

Wintechog Road Parcel Development Study

North Stonington, Connecticut

Alternatives #1 – Andrea Fossa

- *Build-out*: Cluster residential use
- *Creative Development*: Craft school/art center, duplex housing, community farm/shop and greenhouse, meadow and wooded open spaces with trail system

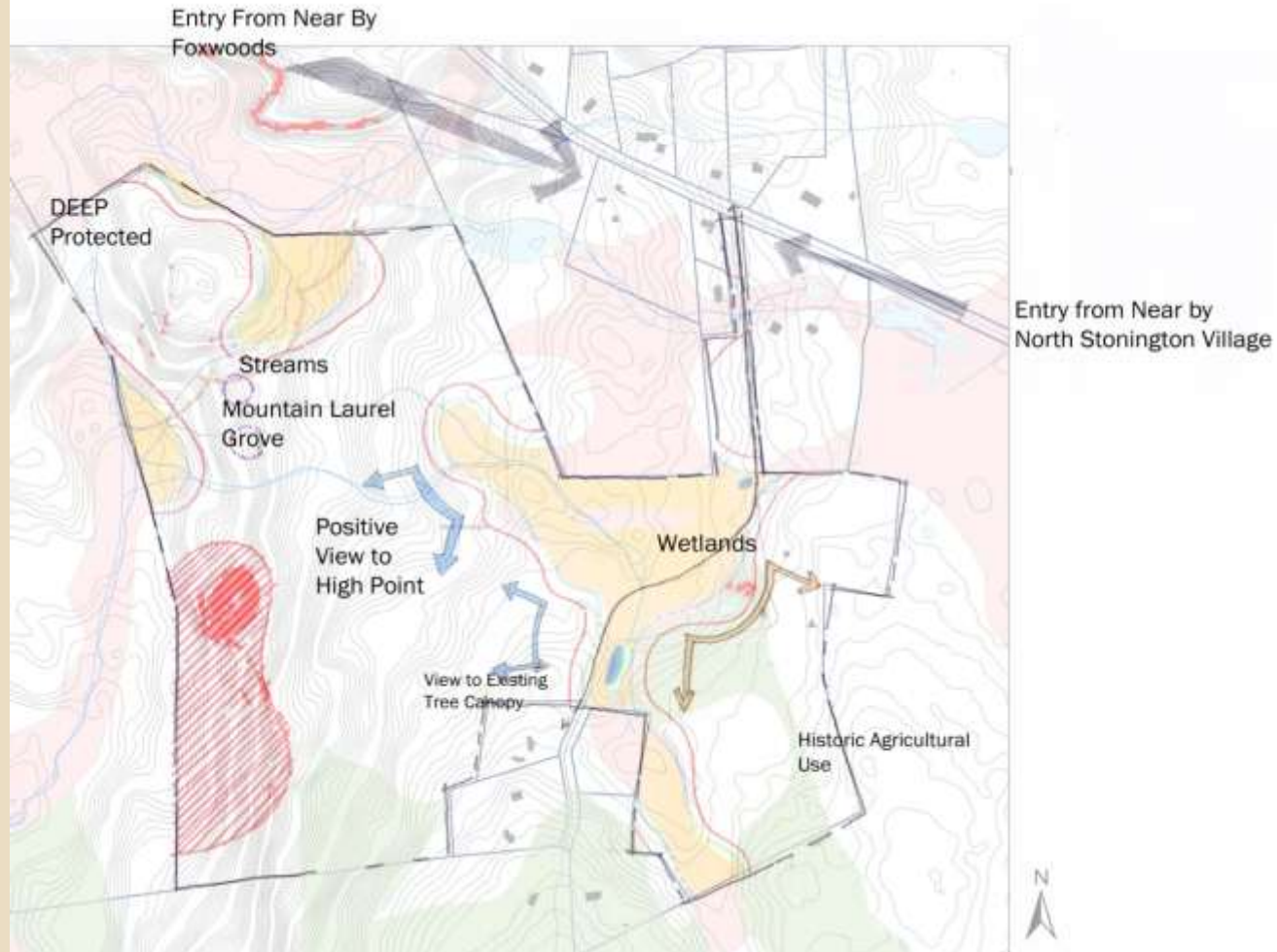
University of Connecticut Program of Landscape Architecture LAND 4440 Fall 2012



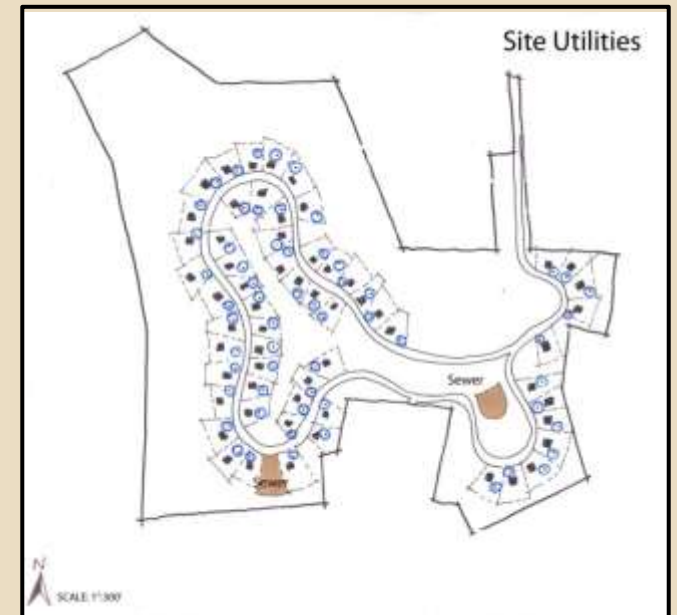
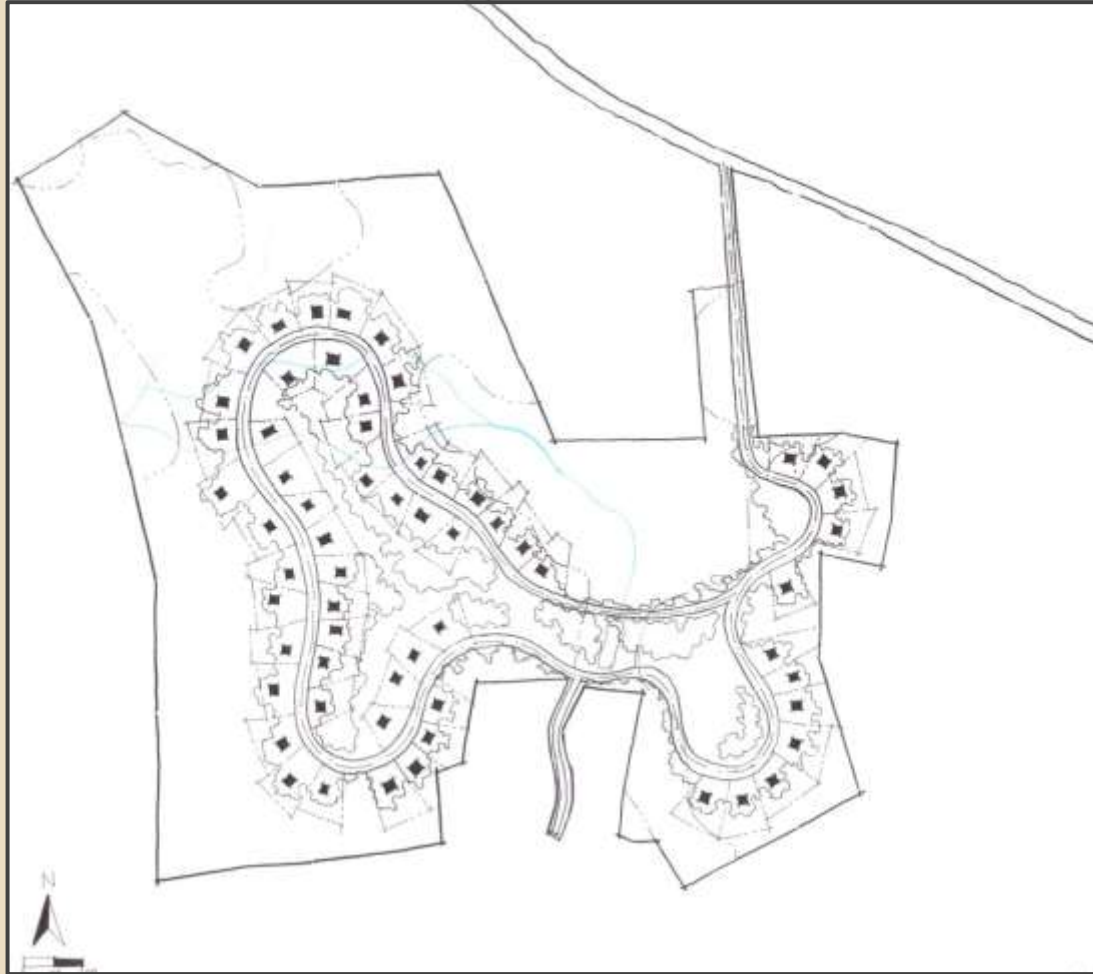
PROGRAM STATEMENT

To create a unique and low impact community that does not take away from the rural character of North Stonington, providing opportunities for housing, small agriculture /farm commerce, as well as trade industry learning.

Site Analysis



Cluster Development

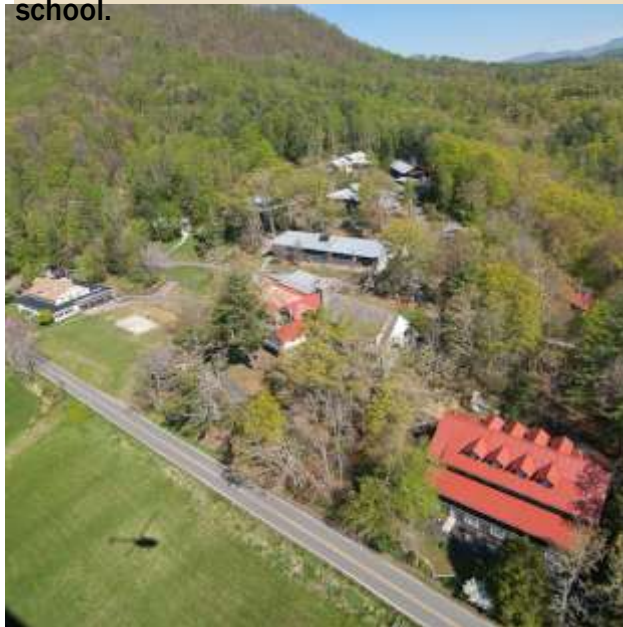


CRAFTY LEARNING : PENLAND SCHOOL OF CRAFTS

“The joy of creative occupation and a certain togetherness-
working with one another in the good and the beautiful”

Location: Penland, North Carolina
Every year apprx. 1200 people
come to Penland with another
14,000 visitors. With two week
learning sessions students learn
about community as well as a
diminishing industry. Resident
artists are located nearby with
studio rentals located within the
school.

Studio Classes:
Books and Paper
Pottery
Glass and Flame working
Iron/Metals
Photography
Printmaking and Letter Press
Textiles
Wood



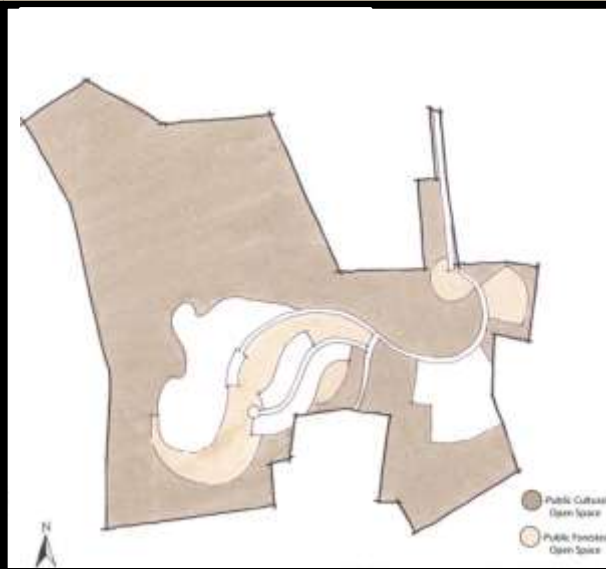
Crafty Community Development



Site Diagrams



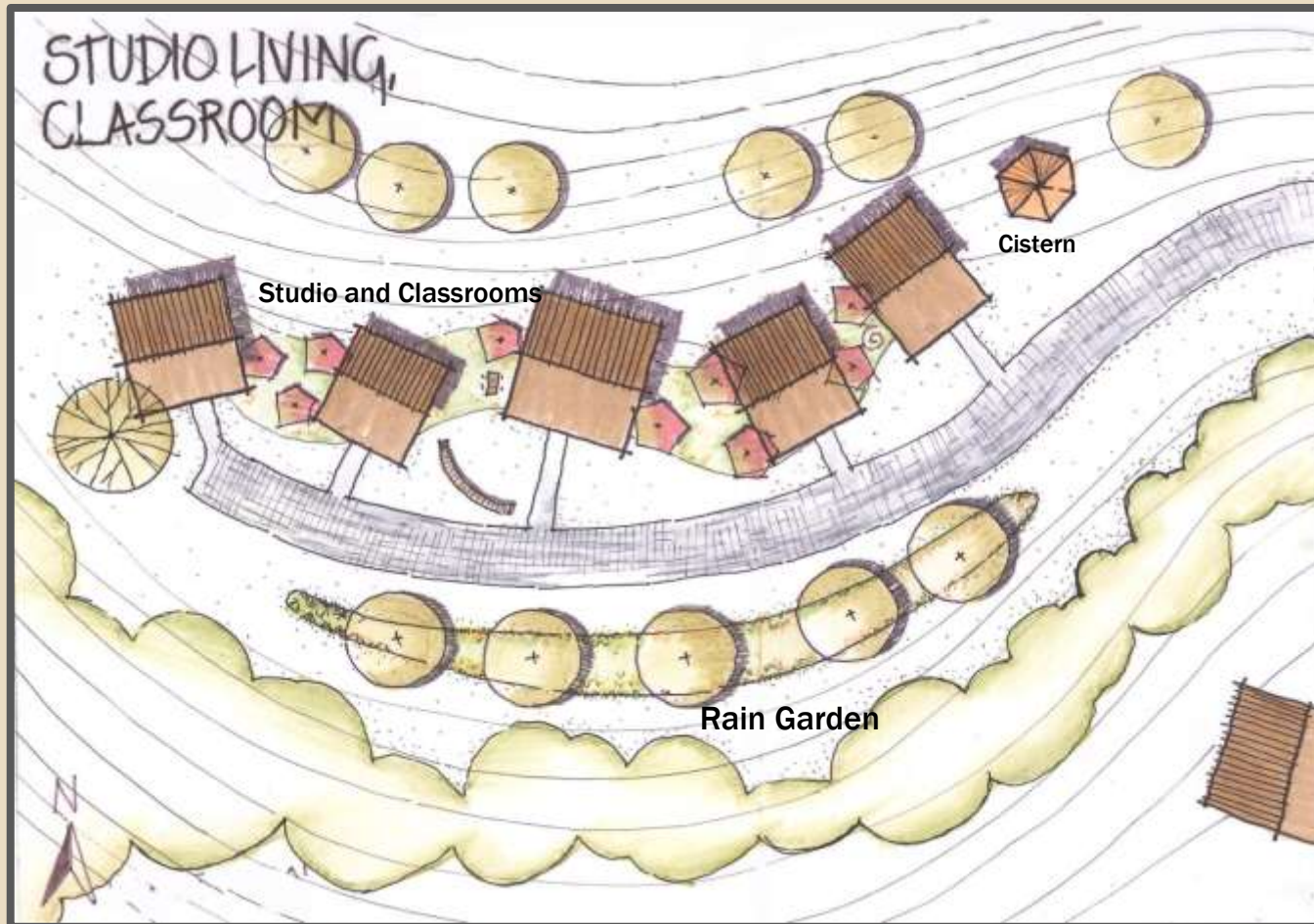
Land Use



Open Space Types



Site Organization



CLOSE-UPS

This is a close up view of one of the studio and living facility mix. Showing a rain garden to collect run off from the steep slope as well as a connecting sculpture garden. The site is re-graded along the slope.

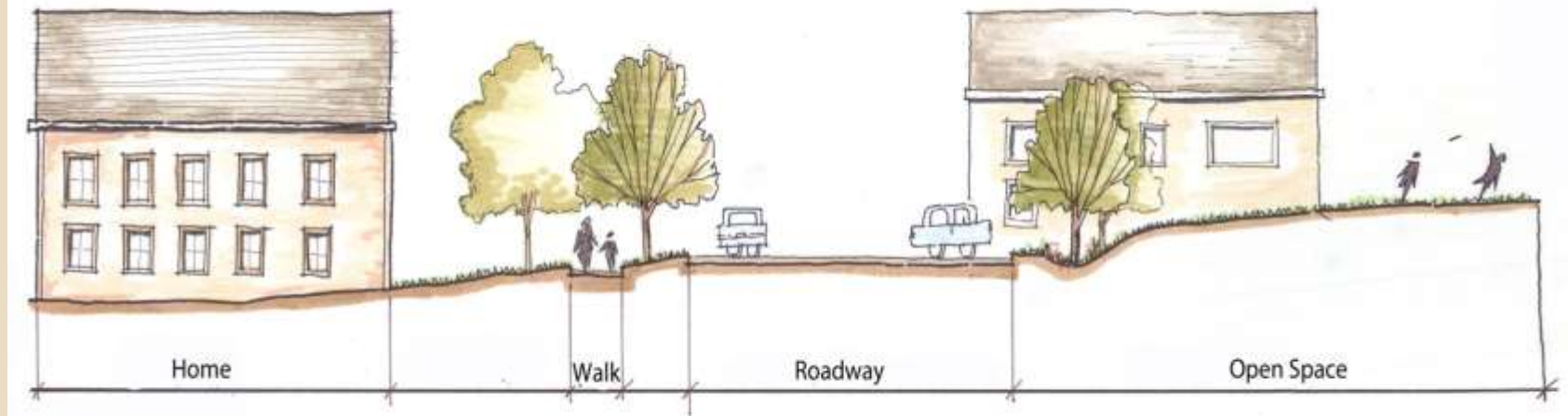


CLOSE UP

A close up of the community building as well as vehicular circulation on site. The building is built in the slope with a directed view out with the trees by the deck.

Cross Sections:

Residential Development:



Cross Section:
Community Building Look
out



Wintechog Road Parcel Development Study

North Stonington, Connecticut

Alternatives #2 – Thomas Thorsen

- *Build-out*: R80 residential w/ connective conservation green space
- *Creative Development*: Mixed-use area with commercial/residential apartment buildings, community farm and greenhouses; affordable housing area with duplexes and apartments; connective conservation space

University of Connecticut Program of Landscape Architecture LAND 4440 Fall 2012



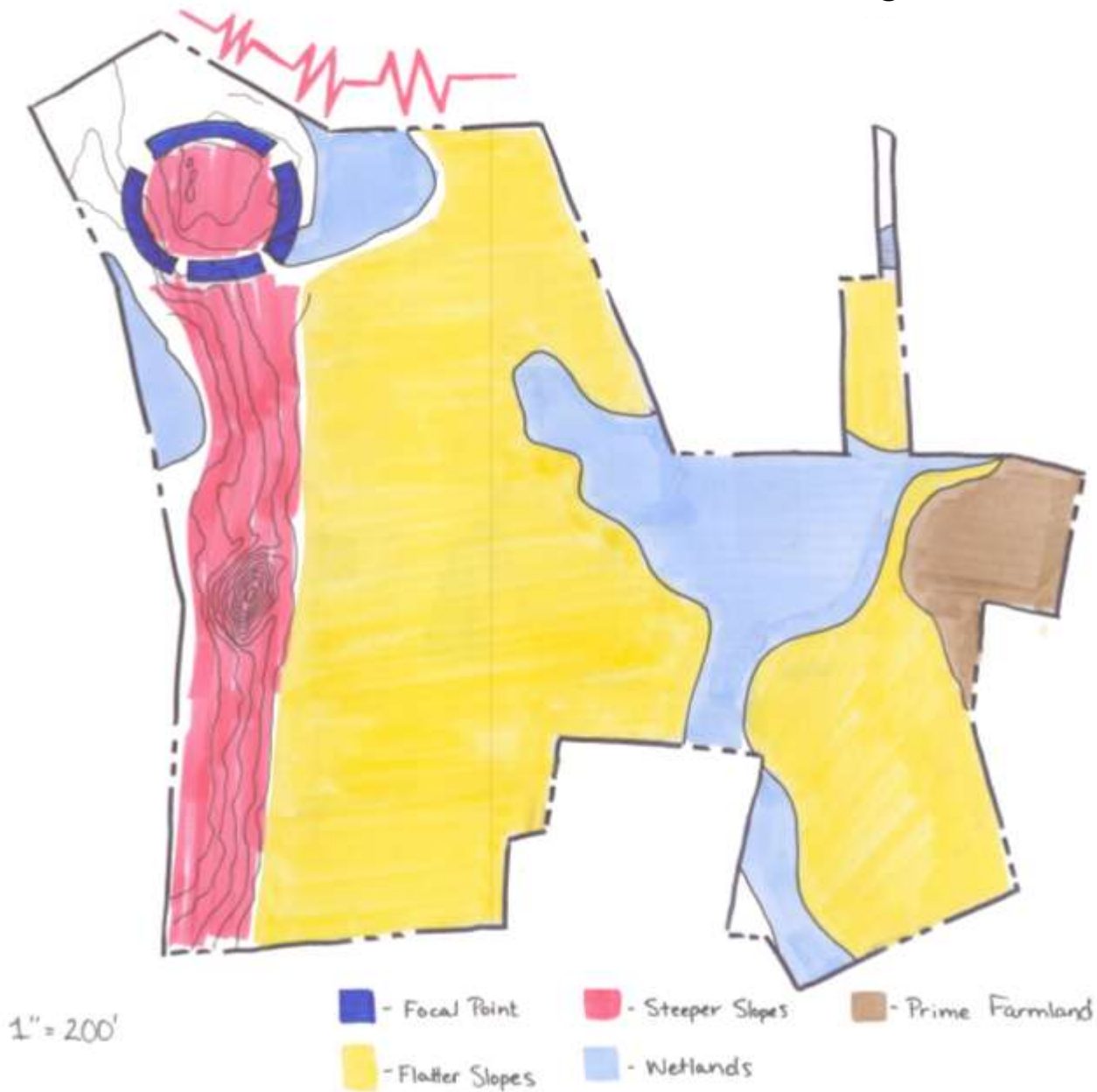
Department of Plant Science and Landscape Architecture College of Agriculture and Natural Resources

Program Statement:

The concept of the conventional design is to create as many properties as possible while still considering the rural character of North Stonington, and familiarizing oneself with the restrictions of the site.

