

for City of Kingston

Phase 1

11-13-2024

Kingston Business Park Housing Study

MVRDV

BURO HAPPOLD

Assemblage

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Assignment

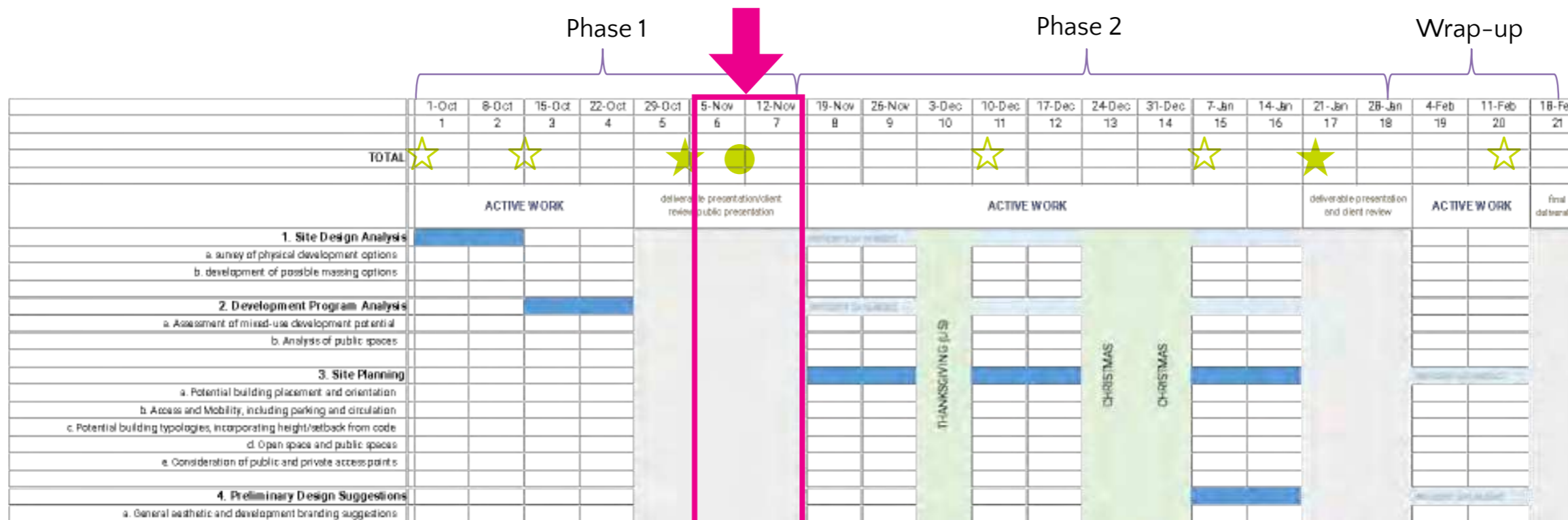
Schedule
Scope Overview
Site Overview
Project Purpose

1

Schedule

- Phase 1 = Task 1 + Task 2 = “Sizing up the Opportunity”
- Phase 2 = Task 3 + Task 4 = “Exploration of Site Potential”
- Wrap-up = Final revisions for digital presentation delivery

- ★ Full Client Presentation
- ☆ Client PM checkpoint
- Public Presentation



Scope Overview

City of Kingston, NY
RFP# K24-10– Architectural and Design Services Kingston Business Park

be developed based on the property's sensitive geology. For reference and more information, see the document links below. However, the City/KLDC intend to update the SEQR with updated design guidelines that incorporate the potential for residential use. The design firm should work on the assumption that the documents will be updated. However, note that the City/KLDC generally do not seek to expand the potential geography that could be disturbed as part of any development activity and believe that residential development could respect the sensitive environmental areas that were identified as part of the original environmental review.

[Kingston Business Park SEQR Findings Statement](#)

[Kingston Business Park Final Generic Environmental Impact Statement](#)

[Kingston Business Park Development Standards](#) (adopted April 11, 1996)

3.0 SCOPE OF WORK

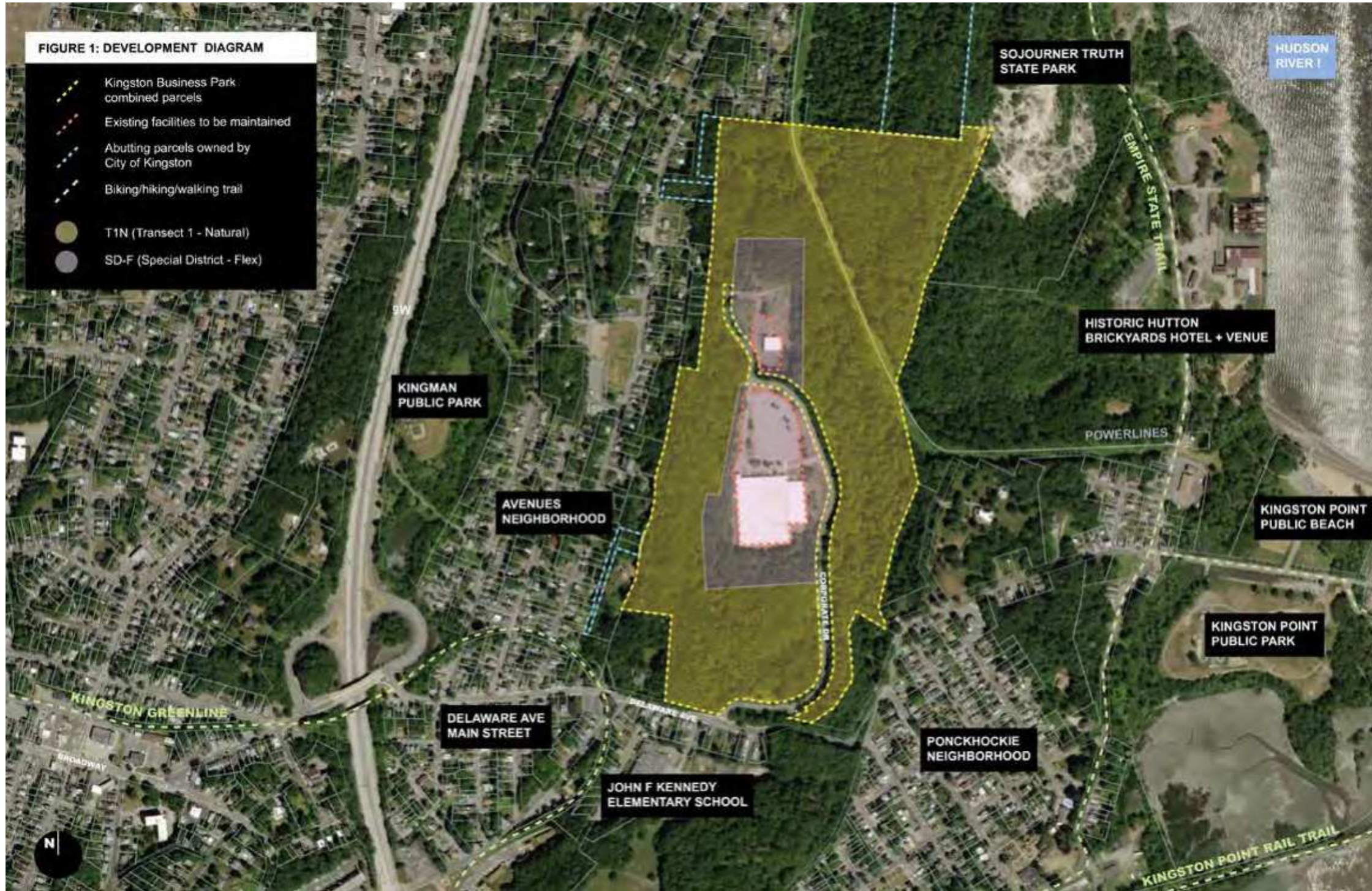
The selected firm will be expected to fully review the opportunities for the site presented by the City's form-based zoning code and any background materials provided to the firm by the City and KLDC. Additionally, the firm will be expected to complete the following:

1. Site design analysis
 - a. Survey of physical development options based on topographic features and available space
 - b. Full range of residential massing options for the site including:
 - i. typologies that maximize the unit count and residential square footage,
 - ii. typologies that allow for less residential density.
2. Development program analysis
 - a. Exploration of both mixed-use and fully residential programs based on site analysis
 - b. Analysis of optional public/public-private/private amenities such as but not limited to:
 - i. Parks
 - ii. Interior/exterior gathering or event spaces
 - iii. Community services
 - iv. Neighborhood-serving commercial spaces
3. Site planning
 - a. Potential building placement and orientation
 - b. Transportation and parking locations/circulation review and recommendations
 - c. Open space as required by the form-based zoning code
 - d. Open space relationships to existing City amenities and viewpoints
 - e. Consideration of public and private access points
4. Preliminary design suggestions

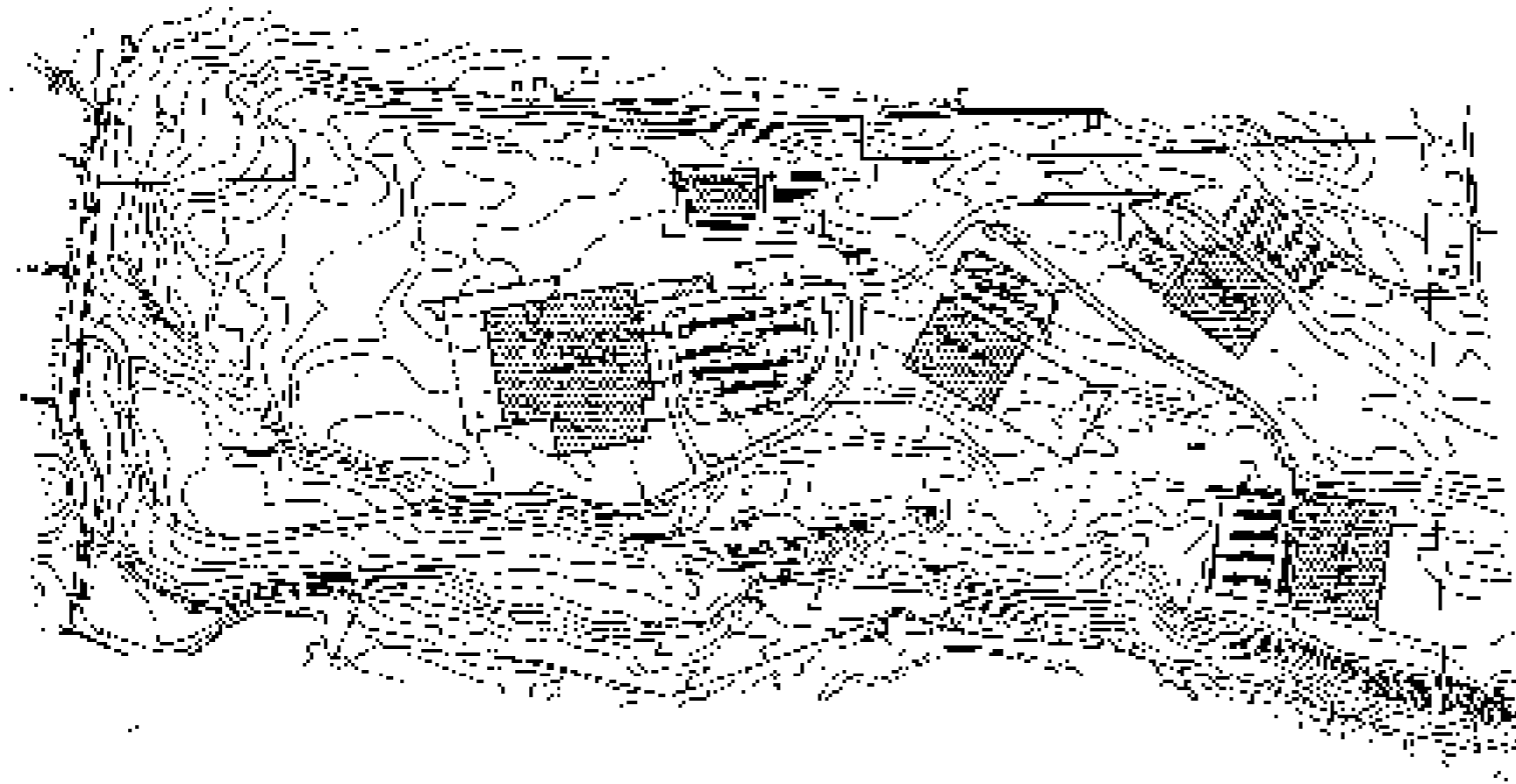
Today's focus is on Tasks 1 & 2

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Site Overview: map from RFP



Site Overview: original site plan (1996)



KINGSTON BUSINESS PARK
CONCEPTUAL DEVELOPMENT PLAN

DATE: FEBRUARY 1996

Building Envelope: SEQRA (1996)

I. DESCRIPTION OF THE PROPOSED ACTION

The proposed action is the development of a business park to be located on a 107.056 acre site off Delaware Avenue in the City of Kingston, Ulster County, New York, which parcel of land is currently owned by Tilcon Materials, Inc. The Applicant intended to acquire title to the site and to construct thereon a business and commercial park that would ultimately accommodate three to five independent facilities totaling up to 500,000 square feet of building footprint and utilizing approximately 54 acres of the site.

Max 500,000 ft² of building footprint

Current building footprint: 155,886 ft² (14,482 m²)

= 344,114 ft² (37,969 m²) left as a baseline

at 1000 gross sf/unit, this represents about 344 potential units

Project Purpose

City of Kingston, NY
RFP# K24-10– Architectural and Design Services Kingston Business Park

1.0 PROJECT PURPOSE

The City of Kingston seeks a qualified architectural and/or design firm to assist the City and the Kingston Local Development Corporation (KLDC) in determining major programmatic elements of the potential significant residential redevelopment of the [Kingston Business Park](#). During this exploratory phase, the City seeks a forward-thinking design partner prepared to provide initial analysis for this redevelopment opportunity.

The Business Park, located at 370-384 Delaware Ave, Kingston, NY 12401 (“the Property”), is a 107-acre campus in the City of Kingston currently owned by the KLDC. Historically, the Business Park has been used for commercial uses only. However, the City and the KLDC are interested in redeveloping remaining available parcels for residential and/or mixed-use development. The City of Kingston also owns an adjoining parcel at 250-256 R Third Avenue that could be part of the redevelopment or that could serve as another access point into the Business Park (see [Site Map](#)).

The City is seeking design development options for the site that balance factors such as residential density, transportation/parking, existing topography, and site conditions.

The City of Kingston was recently designated as a Pro-Housing Community by New York State and has set a goal for approving 1,000 new housing units by 2029. The redevelopment of the Business Park could contribute to this goal. Further, the City of Kingston recently passed a new form-based zoning code (<https://engagekingston.com/kingston-forward>). The City has published a [guide for development](#) under the form-based code. Part of the business park is zoned T1 Natural and part of the business park is zoned Special District. Redevelopment of the Special District portion of the parcel could occur under the [Large Site Standards](#) in Article 7. The Large Site Standards apply to any site over 2 acres and the goal is to “create new, walkable neighborhoods.” The City assumes that any redevelopment would happen with a Conservation Village Plan. For further information, see [405.25 C](#).

Ultimately, based on the site analysis, the City and the KLDC will continue exploring development options, including potentially finding qualified development partners.

2.0 ABOUT THE KINGSTON BUSINESS PARK

First established in 1998, the Business Park has a municipally owned access road and has City water and sewer access. It also has partial seasonal vistas of the Hudson River and the Catskill Mountains, and is partially surrounded by the recently established [Sojourner Truth State Park](#).

The Kingston Business Park was originally designed to accommodate four to five light manufacturing facilities totaling 300,000-500,000 square feet, utilizing approximately 40-50 acres for commercial development. Currently, there are two active commercial tenants: Howmet Aerospace and Community Manufacturing Solutions.

