

UCONN | UNIVERSITY OF CONNECTICUT

**Campus Master Plan** 

# C Appendix: Transportation, Circulation, and Parking Plan

SKIDMORE, OWINGS & MERRILL LLP MAY. 2015



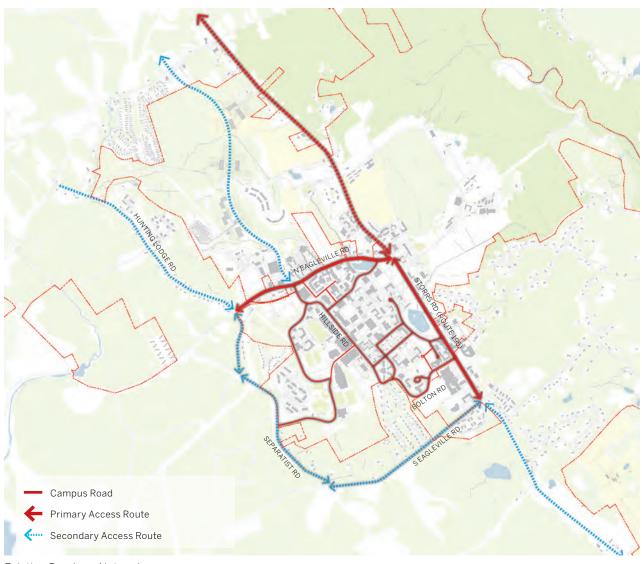


## Transportation, Circulation and Parking

## Analysis and Key Findings

## **Existing Roadway Network + Vehicle Congestion**

- The UConn Storrs Campus is linked to two primary arterials – US Route 44 and Route 195 – that provide the majority of access for students, faculty, staff, and visitors traveling to and from the campus, with most of the population arriving from the north and northwest.
- Route 195/Storrs Road serves as a "front door" to the University. From Route 195, Route 430/North Eagleville Road serves as the primary access roadway into the core campus. Numerous internal campus roadways and driveways intersect Route 430/North Eagleville Road along its length.
- Hillside Road serves as the campus' primary internal north/south spine and connects Route 430/North Eagleville Road to Bolton Road. In addition to accommodating heavy vehicle volumes through the campus core, Hillside Road also carries heavy pedestrian traffic on the sidewalks located on both sides of the road.
- Vehicular circulation in and around campus is typically free flowing during much of the day. However, vehicular volumes spike significantly during morning and evening peak hours, causing delays and queuing at intersections and roadways serving the campus.



**Existing Roadway Network** 

## Transportation, Circulation, and Parking

## Analysis and Key Findings

- One particularly acute chokepoint is the intersection of North Eagleville Road and Route 195, which suffers from congestion during the morning and evening peak hours. Queues extend along Route 195 southbound in the morning peak period and along North Eagleville Road eastbound during the evening peak period.
- North Eagleville Road at Hillside Road is another major pinch point where high vehicle volumes converge with high pedestrian activity, particularly during the morning and evening peak hours.
- Hillside Road accommodates the bulk of the University's internal campus vehicular traffic. Numerous mid-block crosswalks are located along this corridor with vehicular/pedestrian conflicts occurring at Hillside Road and Jim Calhoun Way (near the UConn Co-op) and along Hillside Road in front of the Student Union. The large number of pedestrians crossing at the numerous mid-block crosswalks along Hillside Road worsens vehicle delays and causes slowdowns in shuttle bus service.
- The combination of high pedestrian activity, motor vehicle activity at parking garages located within the campus core, and limited number of access routes tends to exacerbate peak hour congestion and contribute to pedestrian/vehicle conflicts at numerous points on and around the core campus.

## **Existing Parking Availability**

- Parking facilities are distributed throughout the campus with the largest parking lots located at the edges of the University. There are a total of 12,818 parking spaces throughout the campus. The University's two parking garages are located within the campus core and provide 2,527 of these spaces.
- Parking permits are sold to students and employees, with rates based on the location of the parking facility (facilities closer to the campus core are considered "premium"). Annual costs of permits range from \$60 to \$400 for students and faculty.
- Despite recent increases in permit pricing, charges for parking remain artificially low and demand for available parking at choice locations far exceeds supply.
- Approximately 85% of total on-campus parking spaces are utilized during peak periods. However, parking availability is not always provided in locations where demand is highest, and temporary surges in demand due to special events and shortages in supply due to snowfall create further stress on the University's ability to provide adequate parking capacity.
- Limited parking availability in the core campus at peak hours induces additional driving as motorists search for parking spaces, exacerbating the University's roadway congestion problem.



S-Lot, South Campus



North Parking Garage

## Transportation, Circulation, and Parking

## Analysis and Key Findings

## **Existing Regional + Campus Transit**

- Regional transit access to campus is limited. Longdistance bus service to and from New York City and Boston is provided by a private carrier, Peter Pan, which runs seven days a week to/from New York City and Boston and stops at the newly constructed Nash-Zimmer Transportation Center at Storrs Center.
- There is no regional rail service to Storrs. The closest Amtrak station is at Hartford's Union Station, which is a 30-minute drive from campus. On-demand shuttles cost \$60 for a one-way trip from Hartford; these shuttles also service Bradley International Airport and the New London ferry terminal at the same cost.
- The Storrs-Willimantic Bus, operated by the Windham Regional Transit District (WRTD), connects the Holiday Mall in Storrs to Gateway Commons in Willimantic via Route 195 and Main Street/Valley Street. Service is limited with approximately one-hour headways throughout the day between 6:00 AM and 7:00 PM, and no service is provided in the evening or overnight hours. Due to limited and undependable service, buses tend to be crowded, especially on days with inclement weather.
- The University operates an on-campus shuttle bus service consisting of 13 buses traveling along seven routes. The system is heavily used with ridership of 1.4 million passengers per year. Shuttle bus service plays a key role in connecting outlying university residences and parking lots with the campus core.

- During the academic year, shuttle buses generally run from 7:00 AM to 12:00 AM and Fridays until 10:00 PM. Late night service (until 2:00 AM) is provided on Fridays and Saturdays and until 12:00 AM on Sundays. Schedules and routes are routinely adjusted by the University based on need.
- Despite its importance within the University's transportation landscape, shuttle bus service suffers due to a fleet size that is too small for ideal operations. Long and circuitous routes and running times result in high average wait times with headways often over 15 minutes during the day and 30 minutes at night. Ridership may suffer as a result of these service issues.
- Like other vehicles entering the campus core, shuttle buses suffer due to roadway congestion and fall behind posted schedules as a result.



UConn Shuttle bus service



UConn Shuttle bus stop

## Transportation, Circulation, and Parking

## Analysis and Key Findings

## **Existing Pedestrian and Bicycle Environment**

- Pedestrian activity is clustered along roadways that also experience high vehicular activity, such as North Eagleville Road and Hillside Road. Many pedestrians walk between academic buildings and athletic facilities on the core campus and outlying residential complexes such as Husky Village and the Charter Oak Apartments.
- Pedestrian safety concerns exist along Hillside
  Road at Stadium Road and in front of the Student
  Union, as well as along North Eagleville Road, where
  thousands of pedestrians cross throughout the
  day. Route 195/Storrs Road is a major arterial with
  limited crossings that create dangerous conditions
  for pedestrian access between the core campus
  and points east such as Horsebarn Hill, Storrs
  Center, and other outlying residence halls.
- Although intersection and mid-block crosswalks are generally well defined, pedestrians often jaywalk to avoid unnecessary detours. Hillside Road, for example, has numerous mid-block crosswalks along its length that pedestrians often ignore.
   Pedestrians cross North Eagleville Road at very high rates using natural desire lines and contribute to further vehicle delays on this congested corridor at peak periods.
- Despite the issues with pedestrian access between the core and outlying areas, pedestrian facilities (such as sidewalks and pedestrian-only pathways) are robust within the campus core.
- Bicycle routes are extremely limited on campus, with only a handful of streets – Bolton Road, Stadium Road, and Alumni Drive – providing access through the use of "sharrows," or shared lane markings. Sharrows also exist on a handful of short internal pathways within the campus core.

- Recreational bike trails are located within close proximity to the campus along trails in the UConn Forest and the Fenton Tract, providing opportunities to connect to a regional bikeway network.
- A proposal for a campus bike network was prepared and approved by ConnDOT in 2011, but the bike plan has not yet been implemented. The proposal places bicycle routes along the majority of roadways in and around the campus, but does not classify routes by improvement type (for example, "sharrows" vs. bike lanes physically separated from vehicular traffic). As a result the 2011 plan suffers from a "quantity over quality" problem and does not ease implementation of a bicycle network.
- Factors that could prevent more bicycling on campus include a lack of safe bicycle lanes around and through campus, inclement weather that limits cycling to certain parts of the year, and inadequate distribution of bike racks and storage facilities around campus.
- A limited, free bike sharing program ("UConn Cycles") is available on campus for students, faculty, and staff. Twenty bikes are stationed on the west side of Homer Babbidge Library. However, bikes are only available when the library is open (7:30 AM on weekdays and 10:00 AM on weekends) and must be returned by 5:00 PM. A lack of any other docking stations beyond the library prevents one-way trips designed for transportation; as a result the program does not provide the benefits of short, efficient, 1-to-5 mile trips of a typical "bikeshare" scheme.



Bicyclists on campus



Pedestrian crossing on campus

## **Campus Transportation Framework**

There is already significant traffic congestion on the main access roads to the campus core, including Route 195/Storrs Road, Route 430/North Eagleville Road, and Hillside Road. Even today, certain intersections in the core are overburdened and lack the capacity to handle vehicle throughput at peak hours. As a result, recommendations for improvements to campus transportation and parking elements seek to limit and even reverse current congestion problems while encouraging alternate mode choices. Through various strategies, the University can simultaneously address the congestion issue and work towards its sustainability goals and a revitalized 21st century campus.