The concept of the mixed use/residential design is to create two separate mixed use and a residential areas. The residential area consists of duplexes and apartments to create affordable housing. The mixed use area consists of restaurants, retail space, a farmers market, a greenhouse, and apartments.

Site Analysis



Conventional Plan



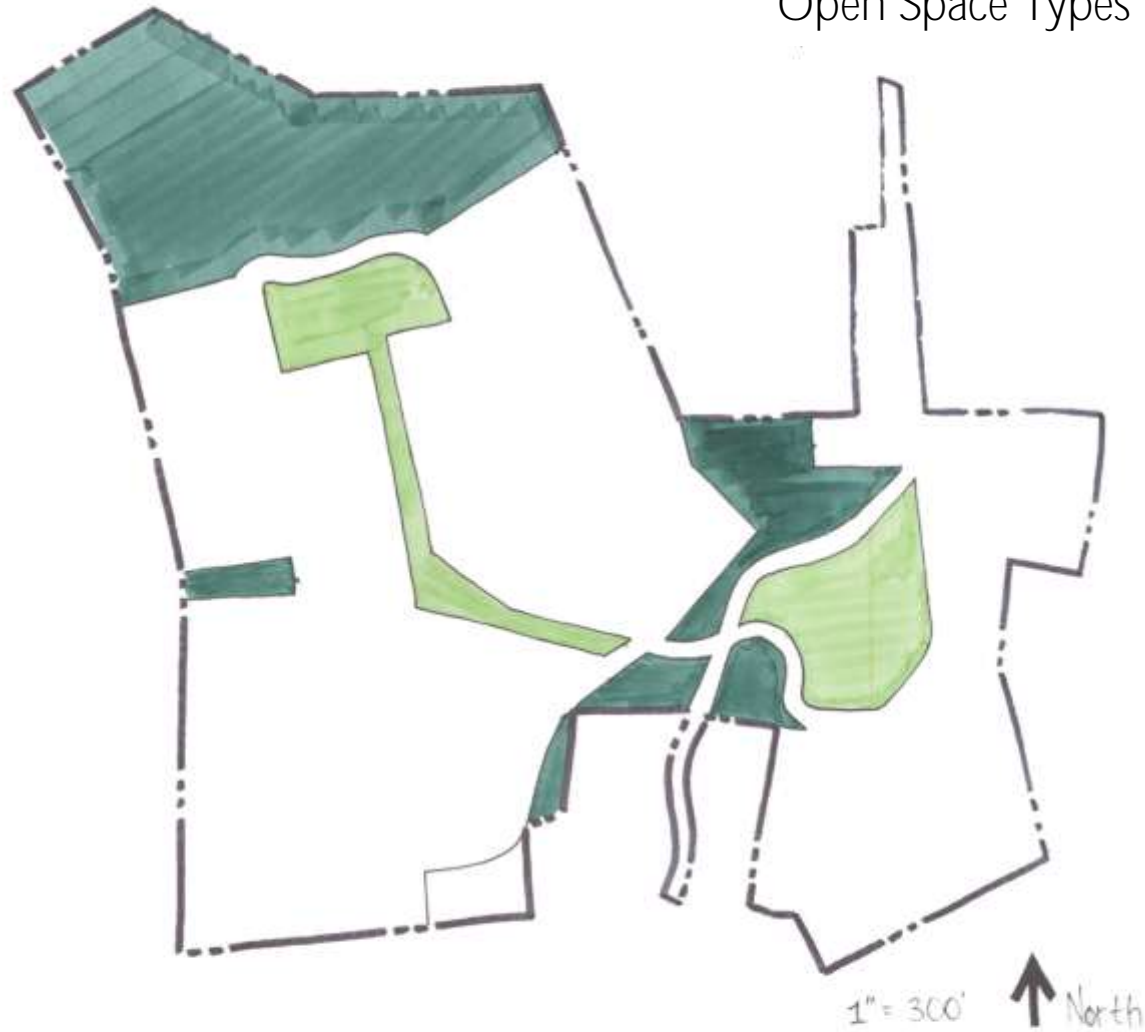
Conventional

Land Use



Conventional

Open Space Types



■ - Vegetated Open Space

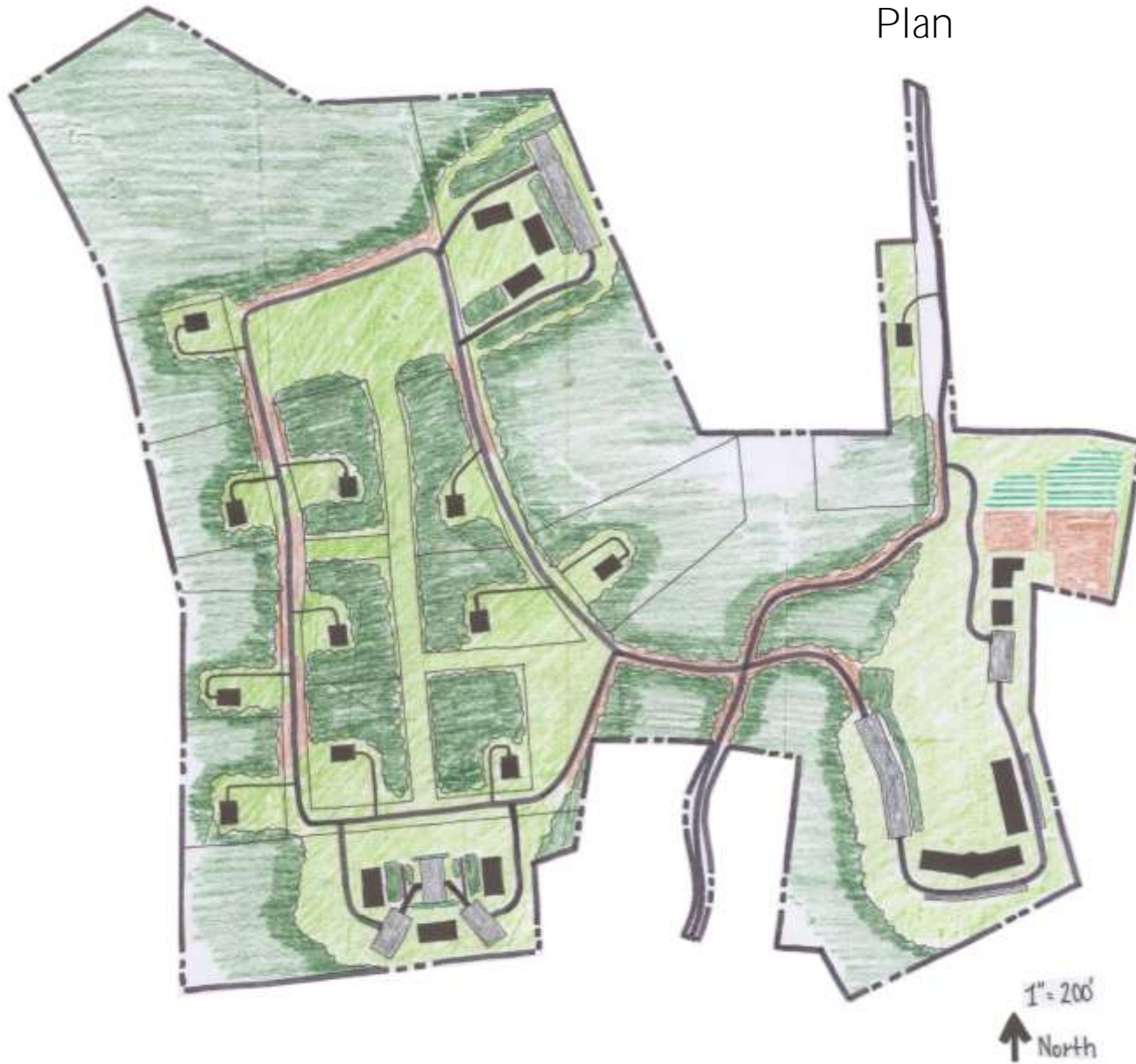
■ - Open Space

Conventional

Utilities

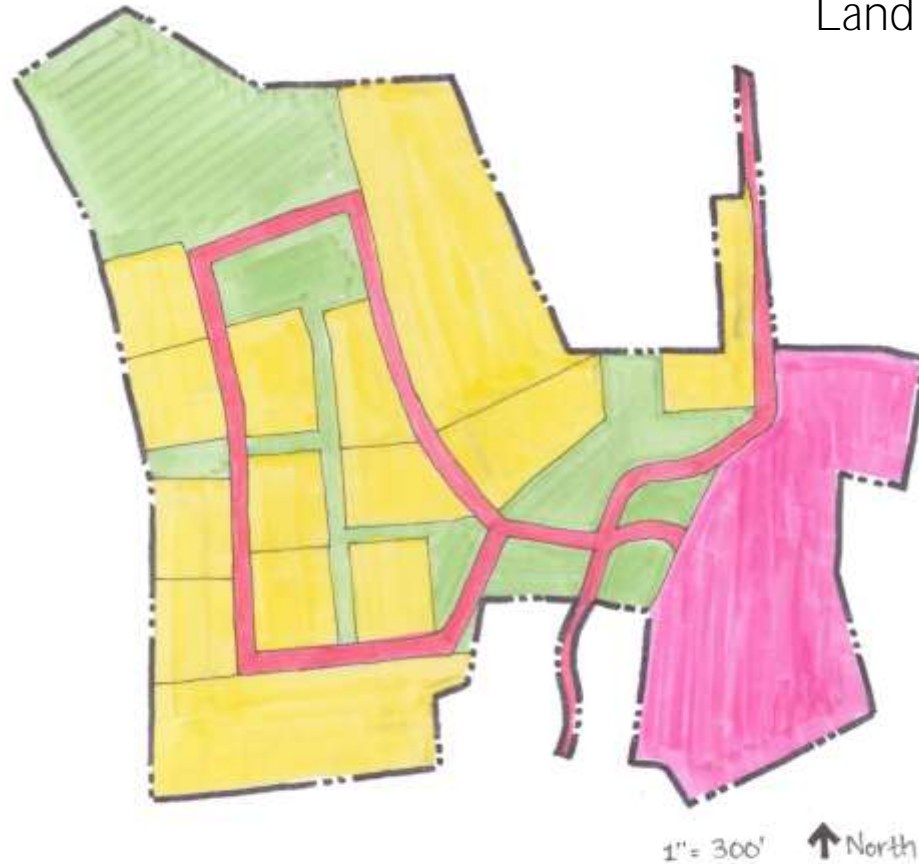


Mixed Use/Residential Plan



Mixed Use/Residential

Land Use



■ - Open Space

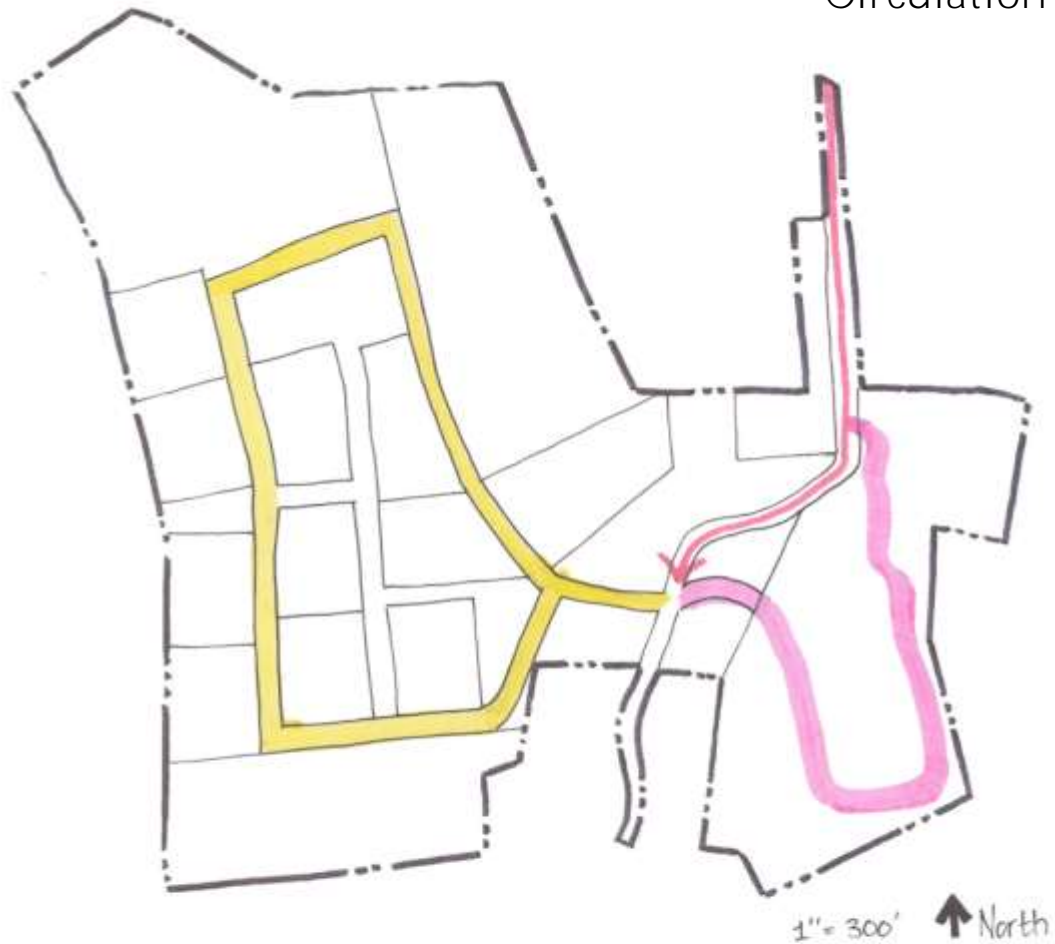
■ - Residential

■ - Mixed Use

■ - Right of Way

Mixed Use/Residential

Circulation



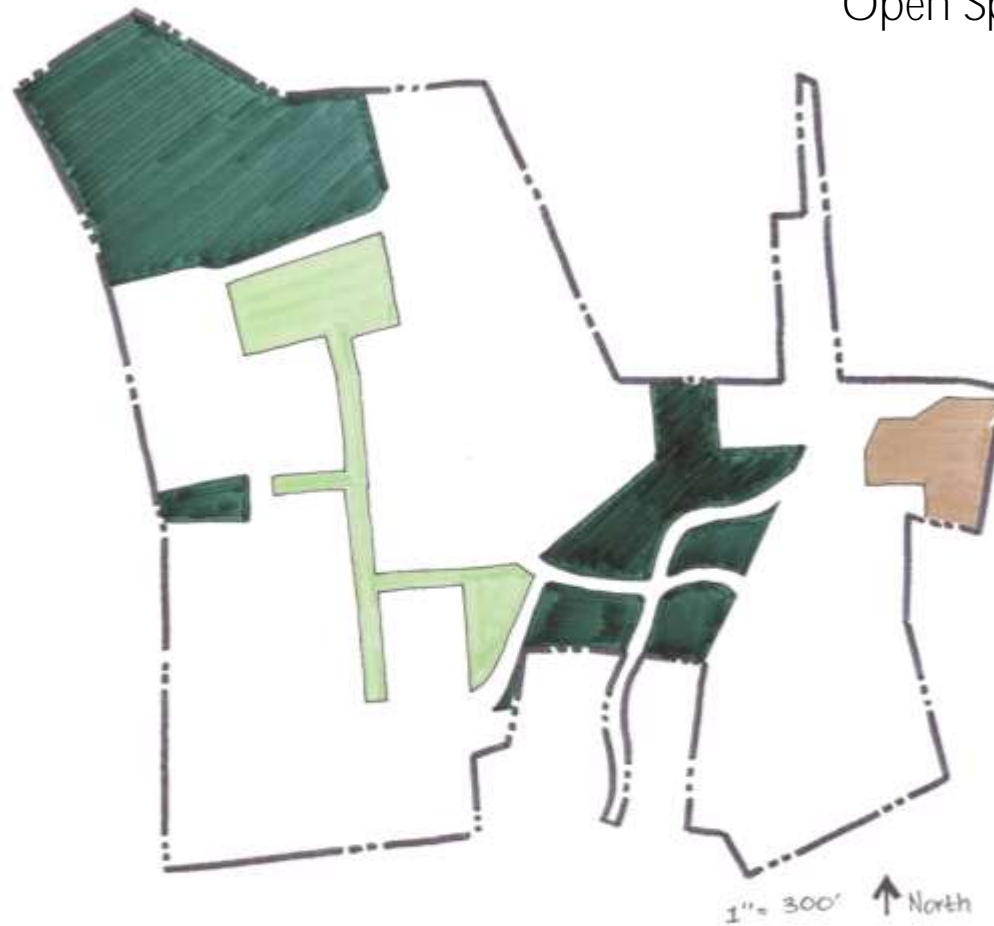
■ - Both Residential & Commercial Use

■ - Residential Use

■ - Commercial Use

Mixed Use/Residential

Open Space



□ - Open Space

■ - Vegetated Open Space

■ - Agriculture

Mixed Use/Residential

Utilities



■ - Package Plant

● - Well

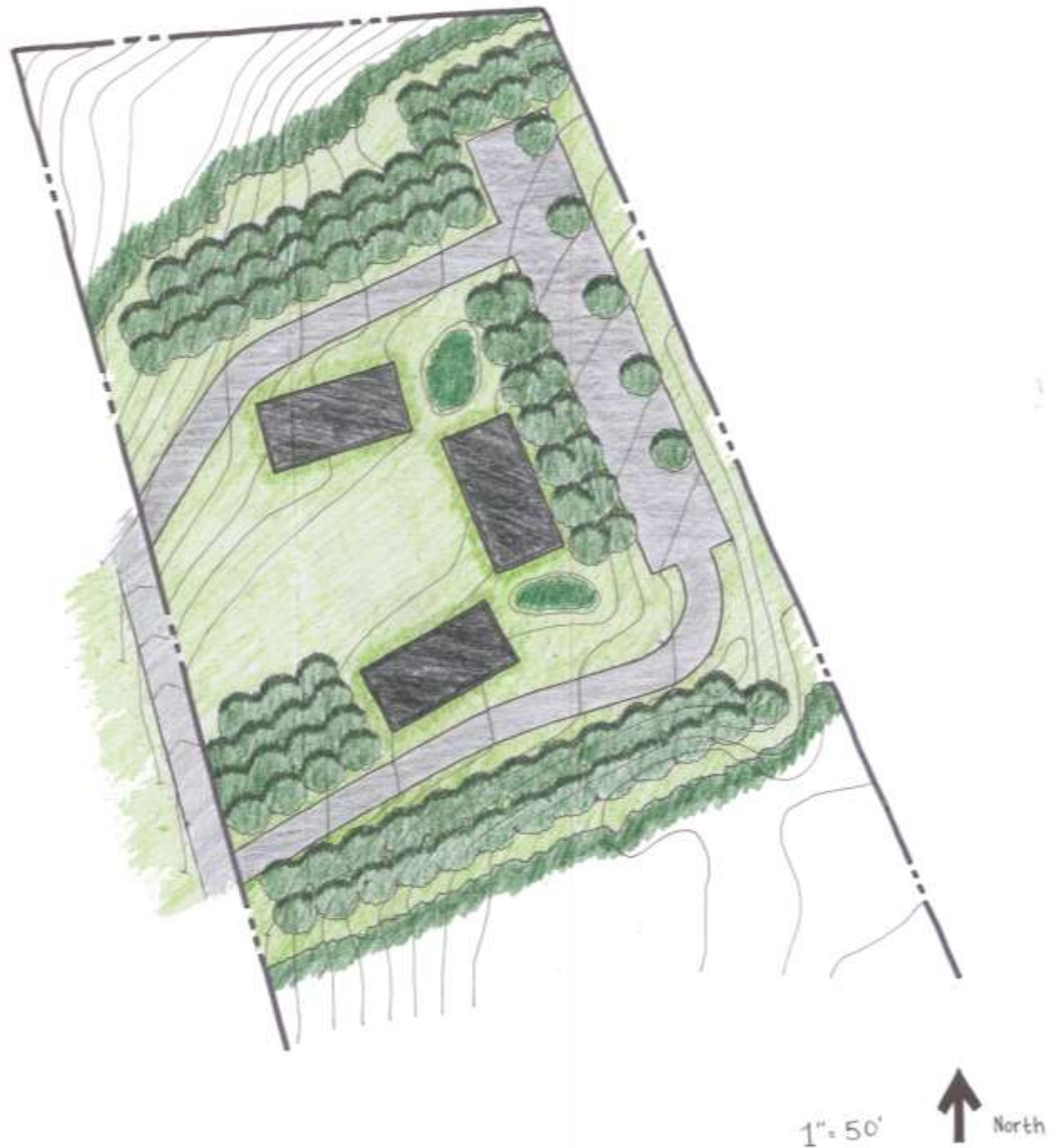
Commercial/Mixed Use

Blow Up



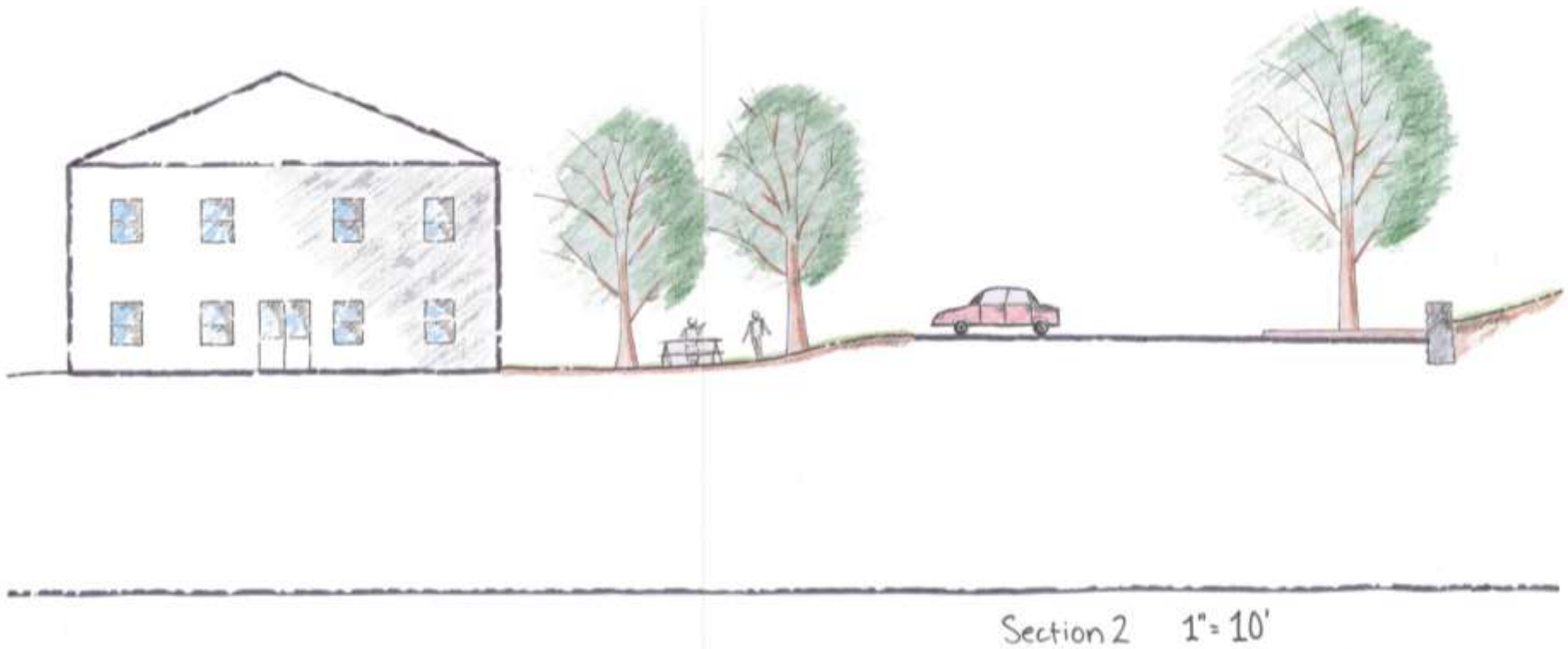
North Apartment Complex

Blow Up



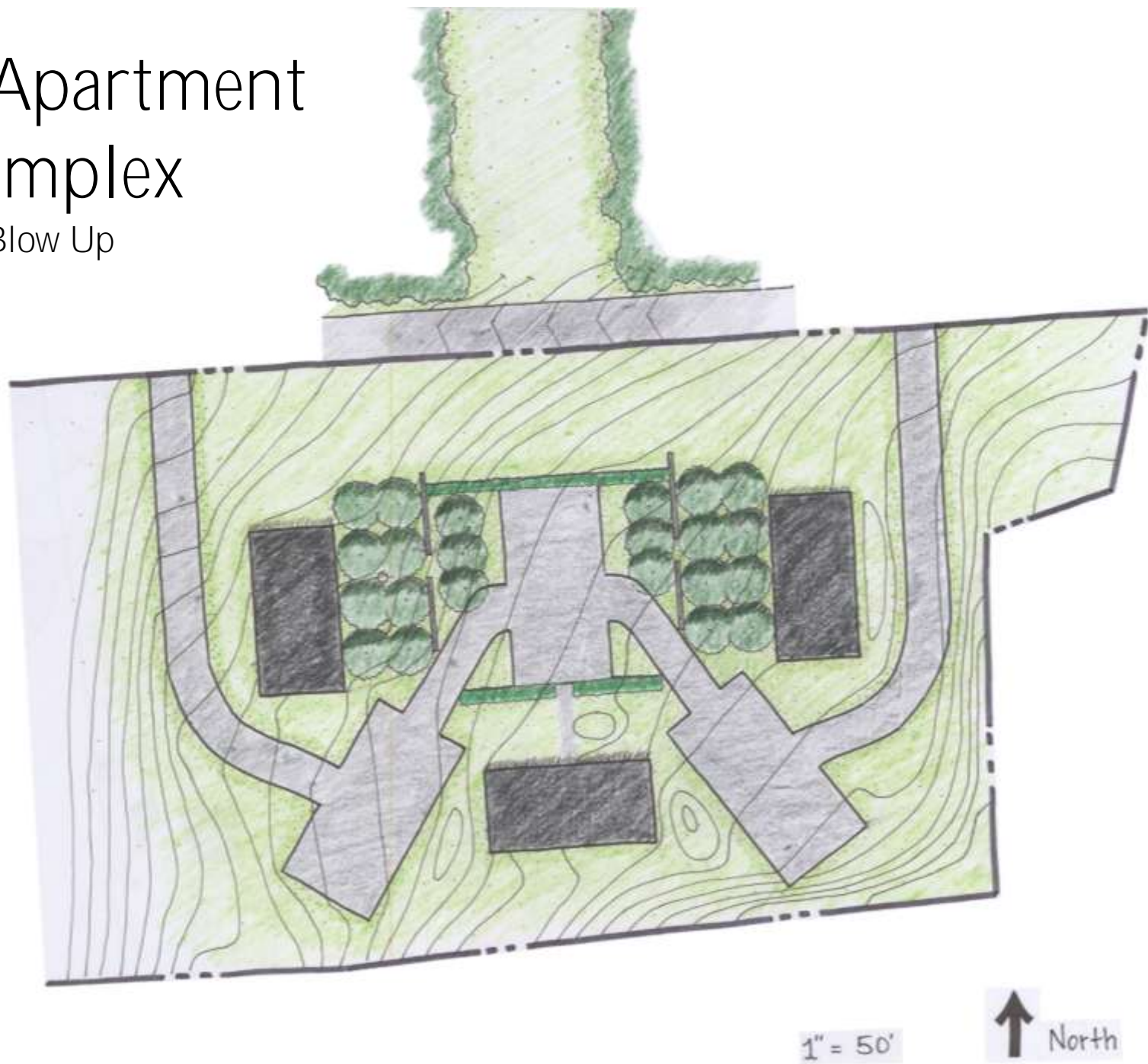
North Apartment Complex

Section



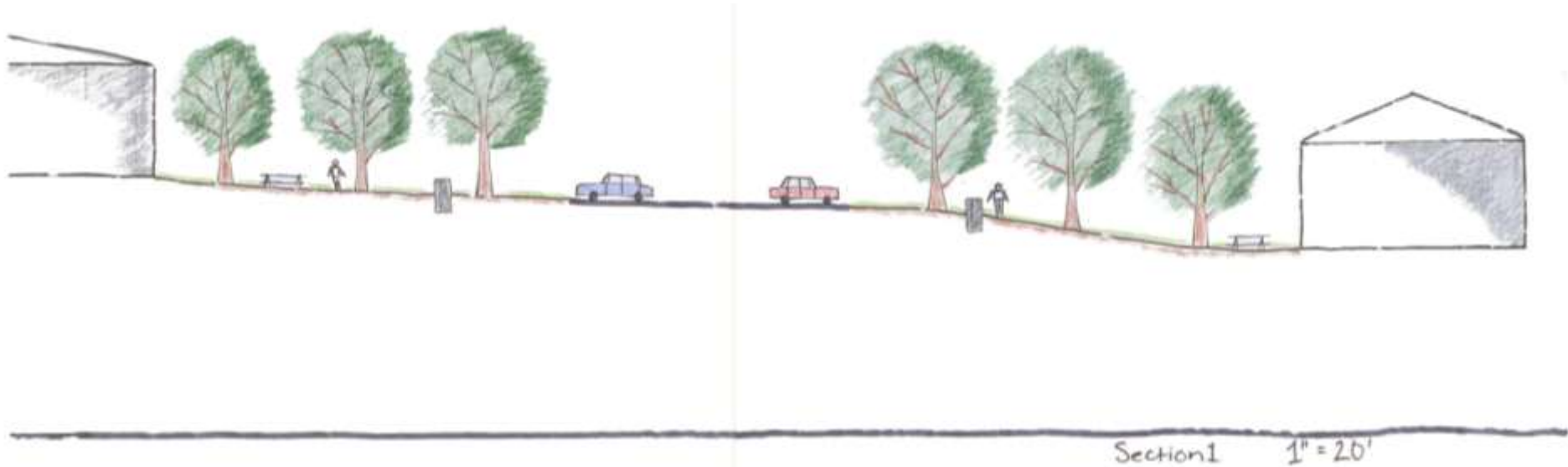
South Apartment Complex

Blow Up



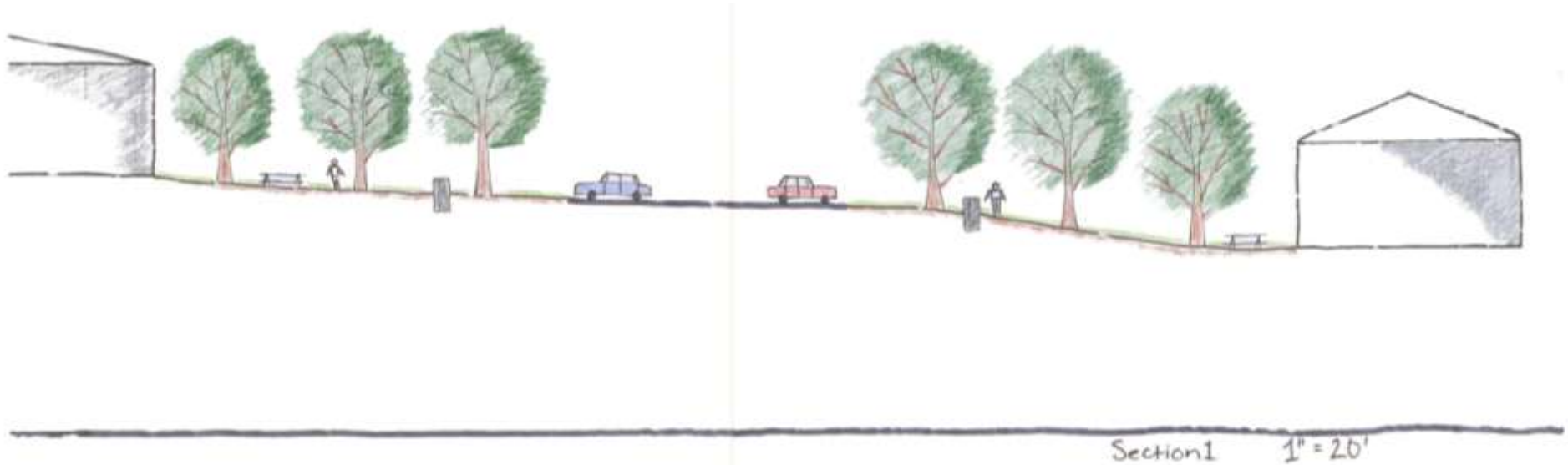
South Apartment Complex

Section



South Apartment Complex

Section



Wintechog Road Parcel Development Study

North Stonington, Connecticut

Alternative #3 – James Stephens

- *Build-out*: Cluster residential use