Development on the site is currently limited by the original State Environmental Quality Review (SEQR) review for the Business Park’s creation, which set certain design criteria and limited the sites that could

City of Kingston has set a goal to approve 1,000 new housing units by 2029

The new form-based zoning code intends to “create new, walkable neighborhoods”

Housing pipeline: 620+ units



Ambitions



Preserving nature



Integrated community



Program & typology mix



Mobility shift



Future proof

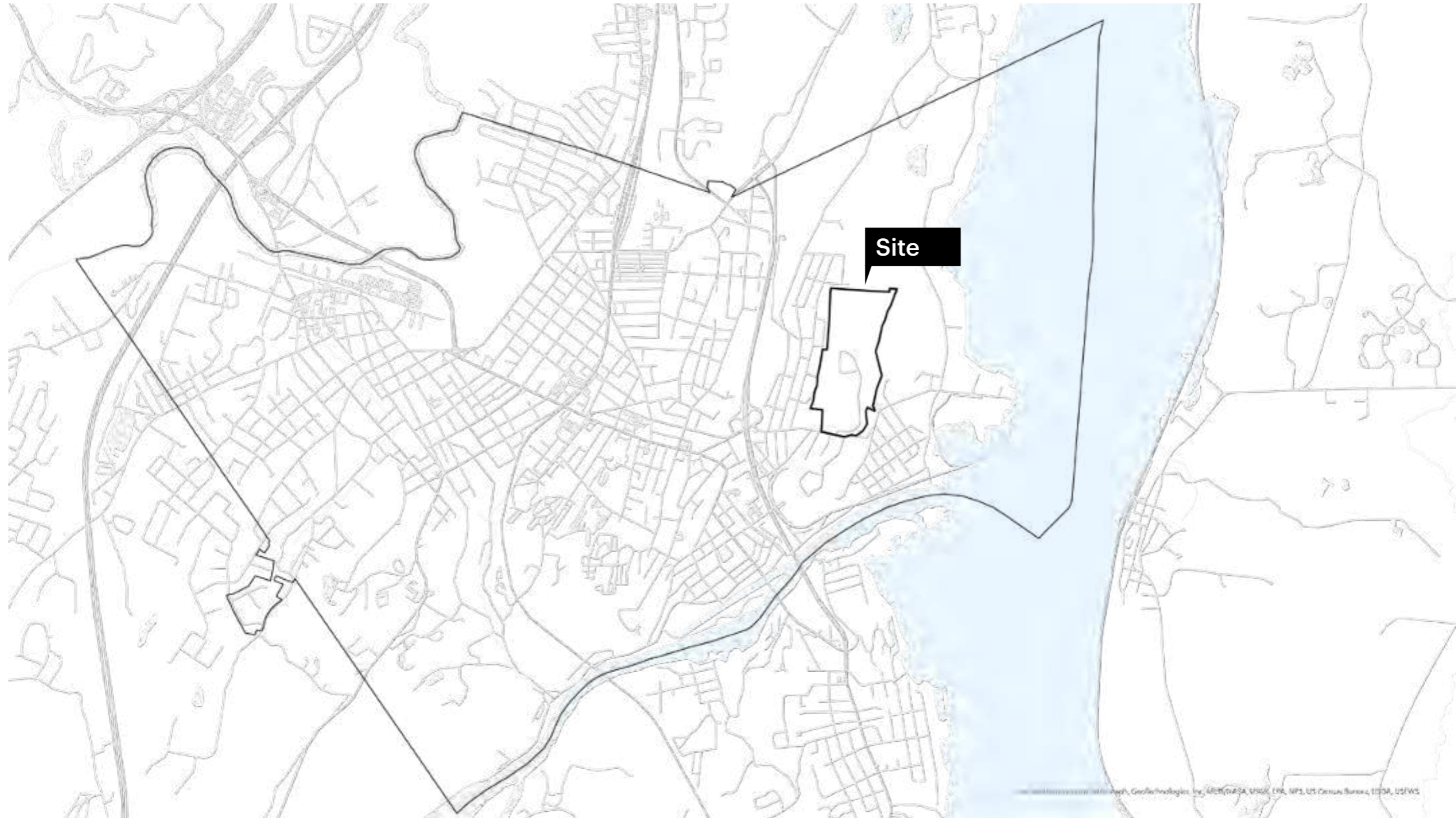
Site

Urban analysis
Site analysis
Restrictions/ challenges
Strengths/ opportunities
Scale comparison

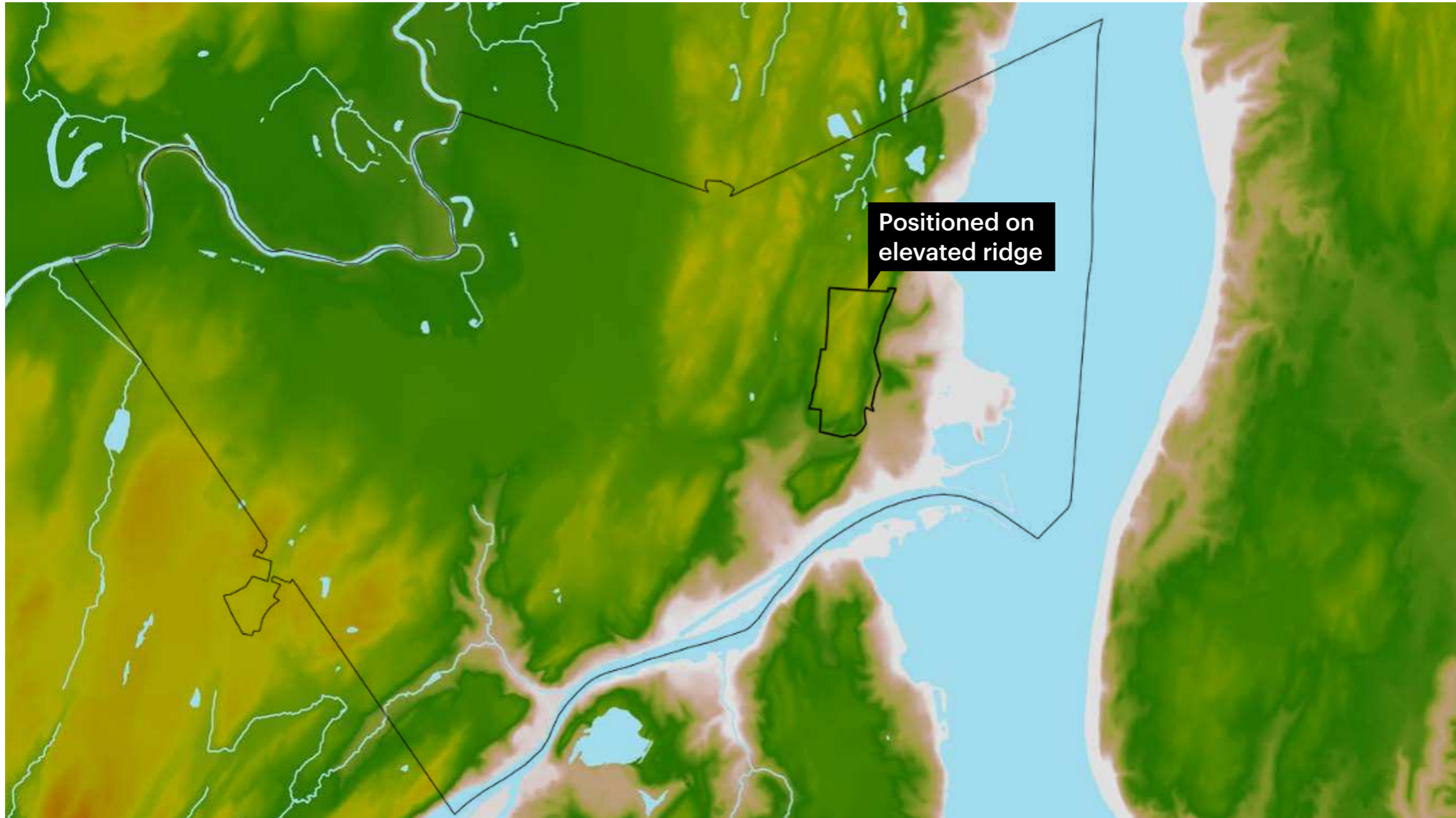
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Urban analysis

City of Kingston



Topography (DEM)



Ecological features

Figure 2: Major Ecological Features in Kingston, NY

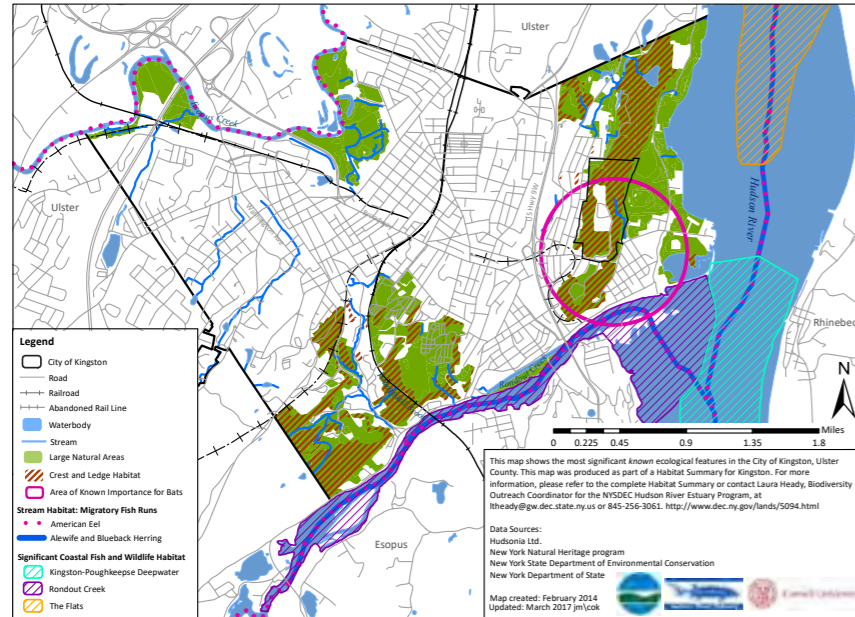


Figure 3: Streams and Watersheds in Kingston, NY

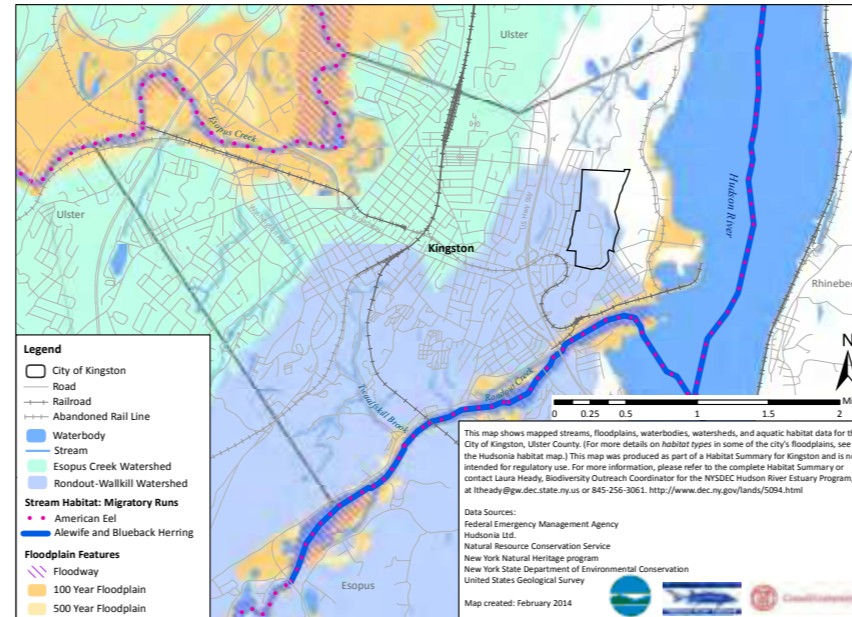
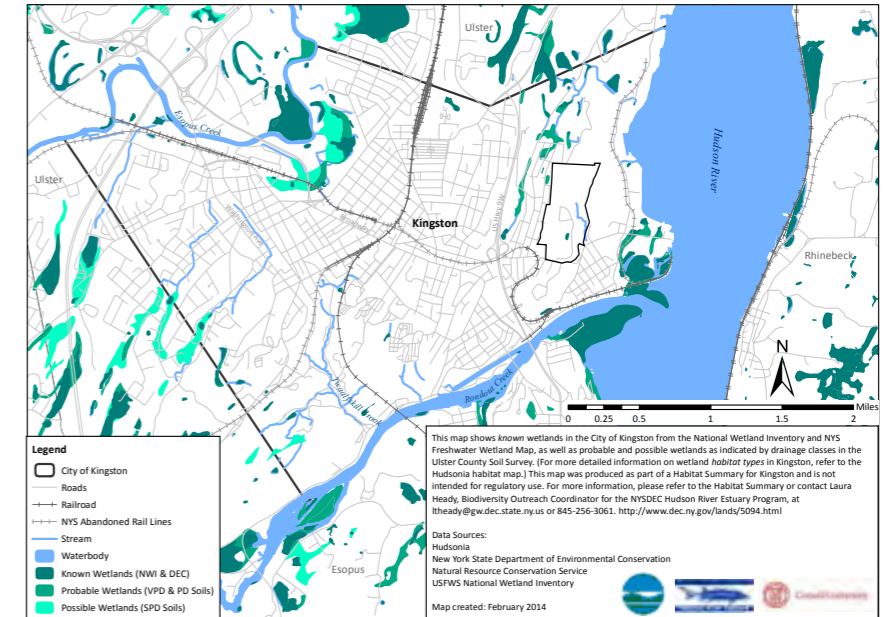


Figure 4: Wetlands in Kingston, NY

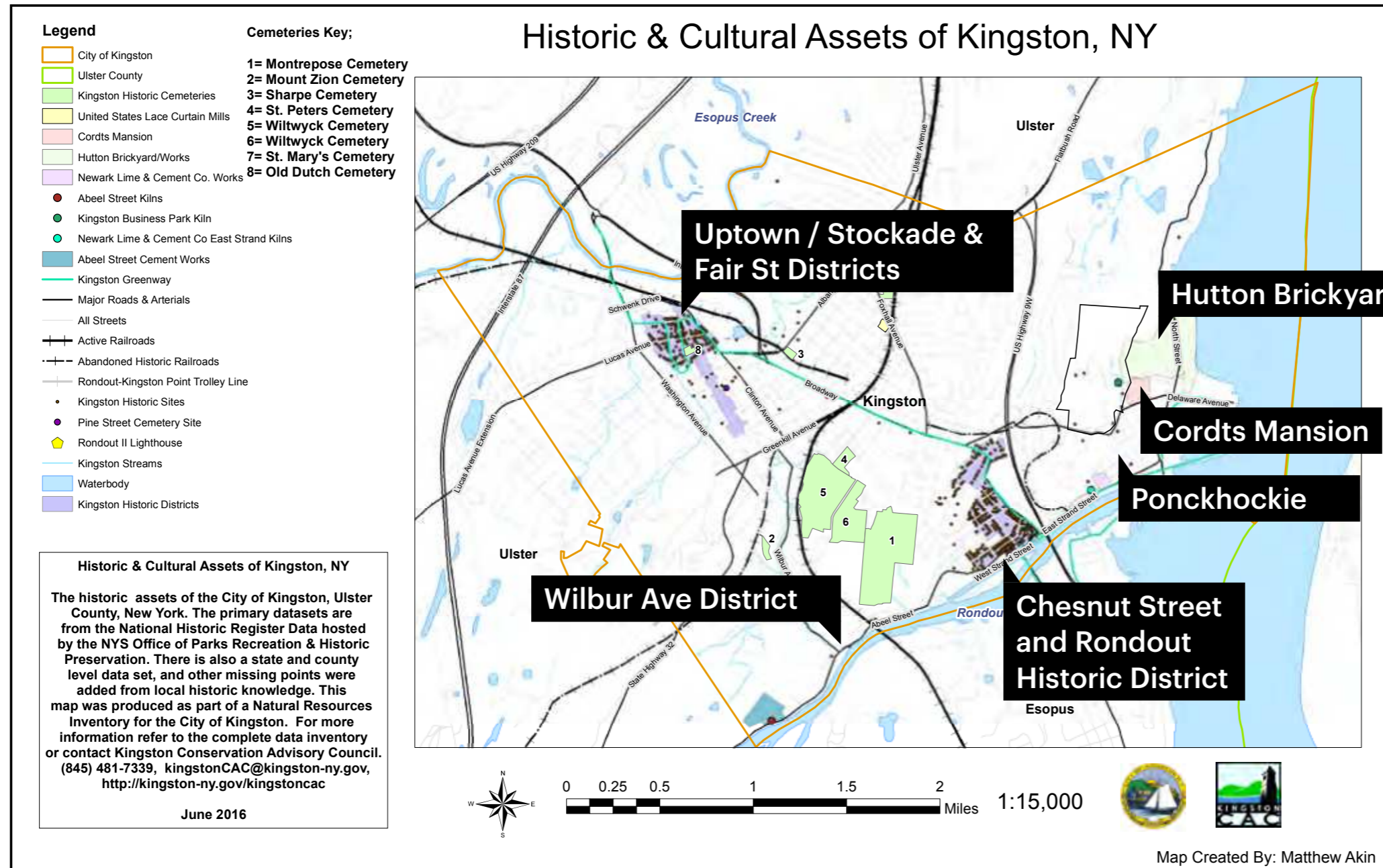


- Large natural areas
- Crest and ledge habitat
- Area of known importance for bats

- Southern/western portion of site drains to Rondout Creek; eastern/north portion drains directly to Hudson River
- Previous geotech borings showed extensive cavities in bedrock (40'+ depth)
- No part of site in floodplain

- Small natural wetland in NW corner of site
- Stormwater detention behind Howmet also a listed wetland

