Tves Farm

MASTER PLAN



DRAFT REPORT - 10.2023



CHESHIRE LAND TRUST



Cheshire Land Trust Board Members: *Please provide list of preferred order. Thanks!*

This report has been prepared by: Zach Felder with Caitlin Taylor.

Special thanks to Will O'Meara.

Introduction IVES FARM MASTER PLAN



- 1. DOCUMENT
- 2. ENVISION
- 3. IMPROVE
- 4. IMPLEMENT

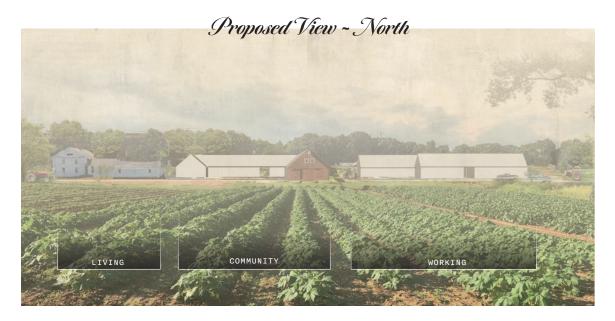
MASTER PLAN OVERVIEW

- » Chapter 1: Document inventories and analyzes existing conditions, including history, site, regulatory and environmental contexts, current uses, and utilities.
- » Chapter 2: Envision articulates a holistic long-term vision, incorporating agricultural, environmental, community, and educational missions, and referencing precedent farms.
- » <u>Chapter 3: Improve</u> outlines physical and programmatic improvements through a redesign of the core buildings.
- » Chapter 4: Implement develops a strategic plan of implementation, identifying potential stakeholders, funding sources, and sequencing.

BACKGROUND

The 57 acres of fields at the Cheshire Land Trust's Ives Farm have some of Connecticut's best farming soil. To ensure that the farm will remain in productive agricultural use for generations to come, the Land Trust will be participating in the Connecticut Department of Agriculture's Farmland Preservation Program (FPP). This Master Plan leverages the anticipated funding to provide a comprehensive strategy for improvement.





VISION

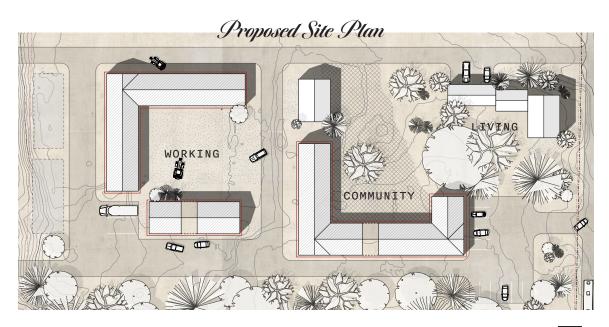
As a productive, active, and innovative working farm, Ives Farm will produce both crops and a greater awareness of agricultural processes for community members. Through agricultural, educational, workforce, recreational, and retail opportunities, the Farm will be integral to promoting local vitality, healthy lifestyles, and ecological sustainability.

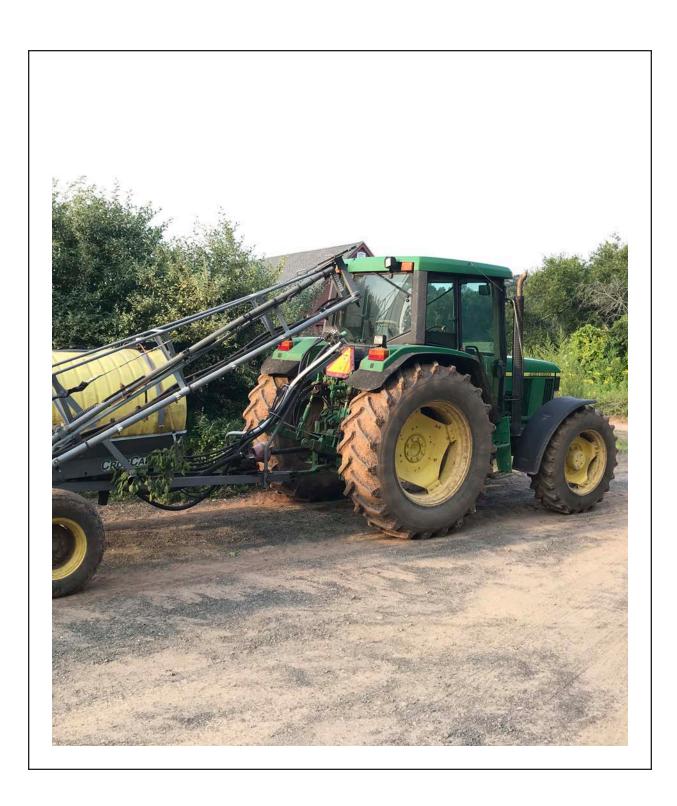
IMPROVEMENTS

The proposed design contains three primary spaces: a 'living area' around the renovated farmhouse; a central 'community courtyard' with more public-facing spaces, including a farmstand, classroom, greenhouse, meeting space, and office; and a rear 'working courtyard' with core agricultural buildings, including greenhouse(s), wash-pack, food storage, and equipment storage structures.









Document

CHAPTER 1



I.I LUCATION I.6 REGULAT	ΓΟΚΊ	EGULATOR	1.6	LOCATION	1.1
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1.2 COMMUNITY 1.7 ENVIRONMENTAL

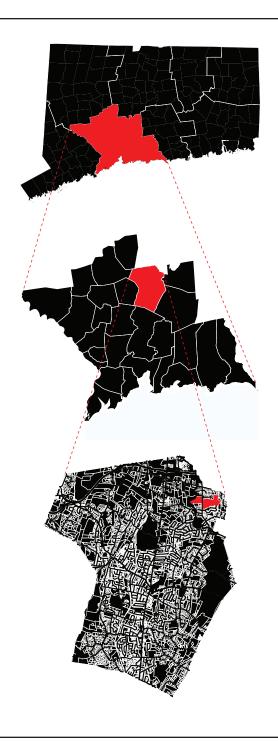
1.3 HISTORY 1.8 BUILDINGS

1.4 PEOPLE 1.9 INFRASTRUCTURE

1.5 SITE 1.10 USES

1.1 LOCATION

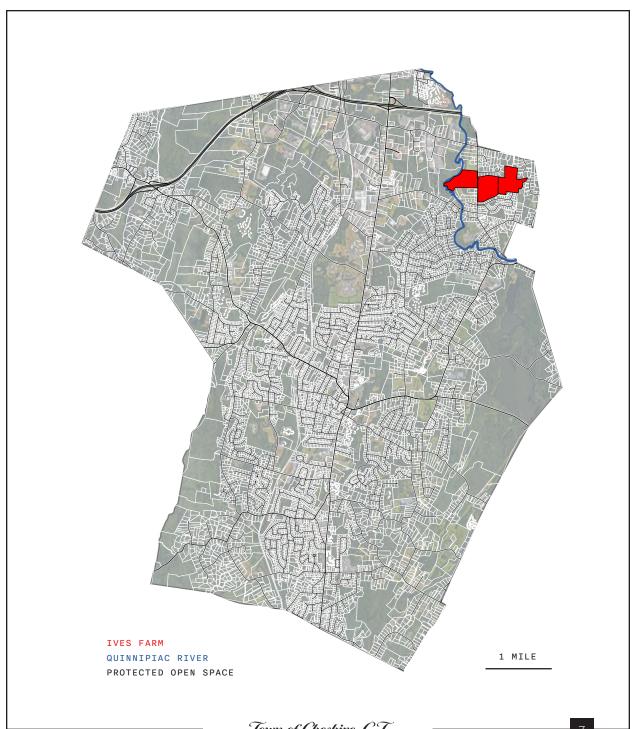
Ives Farm is sited in the town of Cheshire, located in south-central Connecticut halfway between Hartford and New Haven. While Cheshire is located at the far north of New Haven County, it is technically part of the Naugatuck Valley Planning Region, which includes towns primarily to the west. As a relatively large municipality at 33 square miles, Cheshire is bordered by eight other towns, listed clockwise from the north: Southington, Meriden, Wallingford, Hamden, Bethany, Prospect, Waterbury, and Wolcott.



TOP State of Connecticut

MIDDLE County of New Haven

BOTTOM Town of Cheshire



1.2 COMMUNITY

The town of Cheshire was founded during the Revolutionary War in 1780 by settlers, on land formerly inhabited by the Quinnipiac Peoples. The following list includes a summary of Cheshire's characteristics that are relevant to this project:

- **Population** Cheshire currently has a population nearing 30,000 persons, a number that has been relatively stable for the past quarter century. However, the population of Cheshire boomed between 1950 and 1990, quadrupling from approximately 6,000 residents to over 25,000 residents. This coincides with the town's transition from a primarily rural, farming town into a middleto-upper-middle class suburb, with residents frequently commuting to work in nearby cities including New Haven, Waterbury, and Hartford. The residential subdivisions that surround Ives Farm are all products of this era of growth, as neighboring farms were transformed into neighborhoods.
- Employment Of those who are employed, the majority of Cheshire residents work 'white-collar' jobs, in the FIRE (Finance, Insurance, Real Estate) industries, or in professional, educational, and administrative services. Only 0.7% of residents work in agricultural or forestry-related fields (which corresponds to state averages), a statistic that highlights the fundamental shift in economics over the past century and shows the rarity and importance of the few remaining farms.

- Housing The vast majority of residences in Cheshire are single-family homes. Over 88% of residents own their homes, with the average residences worth \$300,000 \$500,000, a figure that aligns with Connecticut state averages for non-coastal municipalities. For the minority that rent property, rates are also fairly typical, with one-bedroom units renting for \$1,000 \$1,500 per month, in 2021.
- Demographics Cheshire's demographic profile also aligns with common Connecticut suburban characteristics.
 Over 81% of Cheshire residents are White, with 6% Asian, 5% Multiple Race, 4% African American, 3% Hispanic or Latino, and 0.7% Native American individuals. Relative to the state of Connecticut as a whole, there are slightly fewer individuals between 25 and 45 years old, and far more married couples (65%) living in Cheshire.
- » Income & Wealth Compared to the rest of Connecticut, and the United States at large, Cheshire is a moderately wealthy community. The median household income (MHI) is \$120,500, which is 150% of the state and national average. Correspondingly, only 3% of families in Cheshire are below the poverty line, compared to the 10-12% county, state, and national rates.

- » Schooling The town of Cheshire has its own public school district, which enrolls approximately 4,200 students each year. The public schools include [1] Pre-Kindergarten (Darcey), [4] Elementary Schools (Doolittle, Highland, Norton, and Chapman, which is closest to Ives Farm), [1] Middle School (Dodd), and [1] High School [Cheshire High]. Several private schools, including Cheshire Academy and St. Bridgets are also located within Cheshire.
- *Transportation* The primary mode of transportation within Cheshire is the automobile. Interstates 691 and 84 connect the town to the Interstate system, and Connecticut Route 10, a primary state north-south route, runs through the heart of Cheshire. The majority of other streets in the town are mid-speed twolane roadways, and slow-speed village streets and subdivision lanes. Despite its car-centric nature, there are opportunities for active transportation in Cheshire: the Village is quite walkable; there is increasing bicycle infrastructure on some roads: and there is an extensive network of off-road trails.
- » Governance The Town of Cheshire is governed by a Town Council model, which includes nine elected members. The Town also has over 20 commissions, including the Zoning Board, Town Beautification Committee, Planning and Zoning Commission, Parks and Recreation Commission, Performing and Fine Arts Committee, Inland Wetlands and Watercourses Commission, and the Energy Commission.
- **Recreation** For a town of its size, Cheshire has remarkable recreational infrastructure. The Town maintains a robust parks system, which includes pools, sports facilities, pavilions, and recreational facilities spread over thirteen sites. Additionally, over 22% of the land in the town (4700 acres) is open space, owned by various entities including the Meriden Water Company, Private Owners, the Cheshire Land Trust, the State of Connecticut, the Regional Water Authority, and the Quinnipiac Valley Audubon; much of this land can be used for recreational purposes, including hiking and other forms of active mobility.