- *Creative Development*: Vineyard/restaurant; farmer's market/co-op farm; cottage housing; variety of agricultural, natural and recreational open spaces

University of Connecticut Program of Landscape Architecture LAND 4440 Fall 2012



Program Statement:

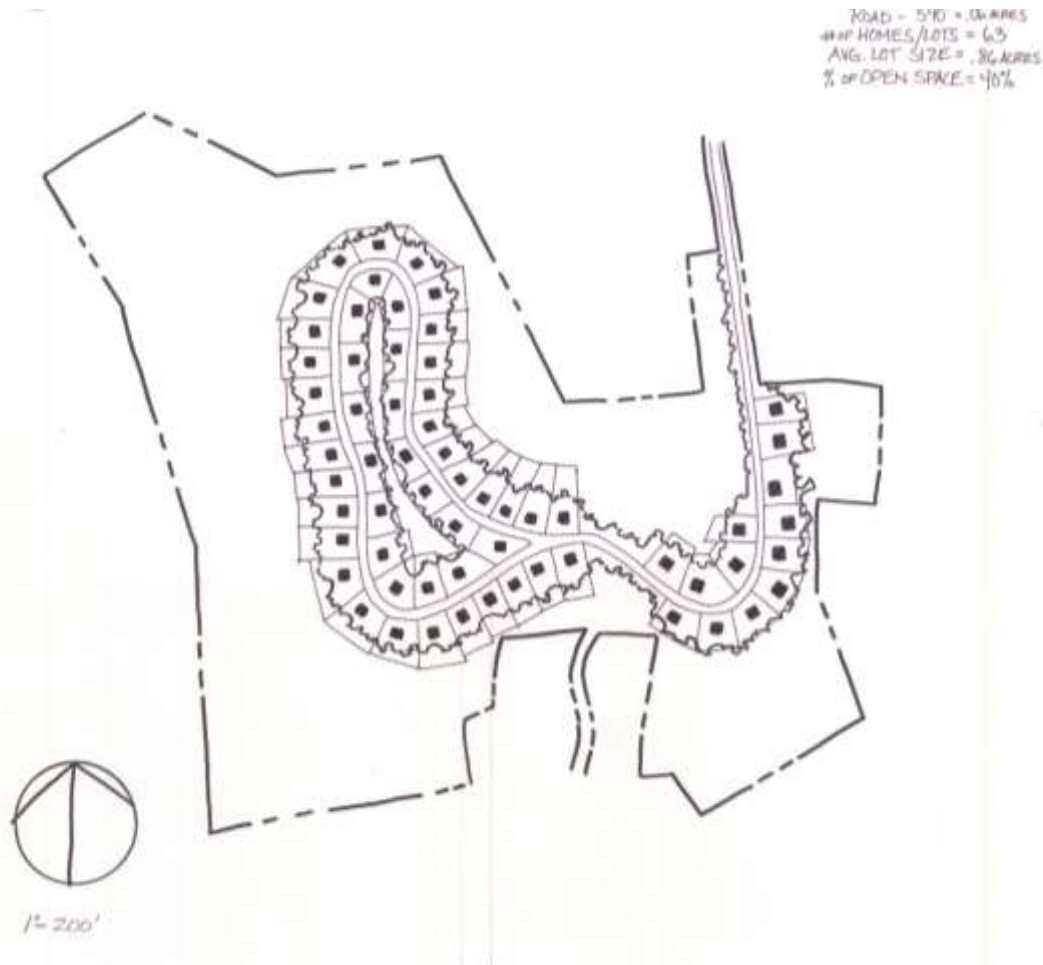
Create a multi-use development that focuses on agriculture and residential space. The goal is to connect both commercial use and residential through specific nodes.

James Stephens

Site Analysis



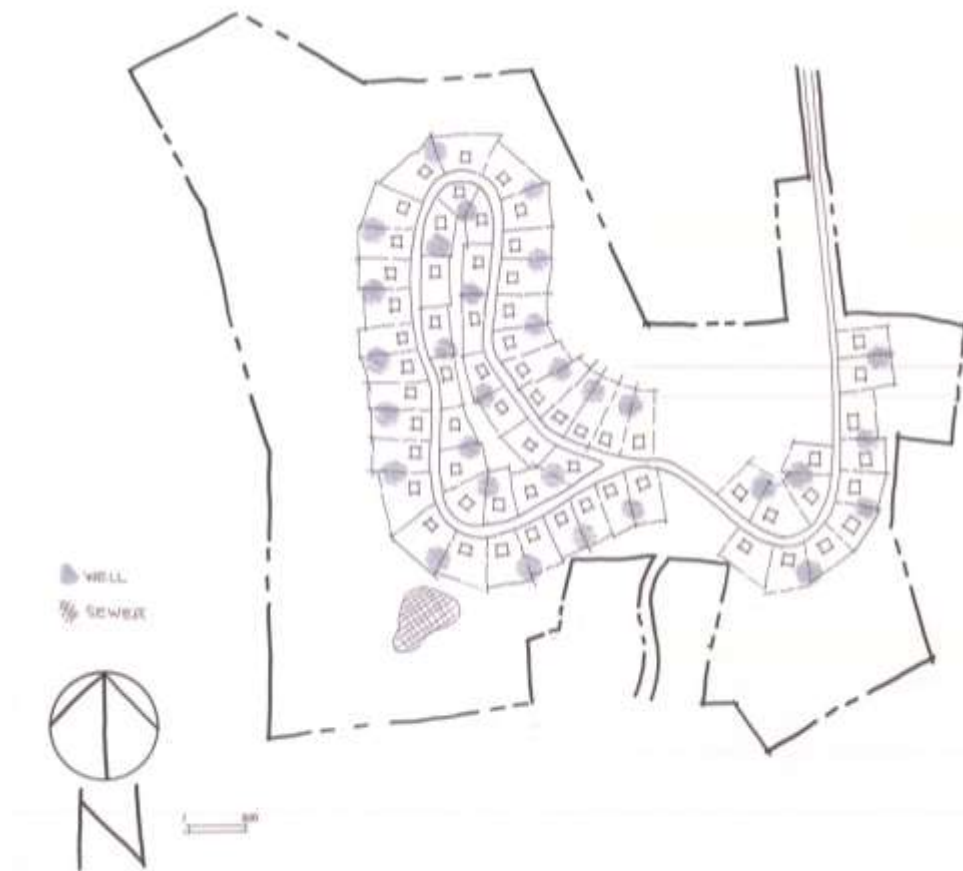
Cluster Development



Land Use



Utilities- Well & Sewer



Cottage Housing

- Case Study
- **Cottage housing in the city of Wood Village**
- **Oregon**
- Cottage housing is a new model of clustered single family housing that provides a transition between single family housing neighborhoods and higher density areas, creating a development pattern that maximizes land values, reduces infrastructure costs and provides housing next to services.
- Cottage housing is used as a creative infill development between higher density mixed-use areas and established neighborhoods of lower density single family housing. The coordinated design plan and smaller units of cottage housing developments allow densities that are somewhat higher than typical single-family neighborhoods, similar to the density of attached row houses, but minimize impacts on adjacent residential areas because of their smaller overall bulk and scale. While a cottage housing development focuses internally to the central outdoor space, the project maintains visual and pedestrian connections with the existing neighborhood in form and scale and with windows, doors and porches on the exterior façade oriented to human activity on the street.