#### Such strategies include the following:

- Limit vehicular access on certain corridors, such as Hillside Road, to provide a more livable and humanscale campus
- Invest in congestion relief through targeted roadway investments, such as a Hillside Road extension and a new campus loop roadway
- Implement Transportation Demand Management (TDM) measures to suppress overall auto demand

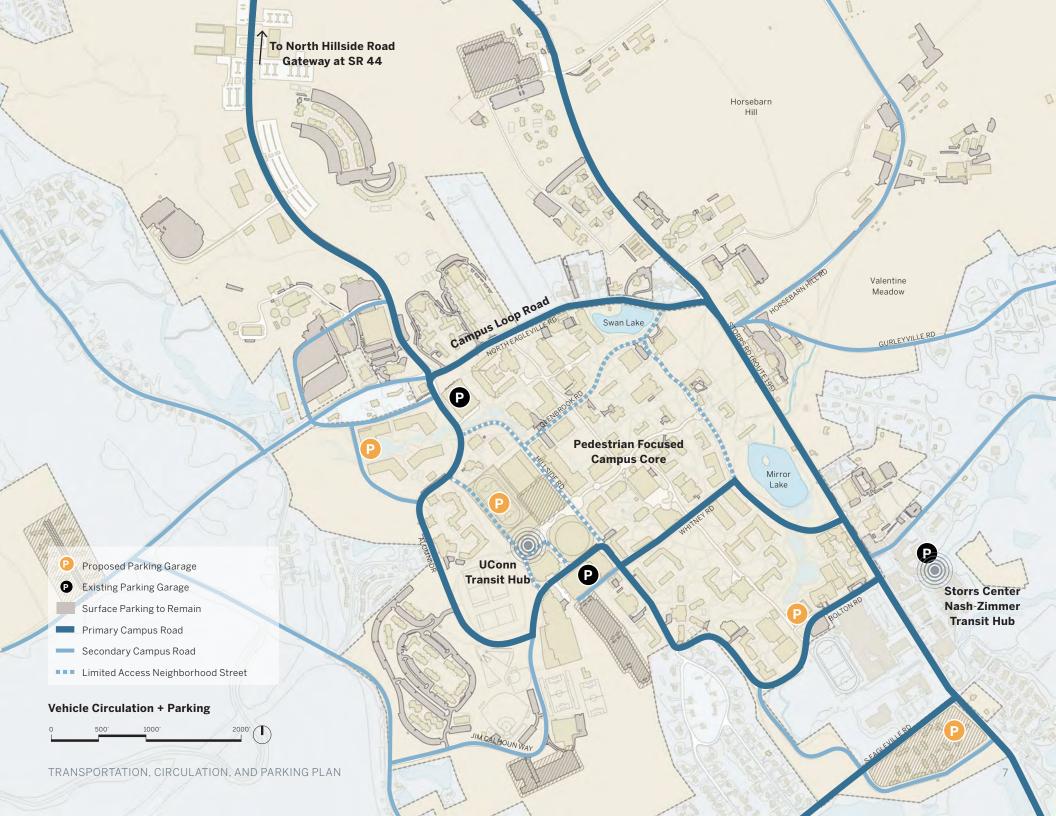
- Better define gateways, with redesigns at problem intersections
- Review signalization and timing to improve system efficiency
- Distribute parking facilities along the campus perimeter to reduce the number of vehicles entering the core
- Invest in a Smart Parking system to evaluate current parking utilization, reduce congestion and idling, and plan for future parking needs
- Improve campus transit shuttle bus service by simplifying routes, guaranteeing headways of less than 10 minutes, and enhancing bus stops with shelters and real-time bus tracking information
- Improve pedestrian network and facilities, including identification of pedestrian priority corridors, improved pedestrian trails to facilitate on-foot campus connections, and enhanced pedestrian crossings at major roads, such as Route 195 / Storrs Road and Route 430 / North Eagleville Road
- Improve bike network and facilities, including possible development of campus-wide bikeshare system



Hillside Road



UConn Shuttle bus service



## Roadway Network + Vehicular Circulation

## Roadway Network + Circulation Principles

Under the proposed development scenarios, demand for campus parking is expected to increase in the future. Similarly, new development will lead to additional congestion on the campus road network, all else equal. Thus, any development envisioned in the Master Plan must be accompanied by strategies to facilitate roadway circulation and provide sufficient parking without overwhelming the already strained road network.

The Master Plan seeks to limit vehicular access on certain corridors – such as Hillside Road – in order to provide a more livable and human-scale campus. At the same time, it projects an increase in the number of students by up to 5,000 in accordance with the goals of Next Generation Connecticut, subsequently accompanied by a significant amount of new square footage of buildings. As a result of these changes, without additional roadway capacity, it is certain that traffic congestion in the campus core will become more severe than today. Building additional roadway capacity could be a solution, but is at odds with the overarching sustainability and livability goals of the Master Plan. In addition, providing more parking in the core will work against this goal. Therefore, to minimize traffic congestion, improve vehicular and pedestrian circulation, and decrease pedestrian-vehicular conflicts, the Plan must consider TDM measures to suppress overall auto demand, as well as additional parking facilities along the campus perimeter to reduce the number of vehicles entering the core.

#### Hillside Road

One specific recommendation is to designate Hillside Road as a bus-only corridor during class times, with permitted access for emergency vehicles, campus maintenance vehicles, and deliveries, if necessary. In conjunction with investment in a new campus loop road – which will attract motorists and dissuade them from driving through the campus core – Hillside Road can serve as a new student hub, allowing for a more pedestrian and bicycle friendly experience within the core campus. Such changes are intended to make Hillside Road the spine of campus with high levels of pedestrian activity and a vibrant "Main Street" feel.

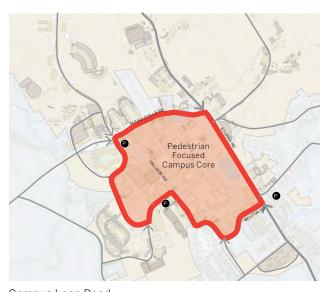
## **Congestion Relief**

One of the primary objectives of the Hillside Road Extension is congestion relief along Route 195/Storrs Road. The Hillside Extension EIS describes additional mitigation measures, including the addition of turn lanes to certain intersections on Route 195, signal timing adjustments, and others. It is uncertain how these proposed mitigation measures will be implemented as part of the construction of the Hillside Extension and how the timing of those improvements are related to future development of the North Campus. Congestion relief on Route 195 can also be achieved by reducing auto demand through improved transit, providing increased perimeter parking, and increasing the mode share of walk and bike trips. A robust review of signalization timing along the Route 195 corridor, and other major campus corridors, is also recommended in conjunction with implementation of the Master Plan.

#### **Campus Gateways**

The Master Plan envisions clarified gateways, such as a new primary visitor gateway in the southern section of campus and an enhanced north gateway along Route 195. These proposed rebranded entrances to campus could generate marginal impacts on how students and staff access certain areas of campus; it is likely, however, that general roadway congestion trends related to

new development will have a far larger impact on how motorists approach the campus core. An analysis of the origin ZIP codes of commuter students and staff does not provide significant information to determine the approaches most likely to be used; in fact, it appears that an almost equal number of commuter students/staff would approach campus from the south and the north. In conjunction with any new clarified gateway messaging, it is recommended that the university promote perimeter parking as much as possible to limit campus core congestion.



HILLSIDE ROAD
Transit Only
Two Ways

GLENBROOK ROAD
Limited Access /
One Way

FAIRFIELD WAY
Pedestrian
Bicycle Only
WHITNEY
ROAD
South Gateway
/ Two Ways



Campus Loop Road

To Park-and-Ride

Tech
Park Lot

North
Garage

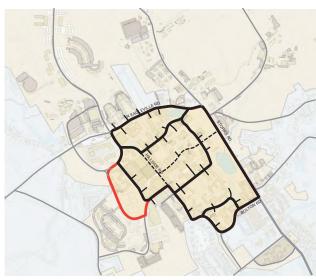
X Lot
Deck
Sherman
Field beck

Apartments
Deck

Mansfield
Apartments
Deck

W Lot

Improved East-West Pedestrian Corridors



Simplified Service + Loading

Network of Limited-Access Campus Streets



Clarified Campus Gateways

Access to Parking Areas Outside the Core

## Roadway Network + Vehicular Circulation

The proposed roadway network involves a number of key changes to existing roadways, as well as investments in new roadways to provide connections or relieve traffic congestion:

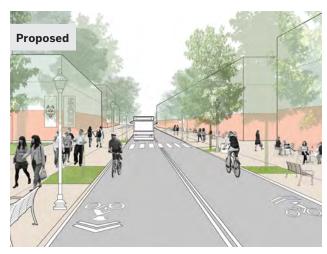
- 1. Storrs Road/195: intersection improvements and new medians (where appropriate); adjusted signalization
- 2. North Eagleville Road: improved pedestrian crossings; dedicated bike lanes; less on-street parking
- 3. Hillside Road: limited access to transit only; new bike lanes; aesthetic improvements
- 4. Gilbert Road: close road and replace functionality at Whitney Road
- 5. Whitney Road: extend west to Hillside Road; remove on-street parking; aesthetic improvements for new Visitor Gateway
- 6. Mansfield Road: pedestrianize area between Whitney Road and existing turnaround
- 7. Glenbrook Road: convert to one-way east to remove left-turn movement on N Eagleville; create shared pedestrian and bicycle space
- 8. King Hill Road: covert to one-way east; add sidewalks
- 9. Field House Access Road: new road extending north from the Basketball Champions Center, connecting Alumni Drive and Jim Calhoun Way via the new parking deck under Sherman Field
- 10. X Lot Access Road: new road along the Connecticut Light and Power easement, connecting N Eagleville Rd and Alumni Dr and providing access to new parking
- 11. South Eagleville Connection: new road connecting Bolton Road to South Eagleville Road
- 12. New Service Drive: pedestrian pathway and limited access road for service vehicles to Honors Residence Hall and South Campus Residences
- 13. North Hillside Road: extension of Hillside Rd to provide access to Tech Park and connection to Route 44
- 14. Alumni Drive / Hillside Road: right-of-way realignment

