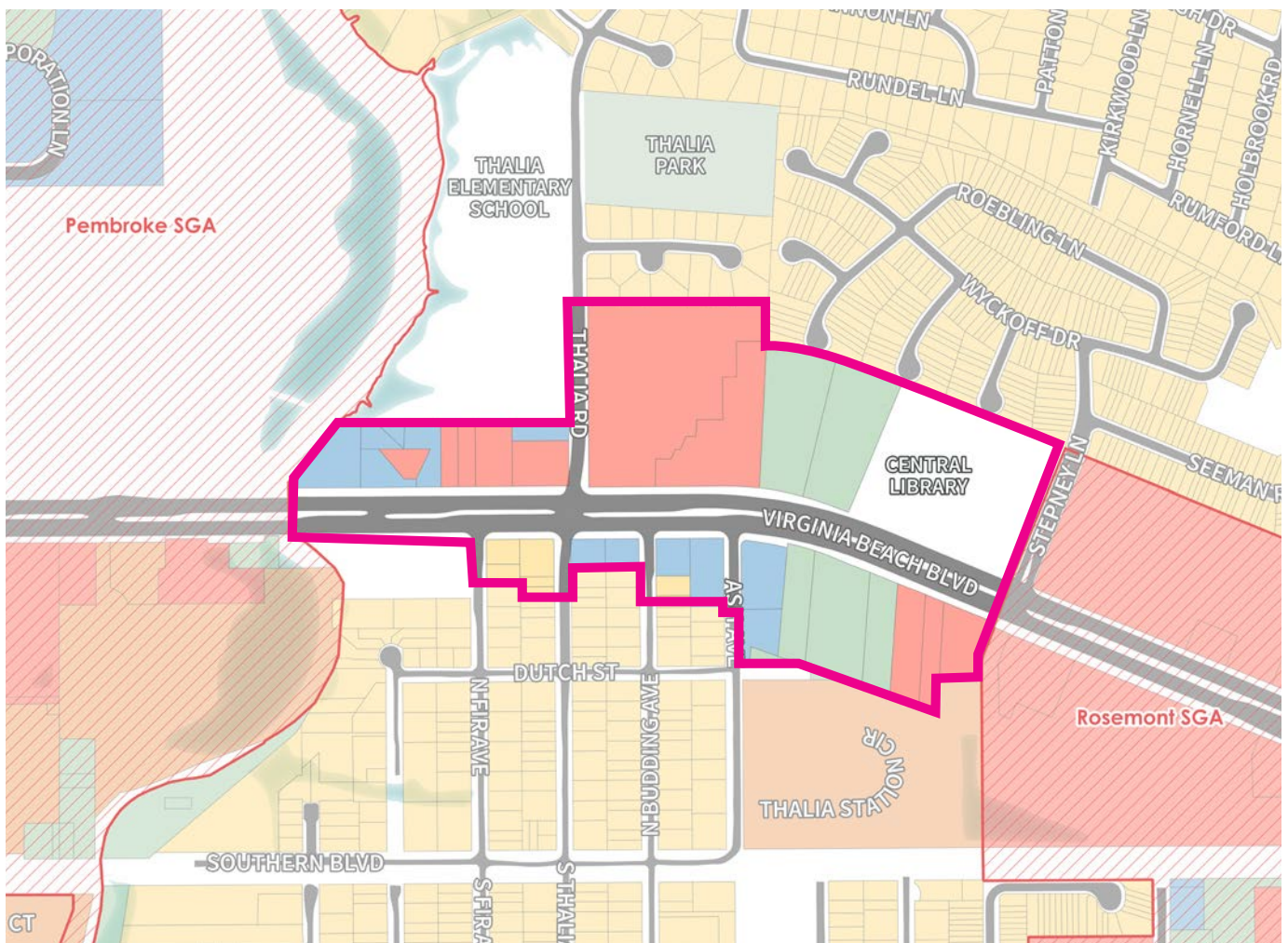
This commercial area benefits from being surrounded by several public institutions. There are two schools (elementary and high school) as well as a library and a church with an adjacent day school. There is a strong residential neighborhood presence that enjoys these amenities.

Currently, there is only one street that is connected to all of these amenities. That's the major thoroughfare of Virginia Beach Boulevard that connects to the Oceanfront. Plans are underway to bring another, pedestrian-oriented thoroughfare to this area, designed for recreational use by bike, or walking. This path would run parallel to Southern Boulevard.

The residential neighborhoods consist of either apartments or single-family homes. Most single-family homes are detached from their neighbor but there are several attached townhouses and duplexes as well. Common cladding materials are brick and siding. There are a few structures with E.I.F.S or stucco remaining.

All public roads here are designed with preference to facilitating vehicular access. Every road has a surface paved for cars and few have paved surfaces for walking or other modes of transport. Wherever pedestrians and vehicles share a paved surface, the design favors vehicular movement over pedestrian. An example would be a painted crosswalk over asphalt, as opposed to a raised crossing or continuous sidewalk.

As this area develops, so should the public and private pedestrian infrastructure. Creating more biking/walking connections between the existing attractions and any planned ones, will reduce traffic congestion and commute times for local residents, commuters, and shoppers.





# PEMBROKE TO ROSEMONT

## EXISTING CONDITIONS

### Street Network

The commercial area here is at the nexus of two styles of development. The parcels to the north of Virginia Beach Boulevard are arranged in a suburban character of winding streets and cul-de-sacs. The southern area is a connected grid of streets.

### Environmental Conditions

This area of Virginia Beach benefits from several clusters of mature trees. The neighborhood park to the north and the schools and libraries are quite lush. The southern street network incorporates ditches that connect to Thalia Creek to the west.

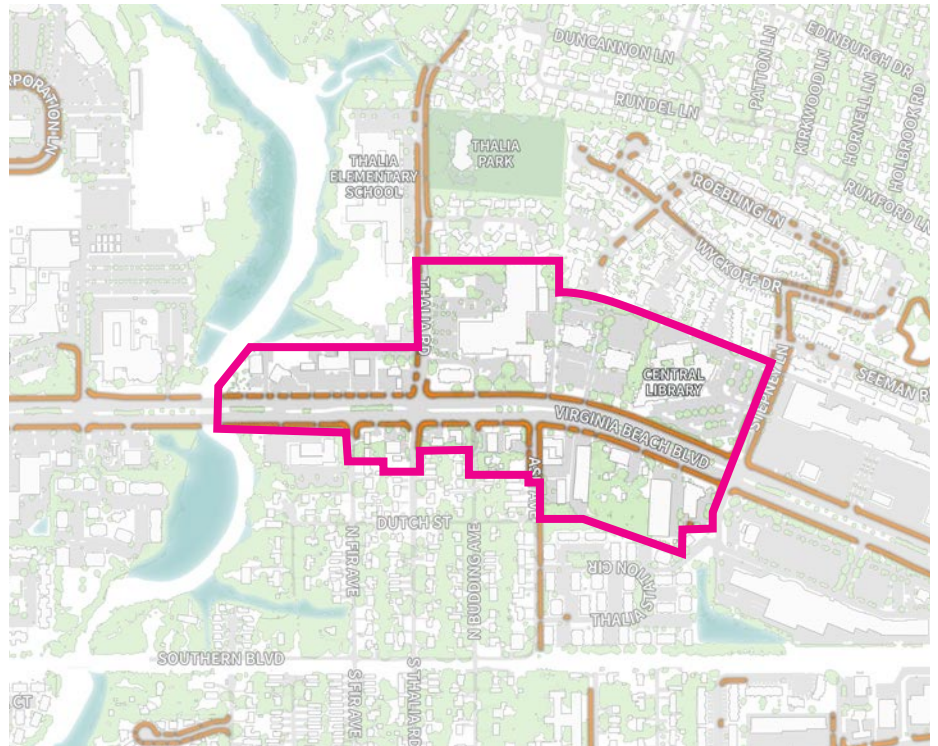
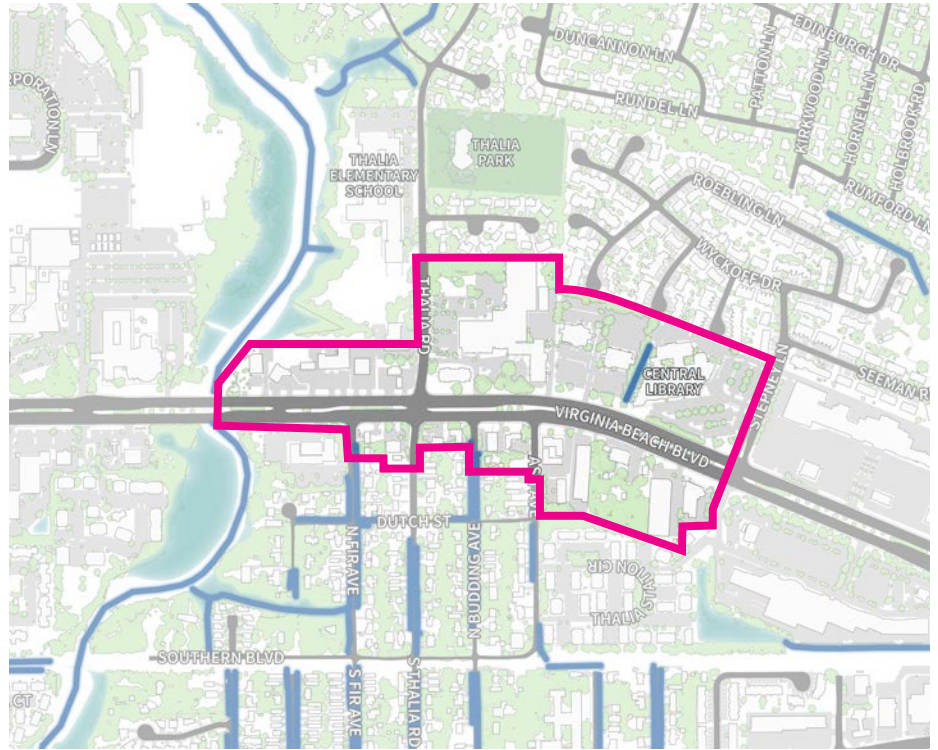
### Parking Conditions

Parking is provided by surface lots in the commercial area. In the residential areas it is provided by driveways. All of the light gray on the map to the right represents parking areas. The blue highlighted areas in the map to the right represent sidewalks. The light gray indicates paved areas designed for vehicles.

### Neighborhood Access

The commercial areas north of Virginia Beach Boulevard must be accessed via that boulevard, Stepney Lane or Thalia Road. All of these streets offer paved paths for pedestrians and vehicles. The commercial areas have sidewalks as well, but pedestrians must walk through drive aisles to get from the sidewalks on the public right-of-way to the sidewalks on individual parcels.

The commercial areas south of Virginia Beach Boulevard are easily accessed by vehicles along all connecting streets. For pedestrians, there are no direct paved paths to the commercial area.



# PEMBROKE TO ROSEMONT

## EXISTING CONDITIONS

As infrastructure in this area develops, more connections should be made between the existing assets and any planned ones.

Most buildings in the commercial area are one-two stories in height with very few areas of two story height. There is no maximum height requirement, except within 100' of an immediately adjacent residential parcel's side or rear yard.

The residential areas are either apartments or single-family homes. Most single-family homes are detached from their neighbor but there are several attached townhouses and duplexes as well.

Common cladding materials are brick and siding. There are a few structures with E.I.F.S or stucco remaining.

All public roads here are designed with preference to facilitating vehicular access. Every road has a surface paved for cars and few have paved surfaces for walking or other modes of transport.

Wherever pedestrians and vehicles may both use a paved surface, the design facilitates vehicular movement rather than pedestrian. An example would be a painted crosswalk over asphalt, as opposed to a raised crossing

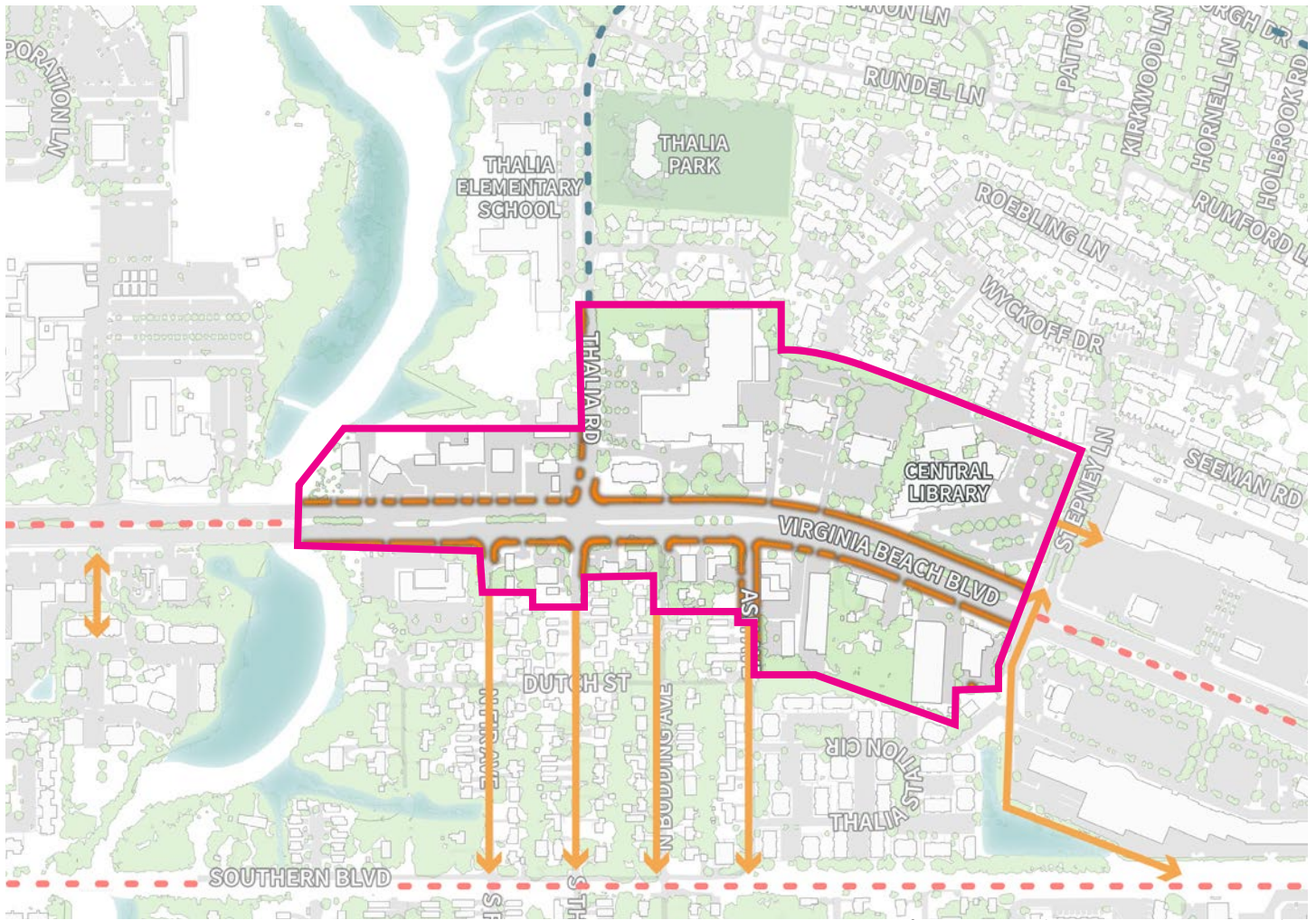


# PEMBROKE TO ROSEMONT

## IMPROVED CONNECTIONS

The vision for the Pembroke to Rosemont Commercial Area is to build upon the natural beauty of the nearby Thalia Creek and planned public trails nearby. There was a recently completed kayak launch nearby that is becoming a well used amenity. As more visitors come to this area, the typical development pattern will need to be altered. The existing pattern is to access each separate commercial property from the main road by car.

New commercial developments should connect to bike paths, sidewalks, and shared use paths in the future. The multi-use path along Southern Boulevard will bring families, tourists, bikers, and runners to areas of Virginia Beach that they have yet to explore. Increasing connections to this path of adventurers reduces the likelihood of any one connection becoming too crowded in the near future.



City of Virginia Beach Active Transportation Plan

Existing Facilities	
	Shared Use Paths
	Conventional Bike Lanes (On Road)
	Sideways
	Nature Trails
	Recreational Loop
Proposed Facility Type (Current)	
	Shared Use Path
	Protected Bike Lane
	Bike Lane
	Sideways

# PEMBROKE TO ROSEMONT

## **NEIGHBORHOOD COMPATIBILITY**

The commercial area here benefits from being surrounded by several public institutions. There are two schools, elementary and high school. As well as a library and church with a day school adjacent.

Currently, there is only one street that is connected to all of these amenities. That's the major thoroughfare of Virginia Beach Boulevard that connects to the oceanfront. Plans are underway to bring another major thoroughfare to this area, with a design oriented towards pedestrians recreational use. This path would run parallel to Southern Boulevard.

As infrastructure in this area develops, more connections should be made between the existing assets and any planned ones.

Most buildings in the commercial area are one-two stories in height with very few areas of two story height. There is no maximum height requirement, except within 100' of an immediately adjacent residential parcel's side or rear yard.

The residential areas are either apartments or single-family homes. Most single-family homes are detached from their neighbor but there are several attached townhouses and duplexes as well.

Common cladding materials are brick and siding. There are a few structures with E.I.F.S or stucco remaining.

All public roads here are designed with preference to facilitating vehicular access. Every road has a surface paved for cars and few have paved surfaces for walking or other modes of transport.

Wherever pedestrians and vehicles may both use a paved surface, the design facilitates vehicular movement rather than pedestrian. An example would be a painted crosswalk over asphalt, as opposed to a raised crossing.

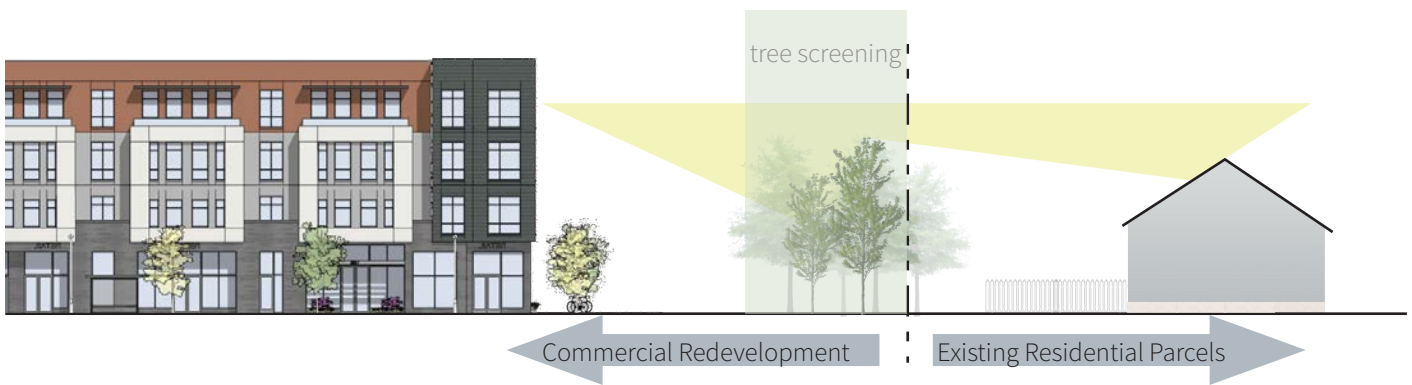
# PEMBROKE TO ROSEMONT

## NEIGHBORHOOD COMPATIBILITY

The existing neighborhoods surrounding this commercial area are zoned for residential use. Often there are mature trees of over 30 feet in height that act as a buffer between residential and non-residential uses. These residential areas are composed of single-family detached homes, attached townhomes, and condominium apartment developments.

The homes are one-two stories in height, with sloped roofs. They use traditional building materials such as brick, horizontal siding, wood railings and asphalt shingles. Most homes don't have a fenced in front yard, but many have a fenced in back yard.

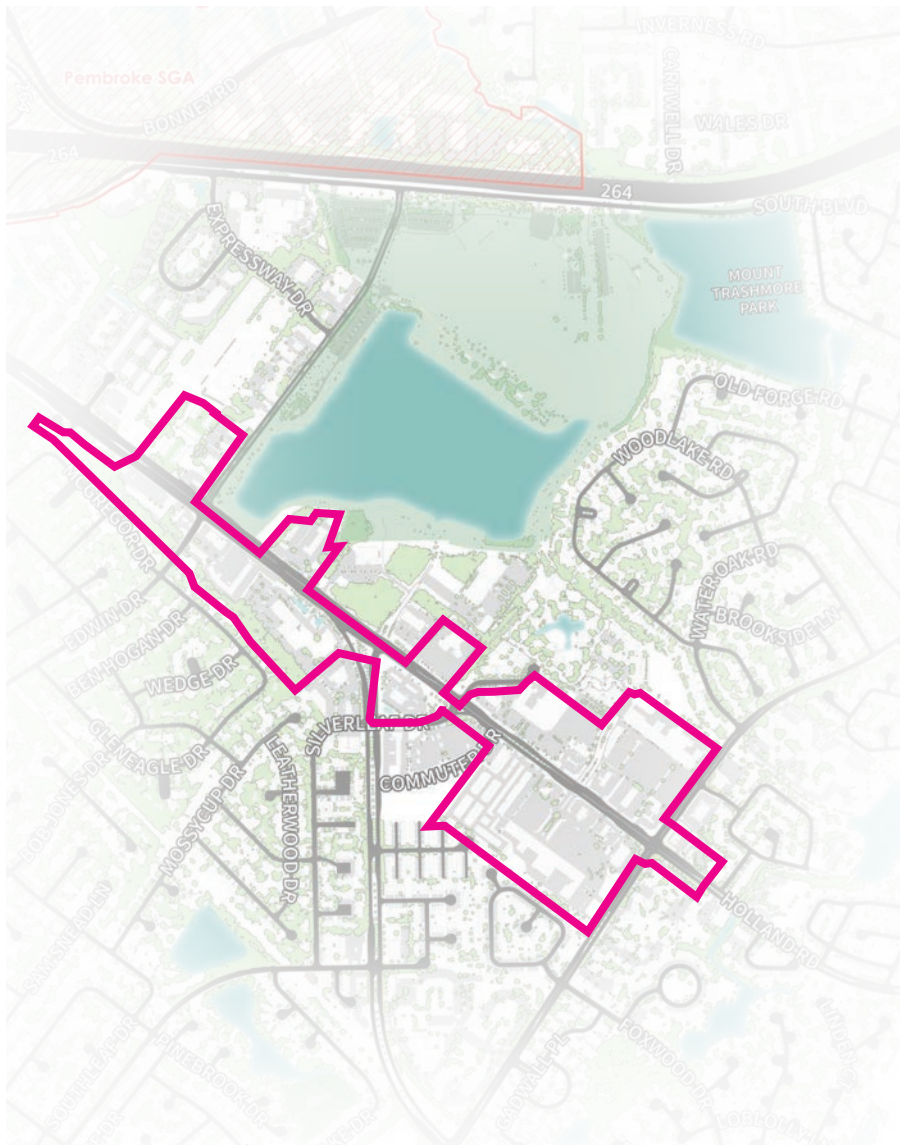
Developments adjacent to existing residential areas should be designed so as to preserve the private nature of the existing backyards in the residential areas. Effective methods are screening with evergreen trees, and limiting heights within 100 feet of adjacent residential parcels.



