

Duke Farms 2026 Master Plan Report

August 2026



About the Duke Farms 2026 Master Plan Report

Project Background

The *Duke Farms 2026 Master Plan* is a living framework to align Duke Farms' physical campus—its buildings, infrastructure, and designed landscapes—with its mission and strategic priorities.

This plan synthesizes and builds on prior studies, conceptual design explorations, and programming exercises to create a consolidated vision for the next era of Duke Farms. The formal planning process began in fall 2025 with a visioning and scoping workshop on site. A second on-site leadership workshop confirmed a collective vision for the physical campus aligned with programmatic goals. The plan was then developed through a series of virtual coordination meetings through the summer of 2026.

Project Team

The development of the 2026 Master Plan was led by a Duke Farms facilities and operations team. Key leaders at Duke Farms and the Doris Duke Foundation participated in envisioning the future of the campus and setting the conditions for success. Leadership engagement created opportunities for the 2026 Master Plan to align with parallel strategic planning efforts at Duke Farms.

The consultant team was led by Built Buildings Lab (sustainability) with Vitetta (preservation and architecture), Langan (civil engineering), DEDC Engineering (MEP engineering), and Trophy Point (cost estimating).

Duke Farms Team

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Duke Farms 2026 Master Plan Report

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Plan Introduction

Background

The 2026 Master Plan presents a vision for the future of campus facilities that aligns Duke Farms' physical campus, ecological systems, and communities with its mission. This vision captures the unique opportunities presented by the campus's buildings, infrastructure, and designed landscapes to support Duke Farms' integrated capabilities.

Developed between fall 2025 and spring 2026, the plan is a living document marking the next critical milestone in the evolution of the Duke Farms campus. Building upon the 2007 Master Plan, which guided the transformation from a private estate to a nature park, this 2026 plan is anchored in sustainable stewardship to steer the physical transformation of Duke Farms from a nature park to a platform for impact.



The goals framing the 2026 planning effort are to:

- > Foster two thriving, programmatic centers: a Center for Conservation and Center for Engagement, underpinned by robust sustainable facilities operations.
- > Re-invest in the farm's legacy structures to create state-of-the-art facilities while demonstrating next-generation sustainable preservation and design.
- > Unlock synergistic opportunities at the intersection of conservation science, engagement, land stewardship, and sustainable operations through strategic capital projects.

Supporting Sustainable Stewardship

This Master Plan is one component of Duke Farms' broader sustainable stewardship operating framework. Together, the Land Stewardship Plan, Natural Systems Energy Plan, and 2026 Master Plan provide an integrated roadmap for the stewardship of Duke Farms' landscapes, buildings, infrastructure, operations, and visitor experience.

The Land Stewardship Plan guides ecological restoration and land management; the Natural Systems Energy Plan guides decarbonization of utilities, buildings, vehicles, and equipment systems; and this Master Plan translates those priorities into physical investments, capital projects, infrastructure improvements, facilities management approaches, and implementation strategies that support the evolution of the Duke Farms campus.

This operating framework collectively strengthens the enabling platform of Duke Farms' land, infrastructure, and operations to optimally support the organization's three integrated capabilities—restore, demonstrate, engage—which in turn create impact through two programmatic centers.

Building on the Duke Farms Legacy

The 2026 Master Plan builds on the cultural, environmental and economic legacy of Duke Farms to shape a sustainable future rooted in the value of the past. It will operationalize three integrated capabilities.

1

Restore

Protect and improve biodiversity and ecosystem health through active environmental stewardship, applied conservation, and targeted restoration.

2

Demonstrate

Model nature-positive, carbon-negative practices through sustainable operations, infrastructure, and landscape management.

3

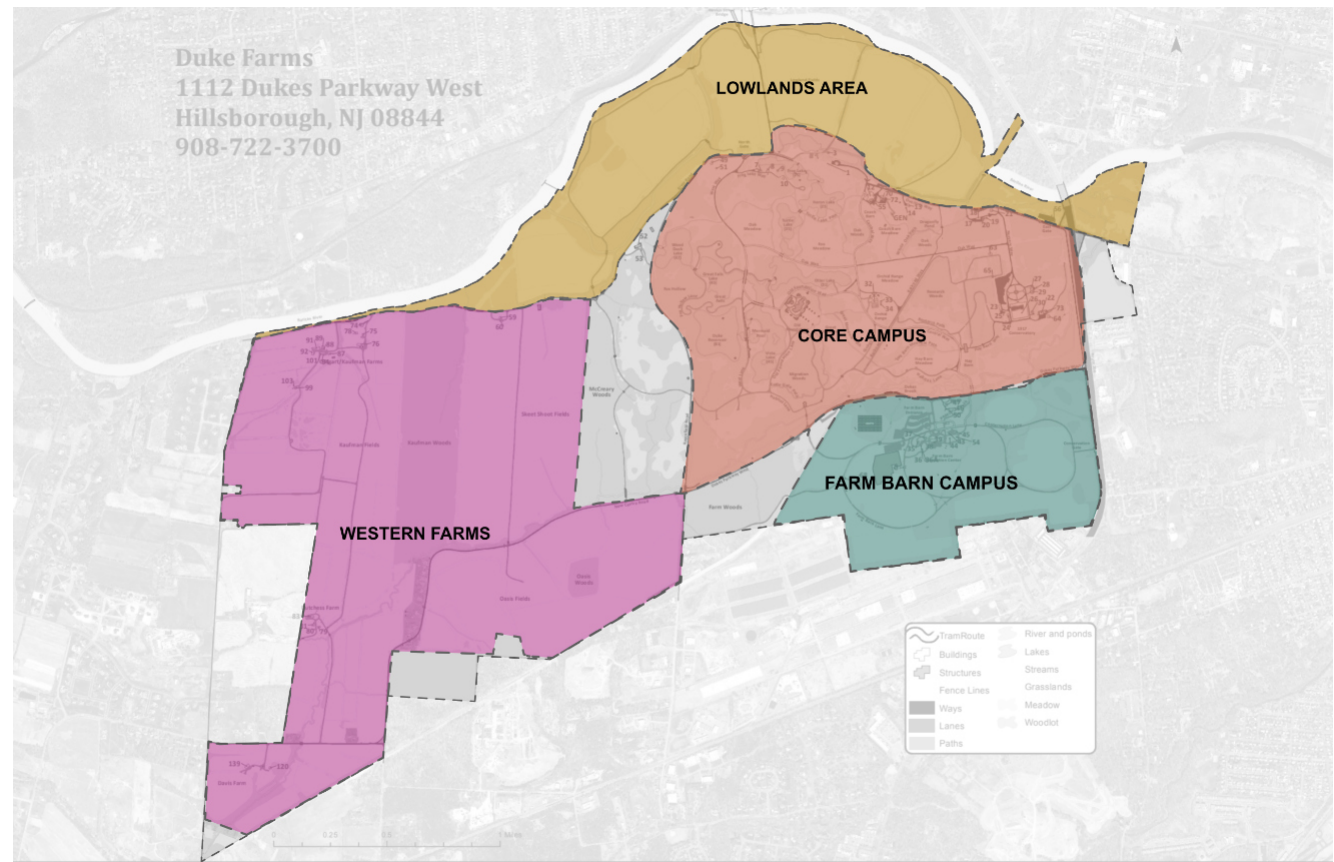
Engage

Cultivate leaders, partners, and communities through programs, convenings, storytelling, and inclusive access to Duke Farms.

Strategic Management Units

The Master Plan organizes Duke Farms into four strategic management units: Core Campus, Farm Barn, Western Farms, and Lowlands.

These management units help guide long-term planning, investment, and implementation. Rather than treating the campus as a single homogeneous landscape, each management unit reflects its unique operational, ecological, and programmatic role while advancing the shared objectives to Restore, Demonstrate, and Engage. This framework provides a consistent basis for evaluating assets, prioritizing capital investments, coordinating infrastructure improvements, and sequencing implementation so that individual projects contribute to a cohesive campus-wide vision.



Key Master Plan Outcomes

Through strategic investment across the constructed landscapes, utilities, and buildings on the Duke Farms campus, the 2026 Master Plan aims to advance four key outcomes:

1 | Robust Applied Research Capabilities

A state-of-the-art physical hub for the Center for Conservation to support applied research, innovation, and knowledge sharing:

- Fully-equipped laboratory, collaboration, and research support space
- Live-work space for permanent and visiting scientists
- Expanded infrastructure for equipment maintenance and fieldwork
- Classroom and demonstration space within Western Farms to engage visitors where research happens

2 | Expanded and Elevated Convening Capacity

Establishment of Duke Farms as a hub for mission-aligned convening:

- A new fully-supported convening and education complex for groups up to ~35 people, including lodging, indoor and outdoor gathering space, and catering
- Expanded capacity for larger events (up to ~100 attendees) with flexible classroom/auditorium space, small group breakout space, and outdoor event space
- Elevated venues within the campus' signature legacy buildings for small events and exhibits

3 | Increased Public Benefit

Broader, deeper impact to local and visiting communities through:

- Expanded trail network across the Western Farms and Lowlands Areas
- Increased opportunities for programs and engagement in legacy buildings
- Connection to conservation and sustainable operations through new and adapted facilities
- Improved community resilience through sustainable infrastructure and land management

4 | Decarbonizing Operations

Continued leadership to move beyond net-zero facilities operations through nature-based solutions, energy efficiency, materials decarbonization, electrification, and renewables, including:

- Retrofit and stewardship of existing buildings to aggressively reduce energy use, eliminate fossil fuel consumption, and reduce embodied carbon
- Electrification of buildings and vehicle fleet
- Expanded on-site renewable energy infrastructure
- Verified carbon drawdown through ecological restoration, land management, and regenerative agriculture

Conditions of Success

The following criteria represent how the success of the 2026 Master Plan will be evaluated. These criteria were co-developed by leaders from Duke Farms and the Doris Duke Foundation, and represent a holistic view of what this plan should achieve over the next decade.

These criteria have shaped the content of the 2026 Duke Farms Master Plan and the decision-making approach for the plan's implementation:

- **Thriving centers** for conservation and engagement
- A **visitor experience** rooted in connection to nature
- Increased opportunities for **demonstration**
- Robust pathways for impactful **collaborations and partnerships**
- Recognition of Duke Farms' reputation as a leader in **sustainable stewardship**
- Strong **institutional alignment** and support from foundation leadership
- Long-term **financial resilience** supported by strategic capital investment, partnerships, and diversified revenue streams
- **Prioritized investments** in upgrades and maintenance to capture financial and programmatic opportunities
- **Reduced risk** and deferred maintenance associated with aging facilities

2

A Vision for Sustainable Stewardship

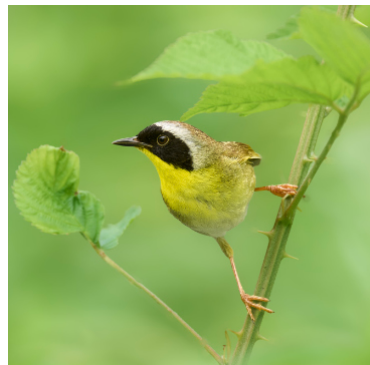
The Sustainable Stewardship Framework

Sustainable stewardship is both an ethos and a campus management approach that guides how Duke Farms cares for its land, buildings, infrastructure, and resources for the long-term benefit of people and nature.

Few places bring together, in one integrated setting, a restored landscape, active agricultural lands, a legacy campus, public engagement, applied research, and complex daily operations. These assets are managed not as separate systems, but as an interconnected whole where ecological stewardship, sustainable operations, research, and visitor experience reinforce one another.