1.3 HISTORY

Ives Farm was founded in the mid-18th century, roughly concurrently with the establishment of the town of Cheshire. At the time, Ives Farm was one of hundreds of similarly-sized farms across this region of Connecticut, fueling the largely agricultural economy of the New England area. Throughout its first hundred years, the farm had several owners, including families by the still-recognizable names of Hotchkiss and Bradley. During this time, the farm included early barns and a rather typical New England farmhouse, which still stands today.

Around the time of the American Civil War, the Ives Family purchased the property. The farm was primarily operated as a dairy farm during the 19th century, and stayed in the Ives Family for nearly 150 years. For the last third of that timeframe, the farm was operated by Betty Ives, a beloved figure in the community for her dedication to tending to the farm.

In 2006, the farm was left to the Cheshire Land Trust (CLT), a private non-profit conservation group, in addition to a maintenance endowment. Under the CLT. the farm has continued to be used by tenant farmers, who live in the existing farmhouse and grow various crops, including corn, hay, squash, peppers, and eggplants. There have been several changes and improvements to the buildings on the property since 2006, including the removal of 'tunnels' and abandoned barns/sheds, and the construction of a new multi-purpose barn. In 2023, the CLT is selling the development rights on the property to the Connecticut Department of Agriculture as part of the Farmland Preservation Program.



ABOVE Betty Ives, longtime owner and farmer BELOW Ives Farm - Cheshire Land Trust sign near farmstand



1.4 KEY STAKEHOLDERS

Cheshire Land Trust Founded in 1969, the Cheshire Land Trust (CLT) is a volunteer, non-profit organization dedicated to conservation within the Town of Cheshire. Its mission is threefold: to preserve natural resources, including water, marshland, open spaces, and the plant and animal life therein; to promote the scientific study of and educate the public regarding local natural resources including plants, birds, and other wildlife; and to acquire property for the benefit of all inhabitants of the State of Connecticut for conservational, educational, scientific, and recreational purposes. In 2023, the CLT stewards 30 properties within Cheshire, totaling nearly 600 acres of land, and making them the largest private landowner along the Quinnipiac River in Cheshire.

Connecticut Department of Agriculture The CDA administers the Farmland Protection Program (FPP), a means of preserving larger farms in the state that have a significant quality of cropland and USDA-defined prime and state-defined important soils. In 2023, the CLT sold the development rights of Ives Farm to the CDA, as a means to ensure that the farmland will remain viable in perpetuity, and to provide immediate funding to the CLT from the sale. The CLT will still retain overall control of the farm, so long as it retains its current use as an agricultural property. With this sale, Ives Farm is one of dozens of similarly-sized agricultural properties part of the Connecticut Farmland Protection Program.





1.5 SITE

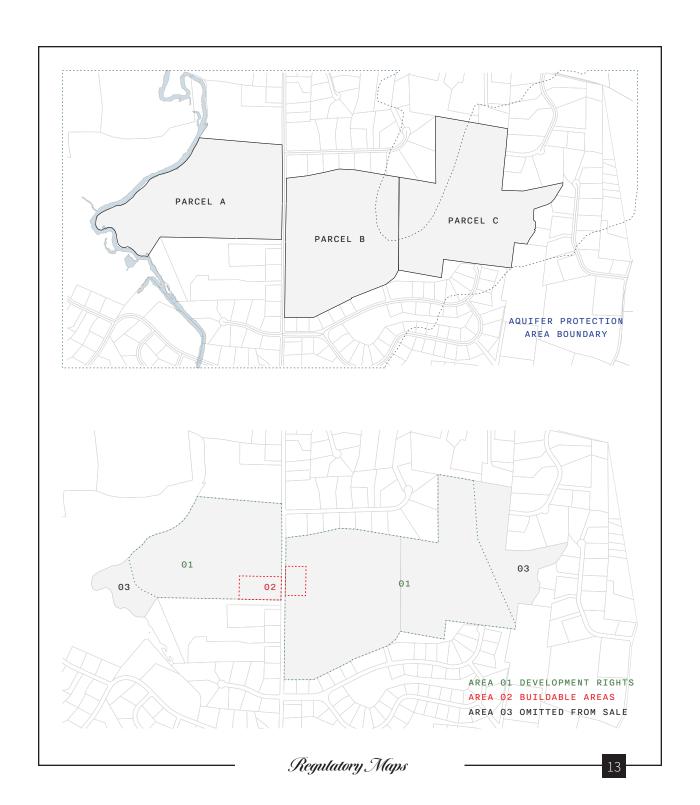
Ives Farm consists of three land parcels, totaling 163.2 acres, located on both sides of Cheshire Street, which runs north-south in northeastern Cheshire. Ives Farm's western border is marked by the Quinnipiac River, which flows south and ultimately into Long Island Sound. On the west side of Cheshire Street, Ives Farm's northern border is the 13-acre Pelz Farm, also owned by the Cheshire Land Trust. On all borders east of Cheshire Street, Ives Farm is bordered by residential subdivisions along East Ridge Court, North Pond Road, and Suffield Court. Collectively between all three parcels, Ives Farm has approximately 57 arable acres of farmland.

The three parcels that constitute Ives Farm:

- » Lot 20-12 (Parcel A) The only parcel on the west side of Cheshire Street, this lot is 49.6 acres and contains all built structures with the exception of the farmstand. The vast majority of this plot is used for farmland except for the westernmost, lower section alongside the Quinnipiac River, which is in the floodplain. As of 2023, this lot is appraised at \$277,095.
- » Lot 21-2 (Parcel B) The parcel on the eastern side of Cheshire Street, this lot is 53.7 acres, and contains the farmstand complex. The majority of this plot is used for agricultural purposes. As of 2023, it is appraised at \$451,080.
- » Lot 21-24 (Parcel C) The only parcel without road frontage, this lot is 59.9 acres, and is nearly entirely woodland. It is significantly higher in elevation than the other parcels, and is appraised at \$495,972.

1.6 REGULATORY CONTEXT

- » Zoning All three parcels of Ives Farm are zoned as R-40, which contains the typical allowable uses for residential code. An extensive list of these uses can be found in Section 30 - Schedule A - Page 47 of the Cheshire Town Zoning Code.
- ** FPP Regulations** As discussed previously, the Development Rights sale of Ives Farm enables the CLT to continue overall control of the farm as long as it continues use as an agricultural property. To facilitate the sale, three different areas were designated. Area 01 indicates land that was included in the sale for its capacity as farmland. Area 02 consists of two rectangles along Cheshire Road, which contain all existing structures, and were designated as 'future buildable areas' during the sale. Area 03 indicates land that was not included in the sale, which mostly consists of wetlands and forest.
- » Aquifer Protection Area Roughly 90% of Ives Farm falls within Level A of the townand state-designated Aquifer Protection Area, which entails land-use controls designed to protect public water supply wells that supply more than 1,000 people from contamination.
- » Protected Open Space All three parcels on Ives Farm are within the Town of Cheshire's Protected Open Space category, ensuring that the land will be conserved. The Farm is a small part of the roughly 515,000 acres of protected open space within the State of Connecticut.



1.7 ENVIRONMENTAL CONTEXT

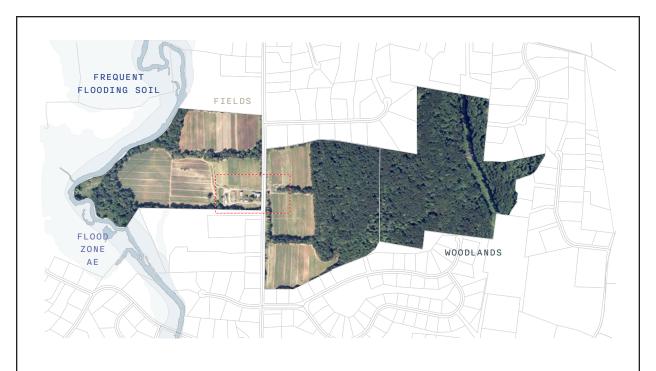
- » Woodlands Across the three parcels, Ives Farm contains nearly 100 acres of forest, which include several hiking trails. The woods are home to mature stands of Oak, mixed hardwoods, and a large stand of old field cedars.
- "" Floodplain The land along the Quinnipiac River is designated by FEMA as Flood Zone AE: Main Floodway Area. This indicates a 1% annual chance of flooding, with a 26% chance of flooding over a 30-year mortgage. A particular 1-acre section along the northwestern boundary of Ives Farm is designated as a "Frequent" soil flooding class, indicating the flooding is 'likely to occur often under normal weather conditions; the chance of flooding is more than 50% in any year but is less than 50% in each month.'

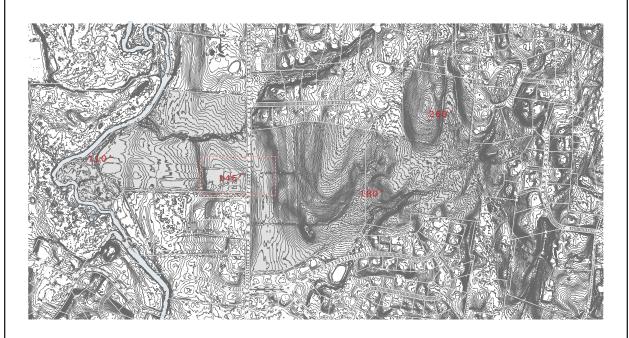
Topography There is a difference of over 150' between the lowest and highest elevations on the Ives Farm property. Parcel A ranges from 110' above sea level in the wetlands near the Quinnipiac River to nearly 150' by Cheshire Street. All of the farm buildings are located on a plateau of 141'-145'. Parcel B has a small dip adjacent to the road, down to 135'; this area frequently floods due to drainage blockage caused by construction of Cheshire Street. The remainder of Parcels B and C rise gradually from this dip to the highest point of 260' at the eastern edge of the property; nearly all of the land above the 170' contour is woodland.