# HOLLAND TO INDEPENDENCE

## OVERVIEW

The vision for the Holland Road and S Independence area includes a medium density residential neighborhood and commercial village, surrounding Mt. Trashmore Park. Park access will be improved by a network of street connections, a new commercial center to complement the retail outlets and commercial corridors reconfigured to create a more continuous development pattern of multi-story buildings accommodating residential, commercial, and office uses



## DESIGN PRINCIPLES

This commercial area has experienced significant changes in and around it since the creation of Mt. Trashmore Park almost half a century ago. This includes the development of the Town Center district to the north and an increasing population of residents along Holland Road.

Mt. Trashmore Park has received investment over the years and remains a well-loved attraction by local families and visiting tourists. The central location of this area within Virginia Beach and its proximity to public parks and family amenities, have led to the recent construction of luxury apartment developments here.

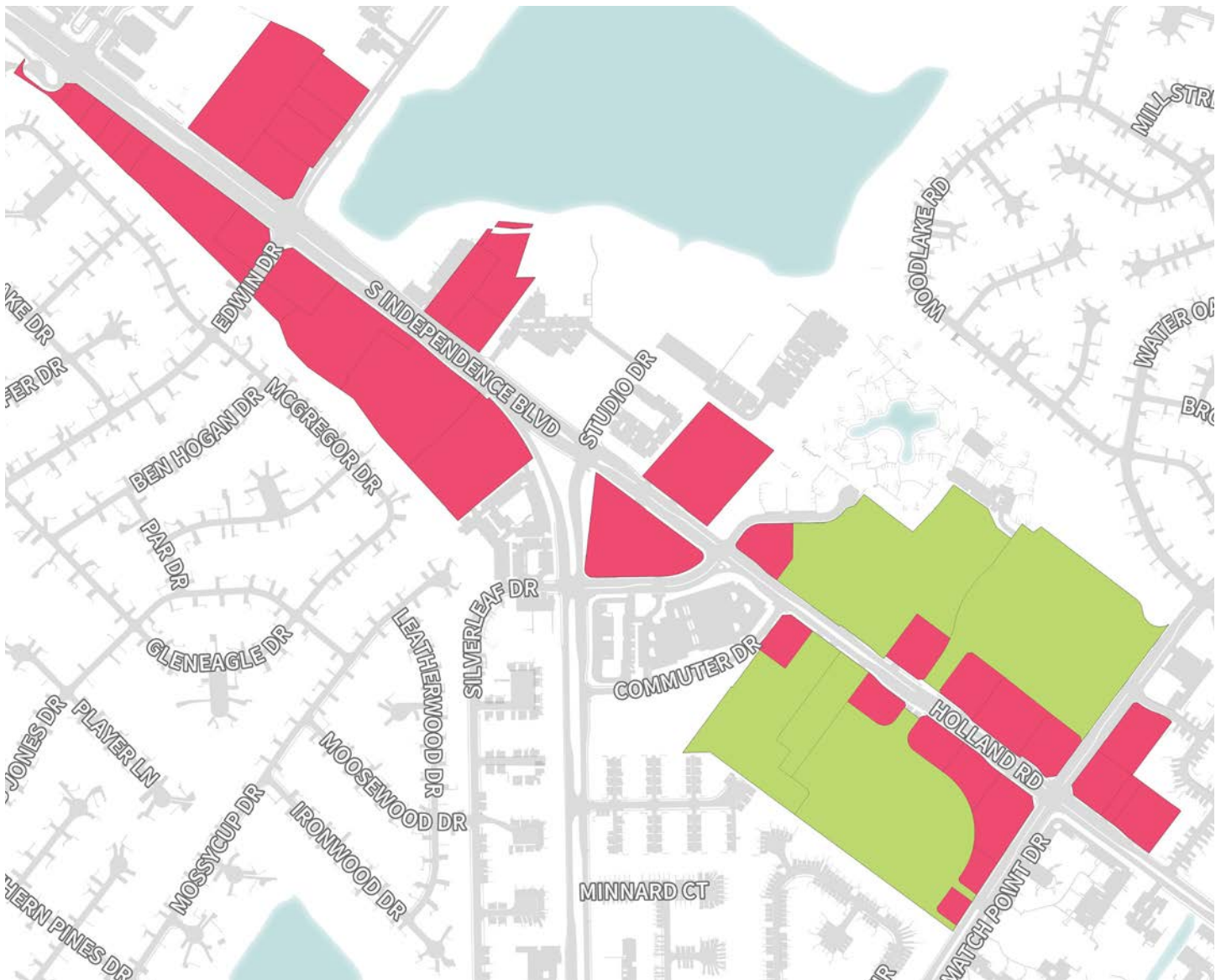
There are significant opportunities for economic development resulting from being close to interstate, parks and shopping. New commercial development designed as part of this network should incorporate trails and paths that extend the park benefits to the shopping experience of the commercial areas.

## GOALS

- Develop a medium density commercial and residential village beside the lake, offering housing options in close proximity to the surrounding commercial and employment centers.
- Holland Road corridor is redeveloped with commercial, traditional office, multi-family residential, or a mix of these uses to expand development opportunities that can accommodate market changes without compromising development quality.
- Improve access to biking, walking, and driving connections to link these areas and diffuse traffic from the main arterials.

# HOLLAND TO INDEPENDENCE

## SITE SCALES



**Small**



**Medium**



**Large**



## DESIGN PRINCIPLES

This Commercial Area is located along the north-south thoroughfare of S Independence Boulevard as it transitions to Holland Road. There is an entrance to Mt. Trashmore Park at one end of the commercial area and two strip mall style parcels of a medium size at the other end of the commercial area. In between the two ends of this study area are a combination of smaller retail parcels and a couple apartment complexes.

The recent apartment complexes have been developed with trails that connect to Mt Trashmore Park, extending the benefits of a park to the residents. Commercial Areas here should include trails and paths that offer a seamless walking/biking experience from park to home to storefront.

# HOLLAND TO INDEPENDENCE

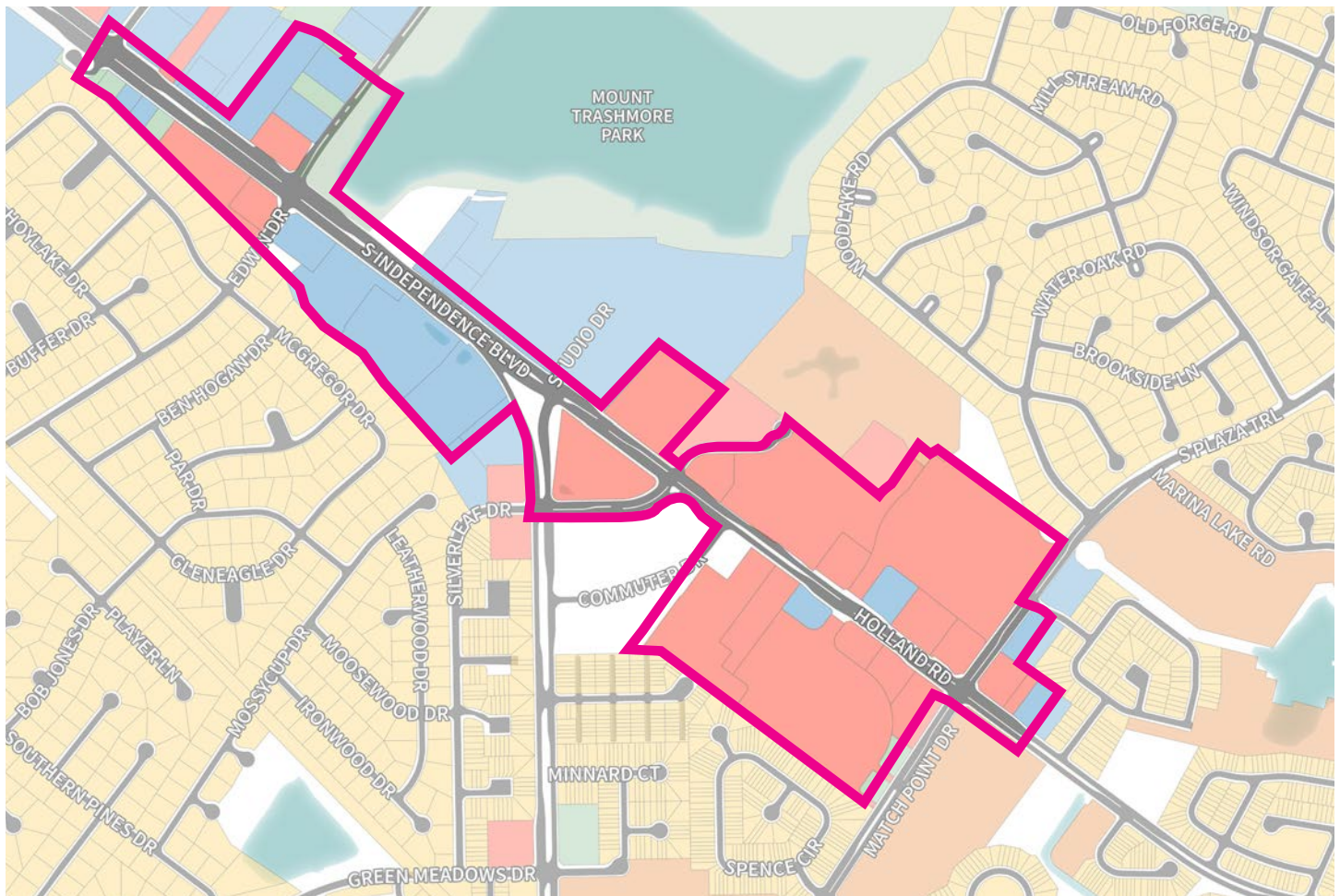
## EXISTING CONDITIONS

This area benefits from the success of Mt. Trashmore Park over the past several decades. The continuous investment in the park has created a neighborhood attraction that is family-oriented and open to the general public. The three major roads that are within this commercial area are S Plaza Trail, S Independence Boulevard and Holland Road.

All three roads can be followed to new residential developments including multi-family apartments, town homes, condos, and single-family homes. There are also well established communities of homes. As these residents commute to and from their homes, they are likely to pass this commercial area that lies just a couple miles south of the interstate entrance at Independence Boulevard.

This area is attractive to businesses seeking vehicular traffic, close interstate access, and a working family customer base. Currently many outparcels offer drive-through food pick-up, with slower commerce happening at individual shops within strip malls to the rear of the property. Between the strip malls and the outparcels there are parking lots with few designated places for pedestrians to walk or rest in between shopping trips.

Most commercial properties here have been designed with two entrances, often one on a main public road and the other on an interior road or secondary public road. Older developments tend to have this entrance designed for vehicular use, while newer developments incorporate sidewalks at both entrances. The most successful designs have pedestrian paths that continue to the building's main entrance with painted crosswalks wherever they persons may be traveling in the same space vehicles may drive.





# HOLLAND TO INDEPENDENCE

## EXISTING CONDITIONS

### Street Network

The commercial area here is at a fork in the road where Independence Boulevard continues south and Holland Road extends to the east. There is an internal street network between the apartment complexes and shopping centers north of Holland Road.

### Environmental Conditions

This area of Virginia Beach is fairly low and is susceptible to flooding during major storm events. As a result, stormwater management practices are commonly used here and will continue to remain important features of the built environment in this area.

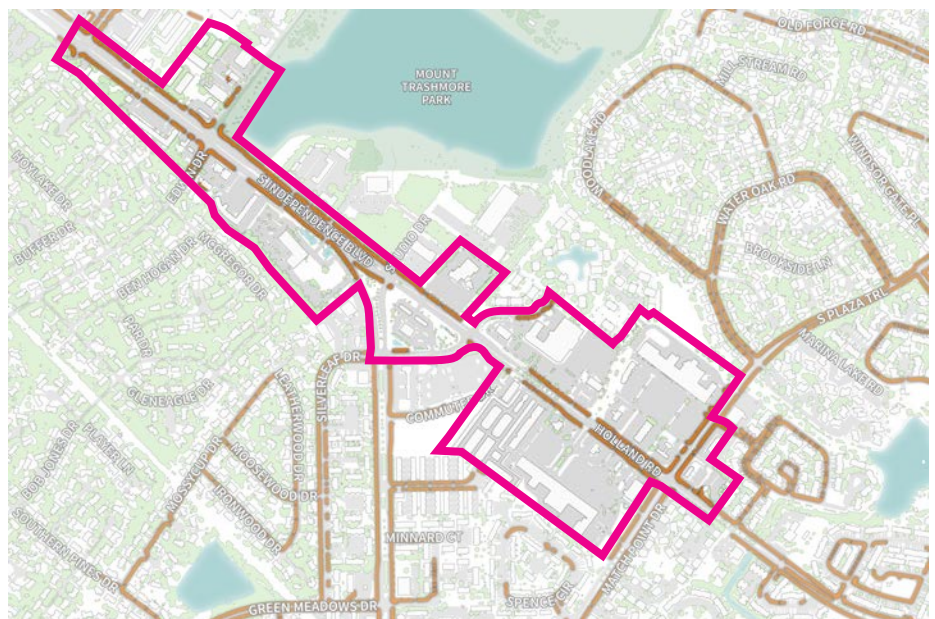
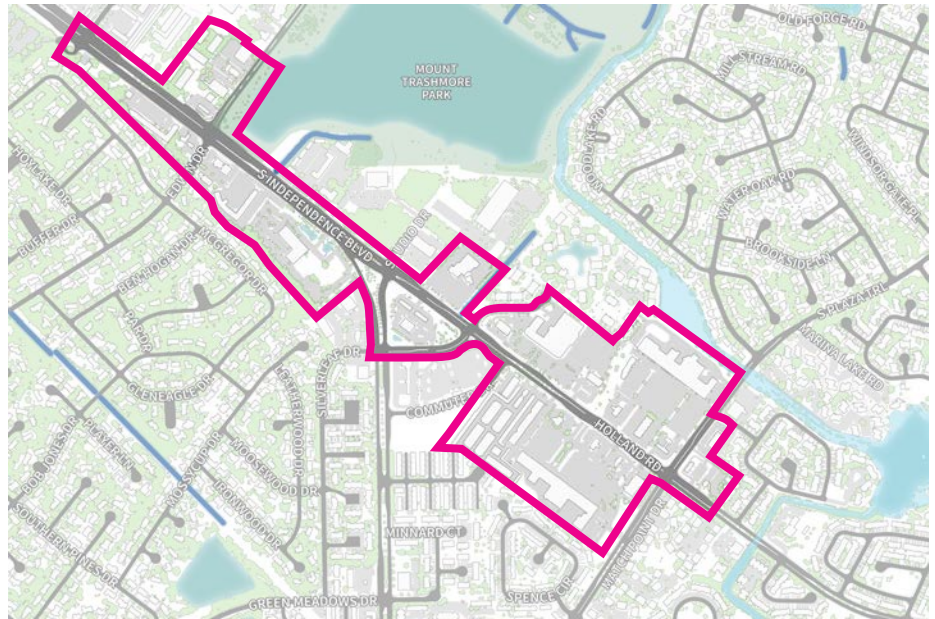
### Parking Conditions

Parking is provided by surface lots in the commercial area. In the residential areas it is provided by driveways. All of the light gray on the map to the right represents parking areas. The orange highlighted areas in the map to the right represent sidewalks. The light gray indicates paved areas designed for vehicles.

### Neighborhood Access

The apartments directly along Holland Rd are well connected to shopping on that same side of the street. Pedestrians currently have to cross drive aisles without crosswalks and developments should incorporate painted crosswalks in the future as a safe design practice.

Neighborhood access may be improved on both sides of Holland Rd by the addition of more designated pedestrian paths with recreational amenities such as benches, bike racks, trash cans, and canopy trees for shade.

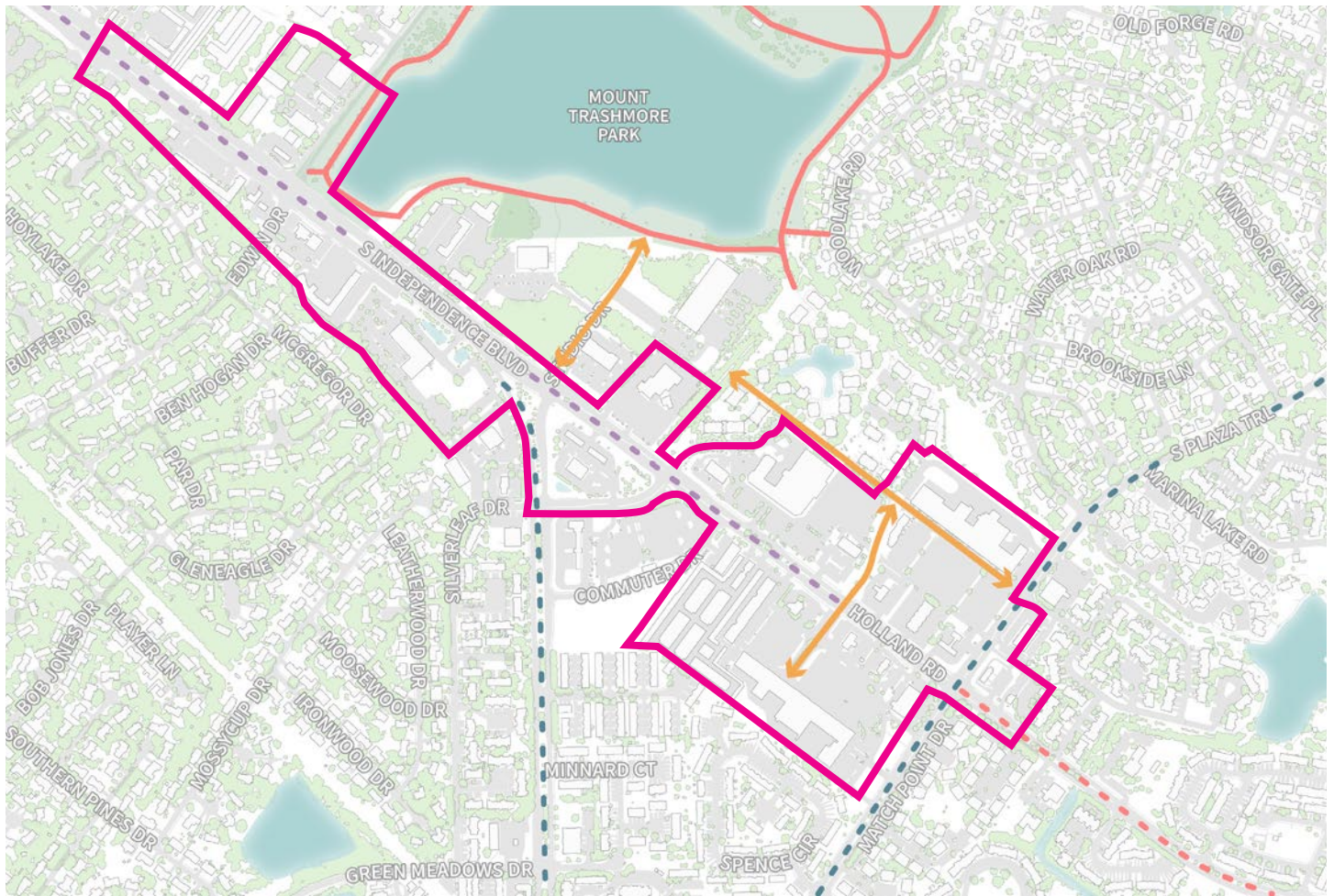


# HOLLAND TO INDEPENDENCE

## IMPROVED CONNECTIONS

This area has seen an increase in number of visitors recently as population has increased in the surrounding area. The regional Mt. Trashmore Park to the north attracts a significant amount of visitors that use the trails and other park features. Currently, there is one direct route from the park to the commercial study area here and that's via the main road of S Independence Boulevard/Holland Road.

In an attempt to reduce the vehicular traffic burden of Holland Road new developments should create a continuous network of trails that connect to the Park. The City of Virginia Beach has plans for improving pedestrian infrastructure on all the major public roads in this area. This creates the opportunity for a park visitor to leave their car in the parking lot and then walk to a nearby convenience store or restaurant and then walk back without dealing with traffic.



City of Virginia Beach Active Transportation Plan

Existing Facilities	
	Shared Use Paths
	Conventional Bike Lanes (On Road)
	Sidepaths
	Nature Trails
	Recreational Loop
Proposed Facility Type (Current)	
	Shared Use Path
	Protected Bike Lane
	Bike Lane
	Sidepath

# HOLLAND TO INDEPENDENCE

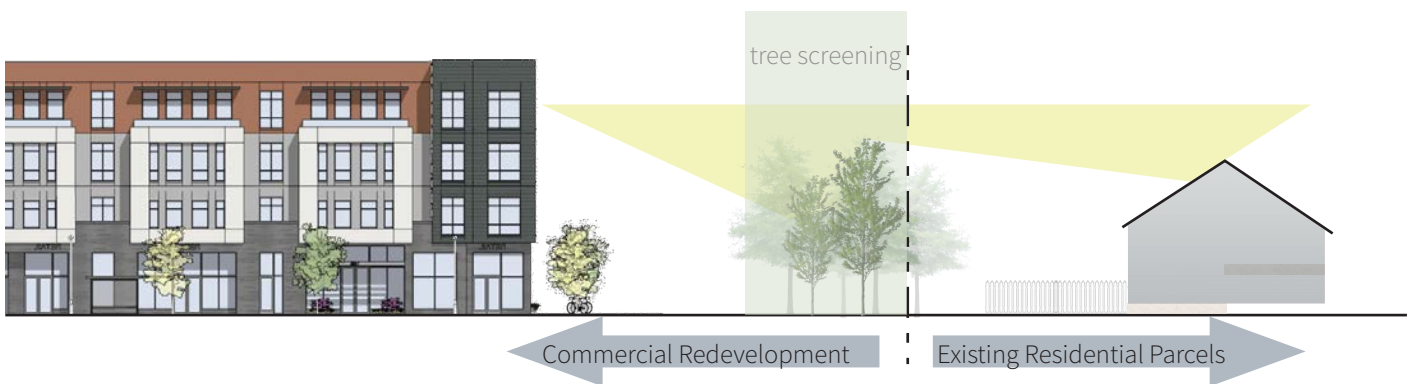
## NEIGHBORHOOD COMPATIBILITY

The existing neighborhoods surrounding this commercial area are zoned for residential use. Often there are mature trees of over 30 feet in height that act as a buffer between residential and non-residential uses. These residential areas are composed of single-family detached homes, attached town homes, and apartment developments.

The rear of many commercial properties in this area border the yards of private homes. In addition to mature trees separating commercial from residential uses there are often fences and drainage ditches making the commercial area distinct and separate from the residential developments. Newer development trends often mix these two uses to increase the market base that the commercial areas have.

