

Downtown Storrs Design Engagement

Prepared by Dr. Mariana Fragomeni and Dr. Julia Smachylo
Spring Semester 2023

UConn Landscape Architecture

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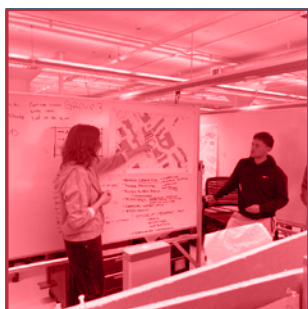


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1

Introduction

This report supports the work being done through the Downtown Storrs Strategic Action Plan to develop a recommended family of site furnishings and a set of shading elements to enhance human comfort in the main plaza spaces in Downtown Storrs.

Currently, the Downtown area has several different seating elements (moveable café-type outdoor seating and Adirondack-style gliders). There is an opportunity to enhance seating and see more unity across the spaces.

In addition, the plaza and streetscape are hot and without shade (partially due to the loss of a large specimen tree along Storrs Road) and there is a desire to reconsider the plantings and develop temporary shade structures for the main plaza space, Betsy Paterson Square.



*Final Presentations to Mansfield
Downtown Partnership Committee*



*Identifying opportunities and
constraints*



Mapping Downtown Storrs

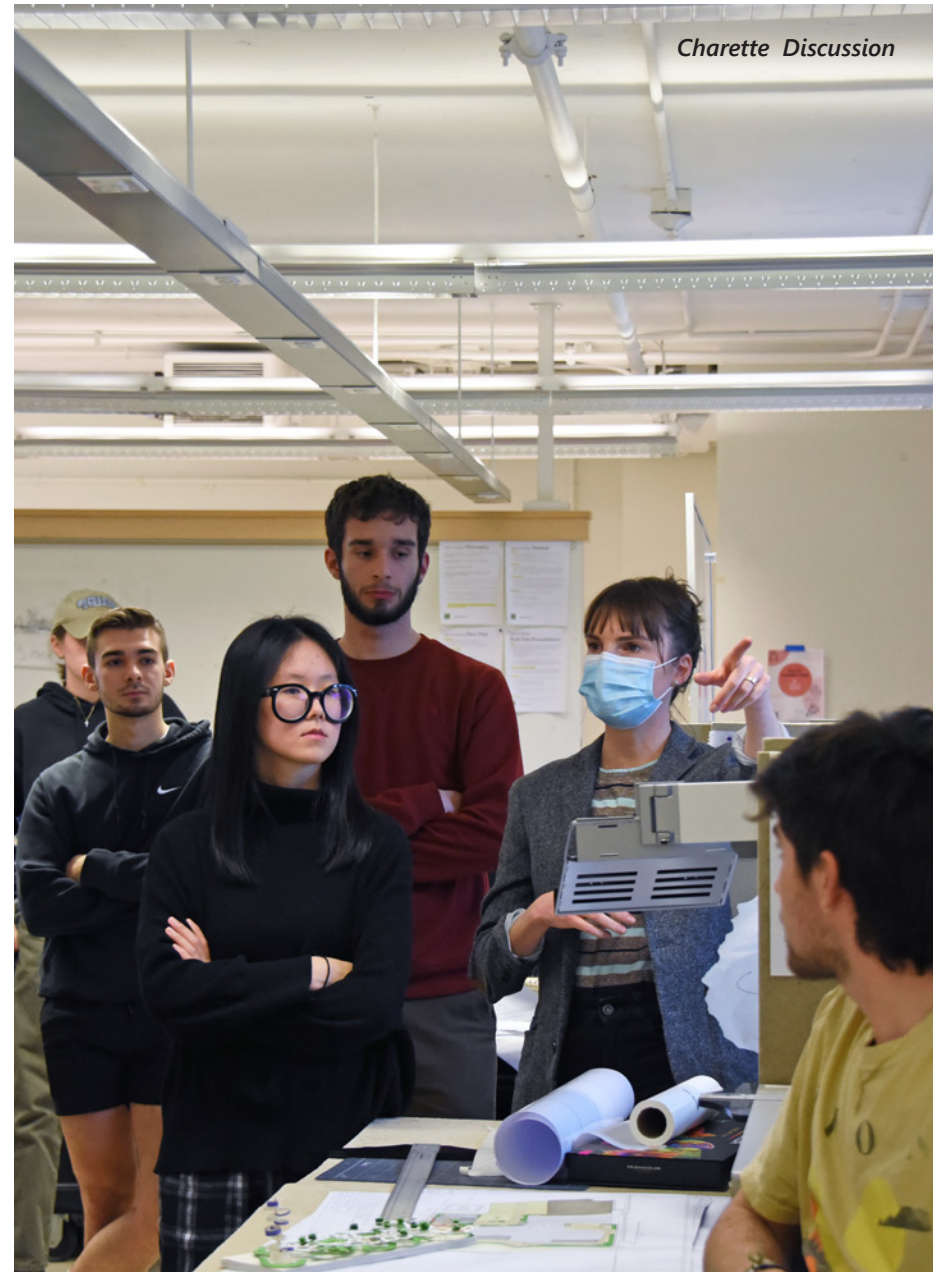
Scope of Study

This report includes:

