

# THE VILLAGE AT COAKLEY BAY

THE UNITED STATES VIRGIN ISLANDS' GOVERNMENT EMPLOYEES RETIREMENT SYSTEM

## PLANNED AREA DEVELOPMENT

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ESTATE COAKLEY BAY . EAST END QUARTER "B"

ST. CROIX | U.S. VIRGIN ISLANDS

December 11, 2012



THE VILLAGE AT COAKLEY BAY - CONTINUING A PROUD BUILDING TRADITION

This document is intended to create a sustainable conservation and building culture for the Virgin Islands Government Employees Retirement System’s properties, Remainder of Matricular No. 1, Remainder of Matricular No. 15 & Matricular No. 16-B all of Estate Coakley Bay, East End Quarter, St. Croix, U.S. Virgin Islands. Its fundamental purpose is to serve as a guide for development, and other future deliberations and decisions that affect the way people build and live within these boundaries. This proposal advocates the building of civil communities, the pursuit of economically and environmentally sustainable development practices, and the building of places that are useful, meaningful and beneficial to the residents of St. Croix.

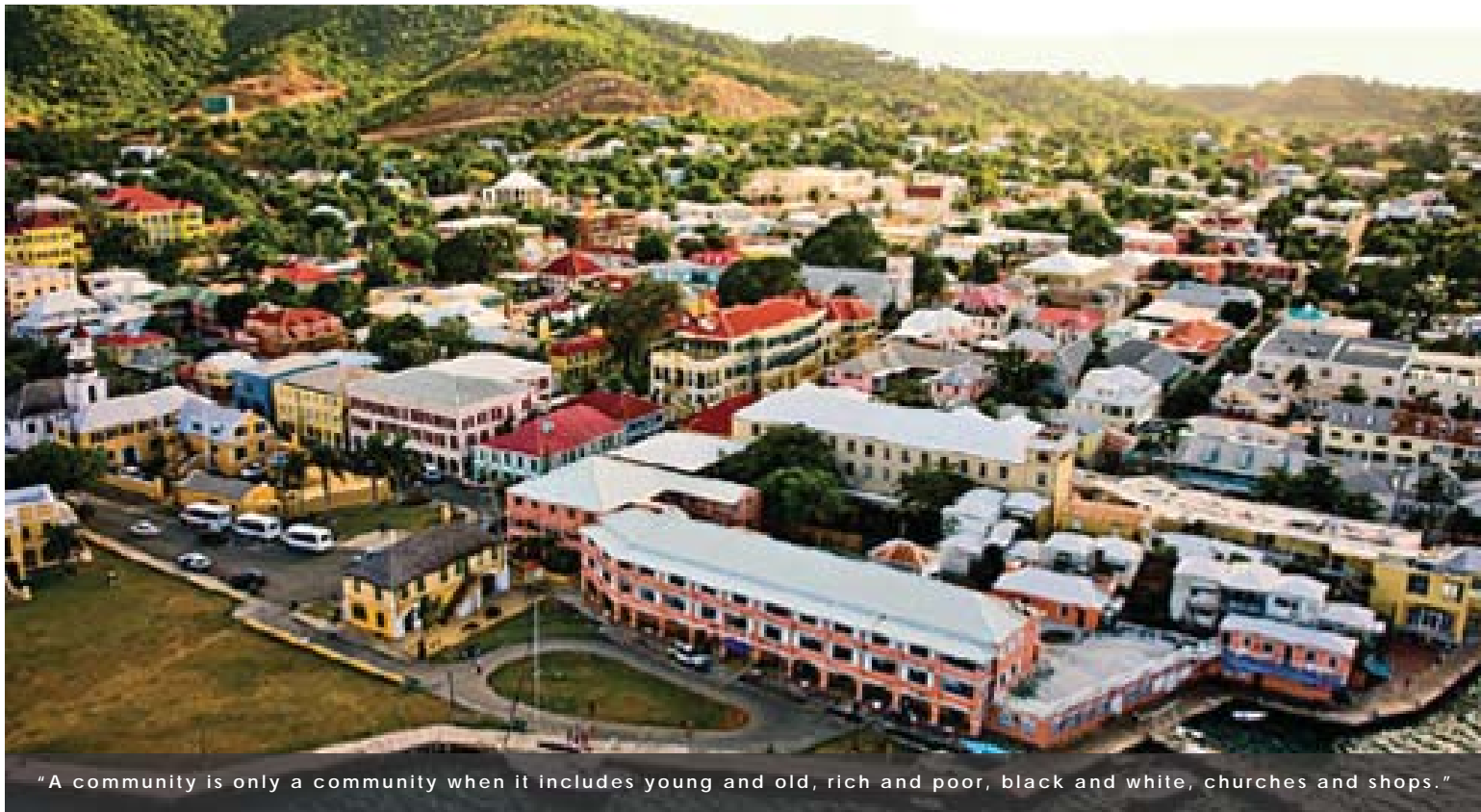
The goal of the GERS is to use this parcel in a way that allows St. Croix to grow economically while preserving the environmental and cultural assets that are the backbone of its identity. This guide is to harness future growth towards something sustainable, profitable, beautiful and useful, in keeping with building traditions and places in the Virgin Islands that we love.

This document builds on information gathered through surveys, cultural resource studies, input from the senate, and constant interaction between the design team and the GERS to determine the best use of this land. The proposals and assessments presented here are only guidelines in a much larger effort of cultivating a great place for residents of the Virgin Islands and visitors alike.

VIRGIN ISLANDS SETTLEMENT TRADITIONS

The historic settlements in our territory (Christiansted, Frederiksted in particular) have fundamentally shaped the culture and identity of St. Croix. While this settlement pattern is of European descent, it is it is distinctly Crucian because the Danish builders responded to a unique climate, geography, availability of resources and culture. While most Crucians no longer live in these settlements, the culture at large still identifies with their core characteristics and meaning. Locals rank the historic communities of Christiansted and Frederiksted amongst the most beautiful destinations on our island.

Visitors too, value our towns for obvious reasons. These towns are compact, pedestrian-friendly and connected. A variety of street types accommodate automobile traffic and pedestrians, almost always offering opportunities for shade and shelter via plantings, colonnades, arcades, galleries or buildings. Our towns also contain a broad mix of uses, which encourages pedestrian activity and adds to the convenience and efficiency of the community. For example, a single block in Christiansted features a restaurant, two art galleries, a church, cafe’, realtor, two law firms, a building supplies store, clothing store, copy & print shop, tailor and fabric store, an engineering firm, convenience store and about 8 residences on the upper levels.



“A community is only a community when it includes young and old, rich and poor, black and white, churches and shops.”



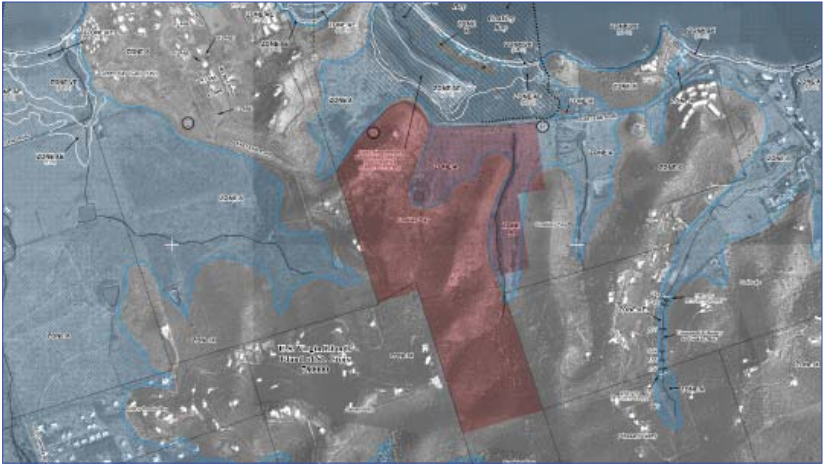
This drawing shows the boundaries of the property owned by the GERS for the Estate Coakley Bay development in East End Quarter "B", St. Croix, U.S. Virgin Islands.

The highlited areas show the different lots to be included in this project:

-  **Remainder of Matricular No. 1** of Estate Coakley Bay which consists of about 66.0 U.S. acres.
-  **Remainder of Matricular No. 15** of Estate Coakley Bay which consists of about 62.57 U.S. acres.
-  **Matricular No. 16-B** of Estate Coakley Bay which consists of about 41.43 U.S. acres.



LOCATION MAP



FEMA FLOOD MAP

This drawing shows the area designated as a "Special flood hazard area subject to inundation by the 1% annual chance flood." The 1% annual flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year.

-  **Project Limits**
-  **Special Flood Zone**





ENVIRONMENTAL SETTING

Located on the northeastern part of St. Croix, the property is bound on the north by East End Road and undeveloped lands on all other cardinal directions. The property measures 170 acres and contains both upland and coastal valley environments. A salt-water pond that measures approximately 14 acres in area is located approximately 50 meters north of the northwest boundary of the subject property.