New commercial developments adjacent to residential areas should be designed to preserve the private nature of the existing backyards in the residential areas. Effective methods are screening with evergreen trees and limiting building heights within 100 feet of adjacent residential parcels. Below is an example of how tree screening should be used as a buffering method for buildings up to 4 stories in height.

Commercial parcels with access to Holland Road and S Plaza Trail should place entrances with sidewalks for pedestrians on each of those main streets. The same principle should be applied for other developments that can be accessed by two or more public roads. Ensuring there is vehicular access and pedestrian access from major roads helps to reduce congestion at any singular entrance or road.



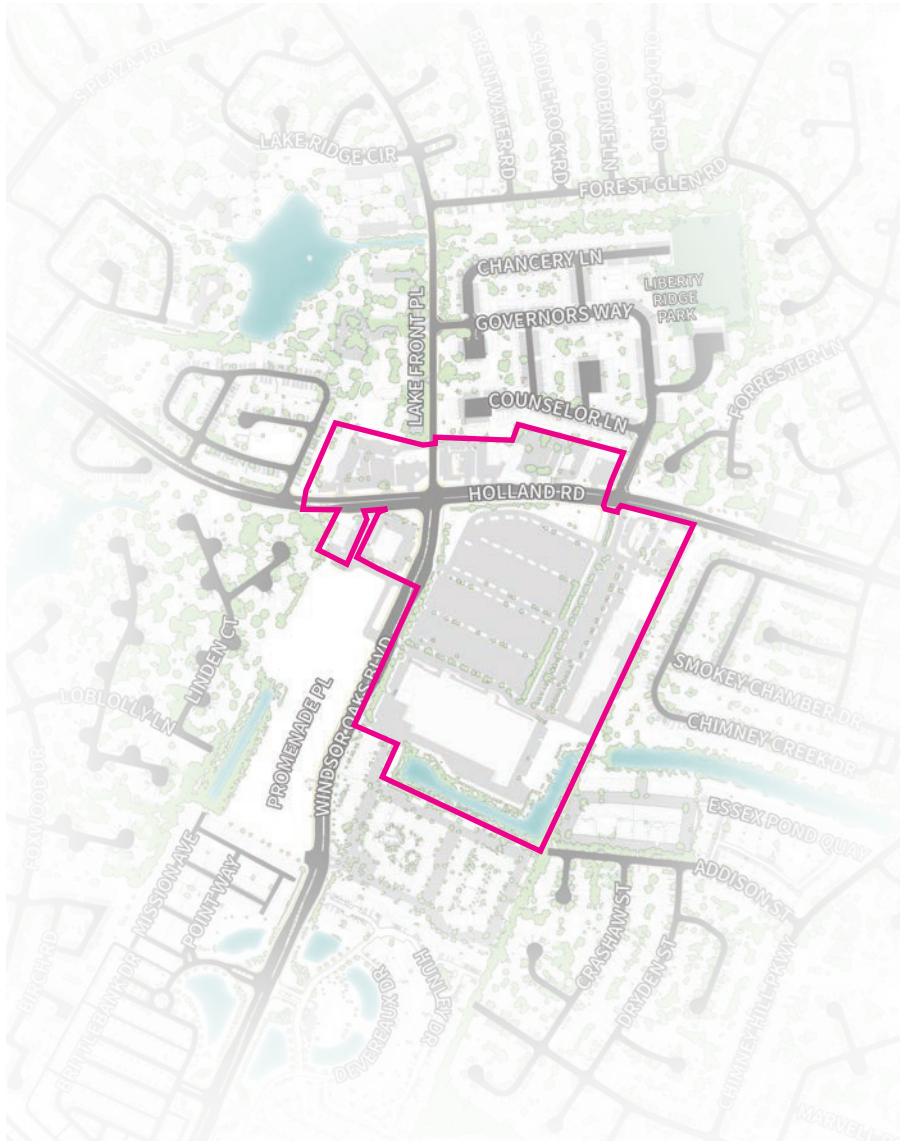
Once buildings exceed 4 stories in height, they appear in stark contrast to the existing residential community of homes. If buildings taller than 4 stories are proposed by developers they should be oriented as far away from existing residential homes as possible, close to the main street. Additionally, there should be buildings of an intermediate height between existing single family homes as shown in the graphic below.



# HOLLAND - WINDSOR OAKS

## OVERVIEW

The vision for the Holland - Windsor Oaks neighborhood serving commercial area includes a medium density residential and neighborhood commercial village, an expanded network of pedestrian connections, new commercial and office uses to support the continued residential development in the region, and commercial corridors reconfigured to create a more continuous development pattern of multi-story buildings accommodating residential, commercial, and office uses.



## DESIGN PRINCIPLES

This Neighborhood Serving commercial core, at the intersection of Windsor Oaks Boulevard and Holland Road, is surrounded by single-use residential developments.

Most of the residential developments have multiple vehicular connections to the commercial uses. The existing pedestrian connections to the commercial core are parallel to the vehicular connections. There is an opportunity here to provide shorter pedestrian connections from residential developments immediately adjacent to the commercial core.

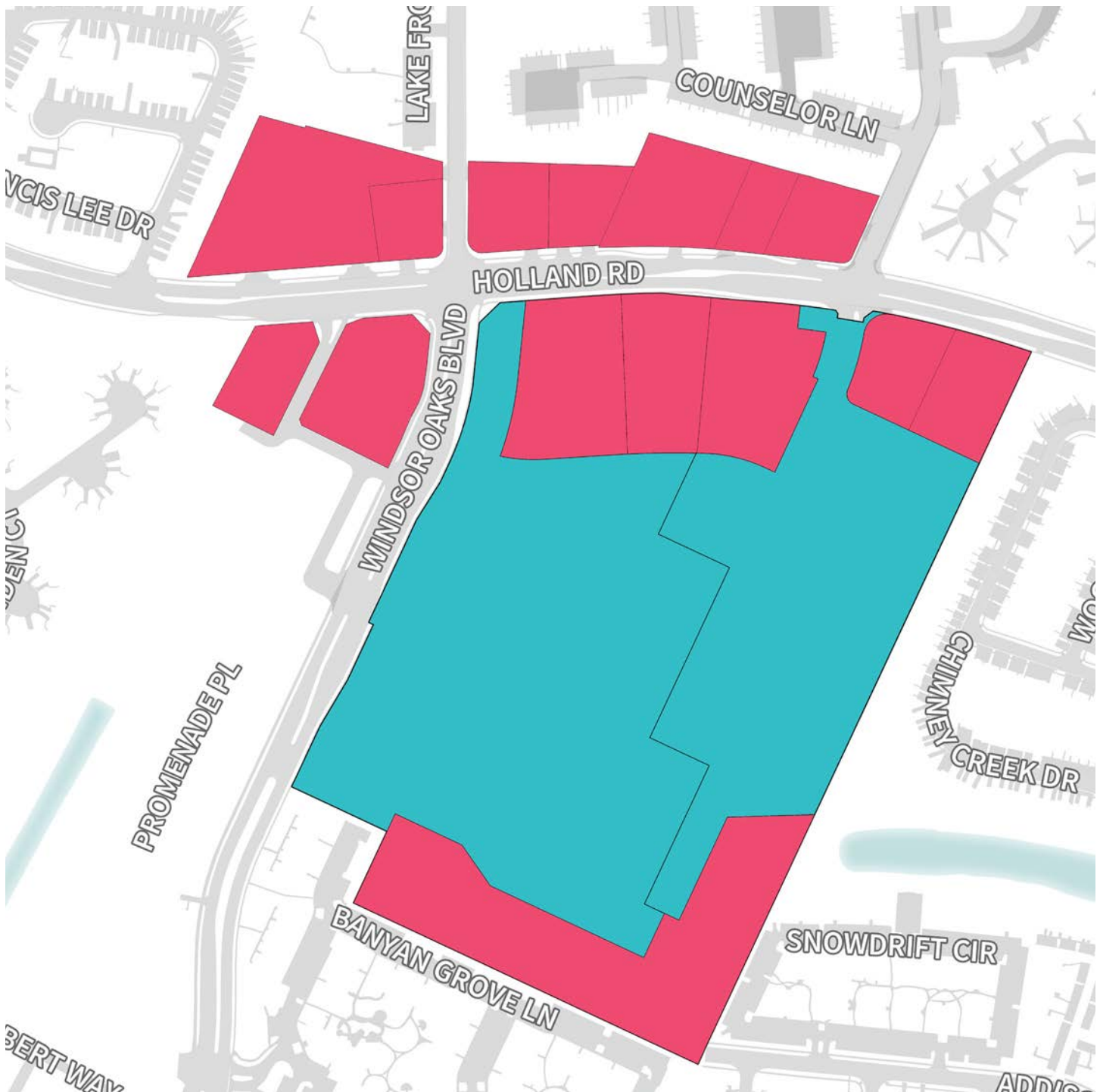
The existing commercial and residential uses support each other well and mixing these uses in the future will improve the mutually beneficial adjacency of uses. The addition of office uses to the area.

## GOALS

- Design a commercial core along the corridors of Windsor Oaks Boulevard and Holland Road for a mixture of residential, office, and commercial uses that are connected by a series of multi-use paths to the immediately adjacent uses.
- The residential neighborhood developments should incorporate an additional use on the parcel that supports the residents.
- Increase stormwater capacity through the use of creative green infrastructure to slow, store, and drain stormwater. Limiting the amount of traditional impervious pavement in vehicle occupied areas should be a priority.

# HOLLAND - WINDSOR OAKS

## SITE SCALES



**Small**



**Medium**



**Large**



# HOLLAND - WINDSOR OAKS

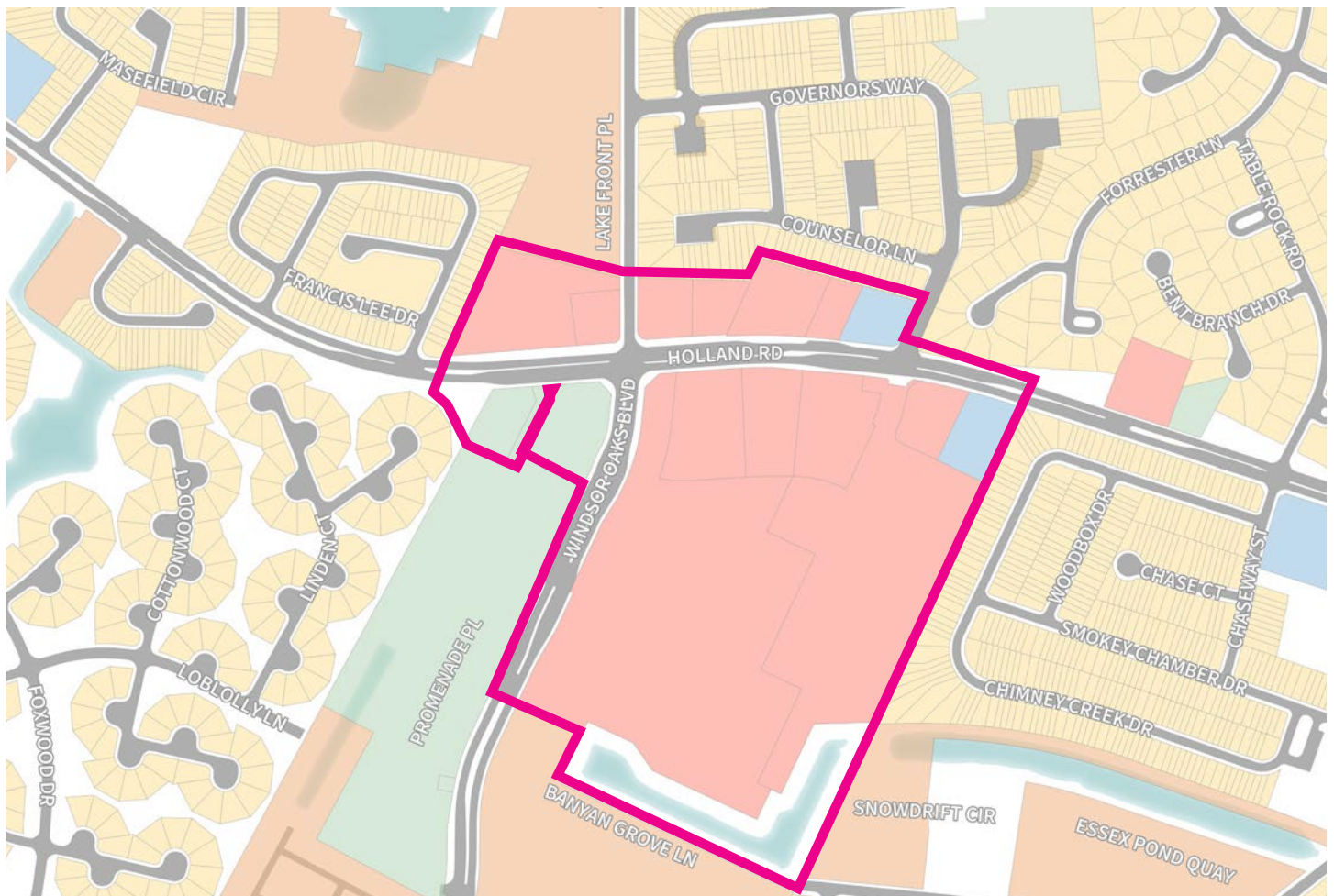
## EXISTING CONDITIONS

The commercial area has seen an increase in development recently with a new multifamily complex constructed across the street from the commercial parcels shown below in the salmon tone. The commercial is located at the intersection of a couple major roads. There are residential uses surrounding the commercial area.

Most residential developments have backyards adjacent to the commercial development and separated with a buffer of fencing, trees, or a combination of both. New residential developments have aligned their entrances with existing commercial entrances to increase the capacity for vehicular traffic flow. These entrances are aligned over main roads of 4-6 lanes in width.

The distance to cross roads, combined with no crosswalk or indicator of pedestrian traffic makes walking to the commercial area an uncomfortable and dangerous experience. These intersections should be examined for potential crosswalks, yield signs, stop signs, and lighted traffic signals to facilitate safe access for vehicles and pedestrians alike.

Some residences feature a continuous sidewalk or trail network, others have clubhouses or internal residential amenities. These amenities rarely connect to adjacent commercial developments currently.



# HOLLAND - WINDSOR OAKS

## EXISTING CONDITIONS

### Street Network

The street network in the residential communities surrounding the commercial is designed in the cul-de-sac model, with most developments being access via the closest main public roads

### Environmental Conditions

This area is susceptible to localized flooding during extreme storm events. New developments will incorporate stormwater management practices as building requirements have adapted to address recurrent flooding.

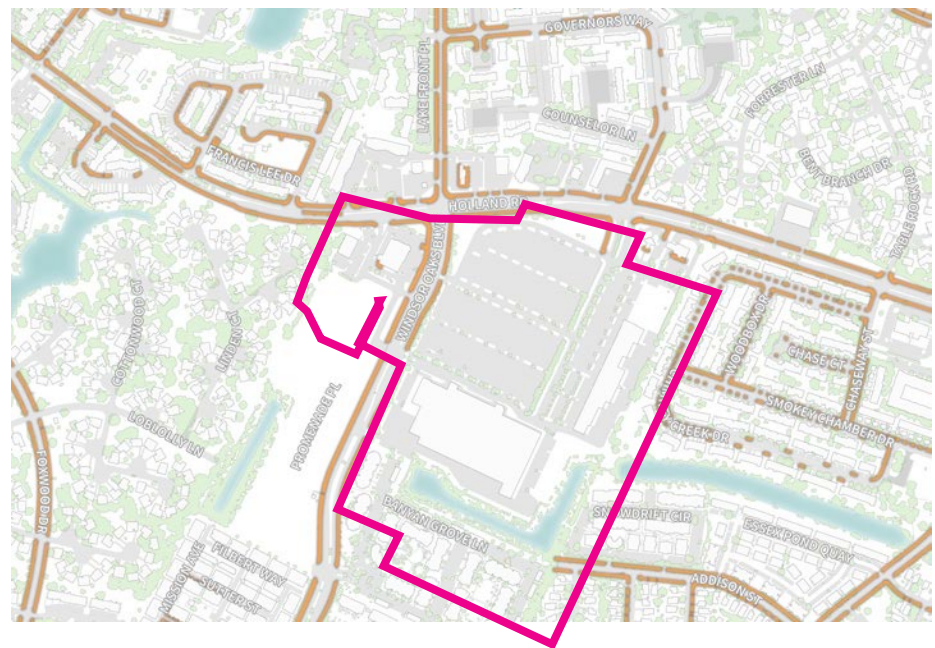
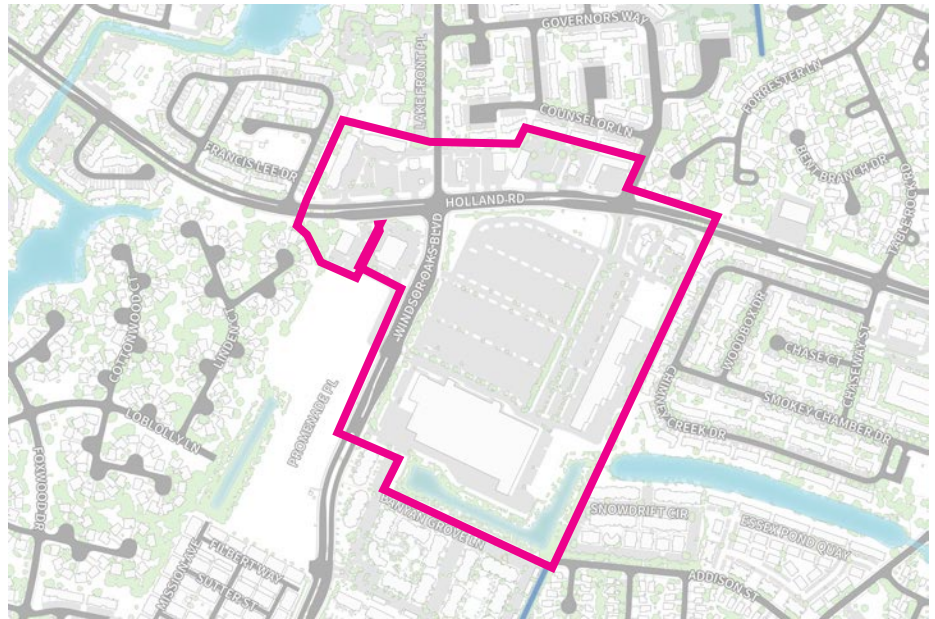
### Parking Conditions

Parking is provided by surface lots in the commercial area. In the residential areas it is provided by driveways. All of the light gray on the map to the right represents parking areas

The orange highlighted areas in the map to the right represent sidewalks. The light gray indicates paved areas designed for vehicles.

### Neighborhood Access

Neighborhood access to this commercial area happens via the main roads. Current conditions have a service road and natural buffer between neighborhoods and the rear of commercial parcels.



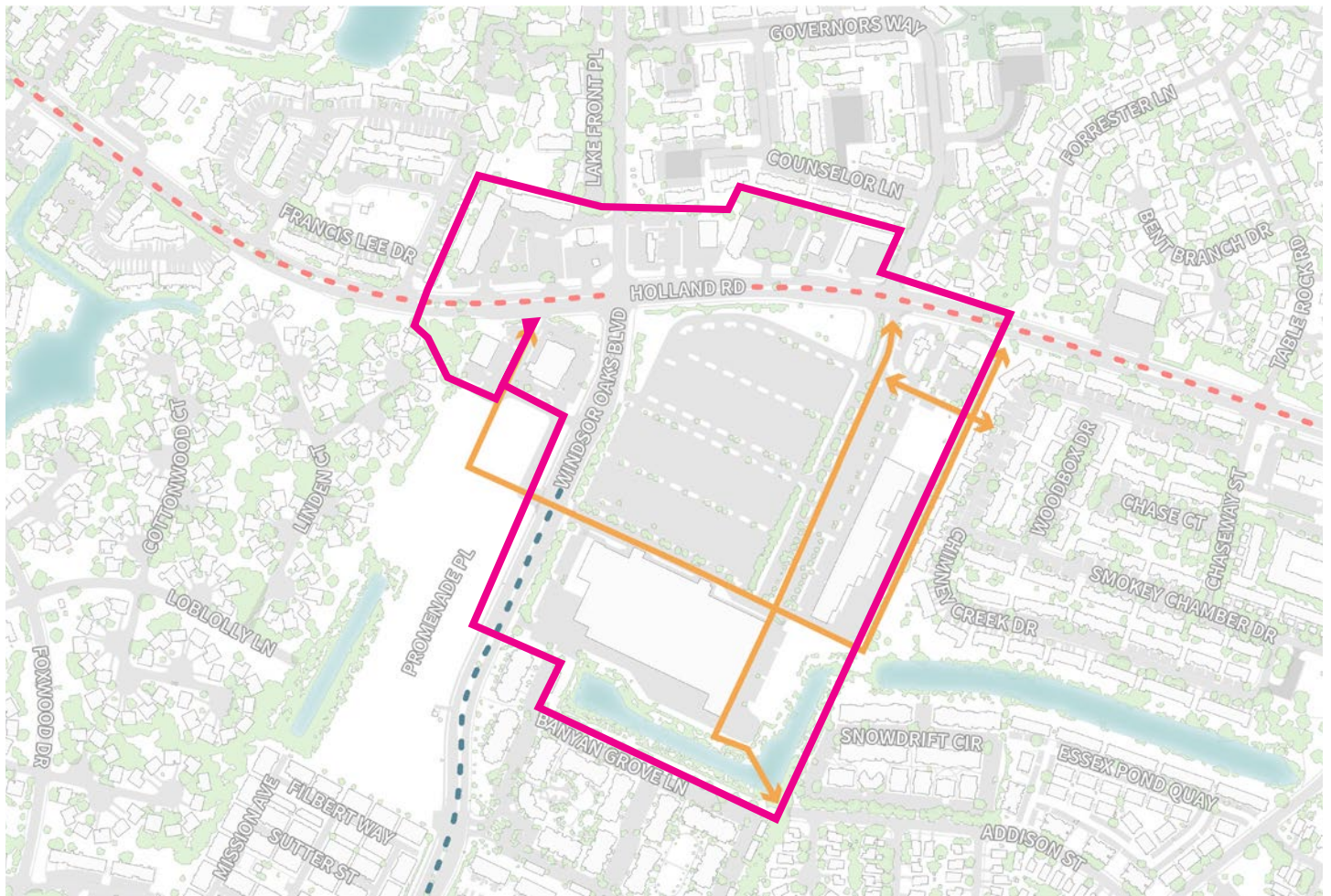
There is a good sidewalk network along public roads here, but most homes were developed with their backyard facing these sidewalks. For privacy and security, most homeowners have a fence and tress so to walk around the neighborhood to the public sidewalk is often a long and daunting trip compared to traveling by car.