BELOW LEFT
Woodlands in the fall
BELOW RIGHT
Flooding in the spring









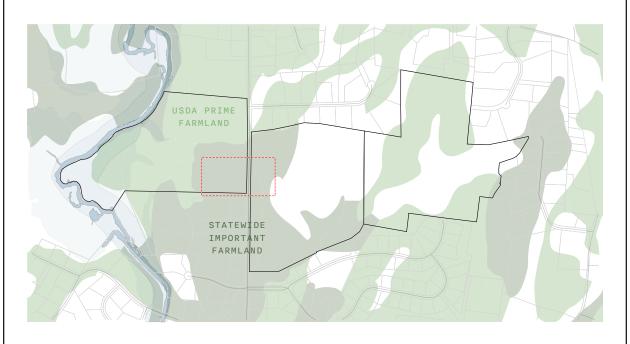
- Farmland Soils Roughly 80% of the farming land on Ives Farm is designated either as Statewide Important Farmland Soil or Prime Farmland Soil. Prime Farmland Soils are designated by the USDA as 'land that has the best combination of physical and chemical characteristics for producing food, feed, forage, fiber, and oilseed crops, and is available for these uses.' Statewide Important Farmland Soils are designated as 'soils that fail to meet one of the requirements for prime farmland, but are still important for the production of food, feed, fiber, and forage crops; these include soils that economically produce high yields of crops when treated and managed according to acceptable farming methods.' In general, Ives Farm has some of the highest quality farm soils in the state.
- Soil Parent Material The majority of the farmland consists of glacio-fluvial soil, which is typically rounded, wellsorted sands and gravels, with high air and water movement throughout. The majority of the forested land in Parcels B and C consists of till, which is relatively compact material deposited by glaciers. The soils along the Quinnipiac River are considered 'urban influenced,' indicating that they show extreme variability due to disturbance. A small patch of land along the river contains alluvial floodplain soils, which consist of deposits made by streams overflowing their banks; this patch of soil is also considered hydric.
- » Soil Drainage Class The majority of farmland on the Ives Farm is classified as Excessively- to Moderately- Well-Drained. Some soils in Parcel C are classified as Poorly Drained, in the higher elevations.



FARMLAND







1.8 BUILDINGS

There are currently seven buildings on Ives Farm, including a farmhouse, barn, tunnels, storage sheds, and a farmstand. The images on the adjacent page illustrate the changes to the buildings on Ives Farm over the past half-century. A site plan on the following page shows specific locations of all existing buildings.

Farmhouse The primary building on site is an historic, colonial farmhouse located on the west side of Cheshire Street. Built originally in the 18th Century, the farmhouse now loosely resembles a typical rambling New England 'big-house, little-house, back-house, barn' farmhouse, with an original two-story core, and two later additions to the rear. The original house is approximately 30' x 40', with a side gable and prominent center chimney. The first addition, which was likely built in the 19th Century as a summer kitchen, is approximately 25' x 25', and is now used as an apartment. The second addition, likely constructed as a corn crib in the later 19th Century, is front-gabled and approximately 40' x 20'.

Counting all three structures, the farmhouse now consists of [4] bedrooms, [3] bathrooms, and [5] other primary rooms. It contains three fireplaces, and is heated by propane and hot water. It is clad in aluminum siding with interior plaster and hardwood. The original core of the farmhouse is in fair condition, though the rear corn crib is in poor condition. As of 2023, the house will be surveyed as part of a long-term plan for renovation.

- » Barn A 1,440 square foot, 1.5 story timber frame barn is located roughly 100' west of the farmhouse. Constructed in 2013 by the Cheshire Land Trust, the barn replaced an earlier barn of similar size. The newly constructed barn is in excellent condition, and is used for storage of small equipment and furniture, small community events, and meetings.
- Whigh Tunnels Two tunnel structures are located 50' and 150' east of the barn. The larger structure, at approximately 120' x 30', is a partially covered metal shell that is used for equipment storage and is in poor condition. The smaller structure, at approximately 60' x 30', was constructed in 2014, and is in good condition. It is used as a wash-pack station, and is connected to refrigerated trailers. Prior to 2014, there were a total of 8 high tunnels on the site.
- » Storage Sheds Two one-story storage sheds are located south of the barn, along the southern driveway. They total approximately 1,500 square feet, and are used for storage, mostly of antique equipment. They are in relatively poor condition.
- » Farmstand The farmstand is the only structure on the east side of Cheshire Street. Constructed since 2010, the stand consists of one primary 40' x 20' building, surrounded by smaller auxiliary structures. The buildings are in fair condition, but are frequently flooded due to their location.







140′ 140′ BUILDABLE AREA BARN TUNNEL OPEN TUNNEL SHED SHED

0 0 Ives Farm 130′ 140′









































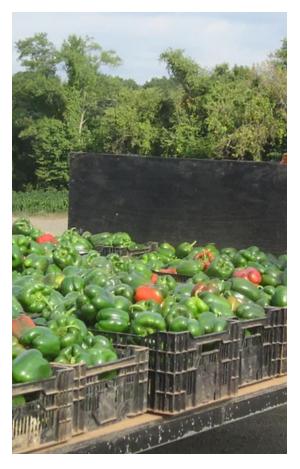
1.9 UTILITIES + INFRASTRUCTURE

- » Electric There is separate overhead electric service to the farmhouse. Electric service to the barn and farm wells runs underground to the northwest corner of the the barn, and then underground to wells that are currently functional.
- Water There are four wells on site: one located on the east side of the road near the farmstand; one near the farmhouse; one at the western edge of the property; and one on the south side of the 'building rectangle' opposite the sheds. Additional detailed information about the wells can be found in Attachment XX: Well Completion Report.
- » Windmill One of the oldest windmills in the area is located on Ives Farm. The frame is currently located in a cluster of bushes to the south of the house, and the top of the windmill has been removed from the stand for preservation. As of 2023, a study is being conducted to determine the feasibility of restoring some wind-power to the site.

1.10 USFS

- Agricultural The majority of the eight fields are operated by tenant farmers, T&D Growers, who live in the historic farmhouse. They currently grow a variety of crops, including corn, tomatoes, squash, peppers, and eggplants. They distribute their yields through a Community-Supported-Agriculture (CSA) program, the farmstand, farmers' markets, and larger regional distribution networks. T&D Growers are not organic or GAP certified. As of 2022, a second tenant farmer has leased a small plot of land to grow flowers. The farming operation as a whole experiences challenges typical for mid-size farms in the northeast: they are too large to exist solely on the CSA and farmstand distribution, but too small to handle large-scale distribution.
- » Recreational The woodlands on Ives Farm include several miles of trails, which are open to the public every day, dawn to dusk. These trails are frequently utilized for hiking, snowshoeing, and cross-country skiing. In addition, the Quinnipiac River adjacent to the farm is used for canoeing and kayaking during warmer months, and has 'launch sites' approximately 1 mile north and south of Ives Farm.
- » Community Ives Farm continues to host community events, including educational events, group meetings, and festivals. The following pages contain photos from events held at Ives Farm over the past decade.





















Envision

CHAPTER 2



2.1 UVERVIEW 2.4 RECREATION	2.4 RECREATION	1 OVERVIEW
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2.2 AGRICULTURAL 2.5 ADMINISTRATIVE

2.3 EDUCATIONAL 2.6 ENVIRONMENTAL

2.7 PRECEDENT FARMS

2.1 OVERVIEW

Ives Farm is not the typical American farm. Spatially, the vast majority of farmland is located in rural landscapes, up to hundreds of miles away from population centers. Ives Farm, however, is located between two major metropolitan areas, in a town with relatively high population density, and is surrounded directly by suburban subdivisions. In other words, the people who could consume all of the food grown at Ives Farm are less than an hour's drive away, if not much closer.

Additionally, the majority of American farms are owned by private or corporate entities, and are therefore strictly used for agricultural purposes. Ives Farm, however, is one of few agricultural properties directly owned by a Land Trust (though this trend is increasing nationwide). This arrangement enables and encourages the property to be used for a variety of functions that meaningfully supplement and/or complement agriculture.

This uniqueness is something for Ives Farm to celebrate, articulate, and leverage in planning for the future. While most farms have become mechanized sites of production detached from everyday life, Ives Farm will be directly integrated into the lives of community members, a place of working, growing, harvesting, purchasing, learning, meeting, and recreating. In short, Ives Farm will be a *productive, active, and innovative* working farm that produces both tangible products - quality local food - and intangible products - an understanding of how food is grown, an opportunity to exercise, an appreciation for nature, and an awareness of community.

The following five subheadings in this chapter - agricultural, educational, recreational, administrative, and environmental - outline more specific visions for various aspects of Ives Farm's future. Each subheading contains a discussion of requisite "program" (activities and functions) and associated "place" (buildings and facilities).

productive active innovative stable, stewarded, engaged, attractive, sustainable, maintained

VISION KEYWORDS

2.2 AGRICULTURAL

The backbone of Ives Farm is, and will continue to be, its agricultural production. It will be operated by tenant(s) who will act both as high-quality agricultural operators and as stewards of the land and buildings. The structures on site will be clean, attractive, high-functioning facilities for both living and working, and all agricultural buildings will be shared by all entities on the farm. The farm will produce a variety of crops, though the specific products will be partially at the discretion of the tenant(s). Distribution of products will take place through various methods, including direct on-site sales (farmstand, CSA, pick-your-own), some largerscale logistics, and locally-based distribution practices such as farm-to-school, farm-torestaurant, and farm-to-retail.

The preferred operating model for Ives Farm will involve a for-profit, 'mission-aligned' tenant-farmer who lives in the farmhouse. Ideally, this farmer will manage and grow on all fifty-seven agricultural acres, while also participating in educational and community-based components, which will be coordinated by the Cheshire Land Trust. Partnerships with other agricultural non-profit entities, such as Growers, Inc., will also be essential to the operating model (please refer to Section 4.2 for more information on potential collaborators).

However, this model will be flexible to accommodate ever-changing economic and social conditions. An alternative version may include one 'production-based' farmer, who operates the majority of the fields, and one 'mission-aligned' farmer, who participates in educational and community programming on smaller acreage/facilities.



2.3 EDUCATIONAL

As supply chains continue to lengthen, societal awareness of where food comes from, and how food is produced continues to decrease. In response to this trend, greater education about the process of growing food is becoming more and more essential. Recognizing this issue, Ives Farm will serve as a model farm for integrating education with agriculture, bringing greater awareness, interest, and skills to the surrounding community members.

This educational mission will take many forms, with varying levels of engagement. Most intensively, Ives Farm will serve as a site for direct "learning-through-doing," through various internships, research positions, and group-based projects. Less intensively, Ives Farm will also serve as a site for event-based education. For adults, this will take the form of lectures, workshops, or even residency programs. For children, this will include field trips, tours, and integration into school curricula.

Enabling this educational mission will require both partnerships and facilities. Partners may include the Cheshire Public School system, which integrates plant- and foodbased curricula into grades 1, 4, 7, 9, 10, 11, and 12, and Growers, Inc., an organization that helps adults with differing physical and developmental abilities develop self-sufficiency through horticulture-based experience. Facilities will likely include both indoor and outdoor spaces, with flexible configurations for various purposes.

2.4 RECREATIONAL

The two most significant factors in promoting healthy lifestyles are diet and active exercise. The 163 acre property of Ives Farm provides both. As discussed in Chapter 2.2, the agricultural portions of the site will continue to provide healthy, local food, satisfying the diet component. In tandem, the wooded and wetland portions of the site will continue to provide spaces for active movement, satisfying the exercise component.

These recreational resources include miles of existing hiking, jogging, and biking trails. Ongoing maintenance and stewardship for these trails will continue to ensure their viability. In the future, the site may also include resources for active water-based transportation, through a paddle access point to the Quinnipiac River on the western edge of the property.