Photograph of subject property, view from the southwest to the northeast. The Carden Beach condominium complex and Buck Island can be seen in the background.

Two-constructed ponds are located on the subject property, one on the east side, and the other on the west side. The pond on the west side of the property remains functional.



Photograph of subject property, view from the southwest to the northeast. The Carden Beach condominium complex and Buck Island can be seen in the background.

VEGETATION

The vegetation within the subject property consists of pioneer species common to abandoned agricultural fields and pastures. Thich stands of manjack are present throughout the property. The abandoned pastures are characterized by tall grass and invasive caccia stands. We note that no species such as tamarind, genip or onramentals were observed on the property. Calabash is present however, in the areas containing modern animal pens.



Photograph showing characteristic vegetation in the valley floor/coastal plain of the subject property.

CULTURAL MATERIALS

Materials recovered were contained within the clay loam matrix found on this part of the subject property from surface/near surface contexts to depths ranging from 18 to 32 centimeters below surface. Both the ceramics and shell recovered are small in size; their fragmented nature attributed to repeated disturbances caused by agricultural activities. The ceramics recovered contain smooth to rough surfaces and are grit tempered. No diagnostic elements that would clearly allow assignment to a particular ceramic style were recovered, as such; no cultural/temporal provenance is suggested.



Photograph of examples of ceramics recovered from Site No. 1



Photograph of examples of shell recovered from Site No. 1

TOPOGRAPHY

The subject property is contained within the side slopes of a major ridge system known as Seven Hills. The terminus of three termianl ridge spurs represents the highest elevations on the property. The summits of the ridge spurs are narrow, measuring approximately 20 to 25 meters in width. The side slops of the ridge spurs are steep and range from 20% to 60% slope gradiant. At the base of the ridge spurs, the terrain is moderately sloping and flattens out to gently sloping areas towards the north.

STRUCTURES

The northeast part of the subject property contains a number of modern structures that served as cattle and pig pens, equipment and mechanic shed, chick coops and one small domestic structure.



Photograph of small domestic structure



Photograph of concrete water trough in the cattle pen

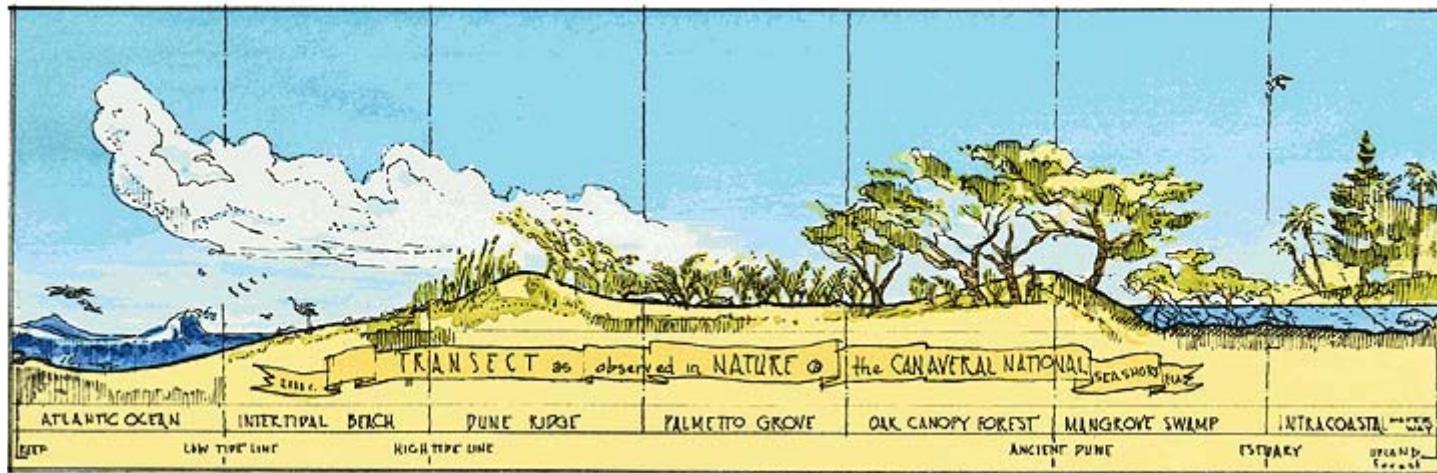


Photograph of equipment and mechanic's shed



## TRANSECT-BASED PLANNING

A transect of nature, first conceived by Alexander Von Humboldt at the close of the 18th century, is a geographical cross-section of a region intended to reveal a sequence of environments. Originally, it was used to analyze natural ecologies, showing varying characteristics through different zones such as shores, wetlands, plains, and uplands. It helps study the many elements that contribute to habitats where certain plants and animals thrive in symbiotic relationship to the minerals and microclimate.



Human beings also thrive in different places. There are those who could never live in an “down-town”; there are those who would consider rural living torture. Humans need a system that preserves and creates meaningful choices in their habitats. Near the close of the 20th century, New Urbanist designers recognized that sub-urban sprawl was eradicating the pre-war American transect of the built environment. Unfortunately, this has also happened in the Virgin Islands. They began to analyze it and extract its genetic material for replication. In this way, they extended the natural transect to include the built environment, thus establishing the basis for the Smart Code.

The rural-to-urban Transect is divided into six Transect Zones for application on zoning maps. These six habitats vary by the level and intensity of their physical and social character, providing immersive contexts from rural to urban. SmartCode elements are coordinated by these T-zones at all scales of planning.

This is the framework used to regulate development at The Village at Coakley Bay. From parks, to a pedestrian friendly town, to comfortable private building lots along the dramatic hillsides, this development offers residents and visitors alike an exciting sequence of environments.



Image Credit: Duany Plater-Zyberk & Company and Center for Applied Transect Studies

## SUSTAINABLE BUSINESS OPPORTUNITIES

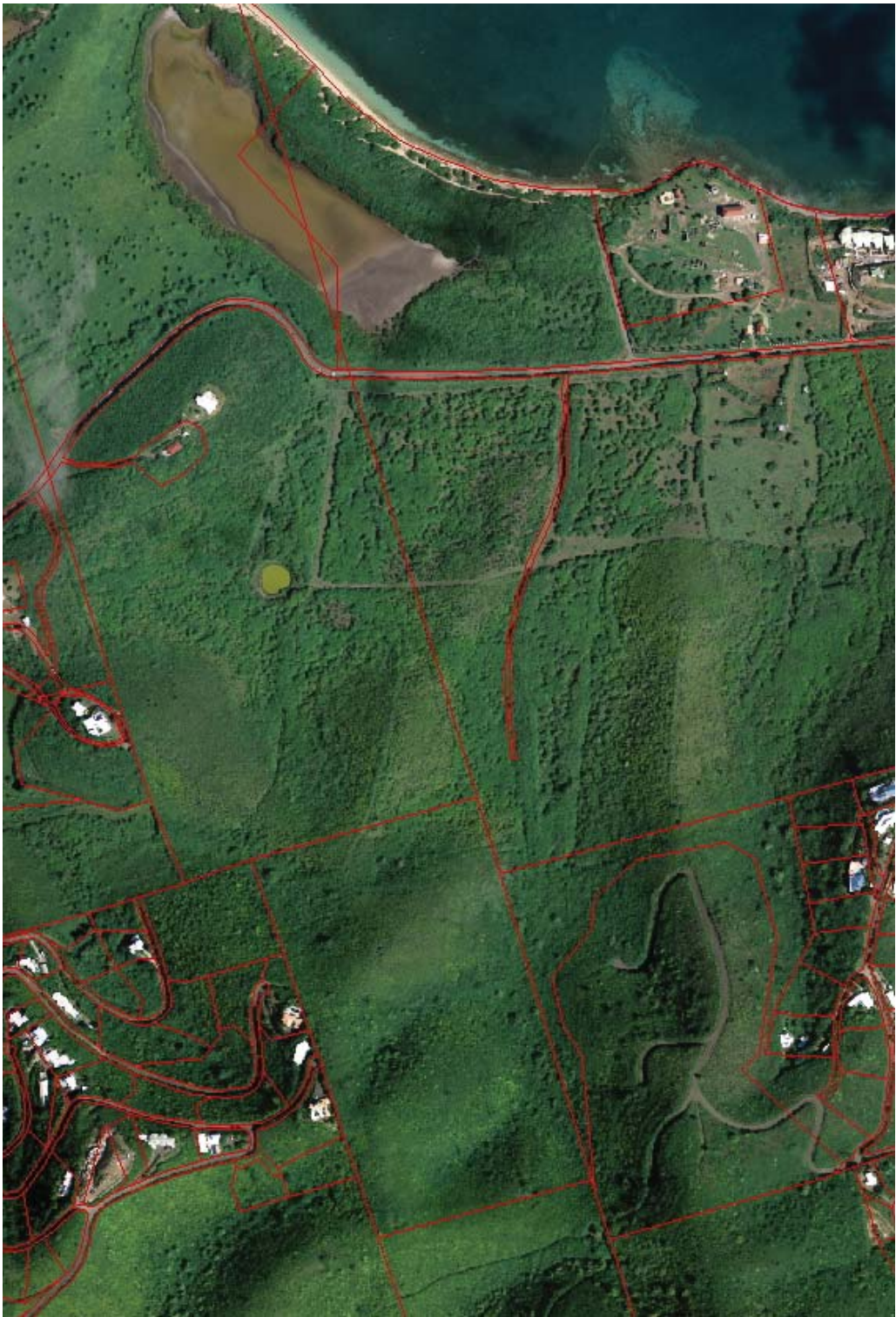
The varying environments found in neighborhoods with a transect-based plan support diverse economic activity. As this town develops, there will be both the infrastructure and demand (created by residences within walking distance of the town center) for small businesses to thrive. The addition of hospitality businesses, vacation/villa rentals and the broader support of East End will make the Village at Coakley Bay the ideal place for local entrepreneurs.