# HOLLAND - WINDSOR OAKS

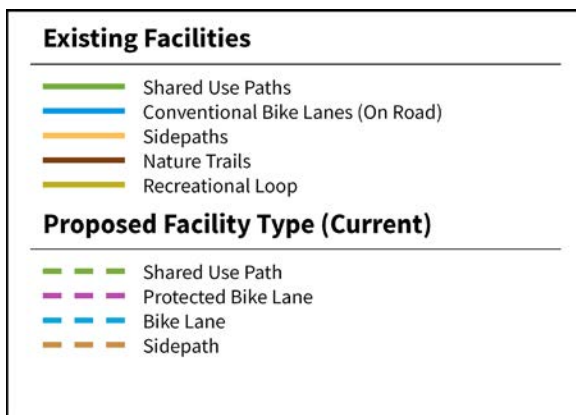
## IMPROVED CONNECTIONS

The City of Virginia Beach has adopted plans that suggest improving the infrastructure of the area to include bike lanes and shared use paths. Where commercial developments align with these new pedestrian improvements they should construct pedestrian paths that are continuous to the front door of each business.

The rear of many commercial properties here have stormwater management features or planted buffers separating them from adjacent residential parcels. These areas are perfect places to place pedestrian amenities. Adequate lighting should be placed along these paths in commercial areas for safety.



City of Virginia Beach Active Transportation Plan





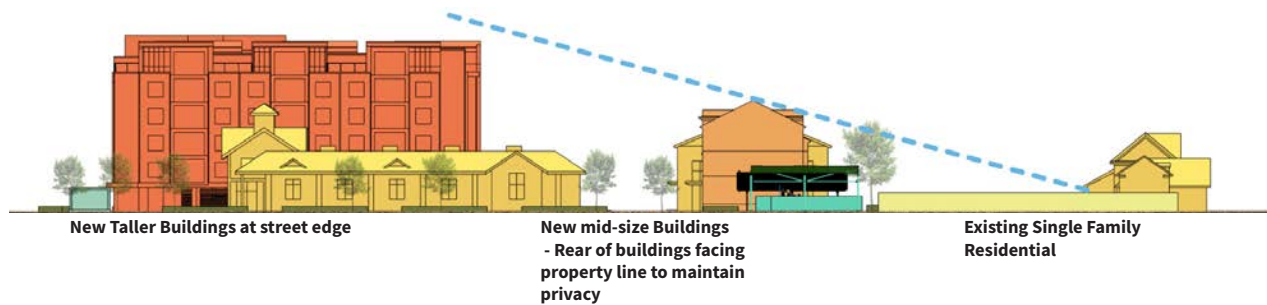
# HOLLAND - WINDSOR OAKS

## NEIGHBORHOOD COMPATIBILITY

The existing neighborhoods surrounding this commercial area are zoned for residential use. Often there are mature trees and stormwater features that act as a buffer between residential and non-residential uses. These residential areas are composed of single-family detached homes, attached town homes, and apartment developments.

The rear of many commercial properties in this area border the yards of private homes. In addition to mature trees separating commercial from residential uses there are often fences and drainage ditches making the commercial area distinct and separate from the residential developments. Newer development trends often mix these two uses to increase the market base that the commercial areas have.

New commercial developments adjacent to residential areas should be designed to preserve the private nature of the existing backyards in the residential areas. Effective methods are screening with evergreen trees and limiting building heights within 100 feet of adjacent residential parcels. Below is an example of how tree screening should be used as a buffering method for buildings in this area.



There exists a healthy network of wide pedestrian streets and paths in this area. Most of these paths are located along public roads, with smaller paths located within separate developments. There is currently a lack of continuous connection between these two types of paths.

New commercial development can provide an experiential benefit to adjacent residents by constructing paths that connect residential trails to businesses and public trails.

## EXAMPLE IMAGES



# AICUZ

## OVERVIEW

- Illustrate strategies to encourage compatible development at adjacent neighborhoods.

AICUZ Character Areas are those commercial corridors which lie within an Accident Potential Zone (APZ) or Noise Contour of the Air Installations Compatible Use Zone established around Naval Air Station Oceana.

These zones limit the uses and density of development that are considered appropriate for properties that lie within them in order to maintain the safety and quality of life of communities that are close to military air bases.

## Key Elements

Commercial developments in the AICUZ Character Area are most commonly restaurants, auto-services, warehouses, or offices. They are typically separated from adjacent parcels by natural features or constructed barriers, especially when adjacent to residential uses.

The example image below shows a residential development next to a restaurant, shopping center, and warehouse department store -- but with no direct access due to landscaped areas and a constructed pond to manage stormwater. This landscaped buffer should be designed as a walkable park, to connect to existing parcels whenever possible - This alternate mode of access can reduce travel times and vehicular congestion in the AICUZ area as new developments are built.



# AICUZ

## PEDESTRIAN CONNECTIONS

Shopping centers and retail establishments should offer attractive, inviting pedestrian scale features, spaces, and amenities.

These include, but are not limited to:

- parks
- playgrounds
- shade structures
- tables
- seating
- bike storage
- fitness areas

All such features and community spaces shall connect to internal or public walkways and, if present, to the bikeway network, and shall be constructed of materials of at least equal quality to that of the principal materials of the building and landscape.

Pedestrian walkways shall provide access from the parking area to the primary building in such manner that pedestrians using walkways will be required to traverse the vehicular parking aisle to the minimum extent possible.

Walkways should be anchored by special design features such as towers, arcades, porticos, pedestrian light fixtures, planter walls or other architectural elements that define circulation ways and outdoor spaces. Walkways shall be landscaped and be readily distinguishable from driving aisles where they traverse such aisles through the use of durable, low-maintenance surface materials such as pavers, bricks, scored concrete or similar architectural treatments.

The AICUZ area business uses are often vehicular-oriented, industrial, or warehousing spaces. These uses require the operation of motorized vehicles, so there should be a clearly designated pedestrian path to reduce the potential for accidents.



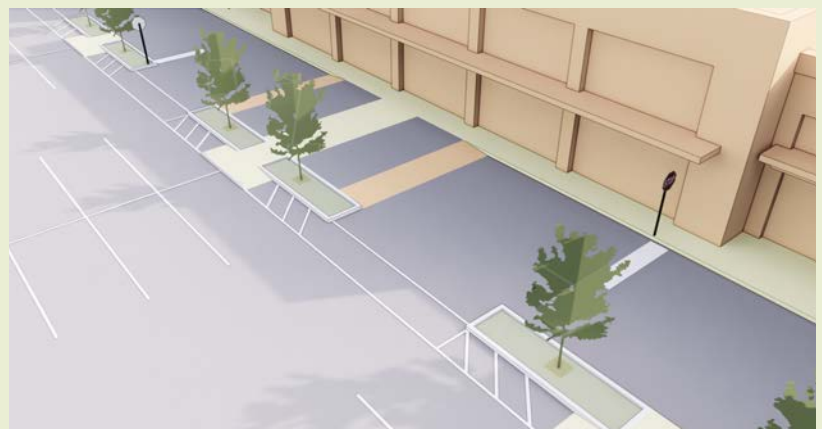
SMALL LOT - 300' DEEP

PROPOSED



MEDIUM LOT - 600' DEEP

PROPOSED



PARKING WITH DESIGNATED PEDESTRIAN CROSSINGS

# AICUZ

## STREETSCAPE IMPROVEMENTS

### PROPOSED - STREET SECTION

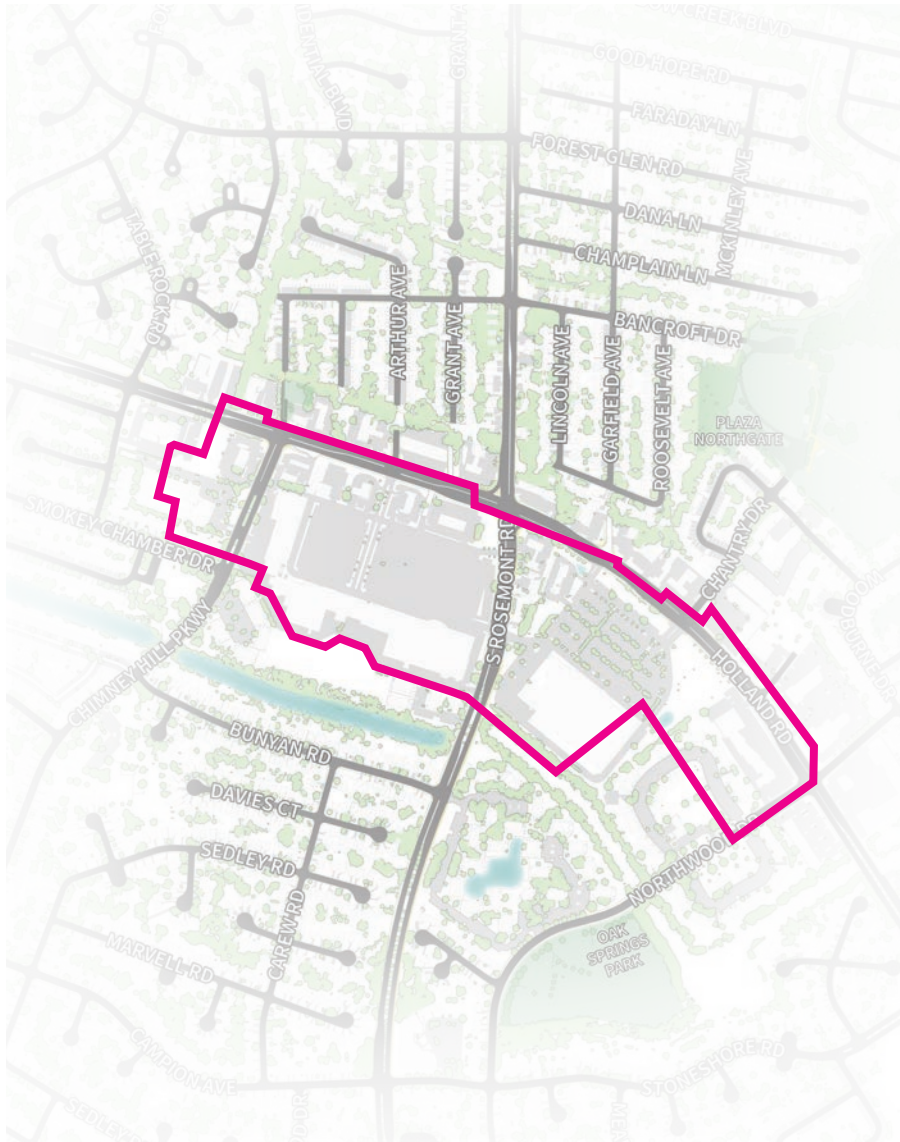


PAGE INTENTIONALLY LEFT BLANK

# HOLLAND - ROSEMONT

## OVERVIEW

The vision for this commercial area includes a medium density residential and commercial neighborhood village, and an expanded network of street and pedestrian connections to create a more continuous development pattern of multi-story buildings accommodating residential and commercial uses.



## DESIGN PRINCIPLES

This commercial area is nestled within a strong residential fabric of surrounding communities. There is a moderately well connected street grid on which there are many single family homes, attached townhomes, and a few apartment complexes.

Most residential developments feature cul-de-sac style roads. These types of developments result in private yards lining the main roads. Many developments and homeowners elect to build a fence for privacy.

In order to maintain a balance of privacy and access to commerce, commercial developments should align their entrances with adjacent roadways and provide tree-lined streets with sidewalks to connect to the public right-of-way.

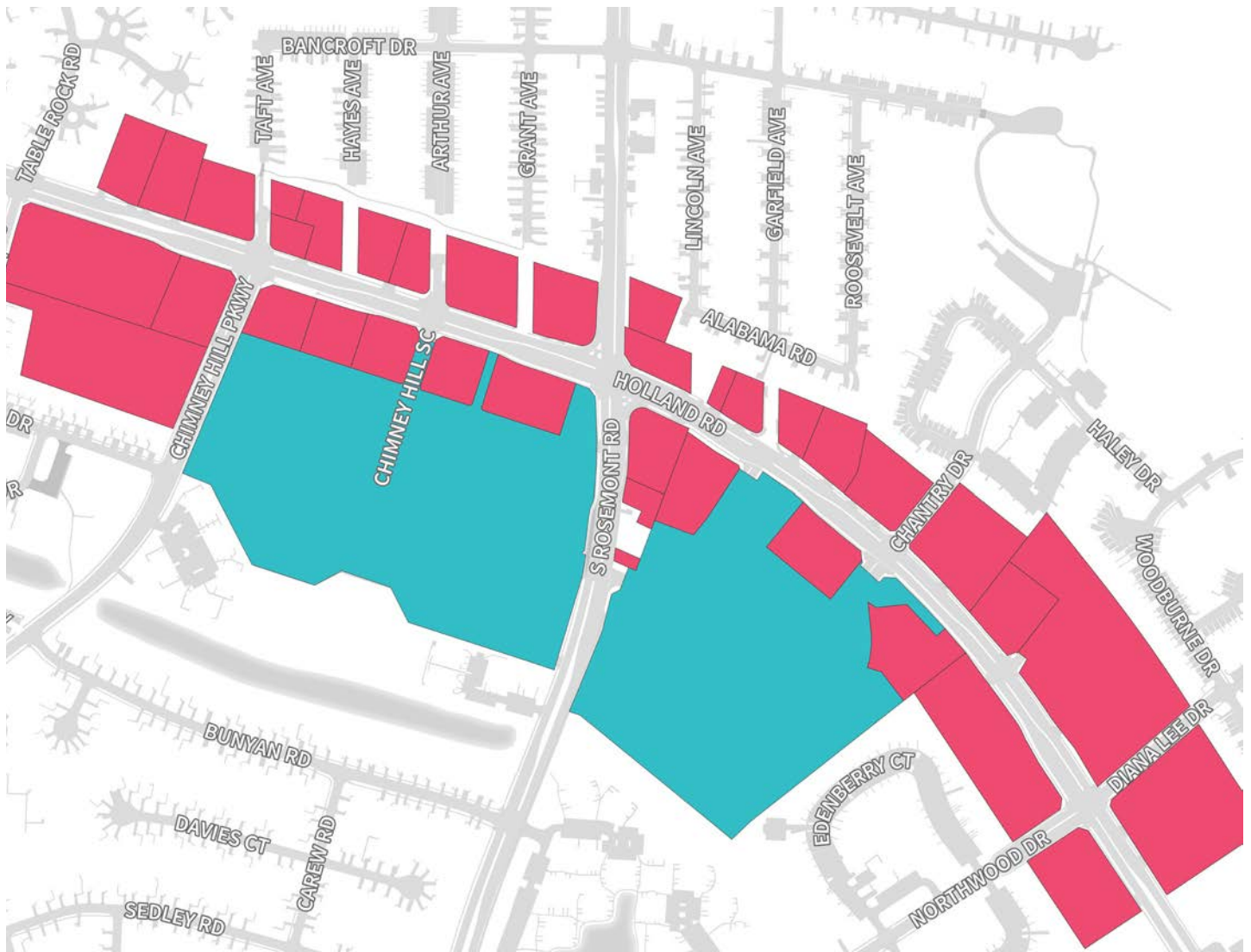
These streets should be lined with building facades, with parking available nearby. This development pattern creates a seamless travel experience for drivers and locals walking. Incorporating these streets with stormwater parks on larger parcels creates an attractive amenity for all visitors to the commercial parcels.

## GOALS

- Align commercial entrances with existing street network of surrounding residential developments.
- Create shopping boulevards with tree-lined streets and sidewalks to provide an enjoyable shopping experience by car, bike, or foot
- Create stormwater parks on larger parcels that can be lined with commercial and residential uses and amenities

# HOLLAND - ROSEMONT

## SITE SCALES



**Small**



**Medium**



**Large**



Most commercial parcels here are smaller parcels accessed via the main road and/or connector roads. Outparcels may have a third access point if there is an internal street between it and the large parcels containing strip mall type development with large anchor buildings.

# HOLLAND - ROSEMONT

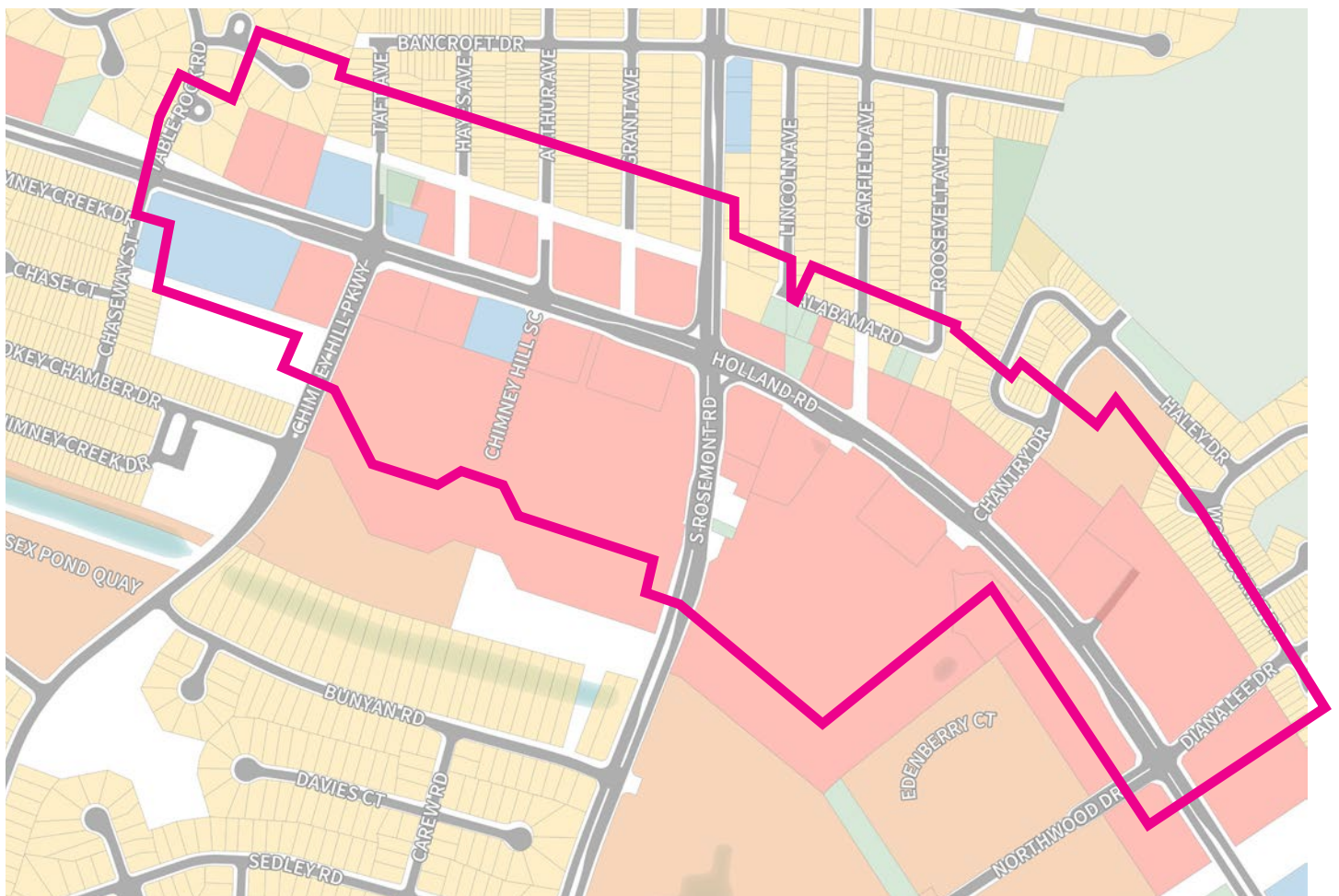
## EXISTING CONDITIONS

Small individual commercial developments are located along the major thoroughfares, often utilizing multiple entry points on adjacent streets. Most commercial buildings are encircled by parking lots between them and public roads surround the properties. A large majority of the public streets have pedestrian sidewalk network, often lined with trees.

The public sidewalks and the sidewalks at commercial building entrances are typically separated by a parking lot or drive aisle. There are few crosswalks where pedestrians may travel through vehicle parking areas. This makes the walking experience unpleasant and most people within walking distance travel to the commercial area by car.

The residential areas surrounding this community are well connected with few dead end streets. Residents and commercial properties alike benefit from stormwater management practices such as swales. In addition to the swales, there are tributaries of the Lynnhaven River that border some of the commercial properties. In times of low tide, these will most likely be too shallow to be navigated, but there may be a potential for a kayak launch and other water-related amenities at the eastern edge of this commercial area.

The relatively well connected street network offers a lot of amenities within driving distance. As this area's population increases, traffic congestion has as well. The city has seen residents becoming comfortable with using biking paths for exercise and nearby shopping. There are plans to increase the number of shared use paths and bike lanes in the area.





# HOLLAND - ROSEMONT

## EXISTING CONDITIONS

### Street Network

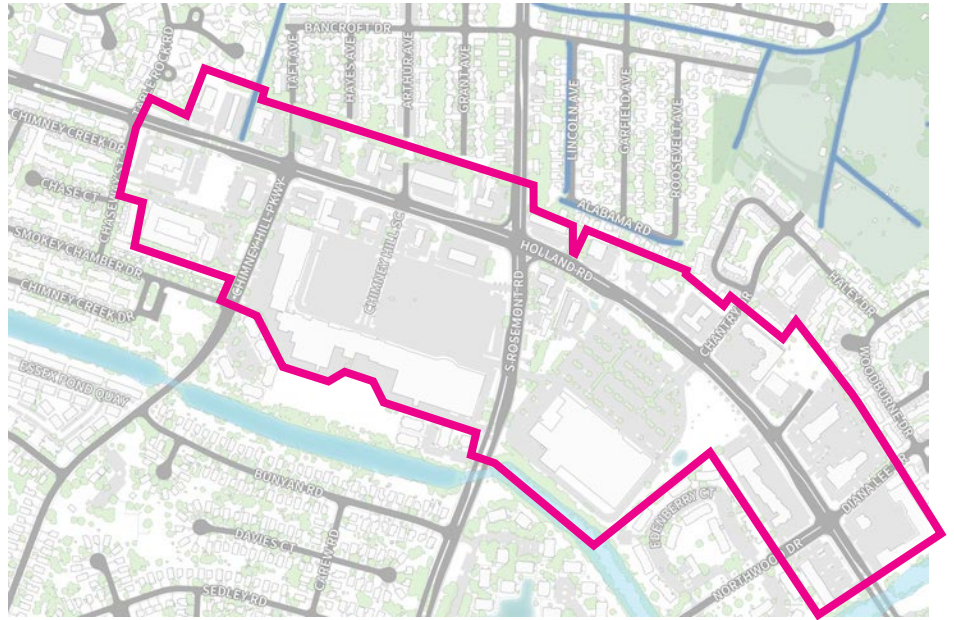
The street network in the residential communities surrounding the commercial is well connected in a grid pattern.

The street network is often abruptly ended at the connection to commercial properties

### Environmental Conditions

This area is susceptible to localized flooding during extreme storm events. Some commercial properties are adjacent to tributaries of the Lynnhaven River.

New developments will incorporate stormwater management practices as building requirements have adapted to address recurrent flooding.