Through sustainable stewardship, Duke Farms will scale its impact to protect ecosystems, draw down carbon emissions, conserve natural resources, and enhance the well-being of the Duke Farms community. Eight **Pillars of Sustainable Stewardship** frame a holistic approach that scales from everyday maintenance to major capital projects.

While this Master Plan sets the long-term vision for sustainable stewardship, a complementary set of sustainability guidelines, included as Appendix A, acts as an implementation tool to ensure day-to-day decision-making and investments contribute to the overarching goals. Approaches to and aspirations for the sustainability of the campus's built facilities, as laid out in this document, complement parallel planning efforts across landscape, ecosystem, utility, and operational systems.



Pillars of Sustainable Stewardship

Ecological Well-Being

Protect and enhance ecological function across the campus by prioritizing protection, restoration, minimizing disturbance, and contributing to net-positive biodiversity outcomes over time.

Responsible Water Use

Reduce reliance on potable water, restore natural hydrology, and position Duke Farms as a model for integrated water management and climate resilience at the campus scale.

Human Well-Being

Protect and enhance the comfort and well-being of all campus building users by ensuring access to daylight and nature, and maintaining indoor building conditions that limit exposure to harmful chemicals and improve air quality.

Responsible Materials Use

Reframe building waste as a campus asset by prioritizing the deconstruction and reuse of building materials to mitigate the ecological damages of waste, and reduce the embodied carbon emissions of new building materials.

Community Well-Being

Protect and enhance the cultural resources on the Duke Farms campus, ensure the accessibility of these resources to the community at large, and maximize the benefit of the campus's facilities and operations to the local community.

Responsible Investment

Ensure investments made at Duke Farms are accounting for the associated environmental and social costs, including the long-term risks of climate change.

Decarbonization and Energy Use

Achieve net-negative carbon emissions by reducing operational and embodied carbon across the campus, providing renewable energy, and leveraging the landscape and agriculture to drawdown carbon.

Learning and Sharing

Leverage the Duke Farms campus as a living laboratory to advance ecological well-being, community well-being, natural resource management, and nature-positive decarbonization.

While the Sustainability Guidelines ensure that all work undertaken on campus will respond to each pillar of sustainable stewardship, each priority project of the master plan presents unique opportunities to enact sustainable stewardship in response to the project's scope, level of public visibility, and scale of investment.

This table provides a snapshot of the highest-impact sustainability opportunities offered by each master plan project. More detail about the opportunities and potential approaches of each project are provided in Section 5: Master Plan Projects.

	PILLARS OF SUSTAINABLE STEWARDSHIP							
	Ecological Well-Being	Human Well-Being	Community Well-Being	Decarb and Responsible Energy Use	Responsible Water Use	Responsible Use of Materials Resources	Responsible Investment	Learning and Sharing
Operational Support Facility		●		●	●			
Building 26	●		●			●	●	
Building 23		●		●				●
Coach Barn			●	●		●		●
Orchid Range				●			●	●
Farm Barn		●		●		●		●
Building 74	●			●	●			●
Pole Barn				●		●		
Cottages Upgrades			●	●	●			●
Farmstead Resilience Upgrades	●			●			●	●
Cottage Resilience Upgrades				●		●	●	●

3

Envisioning the Next Decade of Duke Farms

Audiences Served by Duke Farms

The physical campus is a foundational tool for delivering Duke Farms' mission. Understanding how Duke Farms' audiences and programs interact with the campus and its facilities ensures that future investments advance the long-term vision for the site and the impact Duke Farms seeks to create.

The master plan aims to support Duke Farms' current and future audiences as broadly grouped into these five categories:

- Nature
- Staff
- Invited Visitors
- Actively Engaged General Visitors
- Passively Engaged General Visitors



The 2026 Master Plan Audiences

Nature

The wildlife—flora and fauna—of Duke Farms are direct stakeholders impacted by human activities on campus and should benefit from the outcomes of the master plan.

Staff

The most direct audience is the staff who work from Duke Farms. The master plan rethinks the distribution and design of workspaces across campus to better support current and future staff, accommodate visiting team members and collaborators, and foster stronger cross-departmental collaboration.

Invited visitors

The campus serves many guests who visit Duke Farms for a designated purpose, including students, volunteers, day and overnight event attendees, guest researchers, and representatives from peer institutions. The master plan greatly extends both the physical capacity to accommodate these visitors and the opportunities for demonstration and engagement within visitor facilities.

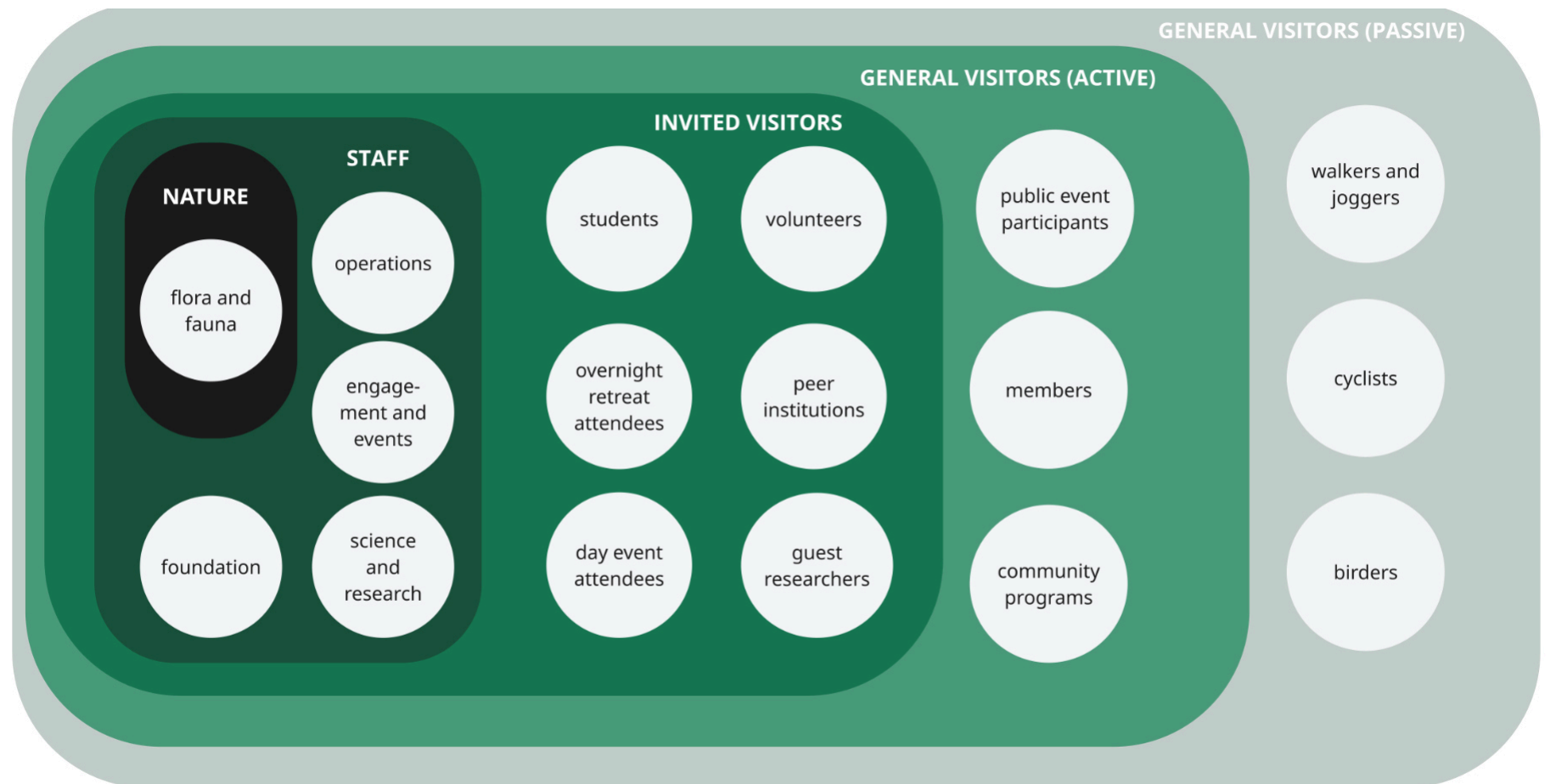
Actively engaged general visitors

Many visitors—members or participants of public events and community programs—come to Duke Farms for active engagement. The master plan considers both near term enhancements to venues for public engagement through programs, exhibits, and installations, and notes longer-term opportunities to leverage buildings at the edges of campus for shared community use.

Passively engaged general visitors

Many additional members of the public access Duke Farms to recreate and connect with nature through less structured engagement. The plan envisions increased trail access for the general public throughout the less developed areas of the campus.

The 2026 Duke Farms Master Plan Audience



Duke Farms Programs and Operations

This plan positions the Duke Farms' campus as home to two centers, which will act as the programmatic engines to deliver on the organization's integrated capabilities to restore, demonstrate, and engage.

The **Center for Conservation** is dedicated to long-term, socio-ecological research and partnerships.

The **Center for Engagement** delivers mission-aligned convenings and retreats, public programs, and strategic partnerships.

These centers will activate the extent of the Duke Farms campus across all management units. The Center for Conservation's activities will be based on the Western Farms with a new research facility at Building 74. The Center for Engagement operates primarily from the Farm Barn and Core Campus.

The two programmatic centers are underpinned by **Sustainable Operations**, the management of legacy facilities, sustainability initiatives, and supporting infrastructure.

Sustainable operations will be based from a new operational support facility on the Core Campus.

Centers and Operations Synergies

This plan activates unique opportunities for impact arising from the synergies across Duke Farms' programmatic centers, sustainable operations, and the land, buildings and infrastructure of the campus.

Campus as a Living Laboratory

Creating a feedback loop using built and natural landscapes as a testbed for research, applying findings into operations, and informing research through operational lessons learned.

Campus as a Teaching Tool

Using the campus as a demonstration of replicable best practices and innovation in land restoration, conservation science, and sustainable operations.

Campus as a Catalyst

Leveraging the natural and built assets of the campus to create opportunities for conservation programs, partnerships, demonstration, and engagement.