Historic and cultural assets



Rondout Historic District

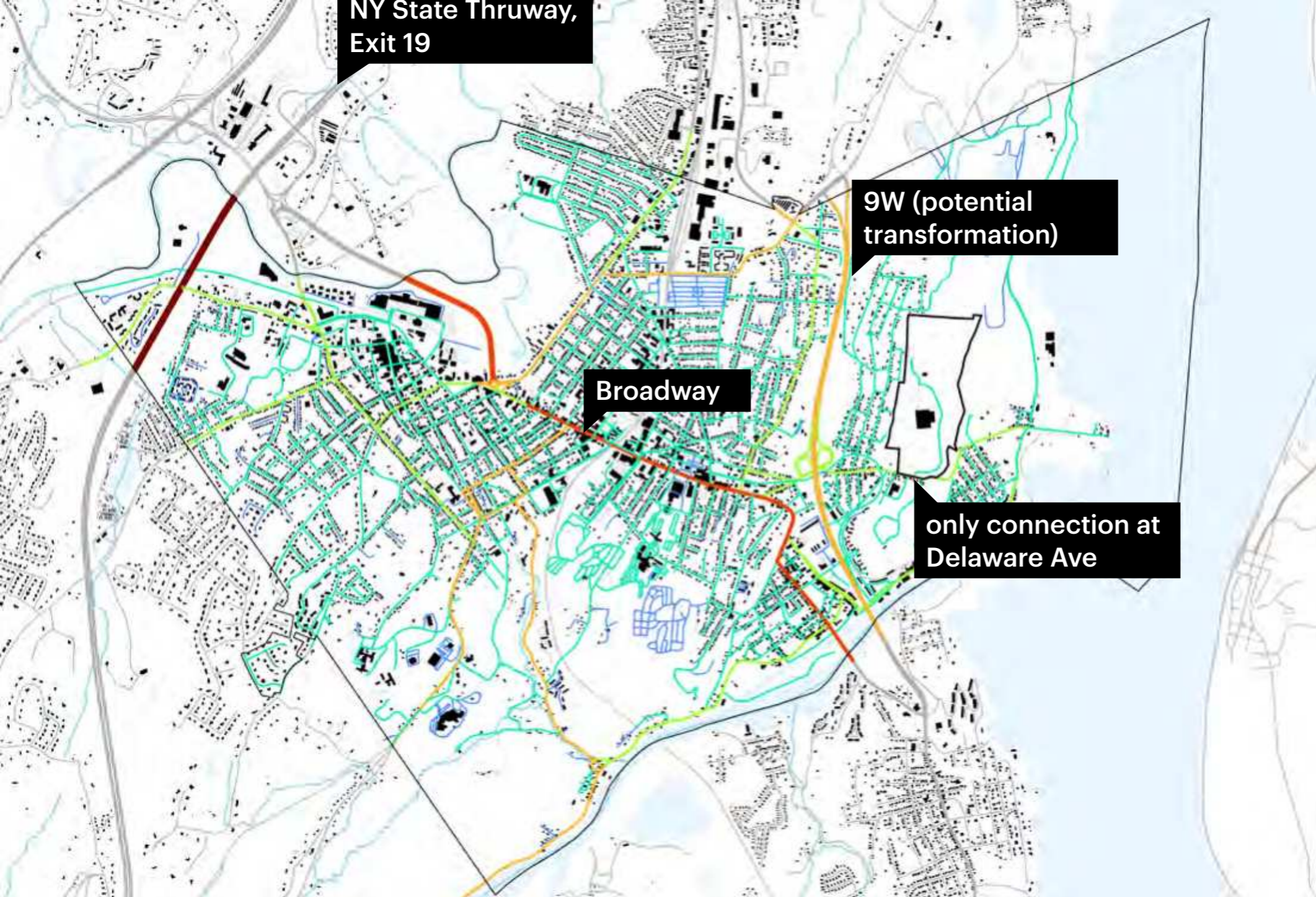


Hutton Brickyard/Works



Cordts Mansion

Roads

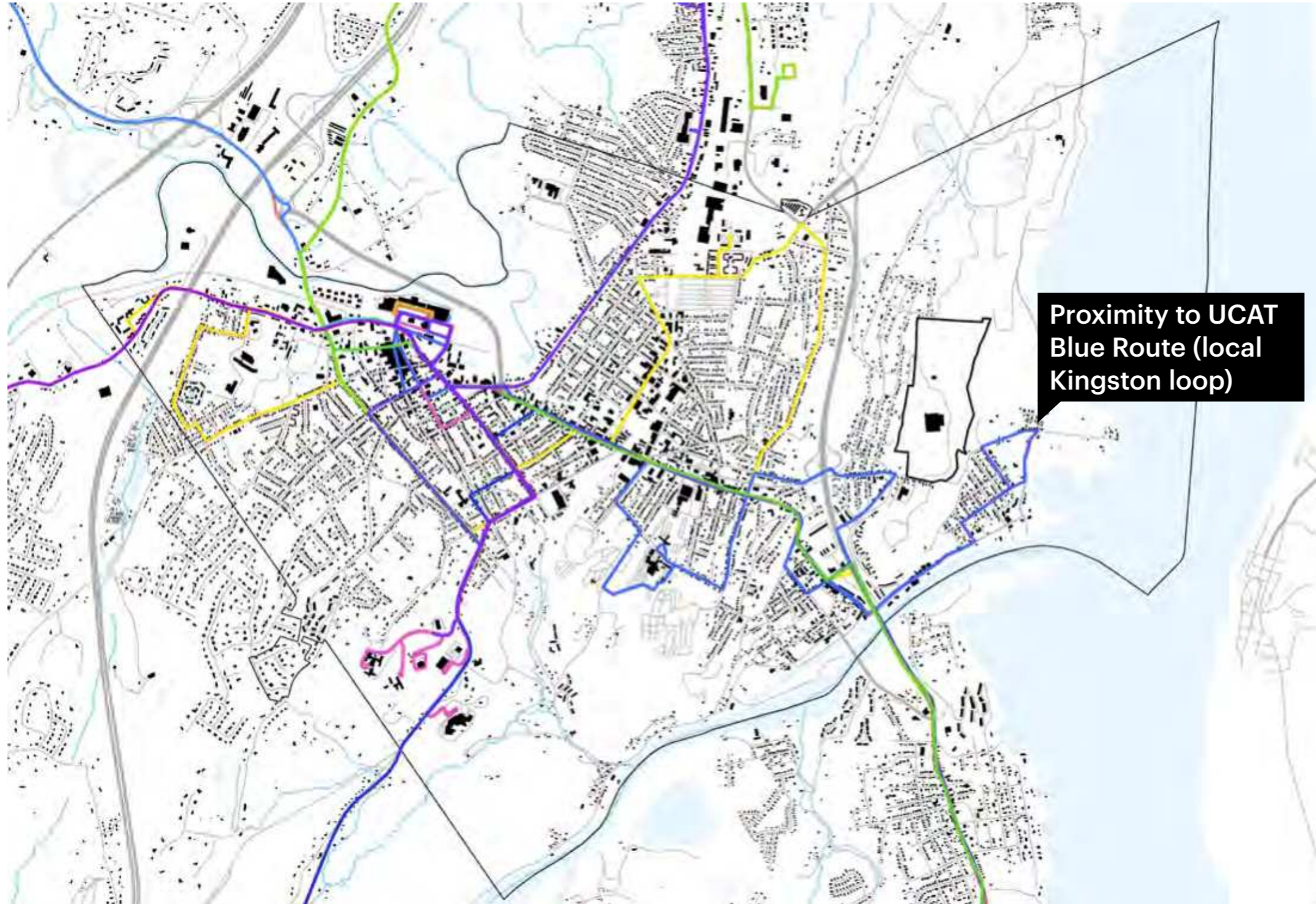


- Interstate
- Highway
- Major Road
- Local Road
- Neighborhood
- Residential

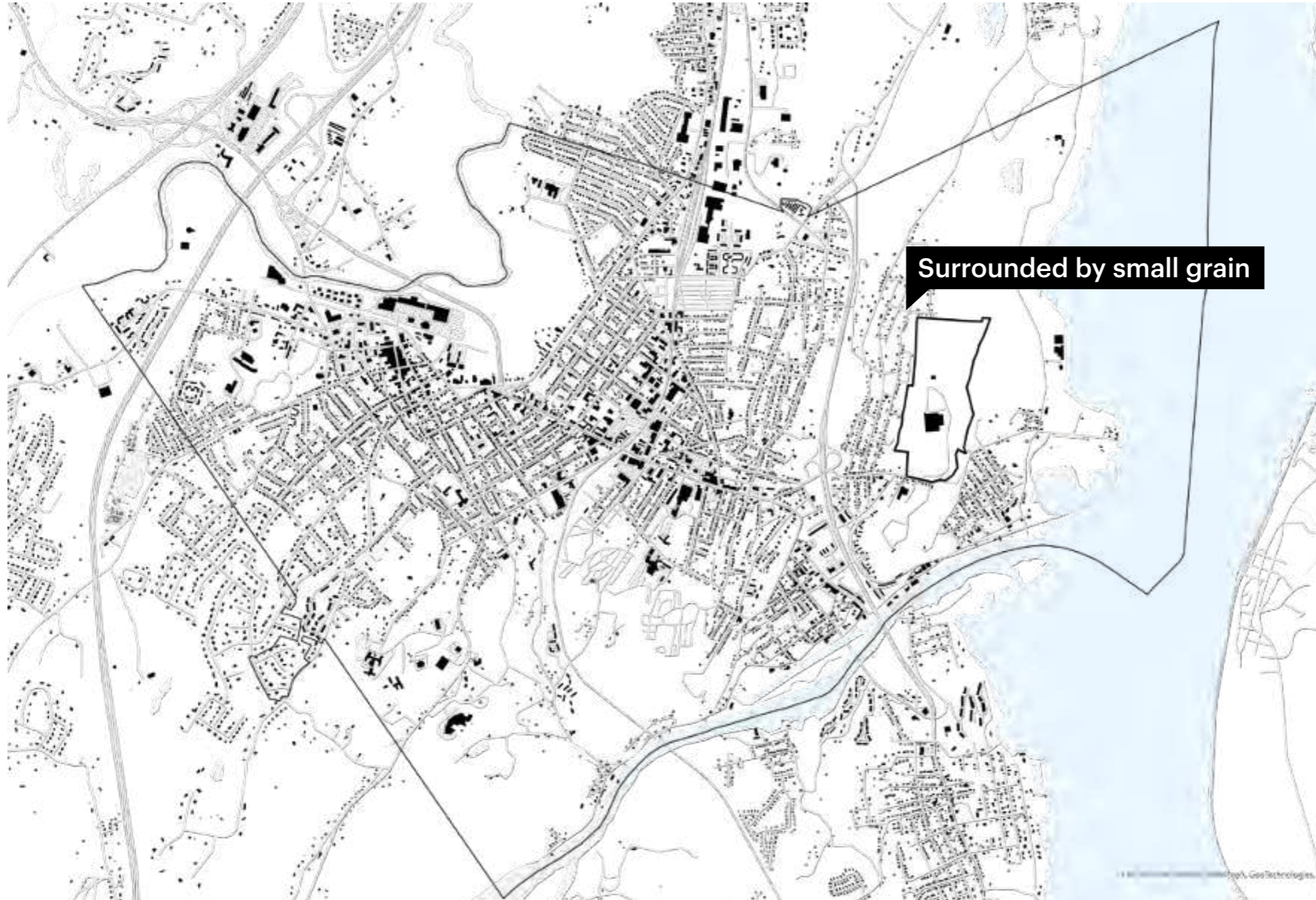
Trails



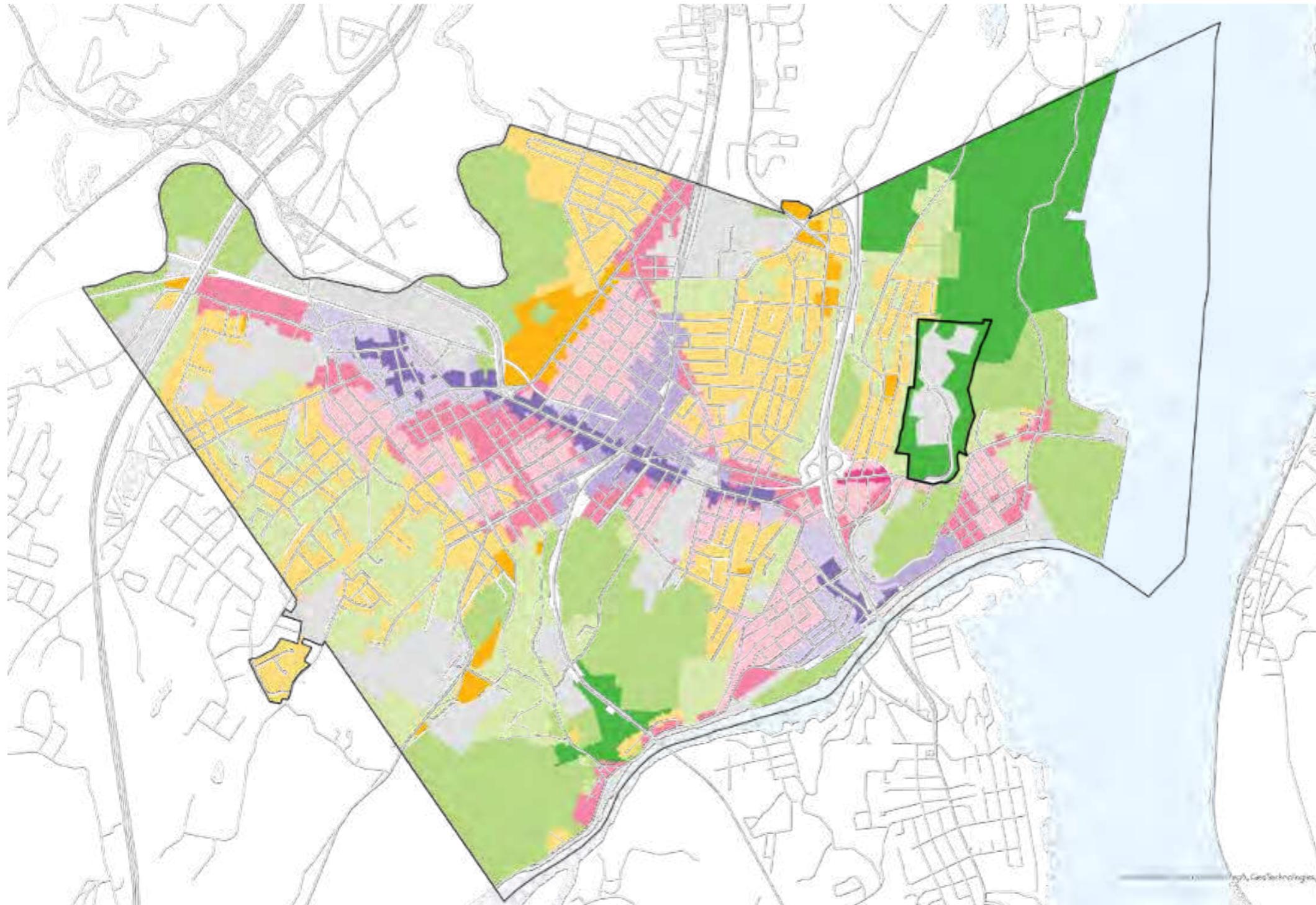
Transit access



Building footprint



Zoning map



- Urban Center**
- T5 Main Street
- T5 Flexible
- T5 Neighbourhood
- Neighborhood**
- T4 Main Street
- T4N Neighborhood
- T3 Neighborhood
- T3 Large Lot
- T2 Conservation
- T1 Natural
- SD Special Districts

Zoning: Ponckhockie

T4 Neighborhood



T4 Main Street (T4MS)



T4 Neighborhood & T4 Neighborhood-Open (T4N & T4N-O)

Intent: A walkable, vibrant urban main street serving multiple neighborhoods with commercial, retail, entertainment and civic uses, public transportation, and small-to-medium footprint, medium-to-high density Building Types.

Intent: To provide a variety of housing choices, in small-to-medium footprint, medium-to-high density Building Types, which reinforce the walkable nature of the neighborhood, support neighborhood-serving retail and service uses adjacent to this zone, and support public transportation alternatives. An Open Sub-Zone provides the same building form but allows for a more diverse mix of uses.

General Use

Primarily ground floor commercial uses with a mix of commercial and residential uses on the floors above.

General Use

Primarily residential with smaller neighborhood-supporting commercial uses in Neighborhood Business buildings and in the Open Sub-Zone.

Primary Characteristics

Primarily Attached
Buildings at or Close to ROW
No Side Setbacks
Up to 3 Stories (4 with Bonus)
Parking in the Rear
Primarily Shopfronts

Primary Characteristics

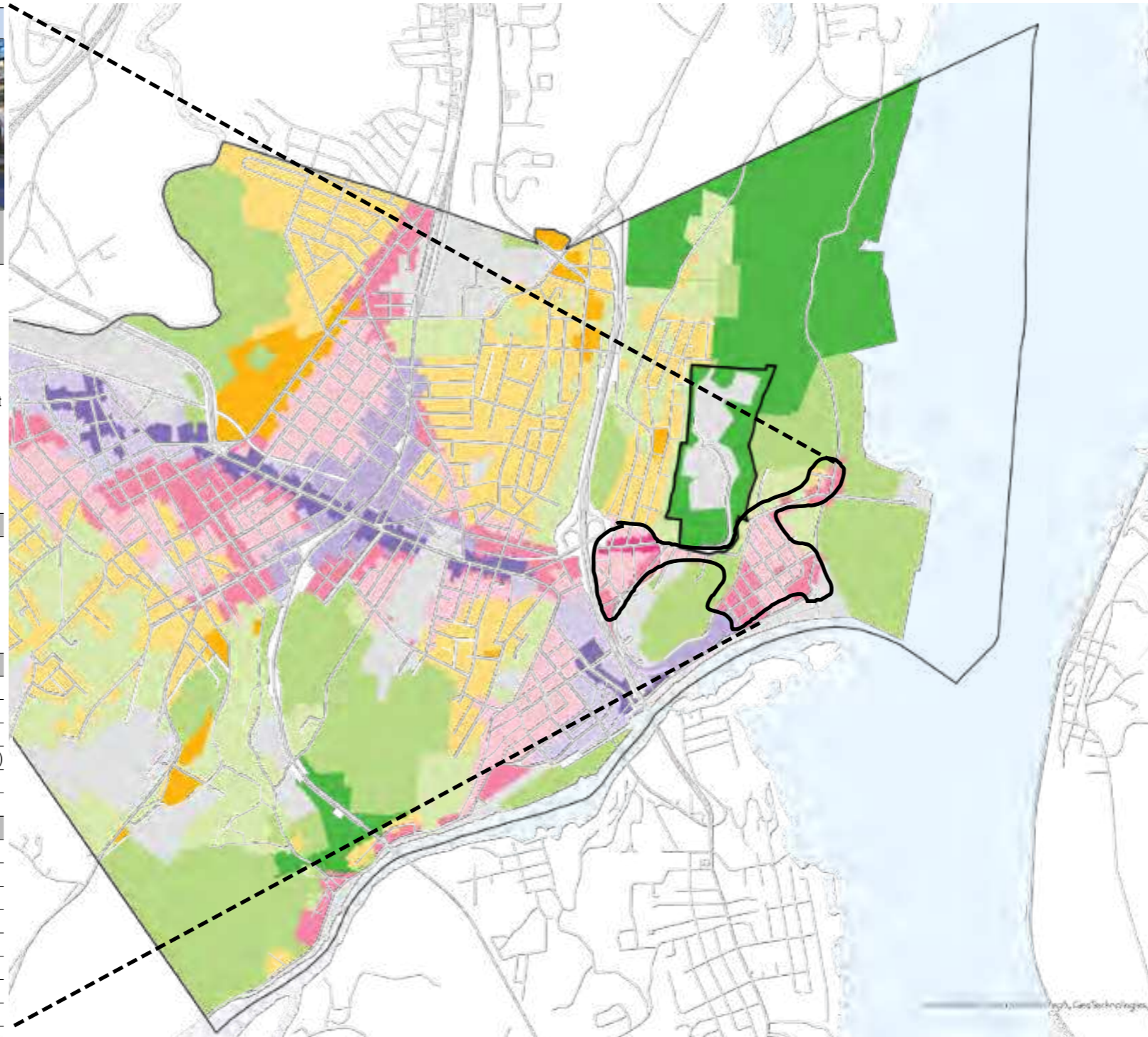
Primarily Detached
Buildings Close to ROW
Small to No Side Setbacks
Up to 2.5 Stories (3.5 with Bonus)
Parking to the Side or Rear
Diverse Mix of Frontages