Recreational resources will also include various activities that draw families to Ives Farm. These may include corn mazes, small musical concerts, stargazing outings, birding walks, and other seasonal events. Adequate infrastructure will ensure that these events can happen seamlessly, continuing to integrate Ives Farm into the community.

2.5 ADMINISTRATIVE

As the largest of the CLT's 30 properties, Ives Farm will also fulfill a need for a permanent 'home' for the Cheshire Land Trust. Office and meeting areas will provide space for regular meetings. Support spaces will provide areas for storage of records and other files.

These spaces will also serve the greater community, when not in use by the CLT. Local community groups, as well as organizations that work in agricultural and/or land conservation fields, will be target user groups.

2.6 ENVIRONMENTAL

Ives Farm will model sound environmental and ecological practices across its site. All farming will be conducted using accepted best practices, and the distribution of food locally will limit the transportation carbon footprint. For both structures and machinery operations, alternative power sources will be explored, including potential reuse of the old windmill and potential use of solar energy. The construction of new structures will also utilize sustainable best practices, including passive environmental strategies.

Proper management of woodlands and wetlands according to the 2019 Ives Farm Forest Management Plan will ensure ecological health across the site. Preservation of native flora and fauna, maintenance of pollinator habitats, and proper water capture and drainage techniques will all contribute to overall ecological health.



2.7 PRECEDENT FARM STUDIES

Examining local and regional farms can be useful for developing an ideal operating model for Ives Farm.

The table below, Table 2.A, contains a comparison of Ives Farm to all other foodbased agricultural enterprises within the Town of Cheshire. This table is primarily designed to help Ives Farm differentiate both product and service offerings on a local scale.

The following pages contain information on three innovative, successful, and similarly-sized farms in New England, all within a 75-mile radius of Ives Farm. These farms are meant to serve as both inspiration and comparison, illustrating the operating models, revenue streams, spatial requirements, and general atmosphere of these three operations.

Table 2.a: Farms in the Town of Cheshire, CT.

ALL FARMS LOCATED IN CHESHIRE	ACREAGE GREENHOUSES ORGANIC	WEBSTITE PYO FARMSTAND CSA	FLOWERS VEGETABLES FRUIT DAIRY PROTEIN VALUE-ADDED TREES	RECREATION EDUCATION TOURS EVENTS
Zentek Farms	60 15 X	\[\]	✓ ✓ ✓ ✓	
Old Bishop Farm	12 1 X	\[\]	✓ ✓ ✓	\[\]
Norton Brothers	34 0 X	\[\]	\checkmark \checkmark \checkmark	\checkmark \checkmark
Ives Farm	57 1 X	/ / /	\checkmark \checkmark	✓ ✓
Drazen Orchards	27 0 X	< <	\checkmark	
Carmody's Farm	18 2 X	\checkmark	✓ ✓	
Arisco Farms	70 20 X	\[\]	\checkmark \checkmark \checkmark	
Farm Name	Growing Practices	Purchasing Practices	Products Grown/Provided	Additional Services

farm a Massaro Farm

DESCRIPTION: Massaro Community Farm is a nonprofit, certified-organic farm on a 57-acre parcel of land operated collaboratively between the Town of Woodbridge and a Board of Directors comprised of local citizens. The property was deeded to the town by the Massaro Family, who had farmed the land since 1916.

LOCATION: Woodbridge, CT

ACREAGE: 57 (15 for farming)

FACILITIES: 6 greenhouses/ tunnels, farmhouse, processing station, offices, outbuildings, barn

ORGANIC: Yes

DISTRIBUTION: CSA, Online store, farmers' markets, local restaurants

PRODUCTS: Vegetables, flowers,

honey

SERVICES: Volunteering, educational workshops, internships, event hosting, school programs

WEBSITE: https://massarofarm.org/

REVENUE STREAMS: Product sales, donations, events, programs, dinners









FARM B

Kitchen Garden Farm

DESCRIPTION: Kitchen Garden Farm is a 50-acre, Certified Organic vegetable farm in Sunderland, MA. KGF grows a full line of seasonal produce with a focus on specialty sweet & hot peppers and Italian vegetables like fennel, broccoli rabe and radicchio. They also produce a line of fire-roasted salsa and naturally fermented sriracha.

LOCATION: Sunderland, MA

ACREAGE: 50 (45 for farming)

FACILITIES: 2 greenhouses/ tunnels, farmhouse, processing building, storage/office building,

outbuildings

ORGANIC: Yes

DISTRIBUTION: Delivery to restaurants and retail, wholesale to markets, schools, and caterers, online, group CSA

PRODUCTS: Herbs, roots, tomatoes,

greens, peppers

SERVICES: Focused events

WEBSITE: https://www.kitchengardenfarm.com/

REVENUE STREAMS: Product sales









FARM C

Stone Acres Farm

DESCRIPTION: Stone Acres Farm is a sixty-three acre working farm located in the historic coastal New England town of Stonington, Connecticut. The property's rolling hills, gardens, and acres of vegetable production are open to visitors. Stone Acres Farm celebrates natural farming, sustainable food, culinary education and the preservation of open space, cultural landscapes, and historic structures.

LOCATION: Stonington, CT

ACREAGE: 63 (~20 for farming)

FACILITIES: 5 greenhouses/ tunnels, farmhouse, processing station, offices, outbuildings, Yellow Farmhouse education center

ORGANIC: Not certified

DISTRIBUTION: CSA, farmstand, wholesale distribution, retail sales

PRODUCTS: Vegetables, flowers,

chicken

SERVICES: Farm dinners, weddings, educational workshops, artist events, fundraisers, retreats, school programs, lectures, internships, adult programs

WEBSITE: https://massarofarm.org/

REVENUE STREAMS: Product sales,

events, programs, dinners











Improve CHAPTER 3



3.1 PATTERNS 3.6 LIVING AREA

3.2 USE ZONES 3.7 COMMUNITY AREA

3.3 LIST OF SPACES 3.8 WORKING AREA

3.4 ALTERNATIVES 3.9 SITE

3.5 SELECTED DESIGN

3.1 PATTERNS

Understanding the flows of people and objects through Ives Farm is essential for determining the ideal organization of structures. The following diagram illustrates the most important patterns considered during the development of the site plan. Each of these flows is also cross-referenced in the following section, 3.3: List of Spaces.

Objects

FARM PRODUCT includes all crops from planting to selling, either on- or off-site.

FARM EQUIPMENT includes large machinery that enables operation of the farm and requires storage.

People

FULL-TIME FARMER(S) refers to the tenant farmer who will live on the premises, typically in the farmhouse or the back apartment.

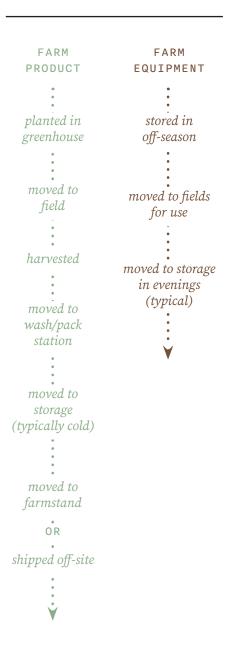
HIRED FARM HELP refers to any person or group who works on the farm, but lives off-site.

VISITING GROUP refers to any educational or community group who will be using the site.

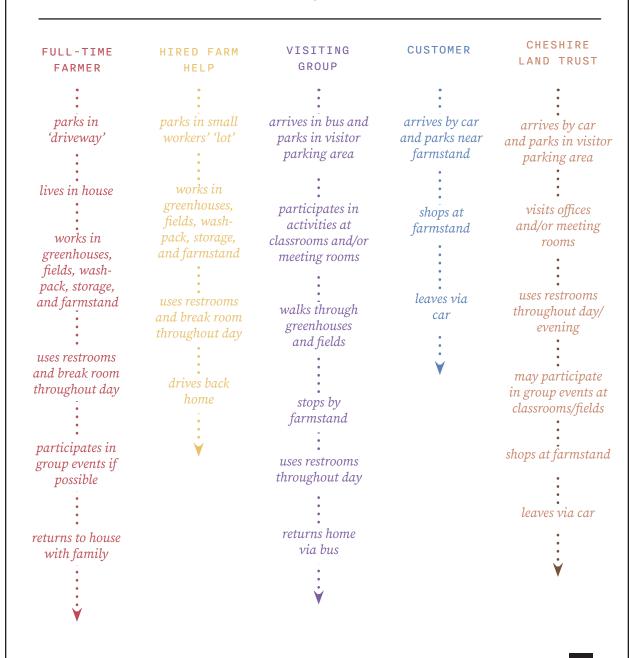
CUSTOMER refers primarily to anyone purchasing crops sold on the premises, likely at the farmstand.

CHESHIRE LAND TRUST refers to board members who will utilize ives farm for operational purposes.

Objects



People



3.2 USE ZONES

As discussed in Chapter 2, Ives Farm will be utilized for a wide variety of activities. While this presents a fantastic opportunity for creating an active and engaged site, it also necessitates careful planning to ensure that these activities do not unproductively overlap. The following use zones have been identified to help group similar structures together:

- » *Farming*: all agricultural operations
- » <u>Education:</u> all classroom/teaching spaces
- » Administration: all office/meeting spaces
- » Living: all residential areas
- » *Public:* all recreational/commercial areas

3.3 LIST OF SPACES

The table below, and on the following page, represents a complete summary of all potential building-related improvements on site. For reference during the following design process, each building is cross-referenced with a variety of information, including:

- » <u>Building Info</u>: including demonstrated interest, size, and utility requirements.
- » <u>Recommended Action</u>: including renovating, repurposing, demolishing, and/or constructing.
- » *Use Zone*: indicating which zone(s) the building falls within.
- » *Patterns*: indicating which flows and people the building will interact with.

SPACE	/BUIL	DIN	G			ACT	ION			USE	Z	NE		FL	OW		PI	ΞOΡΙ	_E	
Name	Size (SF)	Interest?	Plumbed?	Conditioned?	Renovate	Repurpose	Demolish	Construct	Farming	Education	Admin	Living	Public	Product	Equipment	Farmer	Hired Help	Visitor	Customer	CLT
Farmhouse	2500	Н	Y	Y	Y							Y				Y				
CLT Barn	1500	Н				Y				Y			Y			Y		Y		Y
Equipment Storage	2000	Н					Y	Y	Y						Y	Y	Y			
Greenhouses (2-3)	5000	Н	Y	Y				Y	Y	Y				Y		Y	Y			
Wash-Pack Facility	800	Н	Y				Y	Y	Y					Y	Y	Y	Y			

SPACE	/BUIL	DIN	G			ACT	ION			USI	E Z(DNE		FL	OW		PI	EOPI	_ E	
Name	Size (SF)	Interest?	Plumbed?	Conditioned?	Renovate	Repurpose	Demolish	Construct	Farming	Education	Admin	Living	Public	Product	Equipment	Farmer	Hired Help	Visitor	Customer	CLT
Cold Storage	500	Н	Y	Y			Y	Y	Y					Y	Y	Y	Y			
Farmstand	1000	Н	Y					Y	Y				Y	Y	Y	Y	Y	Y	Y	Y
Office Space	100	Н		Y				Y			Y							Y		Y
Storage Space	100	Н		Y				Y			Y									Y
Meeting Space	200	Н	Y	Y				Y			Y		Y					Y		Y
Classroom	800	Н				Y				Y				Y		Y		Y		Y
Restrooms (2)	100	Н	Y	Y				Y	Y	Y	Y					Y	Y	Y	Y	Y
Break Room	200	M						Y	Y							Y	Y			
Worker Apartment	500	M	Y	Y	Y				Y								Y			
Museum*	400	L				Y				Y			Y					Y	Y	Y
Residency Studio*	400	L						Y					Y					Y		
Paddle Point	n/a	M						Y					Y					Y		
Parking	2000	M				Y			Y	Y	Y	Y	Y			Y	Y	Y	Y	Y
Windmill	100	M			Y				Y				Y			Y			Y	

 $^{\ ^*}indicates\ space\ not\ incorporated\ into\ plan\ at\ current\ time.$

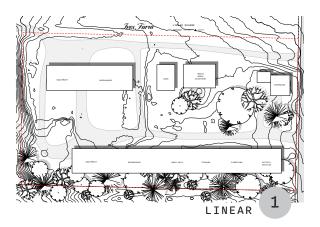
3.4 ALTERNATIVES

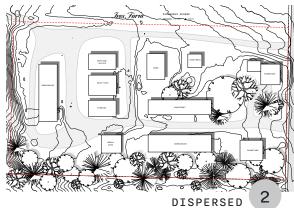
Three 'schematic' alternatives were developed to generate possible layouts for Ives Farm. The following is a brief description of each; for more analysis, please refer to the Appendices. Note: Due to flooding concerns and logistical complications, the Cheshire Land Trust has determined that all proposed building structures at this time will be planned west of Cheshire St.