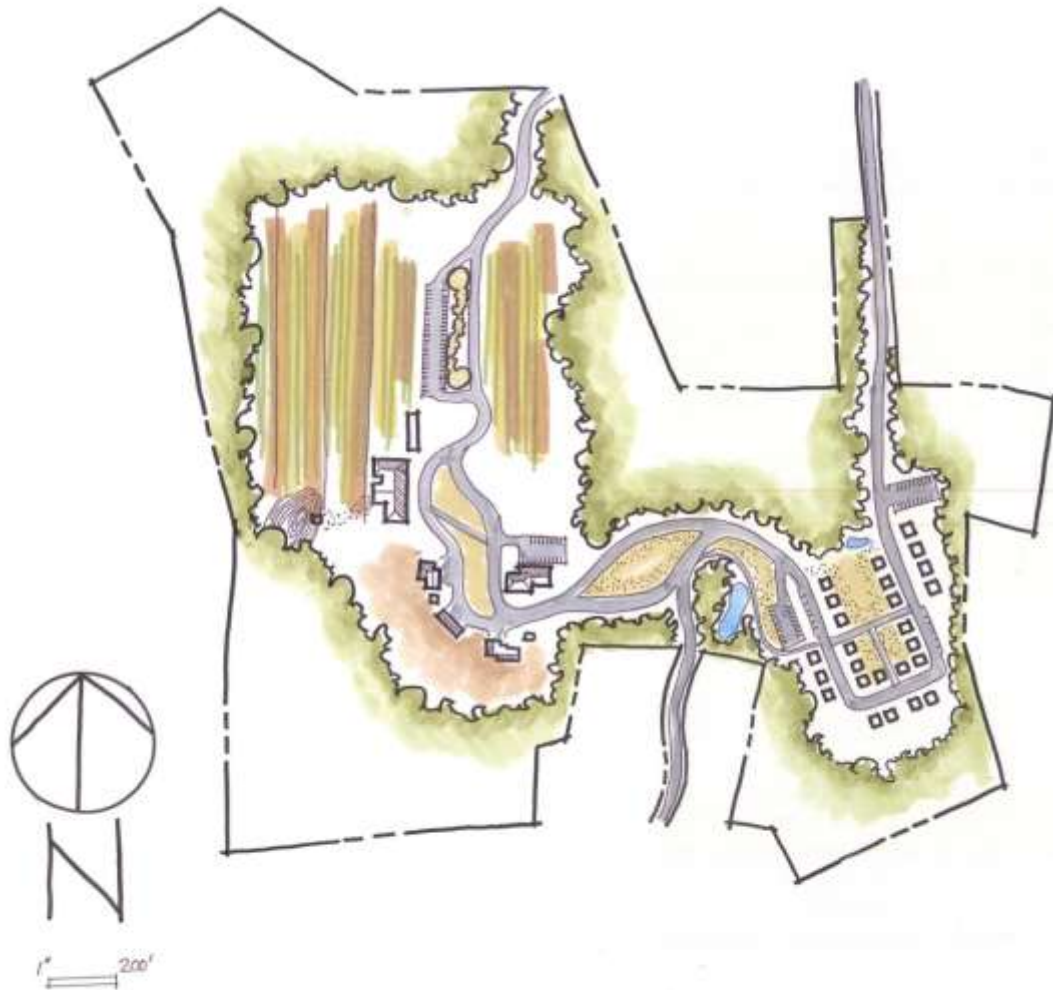


Creating a compact, aesthetically pleasing development pattern through scaling requirements is also a key element of cottage housing. A minimum of four units per cluster is needed in order to create a coordinated site design, while a maximum of 12 units will prevent an over abundance of housing. In cities like Shoreline, Wash., having no maximum resulted in abuse of density bonuses and massive developments that undermined the effectiveness of cottage housing as a tool for bridging transitions.

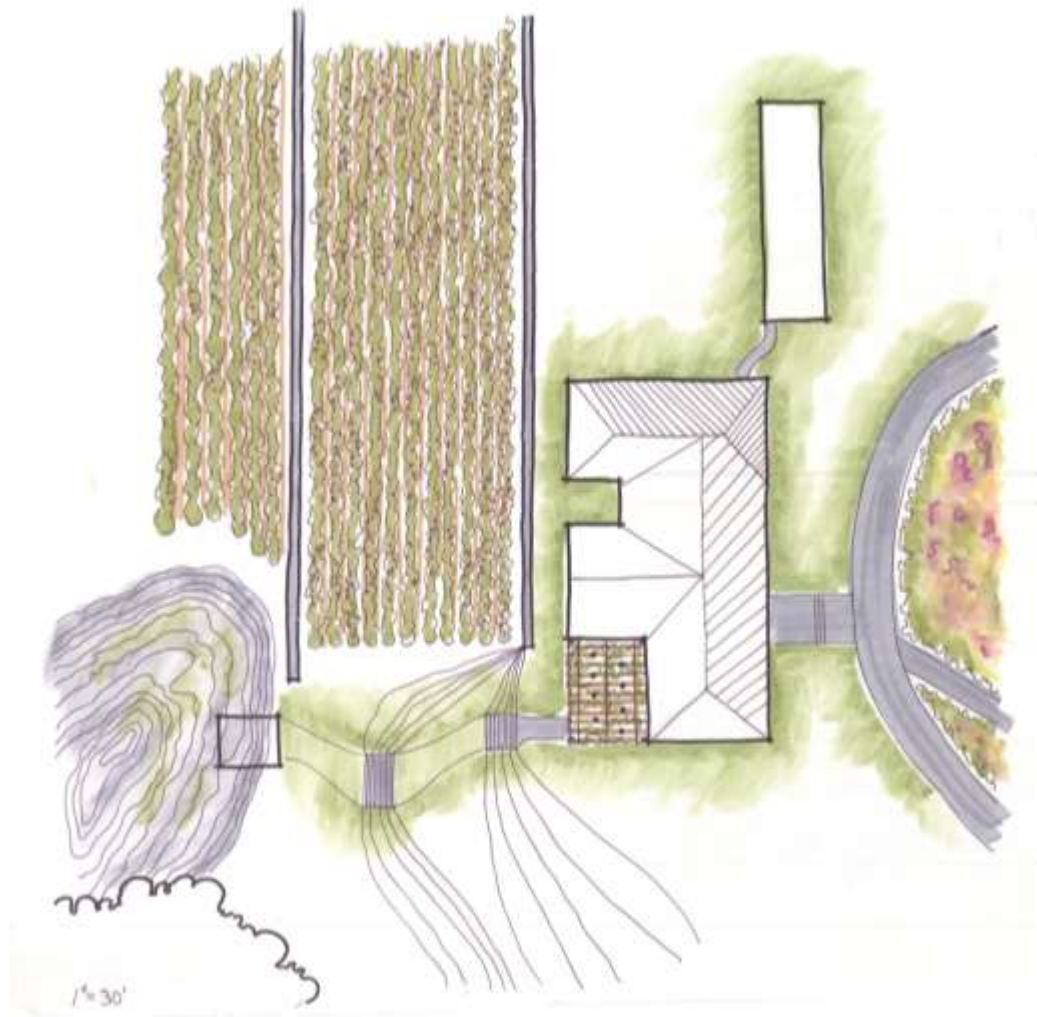
Co-op Farming

- Case Study
- Co-op Farming
- **Lancaster Cooperative Fresh Farming**- non profit organic farm
- LFFC serves all of Eastern Pennsylvania, New York City, and most of the tri state area by connecting the farmer and customer, delivering the best local organic
- produce, value added products, and humanely raised and pastured animal products to retail establishments, co-ops, restaurants, and institutions. If you are interested in purchasing our products please register as a wholesale buyer.
- LFFC provides fresh, certified organic fruits, vegetables, and other farm fresh products through a subscription program also known as Community Supported
- Agriculture (CSA) program. CSA members commit to support LFFC farmers for the entire growing season by paying for their share of the harvest in the winter and early spring. The farmers are able to purchase supplies in the winter and start their crops in early spring, they repay the shareholders in fresh, organic, seasonal
- produce. CSA enables you to keep local sustainable farms and local food safe for
- future generations. It's a great legacy.
- The produce sold through LFFC is certified organic unless otherwise noted. We do support farmers that are looking to make their farms sustainable. We also support local farms that use Integrated Pest Management (I.P.M.) techniques. The animal products that you purchase are from small family farms with small herds and flocks. These animals always have access to pasture and enjoy the freedom of foraging through the grasses with the earth under their feet.
- When you purchase LFFC products you can be confident that you will receive the freshest farm products, raised humanely, with consideration for the land, animals and people. Lancaster Farm Fresh Cooperative is owned by the farmers working in cooperation with each other to bring you healthy, quality foods.

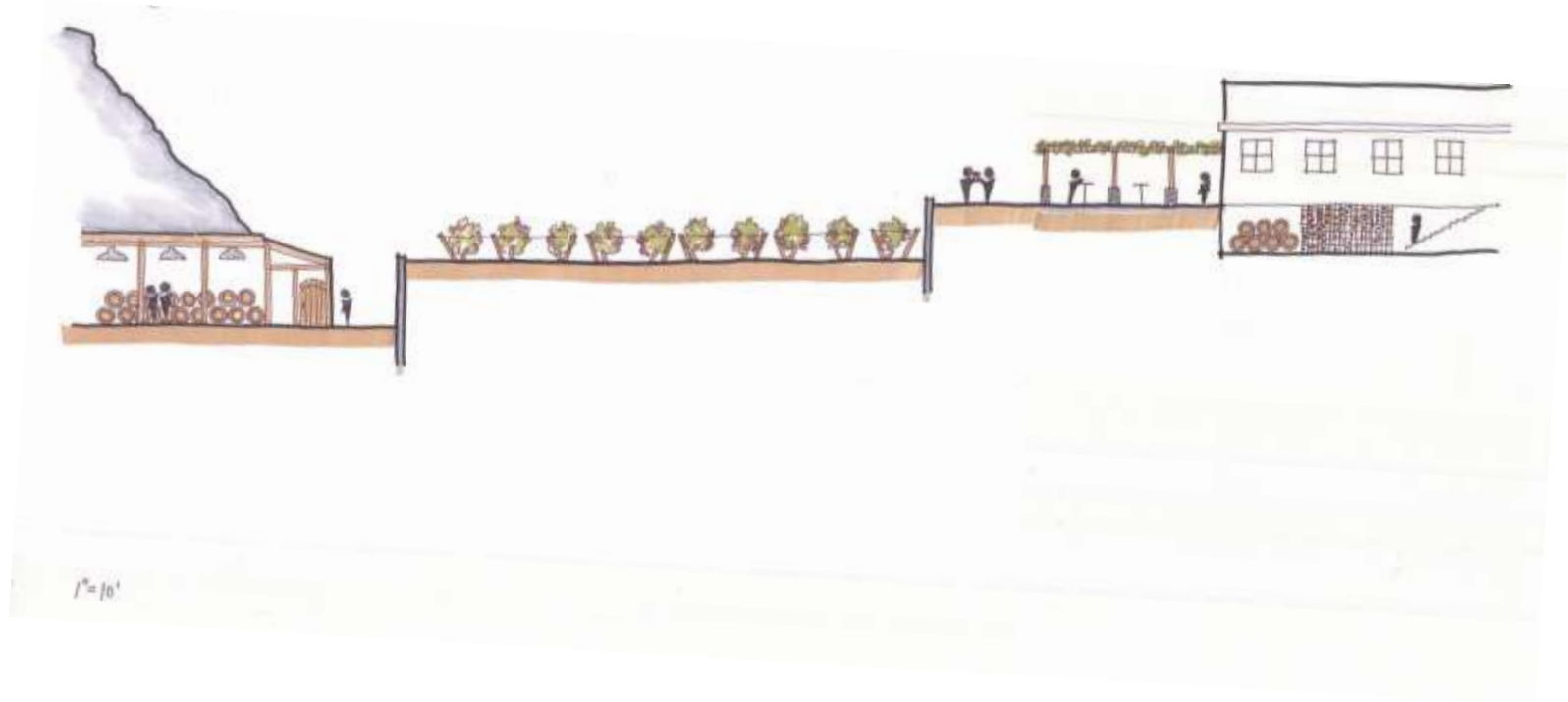
Creative Community Design



Vineyard Blow-Up



Vineyard/Restaurant Section



Cottage Section

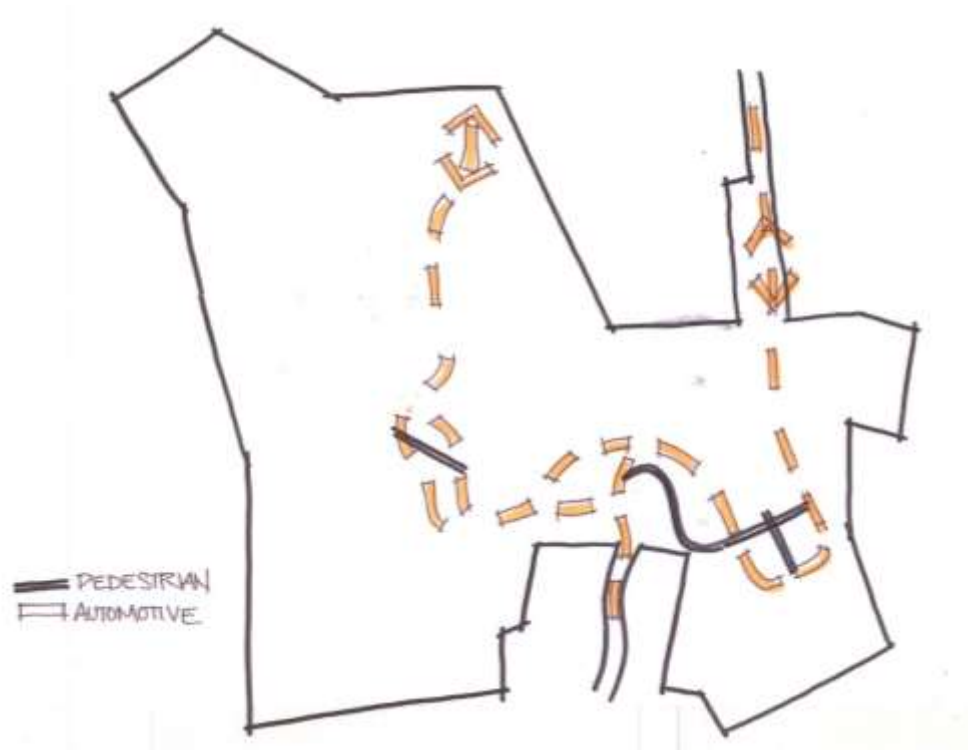


1' = 20'

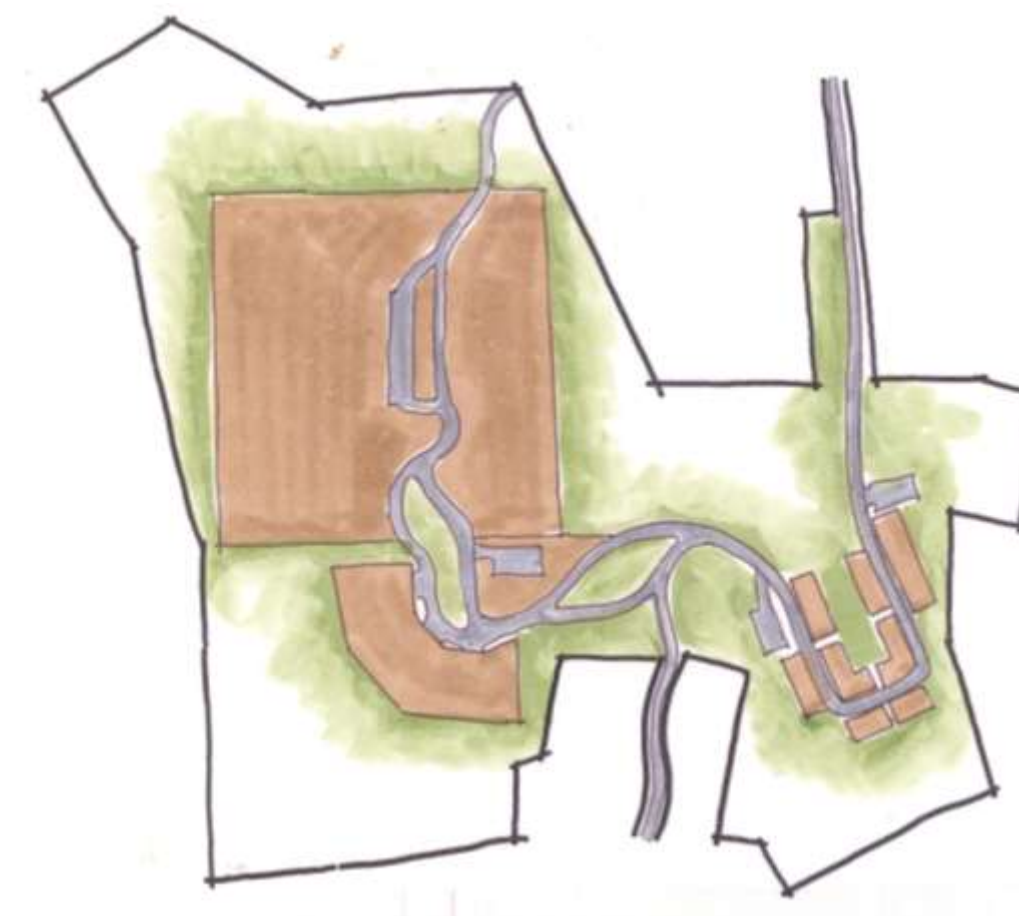
Farmers Market/Co-op



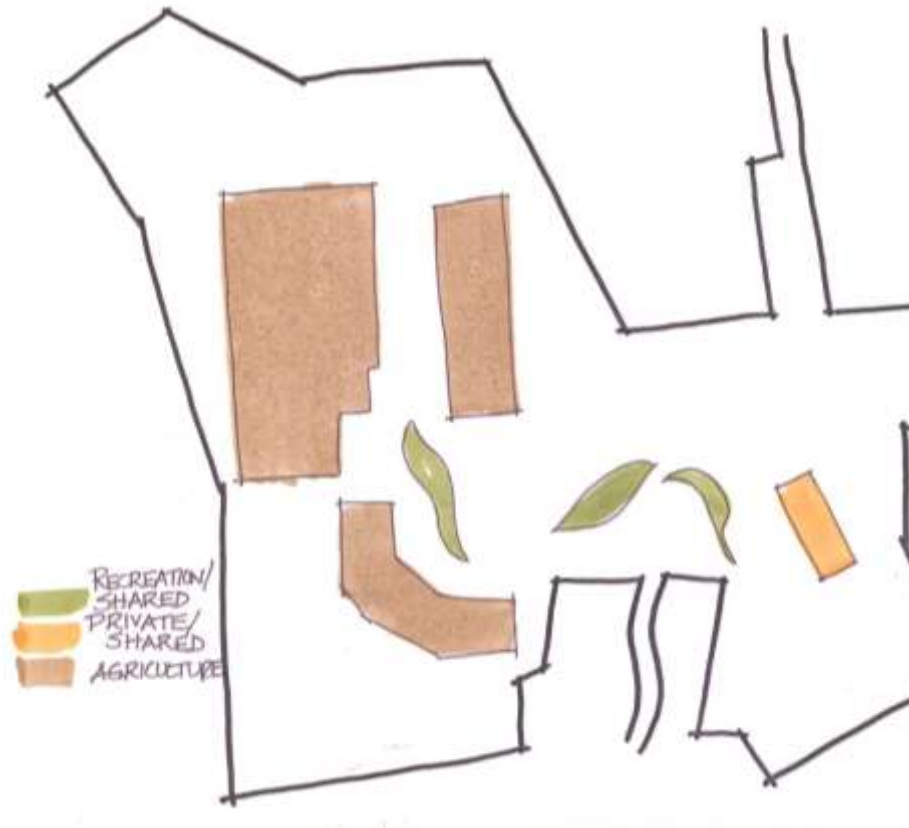
Circulation



Land Use



Open Space



Wintechog Road Parcel Development Study

North Stonington, Connecticut

Alternative #4 – Nicole Seelbach

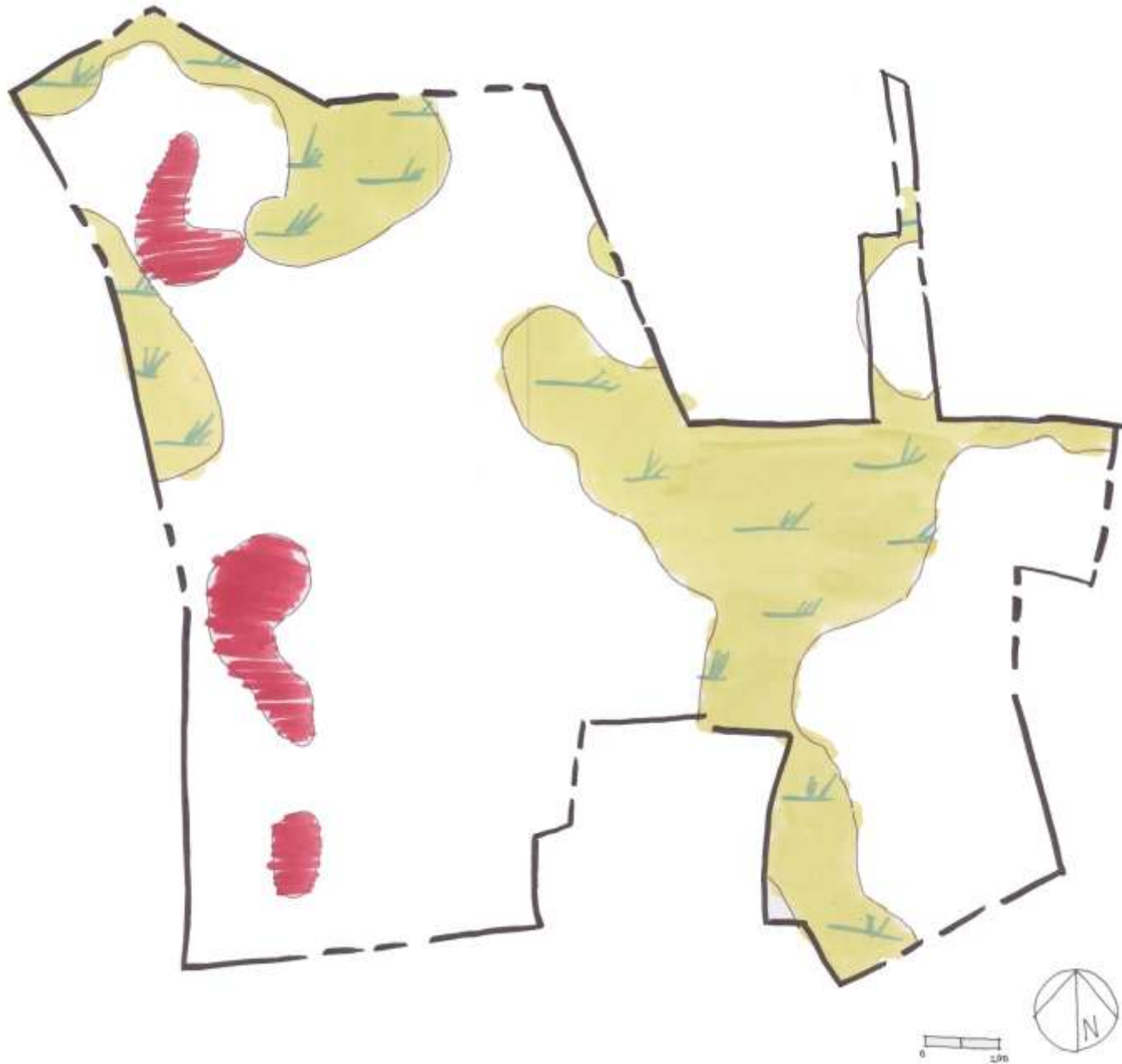
- *Build-out:* Cluster residential use
- *Creative Development:* Modern style modular homes on small lots, co-housing with community elements, community gardens and farmer's market-oriented central open space with large conservation area and trail system