Allowed Building Types

Main Street Building
Liner Building
Live/Work Building
Stacked Flats
Neighborhood Business
Rowhouse



Allowed Building Types

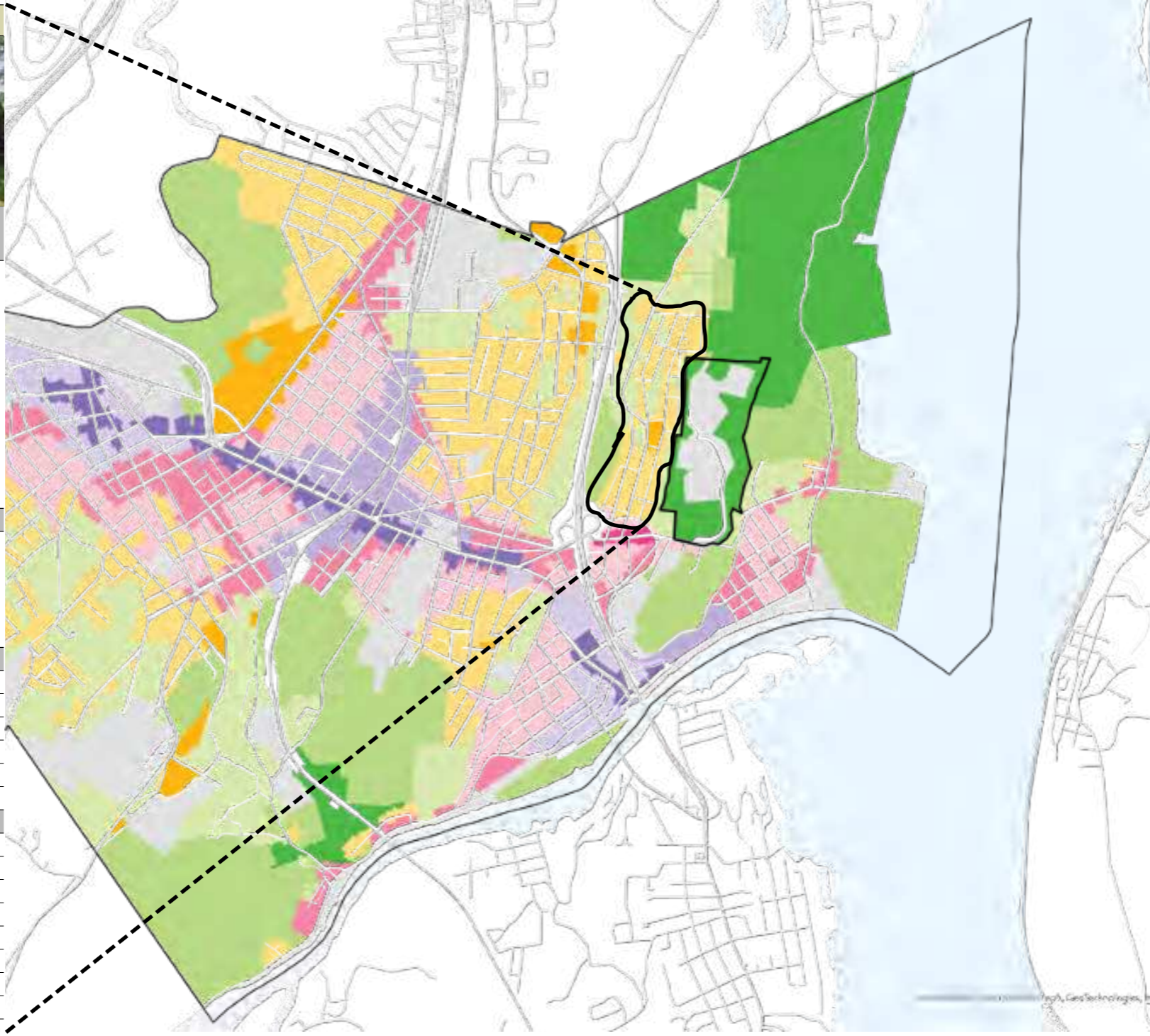
Live/Work Building
Multiplex & Small Multiplex
Neighborhood Business
Rowhouse
Cottage Court
Duplex
Detached House
Carriage House













- Urban Center**
- T5 Main Street
 - T5 Flexible
 - T5 Neighbourhood
- Neighborhood**
- T4 Main Street
 - T4N Neighborhood
 - T3 Neighborhood
 - T3 Large Lot
 - T2 Conservation
 - T1 Natural
 - SD Special Districts

Zoning: the Avenues

T3 Neighborhood	T3 Large Lot
	
T3 Neighborhood & T3 Neighborhood-Open (T3N & T3N-O)	T3 Large Lot (T3L)
<p>Intent: To protect the integrity of existing, small-to-medium lot detached homes and reinforce their role within walkable neighborhoods and to allow new neighborhoods with this component. An Open Sub-Zone provides the same building form but allows for a more diverse mix of uses.</p>	<p>Intent: To protect the integrity of existing, medium-large lot detached homes and reinforce their role within the City.</p>
General Use	General Use
Primarily residential with smaller neighborhood-supporting commercial uses in Neighborhood Business buildings and in the Open Sub-Zone.	Primarily residential.
Primary Characteristics	Primary Characteristics
Detached	Detached
Small-to-Medium Setbacks	Small-to-Large Setbacks
Up to 2.5 Stories (3.5 with Bonus in T3N-O)	Up to 2.5 Stories
Parking to the Side or Rear	Parking to the Side or Rear
Stoop/Porch Frontages	Common Yard Frontages
Allowed Building Types	Allowed Building Types
Small Multiplex	Small Multiplex
Neighborhood Business	Cottage Court
Cottage Court	Duplex
Duplex	Detached House
Detached House	Carriage House
Carriage House	



- Urban Center**
-  T5 Main Street
-  T5 Flexible
-  T5 Neighbourhood
- Neighborhood**
-  T4 Main Street
-  T4N Neighborhood
-  T3 Neighborhood
-  T3 Large Lot
-  T2 Conservation
-  T1 Natural
-  SD Special Districts

Site analysis

Site pictures - aerial



Looking west over Howmet building



Looking north, utility corridor, river



Site's eastern slopes



Utility corridor, looking southeast



Forest canopy



Overview of utility corridor, south

Cordt Mansion



Looking south/east away from site

Kingston Lighthouse

Ponckhockie



Howmet Aerospace

View of river from utility corridor

KCLB development site



Looking south over site

Site pictures - ground



Wetland at northwest corner



Forest, dense canopy, clear understory



Distant view of river from utility corridor



Forest and slope



Forest looking north from dead-end



Corporate Dr. at the dead end



CMS building, overgrown clearing



Howmet building and parking lot



Corporate Dr. at top of hill



Entrance to Knaust Caves

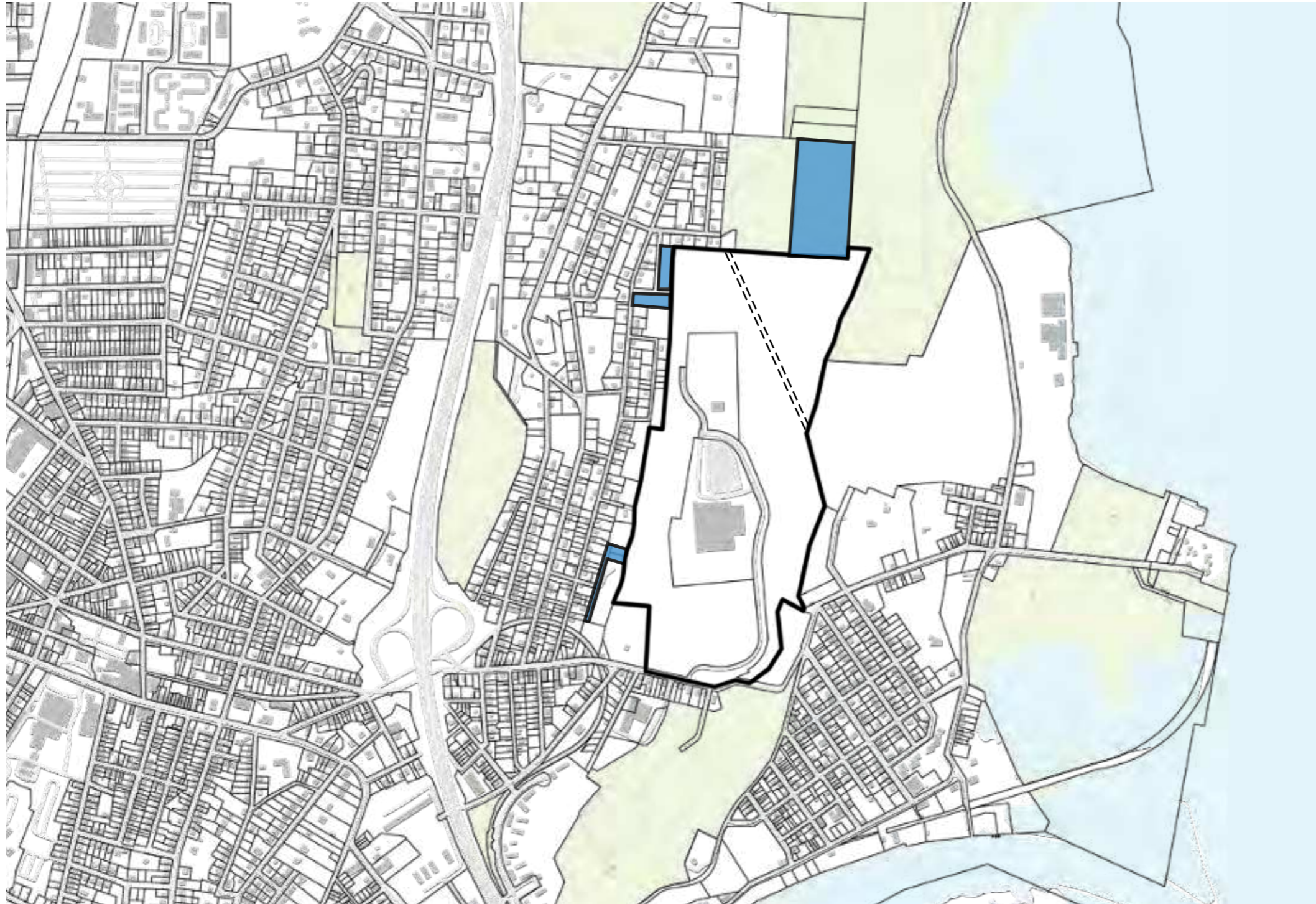


Corporate Dr. at Delaware Ave.



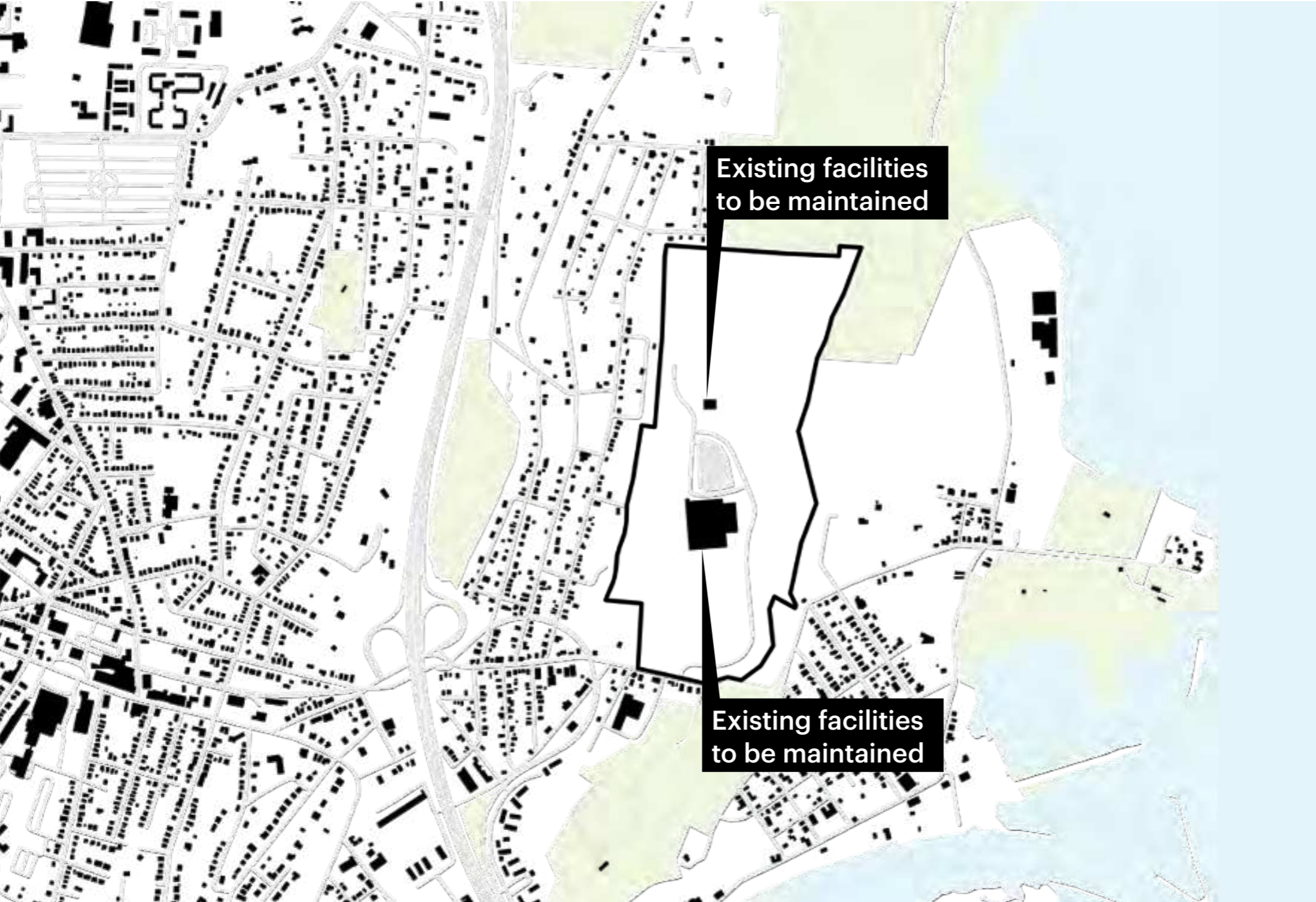
Corporate Dr.