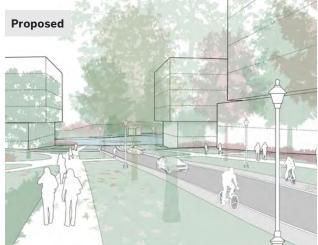


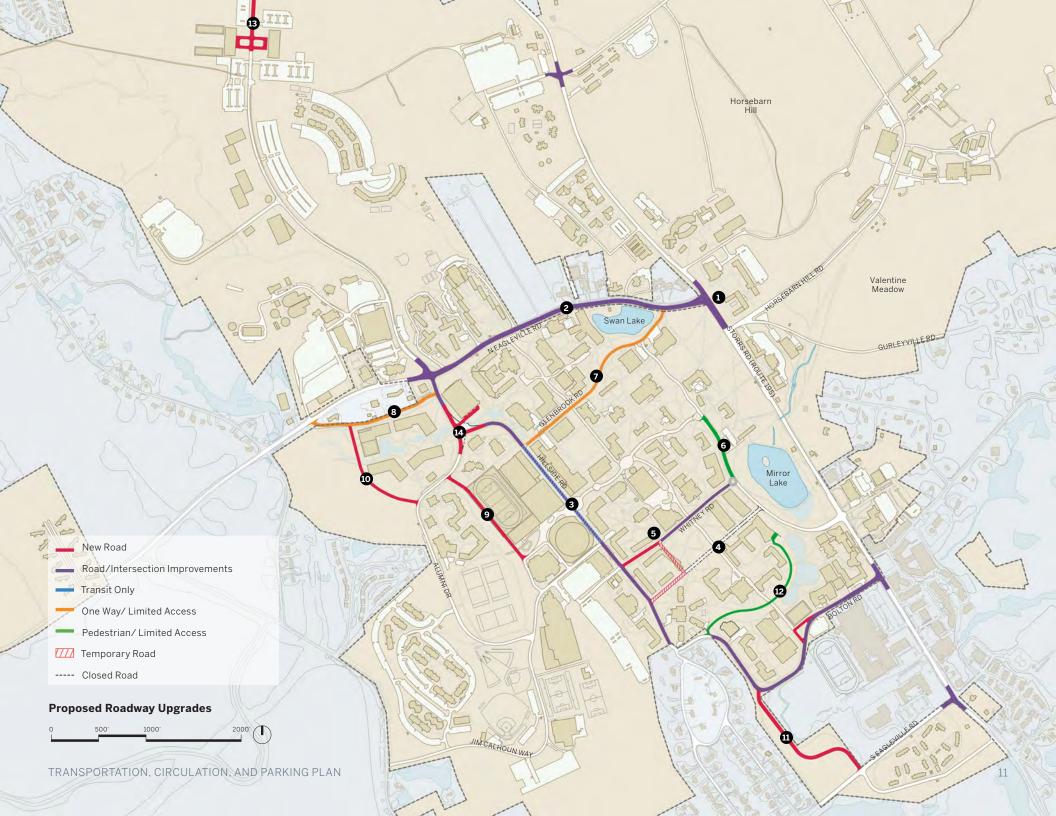
Improvements to Hillside Road as a campus "Main Street"



Improvements to Whitney Road as a primary visitor entry

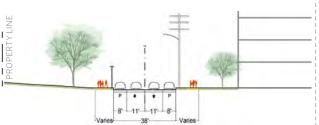






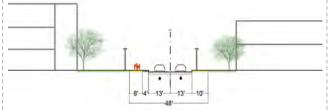
## **Street Sections**

## **Existing Conditions**



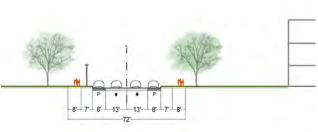
#### North Eagleville Road (Existing)

- Two high-volume lanes plus on-street parking in both directions
- · Randomly placed large canopy trees
- · Large setbacks on south side and wide lawns on north side
- · Large power lines on the south side of the street
- Numerous high-volume pedestrian crossings
- State ownership



#### **Glenbrook Road (Existing)**

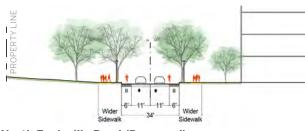
- Two slow moving travel lanes in both directions
- Backs of buildings and service entrances on both sides
- Sidewalk adjacent to the curb on both sides
- Very few canopy trees, with landscape against building façades
- Randomly placed pedestrian-scale lighting



#### Whitney Road (Existing)

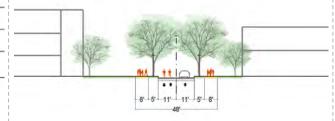
- Two travel lanes with parking lanes in both directions
- · Slow moving traffic and bikes mix in shared lanes
- 6' 8' sod verge on both sides, with the exception of the rear of Dodd
- · Large canopy trees on both sides, irregularly sited
- Concrete sidewalks on both sides
- Pedestrian lighting on one side of the street
- Road abruptly ends at CT Commons, continuing south via a narrow one-way street

#### Recommendations



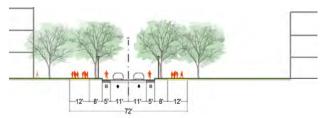
#### North Eagleville Road (Proposed)

- Consider burying power lines
- Remove on-street parking where possible allowing for parking to remain near the existing churches – and add dedicated bike lanes
- Improve pedestrian crossings and add traffic-calming with raised crosswalks, speed tables, bulb outs, or signalization
- Unify lighting to serve both vehicle and pedestrian needs
- · Incorporate dedicated bike lanes on both sides
- Plant canopy trees on both sides to create a more visible street wall



#### **Glenbrook Road (Proposed)**

- Narrow the travel lane to accommodate one-way traffic in the near term and limited service access only in the long term
- Maintain two lanes to allow for operational flexibility during events
- Plant canopy trees on both sides of the roadway where possible to create an allée
- Incorporate planting adjacent to the roadway to soften the corridor
- Encourage shared space for pedestrians and bicyclists in the unused travel lane

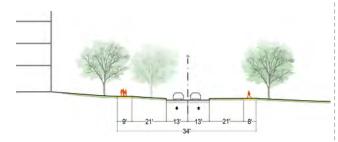


#### Whitney Road (Proposed)

- Remove on-street parking and plant canopy trees to create a regular rhythm as a gateway road to the campus
- Choose species with significant seasonal change to add visual interest
- Preserve mature canopy trees adjacent to the street
- Extend Whitney Road west to Hillside Road, preserving the existing canopy trees on the south side of the new extension
- Screen existing service areas and avoid new docks facing the street
- · Widen sidewalks to accommodate pedestrian traffic

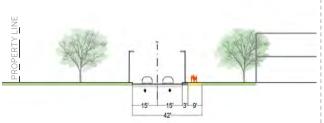
## **Street Sections**

## **Existing Conditions**



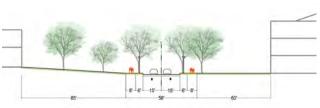
#### Mansfield Road (Existing)

- · One slow-moving travel lane in each direction
- · Four-story buildings on west side, overlooking Mirror Lake
- Wide verge on west side of street, planted with large canopy trees
- Meandering sidewalk on east side with sod and large canopy trees
- Concrete sidewalk on the west; asphalt path, transitioning to concrete on the east



## **Bolton Road (Existing)**

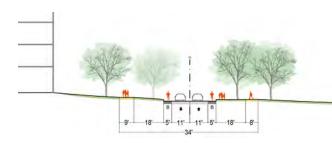
- Two wide travel lanes in both directions with high-speed traffic
- · Verge shifts from sod to asphalt throughout
- Inconsistent tree plantings on either side
- Concrete sidewalk on north side; asphalt sidewalk on south side which is inconsistent and sometimes missing completely
- Large shoe box lights on both side of street often interrupt the sidewalk



## Hillside Road (Existing)

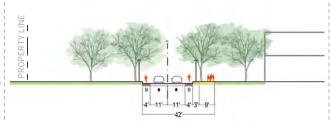
- · One wide shared travel lane in both directions
- Brick pavers and landscape verge
- New tree plantings
- · Large setbacks on both sides of the street
- New pedestrian scaled lights and banners on both sides

#### Recommendations



## Mansfield Road (Proposed)

- Consider a more sustainable ground-plane treatment on the east side of the road, where the campus meets Mirror Lake
- Unify the materials of the sidewalk; consider a permeable solution
- Address the verge where the sidewalk approaches the east side of the street
- · Introduce bike lanes on each side of the road
- Set back new buildings to preserve existing mature trees



#### **Bolton Road (Proposed)**

- · Incorporate a consistent sidewalk on both sides of the street
- Where room exists, plant canopy trees on both sides of the street to create a gateway road to the University
- Replace areas where the verge is asphalt with vegetation
- Incorporate street lighting scaled to pedestrians and low speed traffic
- Introduce raised crosswalks for safer pedestrian crossings and to calm traffic
- · Install dedicated bike lanes on both sides



## Hillside Road (Proposed)

- · Limit traffic to campus shuttles and bicycles
- Insert liner buildings as additions to student hubs
- Build upon recent landscape and pedestrian experience improvements
- Consider changing the material of the road bed to emphasize pedestrian scale
- Focus campus programmatic activities on Hillside to create a human-scale, campus "Main Street" environment

## **Parking**

## **Parking Principles**

Based on the overall goals of the larger Master Plan, a set of parking principles were established to guide decisions and strategies for the future:

- Replace spaces that are lost to new construction
- Absorb growth with minimal (to no) increase in spaces on campus
- Explore regional strategies for commuters
- Consider other parking locations off campus to serve campus needs (Storrs Center garage, existing park and ride locations, nearby malls and shopping centers, etc)
- Prioritize decks (2-3 levels) with small footprints instead of large garages
- · Limit parking in the campus core
- Maintain/expand robust shuttle system and explore other TDM measures
- Accommodate construction vehicles/employees in the near term

## **Campus Parking Strategy**

Focusing on distributed parking will facilitate projected growth while not overwhelming the roadway network approaches to the campus. This strategy simultaneously reduces vehicular traffic in the core itself, leads to better campus walkability, reduces pedestrian-vehicular conflicts, and creates a generally more welcoming pedestrian environment. New development in the next 20 years will drive increased demand for parking and at the same time reduce the footprint of surface lots on campus, as these sites are redeveloped into buildings. A strategy for consolidating parking into new garages must therefore be considered, even if parking demand can remain flat in the long term. These garages must respect the scale and character of the Storrs Campus.