### Parking Conditions

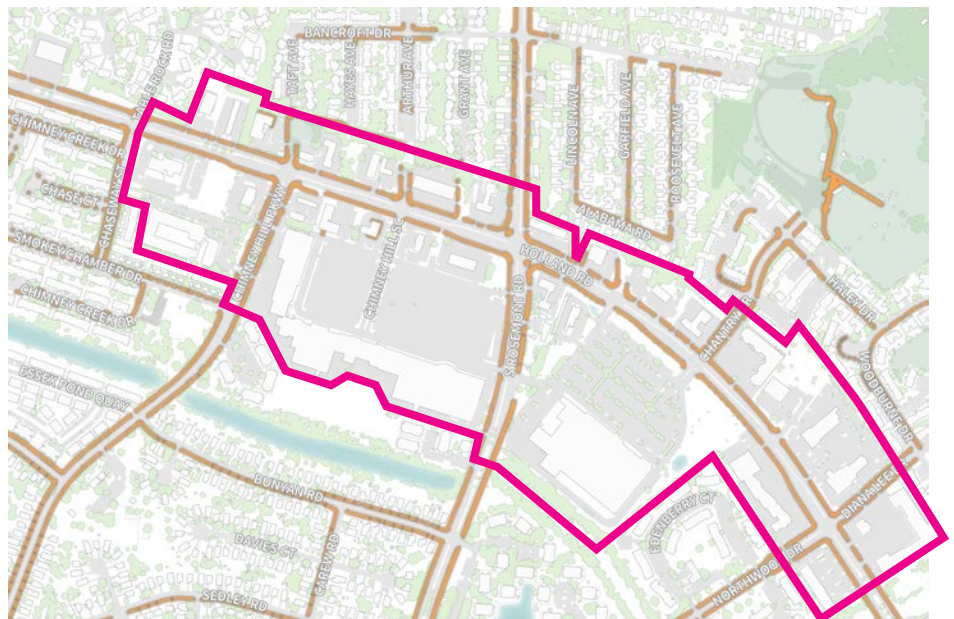
Parking is provided by surface lots in the commercial area. In the residential areas it is provided by driveways. All of the light gray on the map to the right represents parking areas

The orange highlighted areas in the map to the right represent sidewalks. The light gray indicates paved areas designed for vehicles.

### Neighborhood Access

Neighborhood access to this commercial area happens via the main roads. Currently the rear of commercial parcels have a service road and often a natural buffer between neighborhoods and the rear of commercial parcels.

There is a good sidewalk network along public roads here. These sidewalks should be connected to interior sidewalks in commercial properties with painted sidewalks or raised speed tables with visual indicators of pedestrian traffic.

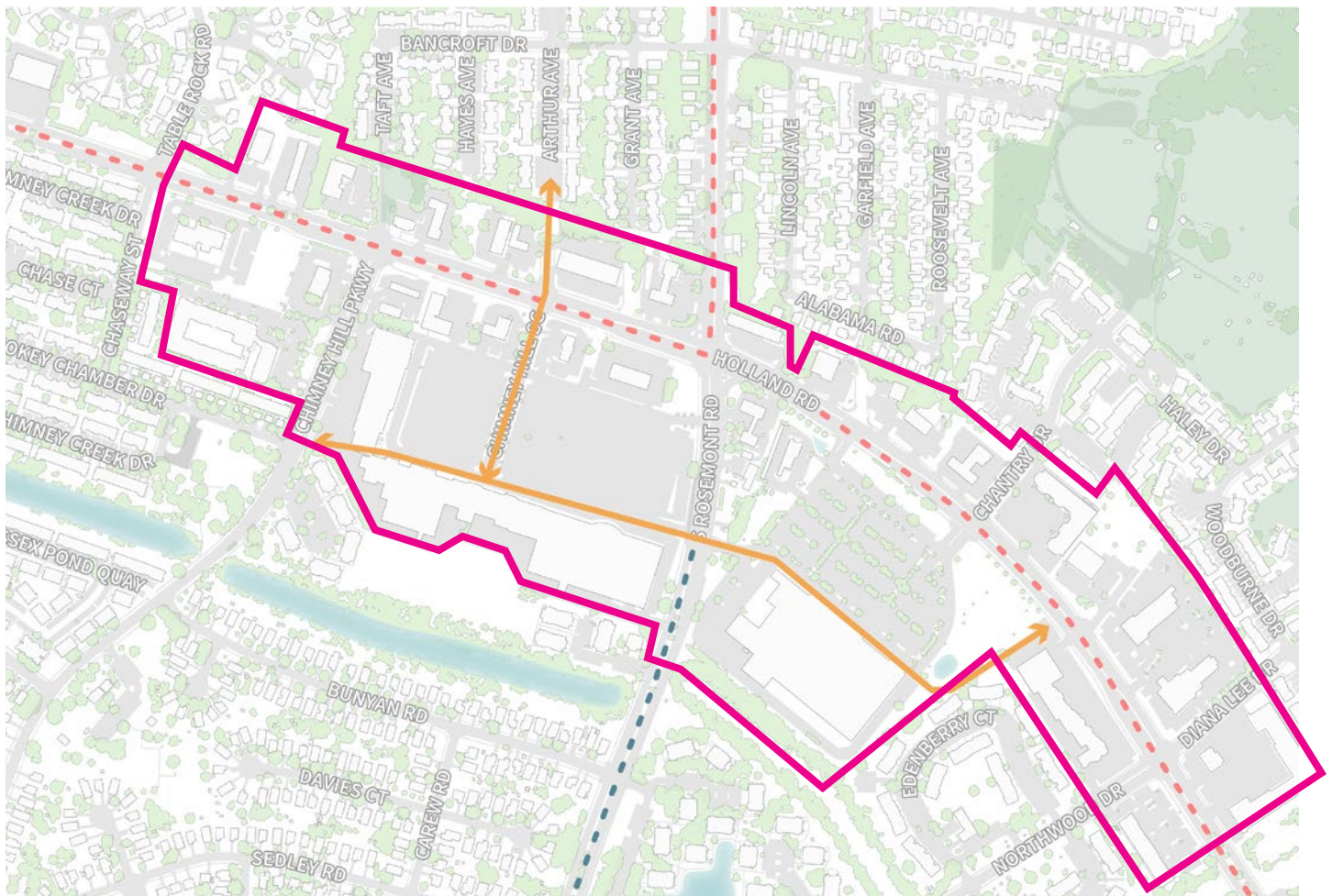


# HOLLAND - ROSEMONT










## IMPROVED CONNECTIONS

The city is continuing to invest in the pedestrian infrastructure in this area, with plans to implement a shared use path and bike lane along Holland Rd and S Rosemont Road. Commercial developments should construct pedestrian-oriented connections to these streets that allow travelers to enter the commercial area while avoiding the congestion that occurs closest to the intersection of the two major streets here.

Pedestrian connections within the commercial areas should feature visual indicators of pedestrian traffic whenever paths may share space with vehicular traffic areas. These should be a combination of signage and contrasting pavement treatment to alert drivers. Orange arrows below indicate potential paths of connection through the commercial areas.



City of Virginia Beach Active Transportation Plan

Existing Facilities	
	Shared Use Paths
	Conventional Bike Lanes (On Road)
	Sidepaths
	Nature Trails
	Recreational Loop
Proposed Facility Type (Current)	
	Shared Use Path
	Protected Bike Lane
	Bike Lane
	Sidepath

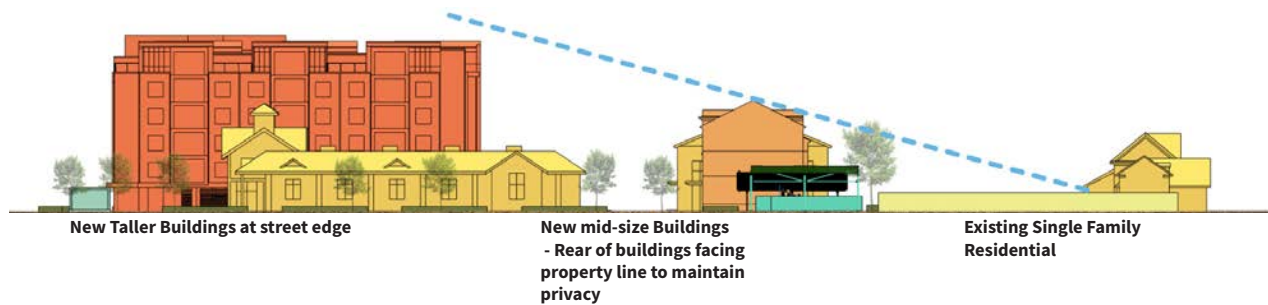
# HOLLAND - ROSEMONT

## NEIGHBORHOOD COMPATIBILITY

The existing neighborhoods surrounding this commercial area are zoned for residential use. Often there are mature trees and water features that act as a buffer between residential and non-residential uses. These residential areas are composed of single-family detached homes, attached town homes, and apartment developments.

The rear of many commercial properties in this area border the yards of private homes. In addition to mature trees separating commercial from residential uses there are often fences and water features making the commercial area distinct and separate from the residential developments. Newer development trends often mix these two uses to increase the market base that the commercial areas have.

New commercial developments adjacent to residential areas should be designed to preserve the private nature of the existing backyards in the residential areas. Effective methods are screening with evergreen trees and limiting building heights within 100 feet of adjacent residential parcels. Below is an example of how tree screening should be used as a buffering method for buildings in this area.



There exists a healthy network of wide pedestrian streets and paths in this area. Most of these paths are located along public roads, with smaller paths located within separate developments. There is currently a lack of continuous connection between these two types of paths. Parking lots between public sidewalks and building entrances create an uncomfortable walking experience despite a relatively short distance.

New commercial development can provide an experiential benefit to adjacent residents by constructing paths that connect residential trails to businesses and public trails.

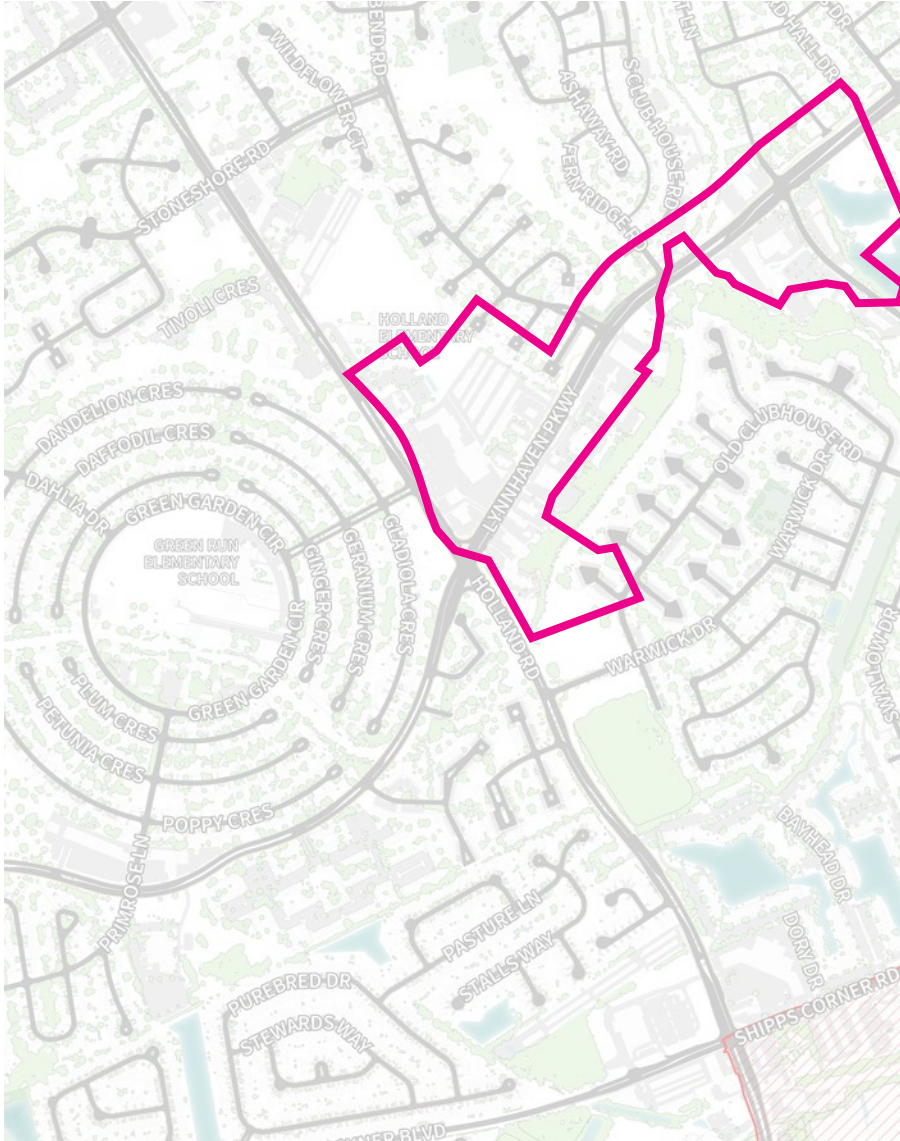
## EXAMPLE IMAGES



# HOLLAND - LYNNHAVEN

## OVERVIEW

The vision of this area is a series of developments in scale with existing context along with targeted public infrastructure improvements. The commercial properties closest the intersection of Holland Rd and Lynnhaven Parkway will have the opportunity to transform themselves into higher intensity uses to take advantage of being outside the limits of the designated Accident Potential Zone related to the nearby naval facility. At the edge of the commercial area, lower intensity development is envisioned to seamlessly connect with local residential neighborhoods.



## DESIGN PRINCIPLES

This commercial area is within the Accident Potential Zone, due to its relationship to Oceana Naval Air Station.

This limits the amount of residential development that can happen here so that in the event of an accident there is minimal damage.

This commercial area primarily serves local families in single family homes. The local population is steadily increasing and the transportation infrastructure should respond with it.

With London Bridge Creek and natural trees lining most of the commercial properties here there's the ability to make a continuous pedestrian trail experience along the tree line of the creek and at the rear of commercial properties.

Focus should be made to enhance existing connections to the commercial area with pedestrian paths and bike-able trails that benefit local residents. These paths can be constructed alongside stormwater features to provide visual interest and education the general public on the important of managing stormwater in this region.

## GOALS

- Improving multi-modal connections to convenient retail will strengthen the existing neighborhoods by providing an accessible community service.
- By meeting the Chesapeake Bay Act's mandates to protect and restore the Lynnhaven River, the Lynnhaven SGA can capitalize on the value of the water and marshlands and transform it into a public open space amenity that becomes part of a recreation network

# HOLLAND - LYNNHAVEN

## SITE SCALES



**Small**



**Medium**



**Large**



# HOLLAND - LYNNHAVEN

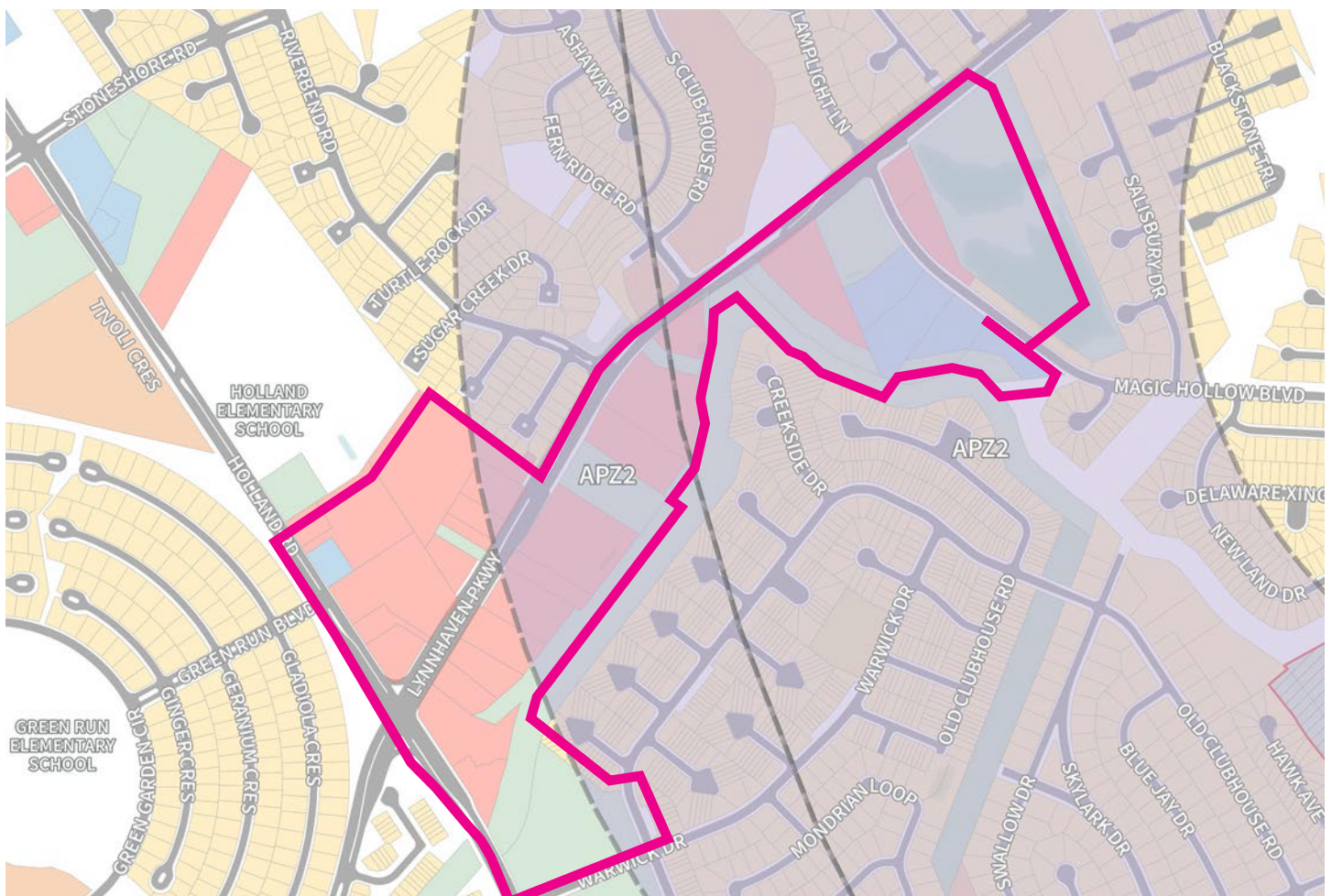
## EXISTING CONDITIONS

The development pattern of the commercial areas is impacted by the APZ requirements of Oceana Naval Air Station. The resulting commercial uses revolve around warehouse uses, restaurants and auto-oriented retail. The parcels outside of the APZ zone feature strip malls but have the potential to support denser residential development if rezoned.

There is a well-established residential neighborhood of singly family homes. The residential communities and commercial areas are both accessed via the same two main roads in this area. Holland Road and Lynnhaven Parkway have seen increased congestion recently as the overall area population has increased.

There are several community amenities nearby, such as parks, small lakes and creeks, and multiple elementary schools. This area is attractive for families looking for a single family home in a quiet landscape. Currently the Lynnhaven Mall area receives a moderate amount of visitors, but there are plans in the future to add additional amenities and residents to that area which may increase the traffic along Lynnhaven Parkway.

There have been successful trails constructed nearby in recent history that are separated from major thoroughfares with landscaped verges of about 10 to 20 feet in width. The city of Virginia Beach plans to build upon the success of these trails by adding a bike path and shared use path to Lynnhaven Parkway and Holland Road respectively.



# HOLLAND - LYNNHAVEN

## EXISTING CONDITIONS

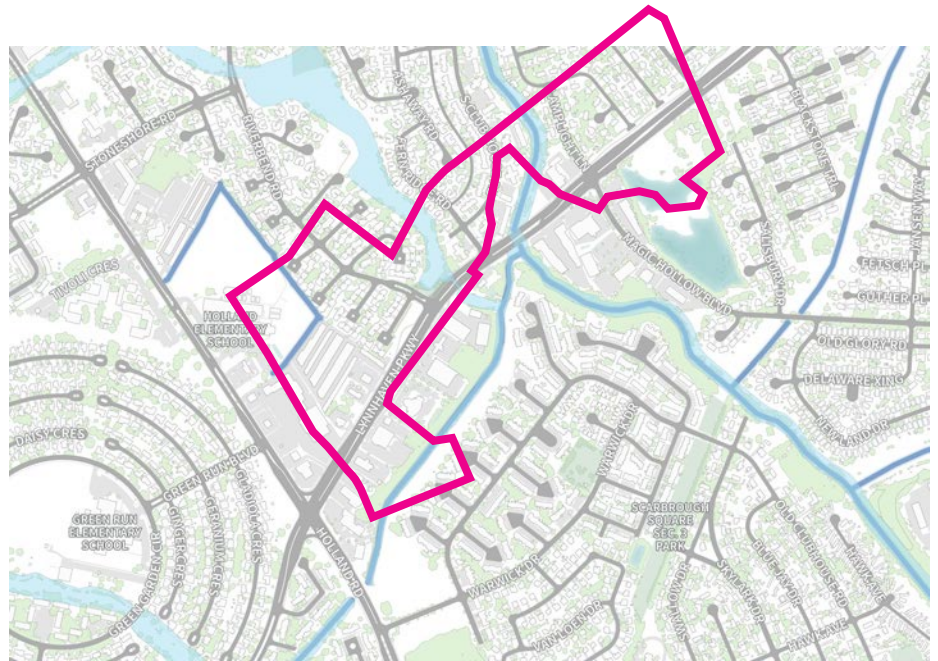
### Street Network

The street network in the residential communities surrounding the commercial area is a cul-de-sac pattern with one or two connections to main roads.

The commercial areas are only connected to the main streets, no neighborhood streets.

### Environmental Conditions

This area is susceptible to localized flooding during extreme storm events. Some commercial properties are adjacent to tributaries of the Lynnhaven River. New developments will incorporate stormwater management practices to mitigate local flooding.



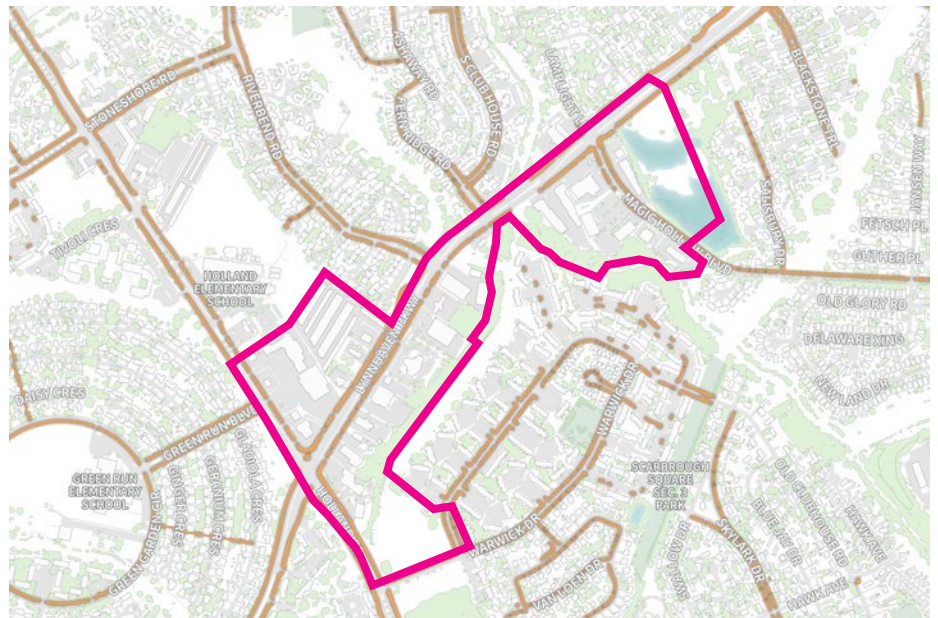
### Parking Conditions

Parking is provided by surface lots in the commercial area. In the residential areas it is provided by driveways. All of the light gray on the map to the right represents parking areas.