4

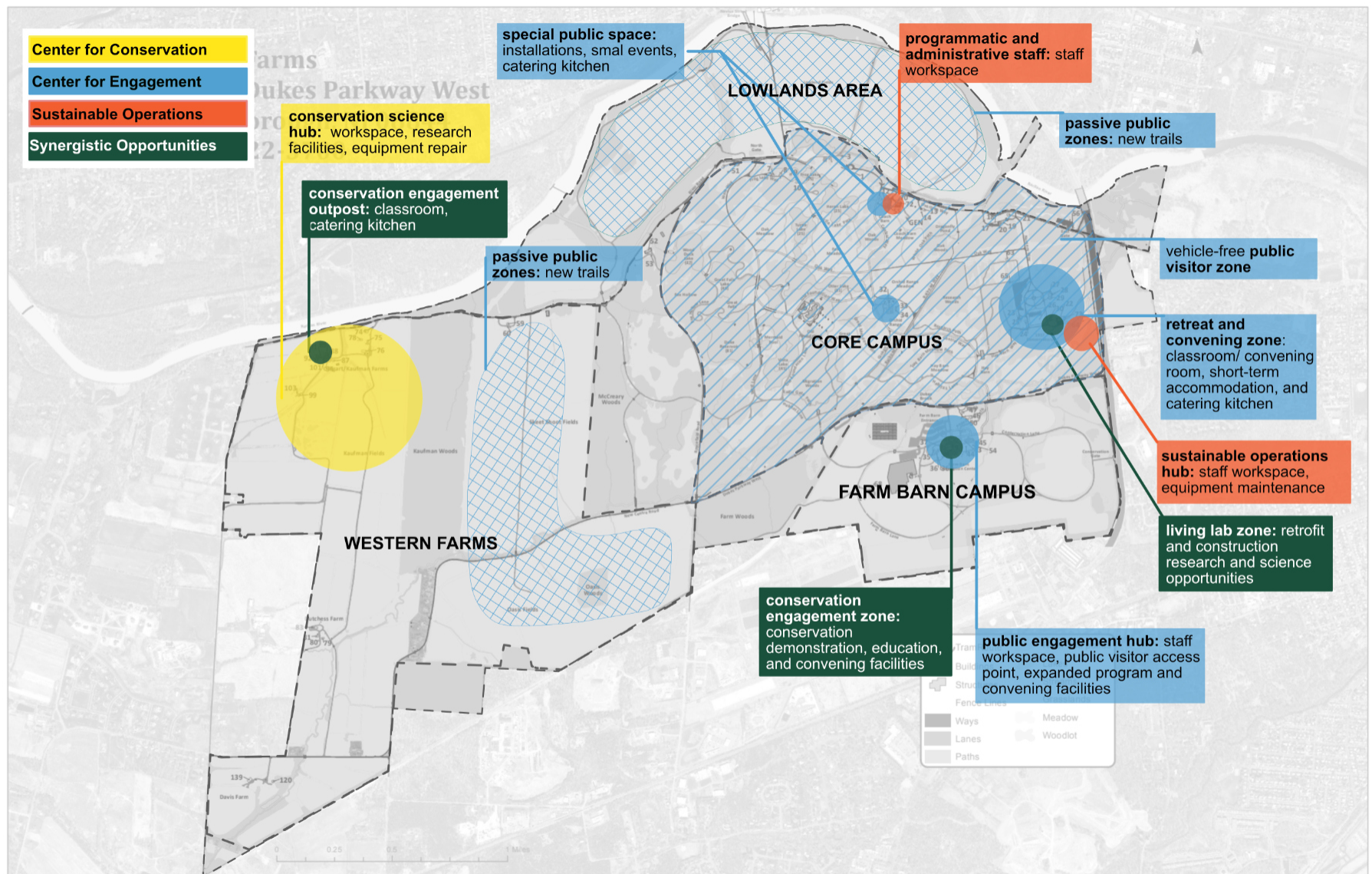
Looking Forward: The Future of Duke Farms Campus

Duke Farms Campus Plan

The 2026 Duke Farms Master Plan advances existing planning to unlock opportunities within each management unit of Duke Farms in alignment with its strategic capabilities. While certain areas of activation serve the Center for Conservation, the Center for Engagement, or the underlying operations of campus, other interventions unlock synergistic opportunities across several capabilities and program areas.

A combination of site and utility work; building renovations, retrofits, and additions; selective deconstruction; and selective new construction are proposed within each management unit. Additional details about the approach for each project and potential sequencing can be found in Sections 5 and 6.





Campus map of Duke Farms indicating a vision for the future. The centers and operations of Duke Farms will occupy adapted facilities across campus, leveraging the legacy spaces of the farm to fully engage the campus in the strategic capabilities of the organization. Conservation science, engagement, and operations activities will be co-located to activate synergies of space use and programs.

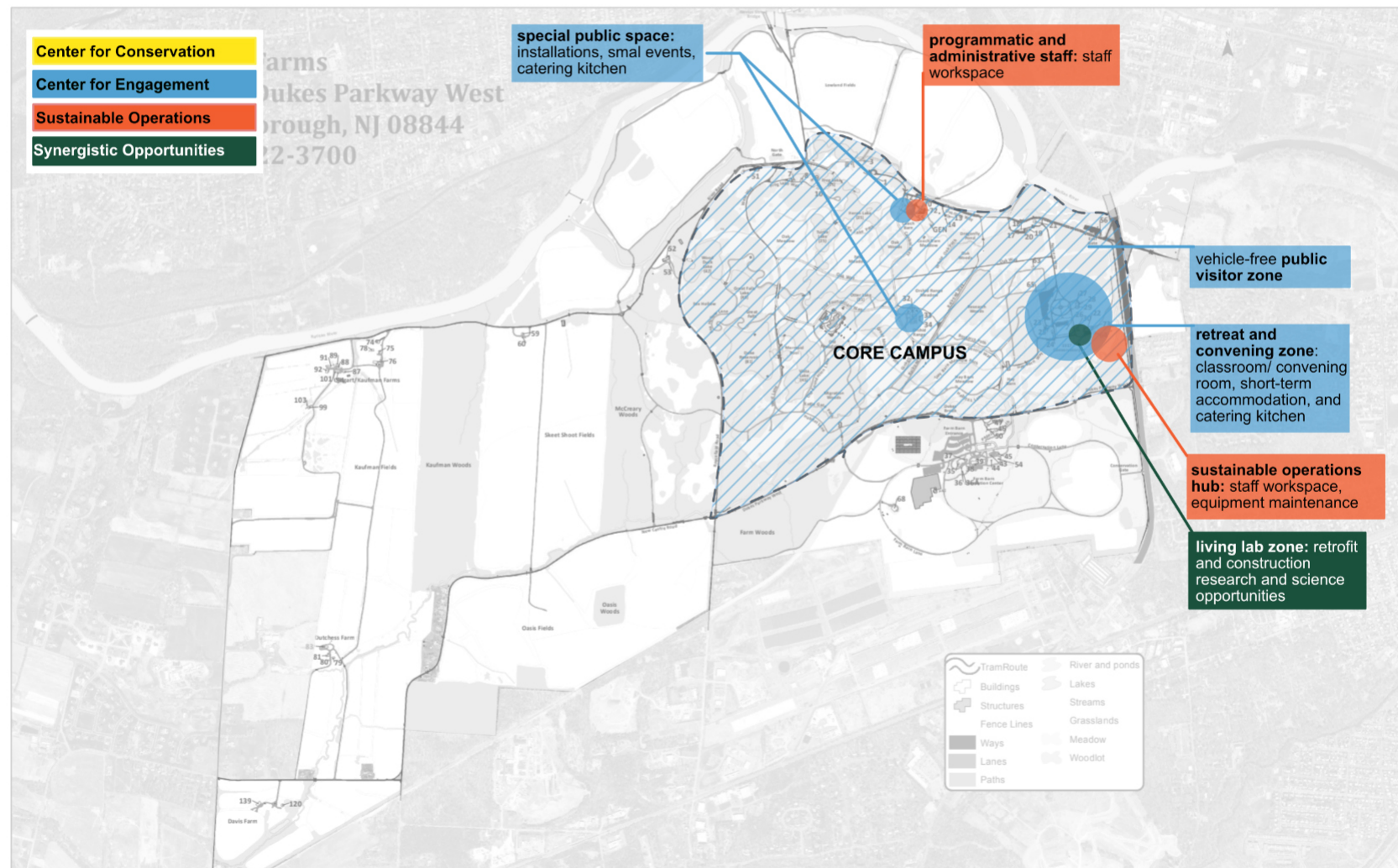
CORE CAMPUS

Restore: Medium Opportunity

Demonstrate: High Opportunity

Engage: High Opportunity

- Create a fully supported retreat and convening center for groups up to ~35 (renovation, deconstruction, small addition)
- Enhance visitor programs and events in the Coach Barn and Orchid Range (renovation, small addition)
- Provide flexible staff workspace (renovation)
- Construct an operations and equipment repair facility with public demonstration potential (new construction)



FARM BARN CAMPUS

Restore: Medium Opportunity

Demonstrate: High Opportunity

Engage: High Opportunity

- Expand education and event capacity by re-configuring existing spaces (renovation)
- Highlight conservation science programming at the public gateway (programmatic + minor renovation)
- Enhance food preparation and catering capacity across the campus (renovation)



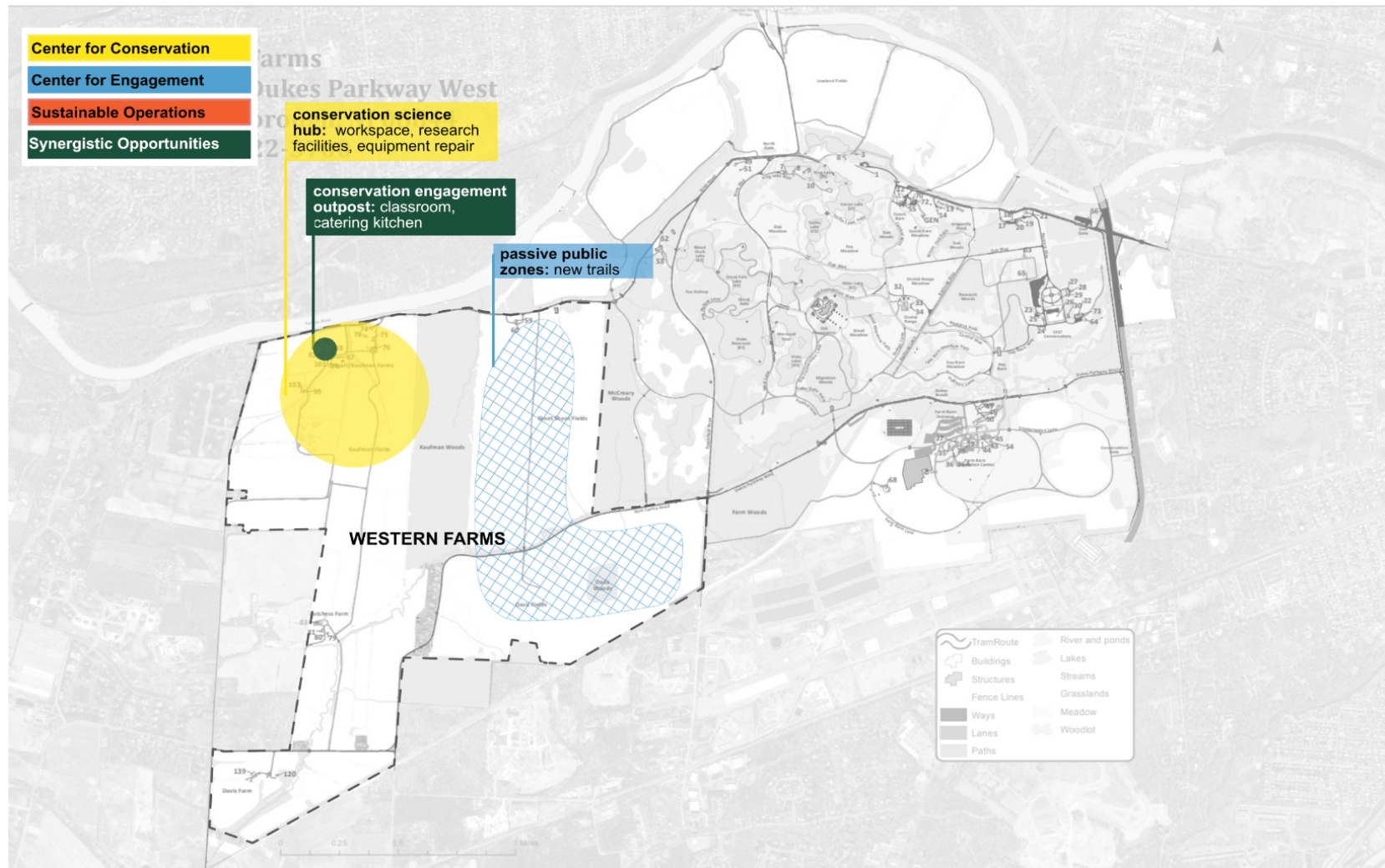
WESTERN FARMS

Restore: High Opportunity

Demonstrate: Medium Opportunity

Engage: Medium Opportunity

- Create a conservation science hub with labs and work-live space for visiting scientists (adaptive reuse)
- Provide classroom and catering facilities for engagement and education (adaptive reuse + addition)
- Expand public trails to increase visitor access (new landscape infrastructure)
- Improve resilience of agricultural operations through electrification and renewable energy (infrastructure and retrofit)