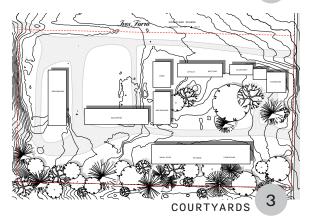
Alternative 1: Linear: This alternative represents the most simplified version of applying gradients across the site, west to east. Gradients include 'dirty' to 'clean,' private to public, and wet to dry. The plan also reflects the transition of product from west to east as it is processed: from greenhouse, to field, to wash-pack, to storage, to distribution (through the farmstand).

Alternative 2: Dispersed: The dispersed alternative approaches planning by identifying the ideal location for each individual structure and use. For instance, the farmstand is located as close to the road as possible, the meeting/office area has a view of the north fields, and the wash-pack is close to the fields. However, this design does not prioritize as highly the relationships between these structures.

Alternative 3: Courtyard: The courtyard alternative arranges the various structures to create a variety of semi-protected outdoor spaces across the site. Each 'use zone' has its own area, with living near the road, administrative facing the north field, farming on the eastern side, public space on the south edge, and educational space in the central area.





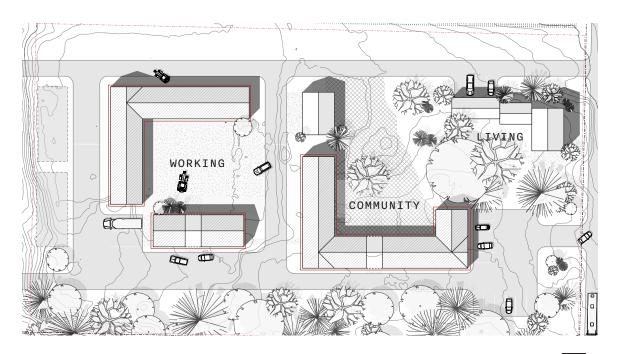


3.5 SELECTED DESIGN

A hybrid of the alternative schemes, the selected design contains three primary spaces: a 'living area' around the renovated farmhouse; a central 'community courtyard' with more public-facing spaces; and a rear 'working courtyard' with core agricultural buildings. Key design considerations include:

- » Courtyards: A classic agricultural form, courtyards serve environmental, social, and functional purposes including protection from the elements, indooroutdoor connections, and the creation of distinctive work zones.
- » Existing Infrastructure: To the greatest degree possible, existing driveways, grades, and structures are utilized, to both reduce cost and continue the built legacy of Ives Farm.

- » Distinctive Zones: While within close proximity, key functions are separated to streamline the working, living, and visiting process for all parties. Circulation is organized similarly: the north and west driveways are primarily for farm equipment and box trucks; the south driveway is for community and Land Trust visitors.
- » Flexible Architecture: The proposed designs are all organized on a standard grid, for affordability in construction and flexibility in use. It is also possible to first construct the 'core and shell' of buildings columns, roof, and exterior walls before ultimately later finishing off selected interior spaces; doing so, however, requires careful planning for utilities.



Buildings

- A. farmhouse
- B. apartment
- C. garage
- D. farmstand
- E. meeting
- F. office
- restrooms
- H. break room
- I. greenhouse
- J. classroom/barn
- K. wash-pack
- L. cold storage
- M. greenhouse
- equipment
- 0. (greenhouse)

Site

- 1. farm driveway
- 2. farmer parking
- 3. public driveway
- 4. public parking
- 5. gardens
- community court
- 7. windmill
- 8. bus parking
- 9. worker parking
- 10. loading dock
- 11. working yard
- 12. (high tunnels)

Flows

FARM PRODUCT

FARM EQUIPMENT

FULL-TIME FARMER(S)

HIRED FARM HELP

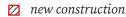
VISITING GROUP

CUSTOMER

CHESHIRE LAND TRUST

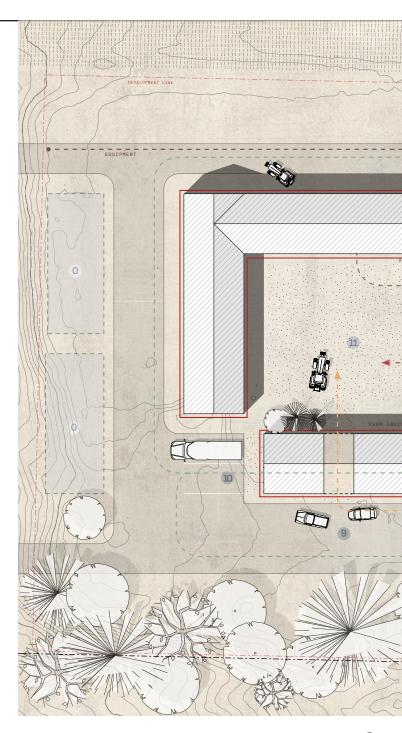


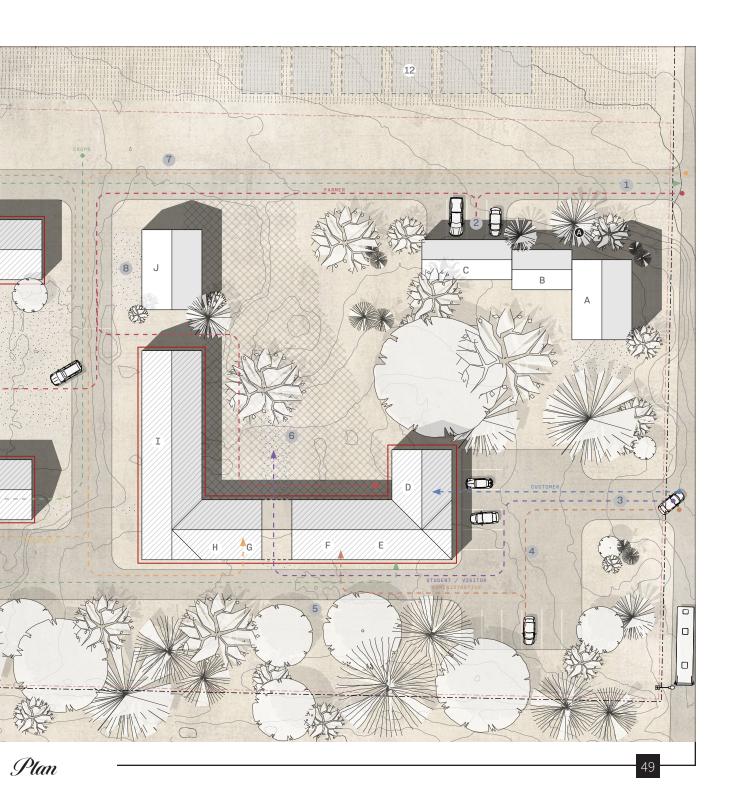
--- development line

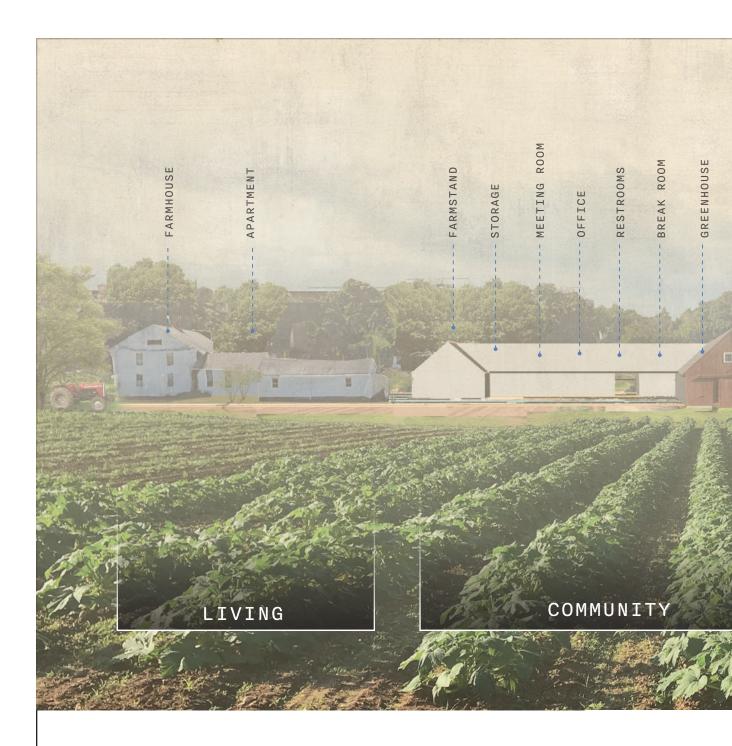












North



Elevation

3.6 LIVING AREA

The renovated farmhouse will serve as the core of the 'living' area, at the front of the site. Additional trees and landscaping will provide further buffering between the more private living area and the community courtyard behind.

- Farmhouse: A careful renovation will honor the historic significance of the farmhouse while providing a functional, comfortable home for the tenant farm family. The quality of the farmhouse will serve as a significant selling point for the ideal mission-aligned, invested tenants. Detailed design improvements will be determined through consulation with an architect.
- » Apartment: A similar renovation to the rear farmhouse addition will transform the space into comfortable, flexible living quarters for farm-related tenants. Potential tenants may include hired farm help, family members, or even artists in residence, if desired. While intended for long-term rentals, the space will also be suitable for shorter, seasonal rentals.
- » Corn Crib: The condition of the corn crib will be determined during the historical analysis. Depending on the findings, the renovated corn crib (or a replacement structure) may serve one of many functions: an additional apartment, bunk room, studio, or a garage/storage space.

3.7 COMMUNITY COURTYARD

This centrally-located area will include the farm's more public-facing spaces. The landscaped courtyard will be activated for outdoor classes, farm dinners, and other community activities. *See Drawings: pp. 54-55*.