The orange highlighted areas in the map to the right represent sidewalks. The light gray indicates paved areas designed for vehicles.

### Neighborhood Access

Neighborhood access to this commercial area happens via the main roads. Currently the rear of commercial parcels have a service road and often a natural buffer between neighborhoods and the rear of commercial parcels.



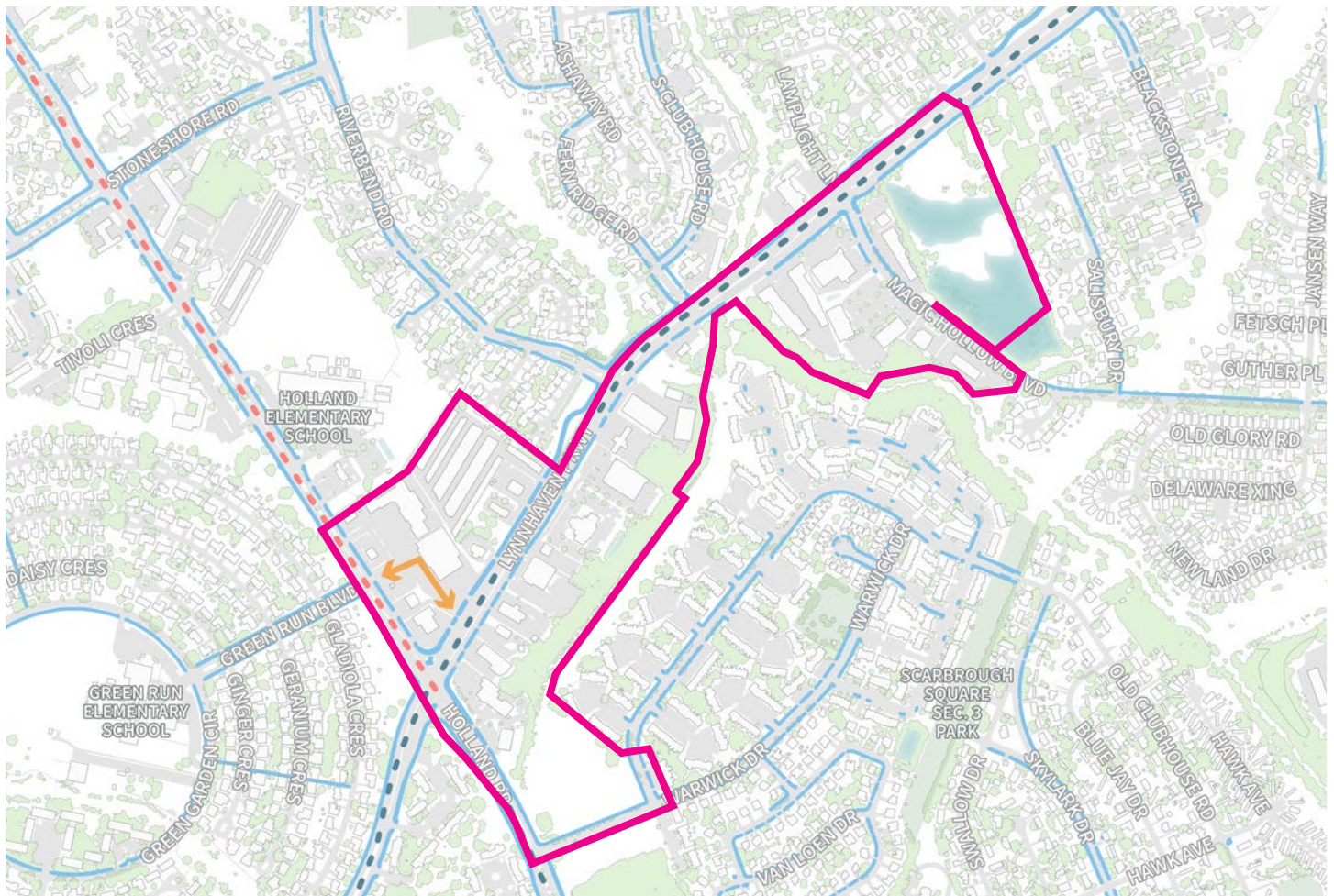
There is a good sidewalk network along public roads here. These sidewalks should be connected to interior sidewalks in commercial properties with painted sidewalks or raised speed tables with visual indicators of pedestrian traffic.

# HOLLAND - LYNNHAVEN

## IMPROVED CONNECTIONS

The eastern commercial properties are all accessed via Lynnhaven Parkway currently. This increased the traffic load and congestion along that street. To ease congestion, developments should endeavor to connect parking lots with drive aisles to benefit from the shared parking possibilities.

The rear of these properties can be lined with a pedestrian path that follows the London Bridge Creek to create a separate path for walking that's comfortable and safe from vehicular traffic. This creek side trail should allow commercial access to those within walking or biking distance.



City of Virginia Beach Active Transportation Plan

Existing Facilities	
	Shared Use Paths
	Conventional Bike Lanes (On Road)
	Sidepaths
	Nature Trails
	Recreational Loop
Proposed Facility Type (Current)	
	Shared Use Path
	Protected Bike Lane
	Bike Lane
	Sidepath



# HOLLAND - LYNNHAVEN

## NEIGHBORHOOD COMPATIBILITY

The existing neighborhoods surrounding this commercial area are zoned for residential use. Often there are mature trees and water features that act as a buffer between residential and non-residential uses. These residential areas are composed of single-family detached homes, and attached town homes.

The rear of many commercial properties in this area border the yards of private homes. In addition to mature trees separating commercial from residential uses there are often fences and water features making the commercial area distinct and separate from the residential developments. Newer development trends often mix these two uses to increase the market base that the commercial areas have.

New commercial developments adjacent to residential areas should be designed to preserve the private nature of the existing backyards in the residential areas. Effective methods are screening with evergreen trees and limiting building heights within 100 feet of adjacent residential parcels. Below is an example of how tree screening should be used as a buffering method for buildings in this area.



There exists a healthy network of wide pedestrian streets and paths in this area. Most of these paths are located along public roads, with smaller paths located within separate developments. There is currently a lack of continuous connection between these two types of paths. Parking lots between public sidewalks and building entrances create an uncomfortable walking experience despite a relatively short distance.

New commercial development can provide an experiential benefit to adjacent residents by constructing paths that connect residential trails to businesses and public trails.

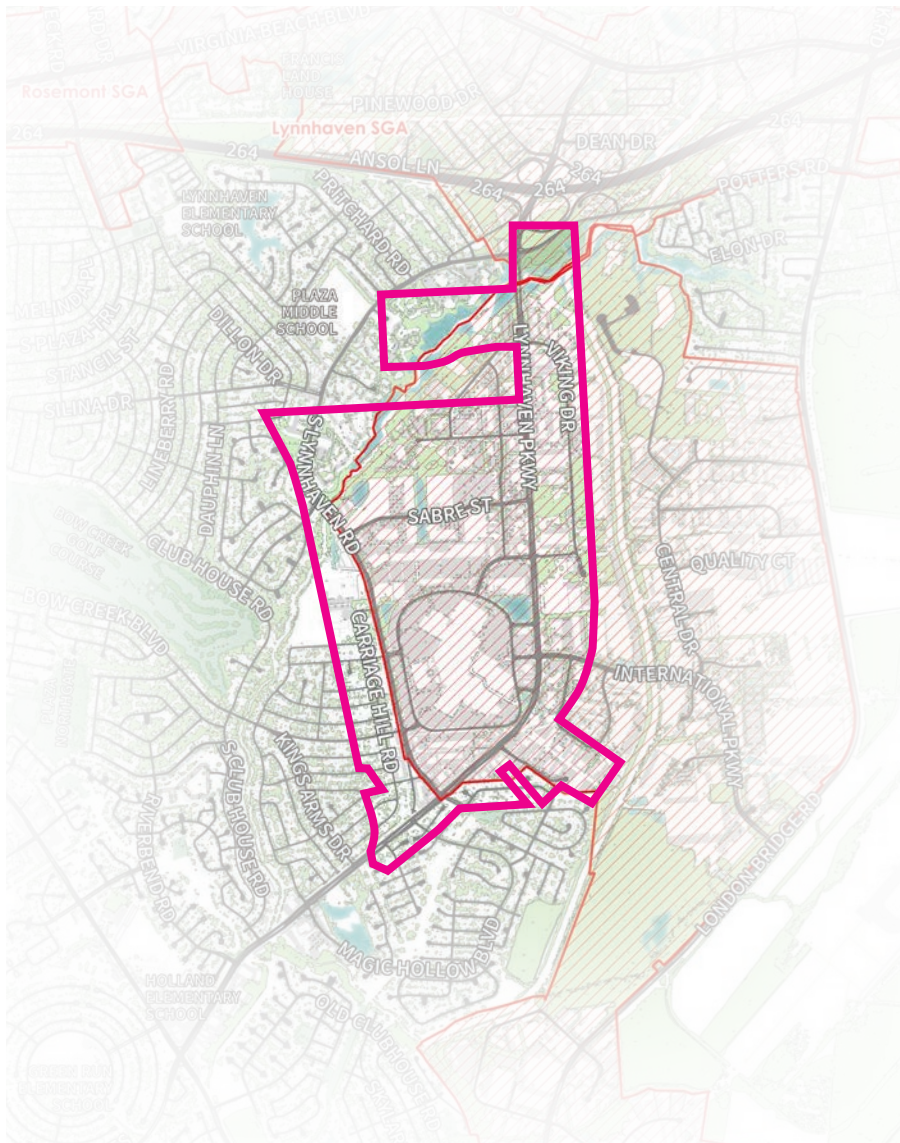
## EXAMPLE IMAGES



# LYNNHAVEN MALL AREA

## OVERVIEW

The Lynnhaven mall area is located directly south of the Lynnhaven SGA and interstate 264. It incorporates a large series of strip mall developments, industrial parks and office buildings surrounding the Lynnhaven Mall. This area is located within the DoD's AICUZ APZ 2 which limits redevelopment to certain uses.



## DESIGN PRINCIPLES

Due to the location of the AICUZ commercial redevelopment in this area should include uses such as agriculture (if feasible), wholesale and manufacturing, commercial and retail services and open space should be incorporated where possible. Redevelopment should also incorporate adequate height restrictions set forth by the FAA /DoD and limit uses including:

- Towers, tall structures or vegetation that would penetrate the navigable airspace near Naval Air Station Oceana
- Uses that would generate smoke, steam or dust
- Uses that would attract birds
- Uses that would produce electromagnetic interference with aircraft communication, navigation, or other electrical systems

## GOALS

- Create successful uses that are compatible with the DoD guidelines set forth in the AICUZ
- Create improved pedestrian connections to and from the commercial and retail spaces found within the Lynnhaven Mall area and increase compatibility of uses with surrounding neighborhoods.

# LYNNHAVEN MALL AREA

## SITE SCALES



**Small**



**Medium**



**Large**



# LYNNHAVEN MALL AREA

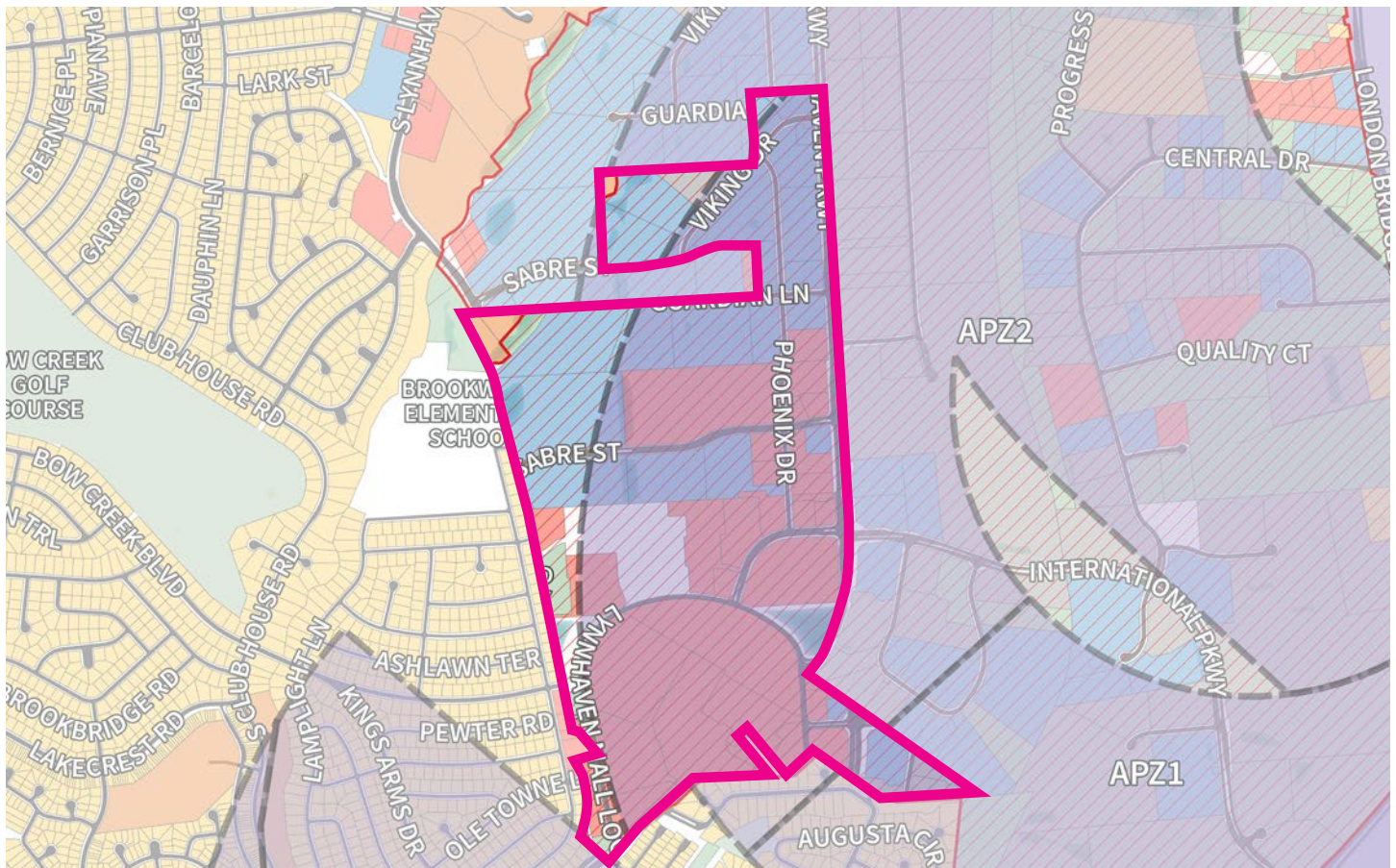
## EXISTING CONDITIONS

The development pattern of the commercial areas is impacted by the APZ requirements of Oceana Naval Air Station. The resulting commercial uses revolve around warehouse uses, restaurants and auto-oriented retail. The parcels outside of the APZ zone feature strip malls but have the potential to support denser residential development if rezoned.

There is a well-established residential neighborhood of single family homes. The residential communities and commercial areas are both accessed via the same two main roads in this area. Holland Road and Lynnhaven Parkway have seen increased congestion recently as the overall area population has increased.

There are several community amenities nearby, such as parks, small lakes and creeks, and multiple elementary schools. This area is attractive for families looking for a single family home in a quiet landscape. Currently the Lynnhaven Mall area receives a moderate amount of visitors, but there are plans in the future to add additional amenities and residents to that area which may increase the traffic along Lynnhaven Parkway.

There have been successful trails constructed nearby in recent history that are separated from major thoroughfares with landscaped verges of about 10 to 20 feet in width. The city of Virginia Beach plans to build upon the success of these trails by adding a bike path and shared use path to Lynnhaven Parkway and Holland Road respectively.

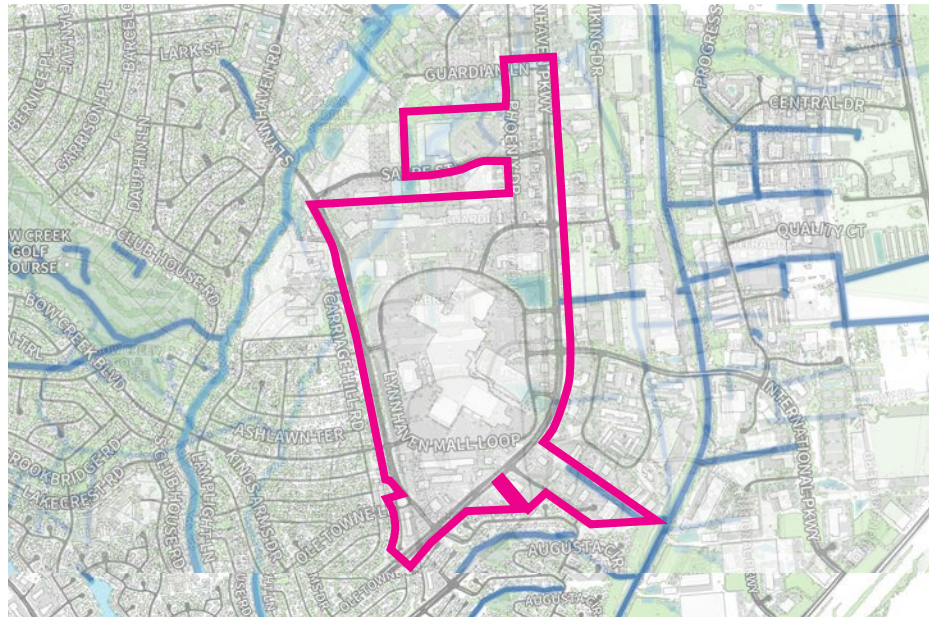


# LYNNHAVEN MALL AREA

## EXISTING CONDITIONS

### Street Network

The main arterial connection to this area is Lynnhaven Parkway running north-south along the eastern edge. S Lynnhaven Road is an interior perimeter road that encompasses the mall and other retail/commercial buildings. This road connects to the exterior residential communities surrounding the commercial area



### Environmental Conditions

This area is susceptible to localized flooding during extreme storm events. Some commercial properties are adjacent to tributaries of the Lynnhaven River. New developments will incorporate stormwater management practices to mitigate local flooding.

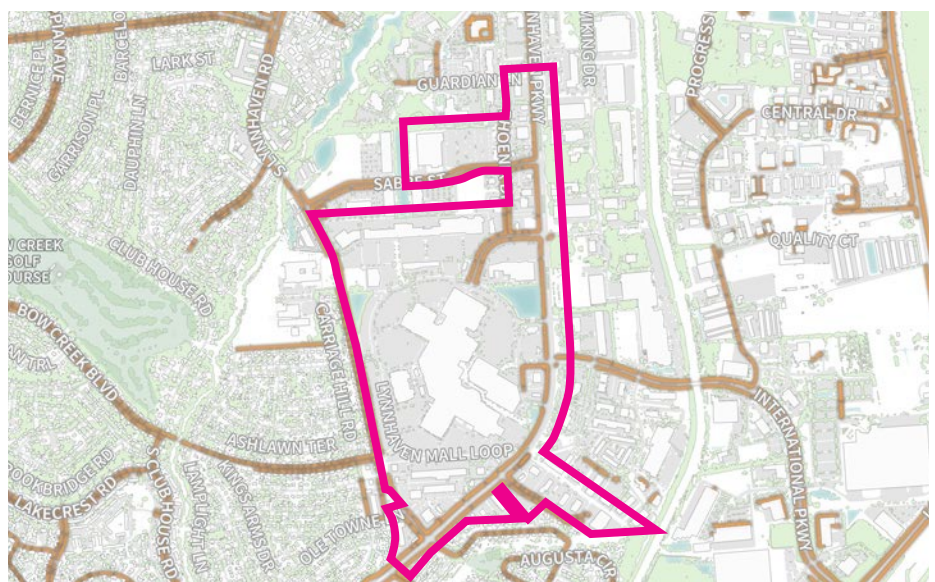
### Parking Conditions

Parking is provided by surface lots in the commercial area. In the residential areas it is provided by driveways. All of the light gray on the map to the right represents parking areas. The orange highlighted areas in the map to the right represent sidewalks. The light gray indicates paved areas designed for vehicles.

### Neighborhood Access

Primary neighborhood access to this area occurs along S Lynnhaven Road and circles around the mall area connecting to Lynnhaven Parkway and interior retail/commercial.

There is a good sidewalk network along public roads here. These sidewalks should be connected to interior sidewalks in commercial properties with painted sidewalks or raised speed tables with visual indicators of pedestrian traffic.