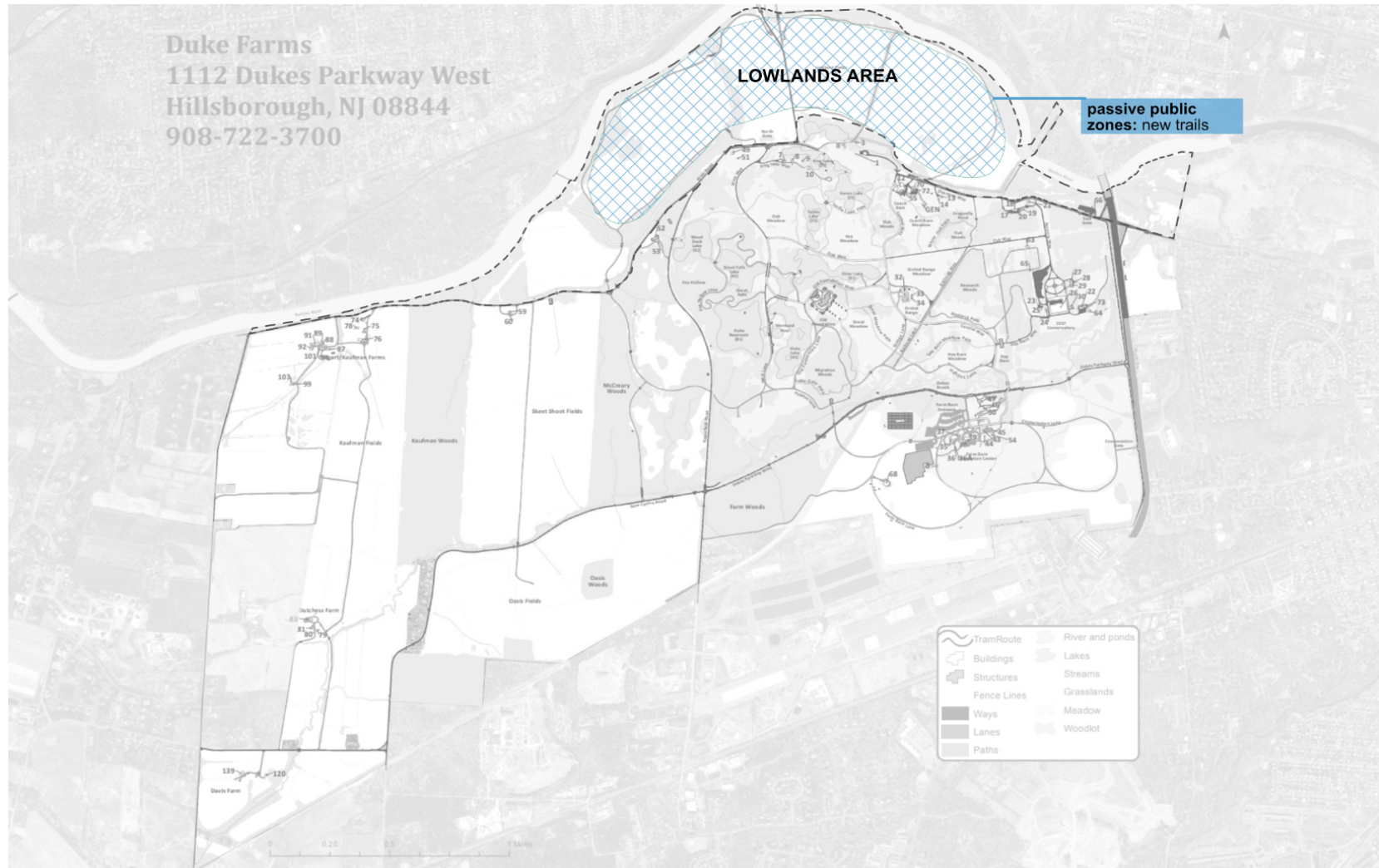
LOWLANDS AREA

Restore: High Opportunity

Demonstrate: Medium Opportunity

Engage: Low Opportunity

- Expand public trails to increase access across the landscape (new landscape infrastructure)
- Address flood vulnerability at low-lying buildings through a managed adaptation approach that may include flood-proofing, deconstruction, and/or relocation



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Master Plan Projects

Priority Capital Projects

The 2026 Master Plan identifies a series of priority capital projects across Duke Farms that each contribute to the ultimate realization of the plan's vision.

While the specific scope and approach of each project will be refined in response to partnerships, funding opportunities, and evolving operational needs, the projects, as laid out here, illustrate the potential within each building to contribute to the long-term vision for the campus as a platform for impact.



Project Index

- A. Operations Support Facility:** new state-of-the-art operations support building to increase sustainable operations capacity, support electrification of fleet, and create an education and demonstration opportunity tied to sustainable facilities management.
- B. Building 26:** transformation of greenhouse complexes, including stabilization and partial restoration of primary structures, removal of secondary structures, and new landscape design to create outdoor convening and contemplation space.
- C. Building 23:** comprehensive renovation and addition to provide additional, fully supported conference and classroom facilities for ~30 people.
- D. Coach Barn:** comprehensive renovation and addition to renovate workspaces, conserve historic interiors, and create additional high-end event space.
- E. Building 32 | Orchid Range:** upgrade to all-electric systems and reconfigure interior to create new elevated event space.
- F. Farm Barn:** develop a world class conference facility by extending event space, consolidating employee workspaces, creating programmable outdoor space, and supporting events across campus with increased food preparation and service capacity.
- G. Building 74:** comprehensive renovation with new construction to provide residential accommodations, workspace, and wet lab facilities for visiting conservation science researchers, as well as a classroom and demonstration space for visitors.
- H. New Storage Pole Barn:** new storage pole barn with maintenance equipment to support agricultural programs.
- I. Residential Cottage Upgrades (bldgs 13, 21, 24, 27, 29, 30, 35, 37, 43, 47):** renovations to provide premium overnight accommodation and achieve decarbonization and resilience goals.
- J. Farmstead Resilience Upgrades:** resilience, utility, and electrification upgrades to meet campus-wide goals, and upgrades for continued agricultural activities.
- K. Additional Cottage Upgrades (bldgs 7, 8, 9, 10, 49):** create additional long-term accommodations and address resilience of vulnerable structures through resilience upgrades in place or relocation with new electric systems.
- L. Campus Civil and Utility Infrastructure Upgrades:** upgrades to infrastructure including electrical service and distribution, sewer and wastewater systems, stormwater management, roads, service access, and civil upgrades to support decarbonization, resilience, compliance, program capacity, and long-term campus operations.

Operations Support Facility

A new state-of-the-art operations support building to increase sustainable operations and maintenance capacity, support electrification of vehicles and equipment, and create an education and demonstration opportunity tied to sustainable facilities management.

Management Unit: Core Campus



PROGRAM ENABLED

- Consolidated desk and shop workspace for facilities and operations staff
- State-of-the-art operational capacity to enable campus programmatic and climate goals
- New venue for education and demonstration

PROJECT SCOPE

- Deconstruction of existing motorpool structure
- ~11,000 sf new building
- Sitework and utilities for new building

MASTER PLAN GOALS ALIGNMENT

Fosters Thriving Centers	● ○ ○
Promotes Sustainable Stewardship	● ● ●
Enables Demonstration	● ● ○
Enhances Public Engagement	● ● ○
Addresses Maintenance Needs	● ● ●
Advances Net-Zero Operations	● ● ○
Supports Partnerships	● ○ ○
Creates Revenue Potential	● ○ ○

Operations Support Facility (cont'd)

ANTICIPATED SPACE USE

- Ground floor: 3 truck bays and 3 offices
- 2nd floor: private offices, open workspace, and meeting space on 2nd floor
- Shop space and associated storage

ASSOCIATED SITE AND UTILITY WORK

- Access road to the East Gate
- Landscape restoration and potential for constructed wetlands

SEQUENCING CONSIDERATIONS

The operations support facility provides maintenance and equipment repair capacity needed to realize the master plan. This project creates the workplace and workshop space for facilities staff to support remaining projects of the plan and empties work stations in the Coach Barn and Farm Barn to enable those renovations. If this project is undertaken later in the plan's implementation, temporary spaces will likely be required across campus, and new systems may not have optimal operations and repair support from the time of initiation installation.

Estimated Construction Cost (2026)

Total Floor Area: 11,000 sf

Added Floor Area: 11,000 sf

Approximate Project Duration: 22-28 months

Estimated Upfront Carbon: 332,000 kgCO₂e

PRIMARY SUSTAINABILITY OPPORTUNITIES

The operations support facility is one of the few proposed substantial new structures on campus. Additionally, the building will be primarily occupied by staff, leading to a high-level of occupant knowledge and control.

PRIORITY SUSTAINABILITY STRATEGIES

Human Well-Being

- Maximize passive thermal comfort and ventilation strategies for occupant well-being. Demonstrate improvements of environmental quality associated with electric vehicles/equipment

Decarbonization and Energy Use

- Ultra-low energy use, net-zero emissions on-site through high-performance, electric HVAC systems and end-user equipment
- Demonstrate low embodied carbon structure and envelope systems through incorporation of salvaged materials from campus and/or bio-based new materials (e.g., timber, stone, minimize concrete)

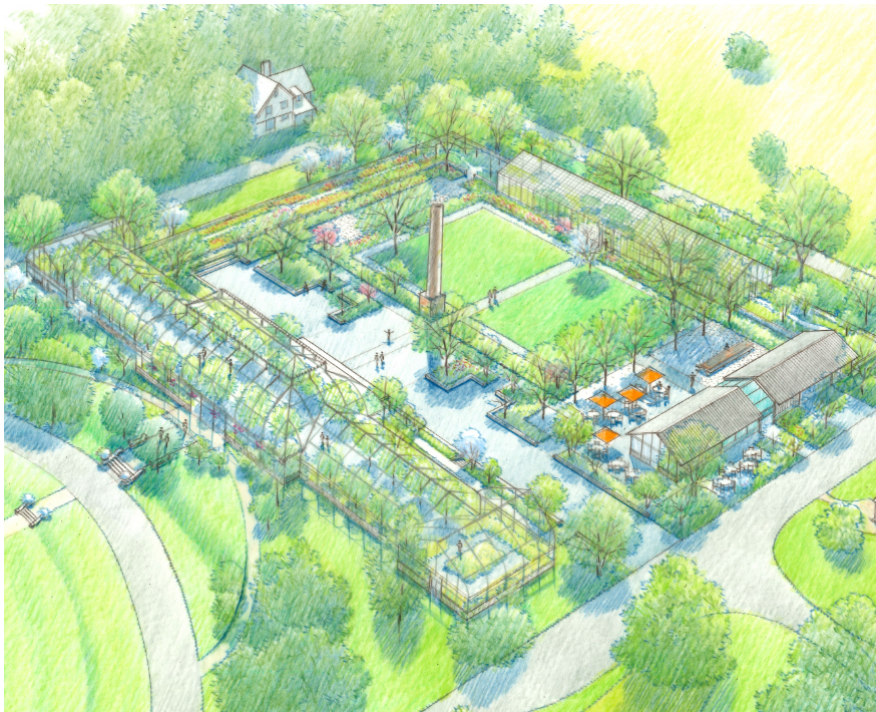
Responsible Water Use

- Integrate constructed wetland or similar landscape project with water recycling at the building level to demonstrate net positive water

Building 26

Transformation of the Trumbauer greenhouse complex, including stabilization and partial restoration of primary structures, removal of secondary structures, and new landscape design to create outdoor convening and contemplation space.