They should be fairly small in scale (400-600 spaces) – in order to not recreate problems facing the existing garages – and, where possible, hidden from view by landscape or topography. The Master Plan identifies a number of potential locations for these new decks, which should be explored after all efforts are made to reduce overall demand for parking:

- X Lot Deck: to absorb the parking removed from X Lot and capture vehicles approaching via the North Hillside Road Extension
- Bolton Road Deck: to expand parking options for the Fine Arts complex and new residential growth on South Campus
- Sherman Field Deck: surface-level parking under Sherman Field, accessed from the loop road
- Mansfield Apartments Deck: to accommodate parking for a mixed-use redevelopment and to capture commuter traffic from the south

## **Interim Parking Strategy**

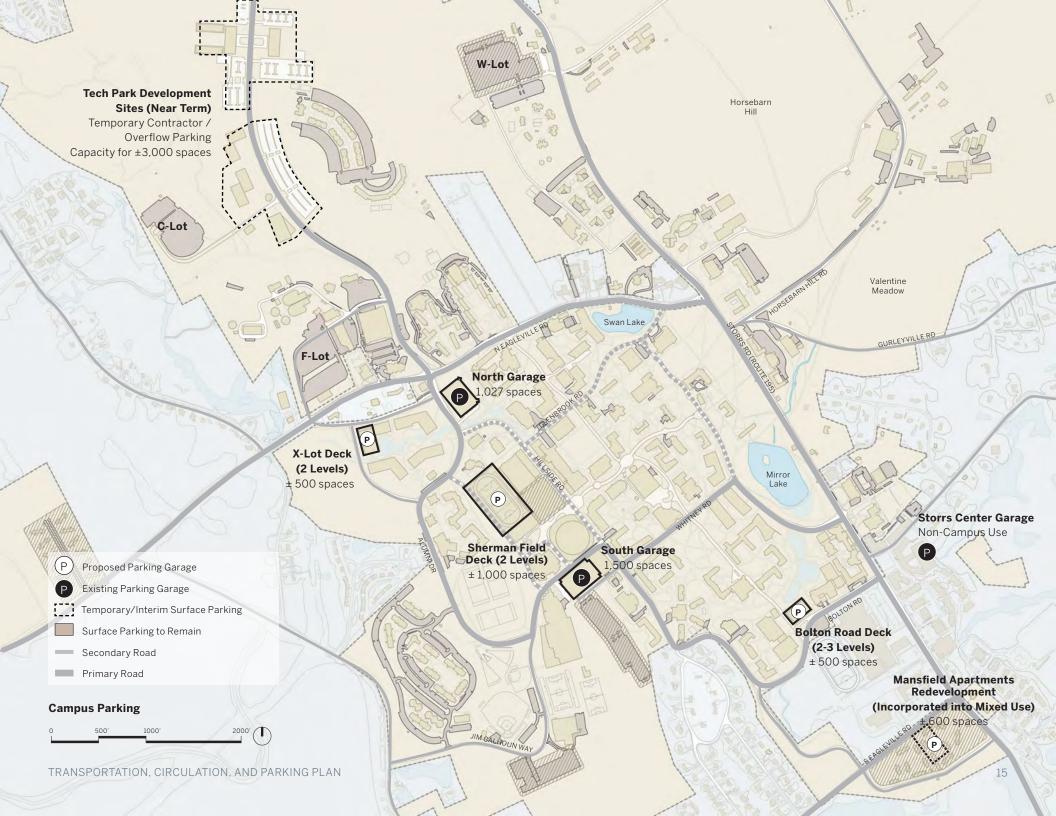
In the near term, realization of the Master Plan will require temporary parking spaces to offset the displacement of existing lots during construction. Even as new projects come online, the University must be able to maintain or increase its existing number of spaces. The Plan, therefore, identifies temporary surface lots for interim parking before new decks are built and areas for construction staging throughout the implementation process. Future Tech Park development sites can be used for temporary surface parking, accommodating thousands of additional spaces before they are ultimately developed. Additionally, the C lot, W lot, and Depot Campus can be used to accommodate contractor parking and staging needs during construction.



Fields above Parking: Southern Alberta Institute of Technology, Alberta, Canada



Living Garage Facade: National Wildlife Federation Headquarters, Reston, VA



## Parking Projections + TDM Strategies

On a straightforward parking demand vs. supply basis, peak parking demand on campus utilizes approximately 85% of the available supply and shows that the current parking supply is sufficient to meet the overall peak parking demand. However, parking availability is not always provided in locations where demand is the highest. Furthermore, temporary surges in demand due to special events and shortages in supply due to snowfall create additional challenges that make it impractical to just consider overall demand vs. supply. The growth planned for the University will generally result in a similar proportional increase in parking demand, which could trigger the need to construct new or expanded parking facilities; yet the University's goal is to absorb this growth with little to no increase in parking supply. With proper planning and investment, transportation demand management (TDM) strategies can be developed and implemented to meet this goal. Additionally, these measures would be consistent with another University goal to become a more sustainable campus. By minimizing the number of auto trips generated, the University will reduce emissions and congestion, make the best use of available land, and help enable a healthier lifestyle by increasing access to alternative travel modes such as walking and bicycling.

#### **TDM Measures**

This section sets forth an initial set of TDM measures that could be implemented at UConn. Ultimately, further study and research is necessary to refine these strategies and to project the impact of specific measures on auto mode-share and parking demand. The most effective next step would be to administer a University-wide travel survey to determine existing commuter travel patterns and tendencies, resident car ownership and use, etc. – and then to ask targeted "what if" questions to inform the interest in and effectiveness of specific TDM measures.

The TDM Program would target commuters by providing new and enhanced regional transportation options and target residential student parking demand by enhancing intercampus mobility options so that students are less inclined to bring a car with them to the University. Such strategies include those listed in the adjacent table.

It is difficult to determine the impact each specific measure would have on changing travel behavior and reducing parking demand. This is because TDM strategies are rarely implemented one at a time; instead, they are implemented as a comprehensive package that offers a variety of new and improved commuting and mobility options that, as a whole, maximize their reach within the University population. Case studies at other university campuses show that a menu of similar options and strategies as presented here have resulted in decreases in single-occupancy vehicle travel of at least 10% to 25% and sometimes as high as 40%, which can translate to a similar decrease in campus parking demand.

TDM Strategies	Reduces Commuter Demand	Reduces Resident Demand
Regional park and rides	X	
Preferred and discounted carpool parking	Χ	
Guaranteed ride home program	Χ	
Continue to increase parking costs	X	X
Daily parking pricing	Х	
Increase/expand transit subsidies	Х	X
Improvements to Willimantic Bus frequency	Х	
Improvements to parking technology, tracking, etc*	Х	Х
Aggressive marketing of options	Х	Х
Commuter information kits	Х	
Car sharing (e.g. Hertz Connect, Zipcar)		Х
Improve shuttle routing and frequency		Х
Continue to cap student resident permits		Х
Improved campus bikeshare system		X

<sup>\*</sup>more specifically, reduces need for excess capacity and congestion by minimizing circling for parking

Another measure, which is being employed at Columbia University's new Manhattanville Campus in New York City, is to eliminate parking permits altogether and require that motorists pay a daily rate for parking on campus. In this scenario, UConn would eliminate the current parking permit system, which allows employees and students to buy monthly permits at a discounted rate. A change to daily parking charges creates a strong financial incentive for drivers to switch to another mode as parking prices would increase on a "per day" basis. Monthly permits provide for unlimited parking and induce permit holders to drive more in order to realize their permit's full value. Daily parking saves commuters money every day they choose an alternative travel mode or choose not to travel at all. including parking costs, tolls, and other vehicle costs (fuel, wear and tear, etc.). This measure is especially effective for universities, because the implementation of daily parking payments would help to reduce discretionary trips to the campus, as there would be a financial incentive to only drive when necessary and to consolidate trips into fewer days during the week. This is especially effective with faculty and researchers, who tend to have more control over their own schedules. However, this strategy requires a change in parking management policy that may or may not be politically feasible.

## Parking Projections + TDM Strategies

To further the University's goal of growing the population while minimizing the need for increasing parking supply, one strategy could be to have a more rigid cap on the number of resident students that are allowed to have cars on campus.

Car sharing services through companies such as Hertz Connect or Zipcar – or through ride-share startups such as Wheeli – could also provide valuable flexibility for students that decide to live on campus without bringing a car. Most daily short trips to academic, athletic, and arts facilities can be accomplished by walking, biking, or riding a shuttle bus; car sharing can provide an option for less frequent shopping trips or other off-campus excursions. Dedicated locations for car share spots at strategic locations around campus, such as residence clusters or in large parking garages, have the potential to substantially reduce the overall number of cars parked on campus at a given time.

## **Parking Technology**

The University could invest in a Smart Parking system that can lead to large gains in parking efficiencies. Such systems are used by numerous colleges in the United States and are becoming more popular, especially with advances in sensor technology and resulting declines in costs. Smart Parking systems offer users the ability to locate open spots in real-time, which reduces congestion, vehicle idling, and emissions related to searching for vacant spaces. The systems can also include smart meters that dynamically change prices based on current demand and license plate sensors that reduce the need for paper permitting and active enforcement to issue citations. Smart Parking benefits the university through a robust information system that would aid administrators in understanding parking utilization and in crafting a parking pricing and policy scheme to match. For example, data on parking demand generated by a Smart Parking system could provide accurate forecasts of parking needs on major event days (athletic events, graduations, etc). Similarly, such a system could determine how excess parking could be shared and allocated for everyday use on non-event days, increasing the efficiency of the existing parking supply before the University chooses to embark on costly capacity expansions.

## **Parking Projections**

The adjacent table summarizes current peak parking utilization on a typical weekday and projects future peak parking demand under two growth scenarios: +1,000 students and +5,000 students. For each of these scenarios, projections are shown that consider future parking demand (a) without implementing any TDM measures, (b) implementing a moderate package of TDM measures that might reduce single-occupancy vehicle travel by 10%, and (c) implementing a more aggressive package of TDM measures that might reduce single-occupancy vehicle travel by 20%.

Parking supply needs to be designed to provide a factor of safety to accommodate surges

in demand due to special events and to provide a buffer so that vehicles are not searching for the very last spaces. A typical rule-of-thumb is to design for 10% more parking than needed during the peak; however, due to the complications of clearing and storing snow during the winter season, an additional 10% cushion should be provided. With Smart Parking technology, this factor of safety could be reduced. For the purpose of these projections, projected parking supplies that provide a +20% design value (without Smart Parking technology) are shown.

Currently, the Storrs Campus provides approximately 12,800 parking spaces. For +1,000 students, the projected parking requirement without implementing TDM measures would need to be approximately 14,600 spaces; it would need to be approximately 13,200 spaces with a moderate TDM program; and with an aggressive TDM program it would need to be approximately 11,800 spaces. For +5,000 students, the projected parking requirement without implementing TDM measures would need to be approximately 16,000 spaces; it would need to be approximately 14,500 spaces with a moderate TDM program; and with an aggressive TDM program it would need to be approximately 13,000 spaces. By making an investment in Smart Parking technology, UConn could potentially further reduce the required supply by 5 to 10%. This investment would have a direct impact on how much new parking construction – probably in expensive garages – could be avoided in conjunction with new growth.