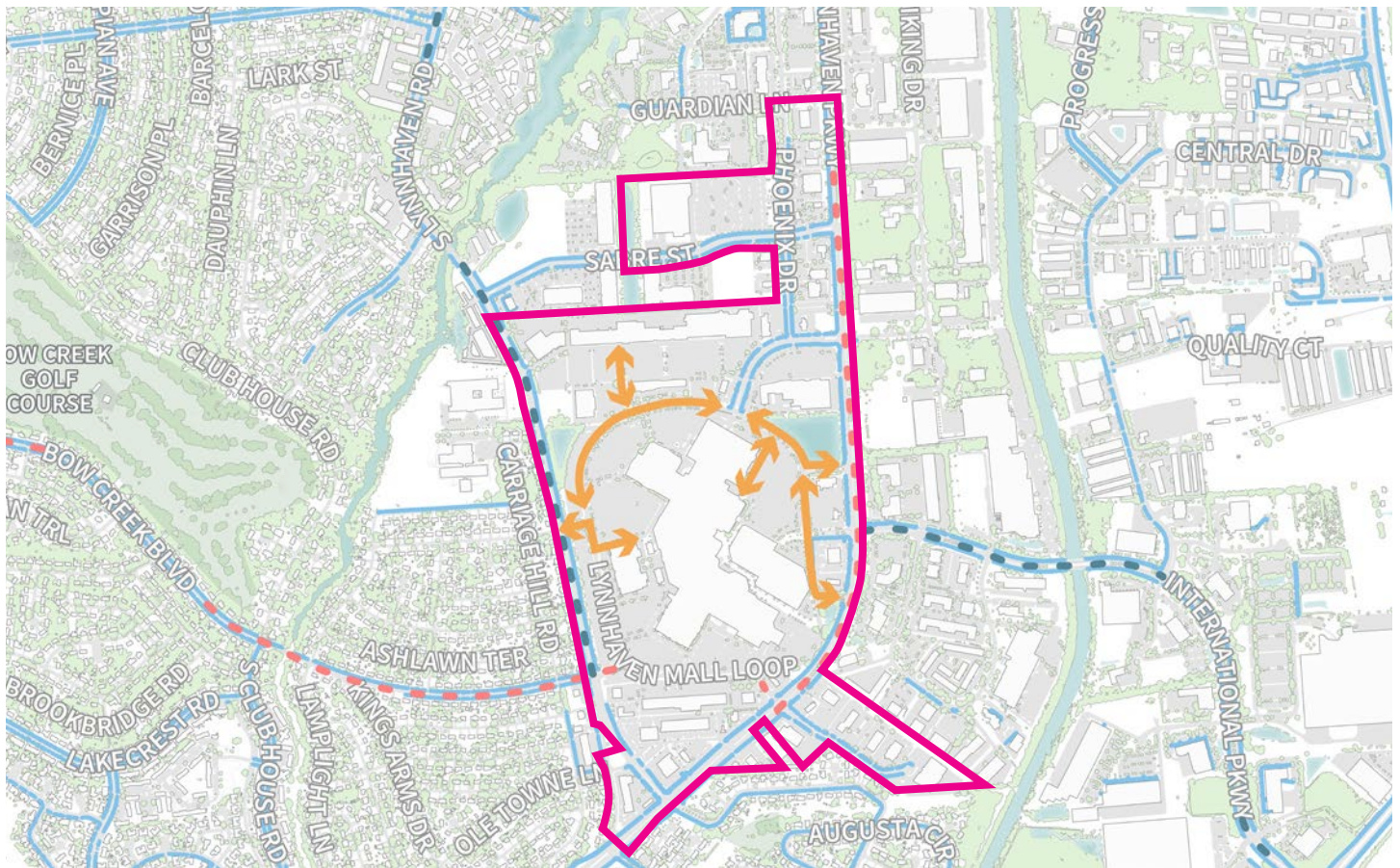


# LYNNHAVEN MALL AREA

## IMPROVED CONNECTIONS

The eastern commercial properties are all accessed via Lynnhaven Parkway currently. This increased the traffic load and congestion along that street. To ease congestion, developments should endeavor to connect parking lots with drive aisles to benefit from the shared parking possibilities.

The rear of these properties can be lined with a pedestrian path that follows the London Bridge Creek to create a separate path for walking that's comfortable and safe from vehicular traffic. This creek side trail should allow commercial access to those within walking or biking distance.



Existing Facilities	
	Shared Use Paths
	Conventional Bike Lanes (On Road)
	Sidepaths
	Nature Trails
	Recreational Loop
Proposed Facility Type (Current)	
	Shared Use Path
	Protected Bike Lane
	Bike Lane
	Sidepath

City of Virginia Beach Active Transportation Plan

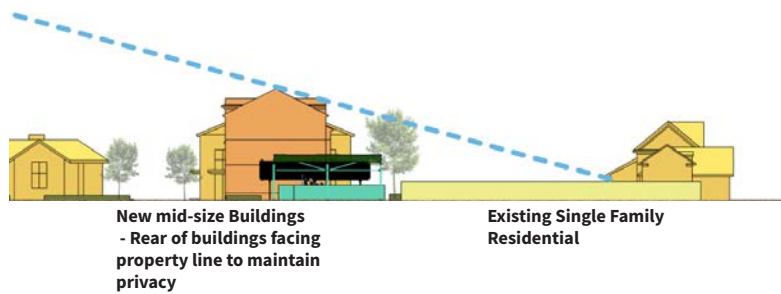
# LYNNHAVEN MALL AREA

## NEIGHBORHOOD COMPATIBILITY

The existing neighborhoods surrounding this commercial area are zoned for residential use. Often there are mature trees and water features that act as a buffer between residential and non-residential uses. These residential areas are composed of single-family detached homes, and attached town homes.

The rear of many commercial properties in this area border the yards of private homes. In addition to mature trees separating commercial from residential uses there are often fences and water features making the commercial area distinct and separate from the residential developments. Newer development trends often mix these two uses to increase the market base that the commercial areas have.

New commercial developments adjacent to residential areas should be designed to preserve the private nature of the existing backyards in the residential areas. Effective methods are screening with evergreen trees and limiting building heights within 100 feet of adjacent residential parcels. Below is an example of how tree screening should be used as a buffering method for buildings in this area.



A healthy network of wide pedestrian streets and paths exist in this area. Most of these paths are located along public roads, with smaller paths located within separate developments. There is currently a lack of continuous connection between these two types of paths. Parking lots between public sidewalks and building entrances create an uncomfortable walking experience despite a relatively short distance.

New commercial development can provide an experiential benefit to adjacent residents by constructing paths that connect residential trails to businesses and public trails.

## EXAMPLE IMAGES



# HILLTOP TO RESORT AREA

## OVERVIEW

The vision for the Commercial Area between Hilltop and Resort area includes a low-density buffer of development along the Laskin Road corridor to serve the resort-style residential neighborhoods immediately adjacent. The residential community to the north surrounds a golf course and many residents have personal vehicles to travel from their homes to golf courses. This embodies the relaxed and comfortable lifestyle that's characteristic of this commercial area on the border of the Resort SGA in Virginia Beach.



## DESIGN PRINCIPLES

This commercial area is beside some of the most luxurious homes in the area. The northern residential community is located around a golf course, with access to a yacht club and beachfront amenities within walking distance there's a lot do in this area.

The residential character on the southern side of Laskin Rd is much more dense with townhomes, apartments, and relatively closely spaced single family homes.

There is a sufficient vehicular infrastructure here with roadways of up to 8 lanes in combined width. Most lighted intersections in the area don't have crosswalks, which poses a danger to pedestrians attempting to walk to shops on the other side of Laskin Road

A number of capital improvement projects are planned in this area, including gateway art that defines the area as well as a bike path planned for N Birdneck Road

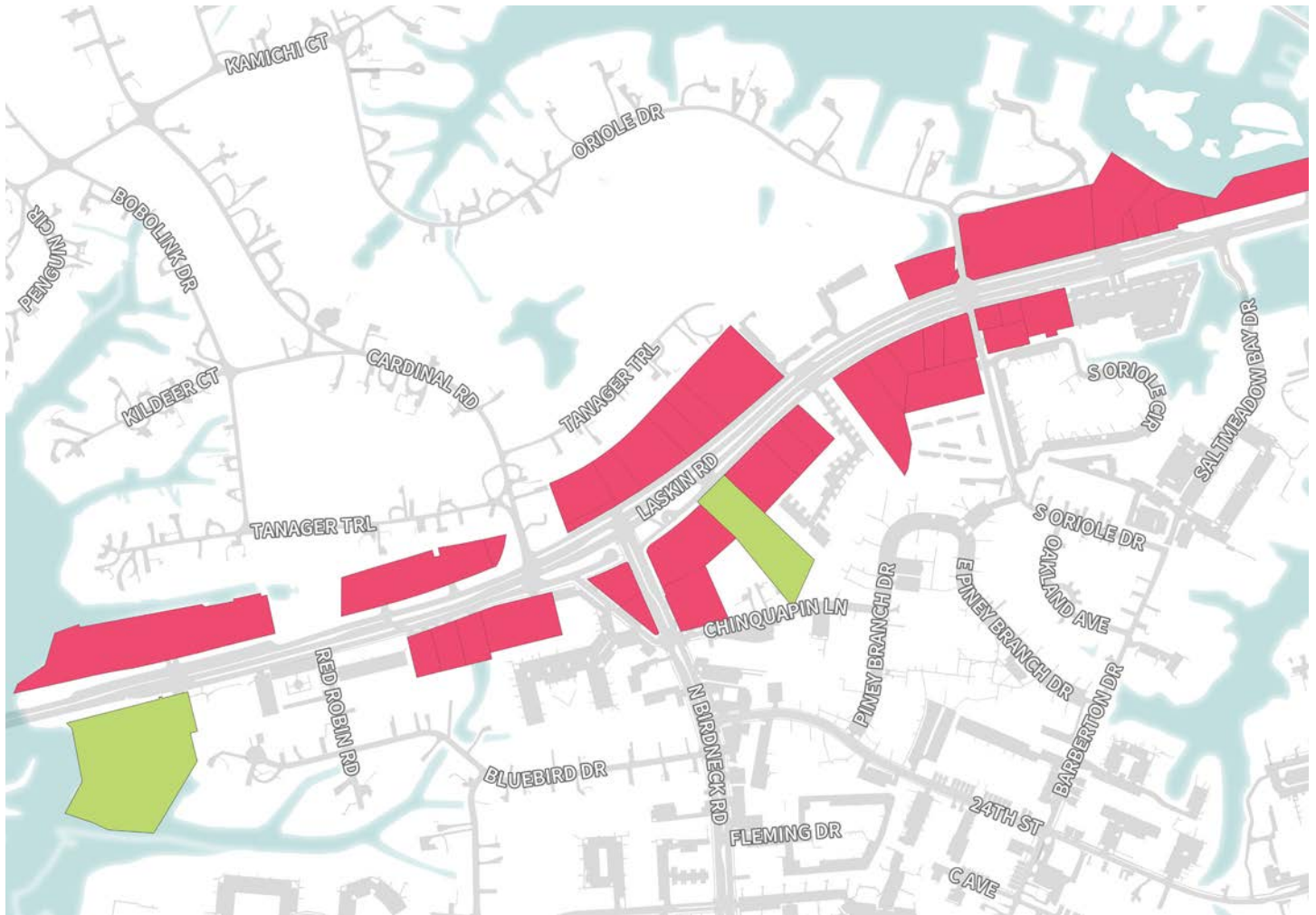
## GOALS

- Build upon the existing natural resources to extend the resort experience to public open space through an interconnected system of parks and trails.
- Support mixed-use developments that will be necessary to achieve the goal of a year-round resort and will enable the area to become a walkable place.
- Improve traffic calming, pedestrian circulation, bike circulation, vehicular circulation, and parking availability.



# HILLTOP TO RESORT AREA

## SITE SCALES



**Small**



**Medium**



**Large**



Relatively small parcels make up the majority of this study area. All parcels are accessed via Laskin Rd and/or N Birdneck Road. Existing parcels have vehicular entrances separate from adjacent parcels. The close proximity of these small lots allows the possibility of connected parking lots and utilizing shared parking.

Medium sized lots here are adjacent to the densest housing types in this area and should be able to support mixed-use development that's constructed with respect to the style and scale of adjacent homes.

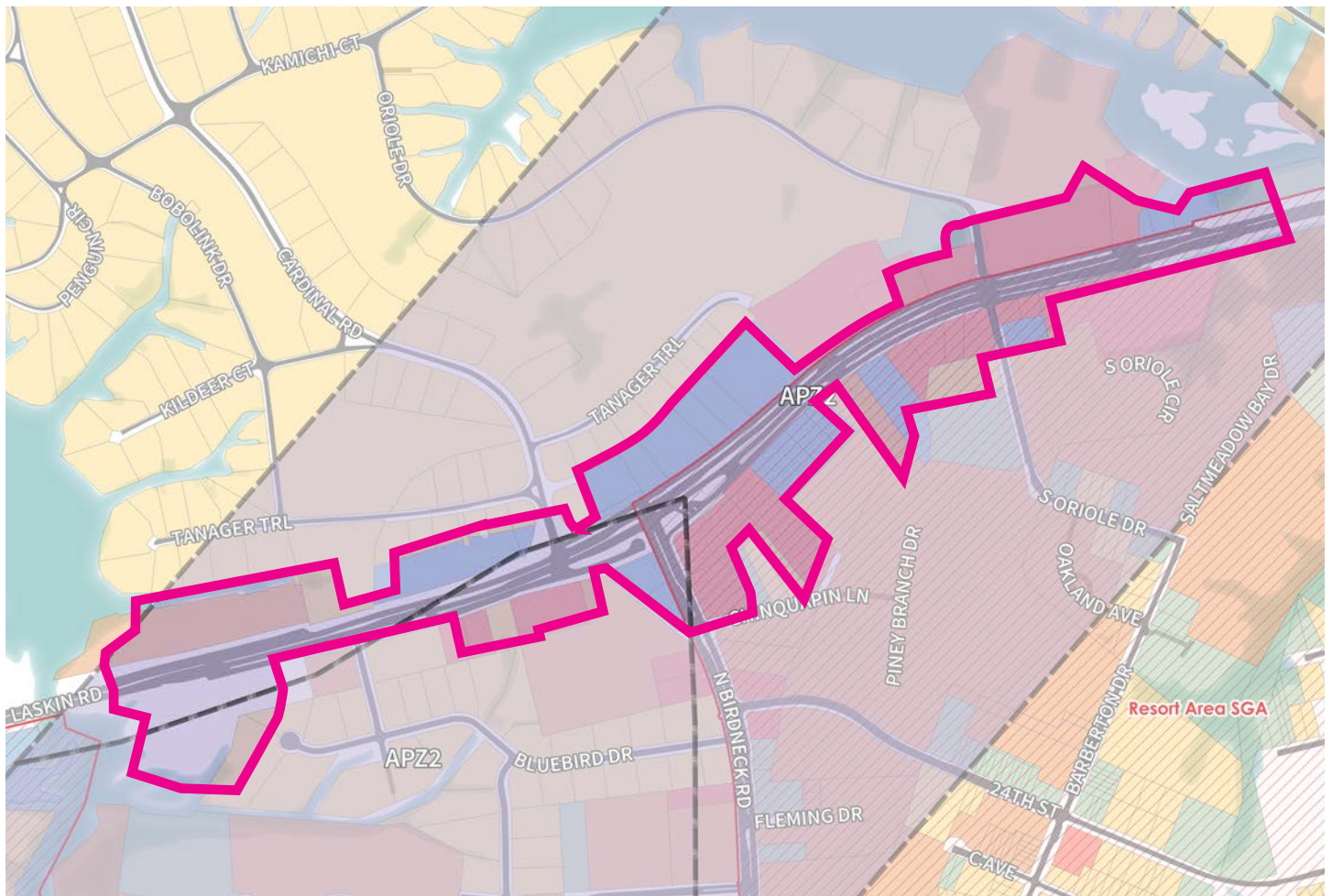
# HILLTOP TO RESORT AREA

## EXISTING CONDITIONS

This commercial area exists at the base of a peninsula into Linkhorn Bay. The commercial corridor is located along Laskin Road which is a major thoroughfare that people drive to commute to the oceanfront. This entire commercial area is within the boundaries of the Accident Potential Zone, with close proximity to Oceana Naval Air Station.

Most commercial parcels in this area offer services for local residents such as fine dining, religious venues, retail, organic grocery and personal services. In addition there are business catered to resort area visitors with access to waterways to launch boats and biking tours of the area.

Commercial parcels here are accessed from the main road and are most safely travelled to by car. There are few sidewalks, crosswalks, or designated areas for pedestrians to walk.



# HILLTOP TO RESORT AREA

## EXISTING CONDITIONS

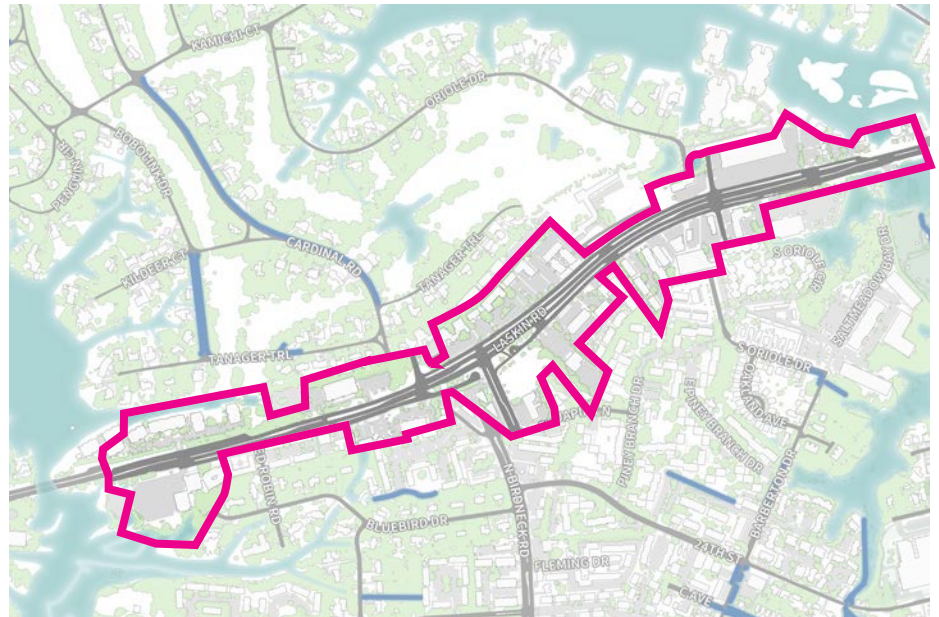
### Street Network

The street network in the residential communities surrounding the commercial area is a cul-de-sac pattern with one or two connections to main roads.

The commercial areas are only connected to the main streets, no neighborhood streets.

### Environmental Conditions

This area is susceptible to flooding from storm surge as well as localized flooding during major rain events. Some commercial properties are adjacent to tidally influenced bodies of water.



New developments will benefit from close proximity to water, but must incorporate stormwater management practices to mitigate local flooding.

### Parking Conditions

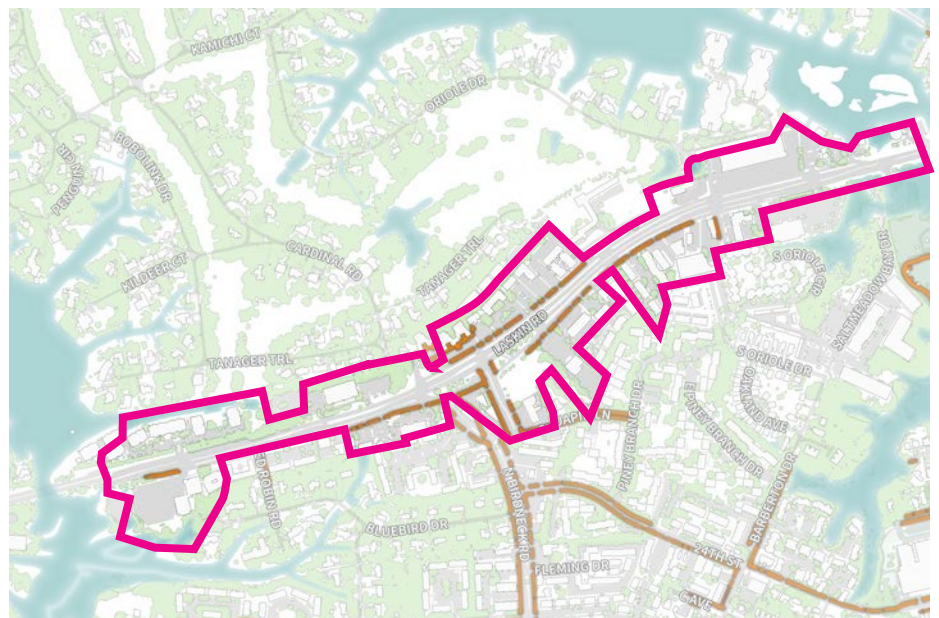
Parking is provided by surface lots in the commercial area. In the residential areas it is provided by driveways. All of the light gray on the map to the right represents parking areas.

The orange highlighted areas in the map to the right represent sidewalks. The light gray indicates paved areas designed for vehicles.

### Neighborhood Access

Neighborhood access to this commercial area happens via the main roads. Currently the rear of commercial parcels have a service road and often a natural buffer between neighborhoods and the rear of commercial parcels.

There is a good sidewalk network along public roads here. These sidewalks should be connected to interior sidewalks in commercial properties with painted sidewalks or raised speed tables with visual indicators of pedestrian traffic.

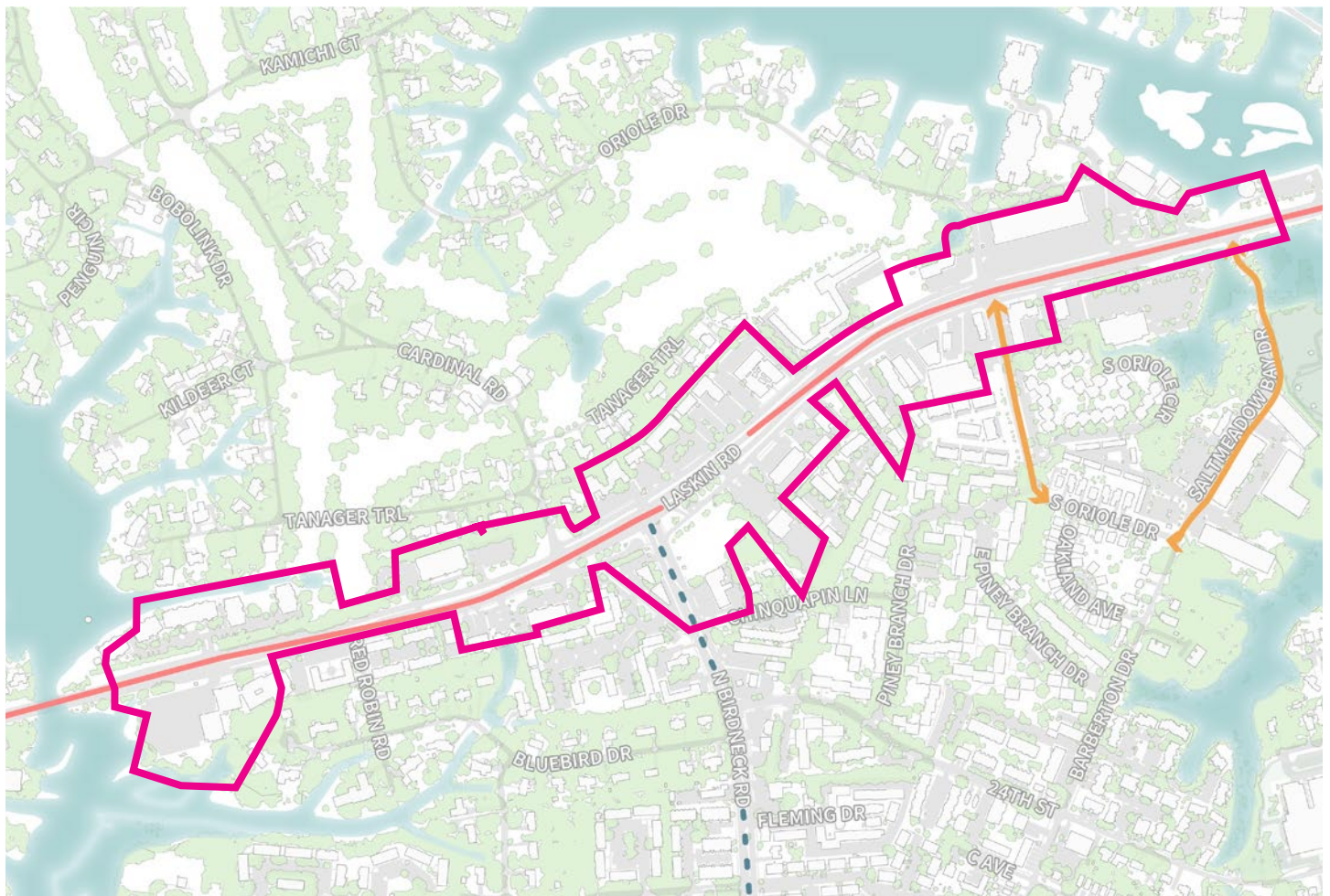


# HILLTOP TO RESORT AREA

## IMPROVED CONNECTIONS

The residential community to the north must travel to this commercial area by car based on the current condition of connections. As there are only a couple roads leading to the main road, congestion is a strong possibility as these parcels are developed. Offering an alternative to driving to residents of the golf-course community is likely here as many homeowners have personal vehicles that can be operated on smaller paths.