- Farmstand: Aligned directly with the south driveway entrace, the farmstand will greet customers with a welcoming front porch filled with vegetables, flowers, and other produce from Ives Farm. Inside, the building will include space for shelving, tables, a 'checkout' desk, and back storage, with a rear door to the courtyard.
- » Meeting Room: A 15-20 person, fully conditioned meeting room will host both CLT and community meetings. High southern windows will provide ample light, while north windows will direct views through the passage to the fields.
- » Office: A 1-2 person conditioned office, with attached file storage closet, will provide work space for CLT's director(s). A north window will provide field views.
- » <u>Restrooms:</u> 2 ADA-compliant restrooms will serve both workers and visitors. One restroom will include a basic shower.
- » <u>Break Room:</u> A modestly furnished room with tables, appliances, and storage will provide a break space for farmworkers.
- » Front Greenhouse: A polycarbonate greenhouse will be a hands-on educational space for growing crops.
- » Barn: The existing timber-frame barn will continue as an unconditioned, multipurpose space - an informal museum, 50-60 person classroom, and event space.

3.8 WORKING COURTYARD

Located at the 'rear' of the buildable area, the working courtyard will include core agricultural buildings. The courtyard itself will serve as a place for storing and/or laying out equipment and product. *See Drawings: p.56*

- » Rear Greenhouse(s): Aligned north-south for optimal performance, and located directly adjacent to the west fields, the greenhouse(s) will be used for seed propagation/early-season growing, and as necessary throughout the year. If possible, one greenhouse will be located atop the existing concrete slab.
- » Wash-Pack: Located adjacent to the central driveway loop for easy drop-off, the new wash-pack facility will be a clean, efficient space for receiving, washing, packing, and organizing product from the field. It's linear shape will streamline the flows of people, product, water, and waste. A small passage will connect directly to cold storage.
- » Cold Storage: Directly west of the Wash-Pack, the cold storage space will enable storage of processed product until distribution. Its location near the south treeline will provide natural shade cooling, and a natural 3' grade change at the west edge will serve as a loading dock for distribution box trucks.
- barn will include space for farm equipment, maintenance equipment, fertilizer, and miscellaneous goods.

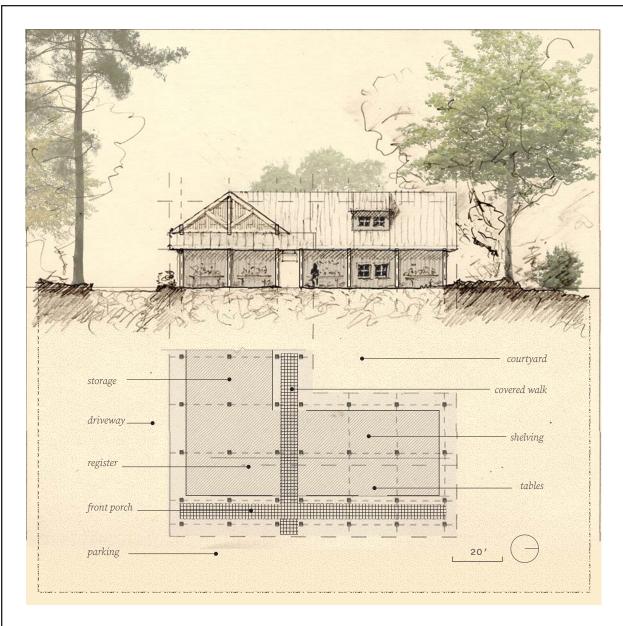
 An enclosed bay will be dedicated for equipment maintenance and repair.

 South-facing 10' overhead doors will open directly to the courtyard.

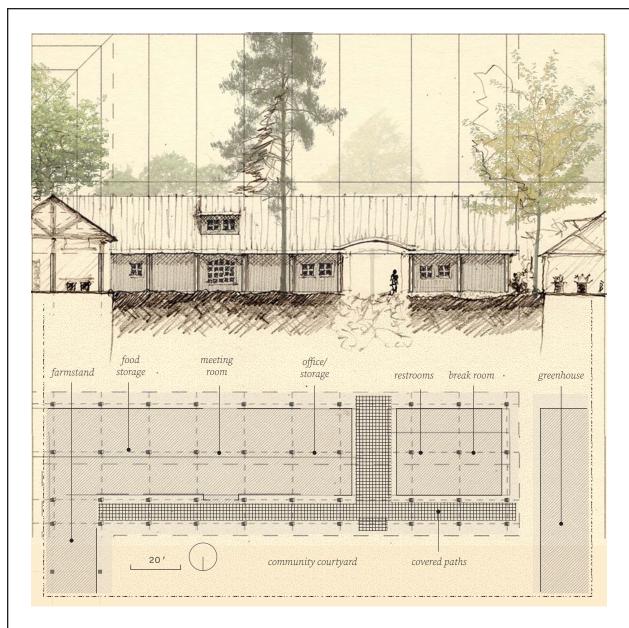
3.9 SITE

The following improvements, located outside the designated building area, may be implemented to complement the core structures. *See Drawing:* p.57

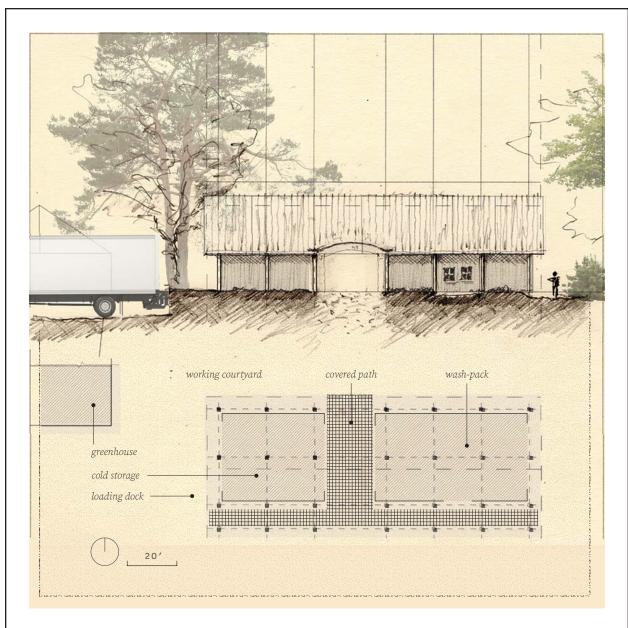
- » Windmill: Serving as both a functional source of energy and as an historical icon, the restored windmill will be placed directly north of the community courtyard, clearly visible from the road.
- Paddle Point: A designed canoe/kayak launch at the west border of the property will provide an entrance/exit point along the Quinnipiac River, further enhancing Ives Farm's recreational offerings. The paddle point will be one of dozens located along the Quinnipiac.
- » High Tunnels: As technically impermanent structures, high tunnels could be constructed atop much of the 'unbuildable' farmland at Ives Farm, if so desired. The field directly north of the farm buildings seems to be a logical location for tunnels, due to proximity to other structures.
- » Future Construction: Currently, due to flooding concerns and an interest in density, no structures are proposed for the buildable area east of Cheshire Street. This leaves the CLT significant flexibility for long-term future designs in this space. Potential programs may include: a farm-to-table restaurant; affordable worker housing; and/or additional greenhouses.



EAST ELEVATION Facing Cheshire Street, the farmstand greets customers with a welcoming front porch, filled with vegetables and other crops.



NORTH ELEVATION Views from the inside core community spaces - meeting room, office, and storage - face the community courtyard and the farm fields beyond.



SOUTH ELEVATION The utilitarian wash-pack and cold storage structure allows direct flow of product from processing, packing, storing, to distribution at the loading dock.



SITE MAP While most attention has been paid to the developable land west of Cheshire Street, other potential future improvements across the site may be implemented at Ives Farm.



Implement CHAPTER 4



4.1 STRATEGY 4.4 COST ESTIMATES

4.2 STAKEHOLDERS 4.5 FUNDING

4.3 SEQUENCE

4.1 STRATEGY

With significant Land Trust member engagement, community support, and anticipated funding through the Farmland Protection Program, there is currently significant momentum behind efforts to enhance Ives Farm. This Chapter seeks to carry forward this energy by practically and clearly planning for implementation of Chapter 3's improvements in the immediate future.

- » Phase 1(A): The first priority is creating a solid "core" for a high-functioning farm. This initial phase will include both basic improvements to the living quarters (the farmhouse) and the food production facilities (the wash-pack, food, and equipment storage structures). This phase will also include demolition of nonfunctional structures. This core will make the Farm more appealing to potential tenants by providing the essential spaces needed to live and work. It will also enable necessary farm certification.
- » Phase 1(B) This phase will focus on bolstering the farming operation. This phase will include construction of the production greenhouse(s) and potentially the educational greenhouse. Any site work required to complete the 'working courtyard' will also be completed during this phase. If possible through funding and collaboration with tenant farmers, this phase will be conducted concurrently with Phase 1A.

- » Phase 2A: Once the farming operation has stabilized, the second priority is to create spaces for the supplemental programs. This phase will include construction of the 'community courtyard' structures and landscapes. The building housing the farmstand, meeting area, break room, and restroom will be completed, along with the parking lot and site work.
- » Phase 2B: This phase will include followon tasks, such as windmill relocation and landscaping, as well as otherwise unforeseen improvements. It is likely that this phase will be ongoing for several years after completion, as the Land Trust and the tenant farmer fine-tune strategies for engaging the community with Ives Farm.

This strategy has been developed to: maximize current momentum; align with funding procurement patterns (which is further discussed in Section 4.5); and attract mission-aligned tenant farmers. It will work internally-to-externally, building a high-quality, financially feasible agricultural operation that steadily turns outward to invite meaningful community engagement. Throughout the implementation process, it will be essential to prioritize the long-term goals, directing as many financial and human resources as possible towards execution of the permanent spaces and programs.

4.2 STAKEHOLDERS

Throughout the development of this Master Plan, the following stakeholders have been identified as key resources and/or contacts for implementing improvements at Ives Farm. Many of the stakeholders listed here have already been key participants in this visioning process; others will be part of future outreach:

- » Cheshire Land Trust
- » Cheshire Public School System
- » Cheshire Public Library
- » Connecticut Department of Agriculture (CT DOA)
- » Connecticut Office of Historic Preservation (SHPO)
- » Growers, Inc.
- » Maier Design Group, LLC
- » Local Contractors
- » Local & Regional Grocers
- » Local Farmers (T&D Growers, Will O'Meara, Caitlin Taylor)

4.3 SEQUENCE

While every project requires a unique sequence of visioning, research, design, construction, and occupancy, the following list provides a general overview of the implementation process (*italics indicate recommended stakeholders for each step*).

- » *Plan:* Outlining a cohesive vision of improvements (*CLT*, *planners*)
- » <u>Fund:</u> Procuring financial support for implementation of the plan (CLT, funding agencies)
- » <u>Inventory:</u> Conducting detailed surveys of existing conditions in preparation for design (CLT, engineers, architects)
- » <u>Design</u>: Developing detailed drawings for built improvements; typically also includes obtaining regulatory approval (CLT, architects, engineers, contractors)
- » <u>Construct:</u> Building the proposed designs (CLT, contractors)
- » <u>Occupy:</u> Utilizing the constructed spaces (CLT, farmer, community organizations)

SITE WORK	Site work will require completed engineering survey and measured site plan prior to construction; recommended that site work be completed at one time to reduce costs.
LIVING AREA	Historical farmhouse existing conditions report currently in-progress; will require completed report and stamped architectural drawings prior to renovation(s).
WORKING COURTYARD	Working structures can be constructed after minimal site work; will require pre- fabricated or on-site construction by contractors.
COMMUNITY COURTYARD	Community structures will be constructed after site work and working courtyard; recommended collaboration with architect before construction by contractors.