		+1,000 Undergraduates			+5,000 Undergraduates		
Parkin	Current Parking Demand	No TDM	Moderate TDM	Aggressive TDM	No TDM	Moderate TDM	Aggressive TDM
Students	6,026	6,296	5,666	5,037	7,375	6,638	5,900
Employees	4,445	5,098	4,588	4,078	5,098	4,588	4,078
Service	171	182	182	182	207	207	207
Visitors	538	573	573	573	650	650	650
Total	11,180	12,149	11,009	9,870	13,330	12,083	10,835

CURRENT AND PROJECTED PARKING DEMAND

Growth Scenario	Projected Supply, No TDM	Projected Supply, Moderate TDM	Projected Supply, Aggressive TDM
+1,000 undergraduates	14,600	13,200	11,800
+5,000 undergraduates	16,000	14,500	13,000

PROJECTED PARKING REQUIREMENT BY GROWTH SCENARIO (PROJECTED DEMAND +20%)

## **Regional Parking Strategies**

## Park-and-Ride

Either as a temporary solution to accommodate development on existing surface lots or as a long-term strategy to reduce demand for parking on campus, off-site park-and-ride facilities should be explored. In addition to existing park-and-ride facilities near almost every exit on I-84, large surface parking lots already exist off-site - at East Brook Mall and other locations to the south near Willimantic, or at Fieldstone Commons to the north by I-84 – which could host potential park-and-ride lots. These large lots sit vacant for most of the year and could represent a mutually beneficial opportunity for the University and local landowners to share parking. This type of parking would be offered to employees and paired with a reliable and comfortable shuttle bus service. Park-and-ride facilities like this have been implemented at other universities all over the country, including the University of Kansas, Texas A&M University, the University of Montana, Columbia University, and others.

## **Ridership Analysis**

To estimate the potential impact of such an arrangement on the Storrs Campus, an initial analysis of potential riders was conducted. Based on presumed catchment areas and known student and staff origins by ZIP code,

there are an estimated 8,840 people with access to an existing park-and-ride facility or large surface lot that could become one. Of these people, an estimated 221 would use park-and-ride in a low scenario, and an estimated 664 would use it in a high scenario. Overall, the analysis suggests significant potential for regional commuting options to divert cars – and associated traffic and parking demand – from the campus.

#### Methodology

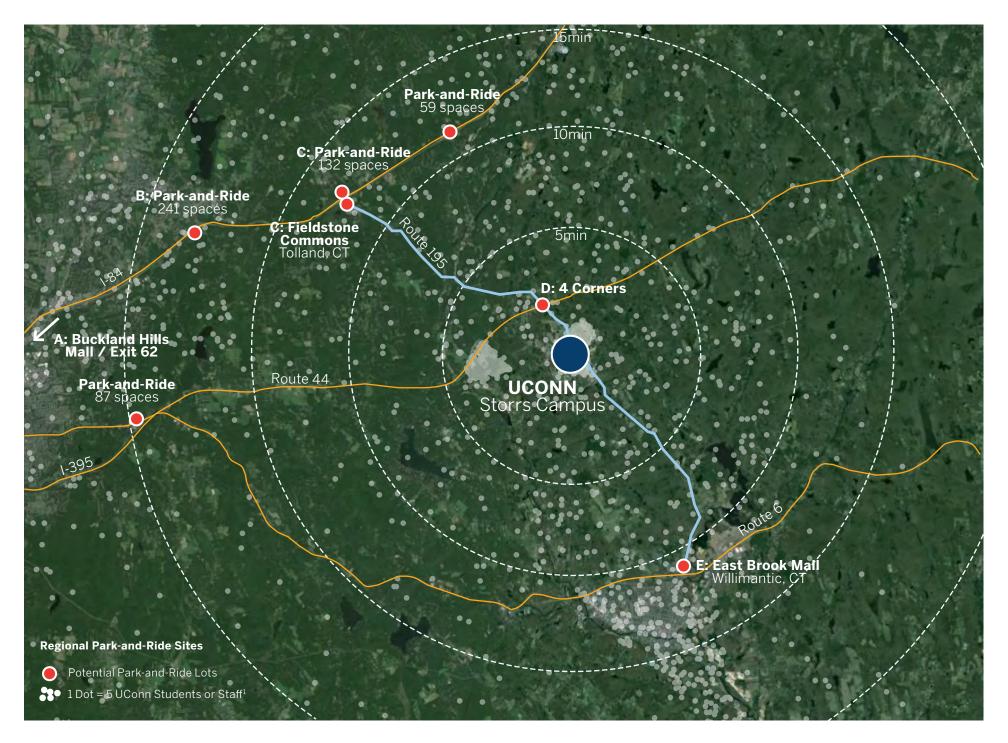
- People tend to travel no further than 2 miles away from their ultimate destination to reach a lot ("upstream"), and will typically travel about 5-15 miles or so from their homes to a lot ("downstream). Potential catchment areas for all lots includes 2 mile "upstream" and 10 mile "downstream" distances.
- Lots less than 5 miles from an ultimate destination are unlikely to be used, as motorists would rather continue on to their destinations. As a result, Location D (4 Corners lot) might not be successful as a traditional park and ride, but could fall into the campus remote parking / shuttle bus strategy.
- 2 additional lots were considered (Location A -Exit 62 off I-84) to capture high concentrations of

- commuter students and staff from the Hartford area.
- Data is based on ZIP codes, which do not correspond exactly with catchment areas. Numbers were estimated proportionally - if a catchment area covered 65% of a given ZIP code, for example, then 65% of that area's population was included as potential park-and-ride users.
- Each catchment area is unique and may include overlapping population groups. The idea is that UConn would not open up locations A, B, C, and D all at once; it could perhaps start with A and/or C on the north side, and E on the south side, and then consider other lots if demand exists.
- There are two assumptions on the percentage of potential users who might take advantage of parkand-ride lots. Significant research did not result in a consistent industry standard to apply, so the assumptions of 2.5% (low) and 7.5% (high) come from professional judgment. How the campus promotes these park-and-ride lots and the types of incentives that are offered will have a significant effect on the percentage of faculty and students who would participate.

nt and staπ origins by ZIP code,	EXIT 62 Off 1-84) to captu	ire nign concentrations	5 OT	Low Ridership	High Ridership	
	People W	ithin Park and Ride Ca	2.5%	7.5%		
Lot Location	Faculty	Students	Faculty + Students	Faculty + Students	Faculty + Students	
A (Buckland Hills Mall: Exit 62, I-84)	447	627	1,074	27	81	
B (Existing Park and Ride Lot: Exit 67, I-84)	484	657	1,141	29	86	
C (Existing Park and Ride Lot and Fieldstone)	431	618	1,049	26	79	
D (4 Corners: Route 195 and Route 44)	1,021	3,180	4,201	105	315	
E (East Brook Mall: Route 195 and Route 6)	541	834	1,375	34	103	
Total	2,924	5,916	8,840	221	664	

Park-and-Ride Catchment and Ridership Analysis

<sup>1</sup> Source: UCONN Storrs Regular and Special Payroll Staff, State and Zip Code of Self-Reported Local Address, May 2014 UCONN Storrs Commuter Students State and Zip Code of Self-Reported Local Address, Fall 2013



## **Regional Transit**

Bus service to nearby towns and regional service to Hartford, Boston, and New York is an important piece of the overall transportation system serving UConn. Currently these regional buses pick up and drop off at either the Nash-Zimmer Transportation Hub at Storrs Center or at an ad hoc location between Gampel Pavilion and the UConn Co-op. This on-campus location creates congestion problems and does not provide a covered or enclosed waiting area.

The new area of student activity adjacent to Gampel Pavilion and connected to Fairfield Way provides an opportunity to move these services into a dedicated, covered UConn Transit Hub. This area could also serve teams visiting the various athletics venues in the immediate area.

## **Private Partnerships**

Improvements to shuttle bus service can also be accomplished through partnerships with private developers in the vicinity of the campus. With projected campus expansion and associated enrollment growth, it is likely that new off-campus housing will be required to satisfy housing demand over and above any new on-campus residential construction. The University should work with developers of new off-campus housing to provide direct shuttle services to and from new multi-unit residential buildings and the core campus. In exchange for this benefit, the campus Orientation and/or Residential Life offices could steer students searching for off-campus housing to the participating developments, highlighting the private shuttle as a key amenity.



UConn Shuttle bus service



Bus Stop: University of British Columbia, Vancouver

## **Campus Transit**

To successfully implement proposed parking strategies and at the same time limit private vehicle access in the campus core, the University must upgrade campus transit so that motorists expect reliable and simple connections to complete their journey to the center of campus. In conjunction with the broader strategy for parking and mobility, improved shuttle bus service should be considered. Simplification of current routing, construction of covered bus shelters, increased service to provide regular and guaranteed headways of 10 minutes or less from all major perimeter parking sites, an expanded bus tracking system linked to mobile applications, and the installation of electronic arrival information at all shuttle stops is advised.

## **Summary of Existing Service Issues**

- Some routes are long and/or circuitous, resulting in long headways and running times.
- Many routes are duplicative, serving the same origins and destinations.
- Some route segments are inefficient, serving areas that generate low ridership at the expense of overall running time.
- Long running times and average wait times on some routes likely have negative impacts on ridership.
- The system is operating with a 35% spare vehicle rate (13 out of 20 vehicles are in service at any time). If possible, lowering the required spare vehicle rate would allow for improved operations by putting more vehicles into service, resulting in shortened headways and increased reliability.

#### **Overall Shuttle Bus Network Recommendations**

- Shuttle routes can be streamlined to reduce running times and headways.
- Reducing average passenger wait times at shuttle bus stops provides benefits to system ridership.
- Circuitous and low ridership yielding route segments should be eliminated and/or modified.
- There are opportunities to simplify the shuttle network by providing one shuttle line for each distinct residence area.
- For intra-campus travel, routes can be modified so multiple routes serve the main campus in both directions, resulting in higher service frequencies.
- Multiple routes should be modified to provide service to the planned UConn Transit Hub. Service should also be provided to the Town of Mansfield's Nash-Zimmer Transportation Center.
- The conversion of Hillside Road to a pedestrianand shuttle bus-only roadway would speed and streamline shuttle service in the campus core and provide an attractive pedestrian environment for students.
- Ridership to the Depot Campus is currently very low. The University may wish to consider eliminating Purple Line service to the Depot Campus, replacing it with a dedicated shuttle van. This would allow for improved headways and reduced running times on the remainder of the Purple Line.
- Shuttle bus performance can be further improved if the additional roadway network improvements proposed (Hillside Road transit street, general reduction in campus vehicle congestion, effects of TDM on reducing overall congestion, and others) allow for faster shuttle bus operating speeds. This would result in further improvements to shuttle bus frequencies and headways.