Management Unit: Core Campus



PROGRAM ENABLED

- Unique indoor/outdoor space accessible to small overnight and daytime retreats
- Outdoor venue for public events

PROJECT SCOPE

- Structural stabilization and partial restoration of historic glasshouse
- Restoration to create indoor flexible meeting space
- Partial deconstruction and site repair
- New design landscape with performance space

MASTER PLAN GOALS ALIGNMENT

Fosters Thriving Centers	● ● ○
Promotes Sustainable Stewardship	● ● ●
Enables Demonstration	● ● ○
Enhances Public Engagement	● ● ●
Addresses Maintenance Needs	● ● ●
Advances Net-Zero Operations	● ○ ○
Supports Partnerships	● ● ○
Creates Revenue Potential	● ● ○

Building 26, Cont'd.

ANTICIPATED SPACE USE

- New plaza performance area with stage and seat walls, paved plaza, and landscape
- Indoor flexible meeting space for 40 people, fit out for potential toilet rooms and food lay-down space

ASSOCIATED SITE AND UTILITY WORK:

- Landscape restoration
- Relocate below-grade electrical equipment
- Stormwater management system

SEQUENCING CONSIDERATIONS

Completing Building 26 unlocks an elevated convening complex encompassing Building 23 and the cottages with unique programmable outdoor space. The existing conditions create an aesthetic and spatial limitation to fully activating this area of the core campus for public events, and construction at this site will impact ongoing engagement activities.

Estimated Construction Cost (2026): X

Total Floor Area: Unknown

Added Floor Area: Unknown

Approximate Construction Duration: 24-30 months

Estimated Upfront Carbon: Unknown

PRIMARY SUSTAINABILITY OPPORTUNITIES

Building 26 involves stabilization, deconstruction, and landscape work at the historic glasshouses, creating opportunities centered on material recovery, cultural documentation, and interpretive landscape.

PRIORITY SUSTAINABILITY STRATEGIES

Ecological Well-Being

- Create an interactive sustainable landscape that reinterprets the original purpose of the glasshouses while demonstrating ecologically regenerative land stewardship

Community Well-Being | Learning & Sharing

- Build cultural and environmental resilience through digital documentation and sharing of the historic greenhouse exhibits

Responsible Use of Materials & Resources

- Leverage the "kit of parts" typology for deconstruction workforce training, donating materials to partner organizations, and/or reuse on-site

Building 23

Comprehensive renovation of existing timber structure with new addition to provide additional fully-supported conference and classroom facilities for ~30 people on the core campus.

Management Unit: Core Campus



PROGRAM ENABLED

- Supported venue for small retreats and programs up to 30 participants

PROJECT SCOPE

- Demolition of existing trailers
- Comprehensive renovation of interiors and new MEP systems
- ~1200 sf addition

MASTER PLAN GOALS ALIGNMENT

Fosters Thriving Centers	● ● ●
Promotes Sustainable Stewardship	● ● ●
Enables Demonstration	● ● ●
Enhances Public Engagement	● ● ●
Addresses Maintenance Needs	● ● ○
Advances Net-Zero Operations	● ● ●
Supports Partnerships	● ● ●
Creates Revenue Potential	● ● ●

Building 23, Cont'd.

ANTICIPATED SPACE USE

- New 600-1000 sf conference and classroom spaces for ~30 people
- Renovation of existing classroom into lounge or breakout spaces
- New support spaces, including 400 sf toilet facilities and warming/laydown catering spaces

ASSOCIATED SITE AND UTILITY WORK:

- New well take-off and tie-in to city water lines
- Upgraded electrical service to building.

SEQUENCING CONSIDERATIONS

Full 30-person day program capacity is not currently matched by on-site overnight accommodations capacity until completion of cottage renovations. The Building 26 project will create a complementary indoor/outdoor event space to expand full convening capacity in this area of the Core Campus.

Estimated Construction Cost (2026): X

Total Floor Area: 4,120 sf

Added Floor Area: ~1,200 sf

Approximate Construction Duration: 20-26 months

Estimated Upfront Carbon: 89,000 kgCO₂e

PRIMARY SUSTAINABILITY OPPORTUNITIES

Building 23 is a major renovation and addition experienced by a large number of visitors, with limited landscape scope. This makes visible, interpretive sustainability a central opportunity.

PRIORITY SUSTAINABILITY STRATEGIES

Human Well-being

- Explore new approaches to biophilia on campus by creating program space that connects indoor experience to unique ecological setting of campus

Decarbonization and Energy Use

- Demonstrate a zero whole-life-carbon renovation that stores more carbon than it emits

Learning and Sharing

- Make sustainability approaches visible to engage visitors in building performance

Coach Barn

Comprehensive renovation and addition to update staff workspaces, conserve historic murals and interior finishes, improve accessibility (including vertical circulation), and add supported elevated event space.

Management Unit: Core Campus



PROGRAM ENABLED

- New supported events/exhibition space
- Modernized, flexible staff workspace

PROJECT SCOPE

- Renovation of existing office and conversion of hay loft and former chauffeur's apartment to new office use
- New MEP systems with high-performance, all-electric
- Mural conservation
- 2 story addition (~1500 sf)
- New elevator (3-stop)/accessible fire stair

MASTER PLAN GOALS ALIGNMENT

Fosters Thriving Centers	
Promotes Sustainable Stewardship	
Enables Demonstration	
Enhances Public Engagement	
Addresses Maintenance Needs	
Advances Net-Zero Operations	
Supports Partnerships	
Creates Revenue Potential	

Coach Barn, Cont'd.

ANTICIPATED SPACE USE

- Work space to accommodate 40 staff members
- New event & exhibition space, with 3 conference rooms
- Toilets on the 2nd floor serving staff office space
- ~500-800sf warming/laydown kitchen
- Toilets on the ground floor for special events

ASSOCIATED SITE AND UTILITY WORK:

- Upgrade electrical service
- Sitework as required for addition and accessibility
- Remove/relocate adjacent garages and replace with additional parking

SEQUENCING CONSIDERATIONS

Staff must be moved from the Coach Barn to complete this project. The new operations support facility and Building 74 create the necessary office space for this relocation. If the Coach Barn project occurs prior to those projects, additional office swing space will be required. Similarly, the Coach Barn project creates office space required for the Farm Barn renovation.

Estimated Construction Cost (2026): X

Total Floor Area: 23,500 sf

Added Floor Area: 1,500 sf

Approximate Construction Duration: 24-30 months

Estimated Upfront Carbon: 272,000 kgCO₂e

PRIMARY SUSTAINABILITY OPPORTUNITIES

The Coach Barn renovation is a major renovation and addition with new MEP systems and envelope interventions to a significant legacy building, with a blend of public and staff occupancy.

PRIORITY SUSTAINABILITY STRATEGIES

Community Well-Being

- Illustrate the integration of historic and high performance building space, stewarding the building's cultural heritage

Decarbonization and Energy Use

- Demonstrate a zero whole-life-carbon renovation that stores more carbon than it emits within 5 years
- Explore advanced passive strategies in public spaces that integrate old and new technology (e.g. leverage original upper windows to promote stack effect ventilation/cooling, highlight thermal mass of historic stone walls with mass walls in the new addition)

Responsible Use of Materials & Resources

- Construct the addition from primarily salvaged materials

Learning and Sharing

- Make sustainability approaches visible to engage visitors in building performance

Building 32 | Orchid Range

Strategic architectural reconfiguration of the Kendall Taylor & Stevens greenhouse to enable intimate, elevated events, in parallel with an upgrade of heating and cooling to all-electric systems to support zero-emissions operations.

Management Unit: Core Campus



PROGRAM ENABLED

- Elevated event venue
- Conservation science research opportunities
- Elimination of large fossil fuel consumption source

PROJECT SCOPE

- Weatherization upgrades
- Retirement of deferred maintenance on building enclosure
- Support structure to house new equipment

MASTER PLAN GOALS ALIGNMENT

Fosters Thriving Centers	● ● ○
Promotes Sustainable Stewardship	● ● ●
Enables Demonstration	● ● ○
Enhances Public Engagement	● ● ●
Addresses Maintenance Needs	● ● ●
Advances Net-Zero Operations	● ● ●
Supports Partnerships	● ○ ○
Creates Revenue Potential	● ● ○

Orchid Range, Cont'd.

ANTICIPATED SPACE USE

- New indoor/outdoor space for small events
- ~150sf support structure to house new HVAC equipment

ASSOCIATED SITE AND UTILITY WORK:

- Upgrades to core electric circuit

SEQUENCING CONSIDERATIONS

The Orchid Range upgrades create small event space that is largely independent from other programs and operations. While critical to achieving carbon reduction targets, upgrades to the core electric circuit must be completed prior to this project to accommodate the substantial additional loads from electrification.

Estimated Construction Cost (2026): X

Total Floor Area: 19,163 sf

Added Floor Area: ~150 sf

Approximate Construction Duration: Undetermined

Estimated Upfront Carbon: Undetermined

PRIMARY SUSTAINABILITY OPPORTUNITIES

The Orchid Range demonstrated sustainable stewardship of one the campus' most significant legacy structures with the 2012 LEED Platinum renovation. Opportunities now are to take the final steps in decarbonizing operations through energy efficiency and electrification and to implement lessons learned from the previous renovation about long-term maintenance.

PRIORITY SUSTAINABILITY STRATEGIES

Decarbonization and Energy Use

- Demonstrate zero on-site emissions greenhouse operations and substantially reduce the campus emissions footprint through electrification of HVAC systems

Responsible Investment

- Implement lessons learned from LEED Platinum renovation to balance near-term cost and environmental impacts with long-term maintainability, durability, and performance

Learning and Sharing

- Educate visitors and peer institutions about sustainable stewardship of a challenging building typology

Farm Barn

Develop a world class conference facility by capturing half of the second floor to extend event space and consolidating employee workspaces, and support expanded high-end events across campus through a centralized kitchen with increased food service capacity.

Management Unit: Farm Barn Campus



PROGRAM ENABLED

- Convenings for up to 120 people with breakout space
- Increased catering capacity for farm-wide events
- Increased staff flexibility for work across the campus

PROJECT SCOPE

- Expansion and electrification of food preparation area
- Interior reconfiguration to expand event functions
- Upgrades to AV, HVAC and controls
- Exterior hardscape event space

MASTER PLAN GOALS ALIGNMENT

Fosters Thriving Centers	● ● ●
Promotes Sustainable Stewardship	● ● ○
Enables Demonstration	● ● ●
Enhances Public Engagement	● ● ●
Addresses Maintenance Needs	● ○ ○
Advances Net-Zero Operations	● ○ ○
Supports Partnerships	● ● ●
Creates Revenue Potential	● ● ●

Farm Barn, Cont'd.