The Village at Coakley Bay, East End Quarter

Saint Croix, United States Virgin Islands





EXISTING AERIAL MAP Estate Coakley Bay



ILLUSTRATIVE MASTER PLAN The Village at Coakley Bay

ILLUSTRATIVE MASTER PLAN

The Illustrative Master Plan shows an approach to physically accommodate desired elements and proposes key structures to make the neighborhood complete. Detailed information regarding specific elements and implementation will not be found in this plan.

- Neighborhood Edge Residential Lots
- Detached Residential Lots
- Property Not in Scope
- Proposed Buildings

PROJECT DATA:

Applicable Code:  
V.I. Zoning, Building and Housing Laws & Regulations:

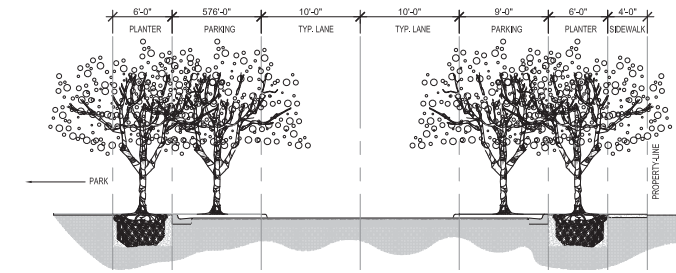
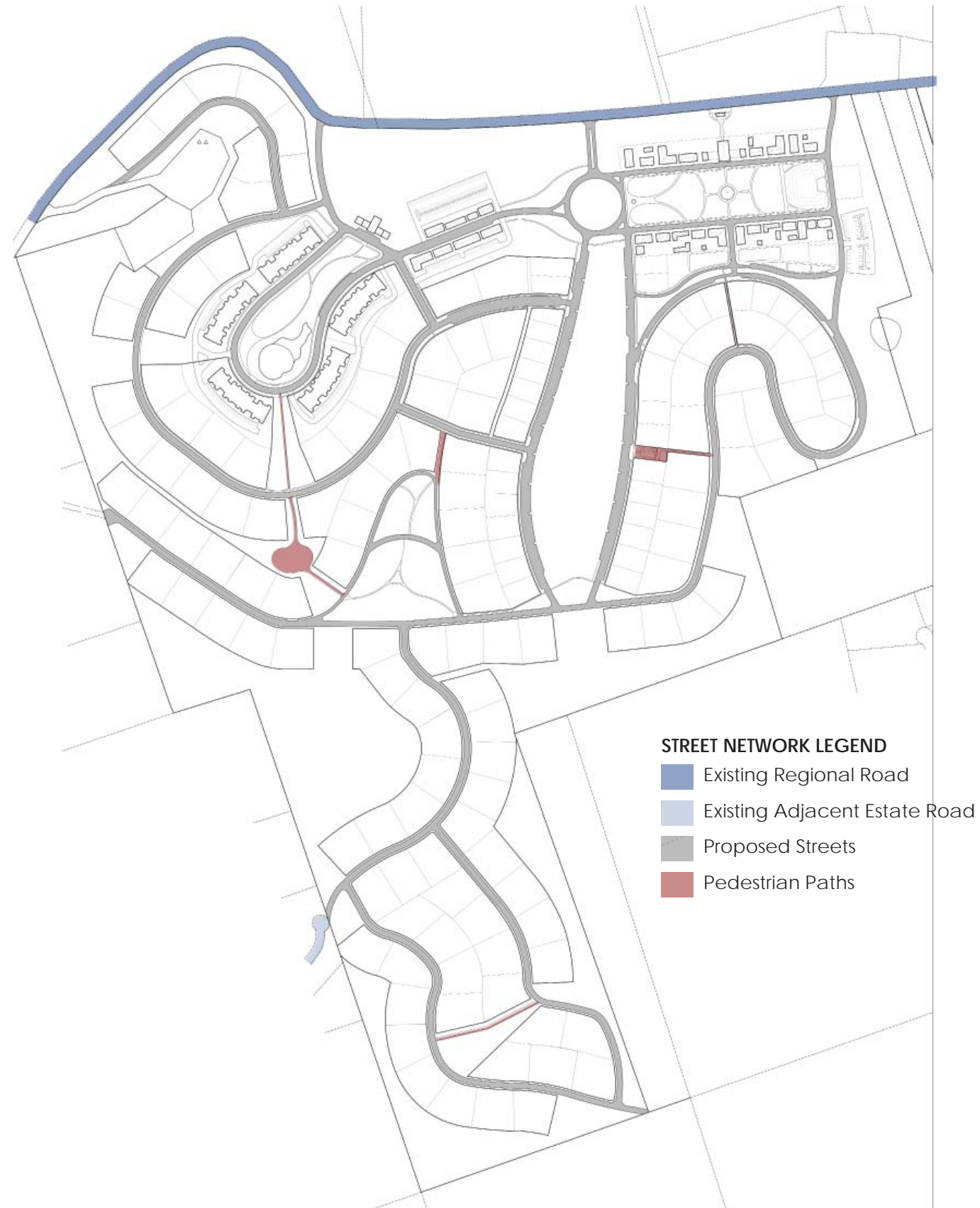
Existing Zone: R1  
Min. Required Lot Area (PAD): 5 Acres  
Subject Lot Area: 170 Acres

Max. Permitted Lot Occupancy: 30%  
Proposed Lot Occupancy: 11%  
Open Space (Public): 25 Acres  
Open Space (Private): 55 Acres  
Preserve (Undisturbed Lands): 32 Acres  
Total Green Space: 112 Acres

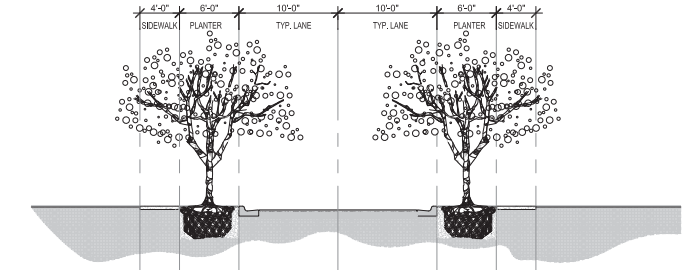
Residential Lots (2 D.U./lot): 166 Lots  
Independent Living Units: 160 Units  
Loft Units: 32 Units  
Max. Residential Density Allowed: 2 D.U./10,000sq. ft.  
Total Residential Units Allowed: 740 D.U.  
Total Residential Units Proposed: 524 Dwelling Units

Commercial Area: 56,420 sq.ft.  
% Commercial Area Permitted: 5%  
% Proposed Commercial Area: 1%  
Parking Spaces: 360 spaces  
Max. Height Permitted: 6 stories  
Max. Height Proposed: 2 stories