#### Potential Benefits of an Increased Fleet Size

The addition of vehicles to the UConn fleet could have significant benefits for service ridership by greatly reducing headways and wait times and increasing capacity. These vehicles could enhance the existing fleet as follows:

- Allow the University to add vehicles on lines with high ridership and headways greater than 15 minutes
- Typically, with headways of 10 minutes or less, passengers are no longer concerned with schedules and can will simply wait for the next available bus
- Recommend adding additional vehicles to Red Line and Silver Line (especially the Silver Line, which currently operates with 30 minute headways)
- One additional vehicle operating on the Silver Line could cut headways from 30 minutes to 15 minutes
- One additional vehicle operating on the Red Line could cut headways from 12 to 8 minutes

## **Pedestrian Circulation**

Effective TDM requires that the choice to use alternate modes (such as walking) for short intra-campus trips is facilitated through inviting design. In conjunction with creating a new student hub along Hillside Road and upgrading the Academic Way, the campus walking environment should be improved through construction of clear pedestrian priority corridors, improved pedestrian trails to facilitate on-foot campus connections, and enhanced pedestrian crossings at major roads, such as Routes 195 and 430. Improvement of the pedestrian environment both within and beyond the campus core is a critical step in creating a more livable, human-scale, and sustainable campus. These strategies can improve campus transportation efficiency through decreased auto congestion in the campus core by turning short vehicle trips into walking trips.

## **Recommendations to Improve Pedestrian Conditions**

- Install high-visibility crosswalks on major roads such as Route 195/Storrs Road and North Eagleville Road
- Provide leading pedestrian intervals along major roads, which allow head starts for pedestrian crossings before vehicles are provided with green lights
- Construct bulb-outs and neckdowns to shorten crossing distances across major roads, and discourage jaywalking outside of designated crosswalks
- Convert of Hillside Road into an active street designed for pedestrians and limited to only transit and occasional maintenance vehicles
- Clarify wayfinding signage for pedestrians to direct users to desirable routes and on-campus pathways, including the proposed Woodland Corridors
- Install street trees and planters along sidewalks adjacent to major roadways such as Route 195/ Storrs Road and North Eagleville Road, in order to beautify the area and provide a more pleasant walking environment
- Engage local authorities for active enforcement of traffic laws including preventing vehicle speeding around and within the campus
- Provide creative incentives for students, faculty, and staff to choose walking as a mode of transport for all short trips around campus under one mile, whenever possible



Pedestrian-focused street: University of Washington

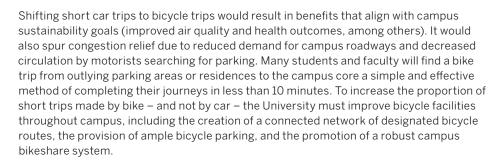


Fairfield Way

## **Bicycle Circulation**



**UConn Cycles Bike Tours** 



Bicycle trips can fill a gap in mid-range, intra-campus trips that may be too long for walking. The campus layout is particularly suited for short trips between 0.5 and 2 miles that could link residence clusters and parking lots outside the core campus to academic and athletic hubs. The adjacent trip distance matrix shows the relatively short biking distances from numerous outer parking lots and dormitory areas to a few central points on campus; all are under 10 minutes by bike.

\*Distances based on shortest direct paths through campus. Biking time assumed to be 3 times as fast as walk times per Google Maps, equivalent to an approx. bicycle speed of 9 mph.



Hubway Program, Cambridge MA

## Bike Time (in minutes)\*

Lot(s) / Residences	Bike to Babbidge Library	Bike to Northwest Quad	Bike to Gampel Pavilion	Bike to Alumni Quad
I	5	6	4	5
D	3	4	2	3
F/L	6	3	4	7
С	8	4	7	9
W/T/Towers	6	5	6	8
A / East Campus Res	3	4	3	4
В	4	4	5	8
S	3	6	4	1
Horsebarn Hill	6	7	7	7
Hilltop Apts	5	6	5	5
Mansfield Apts	7	9	7	5
Charter Oak Apts	7	5	7	9
Northwoods Apts	9	6	7	9

## **Bicycle Circulation**

## **Proposed Bicycle Network**

In conjunction with proposed roadway network improvements, a built-out UConn bicycle network would be made up of a hierarchy of three street types and bicycle facility types:

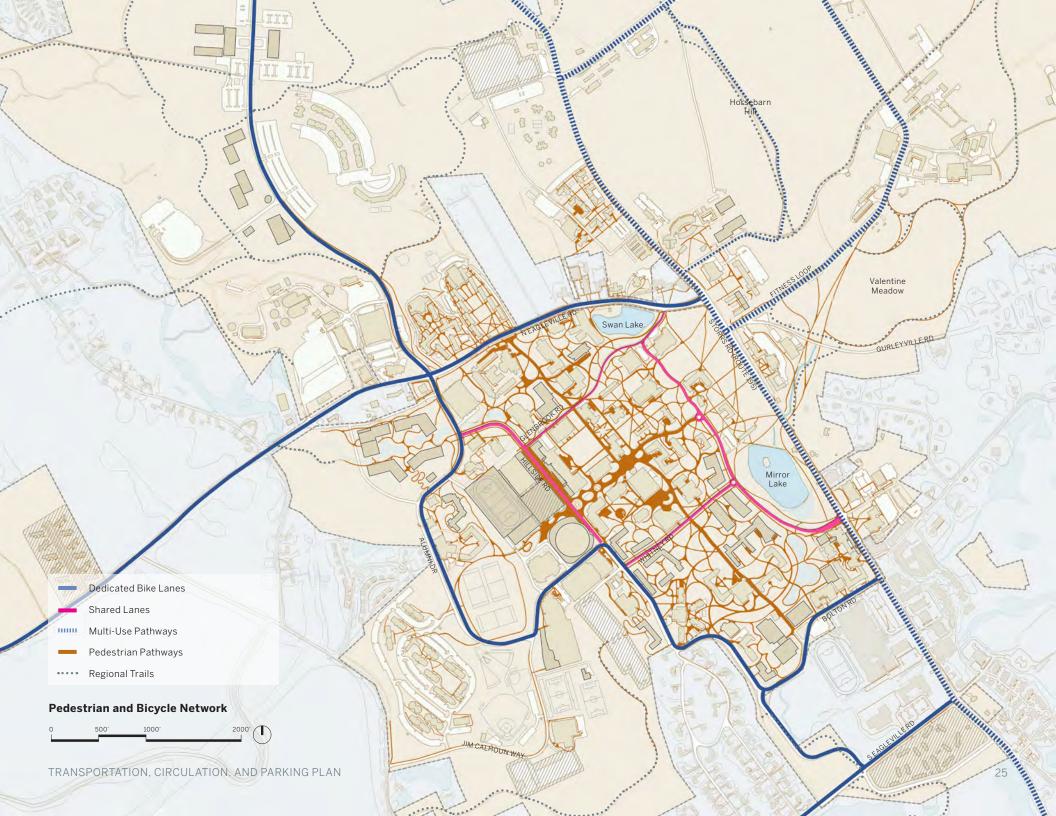
- Painted Bike Lanes and/or Protected Cycle Tracks: Along the new campus loop road, cyclists will require dedicated space as vehicular traffic will be significant, especially during peak hours. The loop road alignment may lend itself to a protected bike lane (or cycle track) along the loop's outer edge. Cyclists should be able to utilize the loop road to reach various access points to the interior core campus, and to make connections with residence clusters, outlying academic buildings, and parking lots outside the core. Some cyclists will likely arrive at the loop road via intersecting off-street trails. Particular attention should be given to signalization and intersection treatments to ensure that bicycle facilities are accessible to all users, including novice cyclists.
- Shared Lanes ("Sharrows"): Within the proposed road network in the core campus, some streets will be designated as service vehicle/transit vehicle-only (such as Hillside Road and Glenbrook Road) and others will be open to private auto traffic with low volumes expected (such as Mansfield Road and Whitney Road). These streets may not require dedicated space for cyclists, but due to constant vehicular traffic at low speeds, roadway markings indicating that motorists must share the roadway with cyclists are advised. In addition to "sharrow" markings, low speed limits no greater than 20 mph and other traffic calming measures are appropriate on these street types, to prioritize and encourage non-motorized transportation options.
- Pedestrian / Bicyclist Only Paths: The roadway network plan calls for some streets to be essentially closed to vehicular traffic (such as Fairfield Way and the northern terminus of Mansfield Road) while other on-campus paths will continue to serve cyclists. These facilities will not require dedicated bicycle roadway markings; however, it is advisable to label recommended through corridors on a bicycle network map in order to clarify and prioritize how cyclists should navigate the interior of the core campus while mixing with pedestrians. Signage indicating prioritized bike routes with cyclist wayfinding information is advised within the core on these pathways.

## **Bikeshare to Promote and Grow Bicycling**

An enhanced bikeshare system would encourage environmentally friendly and healthy short trips that also reduce auto usage. Bikeshare has proven successful in numerous U.S. and Canadian cities with severe winter weather, such as Boston, Montreal, and New York. Boston's Hubway program successfully operated year-round service through the winter in Cambridge in 2013-14. Regional universities such as Yale, Harvard, UMass Amherst, and the University of Vermont all operate campus-specific bikeshare systems. College campuses such as UConn are ideal locations for bikeshare as they feature relatively dense populations of young people aged 18-25, many of whom take multiple trips per day ranging from 1 to 3 miles.

A successful bikeshare system requires the ability to use bicycles with flexibility and at users' convenience. For the UConn campus, bikeshare stations would ideally be sited at all outlying parking lots and residential clusters in order to provide students and staff the ability to reach the campus core by bicycle and reduce vehicular congestion as a result. Numerous stations in the core at various convenient points – especially along proposed bicycle priority pathways – would serve as attractors for bikeshare users. The University or a private operator would need to monitor bicycle inventory levels and re-balance the system as needed; for example, it is likely that demand for bikes would be higher at outlying areas, such as parking lots, in morning hours.

Another indirect benefit of a well-used bikeshare system is its effect on bicycle culture in general. As more bicycles appear on campus roadways, motorists will become more familiar with sharing roads with bicycle traffic. Many novice cyclists will likely embrace bicycling as a legitimate travel mode rather than as a marginalized activity as they see additional cyclists, creating a positive feedback loop that encourages even more cycling year-over-year. Establishing a campus bikeshare with a strong identity and positive messaging from the university itself would be a large boost in increasing the visibility of UConn bicycle culture. This would feed into the larger campus transportation goal: higher travel mode shares for cycling will correlate with at least some reductions in short auto trips, which would contribute to a reduction in congestion in concert with proposed changes to the campus roadway network.