Ownership



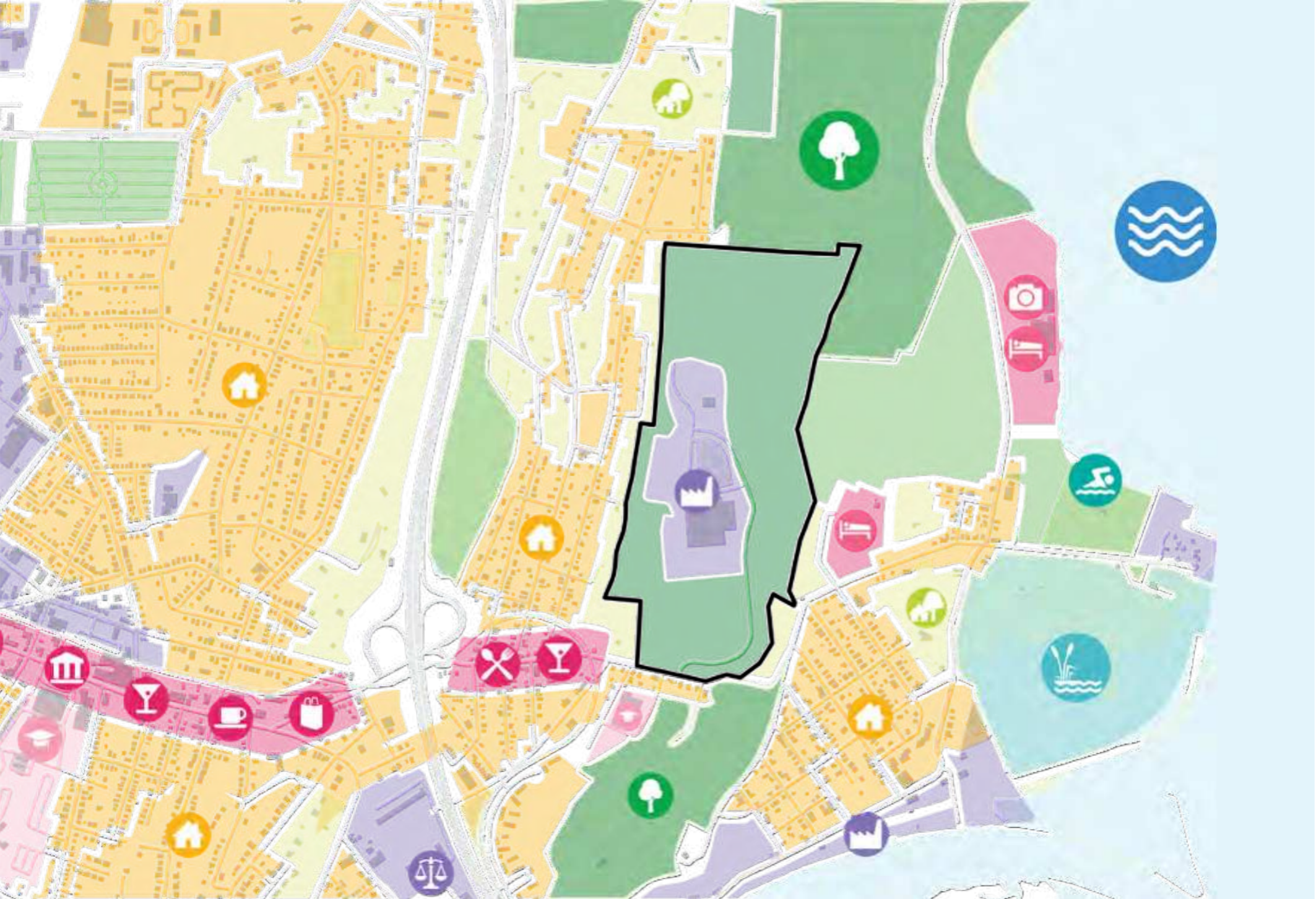
- Parcel boundary
- City-owned parcels

Existing buildings



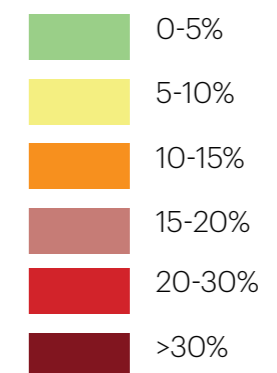
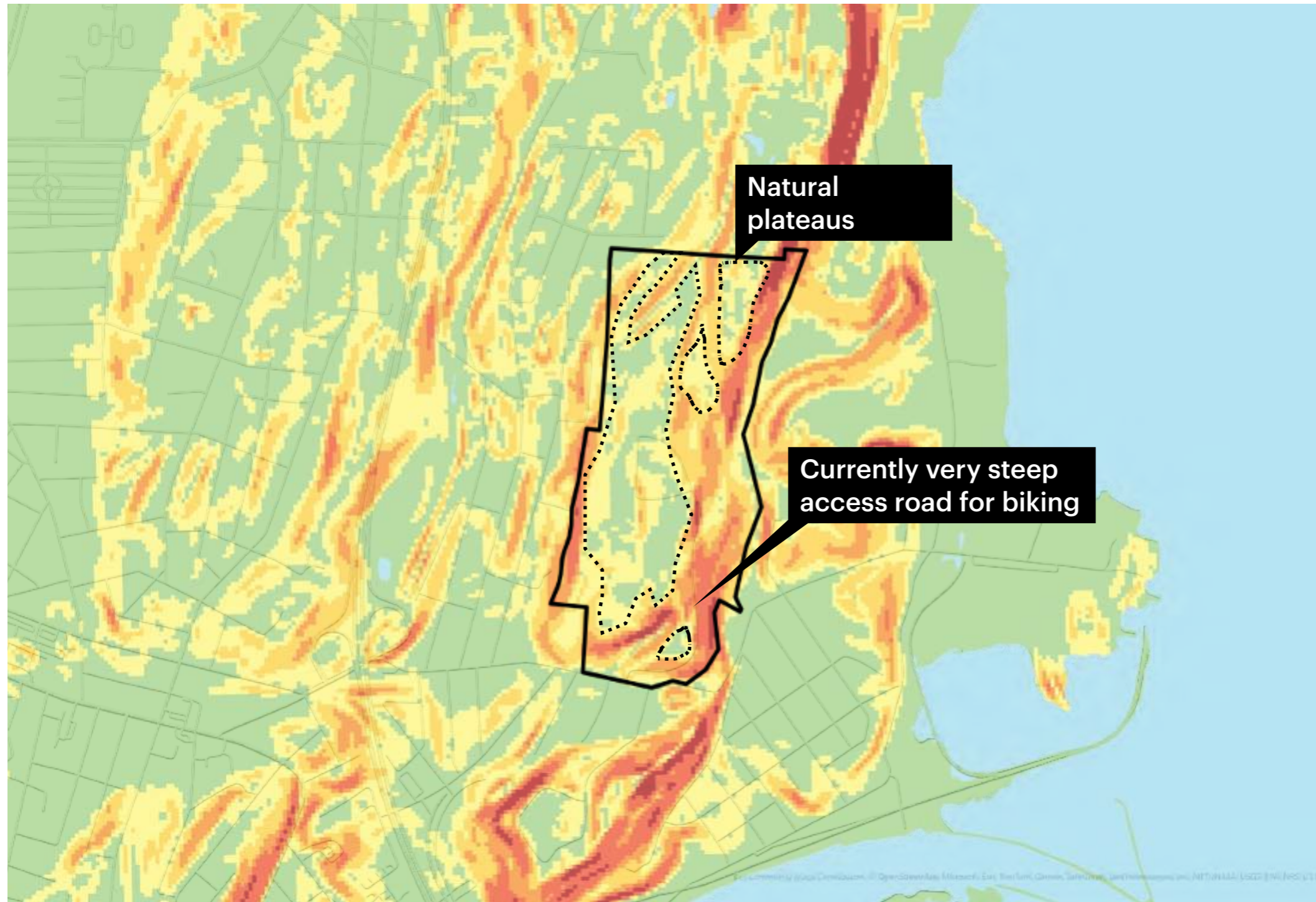
Existing building

Existing land use



- Green
- Residential
- Low denisty residential
- Work
- Amenities
- Hudson river

Topography (slopes)



Restrictions & challenges
Strengths & opportunities

Restrictions & challenges



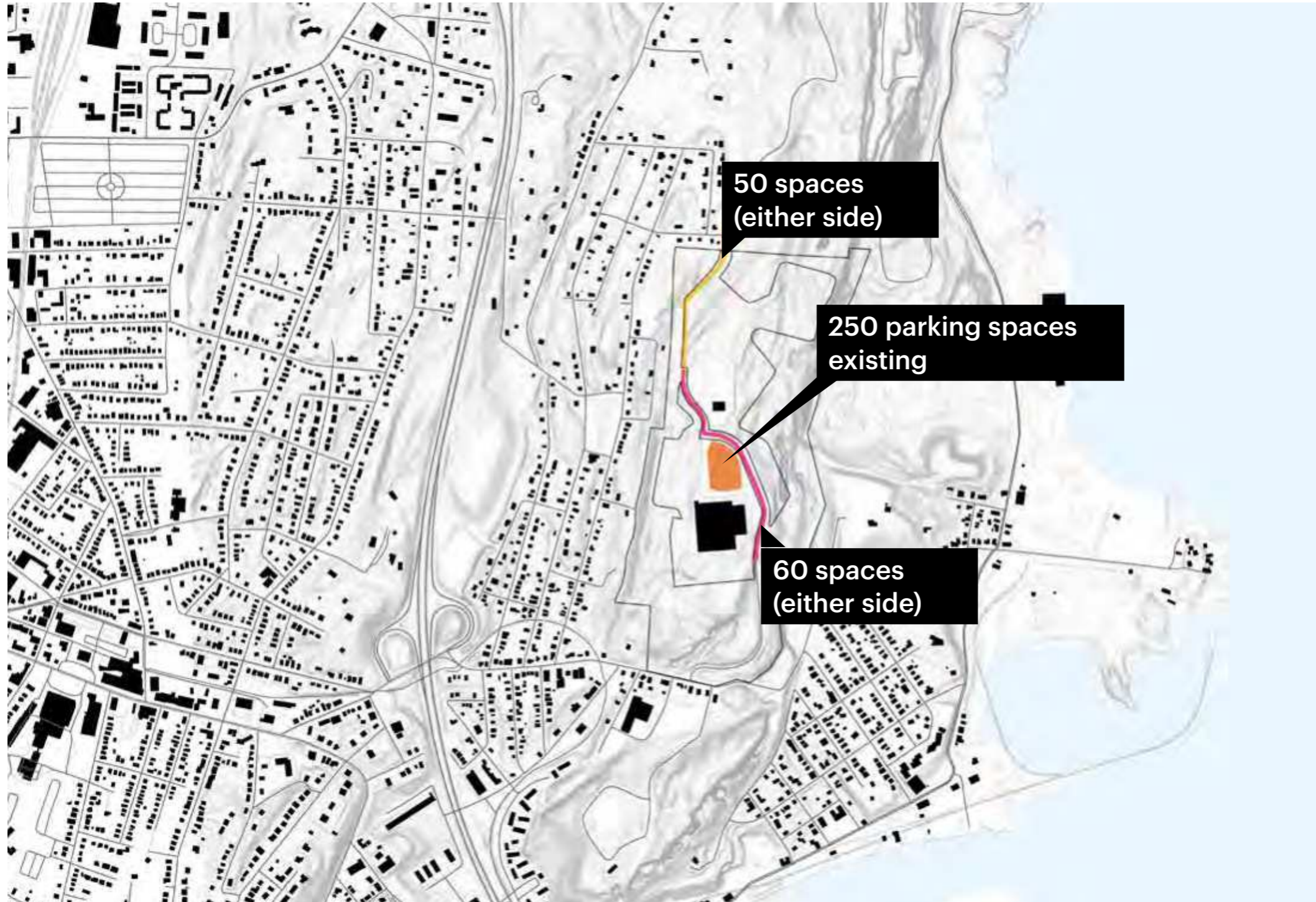
Strengths & opportunities



Connectivity opportunities



Parking opportunities



Shared Parking spaces: 250

On street parking (one side): 110
On-street parking (two sides): 220

Total possible parking: 470
(no new parking lots or garages)

Commercial program opportunities

Daycare / Preschool

Prognosis:

STRONG

Supply: Constrained
Demand: Robust
Draw: Local (City/Town)
Size: 8,500 - 12,000 sf



Existing daycare and early education programs have significant waitlists.

Forest-based programming could be explored for this site, as a differentiator from regional competitors.

Dentist / Physician

Prognosis:

STRONG

Supply: Constrained
Demand: Robust
Draw: Local (City/Town)
Size: 2,500 - 7,500 sf



Medical professionals in the Hudson Valley region have been inundated with new patients from the post-pandemic population surge.

Restaurant / Destination F&B

Prognosis:

POSSIBLE

Supply: Saturated
Demand: Robust
Draw: Regional
Size: 2,000 - 6,000 sf



Food service at the site would rely on intentional trips, so a destination play that capitalized on river views would be required to compete with the saturated regional restaurant scene.

Studio Office / Live-Work

Prognosis:

POSSIBLE

Supply: Minimal
Demand: Marginal
Draw: Regional
Size: 500 - 2,000 sf



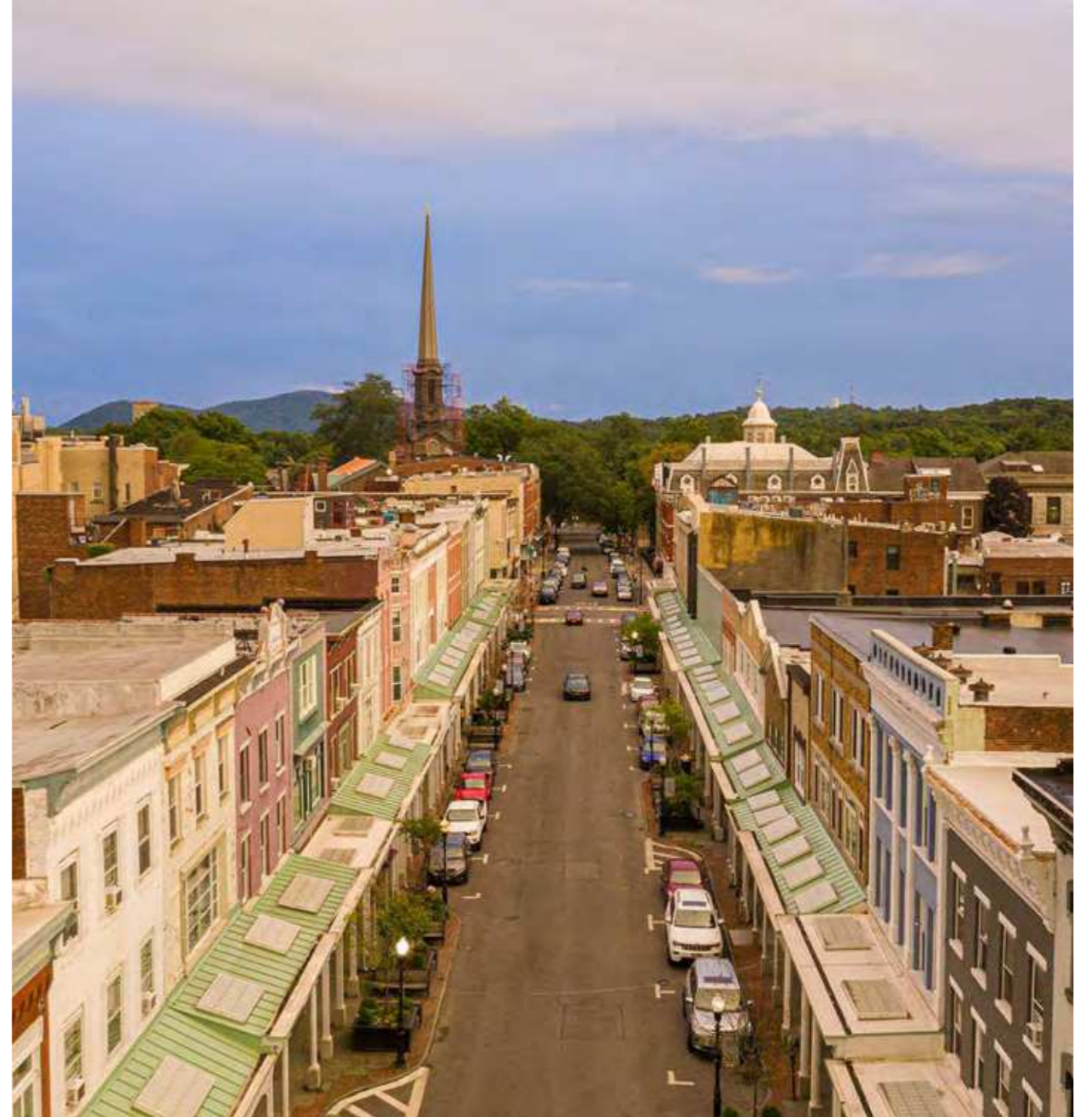
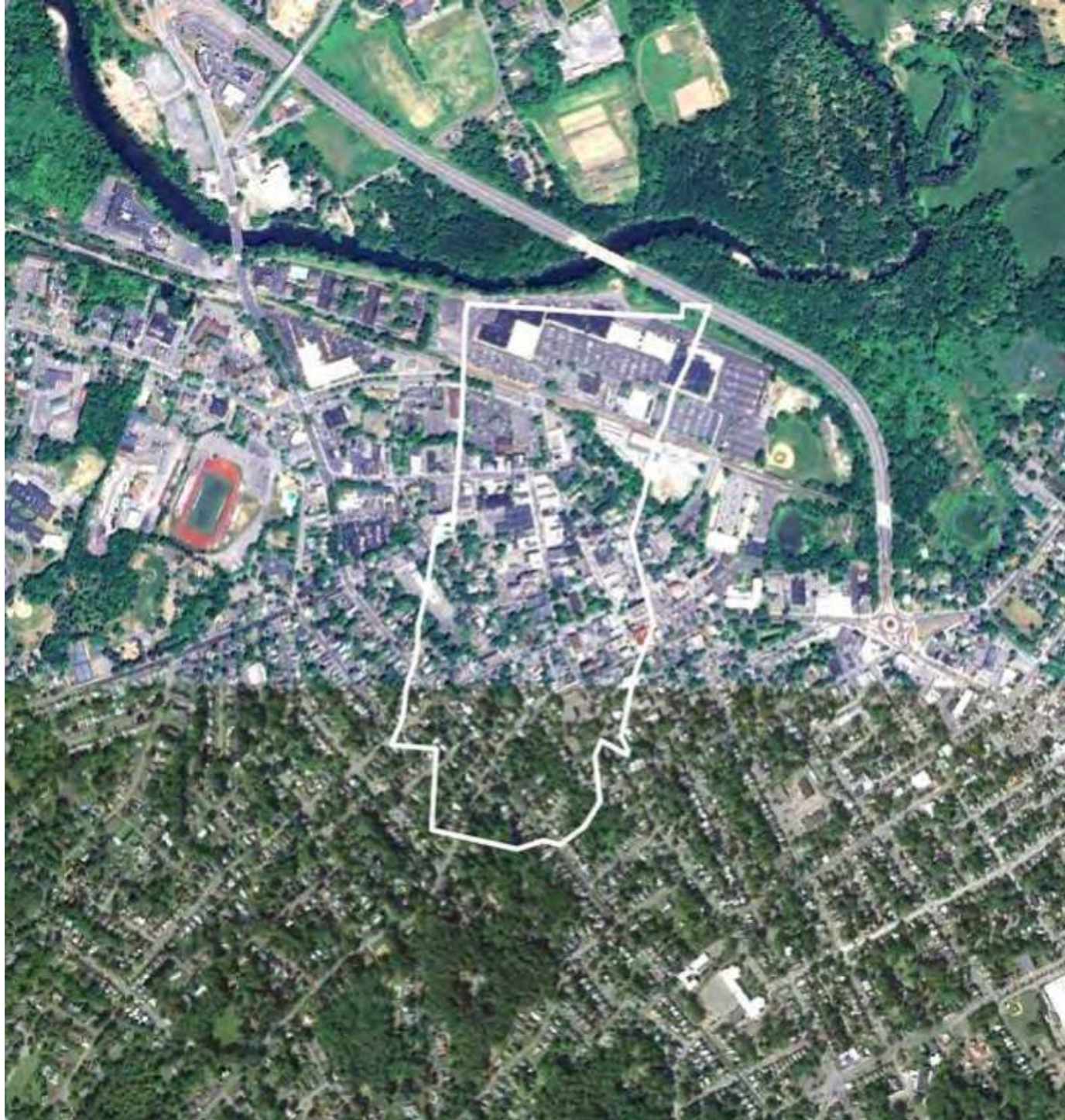
While a co-working space or large office space is unlikely to find a competitive position, it may be viable to leverage WFH to provide compelling live/work spaces, including some more-dedicated "step-out" office spaces, perhaps supported by key shared amenities.

Scale comparison

Scale comparison: Kingston Business Park



Scale comparison | Uptown Kingston



Scale comparison | Tarrytown



Scale comparison | Monnikenhuizen, Arnhem



Scale comparison | Haverleij, Den Bosch



Scale comparison | Ypenburg, The Hague



Scale comparison | Kerkebosch, Zeist



Ambitions

Ambitions
What-if...? scenarios
Ambitions: action plan

3

Ambitions



Preserving nature



Integrated community



Program & typology mix



Mobility shift



Future proof

What if...