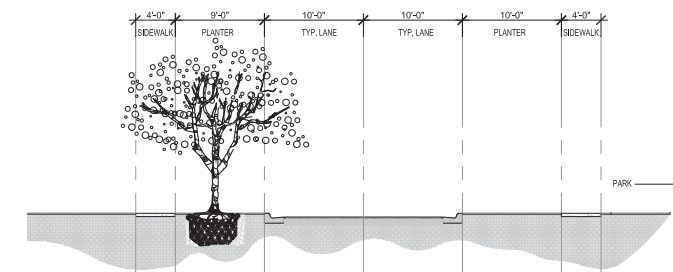




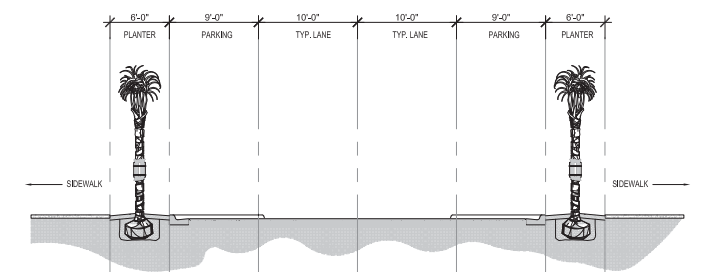
**A** TYP. STREET SECTION AT PARK



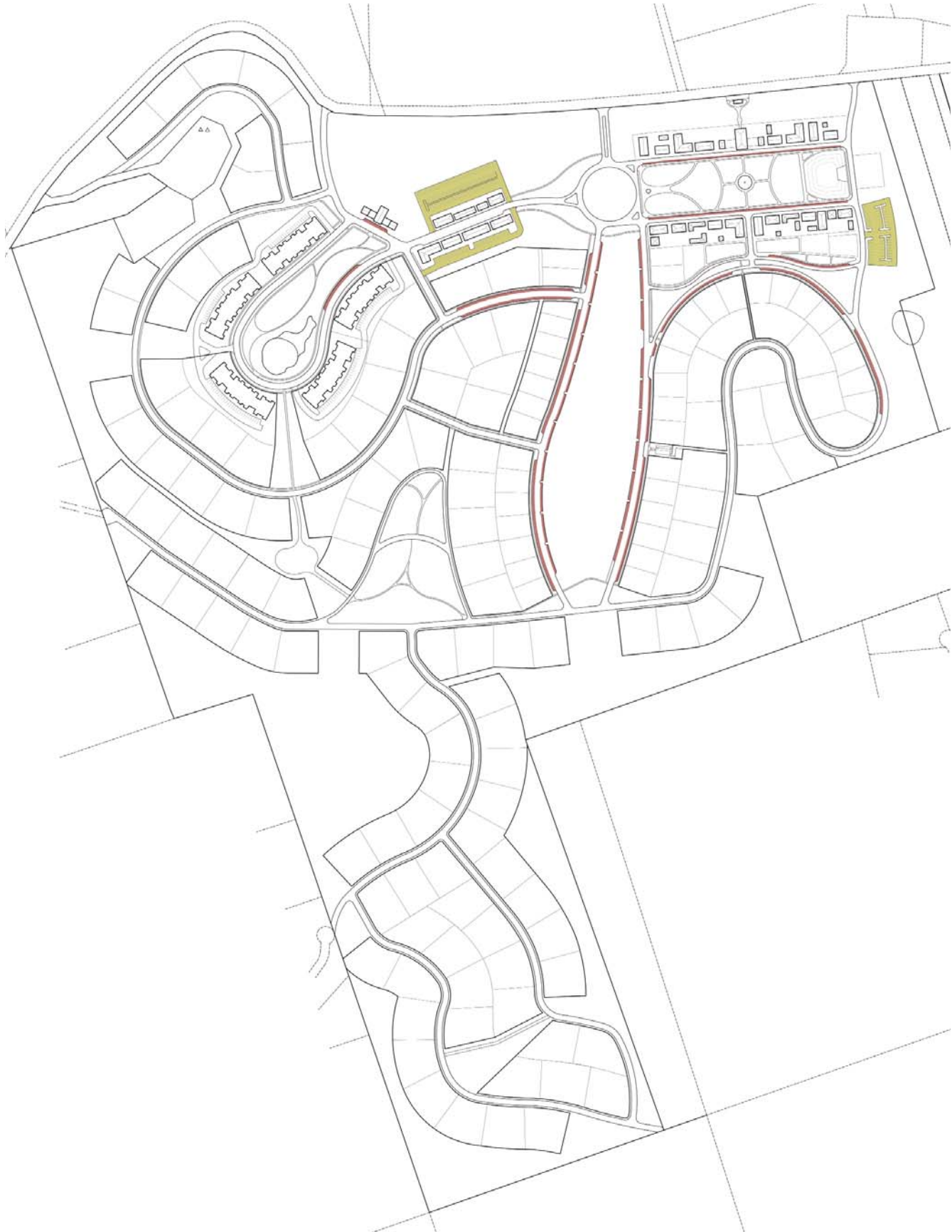
**B** TYP. RESIDENTIAL STREET SECTION



**C** TYP. STREET SECTION AT INDEPENDENT LIVING PARK



**D** TYP. TOWN CENTER STREET SECTION





**Off-Street Parking**  
Within the town, off-street parking should be located behind buildings. Locating parking behind garden walls or fences should be the exception. public or private, allowed in the front of the building.



**On-Street Parking**  
Properly placed parking is good for many businesses, provides a safety barrier between pedestrians and automobile, and eliminates the need for large parking lots. Cars activate the street and can infuse a neighborhood with visitors; street parking helps turn them into pedestrians.



PARKING LEGEND	
	Off-Street Public Parking = 142 spaces
	On-Street Public Parking = 218 spaces
	Total Public Parking = 360 spaces





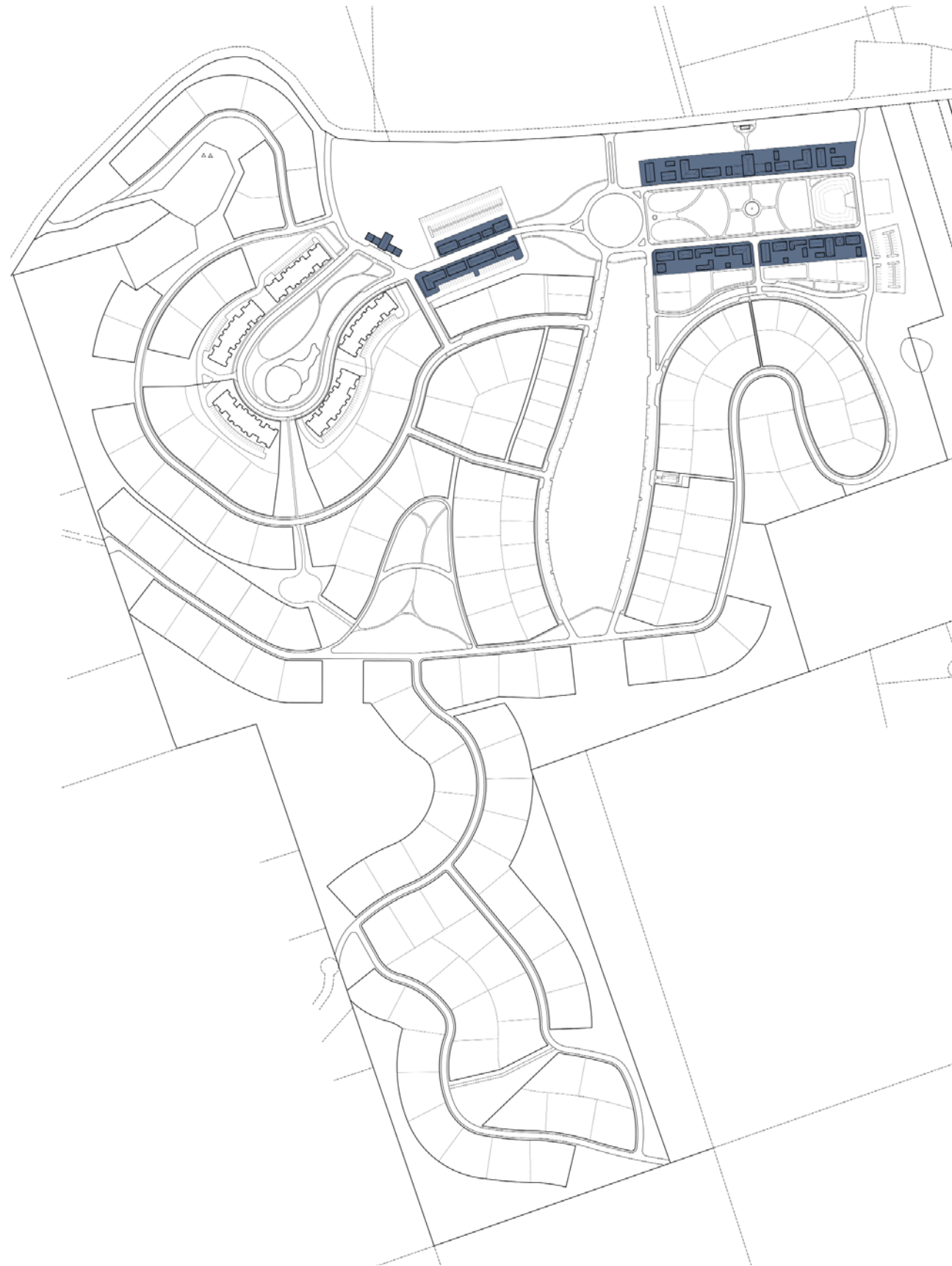
The Regulating Plan as a framework, identifies a range of habitats from the most natural to the most urban. Its continuum, when subdivided, lends itself to the creation of zoning categories. These categories include standards that encourage diversity similar to that of organically evolved settlements. The Regulating Plan thereby integrates environmental and zoning methodologies, enabling environmentalists to assess the design of social habitats and urbanists to support the viability of natural ones.