University of Connecticut Program of Landscape Architecture LAND 4440 Fall 2012



Department of Plant Science and Landscape Architecture  College of Agriculture and Natural Resources

Unbuildable Land – Wetlands & Slope over 30%



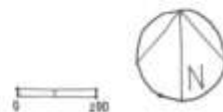
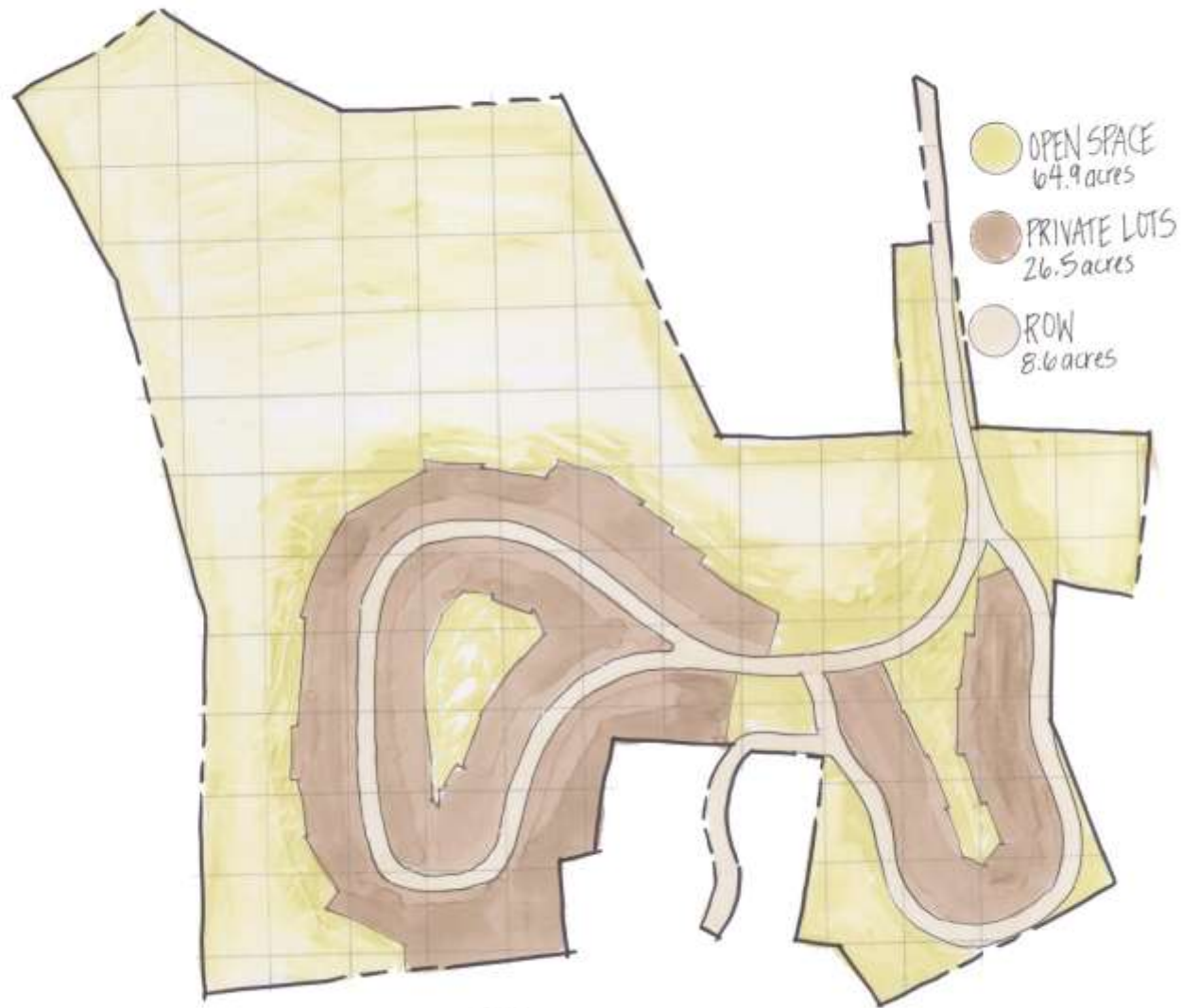
CLUSTER DEVELOPMENT

53 LOTS
MINIMUM LOT SIZE
~ 20,000 sq ft

KEY
SEPTIC
WELLS



LAND USE



Tiny House, Outdoor Living

Nikki Seelbach

Areas to be Conserved



- Wetlands
- Slopes over 15%
- Streams
- DEP Natural Diversity Area



Modular Homes

Blu Homes - energy efficient, prefabricated homes

Studio	24' by 18'	\$135,000
2 bedroom	49' by 18'	\$210,000

-up to 4 bedroom homes are available

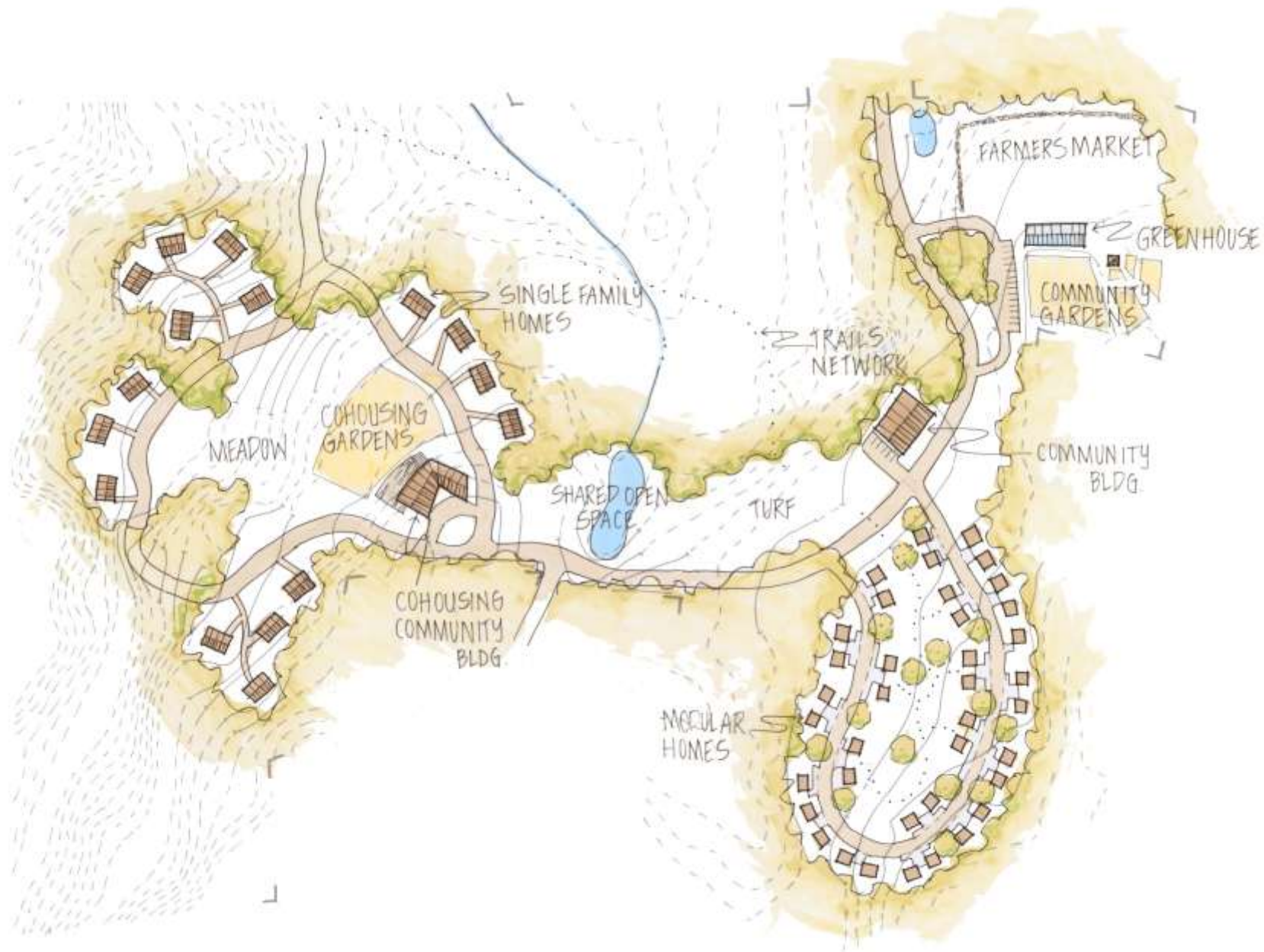


Creative Community Design

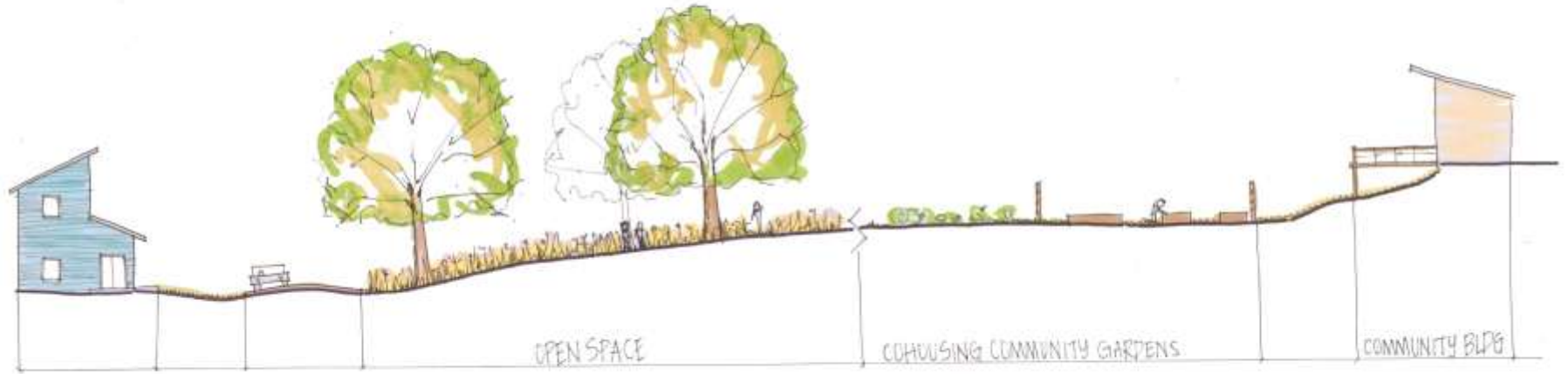


CREATIVE COMMUNITY DESIGN





Cohousing Community Section



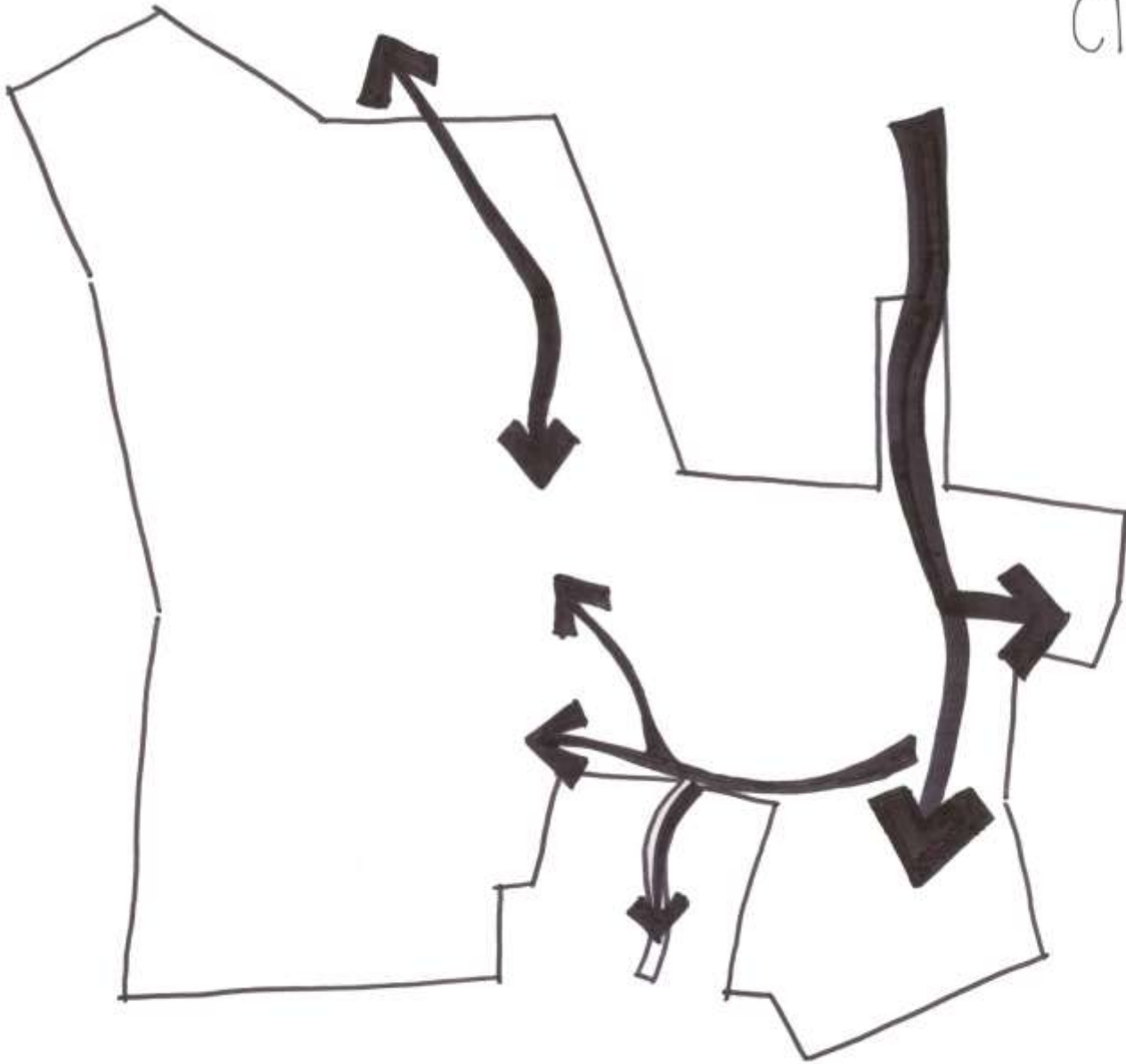
Community Garden/Greenhouse



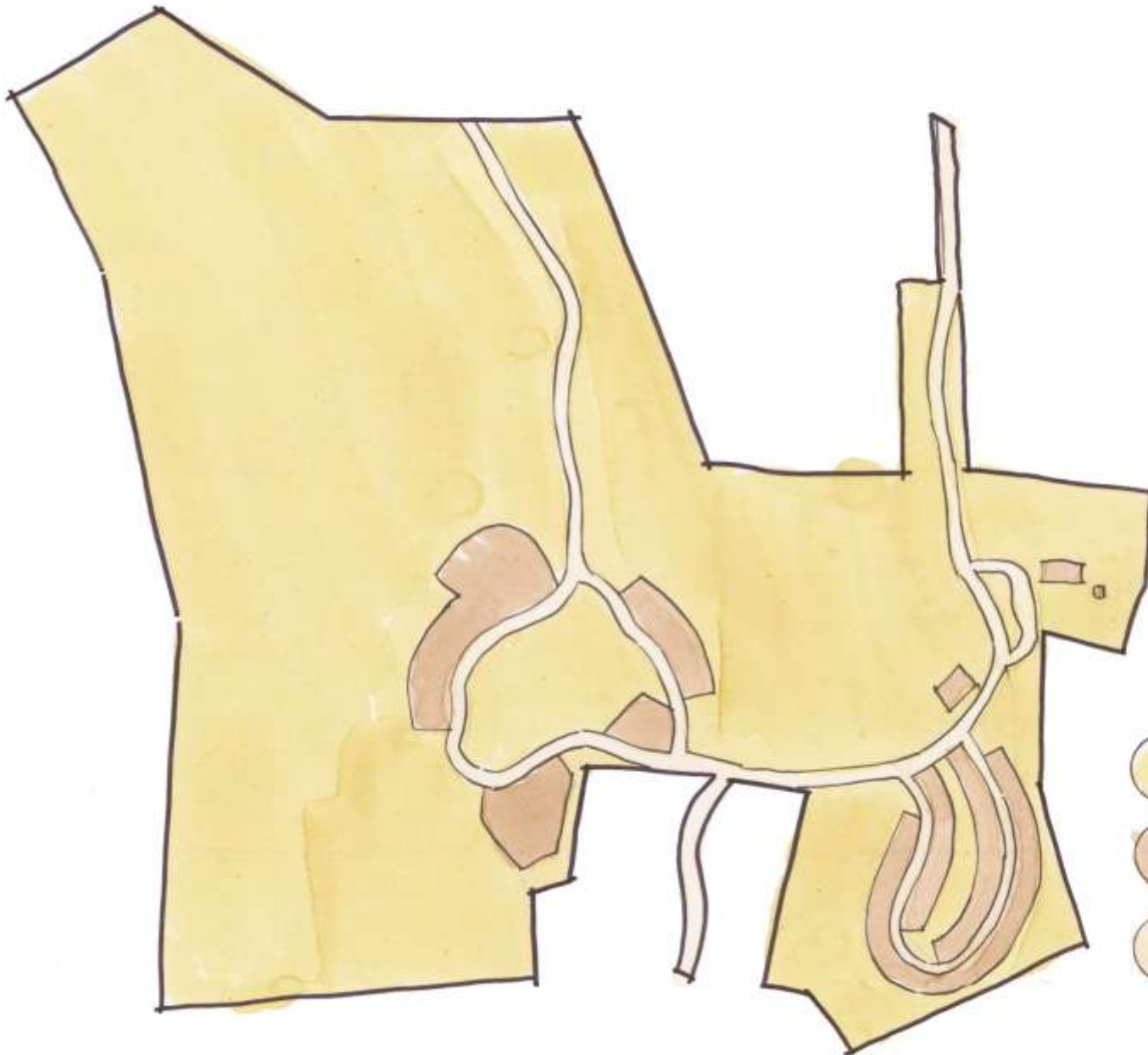
Affordable Housing Blow-up



CIRCULATION



LAND USE



- OPEN SPACE
- PRIVATE LAND
- ROW

OPEN SPACE USERS



-  TOWN
-  MODULAR
-  COHOUSING
-  ALL

Wintechog Road Parcel Development Study

North Stonington, Connecticut

Alternative #5 – Zack Young

- *Build-out:* R80 residential use
- *Creative Development:* Mixed housing types: 2 community farm-related affordable attached housing clusters, graduated care elder housing, single family detached; linked by loop road and conservation open space

University of Connecticut Program of Landscape Architecture LAND 4440 Fall 2012

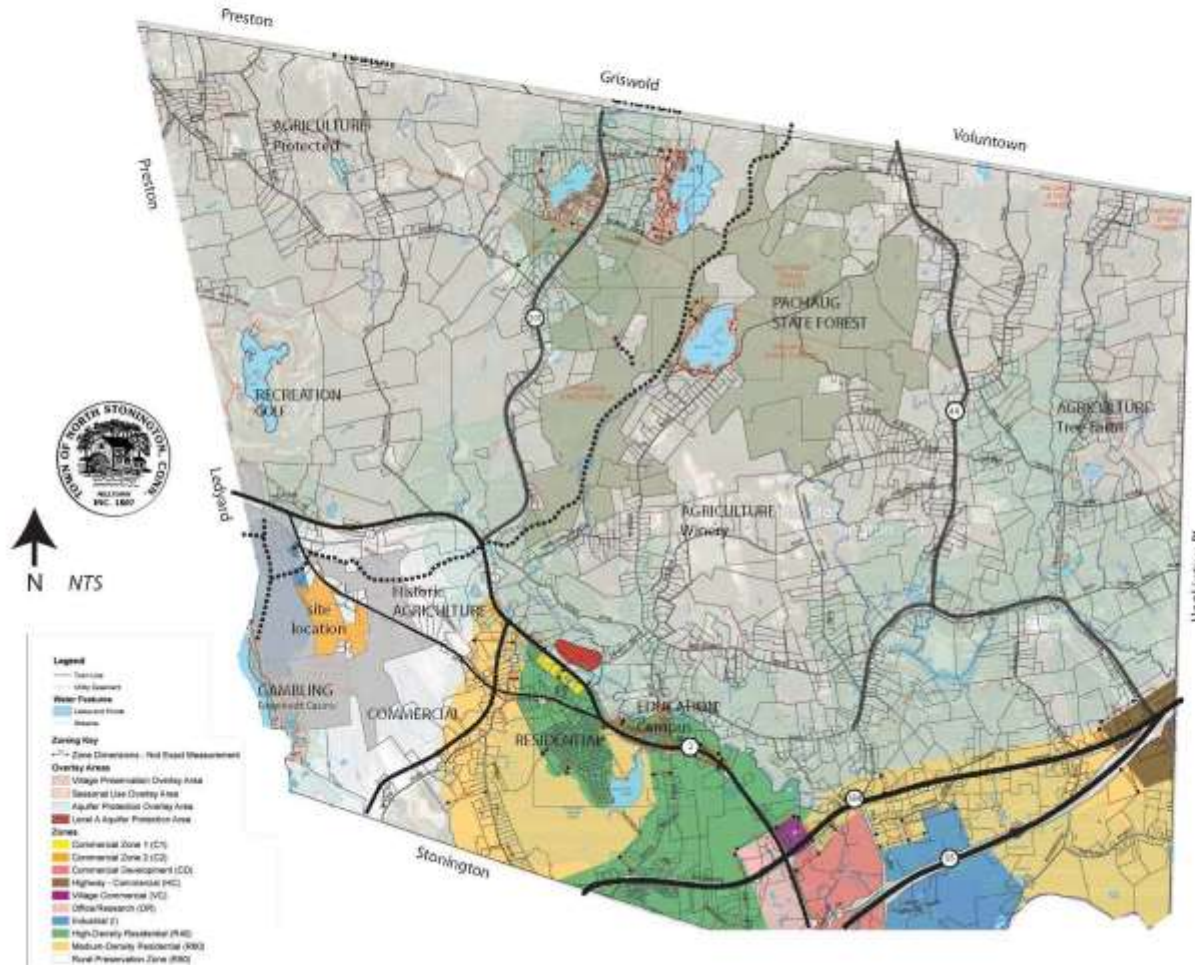


Department of Plant Science and Landscape Architecture  College of Agriculture and Natural Resources

The town has a typical rural connecticut layout with a large emphasis on its historical agricultural character and most development under submission to highway corridors. The southern part of town has the highest amount of highway and commercial development, whereas the northern tier of town transitions from historical farm sights to the Pachaug State Forest.