...KBP becomes a benchmark of co-living with nature?



Preserving nature: action plan



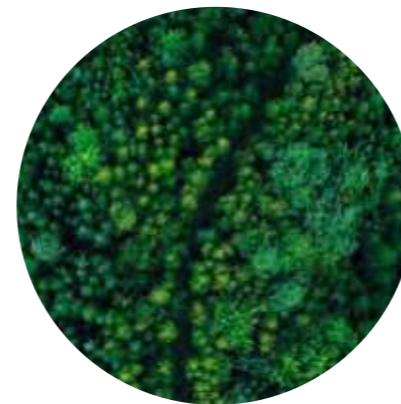
Preserving nature



Utilize existing infrastructure and minimize new infrastructure.



Use typologies that have smaller impact on the natural terrain.



Maximize forest footprint. Smart urban structure in order to minimize footprint of the intervention.



Avoid using foreign species. Local species adapt better in climatic conditions and react well with existing ones.



Improve biodiversity. Not only preserve biodiversity but create nature-inclusive design.

What if...

...we could create a vivid and diverse community?



Integrated community: action plan



Integrated community



Gathering spaces for all types of user.



Accessible public and private spaces for any type of user.



Childen-friendly design. Buildings and public space designed from the perspective of kids in terms of safety, accesibility, and usability.



Vibrant communal species inside bigger buildings. Spaces where communities can meet and integrate.



Develop high quality affordable housing units and make them an integral part of the whole.

What if...

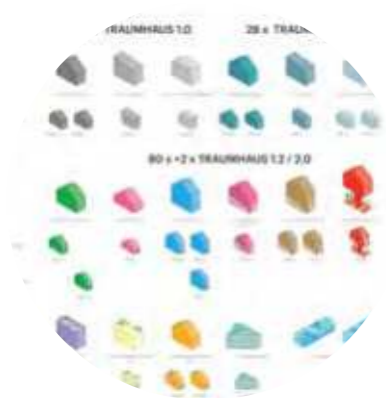
...we could mix typologies
from a big spectrum
and create a very mixed
neighborhood?



Program and typology mix: action plan



Program and typology mix



Maximize typology mix in order to address the needs of a diverse group of people



Live next to industrial units. Do all necessary interventions that can allow the development of housing next to industrial units.



Amenities such as dentist or a daycare, strategically positioned in the plot.



Vibrant public spaces as connectors of people and different housing clusters.



Integrated live-work spaces like flexible working spaces, ateliers and small colab spaces.

What if...

...we could introduce a zero carbon mobility strategy within KBP?



Mobility shift: action plan



Mobility shift



Shared parking solutions
in order to address the needs of a diverse group of people.



Pedestrian friendly neighborhood well connected to its surroundings and public transport.



Bike friendly neighborhood.
Easy navigation within the site and convenient connections with strategic places of the city.



Optimize delivery systems and take into consideration new delivery and logistics technologies.

What if...

...we could design a neighborhood that can be climate-proof for the next 100 years?



Future proof: action plan



Future proof



Maximize rain water penetration in the ground: less impervious surfaces, less paving, roofs that can collect water.



Design with sustainable water cycles: Water collection, storage and management onsite.



Embedded renewable energy sources and passive energy building design.



Use of recycled/nature-based materials and sustainable building techniques.

Towards a design concept

Buildable Area Analysis
Development Frameworks

4

Potential site organizing concepts

Main spine



Branches



Mosaic

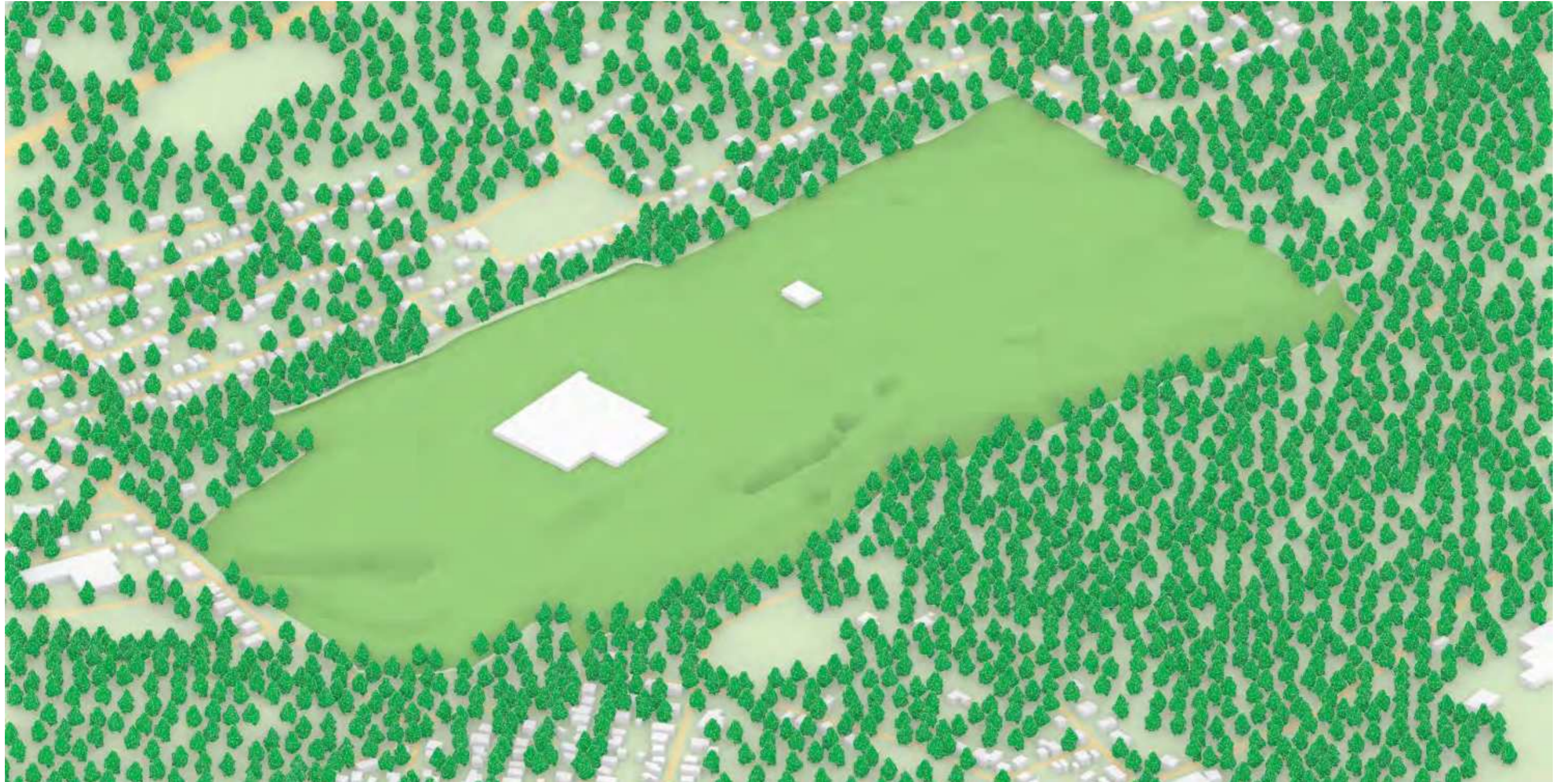


Ribbon



Buildable Area Analysis

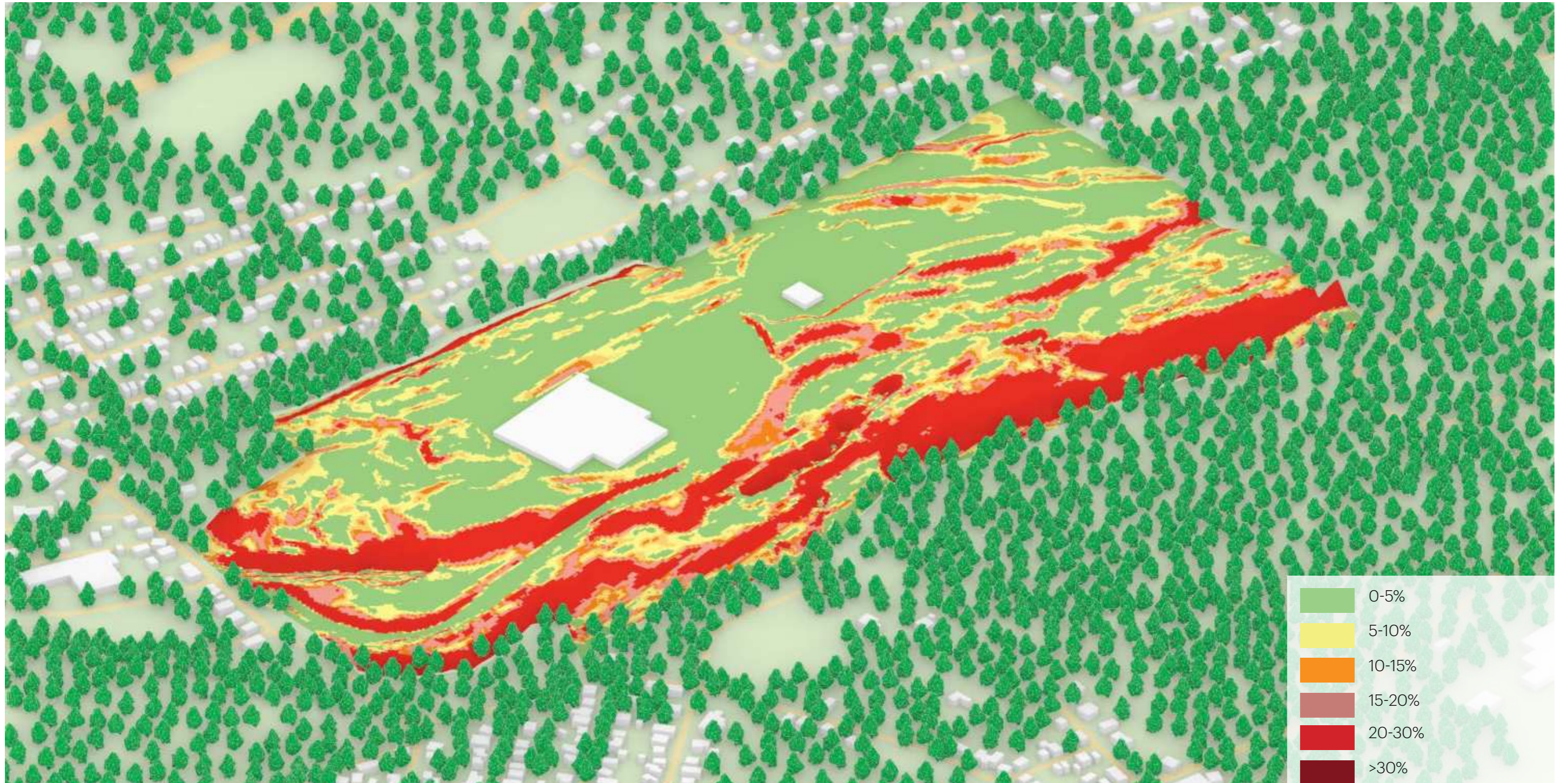
Site



Contour lines 2 ft.



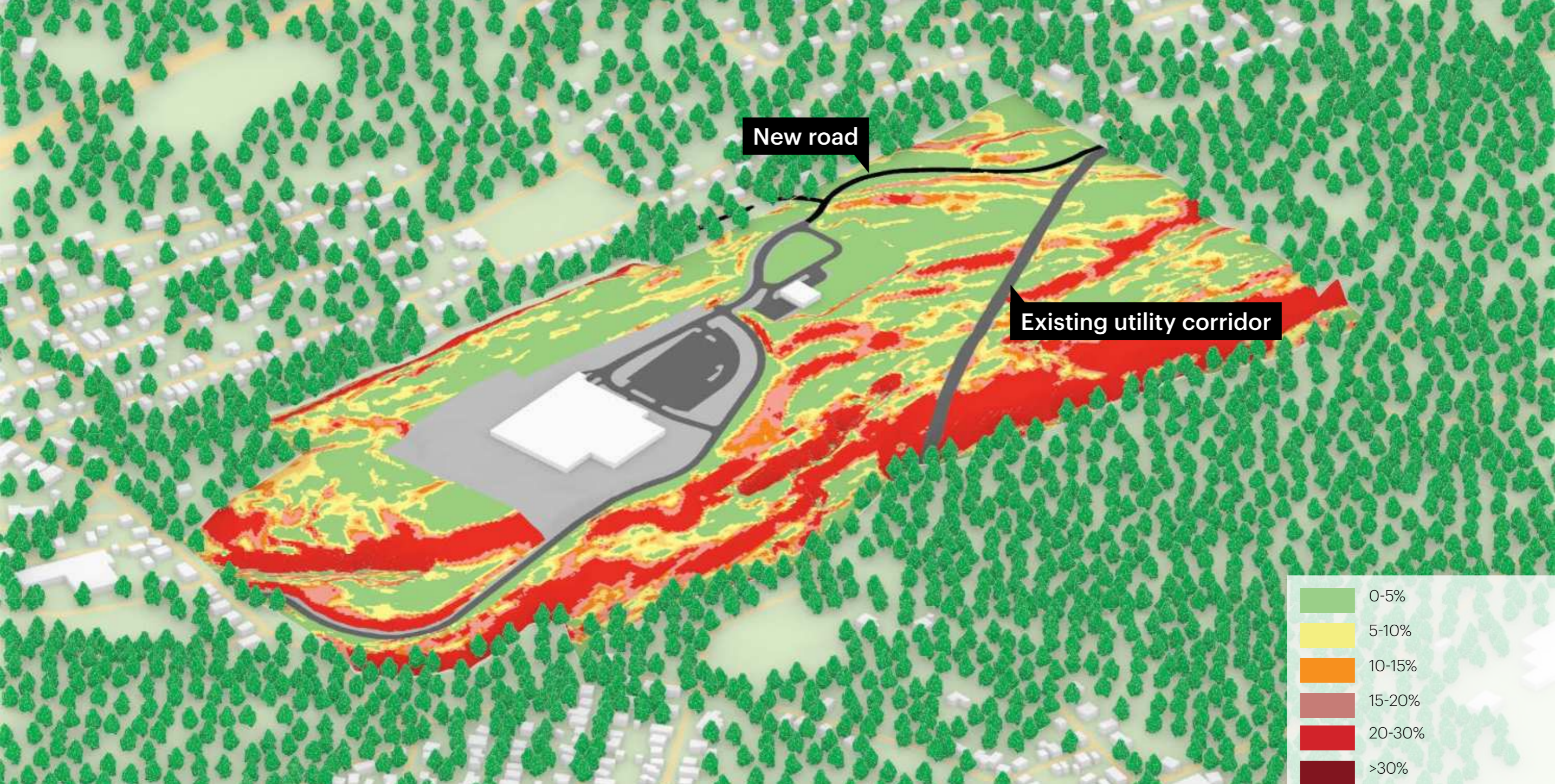
Slope classification



Parcel boundaries



Roads and utility corridor



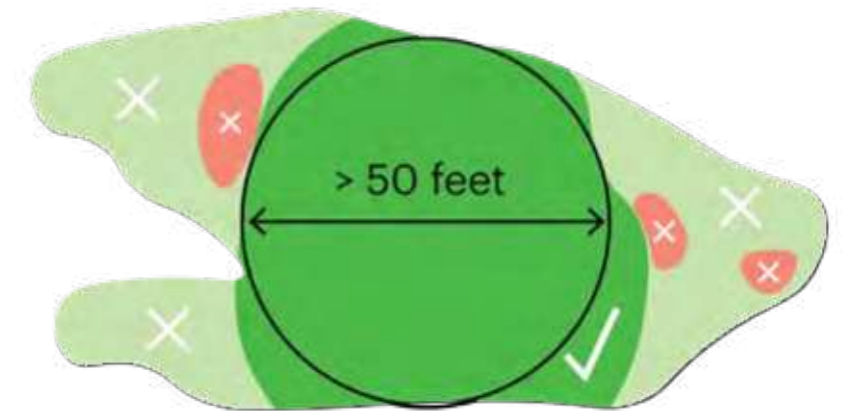
The requirements to select the buildable area