Great towns and neighborhoods feature a wide range of building types and street scenes of varied character that differ from the center to edge, for example, in building height, distance between buildings, and land use intensity. The center of a neighborhood is usually developed in a mixed-use manner with more intense uses than the general and edge areas. This delicate gradient from center to edge provides visual variety as well as a variety of housing options. The Regulating Plan designates all land within GERS' Estaet Coakley Bay Development to one of six zones:

#### REGULATING PLAN ZONE LEGEND

- Natural Preserve
- Civic Green
- Sub-Urban
- Neighborhood Edge
- Town Center
- Special District: Independent Living for the Elderly





### TOWN CENTER

The Town Center is this development's most intense and commercially-oriented area and consists of businesses and shops that may serve residents throughout the east end of St. Croix. This zone consists of higher density mixed-use buildings that accommodate retail, offices, entertainment and apartments. It has a tight network of streets with wide sidewalks, steady street planting and builds set close to the sidewalks.

Walkability should be greatest in this zone, with ample street parking and shade from awnings, overhead balconies, or street trees. Parking may also be located in a centralized location, within easy walking distance of shops and businesses.

**General Character:** Shops, Offices, Workplace & Civic buildings; predominantly attached buildings; trees within the public right-of-way; substantial pedestrian activity.

**Building Placement:** No set-backs; buildings oriented to street defining street wall.

**Frontage Types:** Collonades, Arcades, Shopfronts, Galleries.

**Typical Building Height:** 1-2 story with allowances for mezzanine or loft.

**Parking:** Primarily on-street parking; off-street behind buildings or garden walls

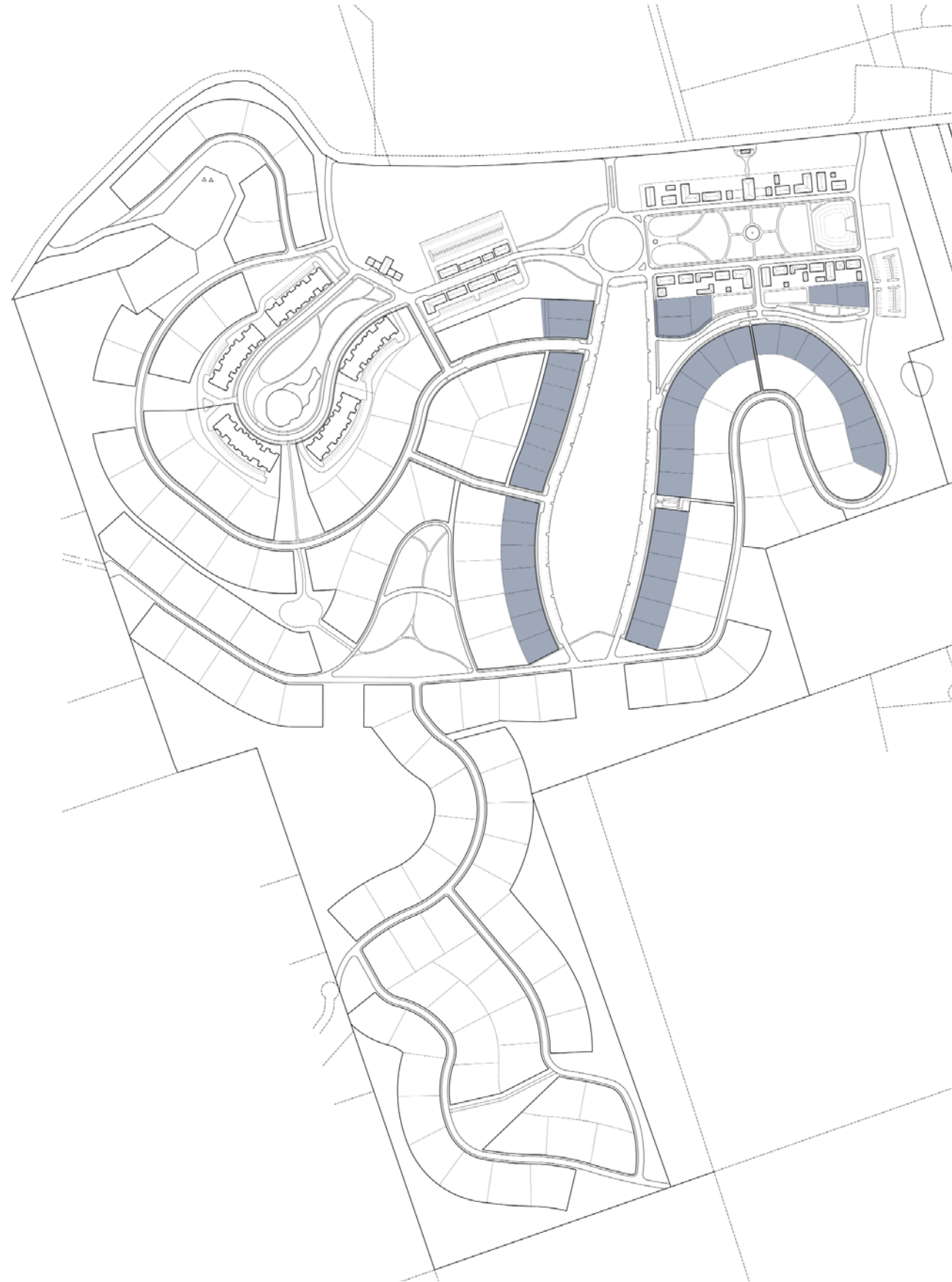
**Road Design Speed:** 20-25mph

**Zone Area:** 4 Acres or 2% of Project Area



*Example of Town Center on St. Croix*





**NEIGHBORHOOD EDGE**

The Neighborhood Edge zone consists of primarily residential urban fabric that front a primary public street or civic green. Streets are tree-lined with curbs and sidewalks to support regular pedestrian activity. Buildings in this zone have a "build-to" line, which helps to enforce the spacial quality of the public space they front.

**General Character:** Mix of Houses, Townhouses and Small Apartment buildings; balance between landscape and buildings; presence of pedestrians.