4.4 COST ESTIMATES

While the cost of improvements is always subject to change, based on design, labor, material, and other contingent costs, the following estimates are provided as general guidance:

- » <u>Renovation:</u> Applies to renovations to existing structures, primarily the farmhouse: XX
- » Unfinished Structures: Applies to design and construction of functional structures primarily for working, typically unfinished on the interior, with minimal insulation and utility connections. The structures in the "working courtyard" will be included in this category: \$30-70/SF
- » Finished Structures: Applies to design and construction of higher architectural quality spaces, typically finished on the interior with insulation and utility connections. The buildings in the "community courtyard" will be included in this category: \$80-120/SF

4.5 FUNDING

This section provides an overview of funding types, sources, focus areas, and strategies for Ives Farm. The table on the following pages provides a list of specific potential funding sources.

Strategies

- » Pursue funds related to the core agricultural operations first; it is imperative that Ives Farm become a highquality working farm before branching into its full mission. Obtaining supportive funding (educational, ecological, health) will also likely become more feasible once the agricultural operations have demostrated stability and success.
- » Leverage anticipated Farmland Preservation Program funding as much as possible by applying for matching grants. Typically, securing the first funding source is the most difficult; however, CLT already has accomplished this, and this will set Ives Farm apart in many applications.
- » Be highly intentional about pursuing funding; only apply for grants/awards that seem like strong fits, and tailor applications directly to criteria.
- » Be creative about combining various funding sources.
- » Relate practical improvements to ideas about community, climate, health, and economy to show the larger impacts of small changes.

Types

- » Direct (Grants/Donations): Direct disbursement of funding, for either general improvements or specific categories. While highly competitive, direct funding is typically the most financially rewarding. It is recommended that the CLT pursue direct funding opportunities that appear to be particularly strong fits (and for improvements that may not have strong matching grant possibilities).
- » Matching (Grants/Donations): Direct disbursement of funding in proportion to additional funding sources. Also includes cost-share. Given the anticipated Farmland Preservation Program funding, Ives Farm will be a strong candidate for matching grant programs, which are typically not quite as competitive as direct funding. For this reason, it is highly recommended that the CLT pursue matching grants whenever possible.
- » <u>Tax Credits</u>: Reduction in taxes, typically over a set period of time. Tax Credits are frequently available for Historic Preservation projects, making improvements to the farmhouse a strong candidate for receiving this type of funding.
- » Loans: Disbursement of funding with the expectation of full reimbuserement, either with or without interest. Given the ongoing financial obligations of loans, it is recommended that CLT refrain from pursuing loan programs unless absolutely necessary.

Sources

- » Public: Federal (Agencies such as the Farm Security Administration); State (Connecticut Agencies, such as the Department of Agriculture, which often disburses federal funding); County/Planning District (Naugatuck Valley Planning Region); Municipality (Town of Cheshire)
- » <u>Private</u>: Foundations; Organizations; Member Donations; Corporate Pro-Bono Work

Focus Areas

- » Agricultural: Funding related to farming operations, including: facilities, storage, distribution, operations, certifications, land. Agricultural funding will essential to promoting the core mission of Ives Farm, and should be pursued first.
- » Supportive: Energy; Historic Preservation; Ecology/Environment/Conservation; Not-for-Profit; Education; Community; Arts; Health. Ives Farm's unique mission to not only serve as a working farm, but to also holistically serve the community will make it a strong candidate for 'supportive' funding. This type of funding should be pursued after the core agricultural operations are to a desired level of productivity.

*The table on the following pages primarily includes potential funding sources that are currently 'open'; however, some 'closed' funds have also been listed, as funding sources may reopen in the future, with the same or similar title.

Grant Information	on			Project Type								
Name	Type	Fund	Details	Agricultural	Educational	Recreational	Administrative	Environmental	Community	Energy	Living	Health
Agricultural Management Assistance	Federal	NRCS	The Agricultural Management Assistance (AMA) helps agricultural producers manage financial risk through diversification, marketing or natural resource conservation practices. Producers may construct or improve water management structures or irrigation structures; plant trees for windbreaks or to improve water quality; and mitigate risk through production diversification or resource conservation practices, including soil erosion control, integrated pest management, or transition to organic farming.	Yes			7	Yes				
Agriculture and Food Research Initiative - Sustainable Agricultural Systems	Federal	USDA - NIFA	NIFA seeks creative and visionary applications that take a systems approach for projects are expected to significantly improve the supply of affordable, safe, nutritious, and accessible agricultural products, while fostering economic development and rural prosperity in America. These approaches must demonstrate current needs and anticipate future social, cultural, behavioral, economic, health, and environmental impacts. Additionally, the outcomes of the work being proposed should result in societal benefits, including promotion of rural prosperity and enhancement of quality of life for all those involved in food and agricultural value chains from production to utilization and consumption.	Yes					Yes			
Agriculture and Food Research Initiative – Education and Workforce Development	Federal	USDA - NIFA	Grants and fellowships to USA nonprofit and for-profit organizations, IHEs, and individuals for agricultural research and educational programs. Applicants are advised that required registrations must be completed prior to applying. The purpose of this program is to support research, education, and extension projects that address key problems of local, regional, national, and global importance in sustaining conventional, organic, urban food, and agricultural and natural systems.	Yes	Yes							
Brighter Future Fund	Private	AFT	The Brighter Future Fund was launched in 2020 to assist farmers in successfully launching, growing, and sustaining farms in the face of forces impacting the food and agricultural system, including the COVID-19 pandemic, changing markets, severe weather, and climate change.	Yes				Yes				
Climate Smart Agriculture and Forestry Grant	State	CT DOA	The Connecticut Department of Agriculture, through Public Act 22-118 was allocated a total of \$7 million to support Climate Smart Agriculture production and practices.	Yes				Yes				
Community Farming Giving Circle Grant	Private	Roy A Hunt Fdn	Grants of up to \$30,000 to USA nonprofit organizations to support healthy farms and communities. Funding is intended for programs, projects, and coalitions that address access to nutritious food while investing in farmers. While preference will be given to requests for unrestricted funding, grants for specific projects will also be considered.	Yes								Y
Community Needs Fund	Private	United Way of Greater Water- bury	Grants to Connecticut nonprofit organizations in eligible communities for programs and projects that improve the local quality of life. Funding is intended for activities within the focus areas of housing, health care, food, children and youth, and economic stability. Eligible proposals benefit the residents of Bethlehem, Cheshire, Middlebury, Prospect, Southbury Thomaston, Waterbury, Watertown, Wolcott, and Woodbury.	Yes					Yes			Y

Grant Informatio	n		Pro	ject T	Гуре							
Name	Type	Fund	Details	Agricultural	Educational	Recreational	Administrative	Environmental	Community	Energy	Living	Health
Connecticut	Турс	Tunu	A statewide grant program to help establish and further Farm- to-School programs through CT schools. Passed in the 2021 legislative session, the CT Grown for CT Kids Grant is a statewide grant program to help establish and further farm-to-	₽	<u> </u>	1 4	A	<u> </u>	0	H	H	14
Grown For Connecticut Kids	State	CT DOA	school initiatives. The maximum grant award will be \$50,000 for a project of up to 18 months in duration.	Yes	Yes							
Environmental Quality Incentives Program	Federal	USDA	The Environmental Quality Incentives Program (EQIP) is NRCS' flagship conservation program that helps farmers, ranchers and forest landowners integrate conservation into working lands.	Yes				Yes				
EQIP High Tunnel System Initiative	Federal	USDA	A High Tunnel System, commonly called a "hoop house," is an increasingly popular conservation practice for farmers, and is available with financial assistance through the Environmental Quality Incentives Program (EQIP).	Yes								
EQIP On-Farm Energy Initiative	Federal	USDA	The Environmental Quality Incentives Program (EQIP) On- Farm Energy Initiative helps farmers and ranchers make voluntary improvements that can boost energy efficiency on the farm	Yes						Yes		
Farm Aid Grant Program	Private	FarmAid	Grants to USA nonprofit family farm and rural service organizations to help keep family farmers on their land and producing food. LOIs are due by May 1 for consideration. Projects should provide farmers with the tools and resources they need, involve grassroots organizing, or promote strong regional and local food systems.	Yes								
Farm Labor Stabilization and Protection Pilot Program (FLSP)	Federal	USDA	Grants to USA agricultural employers for activities to stabilize the farming workforce. Applicants are advised that required registrations may take several weeks to complete. Funding is intended for activities that address labor shortages, improve working conditions, and reduce irregular migration.	Yes								
Farm Reinvestment Grant	State	CT DOA	The Farm Reinvestment Grants provides matching funds to Connecticut farms to expand, diversify, and improve existing working farms through projects with a lifespan of 10 years or more. The Farm Reinvestment Grant is funded through bond authorizations of the State of Connecticut.	Yes								
Farm Transition Grant	State	CT DOA	The Farm Transition Grant Program (FTG) (C.G.S. Sec. 22-26k) is a competitive matching grant program for Connecticut farmers and agricultural cooperatives to support the diversification of existing farm operations, transitioning to value-added agricultural production and sales, and other venues in which a majority of products sold are grown in the state.	Yes								
Farm Viability Grant	State	CT DOA	The Farm Viability Grant provides matching funds to Connecticut municipalities, groups of municipalities, regional councils of governments, and/or agricultural non-profit organizations for projects that directly impact and/or foster agricultural viability.	Yes								