< 5% slope inclination



< 20% slope inclination



> 50 feet buildable area

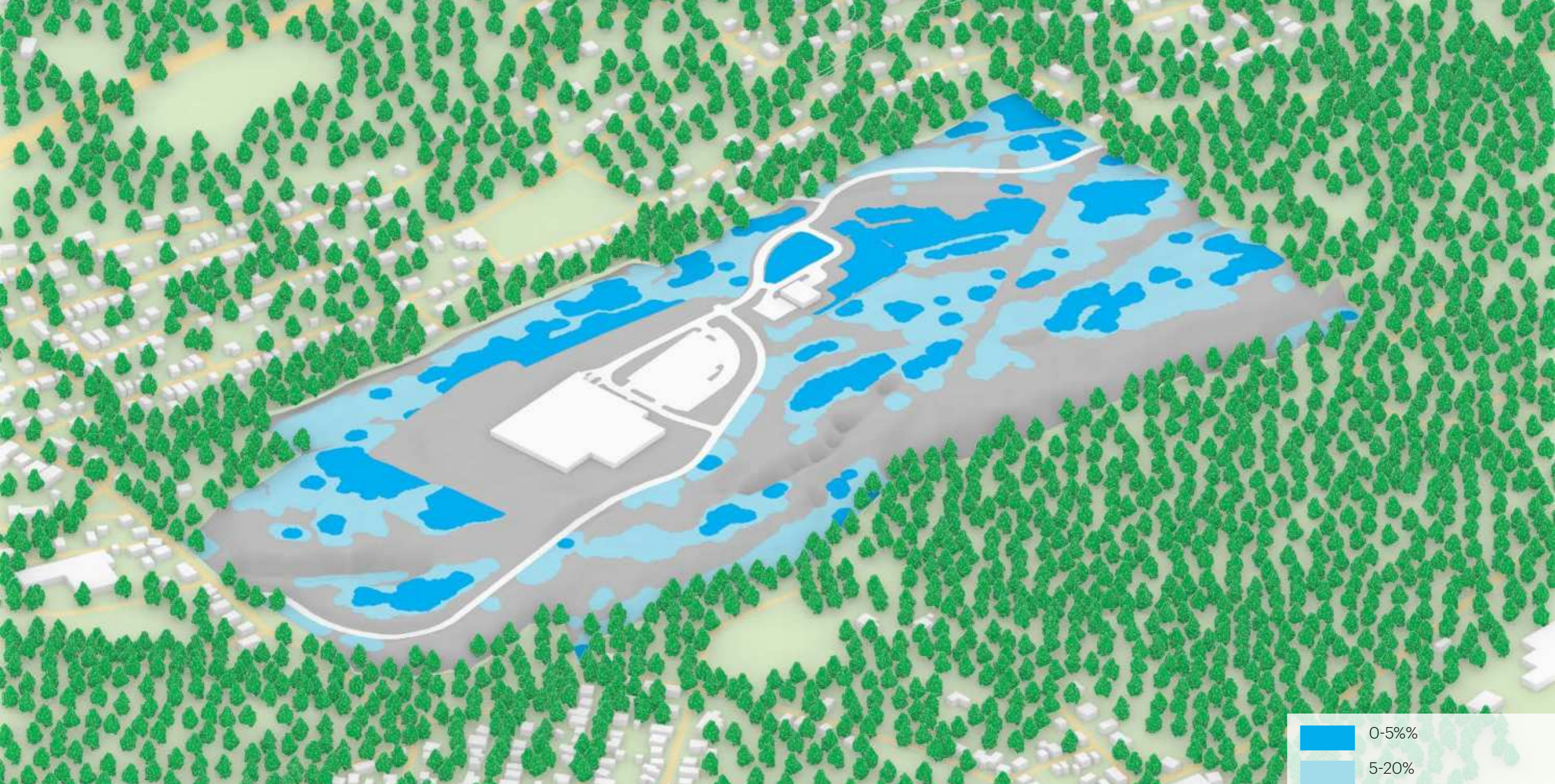
Select buildable areas



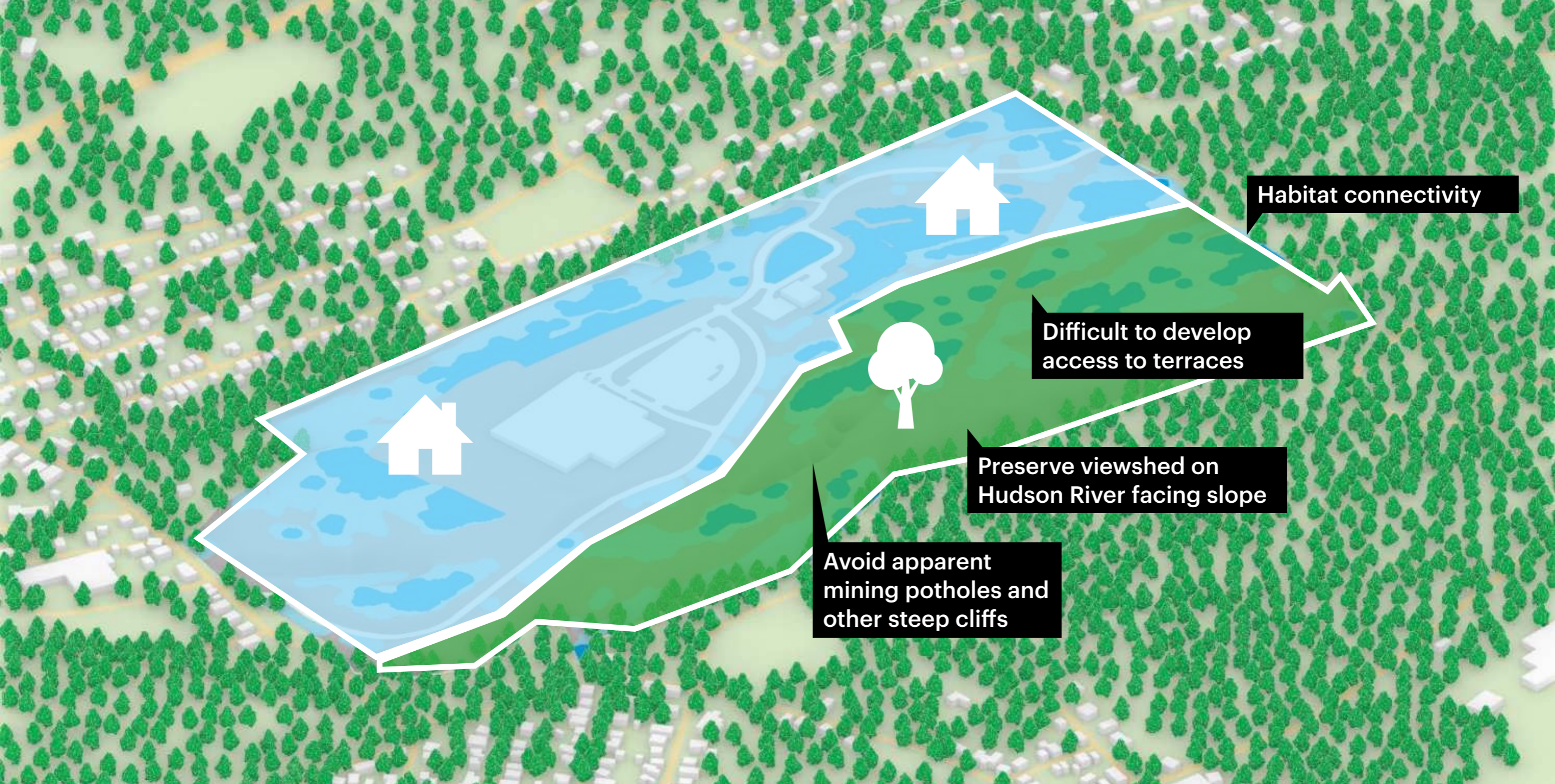
Take a setback from existing properties



Final buildable areas



Preserve forest on the east side



Connecting to the surroundings



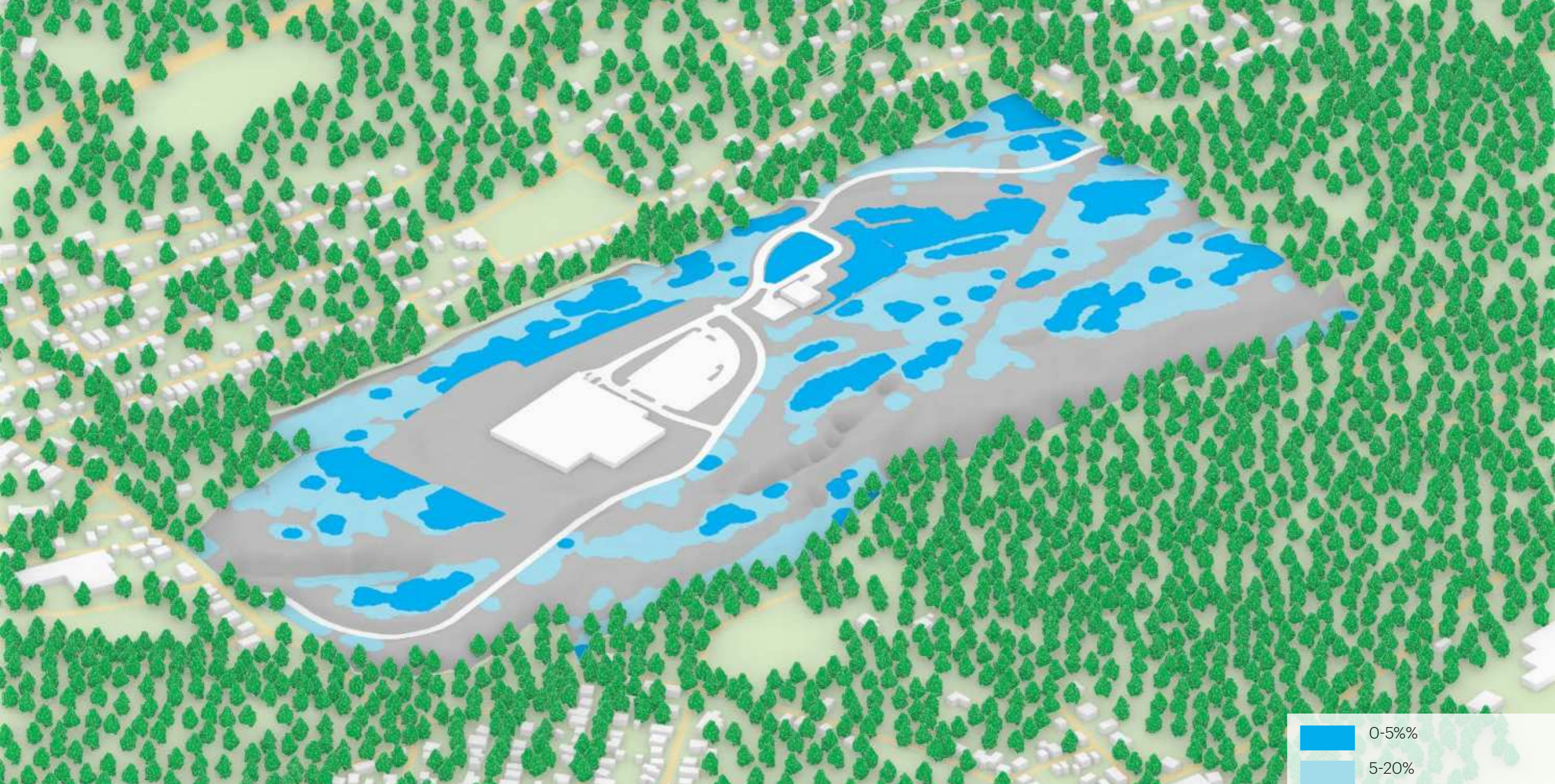
Commercial cluster & anchor point



Development Frameworks

Framework 1:
Densify the Completed Spine

Buildable area



Offset 40 ft. from main spine



Development potential along main spine



Development potential along main spine



GFA
108.000 ft²

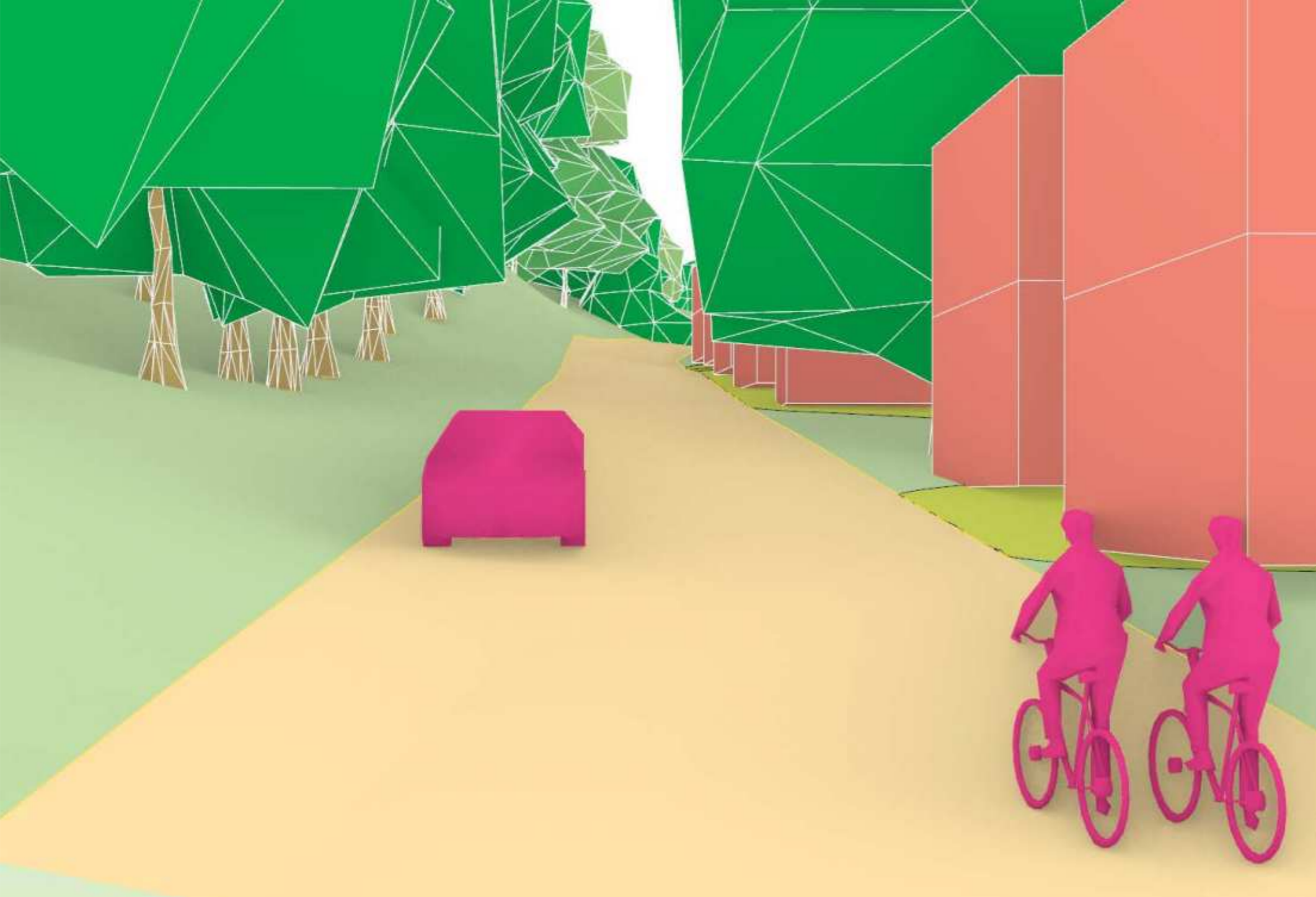
Floors
2

Buildings
64

Units
64

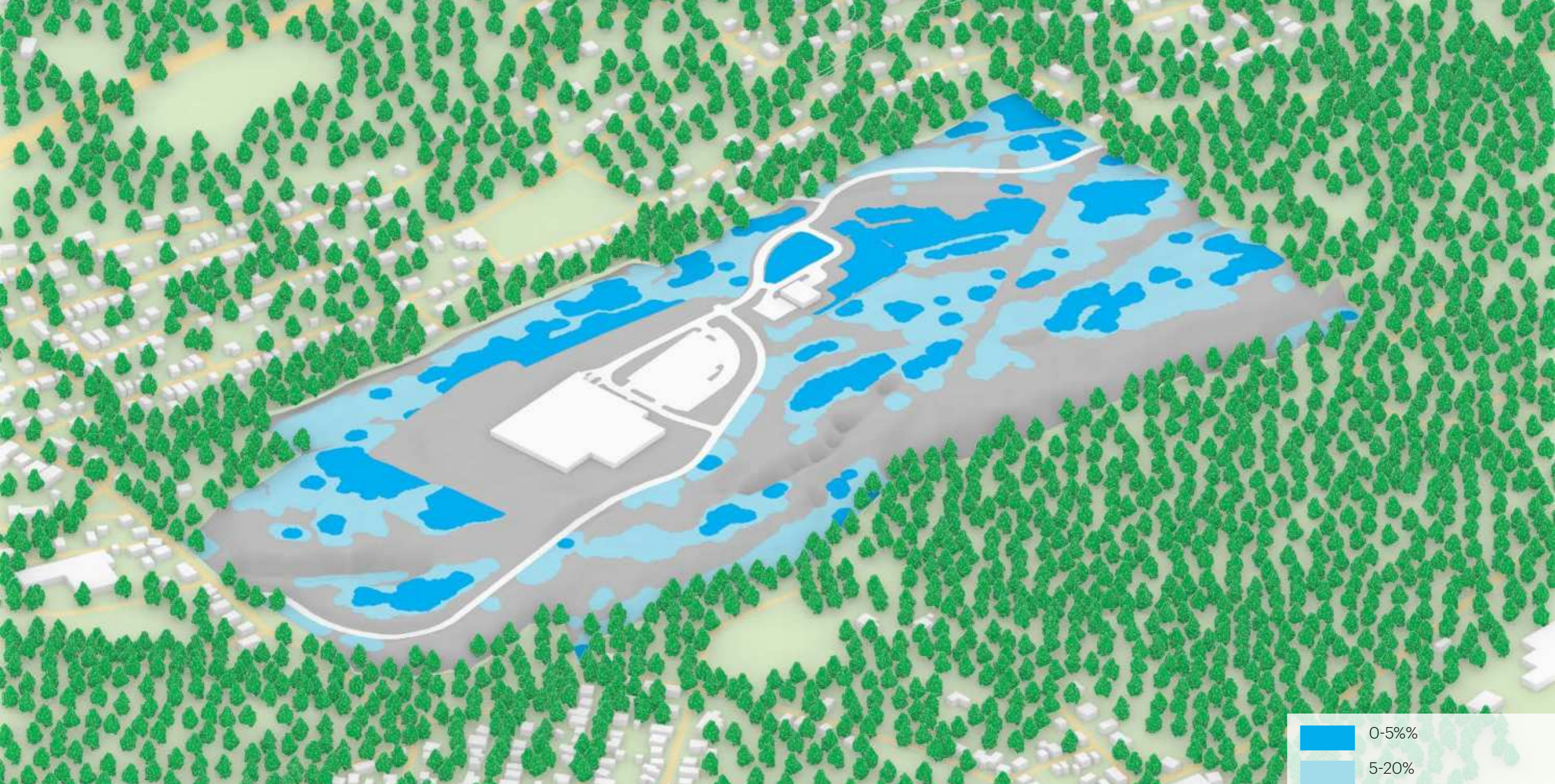
Avg unit size
1.690 ft²

Development potential along main spine



Framework 2:
Branching Clusters at Terraces

Buildable area



Select clusters and simplify geometry



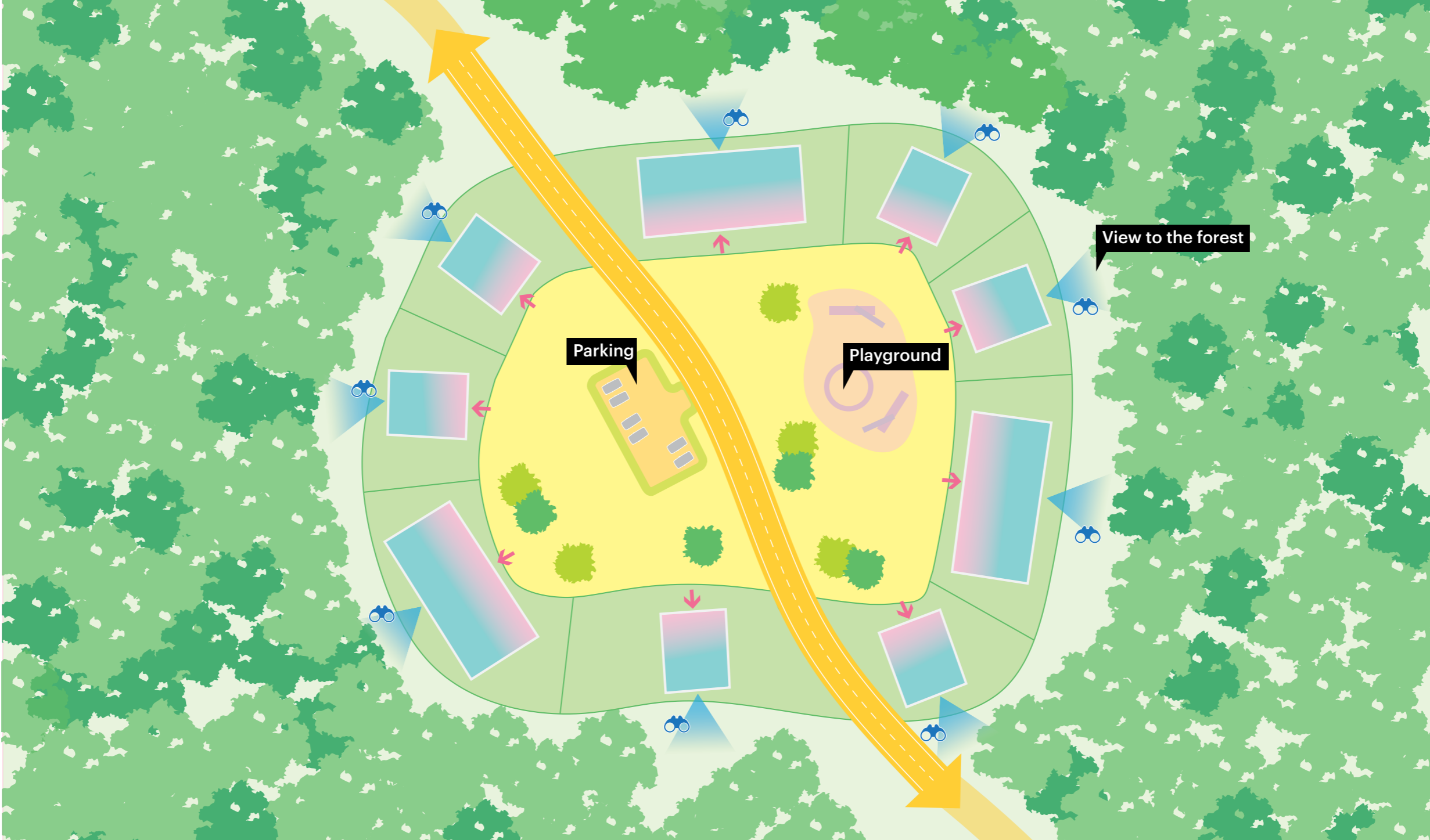
Offset 40 ft.



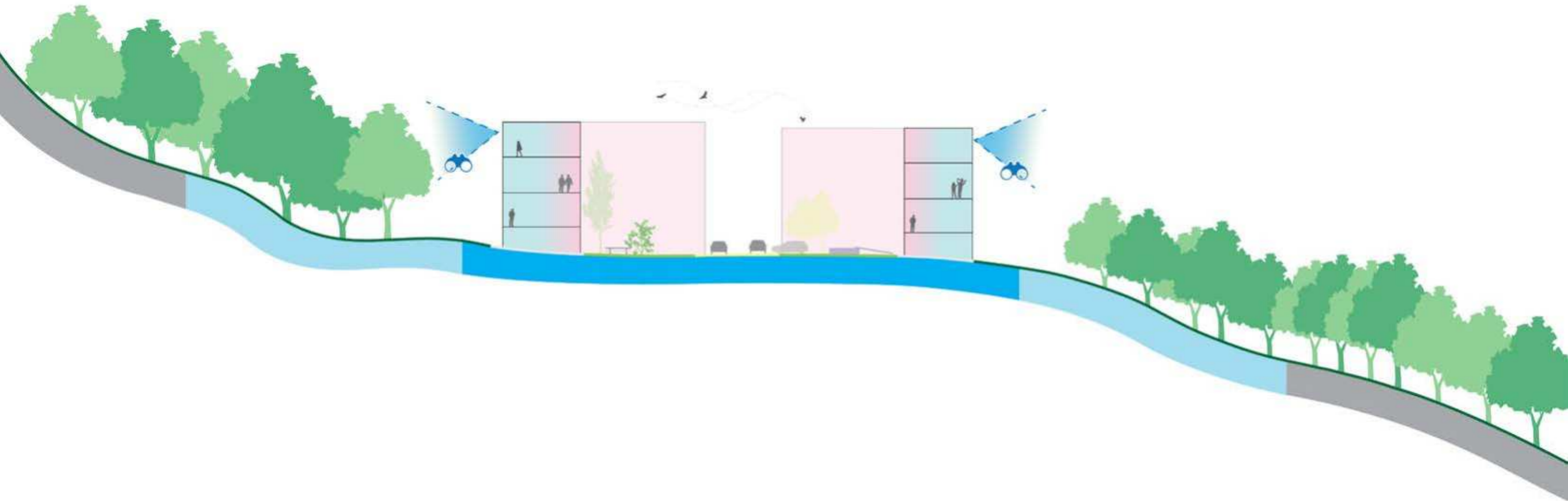