## **Service and Loading**

Service vehicle access to buildings is a critical piece of the overall transportation story. It is a necessary component of the overall campus framework, but one that also conflicts with other goals of the plan: interfering with pedestrian movement, breaking up open space, adding traffic to busy roadway corridors, and diminishing the overall aesthetic of campus.

This plan proposes consolidating service and loading activities into a more streamlined system of three loops, each of which is also connected to the Central Warehouse facility on North Hillside Road:

- A north loop would include primary access from North Eagleville Rd and Glenbrook Road, with connections to new science buildings via King Hill Road. This will allow service to all facilities in the science and engineering core and, with minimal relocation of existing docks, could clarify the street system behind the Gant Complex and Jorgensen; this could include a new consolidated dock between Gant and the North Garage, which also serves Biology/Physics. Service to the CUP is challenged by grade issues, which need to be explored in more detail. It could, however, be accessed via shared pedestrian/service pathways with restricted delivery times to avoid conflicts.
- A south loop would include access from Whitney
  Rd and a new service road extending west from the
  existing Maple Lane. In the south part of campus
  in particular, service should be screened from view
  and the ceremonial entrance along Mansfield Rd
  should be kept clear of loading docks. If possible,
  the existing Whetten dock facing Whitney Road
  should be relocated farther north, with access from
  the east
- An overall service loop would share the traffic loop around the perimeter of campus, with vehicular

access to all outlying buildings. This route would include service to the new Student Recreation complex (either option) via an access road behind Sherman Field, as well as to an expanded Gampel Pavilion. Both could be tucked under the plinth of parking beneath the field.

In this scenario, service access from Fairfield Way and from the central stretch of Hillside Road would no longer be required, and interference with the Academic Way is minimized. This allows service vehicles to remain separated from the primary areas of pedestrian movement on campus.

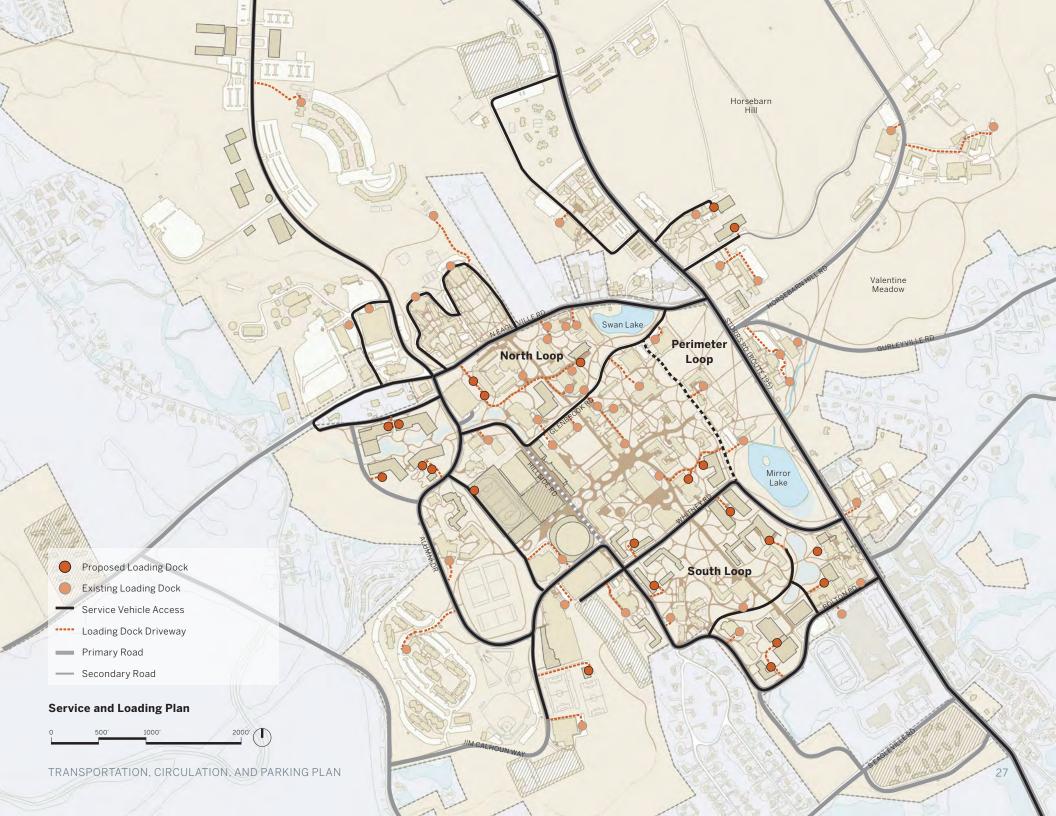
As part of the plan, it is also recommended that UConn establish a set of policies to manage when deliveries can be scheduled at particular buildings or on particular roadway corridors. Access to the pedestrianized stretch of Mansfield Way – in front of Wilbur Cross – should be strictly limited, for example, to avoid delivery trucks queuing in front of this campus landmark. A similar approach to deliveries off of Whitney Road would limit trucks in the main visitor gateway during peak hours.



Limited Access / Service Road: Albright College



Limited Access / Service Road: Harvard University



A memorable gateway experience will be created on all campus approaches, beginning with the entry sequence at the peripheries of campus and extending to formally marked strategic points of arrival to the campus core.

#### 1. Route 195 and Route 44

Although portions of University extend nearly to this intersection, the University does not own any property in the Four Corners area. Existing land uses at this intersection include a pharmacy, a gas station, and other small businesses. This intersection is an important decision point for motorists to proceed towards either the Main Campus gateway, the Innovation Way through the proposed Tech Park, or towards Depot Campus. The Plan recommends that the University work with the Town to enhance wayfinding at this gateway.

## 2. Route 195 at Moulton Road ("North Gateway")

This point at the crest of the hill marks the edge of the Agricultural Campus and the beginning of the entry sequence from the north. This is the point where landscape and buildings can begin to signal arrival to the University, including the W Lot as a large area for potential new development.

## 3. Route 195 and North Eagleville Road ("North Entry")

This is the true northern gateway to campus. The proposed Woodland Corridor will cross from the Great Lawn to the Agricultural Campus here and roadways will be realigned to signal the entry to the Main Campus. Increased visibility of signage will announce arrival.

# 4. Route 195 at South Eagleville Road ("South Gateway")

The site of the current Mansfield Apartments will begin the entry sequence to campus from the south. A new mixed-use redevelopment site will be a key interface with the Town as well as the first impression of the campus.

## 5. Route 195 at Bolton Road ("South Entry")

With the development of Storrs Center, this intersection has taken on new importance as the face of the University to the Town to the south. With new development, an increased number of faculty and staff are expected to have South Campus as their destination. Future expansion of the School of Fine Arts should be carefully designed to highlight and amplify this experience.

# 6. Route 195 and Mansfield Road ("Ceremonial Entry")

This will be the ceremonial entrance to campus for visitors from both north and south, with the School of Fine Arts, Mirror Lake, and the Woodland Corridor representing key features of this gateway.

#### 7. Route 44 and Hillside Road Extension

This will be a new gateway for the Tech Park and is anticipated to be a popular entrance for faculty, staff, and commuters. The University should work with the Town to enhance wayfinding and signage at this intersection.

#### 8. South Eagleville Road and Bolton Road Connection

Once the northern extension of Hillside Road to Route 44 is completed, an extension of Bolton Road to South Eagleville Road should be constructed. This will allow the University to create a gateway from points southwest that alleviates traffic through the adjacent neighborhood.

#### 9. North Eagleville Rd and Hunting Lodge Road

This intersection begins the back gateway accessed from local roads. Although it is currently only used by local residents, it will become increasingly important to begin shaping the western entry sequence from this intersection as the Depot Campus is revitalized.

#### 10. North Eagleville Road and Hillside Road

Currently, the four corners of this prominent intersection contain the North Parking Garage, the Lodewick Visitors Center, the Public Safety Complex, and a steep rise in topography up to the Northwest Residence Halls. The roadway is a wide expanse and difficult for pedestrians to cross. As Depot Campus and the Tech Park become important destinations on campus, this intersection will be the gateway back to the Main Campus. A simplified alignment, new science buildings on X Lot, and heavy landscaping will clearly mark this important gateway.

#### 11. Route 44 at Bonemill Road

The primary entry sequence to Depot Campus from the east begins at this intersection. The roadway, landscape and architecture should begin to shape this gateway.

#### 12. Route 44 and Walters Avenue

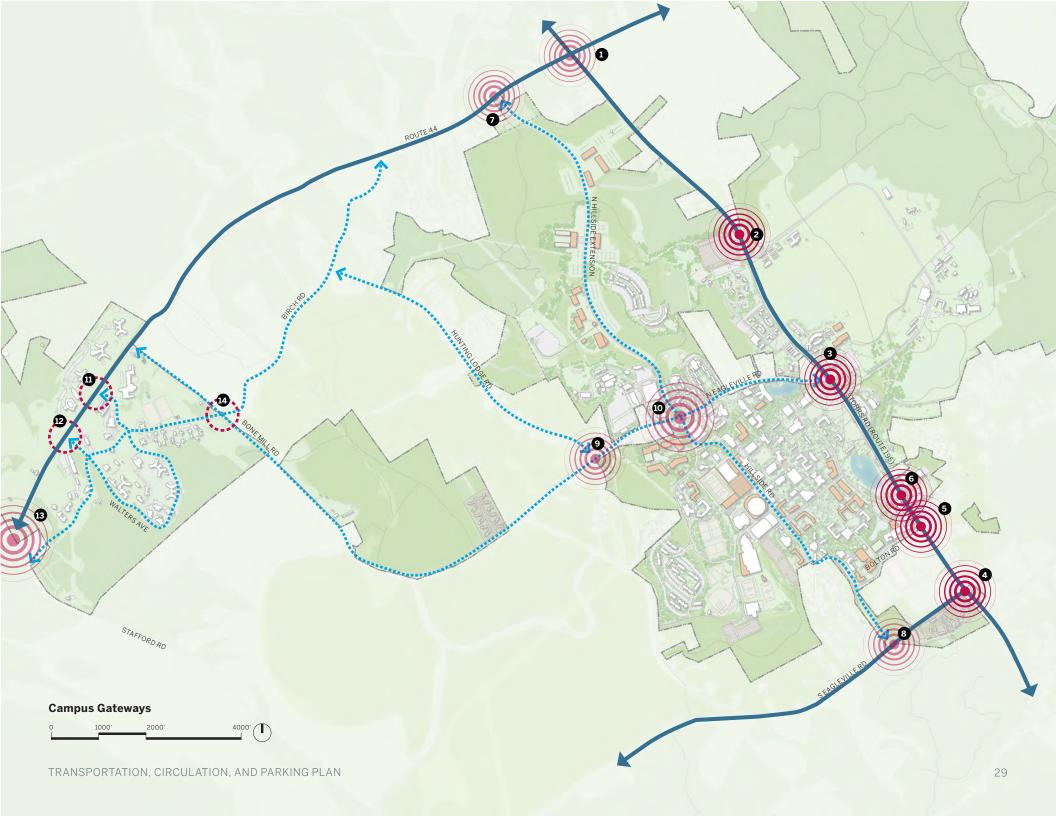
This will be the future ceremonial entrance to the University Village at Depot Campus. Buildings should shape the landscape behind the Brown Building to create a welcoming experience to the historic Girls' Campus and to feature the connection to the Connecticut landscape.