ANTICIPATED SPACE USE

- Reconfiguration of second floor to create 6 to 8 event breakout spaces in place of half of current offices
- Workspace for ~20 staff members
- New coat check, visitor storage area
- Exterior event space

ASSOCIATED SITE AND UTILITY WORK:

- New landscape associated with outdoor events

SEQUENCING CONSIDERATIONS

The Farm Barn reconfiguration is an essential enabling project for the expansion of engagement on campus. The expansion of the kitchen will support catering at new event spaces across Duke Farms, while the increased convening capacity at the Farm Barn will increase the size of events hosted on site. New office and workspace for staff will need to be developed at the Facilities Operation Building, Building 74, and the Coach Barn in order to free up space for event breakouts.

Estimated Construction Cost (2026): X

Total Floor Area: 27,451 sf

Added Floor Area: 0

Approximate Construction Duration: 18-24 months

Estimated Upfront Carbon: 118,000 kgCO₂e

PRIMARY SUSTAINABILITY OPPORTUNITIES

The Farm Barn renovation is a primarily interior reconfiguration, offering targeted opportunities to model electrification, systems retro-commissioning and controls updates, and interior materials circularity.

PRIORITY SUSTAINABILITY STRATEGIES

Human Well-Being

- Use new outdoor event space to explore Duke Farms approach to biophilia, bridging indoor experience with connection the wetlands and broader farm

Decarbonization and Energy Use

- Demonstrate all-electric cooking at a commercial scale
- Create a community resilience hub by maintaining operational capacity through loss of power

Responsible Use of Materials Resources

- Demonstrate circularity through the reuse of interior components in convening breakout space

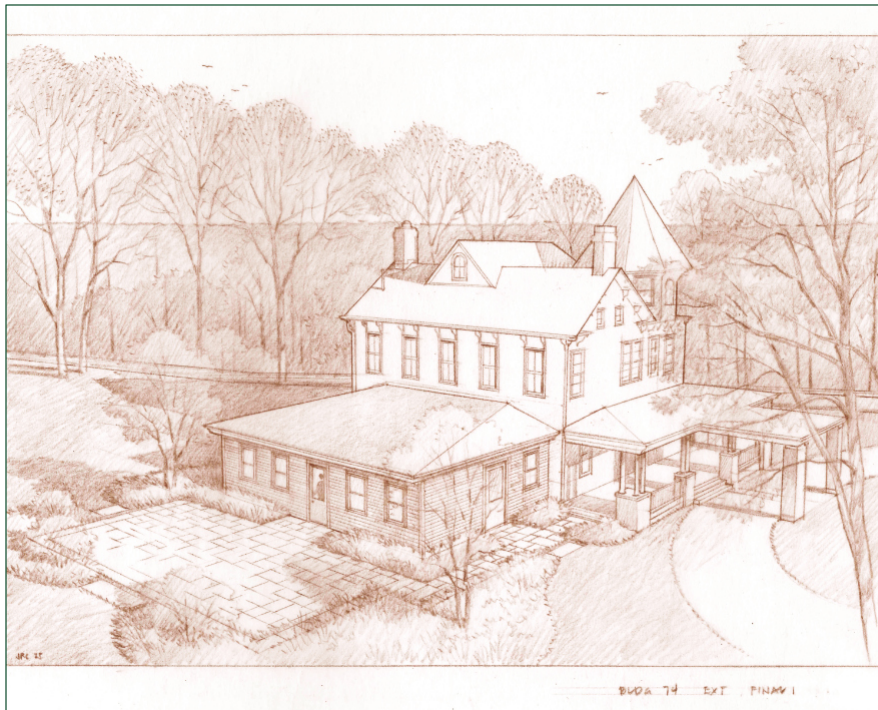
Learning and Sharing

- Model open source building management system to optimize energy performance and democratize building management data

Building 74

Comprehensive renovation and addition to provide residential accommodations, workspace, and wet lab facilities for visiting conservation science researchers, as well as a classroom and demonstration space for visitors.

Management Unit: Western Farms



PROGRAM ENABLED

- Creates comprehensive facilities for robust conservation science fellowships, collaborations, and on-site research

PROJECT SCOPE

- Complete renovation of existing structure, including new roof, envelope upgrades, and electric MEP systems
- Accessible vertical circulation
- ~3,000 sf of new construction, including classroom, lab and toilet rooms

MASTER PLAN GOALS ALIGNMENT

Fosters Thriving Centers	● ● ●
Promotes Sustainable Stewardship	● ● ●
Enables Demonstration	● ● ●
Enhances Public Engagement	● ● ●
Addresses Maintenance Needs	● ● ○
Advances Net-Zero Operations	● ● ●
Supports Partnerships	● ● ●
Creates Revenue Potential	● ● ●

Building 74, Cont'd.

ANTICIPATED SPACE USE

- ~2,000 sf of education and engagement space, including classroom, wet lab and toilet rooms
- Living space for 5 students, including bedrooms and shared kitchen and common space

ASSOCIATED SITE AND UTILITY WORK:

- New electrical and sewer/stormwater infrastructure
- Modernization of existing wells

SEQUENCING CONSIDERATIONS

Building 74 is on independent infrastructure and physically separate from other major projects of the master plan. However, this project creates new staff workspace, and enabling the relocation of staff necessary to complete the Coach Barn renovation. Programmatically, this project is essential to the scale-up of conservation science activities on campus and the development of research partnerships.

Estimated Construction Cost (2026): X

Total Floor Area: 4,500 sf

Added Floor Area: 3,000 sf

Approximate Project Duration: 22-28 months

Estimated Upfront Carbon: 142,000 kgCO₂e

PRIMARY SUSTAINABILITY OPPORTUNITIES

Building 74 is a major renovation and addition with new MEP systems and envelope interventions. Tied closely to the campus research mission, it can serve as a testbed for building-science investigation while demonstrating deep-carbon renovation.

PRIORITY SUSTAINABILITY STRATEGIES

Decarbonization and Energy Use

- Demonstrate a zero whole-life-carbon renovation that stores more carbon than it emits
- Achieve ultra-low energy use and net-zero emissions on-site for new construction

Ecological Well-Being

- Demonstrate ecological integration of building and landscape as core to the research mission

Learning and Sharing

- Create a building-science living lab opportunity (e.g., advanced sensing, test panels of façade)

Responsible Water Use

- Integrate constructed wetland or similar landscape project with water recycling to demonstrate water management at the Western Farms

Pole Barn

Develop a new pole barn with storage and maintenance to support conservation science and agricultural programs.

Management Unit: Western Farms



PROGRAM ENABLED

- Storage and equipment repair for Western Farms

PROJECT SCOPE

- Deconstruction and materials salvage from existing structures on site
- New barn construction

MASTER PLAN GOALS ALIGNMENT

Fosters Thriving Centers	● ● ○
Promotes Sustainable Stewardship	● ○ ○
Enables Demonstration	○ ○ ○
Enhances Public Engagement	○ ○ ○
Addresses Maintenance Needs	● ● ○
Advances Net-Zero Operations	● ○ ○
Supports Partnerships	● ● ○
Creates Revenue Potential	● ○ ○

Pole Barn, Cont'd.

ANTICIPATED SPACE USE

- xx sf storage
- xx sf equipment repair

ASSOCIATED SITE AND UTILITY WORK:

- New electrical and sewer/stormwater infrastructures

SEQUENCING CONSIDERATIONS

The pole barn enables the full program of conservation science research and agricultural activities on the Western Farms, in conjunction with Building 74. This project will rely on new utility infrastructure in order to be functional.

Estimated Construction Cost (2026): Undetermined

Total Floor Area: Undetermined

Added Floor Area: Undetermined

Approximate Construction Duration: Undetermined

Estimated Upfront Carbon: Undetermined

PRIMARY SUSTAINABILITY OPPORTUNITIES

The pole barn is a minor structure, primarily used by staff. Opportunities lie more in reducing environmental impacts than in demonstration.

PRIORITY SUSTAINABILITY STRATEGIES

Responsible Use of Materials & Resources

- Maximize the use of salvaged materials, either timber from structures to be removed from this site, and/or elements from the B26 complex

Decarbonization and Responsible Use of Energy

- Support electrification of agriculture and conservation science equipment

Residential Cottage Upgrades

Residential cottage upgrades will provide an increased level of hospitality for overnight event accommodations or visiting scholar housing across Duke Farms while improving operational sustainability and resilience. Includes Buildings 13, 21, 24, 27, 29, 30, 35, 37, 43, and 47.

Management Unit: Core Campus



PROGRAM ENABLED

- Premium accommodations to for all overnight convening participants
- Additional visiting scholar housing to complement new residences at Building 74

PROJECT SCOPE

- Electrification and MEP upgrade
- Reconfiguration for en suite bathrooms

MASTER PLAN GOALS ALIGNMENT

Fosters Thriving Centers	● ● ●
Promotes Sustainable Stewardship	● ● ○
Enables Demonstration	● ● ○
Enhances Public Engagement	● ○ ○
Addresses Maintenance Needs	● ● ○
Advances Net-Zero Operations	● ● ○
Supports Partnerships	● ● ○
Creates Revenue Potential	● ● ●

Residential Cottage Upgrades, Cont'd.

ANTICIPATED SPACE USE

- All houses will be renovated to accommodate en-suite accommodations for retreat participants, overnight guests, and visiting scholars

ASSOCIATED SITE AND UTILITY WORK

- Miscellaneous site and civil work as required for MEP upgrades

SEQUENCING CONSIDERATIONS

The renovation of the cottages is a prerequisite for both decarbonizing campus operations and fully activating convening capacity of the Core Campus. Residential upgrades can occur at any time and create an elevated overnight experience for guests of current convenings and engagements. However, the increased retreat opportunities created by Buildings 23 and 26 cannot be fully matched with on-site accommodations until the cottage upgrades are completed.

Estimated Construction Cost (2026): X

Total Floor Area: Undetermined

Added Floor Area: Undetermined

Approximate Construction Duration: Undetermined

Estimated Upfront Carbon: Undetermined

PRIMARY SUSTAINABILITY OPPORTUNITIES

The residential cottage upgrades will improve the sustainability features of each property, and enable demonstration opportunities for net-zero solutions for single family residences.

PRIORITY SUSTAINABILITY STRATEGIES

Community Well-Being

- Leverage the retrofits for energy-retrofit workforce training

Decarbonization and Energy Use

- Demonstrate replicable best practices in energy conservation that engage occupants, including envelope upgrades and high-performance systems

Responsible Water Use

- Demonstrate replicable water conservation practices, using occupant cues to track and reduce usage

Learning and Sharing

- Establish a living lab to compare alternative envelope-upgrade approaches, incorporate sensors and occupant comfort evaluations, and track the impact of resource-conservation cues

Farmstead Resilience Upgrades

Farmstead resilience upgrades at Ohgart, Kaufmann, Dutchess, and Davis Farms will modernize these working agricultural sites so they can continue supporting Duke Farms’ land stewardship, conservation, and farm operations while advancing campus-wide decarbonization and resilience goals.

Management Unit: Western Farms



PROGRAM ENABLED

- Demonstration of resilient and decarbonized farm operations
- Additional visiting scholar or intern housing to complement new residences at Building 74

PROJECT SCOPE

- Electrification and MEP upgrades
- Site utility and resilience upgrades

MASTER PLAN GOALS ALIGNMENT

Fosters Thriving Centers	●	●	●
Promotes Sustainable Stewardship	●	●	○
Enables Demonstration	●	●	○
Enhances Public Engagement	●	○	○
Addresses Maintenance Needs	●	●	●
Advances Net-Zero Operations	●	●	●
Supports Partnerships	●	○	○
Creates Revenue Potential	●	○	○

Farmstead Resilience Upgrades, Cont'd.