The sight is located in the southwestern corner of North Stonington in a relatively undeveloped rural area and shares adjacency with agricultural, commercial and recreational entities.

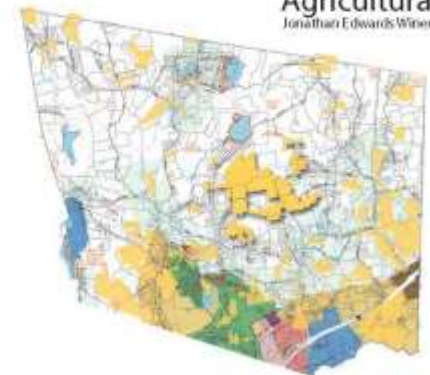
THE CHARACTER & TOWN DISTRICTS



Forested
Pachaug State Forest



Agricultural
Jonathan Edwards Winery



PROGRAM DEVELOPMENT

USERS

Future residents of site
Adjacent Residential Community
Campus (Educational - teach kids importance of agricultural concepts)
Through Traffic

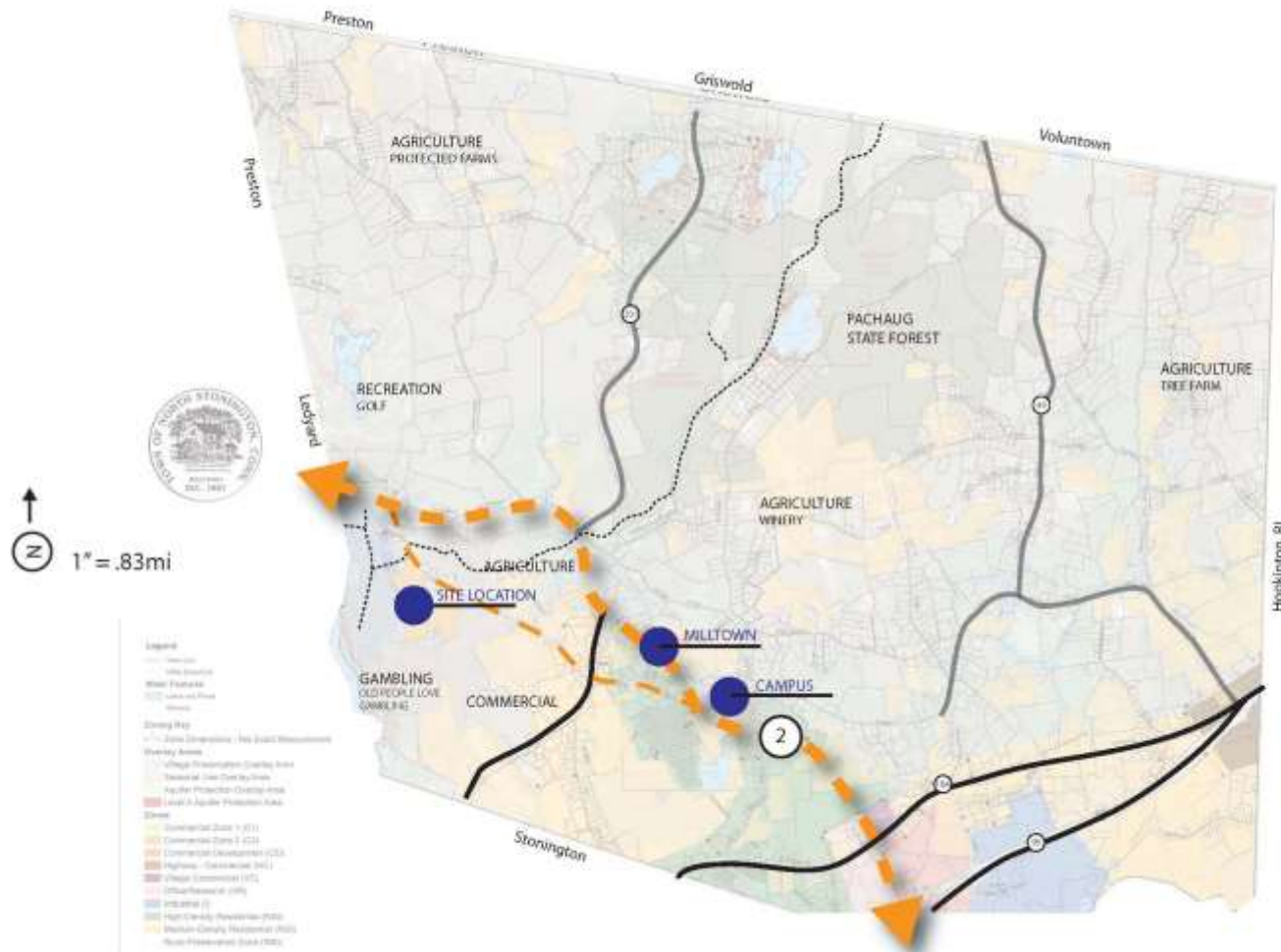
ISSUES

-Agricultural character in threat of declining
-RI beaches and Foxwoods Casino highly affects vehicular traffic passing through
TOWN (Foxwoods contributes to an average of 19,000 cars through town a day)
-Historic Milltown in declining state

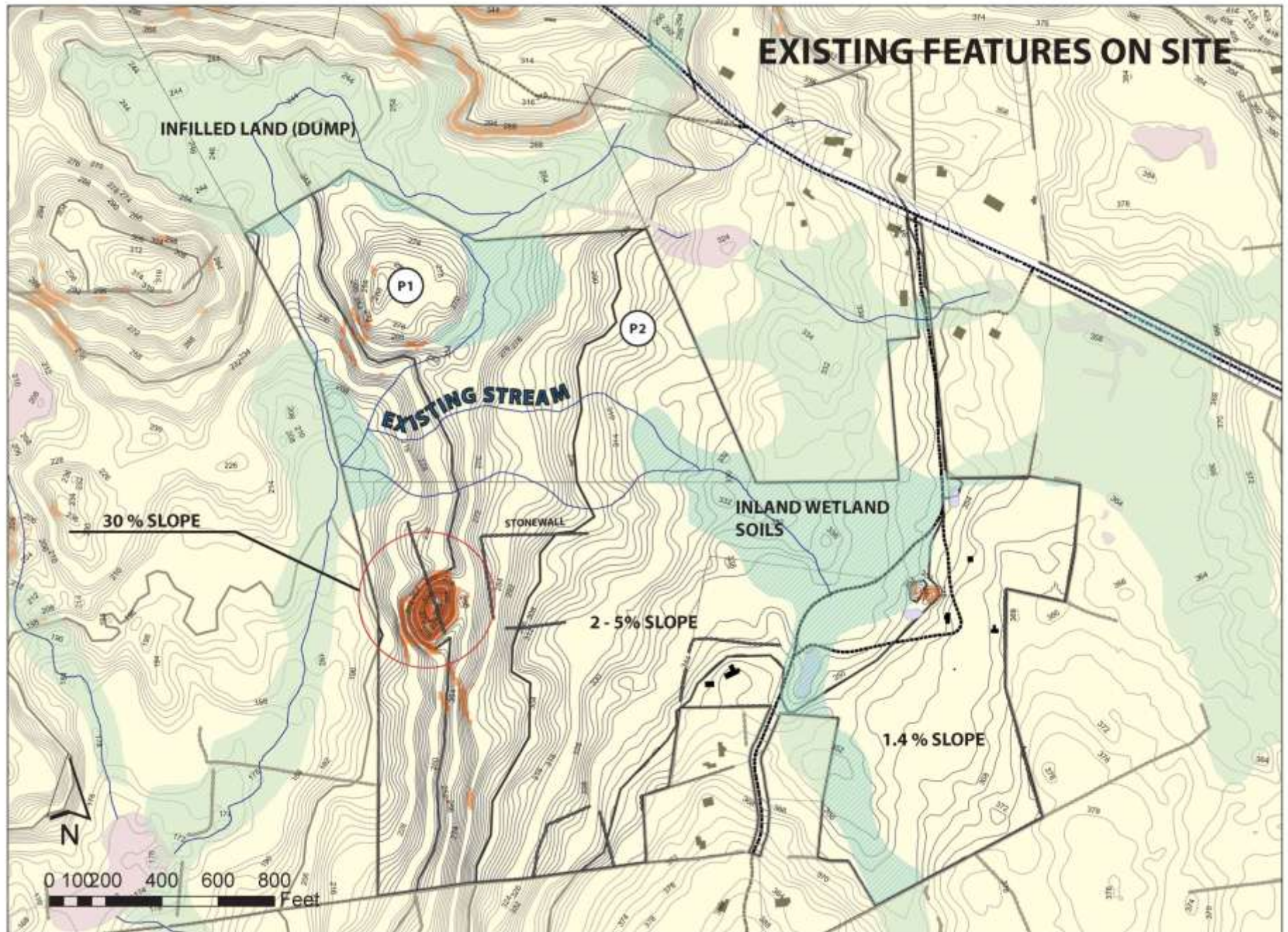
POSSIBLE GOALS

Create agricultural opportunities that are positioned at the terminus of a transect which helps to revitalize economic activity in historic Milltown

Attract tourism opportunities via route 2 by introducing roadside activity in order to promote exploration of North Stonington's rural character



EXISTING FEATURES ON SITE



CONVENTIONAL ZONING DESIGN

Subdivision Layout

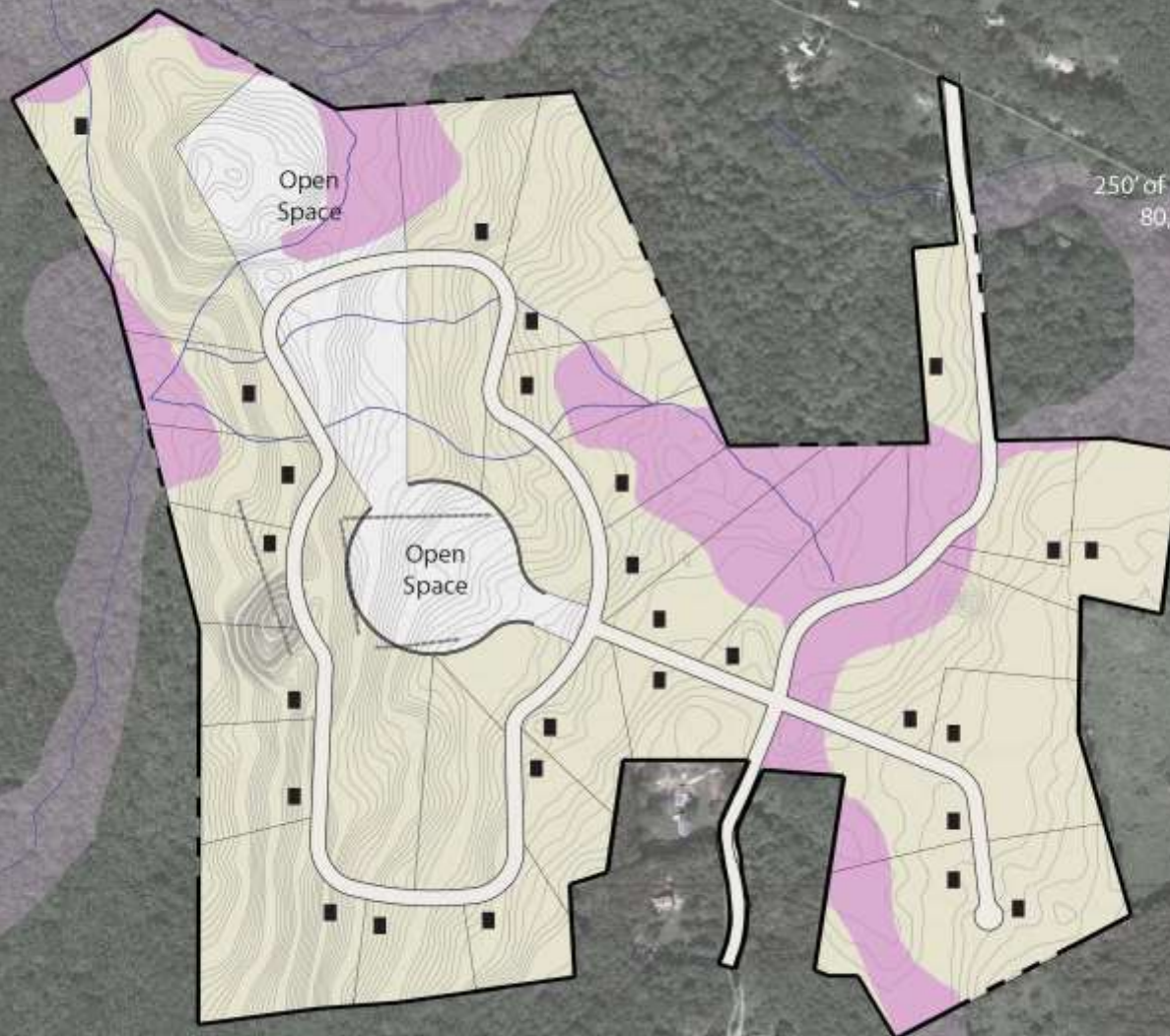
27 R80 Residential Lots

7,650' of 40' ROW

LIMITING REGULATIONS

250' of minimum street frontage

80,000 sqft minimum lot size



1" = 200'

UNCONVENTIONAL DESIGN

SUBDIVISION LAYOUT

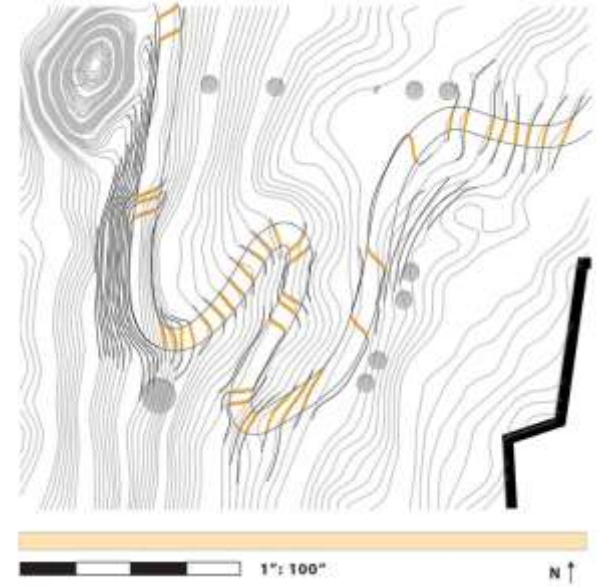
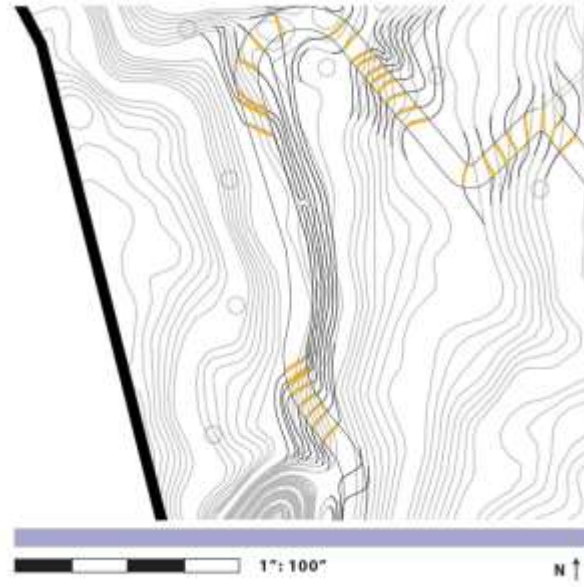
31 Residential Lots, Plus Assisted
Living & Community Center

6,900' of 40' ROW

ASSUMED REGULATIONS
60' of minimum street frontage
43,560 sqft minimum lot size
reduced setback requirements



1" = 200'



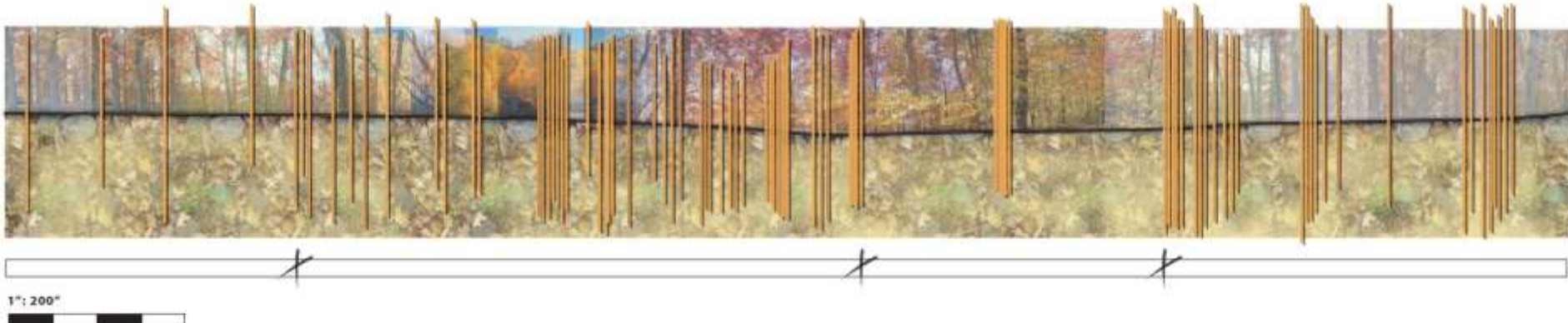
RECREATING ROAD FRONTAGE AND LOT SIZE REQUIREMENTS ALLOWS FOR A MORE DIVERSE ROW SYSTEM THAT CAN FOLLOW ECOLOGICAL AND TOPOGRAPHICAL QUALITIES ON THE LAND
ROAD FRONTAGE: 60'