#### 13. Route 44 and Stafford Road

This intersection marks the beginning of the entry sequence from points west, not only to Depot Campus but also to the larger Main Campus. Wayfinding signage and landscape improvements will begin here.

## 14. Bonemill Road and Birch Road

As the Depot Campus takes on new importance, this intersection will mark the gateway to the Depot Campus from the Main Campus.



## The North Entrance

The northern gateway provides a key opportunity to connect the University's heritage with its future as a research and intellectual hub, by visually linking farmland conservation areas with a new Tech Park Orientation and Exhibition Center. The Jacobson Barn, a historic landmark building, can be repurposed and rejuvenated to serve the University's goal of interfacing with the public, transforming this gateway into an event space and destination.

This is the first experience of the campus for those coming from the north, and it could be an opportunity for a new "gateway" project. W Lot, now a 900+ car surface parking lot, has significant room to accommodate a new "Discovery Center," which could house visitor information, some student services like admissions or career counseling, cultural uses, or exhibition space related to the Tech Park.

The new gateway also provides advance warning to visitors that they are entering a campus and increases their alertness and ability to locate wayfinding signage.

#### Potential Main Features:

- UConn Discovery Center
- Tech Park Orientation and Exhibition Center
- New Visitor Center
- Admissions
- Career Services
- Public Safety



The Jacobson Barn will become a more prominent feature of the gateway experience



Precedent for Adaptive Reuse: The Willoughby Barn by El Dorado, Kansas City, MO



## The Ceremonial Entrance

Visitors and guests will be encouraged to use a "ceremonial" entrance at the intersection of Mansfield Road and Route 195. This new entry sequence celebrates both the legacy campus of the past as well as the new campus of the future, highlighting Mirror Lake, new academic buildings, and the South Woodland Corridor as key features of this gateway. This new ceremonial entrance will ease some congestion at Storrs and North Eagleville Roads and provide a more direct route to the South Garage. It also allows visitors the experience of the Great Lawn, Wilbur Cross, and the Heritage District as a "first glimpse" of UConn.

## Potential Main Features:

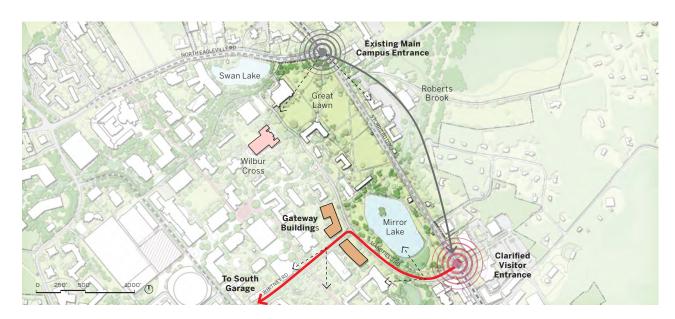
- Views of Great Lawn, Mirror Lake, and the legacy campus
- Views of the new South Woodland Corridor and South Campus Commons
- New Academic Buildings Framing the Gateway
- Direct access to the South Parking Garage



Mirror Lake defines the entry along Mansfield Road



Precedent for Gateway Buildings: UCSF Sandler Neurosciences Center, San Francisco, CA



## The South Entrance

The character of the south entrance will be transformed to reflect its emerging urban setting. The mixed-use redevelopment of Mansfield Apartments and future School of Fine Arts expansion will strengthen the link between the campus and Storrs Center while enhancing wayfinding and orientation. A new parking structure will capture vehicles coming from the south, diverting traffic away from the campus core.

## Potential Main Features:

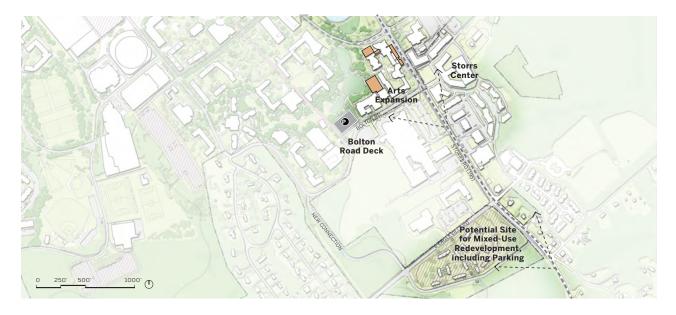
- · Mansfield Apartments Redevelopment
- Fine Arts Expansion
- Parking
- New Residences



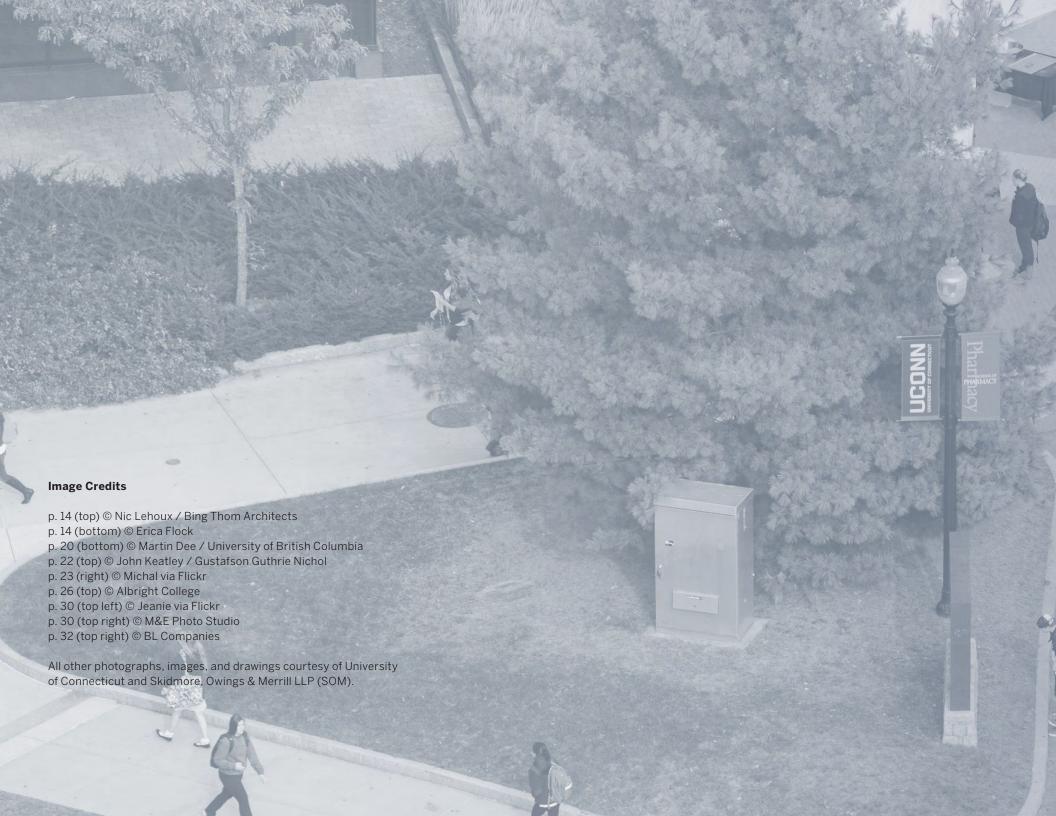
The Drama-Music Building and the Music Library represent the existing southern gateway



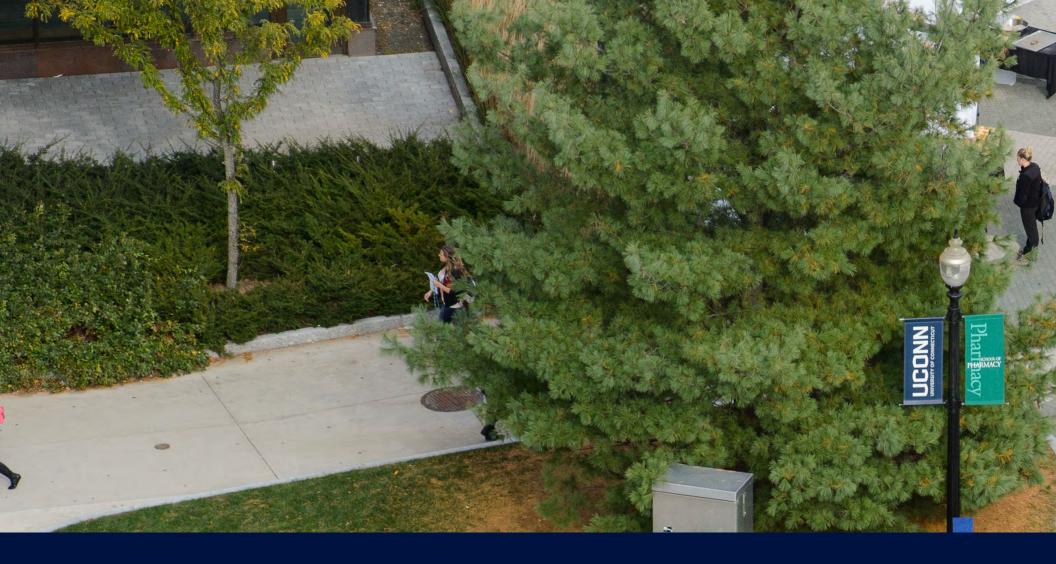
Precedent for Mixed-Use Redevelopment: Storrs Center



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