ANTICIPATED SPACE USE

- These farms will continue to support agricultural operations, land stewardship, conservation science fieldwork, equipment storage, staff support, and farm-related residential or operational uses

ASSOCIATED SITE AND UTILITY WORK

- Electrification of HVAC, controls, and farm-support equipment.
- Electrical service upgrades to support renewable energy generation, storage, charging, and future grid integration
- Weatherization, envelope repairs, and controls upgrades to reduce energy demand and improve passive survivability
- Well, water, wastewater, drainage, and stormwater improvements to support resilient farmstead operations

SEQUENCING CONSIDERATIONS

Upgrades should be phased based on existing system condition, operational need, electrical capacity, agricultural program priorities, and opportunities to coordinate with broader campus clean-energy infrastructure.

Estimated Construction Cost (2026): Undetermined

Total Floor Area: Undetermined

Added Floor Area: N/A

Approximate Construction Duration: Undetermined

Estimated Upfront Carbon: Undetermined

PRIMARY SUSTAINABILITY OPPORTUNITIES

The farmstead upgrades provide an opportunity to demonstrate how working agricultural sites can be modernized without losing their functional character. By pairing electrification, onsite renewable energy, energy storage, weatherization, and water/wastewater improvements, the Western Farms can become resilient operational nodes that support land stewardship, reduce fossil fuel dependence, and maintain critical farm functions during grid disruptions and severe weather.

PRIORITY SUSTAINABILITY STRATEGIES

Decarbonization and Energy Use

- Electrify farmstead buildings with grid-interoperability and offset use with added onsite renewable energy generation where feasible, paired with battery energy storage to support critical load
- Demonstrate electrification of farm equipment

Responsible Water Use

- Modernize wells, water distribution, wastewater, drainage, and stormwater systems to support reliable operations.
- Evaluate landscape-based water management

Responsible Investment

- Demonstrate a range of long-term adaptation approaches from flood-proofing to deconstruction that respond to space needs, degree of flood risk, and long-term

Cottage Resilience Upgrades

In addition to upgrades for overnight event accommodations or visiting scholar housing, Houses 7, 8, 9, 10, and 49 also require flood adaptation measures to maintain long-term integrity and use.

Management Unit: Core Campus



PROGRAM ENABLED

- Premium accommodations to for all overnight convening participants
- Additional visiting scholar housing to complement new residences at Building 74

PROJECT SCOPE

- 7, 8, 9: Long-term flood adaptation
- 10: Electrification and flood adaptation
- 49: Relocation or reconstruction to address address flood resilience

MASTER PLAN GOALS ALIGNMENT

Fosters Thriving Centers	● ○ ○
Promotes Sustainable Stewardship	● ● ○
Enables Demonstration	● ● ○
Enhances Public Engagement	● ○ ○
Addresses Maintenance Needs	● ● ●
Advances Net-Zero Operations	● ● ○
Supports Partnerships	● ● ○
Creates Revenue Potential	● ● ○

Cottage Resilience Upgrades, Cont'd.

ANTICIPATED SPACE USE

- Houses may accommodate overnight guests visiting researchers, and/or permanent Duke Farms staff

DETAILED SCOPE

Houses 7, 8, and 9 have undergone electrification and elevation of systems for near-term resilience; however, for long-term resilience, they either need to be flood-proofed or relocated. Relocation could provide additional accommodations adjacent to Core Campus retreat complex and/or at Western Farms conservation science hub.

House 49 requires intervention for continued use. Depending on the opportunities and space needs, there are three options:

- Relocate or elevate house above floodplain. Repair and thermally upgrade exterior envelope; replace MEP systems with new electric systems and smart controls, comprehensive interior renovation
- Deconstruct and reconstruct on another site with all new interiors and building systems
- Deconstruct and salvage materials for use in other structures

Estimated Construction Cost (2026): X

Total Floor Area: X

Added Floor Area: Unknown

Approximate Construction Duration: Unknown

Estimated Upfront Carbon: Unknown

PRIMARY SUSTAINABILITY OPPORTUNITIES

These houses collectively offer an opportunity to demonstrate a proactive approach to climate change adaptation through diverse strategies.

PRIORITY SUSTAINABILITY STRATEGIES

Decarbonization and Energy Use

- Demonstrate replicable best practices in energy conservation that engage occupants, including envelope upgrades, electrification, and high-performance systems

Responsible Use of Materials & Resources

- Where flood-proofing is not viable or space is not needed, demonstrate circular materials flow on campus through deconstruction and materials reuse

Responsible Investment

- Demonstrate a range of long-term adaptation approaches that respond to space needs, degree of flood risk, and long-term stewardship of the site in a changing climate

Campus Civil and Utility Infrastructure Upgrades

Upgrades to the electrical, sewer, and stormwater infrastructure of Duke Farms are required to achieve the vision for programmatic use of campus facilities and demonstrate innovation in sustainable campus management.



CORE ELECTRIC CIRCUIT

Upgrade central power supply and lines and install islanding switch to enable microgrid. Increase on-site renewable generation capacity

CAMPUS WASTEWATER

Upgrade primary connection to city systems, create improved septic systems, and/or expand constructed wetlands.

WESTERN FARM INFRASTRUCTURE

New microgrid/ renewables; new paired renewable energy and storage systems calibrated to each farm; stormwater and septic to serve management unit.

MASTER PLAN GOALS ALIGNMENT

Fosters Thriving Centers	● ● ○
Promotes Sustainable Stewardship	● ● ●
Enables Demonstration	● ● ○
Enhances Public Engagement	● ○ ○
Addresses Maintenance Needs	● ● ●
Advances Net-Zero Operations	● ● ●
Supports Partnerships	● ● ○
Creates Revenue Potential	● ● ○

Additional Resilience Projects

These buildings do not have an immediate use identified in the master plan; however, they are vulnerable to current and projected future flooding and hold value for potential future use through the implementation of the Master Plan.

BUILDING 3 | BOATHOUSE

- Wet flood-proof to maintain relationship to Raritan and architectural character

BUILDING 4 | FILTER HOUSE

- Exterior maintenance/restoration. Study future community use aligned with wet flood-proof approach

BUILDING 5 | PUMP HOUSE

- Electrical equipment is vulnerable to severe flood events and currently provides backfeed to core campus and farm barn campus; improved on-site grid may eliminate need for redundancy
- Consider balance of investment between capital projects vs improved infrastructural resilience.
- Building may offer future community uses aligned with flood-proofing approach

BUILDING 56 | GATEHOUSE

- Flood-proofing, elevation of primary building systems are required to adapt to flood vulnerability

MASTER PLAN GOALS ALIGNMENT

Fosters Thriving Centers	●	○	○
Promotes Sustainable Stewardship	●	●	●
Enables Demonstration	●	●	○
Enhances Public Engagement	●	○	○
Addresses Maintenance Needs	●	●	●
Advances Net-Zero Operations	●	○	○
Supports Partnerships	●	●	○
Creates Revenue Potential	●	●	○

6

Master Plan Implementation

Sequencing Implementation

While the implementation of the previous master plan was completed nearly in a single phase and with a minimally operating campus, this plan must be implemented over time within the context of the current Duke Farms operations, and in response to financial, partnership, and programmatic opportunities as they arise. To understand the impacts of various sequences of implementation, three approaches are presented here that explore prioritization of numerous drivers including existing conditions, sustainability goals, programmatic impact, partnership opportunities, efficiency of campus management and operations, and potential for revenue generation.

All at Once: mirrors the original transformation of the private estate to a public campus by implementing the majority of capital projects in one single mobilization.

Minimize Swing Space: optimizes the spatial efficiency of project phasing to accommodate the growing number and capacity of staff on campus.

Programmatic Focus: front loads capital projects that increase the programmatic capacity of Duke Farms.

Rather than recommend a single approach, these options support flexible implementation by illustrating the benefits and challenges that result from different sequences.

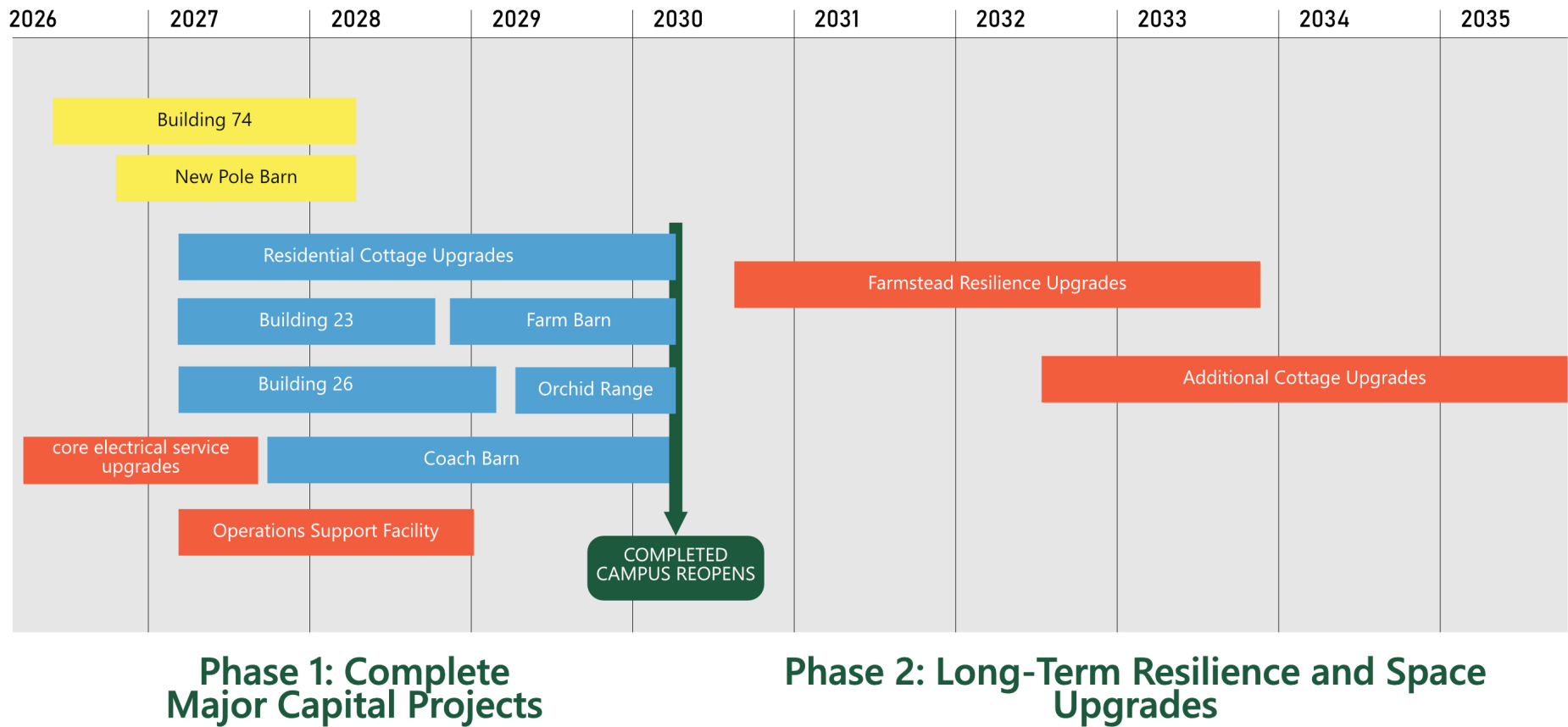


Weighing Implementation Approaches

	All at Once	Minimize Swing Space	Programmatic Focus
Description	Investigates how the majority of the master plan scope could be implemented in one mobilization, maintaining staff operations while limiting public access to the campus.	Prioritizes projects needed to support staff on site across operations, conservation science, and engagement.	Begins by establishing robust facilities for conservation science, and then expands engagement and convening capacity, concluding with the completion of staff and operations resources.
Pros	Minimizes mobilization costs, reduce risk of inflation, and realize full benefits of the plan as soon as possible.	Increases operational capacity, and minimizes operational disruption and added cost of staff moves and temporary space as the centers and operations grow.	Creates early capacity for the centers for conservation science and engagement to unlock impact, partnership, and revenue opportunities.
Cons	Requires large upfront investment and greatly reduces public access and programs for the duration of construction.	Delays higher levels of investment in programs and potentially revenue-generating facilities serving the centers.	Incurs higher costs of staff relocation and temporary workspace and limits operational capacity to meet increasing scale and complexity of programs.