Grant Information	on			Project Type									
Name	Type	Fund	Details	Agricultural	Educational	Recreational	Administrative	Environmental	Community	Energy	Living	Health	
Farmer Grant Program	Private	SARE - NE	Grants of up to \$30,000 to USA commercial farmers and farm employees in eligible states to enhance agriculture. Applicants must operate farms in Connecticut, Delaware, Massachusetts, Maryland, Maine, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, Vermont, West Virginia, and Washington, DC. There are no restrictions on the topics that may be addressed as long as the proposed project leads to new information that enhances Northeast agriculture.	Yes			7				I		
Farmer Grant Program	Private	SARE - NE	Northeast SARE offers grants to farmers to explore new concepts in sustainable agriculture conducted through experiments, surveys, prototypes, on-farm demonstrations or other research and education techniques. Farmer Grant projects address issues that affect farming with long-term sustainability in mind.	Yes				Yes					
Farmland Preservation Program	State	CT DOA	The Department of Agriculture preserves working lands by acquiring development rights to agricultural properties through two programs, ensuring that the land remains available only for agricultural use in perpetuity	Yes	Yes	Yes	Yes	Yes			Yes		
Food Safety Certification for Specialty Crops Program (FSCSC)	Federal	USDA	Grants to USA and territories small specialty crop businesses to offset expenses related to safety regulations and requirements. Funding is intended for on-farm food safety program expenses, including certification receipt or renewal, as well as related costs. Applicants may receive reimbursement for developing an initial food safety plan, maintaining or updating an existing food safety plan, food safety certification, certification upload fees, microbiological testing, and training.	Yes									
Food System Capacity Building Grant	State	CT DOA	The Food System Capacity Building Grant provides funds to Connecticut organizations and groups involved in food system policy and/or creating innovative, localized, programming in their respective communities to increase food access and address food insecurity. The Connecticut Food Policy Council is encouraging community groups to apply for grants. Any proposal that seeks to improve the local food system and make food, particularly CT Grown farm products, more accessible to Connecticut residents will be considered.	Yes	Yes								
Grant in Aid Program	Federal	CT Gov't	A federal grant in aid is federal money granted to a recipient to fund a project or program. Federal grants in aid are not loans and therefore require no repayment. Federal grants can be awarded to university faculty members to pursue a particular line of research.	Yes	Yes	Yes	Yes	Yes			Yes		
Hometown Grants	Private	T Mobile	Grants of up to \$50,000 to USA nonprofit organizations, nonprofit leaders, elected officials, and town managers and employees for capital projects to revitalize public community spaces in rural areas. The purpose of the program is to create and restore communal spaces that foster personal connections. Projects must benefit small towns with a population less than 50,000.	Yes	Yes	Yes	Yes	Yes			Yes	Ye	
James M. Cox Foundation Grant	Private	James Cox Fd.	Grants to USA nonprofits and government agencies in multiple states for a range of programs that benefit local communities where the funding source operates. Funding is intended to support the priority areas of health, conservation and the environment, empowering families and individuals for success, and early childhood education (birth to five years)	Yes	Yes		Yes	Yes				Ye	

Grant Informatio												
Name	Туре	Fund	Details	Agricultural	Educational	Recreational	Administrative	Environmental	Community	Energy	Living	Health
Local Donors and Sponsors	Private	Various	Can often provide matching or initial funding for development and maintenance; includes Land Trust Members, Local Businesses and Services	Yes	Yes	Yes	Yes	Yes			Yes	
Local Food Purchase Assistance Cooperative Agreement Program	State	CT DOA	A statewide grant program funded through the USDA to maintain and improve local food and agricultural supply chain resiliency.	Yes								
Northeast Ag Enhancement Grant	Private	Farm Credit East	Each year, Farm Credit East and CoBank award grants ranging from \$500 to \$10,000 to help organizations promote awareness and strengthen agriculture, commercial fishing and forest products in the six New England states, New York and New Jersey.	Yes								
Operational Support	Private	Clif Family Fd.	Grants to USA nonprofit organizations for operational support. Funding is intended to support grassroots organizations that effect positive change in the focus areas of environmental stewardship, food and agriculture, health equity, and sustainable community development. Grant funds must be used to support daily operating costs and specific projects.	Yes								Ye
Organic Certification Cost Share Program	Federal	USDA	OCCSP provides cost share assistance to producers and handlers of agricultural products who are obtaining or renewing their certification under the National Organic Program (NOP). Certified operations may receive up to 75 percent of their certification costs paid during the program year, not to exceed \$750 per certification scope.	Yes								
Patrick Leahy Farm to School Grant Program	Federal	USDA	The Patrick Leahy Farm to School Grant Program is designed to increase the availability of local foods in schools and help connect students to the sources of their food through education, taste tests, school gardens, field trips, and local food sourcing for school meals. Grants can launch new farm to school programs or expand existing efforts. The Fiscal Year (FY) 2024 Farm to School Grant awards projects of 24 months in length for funding up to \$500,000. Applicants are required to provide matching support of at least 25 percent of the total project budget in the form of cash or in-kind contributions. The RFA offers three tracks - Implementation, State Agency, and Turnkey - to support a variety of projects and implementation stages. Eligible applicants may include schools and other institutions that operate Child Nutrition Programs, Indian Tribal Organizations, agricultural producers or groups of agricultural producers, nonprofit entities, and State and local agencies.	Yes	Yes							
Pioneering Ideas: Exploring the Future to Build a Culture of Health	Private	The Robert Wood Johnson Fd.	Grants to USA and territories nonprofit organizations for activities that advance health equity. Funding is intended to support innovative projects in the areas of food, social interaction, evidence, and work. The program supports impactful approaches and unique ideas that are likely to enhance health and well-being for future generations.	Yes	Yes				Yes			

Grant Informatio	on			Pro	roject Type lal adino ity ity								
Name	Type	Fund	Details	Agricultural	Educational	Recreational	Administrative	Environmental	Community	Energy	Living	Hoolth	
Resilient Food Systems Infrastructure (RFSI)	Federal	USDA	Grants to USA and territories agricultural organizations to build resilience in food production. Applicants must contact local officials prior to submitting an application. The purpose of the program is to support economic development in rural communities and enhance diversity in the agricultural market.	Yes	I	Н	7	П	<u> </u>	I	I		
Sales Tax Exemption for Farmers	State	CTDOA	Retail sales of tangible personal property used exclusively in agricultural production are exempt from sales and use taxes provided the purchase qualifies for an exemption and the purchaser has been issued a Farmer Tax Exemption Permit.	Yes									
Specialty Crop Block Grant	Federal	USDA	The Connecticut Department of Agriculture solicits applications on an annual basis for projects that enhance the competitiveness of specialty crops. Specialty crops are defined by the USDA as fruits and vegetables, dried fruit, tree nuts, maple syrup, honey, horticulture, and nursery crops.	Yes									
The Max and Victoria Dreyfus Foundation Grant	Private	MVDF	Grants of up to \$20,000 to USA nonprofit organizations for community benefit programs and projects. Funding is intended to support hospitals and schools; museums, performing arts and cultural programs; skills training, educational, and other programming for seniors, youth, and people with disabilities; environmental and wildlife protection activities; and other programs that address community needs.	Yes	Yes			Yes					
The New England Farmer Microgrants Program	Private	AFT	Launched in 2020, the New England Farmer Microgrants Program (NEFMP) provides direct financial support to farmers across New England. Now in its fifth year, the program continues to address key barriers faced by New England farmers: access to land, farm succession and land transfer planning, and adopting regenerative agriculture or soil health practices on livestock operations.	Yes									
1772 Grant	Private	1772 Fd.	Eligible projects include: exterior painting, finishes and surface restoration; upgrades to/installation of fire detection; lightning protection and security systems; repairs to/restoration of porches, roofs and windows; structural foundation and sill repair/replacement and chimney and masonry repointing.								Yes	3	
Connecticut Recreational Trails	State	CT DEEP	This program covers the planning, design, and construction of new trails. In addition, it also covers the maintenance and restoration of existing trails. Grant amounts vary and will depend upon the availability of currently uncommitted state funds. Requests should be less than \$1 million. Grants can pay up to 80% of total project costs, a 20% match is required.			Yes							
Cynthia Woods Mitchell Fund for Historic Interiors	Federal	National Trust	In July 1997, George P. Mitchell made a generous gift to the National Trust for Historic Preservation to establish the Cynthia Woods Mitchell Fund for Historic Interiors in honor of his wife. Learn more about Cynthia Woods Mitchell in this story. The purpose of the fund is to assist in the preservation, restoration, and interpretation of historic interiors. Grants from the Cynthia Woods Mitchell Fund for Historic Interiors generally range from \$2,500 to \$15,000. The selection process is very competitive.								Yes		
EQIP Conservation Incentive	Federal	USDA	Incentive contracts are an option available through EQIP that offers producers financial assistance to adopt conservation management practices on working landscapes.					Yes					

Grant Informati	on			Project Type										
Name	Type	Fund	Details	Agricultural	Educational	Recreational	Administrative	Environmental	Community	Energy	Living	Health		
EQIP Organic Initiative	Federal	USDA	The National Organic Initiative, funded through the Environmental Quality Incentives Program (EQIP), is a voluntary conservation program that provides technical and financial assistance for organic farmers and ranchers, or those interested in transitioning to organic.	7			7			Yes		_		
Farmable Wetlands Program	Federal	USDA	The Healthy Forests Reserve Program (HFRP) helps landowners restore, enhance and protect forestland resources on private and tribal lands through easements and financial assistance.			Yes		Yes						
Federal Rehabilitation Tax Credit	Federal	NPS	The federal historic rehabilitation tax credit (HTC) program is an indirect federal subsidy to finance the rehabilitation of historic buildings with a 20 percent tax credit for qualified expenditures. Before enactment of tax reform legislation at the end of 2017, as noted below, there was also a 10 percent non-historic rehabilitation tax credit for pre-1936 buildings.								Yes			
Health and Environmental Justice Grant	Private	CCF	This new grant area combines two of the Foundation's old grant areas including Healthy Communities and Environment. Within Health and Environmental Justice, we recognize that your health is influenced by where you are born, live, learn, work, play, worship and age. We know that improving health outcomes requires an approach that supports a whole person within their community. Improving food systems to ensure access and affordability						Yes			Ye		
Historic Restoration Fund Grants	State	CT DECD	This program offers up to \$100,000 for repair and preservation projects approved by the Connecticut State Historic Preservation Office. Grants awards must be matched on a one-to-one basis. Municipalities and nonprofit organizations are eligible to apply.								Yes			
Johanna Favrot Grants for Preservation Planning	Federal	National Trust	The fund aims to save historic environments in order to foster an appreciation of our nation's diverse cultural heritage and to preserve and revitalize the livability of the nation's communities. Grants from the Johanna Favrot Fund for Historic Preservation generally range from \$2,500 to \$15,000.					Yes			Yes	3		
Land & Water Conservation Fund	Federal	NPS	The Land and Water Conservation Fund (LWCF) is America's most important program to conserve irreplaceable lands and improve outdoor recreation opportunities throughout the nation. The program works in partnership with federal, state and local efforts to protect land in our national parks, national wildlife refuges, national forests, national trails, and other public lands; to preserve working forests and ranchlands; to support state and local parks and playgrounds; to preserve battlefields and other historic and cultural sites; and to provide the tools that communities need to meet their diverse conservation and recreation needs.			Yes								
Leopold Conservation Award	Private	Sand County Fd.	The Leopold Conservation Award Program recognizes and celebrates extraordinary achievement in voluntary conservation by agricultural landowners.					Yes						
NewAlliance Foundation Grant	Private	New Alliance Fd.	Grants of up to \$25,000 to Connecticut nonprofit organizations and local government agencies to benefit local residents in eligible communities. Funding is intended to support programs in the areas of arts, health and human services, community development, and youth and education.						Yes			Υe		

Grant Informatio	on			Pro	ject T	Гуре						
Name	Туре	Fund	Details	Agricultural	Educational	Recreational	Administrative	Environmental	Community	Energy	Living	Health
Rural Energy for America Program Renewable Energy Systems & Energy Efficiency Improvement Guaranteed Loans & Grants	Federal	USDA	The program provides guaranteed loan financing and grant funding to agricultural producers and rural small businesses for renewable energy systems or to make energy efficiency improvements. Agricultural producers may also apply for new energy efficient equipment and new system loans for agricultural production and processing.							Yes		
State Rehabilitation Tax Credit	State	CT SHPO	Currently focused on owner-occupied homes; may be worth further exploring opportunities for farmhouse if possible								Yes	



Appendices IVES FARM MASTER PLAN



X.1 MEETING MATERIALS

X.2 LAYOUT MATERIALS

X.3 SITE UTILITY MATERIALS