Residential parcels to the south should be enhanced with biking and walking connections up to the commercial areas of Laskin Road. These can be constructed along existing streets, between the road and the natural lands cape of mature trees and bodies of water.



City of Virginia Beach Active Transportation Plan

Existing Facilities	
	Shared Use Paths
	Conventional Bike Lanes (On Road)
	Sidepaths
	Nature Trails
	Recreational Loop
Proposed Facility Type (Current)	
	Shared Use Path
	Protected Bike Lane
	Bike Lane
	Sidepath

# HILLTOP TO RESORT AREA

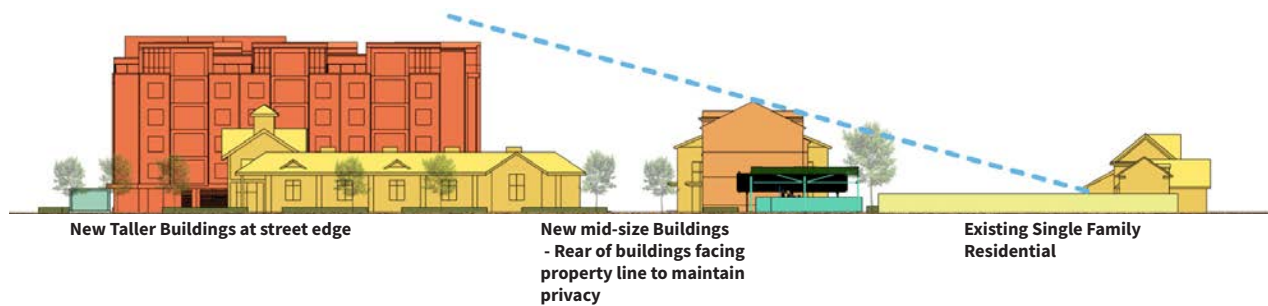
## NEIGHBORHOOD COMPATIBILITY

The existing neighborhoods surrounding this commercial area are zoned for residential use. Often there are mature trees and water features that act as a buffer between residential and non-residential uses. These residential areas are composed of single-family detached homes, and attached townhomes.

The rear of many commercial properties in this area border the yards of private single family homes. In these instances , new commercial development should maintain the serenity of that private yard by buffering the rear a tree lined street with a wide sidewalk between the rear of both properties.

In instances where commercial property abuts a residential development with amultiple owners, there should be an attempt made to create a pathway that may allow those within biking or walking distance to travel to commercial areas without using a car.

The neighborhood is home to several retirees and vacationers so it has a relaxed characterthat commercial developments should embrace. Constructing park-like places for resting and well-lit continuous tree-lined paths for people to walk from their homes to individual businesses comfortably should be a goal of new development.



There exists a healthy network of wide pedestrian streets and paths in this area. Most of these paths are located along public roads, with smaller paths located within seperate developments. There is currently a lack of continuous connection between these two types of paths. Parking lots between public sidewalks and building entrances create an uncomfortable walking experience despite a relatively short distance.

New commercial development can provide and experiential benefit to adjacent residents by constructing paths that connect residential trails to businesses and public trails.

## EXAMPLE IMAGES

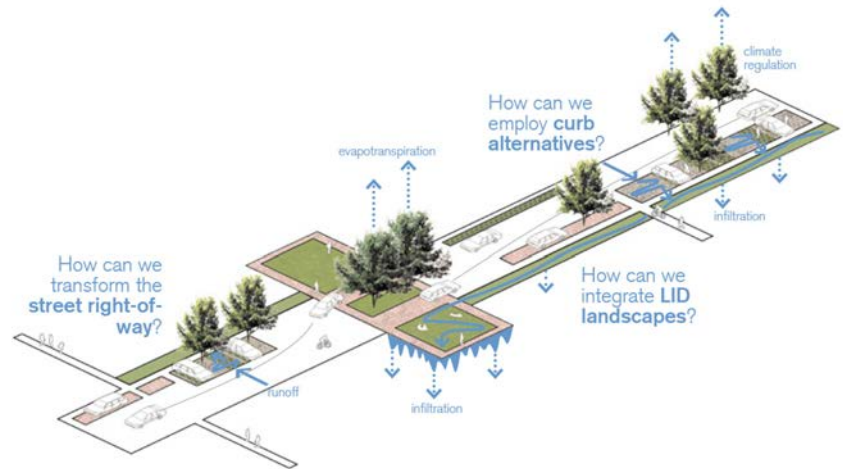


# LOW IMPACT DEVELOPMENT (LID) DESIGN MANUAL

## Stormwater Management

The Low Impact Development (LID) design manual for urban areas was developed by the University of Arkansas Community Design Center to facilitate design improvements and practices with regards to stormwater management throughout all avenues of development and home ownership. The following examples illustrate both “hard engineering” using such infrastructure as pipes and pumps and “soft engineering” which the LID favors and utilizes the natural environment and landscape in order to provide positive impacts on handling stormwater and runoff.

The following practices can and should be implemented where possible in commercial redevelopment opportunities in an effort to improve stormwater management and flood resiliency.

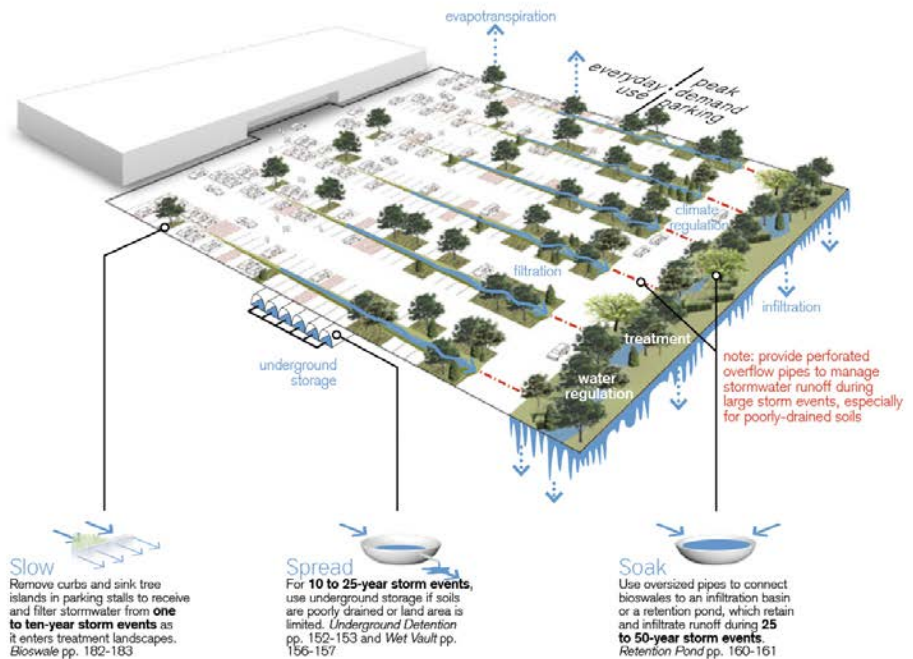


### Pixelated Parking

Reduce impervious surfaces by pixelating the parking surface with LID paving and landscapes.

An intrinsically adaptive solution, ideal for retrofits, pixel configurations propose localized replacement of impervious surfaces with absorbent landscape islands and pervious paving. Recognizing that the outer 40 percent of many commercial parking lots are only used during peak demand twice a year, the lot frontage offers an excellent public garden without sacrificing parking capacity. The pixelated parking solution reduces stormwater runoff through the addition of trees and pervious paving, eliminating the need for conventional pipe-and-pond solutions.

Water from impervious drive aisles flows to the pervious parking stalls, slowing and redistributing runoff. Through curb cuts (see “Curb Alternatives” pp. 96-97), or flush curbs, the water is directed to vegetated islands, which are connected by a bioswale or underground oversized pipe. Peak flows eventually end in an overflow infiltration basin for groundwater recharge. If space is unavailable for an infiltration basin or other detention facility, stormwater can be detained in an underground storage facility for slow release into the municipal stormwater system.



Low Impact Development  
A design manual  
for urban areas

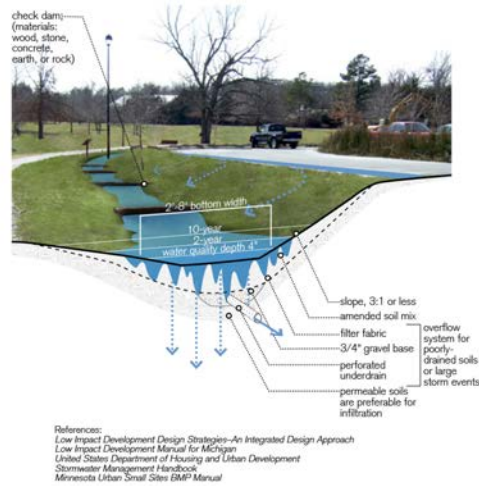
Fay Jones School Of Architecture  
University Of Arkansas Press  
A Collaboration  
Fayetteville 2010



# Stormwater Management

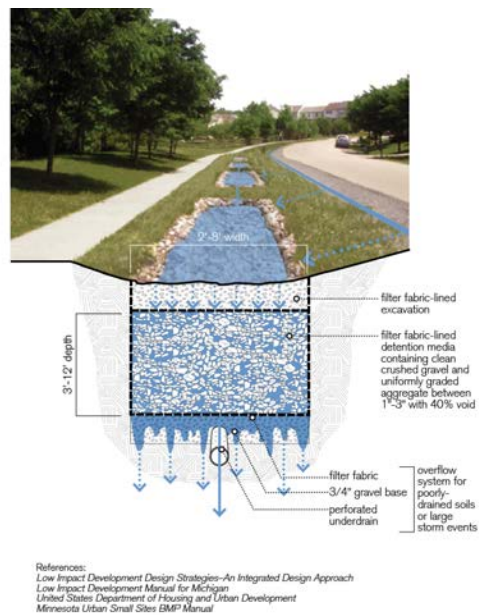
## Dry Swale

A dry swale, or grassed swale, is an open grassed conveyance channel that filters, attenuates, and detains stormwater runoff as it moves downstream.



## Infiltration Trench

Infiltration trenches are laminated systems with fabric-lined excavations atop a fabric-lined reservoir to increase infiltration.



**Low Impact Development**  
 A design manual  
 for urban areas

Fay Jones School Of Architecture  
 University Of Arkansas Press  
 A Collaboration  
 Fayetteville 2010

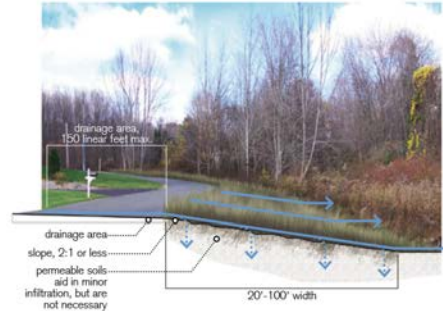


[http://www.bwdh2o.org/wp-content/uploads/2012/03/Low\\_Impact\\_Development\\_Manual-2010.pdf](http://www.bwdh2o.org/wp-content/uploads/2012/03/Low_Impact_Development_Manual-2010.pdf)

# Stormwater Management

## Filter Strip

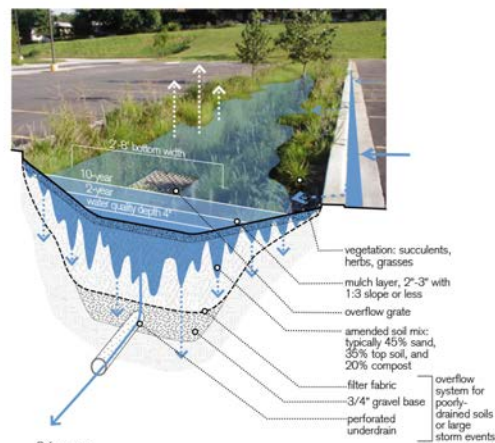
A filter strip is a sloped medium that attenuates stormwater runoff by converting it into sheet flow, typically located parallel to an impervious surface such as a parking lot, driveway, or roadway.



References:  
 Low Impact Development Design Strategies--An Integrated Design Approach  
 Low Impact Development Manual for Michigan  
 United States Department of Housing and Urban Development  
 Minnesota Urban Small Sites EMP Manual

## Bioswale

A bioswale is an open, gently sloped, vegetated channel designed for treatment and conveyance of stormwater runoff.



References:  
 Low Impact Development Design Strategies--An Integrated Design Approach  
 Low Impact Development Manual for Michigan  
 Low Impact Development Technical Guidance Manual for Puget Sound  
 United States Department of Housing and Urban Development  
 Minnesota Urban Small Sites EMP Manual

**Low Impact Development**  
 A design manual  
 for urban areas

Fay Jones School Of Architecture  
 University Of Arkansas Press  
 A Collaboration  
 Fayetteville 2010

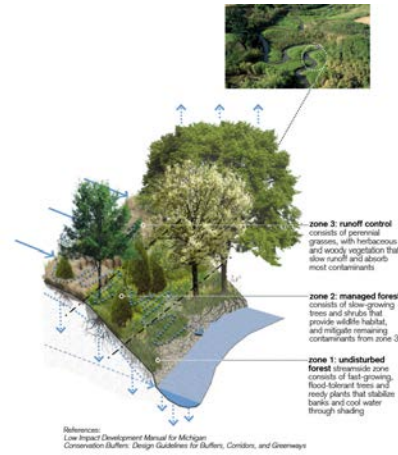




# Stormwater Management

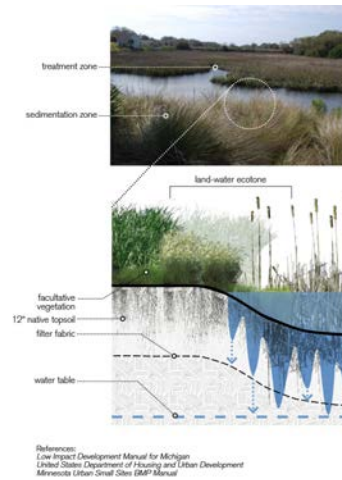
## Riparian Buffer

A riparian buffer is a strip of hydric soil with facultative vegetation along the banks of a river or stream offering niche ecotone services.



## Constructed Wetland

Constructed wetlands are artificial marshes or swamps with permanent standing water that offer a full range of ecosystem services to treat polluted stormwater.



**Low Impact Development**  
 A design manual  
 for urban areas

Fay Jones School Of Architecture  
 University Of Arkansas Press  
 A Collaboration  
 Fayetteville 2010

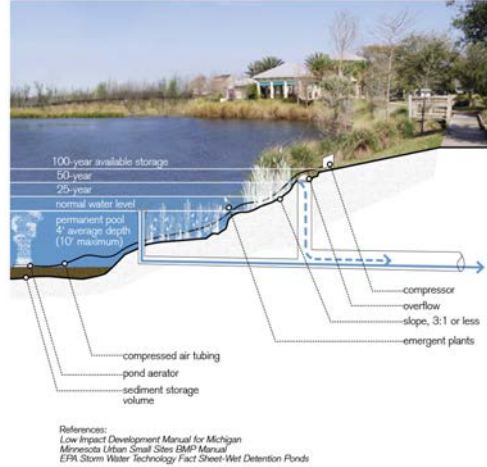


## Retention Pond

A retention pond, also known as a wet pool or wet pond, is a constructed stormwater pond that retains a permanent pool of water, with minor biological treatment.

Wet ponds remove pollutants through biological uptake processes and sedimentation. The amount of pollutants that are removed from stormwater runoff is proportionate to the length of time runoff remains in the pond, as well as the relation of runoff to retention pond volume. Since retention ponds must maintain a permanent pool, they cannot be constructed in areas with insufficient precipitation or highly permeable soils, unless the soil is compacted or overlain with clay. Generally, continual drainage inputs are required to maintain permanent pool levels.

One advantage of a retention pond is the presence of aquatic habitat when properly planted and maintained. The use of a pond aerator is necessary to prevent stagnation and algal growth that can lead to eutrophication, or an anaerobic environment. A balanced aerobic environment is a necessary condition for aquatic life and pest control. Regular maintenance inspections are needed to ensure proper drainage, aerobic functioning and aeration, and vegetative health. Trash, debris, and sediment will need to be removed periodically.

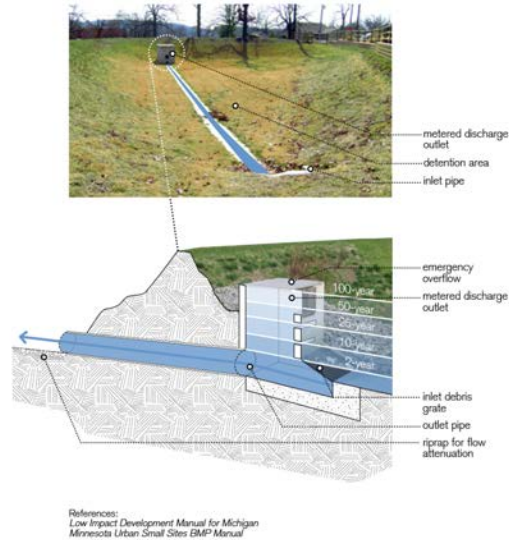


## Detention Pond

Detention ponds, or dry ponds, are stormwater basins designed to intercept stormwater runoff for temporary impoundment and metered discharge to a conveyance system or a receiving waterbody.

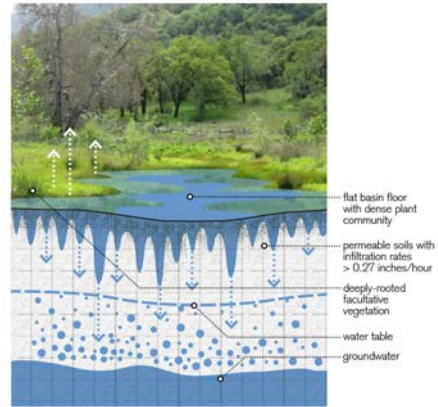
Detention ponds are designed to completely evacuate water from storm events, usually within 24 hours. They primarily provide runoff volume control reducing peak flows that cause downstream scouring and loss of aquatic habitat. As a general rule, detention ponds should be implemented for drainage areas greater than 10 acres. On smaller sites it may be difficult to provide control since outlet diameter specifications needed to control small storm events are small and thus prone to clogging. Also, treatment costs per acre are reduced when implemented at larger scales.

Re-suspension of settled material is a large concern in these systems, requiring periodic sediment, debris, and pollutant removal. Detention ponds do not provide infiltration and are therefore best used within a network that provides biological treatment.



## Infiltration Basin

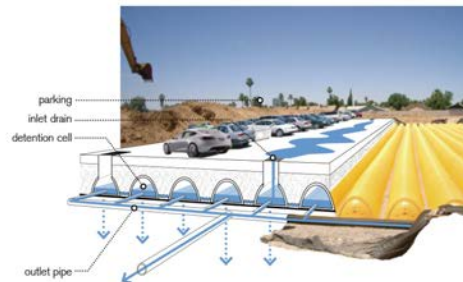
Infiltration basins, or wet meadows, are shallow impound areas with highly permeable soils designed to temporarily detain and infiltrate stormwater runoff. They do not retain a permanent pool of water.



References:  
*Low Impact Development Manual for Michigan*  
*Minnesota Urban Small Sites BMP Manual*

## Underground Detention

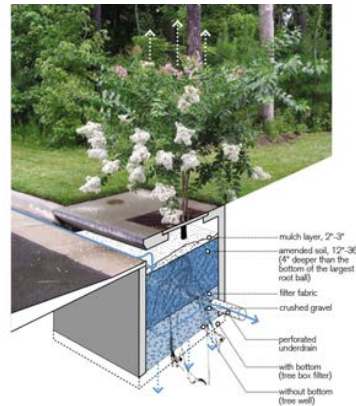
Underground detention systems detain stormwater runoff prior to its entrance into a conveyance system.



References:  
*Low Impact Development Manual for Michigan*  
*Urban Design Tools-Low Impact Development*  
*Minnesota Urban Small Sites BMP Manual*

## Tree Box Filter

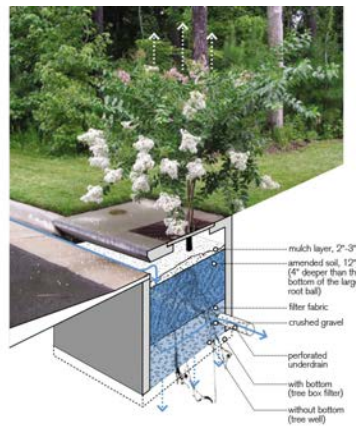
A tree box filter or in ground well consists of a container filled with amended soil and planted with a tree, underlain by crushed gravel media.



References:  
Low Impact Development Manual for Michigan  
Urban Design Tools-Low Impact Development  
Minnesota Urban Small Sites (BMP) Manual

## Tree Box Filter

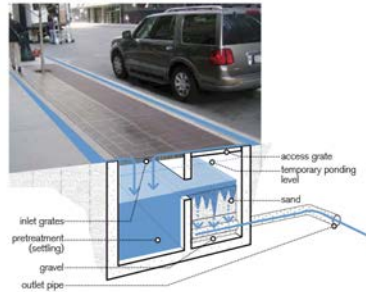
A tree box filter or in ground well consists of a container filled with amended soil and planted with a tree, underlain by crushed gravel media.



References:  
Low Impact Development Manual for Michigan  
Urban Design Tools-Low Impact Development  
Minnesota Urban Small Sites (BMP) Manual

## Underground Sand Filter

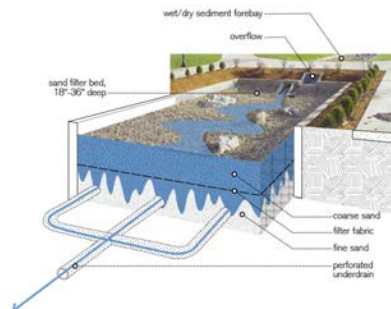
An underground sand filter is a three chambered system that pretreats, filters, and temporarily stores the first flush of stormwater runoff.



References:  
Low Impact Development Manual for Michigan  
Minnesota Urban Small Sites BMP Manual

## Surface Sand Filter

Also known as a filtration basin, a surface sand filter utilizes a flow splitter, wet/dry sediment forebay, and sand filter bed to manage nutrient loads in the first flush of runoff.



References:  
Low Impact Development Manual for Michigan  
Minnesota Urban Small Sites BMP Manual



Virginia Beach Commercial Area Pattern Book

October 2022