**Building Placement:** 20' build-to line; shallow to medium side yard setbacks.

**Frontage Types:** Front porches, fences, naturalistic tree plantings, p

**Typical Building Height:** 1-2 story with allowances for mezzanine or loft.

**Parking:** On-Street; Off-street parking to the side or rear of building.

**Road Design Speed:** 20-25mph

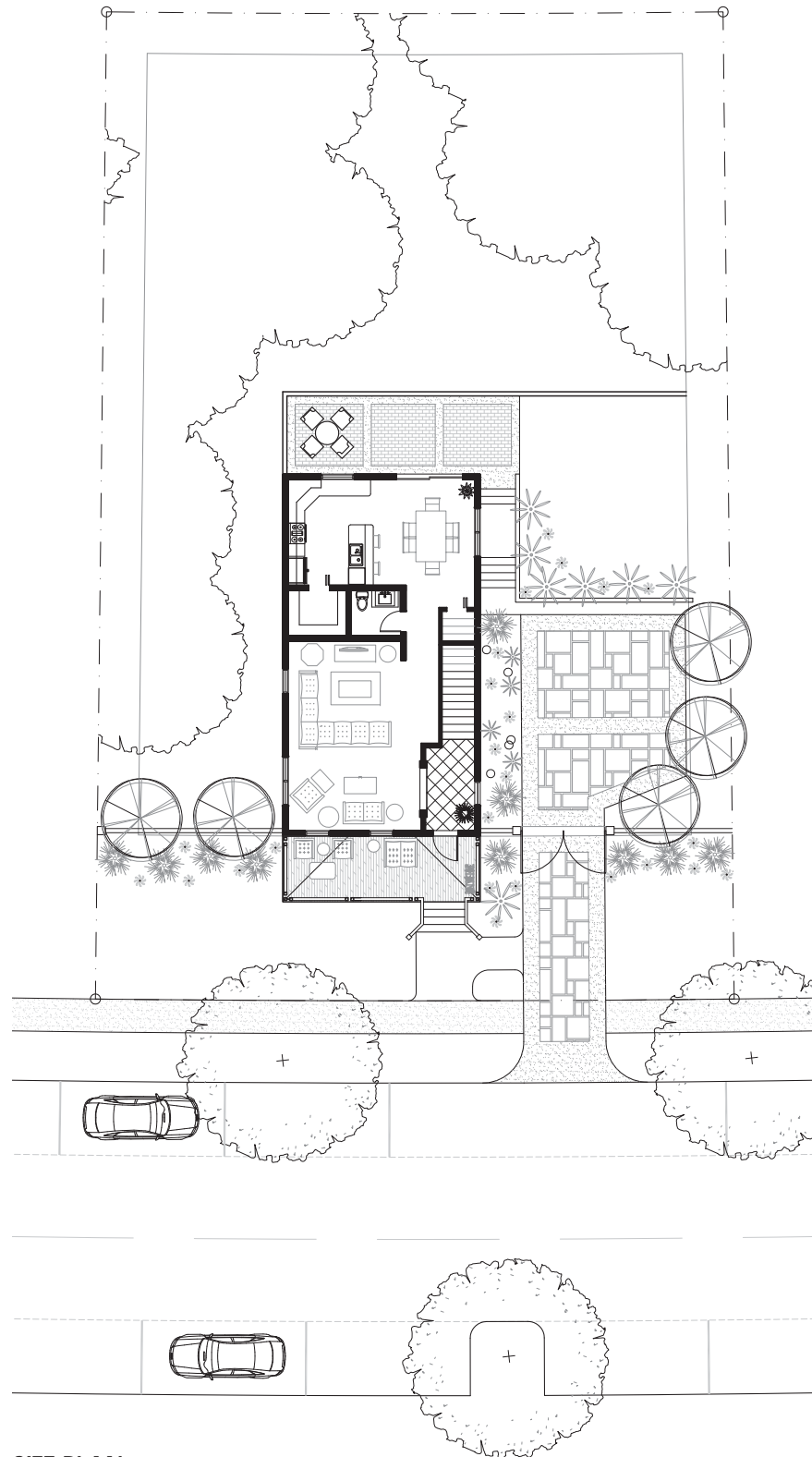
**Lot Count:** 43 Lots

**Total Zone Area:** 9.5 Acres or 6% of Project Area



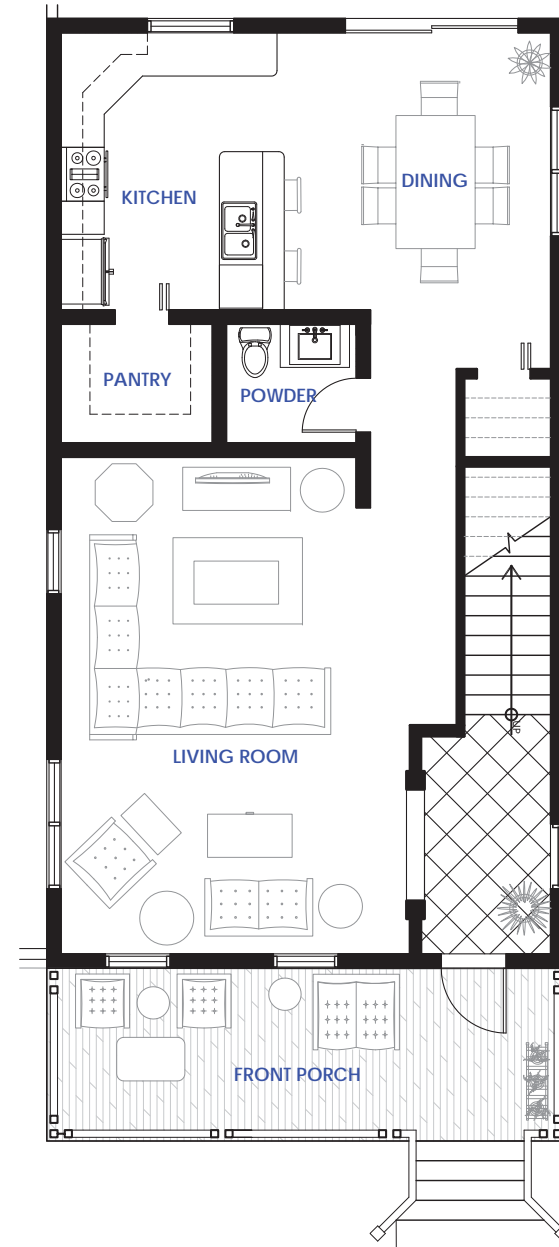
Example of Neighborhood Edge building on St. Croix





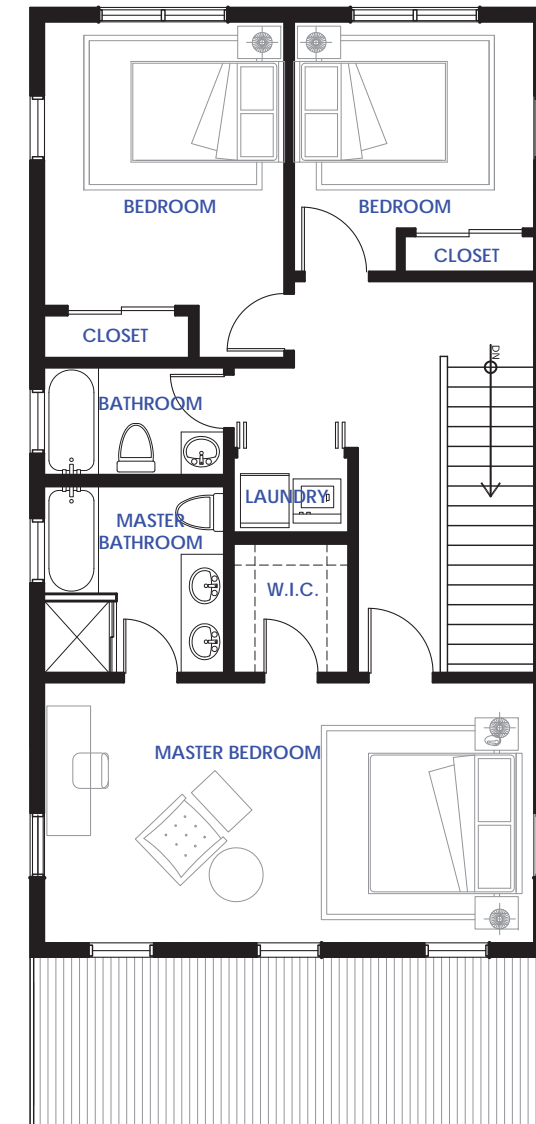
**SITE PLAN**

Sample Site Layout for Neighborhood Edge Bldg. Type  
 9,188 sq. ft. - Site Area  
 1,248 sq. ft. - Building Footprint



**FIRST FLOOR PLAN**

Sample Layout for Neighborhood Edge Bldg. Type  
 967 sq. ft. Interior Space  
 192 sq. ft. Front Porch



**SECOND FLOOR PLAN**

Sample Layout for Neighborhood Edge Bldg. Type  
 967 sq. ft. Interior Space





STREET FACADE Neighborhood Edge





#### SUB-URBAN

The Sub-Urban zone consists of low density, primarily residential areas. Home occupations and outbuildings are allowed. Planting is naturalistic and setbacks are relatively deep. Blocks may be large and the roads irregular to accommodate natural conditions like topography.