ROAD ALTERATION

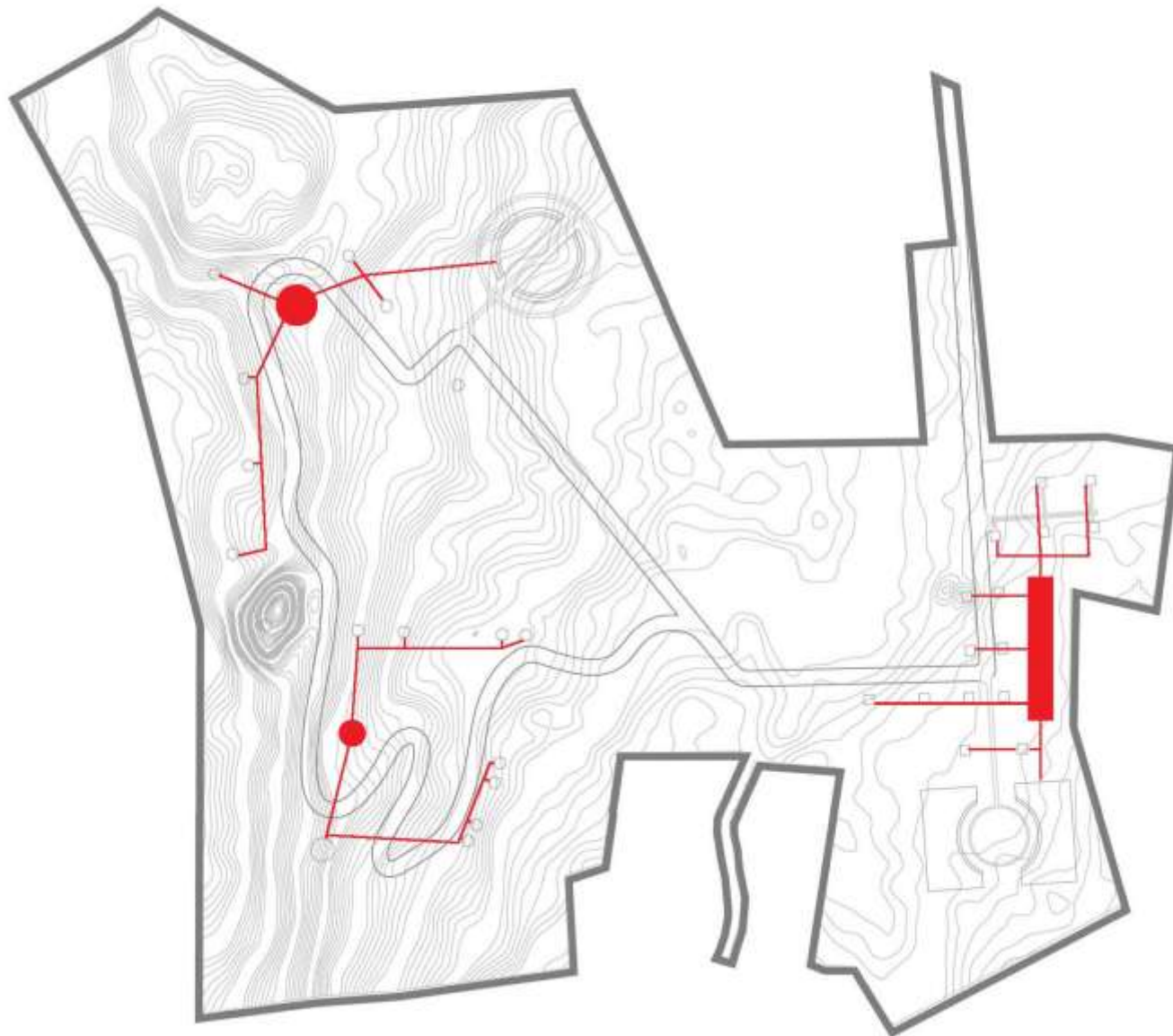
.7%

.8%

9.2%

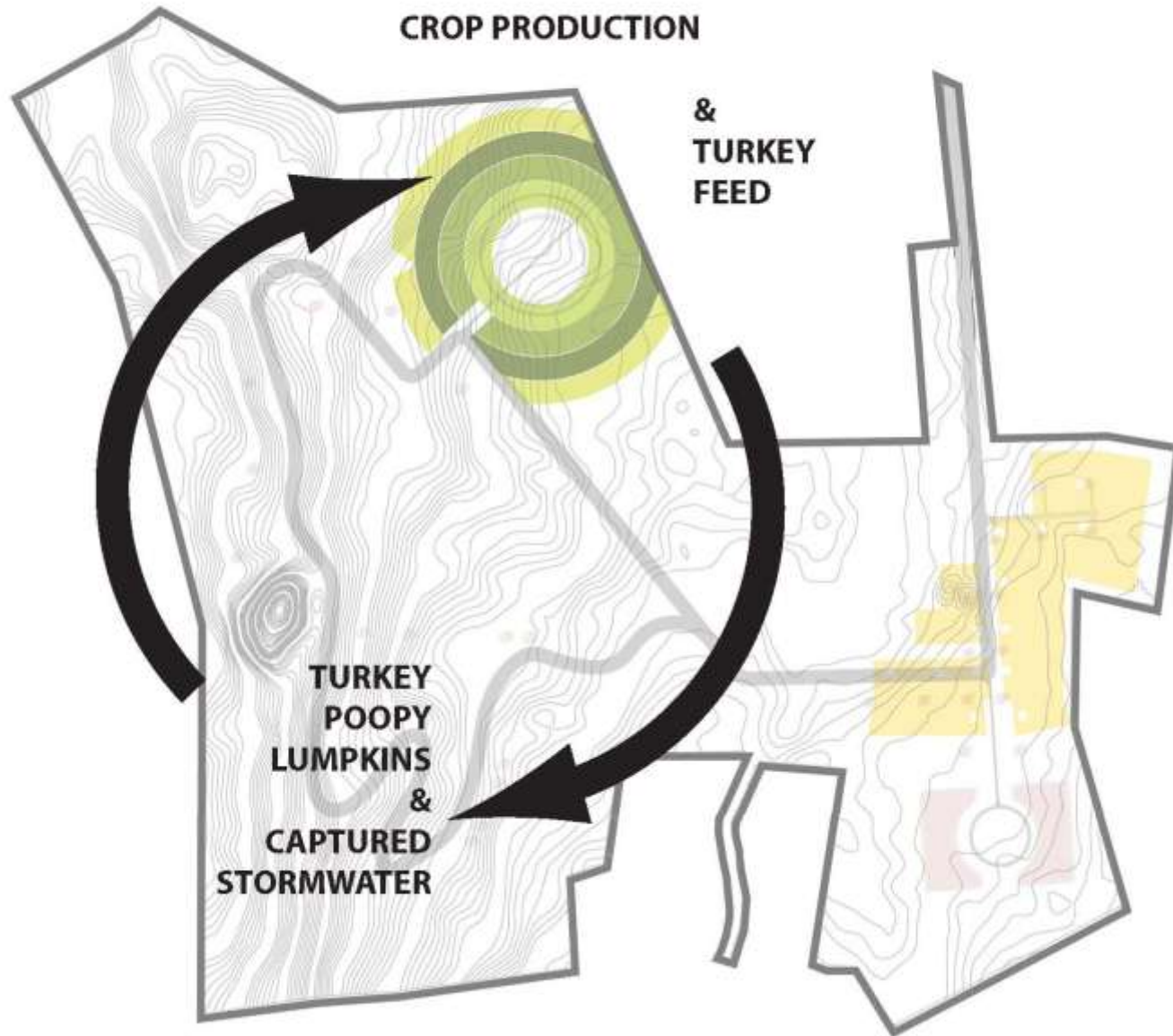


SHARED SEPTIC ON SITE



INDUSTRIAL ECOLOGY IN THE SUBURB

Outputs are reinvented as inputs for other agricultural locations on the site



TURKEY FARM REQUIRMENTS

4 SQFT FOR A BIRD OF 16 TO 29 WEEKS

CONSTANT WATER ACCESS

PROVIDE SHELL GRIT AT THE RATE OF 30 - 40 GM
PER DAY PER BIRD





Affordable Housing on Site (Yellow Road Segment)



Community Green Space

A central green space provides a gathering place for residents and a buffer between the development and the surrounding area.



Micro-Scale Turkey Farm

The farm is a small-scale, community-based operation that provides a source of fresh, locally-grown food. The farm is located on the site of the former turkey farm and is a key feature of the development.



Individual Housing Units

Single or two-person housing units, located in a central area of the site, provide a source of affordable housing for residents.

Connected with the main road, the units are accessible to the surrounding area.



Shared Utility Building

The shared utility building provides a central location for residents to access shared utilities, such as water and sewer services.

Located near the main road, the building is accessible to the surrounding area.



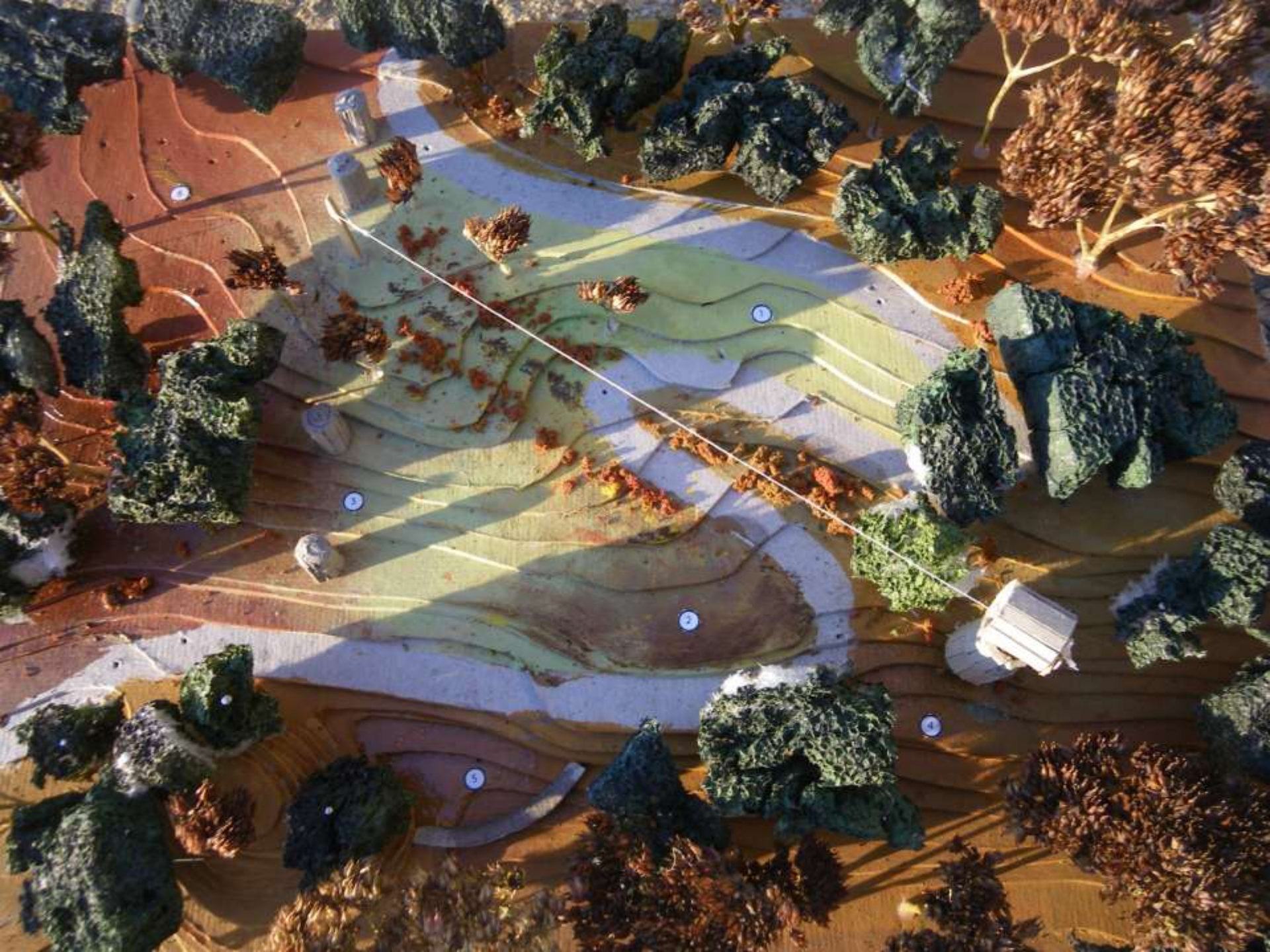
Stormwater Retention

A retention basin is located on the site to collect and store stormwater, reducing the risk of flooding and improving water quality.



Trail Connection

A trail connection links the development to the surrounding area, providing a safe and accessible route for residents to walk and bike.





Wintechog Road Parcel Development Study

North Stonington, Connecticut

Alternative #6 – Tanner Burgdorf

- *Build-out:* R80 residential use
- *Creative Development:* Open Space Design Development, using historic house/attached barn style attached housing units; variety of large and small scale agricultural and natural open spaces

University of Connecticut Program of Landscape Architecture LAND 4440 Fall 2012



Department of Plant Science and Landscape Architecture  College of Agriculture and Natural Resources

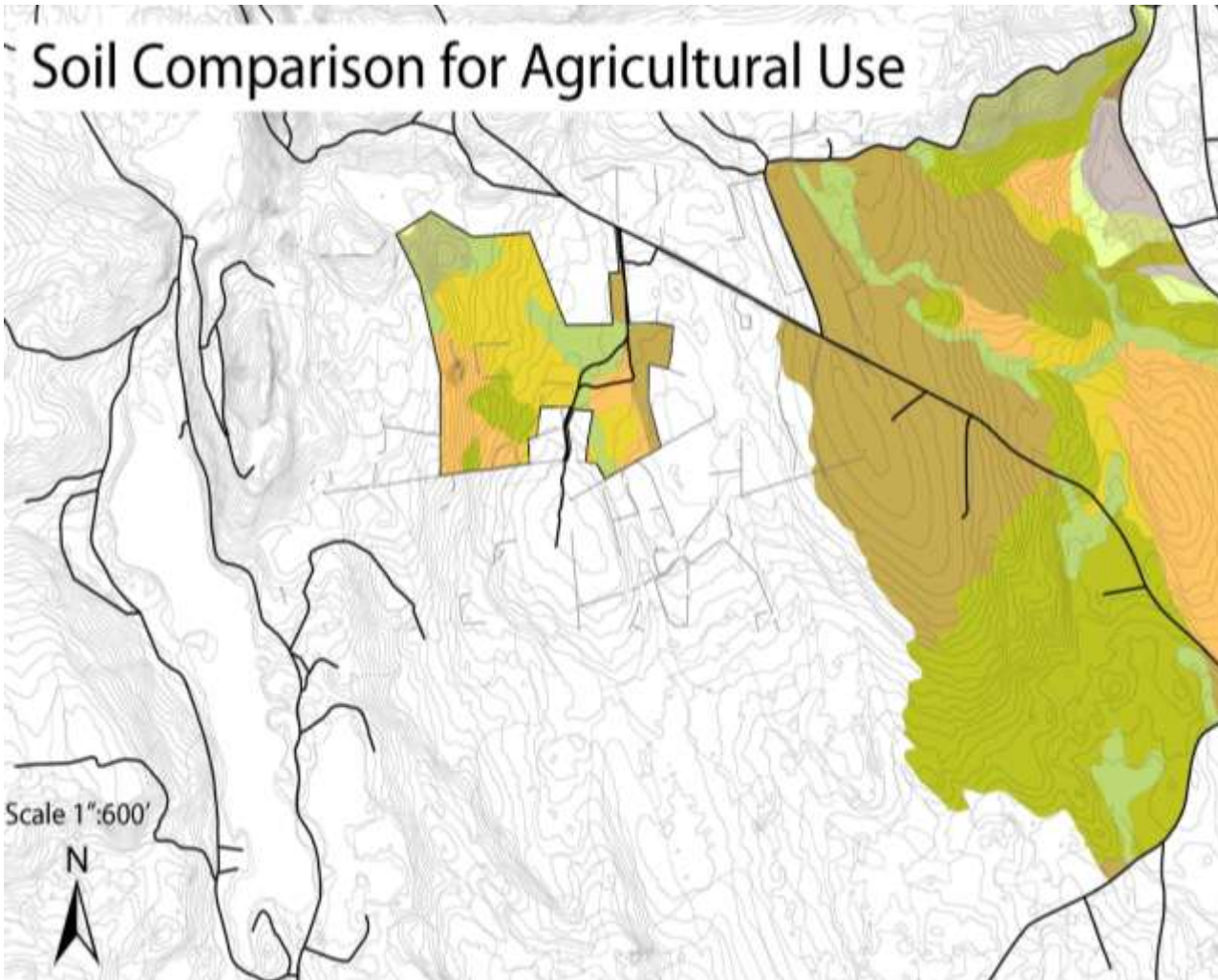


Wintechog Road Parcel Development Study North Stonington, CT



By: Tanner Burgdorf

Adjacent Agricultural Land Use



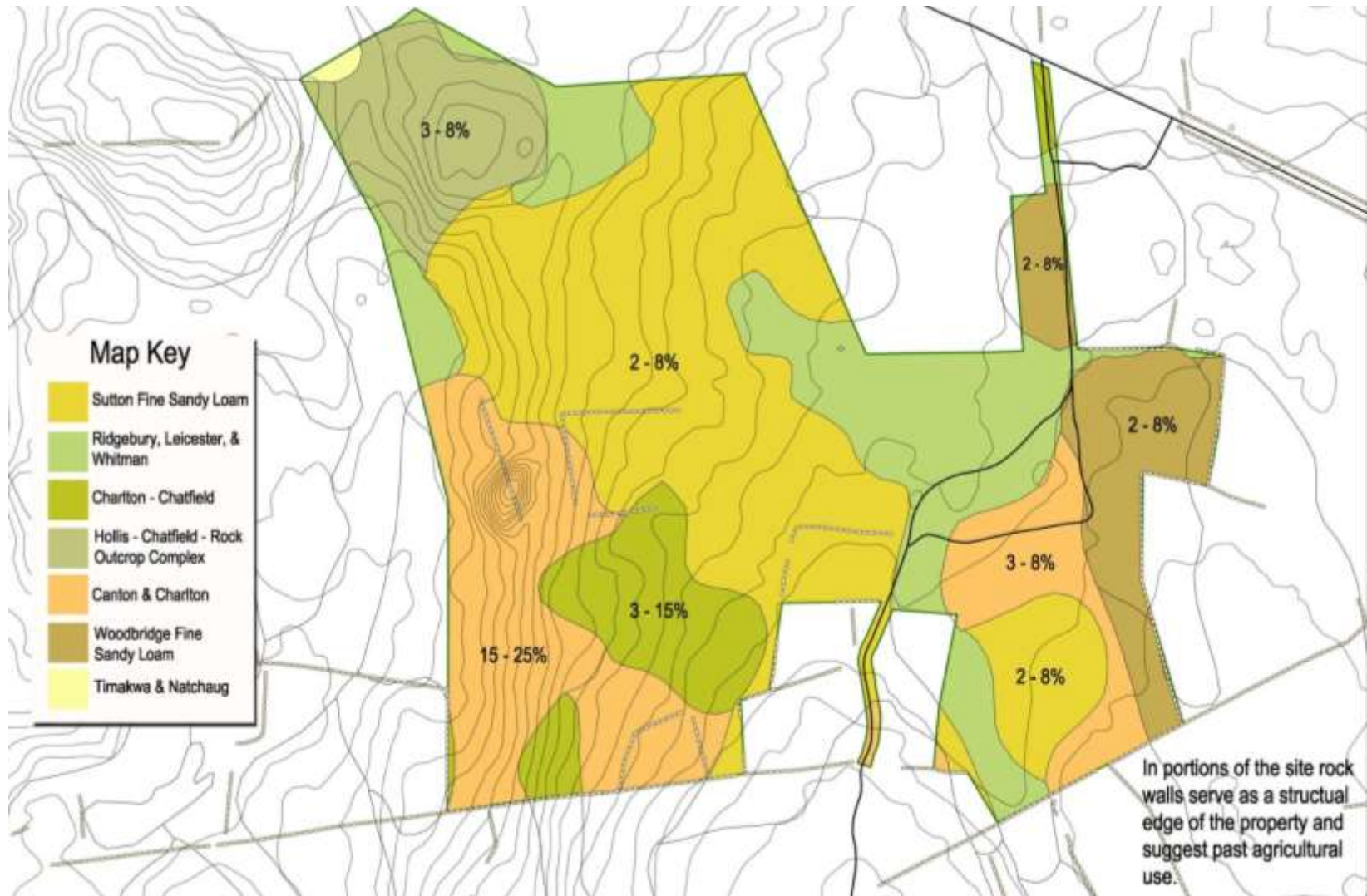
Open space can be used for agricultural purposes.

Agriculture land use connects to the historic land use of North Stonington.

Comparable soil varieties supports the designing open space for agricultural use.

- Woodbridge soils are especially productive and support agricultural practices.

Site Analysis: Soils, Topography, and Historic rock walls



Woodbridge fine sandy loam, sutton fine sandy loam, and canton & charlton are good agricultural soils.

Site Analysis: Programming site for development & designed open space



- An analysis of the soils and topography helps to identify the best areas to turn into productive agricultural land and which portions of the site to keep forested.

Context: Agricultural Use for Open Space



Conventional R80 Zoning Build-Out



-
- 25 single family units – Average lot size: 1.8 acres (1800 sq. ft.) – 28% open space – 7,740 ft. of road



Water & Septic

Water: Individual wells for each single family unit.

- 25 individual wells

Septic: Designated open spaces provides land for package plants.

- 2 package plants on open space



Conventional R80 Zoning Build-Out: Problems.....



- ▶ Limited public open space, extensive clear cutting, expensive road construction

Open Space Development Design (OSDD)

- ▶ *Rural by Design*, Randall Arendt
- ▶ **Purpose:** “Once land is check boarded into wall to wall houselots into is nearly impossible to retrofit greenways, trails, parks, and neighborhood playfields into the established pattern”
- ▶ **Goals:** “Design buildable land as open space that provides environmental protection, public safety, and rural resource conservation. The provision of open space under OSDD strengthens **community** within the development by providing more designed shared space.”
- ▶ “Buffer existing conservation lands and increase the amount of contiguous protected open space.”



Creative Community Development



► 32 Housing Units – 70% Open space – 5,930 ft. of road



► 70% (Forested open space, open space, agricultural land), 30% Mixed Residential Zone



Water & Septic

Water: Wells for each zone.

- 7 wells

Septic: Designated open spaces provides land for package plants.