Introduce new branch roads to connect clusters



Cluster concept (plan)



Cluster concept (section)



Scenario A: single typology clusters



Scenario A: single typology clusters



GFA
344.000 ft²

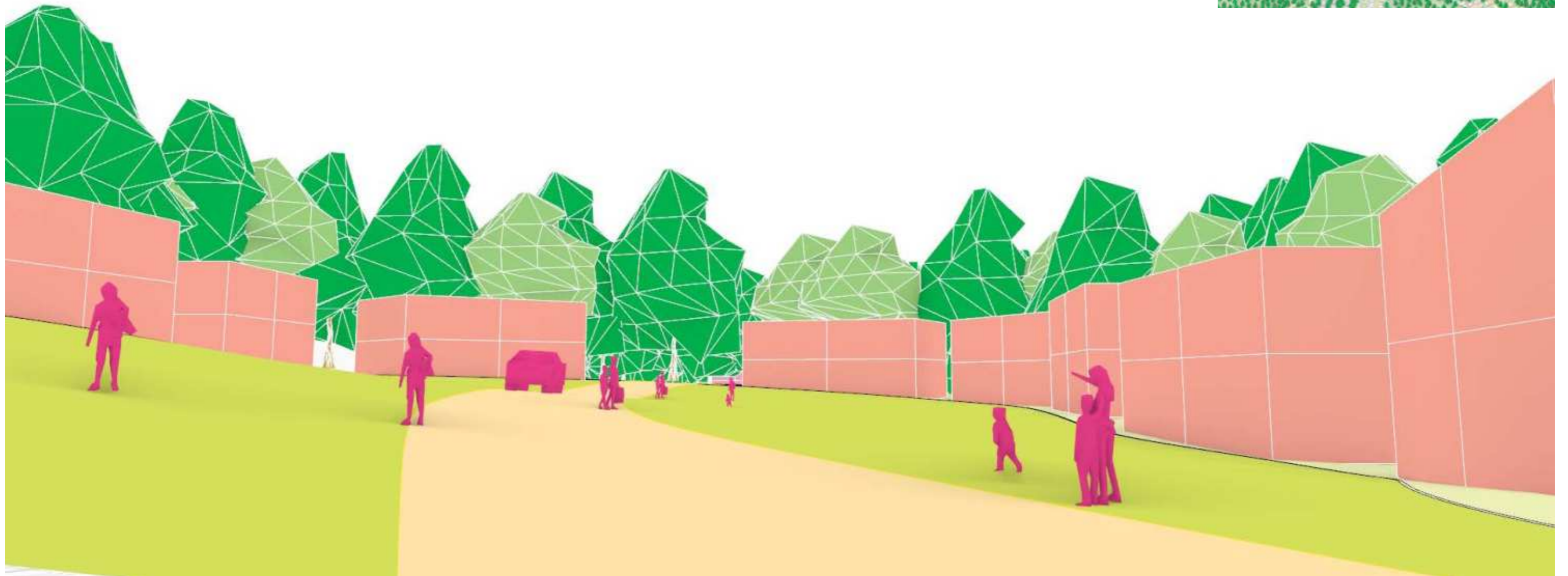
Floors
2 - 4

Buildings
104

Units
213

Avg unit size
1.615 ft²

Scenario A: single typology clusters



Scenario B: mixed typology collection



Scenario B: mixed typology collection



GFA
344.000 ft²

Floors
2 - 4

Buildings
86

Units
232

Avg unit size
1.482 ft²

Scenario B: mixed typology collection

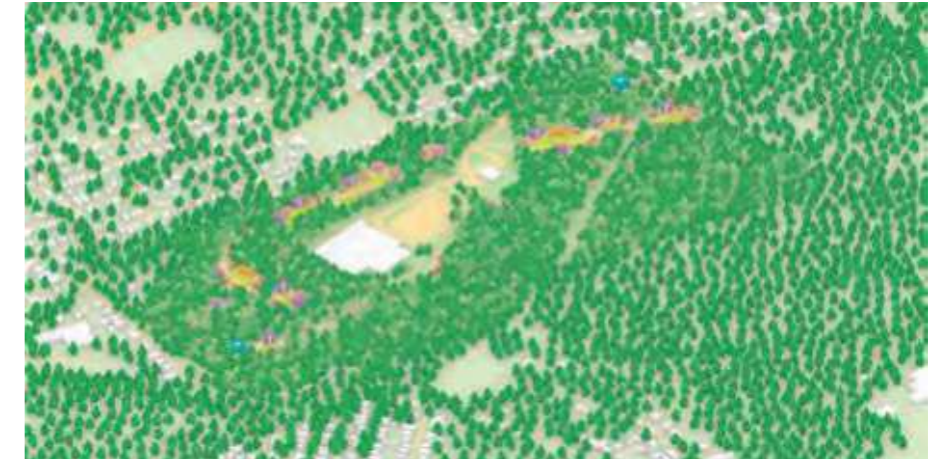
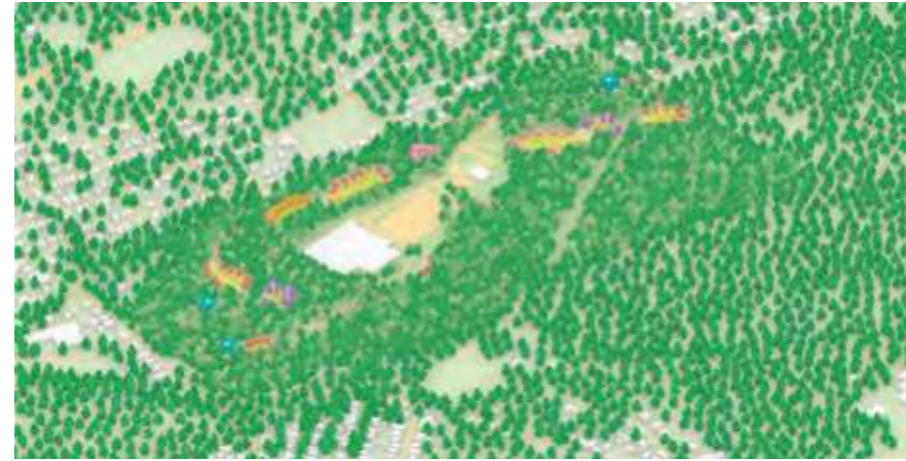


Development Frameworks: overview

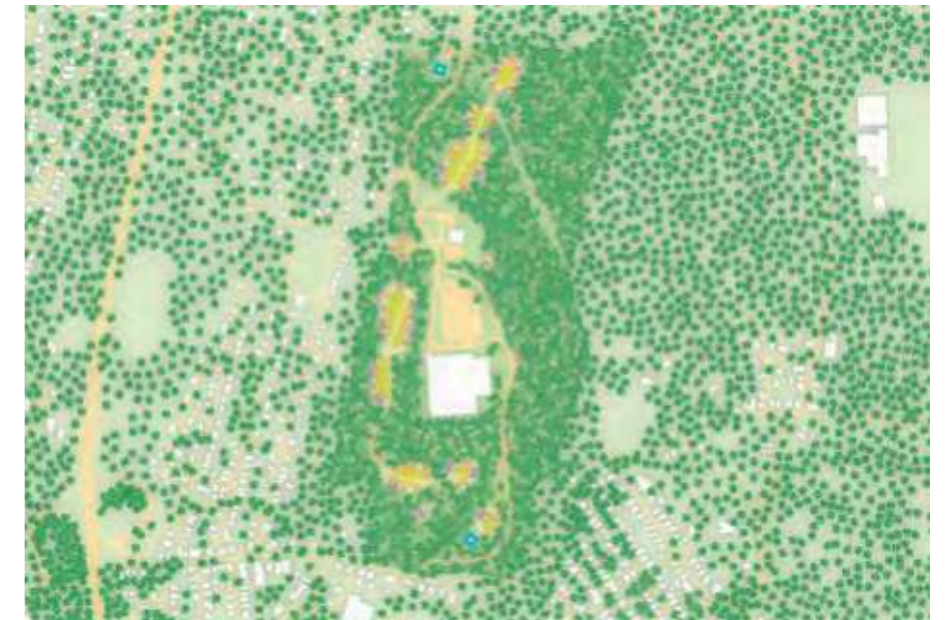
Dense spine



Branching clusters



+

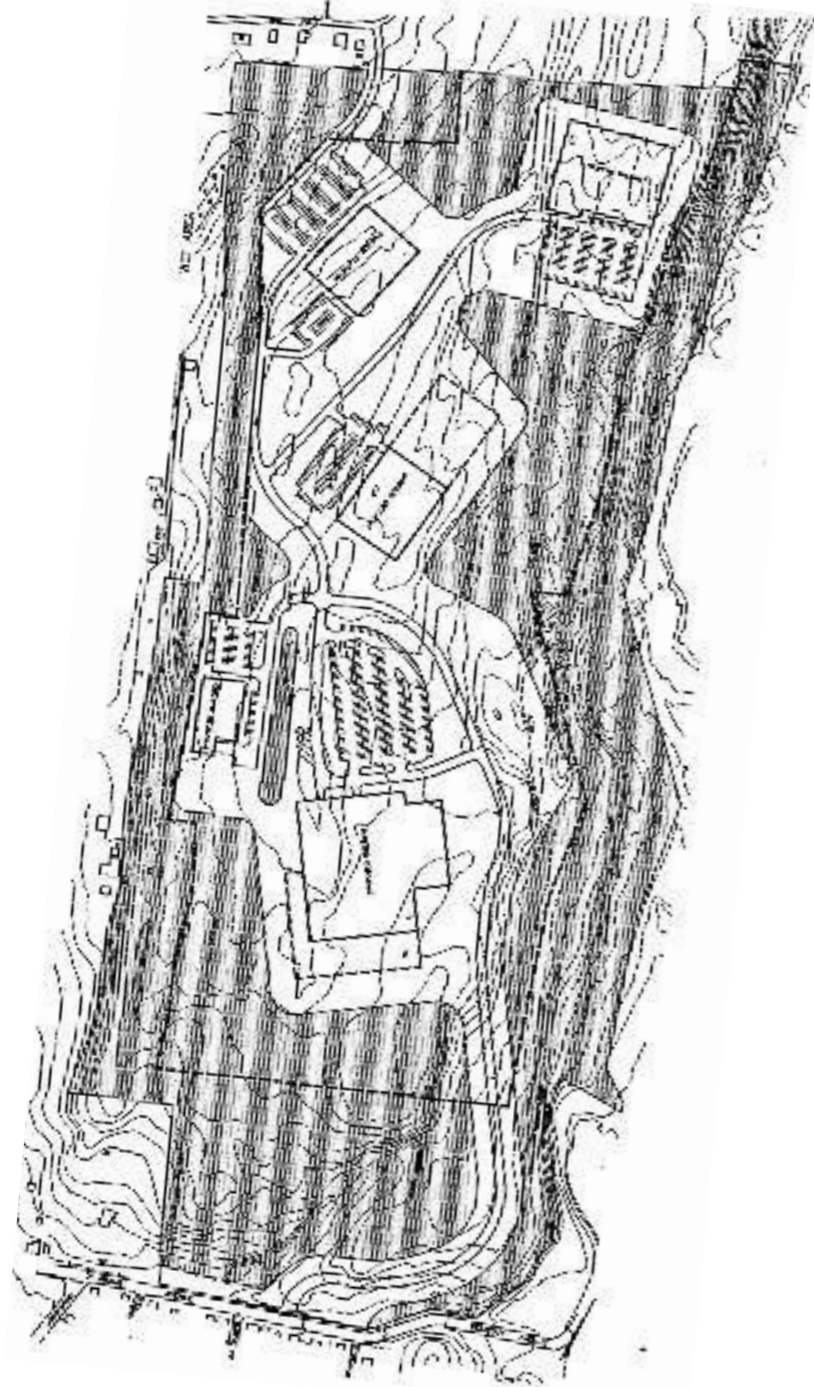


Development potential
Along the main spine

Scenario A
Single typology

Scenario B
Mixed typology

Site disturbance comparison



Original buffer area

Original limits of site disturbance