**General Character:** Single family residences, small rental units, larger lot sizes; presence of pedestrians.

**Building Placement:** 15' front setback; shallow to medium side yard setbacks.

**Frontage Types:** Front porches, fences, naturalistic tree plantings, p

**Typical Building Height:** 1-2 story with allowances for mezzanine or loft.

**Parking:** On-Street; Off-street parking to the side or rear of building.

**Road Design Speed:** 20-25mph

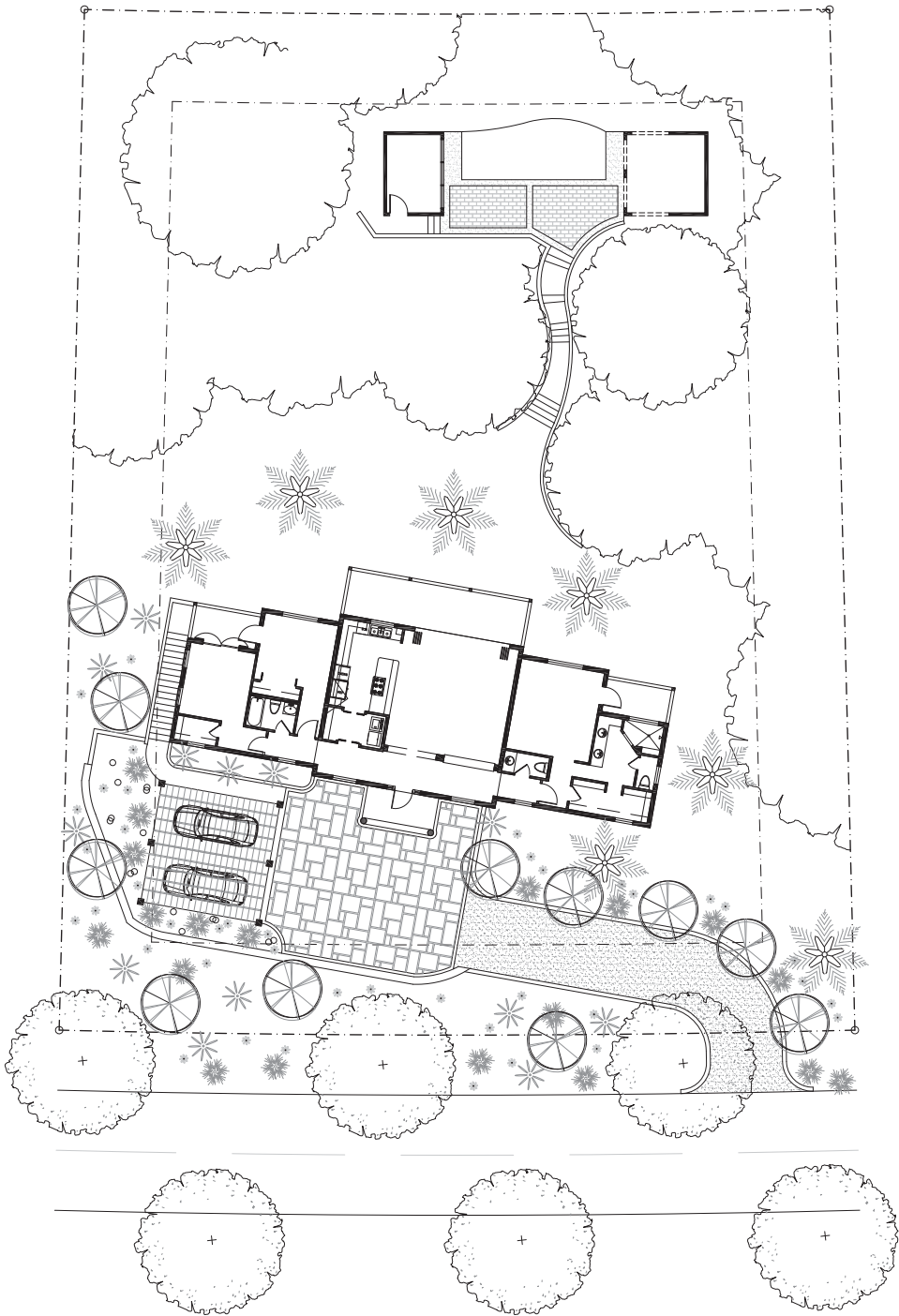
**Lot Count:** 123

**Zone Area:** 60 Acres or 35% of Project Area

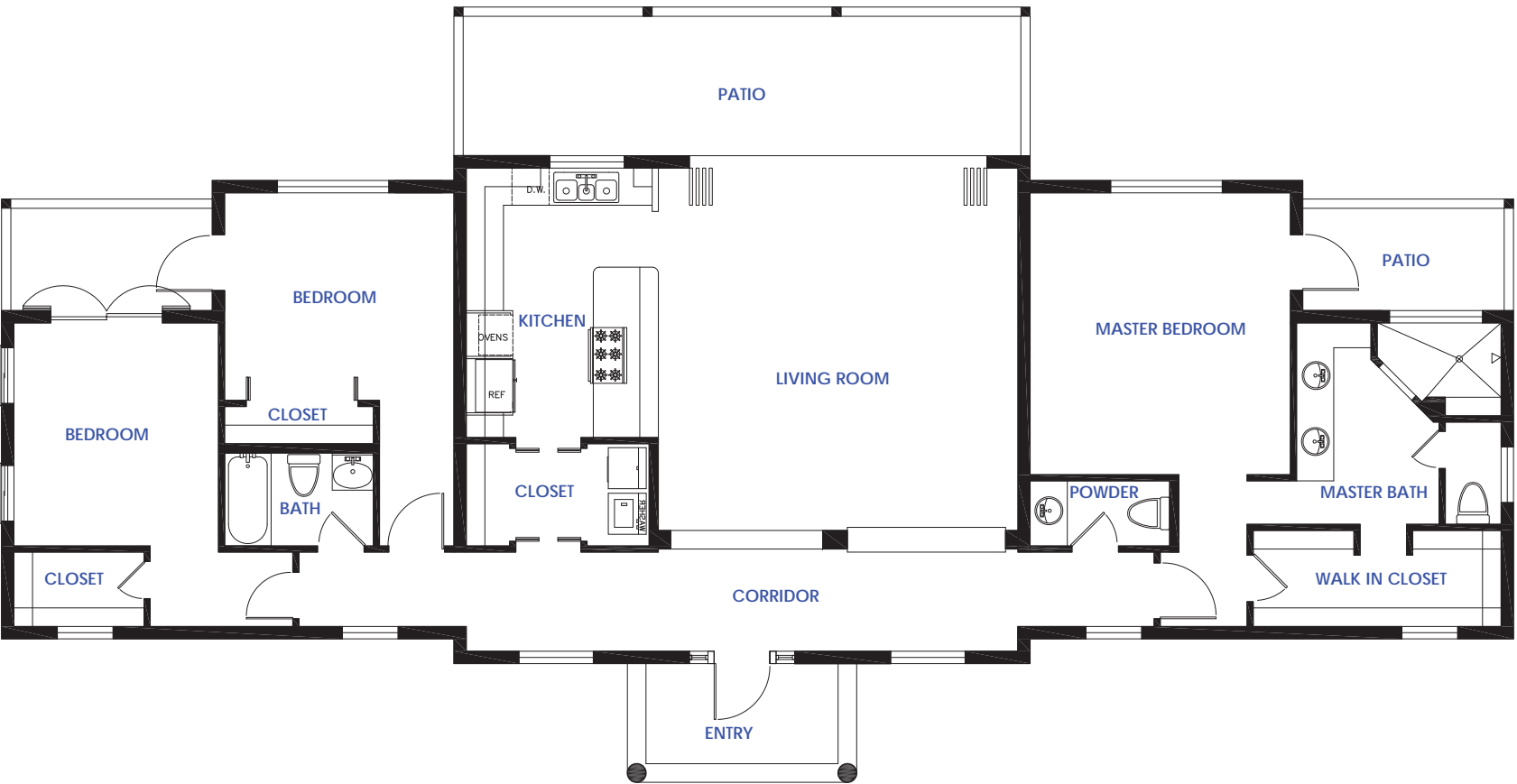


Example of Sub-Urban Residence on St. Croix





**SITE PLAN**  
Sample Site Layout for Neighborhood Edge Bldg. Type  
21,860 sq. ft. - Site Area  
1,248 sq. ftl. -Building Footprint



**SAMPLE FLOOR PLAN**  
Sample Layout for Suburban Residence Type  
967 sq. ft. Interior Space  
192 sq. ft. Outdoor Space





#### CIVIC GREEN

The Civic Green zone is space intended to be used for community purposes; examples of uses found here include playgrounds or play fields, public open spaces (such as parks, greens). This space is typically used to provide areas for active and passive recreation, community gathering, site drainage and water retention, community gardens, and natural vegetation. Structures that are accessory to the uses permitted in this zone, such as pavilions, restrooms, and utility buildings, are also found in this zone.

**General Character:** Lawns, landscaping, Trees, benches and pedestrian paths; Park light setting suitable for use by day and night.

**Building Placement:** N/A

**Frontage Types:** N/A

**Typical Building Height:** 1 story

**Parking:** On-Street/Off-Street

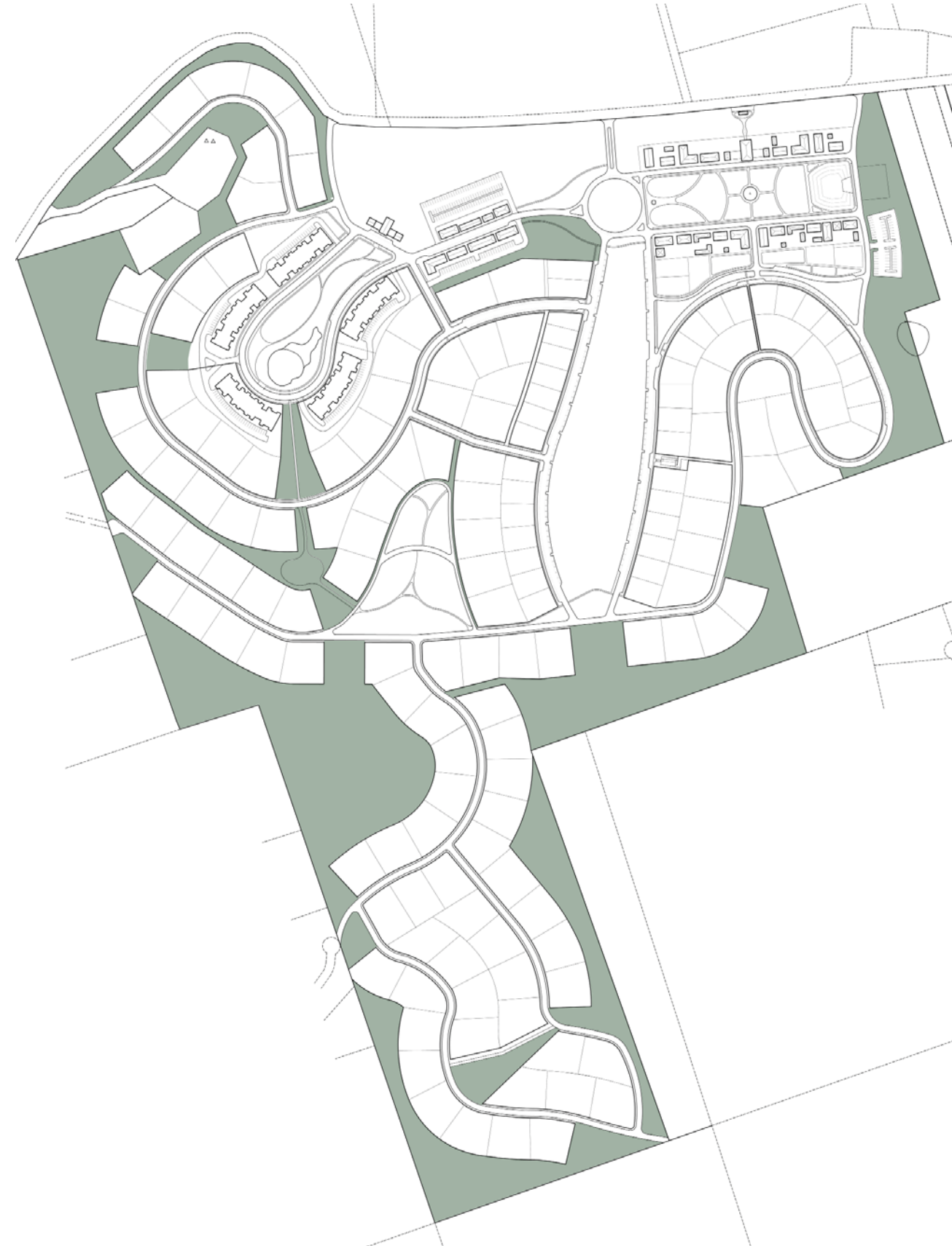
**Road Design Speed:** 20-25mph

**Zone Area:** 25 Acres or 14% of Project Area



Example of Park/Green on St. Croix





#### NATURAL PRESERVE

The natural preserve zone consists of lands approximating or reverting to a wilderness condition, including lands either unsuitable for settlement due to topography, hydrology or vegetation.