- 3 package plants on open space



Ex/ Mixed Residential Zone



Duplexes and Multi unit dwellings

Mixed Residential Zone

Barn Apartments & Duplexes

Open
Space

Entry to
Park

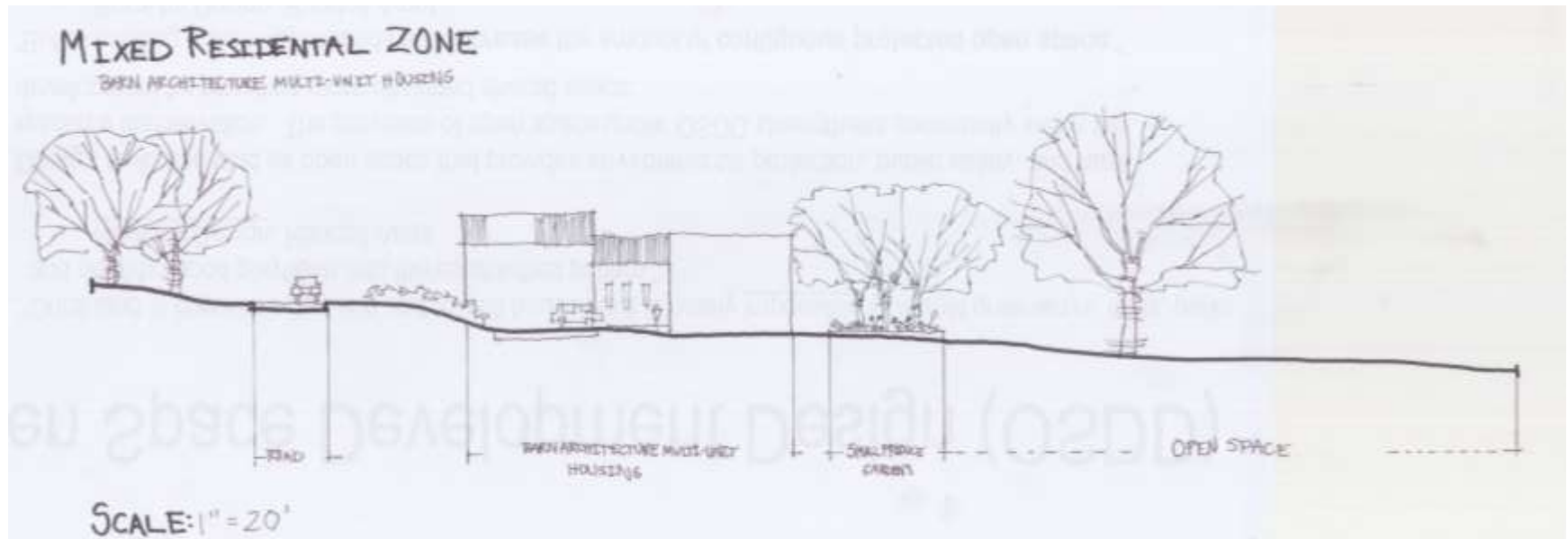
Small Produce Gardens

Scale: 1" = 100'

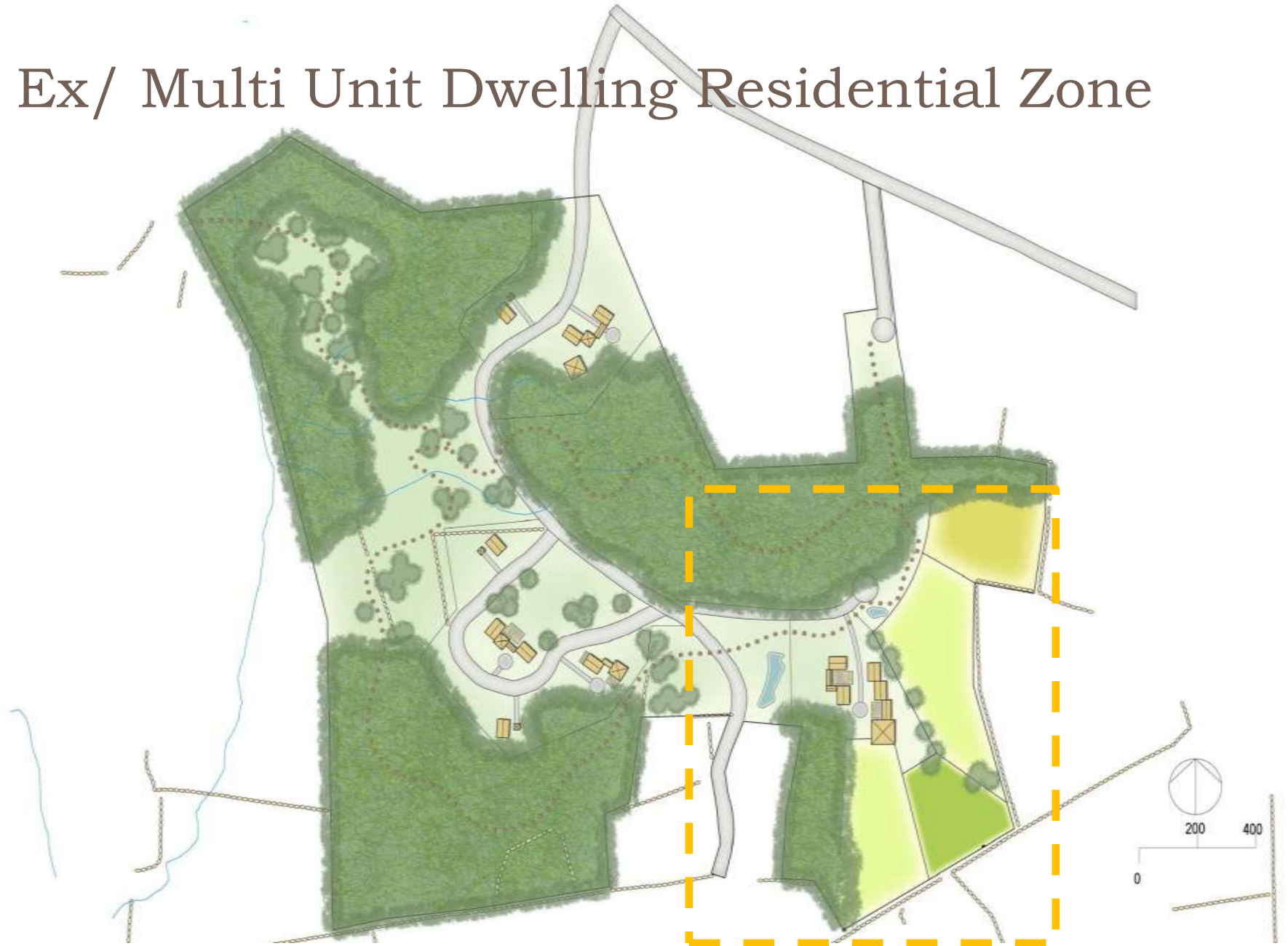
- Multi unit buildings and duplexes make for a more affordable housing option while at the same time has the goal of promoting sense of the community in the residential zone.

Mixed Residential Zone

- 4 Units
 - 2 Duplex Units = 4 Residents
 - 2 Multi Units = 3 Duplexes per Multi Unit = 12 Residents



Ex/ Multi Unit Dwelling Residential Zone



- Multi unit dwellings w/ adjacent agricultural open space and connect to other open space

Multi Unit Dwelling



Adjacent open space would be used as grazing fields for horses and goats. Grazing fields allow for multi use, they can also be used as trails for the nearby housing zones.

The arrangement of architecture helps build community

-
- 10 Residents (8 Duplexes & 2 single units)

Site Design Alternatives #1 – Andrea Fossa

Residential Build-Out Scenario: Cluster

Lot size: .78AC

Yield: 58

Water and Septic: Individual Wells 35ft radius with two 1 ac. Septic

Open Space Area: 40%/42.5AC

Site/region attitude: With the siting of the cluster development the design followed the guidelines of the APA cluster development. The goal is that every site has access to open space with a maximum lot size of 1 ac.

Layout, access, road description: The layout of the site loops around to create pockets of open space for cultural use. The entry access remains the same with one large loop around the site.

Open space description: The idea was to have two types of open space; forested untouched land as well as a cultural open space for recreational/family use. This leads to the design focusing around central pockets of open space.

Creative Development Scenario: Mixed-Use/Commercial

Housing Types/Yields : Duplex on 80,000sf lots – 10 duplexes= 20 units

Commercial/Mixed Uses: Farm/local food store with agricultural land + greenhouse, trades arts learning community with stores, studios, food and student learning

Commercial SF and related parking #'s: 15 ac. with 60+ parking spaces

Water and Septic: Two spots for septic using package plant. 1 acre plant for duplex housing and 2 ac. plant for arts community

Open Space Uses: recreational and forested trail use open space

Land Area Breakdown: 4 AC residential, 15 AC mixed use, 75 AC open space

Site/regional rationale and inspiration for selected uses:

The inspiration for the design derived from the traditional trade practices and rural character of the town of North Stonington. With the close access to the casino as well as the center of town in North Stonington my goal was to create a unique and meaningful place to the area. This would be through the proposal of a small trade/craft school. Activities would include glass blowing, iron works, textiles, carpentry, and pottery. Within the learning school, there is room for local artisans to rent out studio space to work and sell their work, small living places for the students who come to learn a trade for the two week period of time, a gallery, community building with dining and a café.

The other inspiration for the site was to have a year round local food farm/commercial use building. This would be possible with the use of greenhouses on site. Food will go directly to the store as well as the opportunity to sell and grow for the craft school.

Site layout, access description:

When laying out the site, I decided to leave the original access into the site as it is, instead of looping around I kept the forested land on the upper left corner untouched. When entering the site the user is looped around the first pond with views to meadow open space, they are then led to the farm building.

If the user desires to continue to the art school they are brought through the site all the way to the end of the road. The siting of the art school is built into the slope of the site, looking out onto the high point/rock outcrop of the site. The school is re-graded for a series of building with the studios, and living quarters for the students in "pods." The community building looks out onto an open meadow and high point. The siting of the homes is off of the existing road to the other residential home nearby. This is so they are still part of the community but are still separated from the bustle of the commercial uses.

Open space description:

75 acres of open space with provide a trail network around the existing natural assets of the site.

Site Design Alternatives #2 – Thomas Thorsen

Residential Build-Out Scenario: Conventional R80 Zoning

Lot size: 80,000 SF/1.84 AC

Yield: 26

Water and Septic: 26 wells and possible areas for package plants

Open Space Area: 27.15%/ 27.15 AC

Site/region attitude: The conventional design attempts to create as many properties as possible while still considering the rural feel of the town and the surrounding areas.

Layout, access, road description: I connected the new road to the existing road because I figured that would lead to the least amount of disturbance to the wetlands. The road layout allows for some properties in the middle of the site with the greenway. The road also stays a safe distance from the wetlands.

Open space description: I left the northwestern part of the site as the largest part of wooded open space because I wanted it to create a buffer between the site and the landfill. I also left two larger open spaces and a smaller open space as possible areas for a package plant. I also left a small strip of open space to act as a greenway through the site that connects the two large open spaces.

Creative Development Scenario: Mixed-Use/Commercial, Open Space (as appropriate)

Housing Types/Yields :

- 1) duplex on 80,000sf lots – 12 duplexes= 24 units
- 2) 12-unit per bldg. – 8 bldgs. = 96 units

Commercial/Mixed Uses: Retail and Dining, Food Market, Greenhouse

Commercial SF and related parking #'s: 19,500 sq. ft./ 98 parking spots

Water and Septic: 16 wells and possible areas for package plants

Open Space Uses: Open Space, Vegetated Open Space, Agriculture

Land Area Breakdown: 59.14 AC residential, 17.00 AC mixed use, 23.86 AC open space

Site/regional rationale and inspiration for selected uses:

The design includes two apartment complexes that each has three buildings with two-bedroom apartments. It also includes two buildings that have single bedroom apartments above commercial use, and twelve duplexes. These housing units were intended to be affordable for residents. The commercial buildings include restaurants, retail, a farmers market, and a greenhouse. These uses were included to bring people to the site. The farmers market and greenhouse will use plants and crops that are grown in

the agricultural fields that are located nearby. The entire town of North Stonington has a rural feel and there are many agricultural fields located close to the site so I thought it seemed possible for a farmers market and greenhouse to be prosperous in the town. There is also a strong push currently going on for people to eat food that are grown close to home so that is what the agricultural fields will be for.

Site layout, access description:

The design separates the commercial/mixed use area and the residential area. The commercial/mixed use area is located on the southeastern end of the site. This will utilize some of the existing open space that is currently on the site. The residential areas of the site will all be located west of the commercial/mixed use area.

Open space description:

Open space is utilized on the site as a buffer between the residential areas and the landfill, as open space, and for a greenway between the backyards of some properties. The open spaces contain some possible areas for package plants.

Site Design Alternatives #3 – James Stephens

Residential Build-Out Scenario: Cluster OR Conventional R80 Zoning (as appropriate)

Lot size: .86AC

Yield: 63

Water and Septic: Shared wells with package plant

Open Space Area: 40%

Site/region attitude: Develop the site as much as possible to see what can happen with zoning regulations. Cluster development can still lead to a large amount of housing development and less open space.

Layout, access, road description: The layout of the cluster development will consist of two nodes. Access will continue to enter and exit through Wright Rd. There will be a development in the south east corner of the site and continue to the north-west development. The north-west development will be larger and have majority of housing located on that side of the site because there is more space available.

Open space description: 40% of the site is open space. All wetlands and steep slopes have been left untouched.

Creative Development Scenario: Mixed-Use/Commercial, Mixed Residential & Functional Open Space OR Mixed Residential & Functional Open Space (as appropriate)

Housing Types/Yields :

25 cottage style affordable housing, each on .3 acre land

Commercial/Mixed Uses:

Co-op farmers market located in south-west corner of the site

Vineyard/Restaurant located on west side of the site followed by an Inn

Commercial SF and related parking #'s:

Parking for 125 spaces

Open Space Uses:

Recreation, Private, Agriculture

Land Area Breakdown: 8 AC residential, 45 AC mixed use, 55 AC open space

Site/regional rationale and inspiration for selected uses: Case study; Cottage style housing, Farmers Co-op, existing vineyard in town.

Site layout, access description: Enter through existing Wright Rd, which continues to existing road for residents on the south side of the site. The cottages will be affordable housing that includes tight

property space, with mutually shared open space. Each cottage will be no more than 40'x40', including a small porch. The residential portion is located at a more private space, separated from the commercial. The commercial will include a terraced vineyard/restaurant along with an Inn across the street to add more of a destination point. There will be a greenhouse for the restaurant to grow their herbs and vegetables for cooking. The farmers co-op will include both agriculture and others bringing in local produce to be sold. There will be a "punch" through the north side of the site where the existing land fill is. There may be a cap put on the land fill within years to come. This connection will make the circulation more feasible of those enter and leaving the proposed site.

Open space description:

There is a combination of shared open space in the cottage community connected to recreation space. The recreations space is a center point connecting both the residential and commercial space. The agriculture space is all on the west side of the site combining the farm land and vineyard.

Site Design Alternatives #4 – Nikki Seelbach

Residential Build-Out Scenario: Cluster

Lot size: 20,000 SF/0.5 AC

Yield: 53

Water and Septic: Shared- 2 houses per well and Package Plant

Open Space Area: 65%/64.9 AC

Site/region attitude:

- Used only the criteria of unbuildable land (wetlands and slopes over 30%) to define the area of development.
- Followed Randall Arent's criteria for a neutral density cluster development. Minimum lot size is 20,000 SF and 50% of the buildable land must be conserved (For our site there are 80 buildable acres → 40 should be conserved).

Layout, access, road description:

- Utilize existing ROW and create one large loop to access all houses in cluster development.

Open space description:

- 64.9 acres are designated as town owned protected open space.

Creative Development Scenario: Mixed Residential & Functional Open Space

Housing Types/Yields:

- 1) Modular homes- single story studio style – 38 houses = 12 units
- 2) Single family homes – 16 bldgs. = 16 units

Commercial/Mixed Uses: Community gardens/greenhouse, 2 community houses for the residential developments

Commercial SF and related parking #'s: ~15 parking spots for community garden/greenhouse

Water and Septic: Shared and 2 package plants

Open Space Uses: Community trails network, community gardens and greenhouse, cohousing gardens

Land Area Breakdown: 16 AC residential, 2 AC mixed use, 82 AC open space

Site/regional rationale and inspiration for selected uses:

- Smaller homes with an emphasis on outdoor living. Both of the housing areas have access to the trails network that runs throughout the site and there are many shared open areas.
- Small, modern, modular homes create a distinct affordable housing community.
- LILAC cohousing community inspired the idea for the single family home cohousing area. Houses are small and clustered with an open space defined by the road

Site layout, access description:

- Utilizes existing ROW entry. The highest traffic site (the community garden/greenhouse) is sited as the first stop on the road to help maintain lower traffic through the residential areas of the site.
- The road was designed with the existing contours so that even before grading it never exceeds 8%.
- Future access route through the transfer station to enhance the open space aspect and improve circulation. If the transfer station were to become a town owned park after it is closed then this route would provide a connection for the housing communities.

Open space description:

- Majority state owned protected open space with increased trail connections. All houses have a trail connection in their backyard.
- Town owned lot with multi-functional flat open space (farmer's market), community gardens and greenhouse.

Site Design Alternatives #5 – Zachary Young

Residential Build-Out Scenario: Conventional R80 Zoning

Lot size: 80,000 SF/ 1.3 AC

Yield: 27 lots

Water and Septic: private

Open Space Area: 15%/15AC

Site/region attitude:

Affordable residential

Layout, access, road description:

Road extending off of existing ROW in the area which least disturbs wetland soils. The road on the western portion of the site is pushed as close to the property lines as possible in most areas in order to receive a high yield of lots

Open space description:

15% open space used to preserve an outlying rock outcrop on the northwestern tier of the site

Creative Development Scenario: Mixed Residential & Functional Open Space

Housing Types/Yields :

- 1) Single family housing on traditional agricultural land
- 3) Assisted living complex at the terminus of agricultural housing
- 4) Community complex with agricultural land uses (part A of “industrial ecology in suburbs”)
- 5) Detached single family housing
- 6) Affordable community small family units with community building (part B of “industrial ecology in suburbs”)

Commercial/Mixed Uses: Traditional and sustainable agricultural land uses

Water and Septic: Shared septic and water systems in 3 locations

Open Space Uses: Central space preserved for trails used for recreation and connectivity between housing districts

Site/regional rationale and inspiration for selected uses:

A more diverse set of agricultural open space influences the exterior layouts on the site. This site (as the end of the proposed cultural transect) aspires to establish and celebrate the southern part of towns connection with the northern agricultural and forested land through a residential and rural site in town.

Site layout, access description:

The site is still accessed by the same ROW entrance and passes through the wetlands at the point which causes the least amount of disturbance. The new proposed ROW follows the existing topography on the land and attempts to exemplify the amount of diversity within the topography.

Open space description:

The largest portion of protected open space is left for the use of trails which connect the housing districts with one another.

Site Design Alternatives #6 – Tanner Burgdorf

Residential Build-Out Scenario: Conventional R80 Zoning

North Stonington zoning regulations calls for a lot size to be no less than 80,000 sq. ft. (1.8 acres). In my conventional design layout the neighborhood road swings throughout the property butting most of the 25 residential lots backyards against the property line in order to max out the site. Instead of being placed on the landscape, the road feels like it was carved into it. For an ideal layout with the developer in mind the road needs to cross a wetland twice and would need to be constructed on portions of the property that are fairly steep in elevation. The site has some wonderful pockets of woodlands that would be lost during construction of the road and single family residential units. Portions of the site are in wetland that would be disturbed from the construction of the road. Much of the sites character would be lost. Existing rock walls would have little influence and the open space for the residents is limited. A series of open spaces would allow for movement from one end of the property to the other by means of forests and traditional open lawn space. The open space would also provide for package plants and single residential units would each have their own well. North Stonington has agricultural roots. On site rock walls hint at this as rock walls would be used to better identify property lines and be used as a way to fence in livestock. Much of the potential character is lost when the conventional R80 zoning is applied to the design of the neighborhood.

Creative Development Alternative: Mixed residential & functional open space

My creative development alternative stems from the concept of open space development design, which was a design concept developed by, Randall Arendt. The open space development design (OSDD) approach designs open space to be functional and sustainable. By having a design approach to open space it justifies its significance to the neighborhood/development it provides for. Shared open space promotes members of a community communicating with one another by having a shared space they all share and enjoy. By the use of multi-unit dwellings and duplexes my creative development alternative provides 32 units, 3 duplexes and 4 multi-unit dwellings. By consolidating the residential zones there is a series of open spaces sweeping across the site. A variety of different types of open space creates a series of functional open spaces that are connected through the proposal of a new trail system that meanders through the site. The most functional open space is the portion of the site that is designated to be agricultural land. The agricultural land would be used for grazing and as active space for horses and goats. The concept was that this land could be leased to a horse farmer who could use the land for a small horse farm. The site could become a tourist spot by providing horseback riding lessons. Forested open space and traditional open space make up the other types of open space. The traditional open space is designed as a park and takes advantage of a stream that runs across the site. In my creative development alternative 70% of the development would be designed open space that all residents would be able to enjoy. 30% would be private residential zones. There is a new access point to

the site through a land swap near the transition station. The hope would be that the transition station could one day be developed into a park and extend the series of open spaces started by this new development. When less emphasis is put on the private residential unit lots a better designed development is achievable. One that speaks to the character of site happens when open space is designed instead of made an afterthought. North Stonington has an annual livestock fair that is very popular. Agriculture was something that helped to establish North Stonington. By establishing this history it helped guide me in the design of this development. Even the architecture of the multi-unit dwellings and duplexes would speak to the agricultural roots of North Stonington. Barn architecture would be used for the housing so as one would be driving down the road the architecture would blend with the landscape around it. By making these design decisions I hoped to create a design alternative that feels placed instead of carved into the landscape.