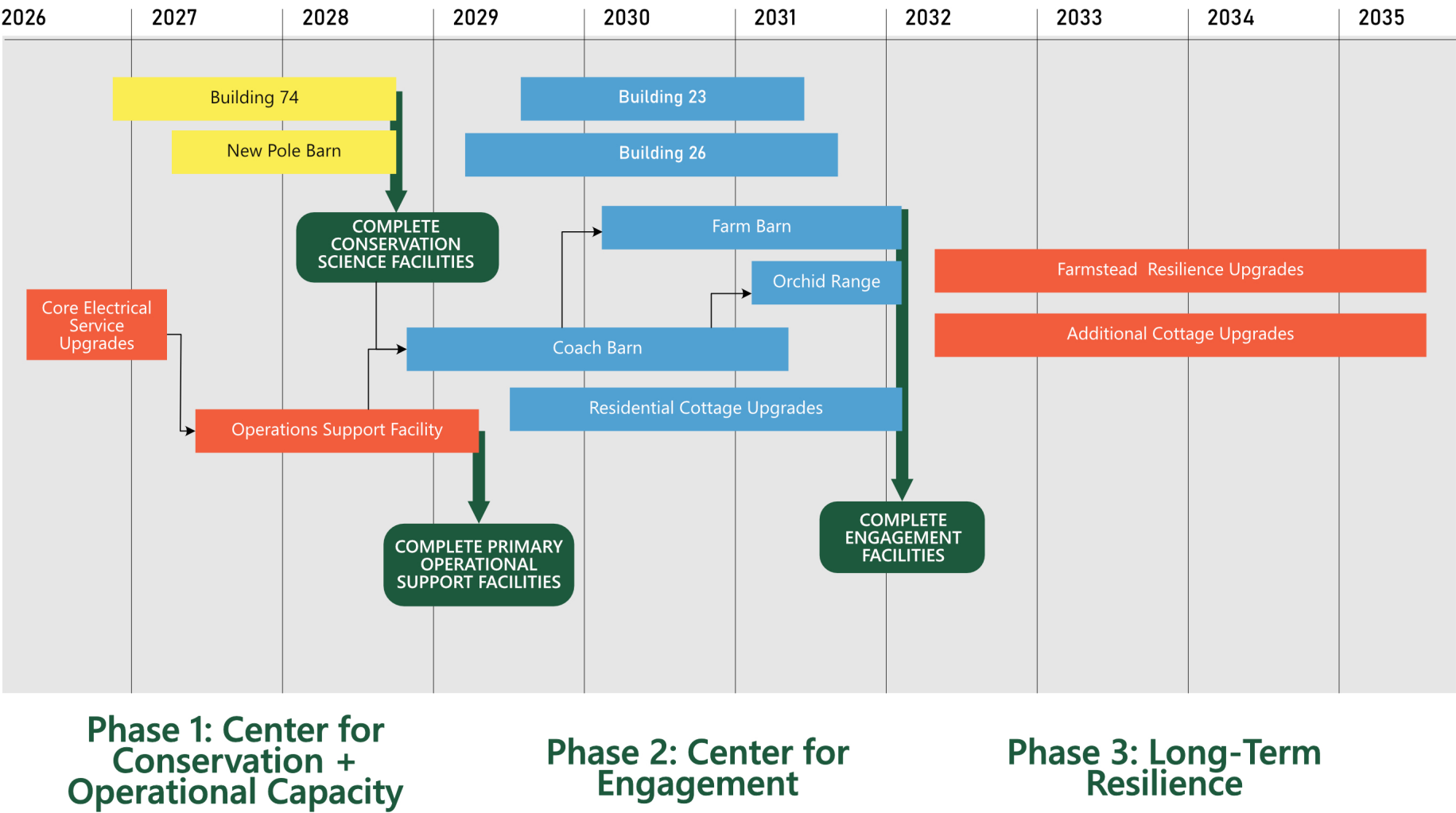
OPTION A: ALL AT ONCE

This option investigates how the majority of the master plan scope could be implemented in one mobilization, maintaining staff operations while limiting public access to the campus.



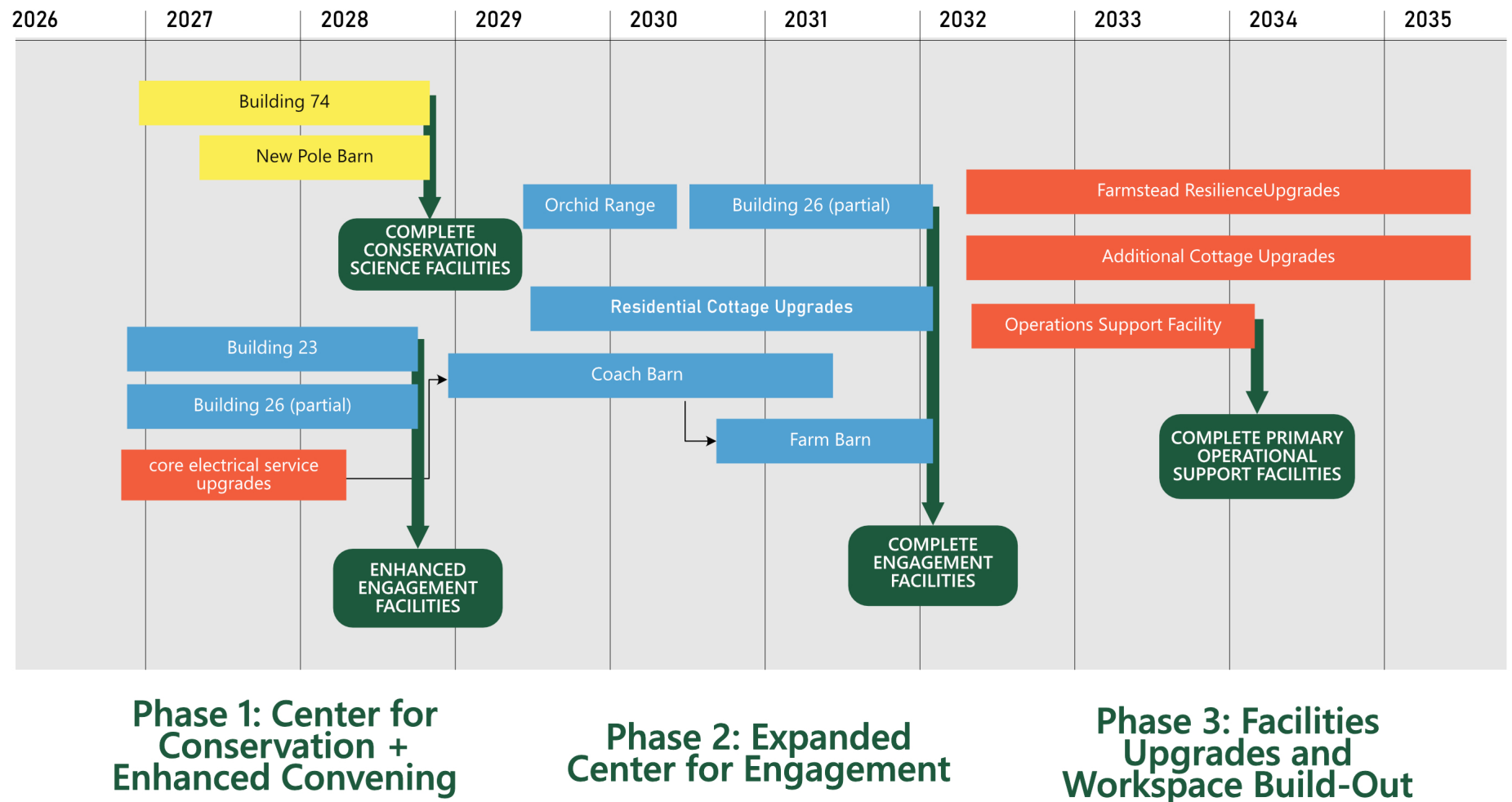
OPTION B: MINIMIZE SWING SPACE

This option follows a sequence of projects that are optimized to smoothly accommodate workspace needs for staff on site across operations, conservation science, and engagement.



OPTION C: PROGRAMMATIC FOCUS

This scenario begins by establishing robust facilities for conservation science, and then expands engagement and convening capacity, concluding with the completion of staff and operations resources.



Implementation Catalysts

There are several threshold issues that can either impede or unlock opportunities to implement the master plan.

Core Campus Electrical Infrastructure

The core campus is currently operating near the full capacity of the electrical infrastructure. Upgrading this infrastructure is not only essential for utility resilience and decarbonization, it is also a necessary enabling project for any programmatic enhancements on the Core Campus.

Staff Office and Workspace

To create more programmable space for engagement, additional staff workspace needs to be created to free up usable space in legacy buildings such as the Coach Barn and Farm Barn. Projects like the Operations Support Facility and Building 74 add workspace to the campus space inventory, allowing staff to decant from spaces needed for engagement and research programs.

Research Facilities

While the Farm Barn acts as a hub for engagement on campus, conservation science lacks a similar flagship building to attract partnerships and collaborators. Establishing Building 74 and the Western Farms as a hub for conservation science unlocks substantial programmatic and funding opportunities.

Regulatory Considerations

The implementation of the plan as a whole and building-by-building is subject to varying regulatory requirements. Each of these will impact the planning and permitting timeline and should be considered as part of the implementation strategy.

Wetlands Requirements

Duke Farms must adhere to wetlands and sewer limit regulatory requirements from the state of New Jersey. Wetland requirements could be addressed at the project-by-project scale with a build up to a campus-scale LOI (Letter of Interpretation). Sewer limits, however, must be established at the onset of the implementation of this plan, and this permitting process could take 12-18 months to complete. Reference Appendix C for additional detail.

Resilience Requirements

Duke Farms must adhere to stormwater and floodplain management regulatory requirements from the state of New Jersey. It should be noted that these requirements are currently under evaluation at the state, and new requirements are subject to launch in July 2027. It is recommended Duke Farms submit any permitting applications by April 2027 to fall within current regulatory requirements. Reference Appendix C for additional detail.

Easements

Certain parcels of the Duke Farms campus are protected by permanent conservation easements, which limits how these parcels can be managed in perpetuity. These parcels are protected for conservation and biodiversity protection, and these easements need to be considered for other regulatory requirements.

Regulatory Considerations, Cont'd

Local Zoning Requirements

Implementation of the plan will require ongoing coordination with local zoning and land use regulations administered by Hillsborough Township. While many projects may qualify as permitted uses or involve improvements to existing facilities, others may require site plan review, variances, or other municipal approvals depending on the scope and location of the work. Early coordination with Township staff is recommended to identify permitting requirements, align project schedules, and ensure proposed improvements are consistent with local planning objectives while support Duke Farms' long-term conservation, education, and operational mission.