This area also provides important buffers between the GERS property and adjacent estates, ensuring minimal change to their existing environment. Development with-in this zone is prohibited.

**General Character:** Lawns, landscaping, Trees, benches and pedestrian paths; Park light setting suitable for use by day and night.

**Building Placement:** N/A

**Frontage Types:** N/A

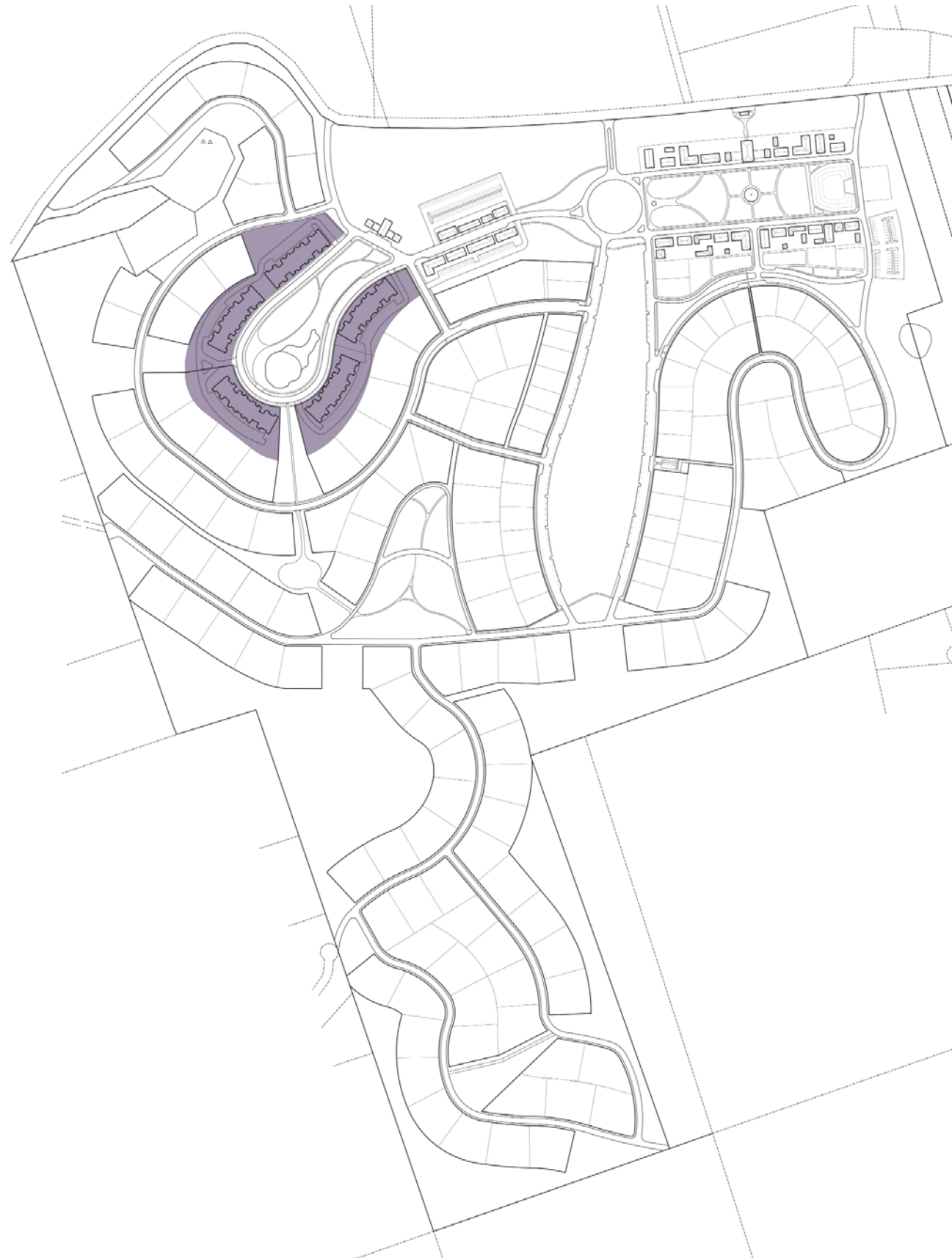
**Typical Building Height:** N/A  
**Parking:** N/A

**Road Design Speed:** N/A

**Zone Area:** 32 Acres or 19% of Project Area



Example of Park/Green on St. Croix



**SPECIAL ZONE:** Independent Living for the Elderly

This Special Zone district is to allow for an Independent Living for the Elderly segment in this development. This area will consist of multi-story apartment buildings with deep setbacks from the street. Walkability is important to allow residents of this community easy access to adjacent Civic Greens and Town Center.

This development will consist of approximately 5 two-story buildings with 32 units each (160 units total).

**General Character:** Lawns, landscaping, Trees, benches and pedestrian paths; Park light setting suitable for use by day and night.

**Building Placement:** N/A

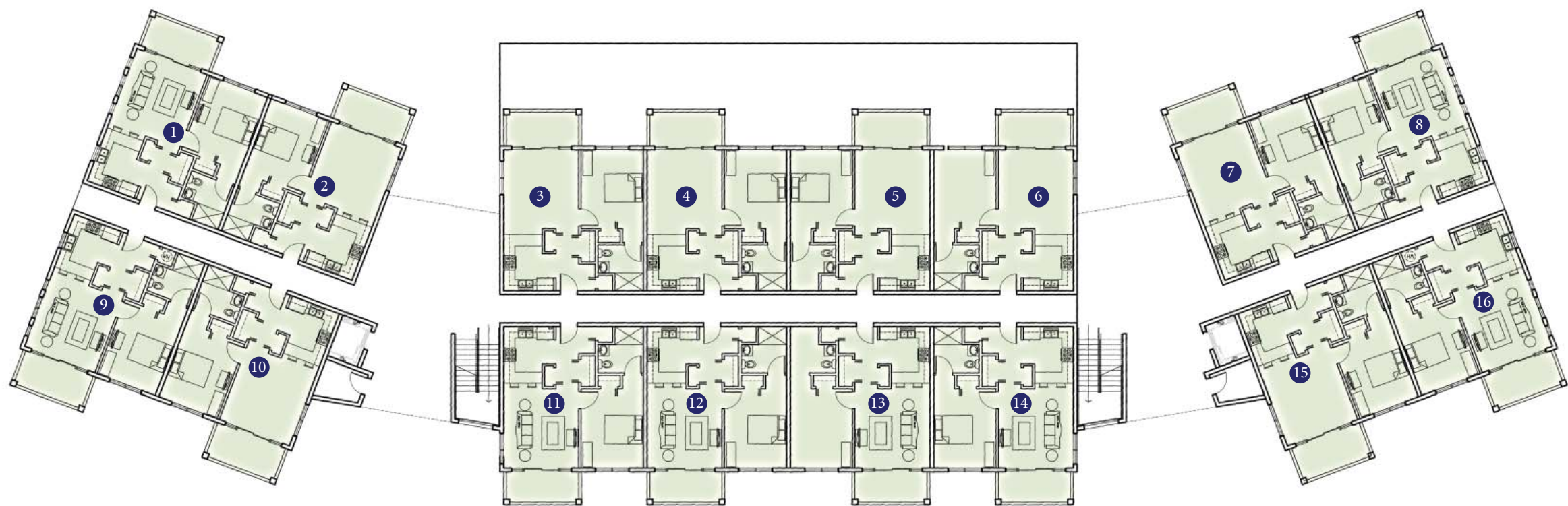
**Frontage Types:** N/A

**Typical Building Height:** N/A  
**Parking:** N/A

**Road Design Speed:** 10-15mph

**Zone Area:** 6 Acres or 4% of Project Area





TYPICAL FLOOR PLAN Building layout for Independent Living Component



STREET FACADE Sample Elevation for Independent Living Component