- An inventory of existing site conditions, furnishings, and programming to understand the micro-climate as well as current context and future possibilities.
- Design recommendations for a comprehensive and well-coordinated suite of site furnishings.
- Design recommendations for additional plantings and shade structures/ devices for the main plaza, Betsy Paterson Square.
- A maintenance guide for the furnishings, plantings, and shading devices.
- Background material required to make adequately informed design decisions and place the design recommendations into context.

This report combines the work of both the Sophomore and Junior Landscape Architecture Design Studios led by Dr. Julia Smachylo and Dr. Mariana Fragomeni in the spring semester, 2023. Using a vertical studio model Sophomores engaged in an existing conditions analysis through repeated observation of Downtown Storrs. In order to understand the site's context, students extended their research efforts beyond the project boundaries and developed an understanding of how the downtown interacts with other cultural and environmental systems.

Coming together in a 3 day Charrette event, the Sophomores and Juniors built on this foundational analysis to discuss the users, community needs, opportunities and constraints, and possible future directions. The Junior class then developed a set of case studies and proposals that addressed these needs, drawing from their research and design visioning skills. This report synthesizes student work to provide direction for the Mansfield Downtown Partnership working group to better understand what can be accomplished in the near future while also outlining aspirational programming and public infrastructure investments.



2

Existing Site Conditions

A primary deliverable is the provision of an inventory of existing site conditions to understand the micro climate, use and users of this space. This section places Downtown Storrs within a regional context, focusing primarily on the public spaces that make this place distinct.

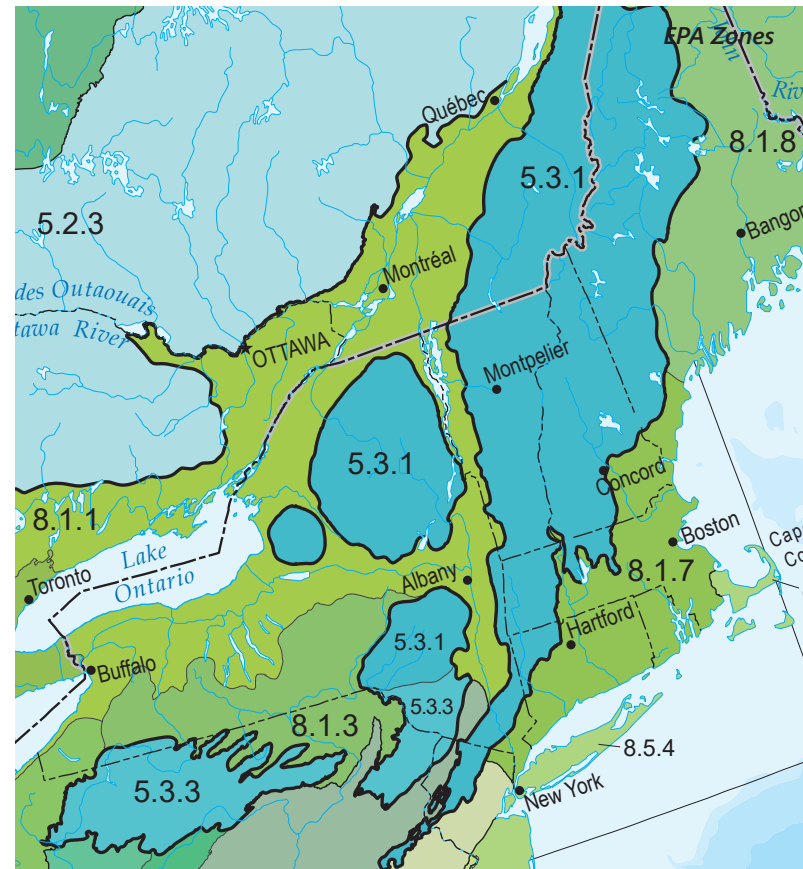
Overall what we saw was the opportunity for enhancing the use of this space by harnessing the everyday activities of residents with the sometimes activities of visitors.

Consistency and continuity were main themes that surfaced in student reports. These pointed to the need for a local strategy deployed in a systematic way throughout the site.

Existing Site Conditions

Overview

Within the wider region, Downtown Storrs is located in a diverse ecosystem which provides a valuable opportunity to protect and preserve its unique natural heritage. Mansfield, CT is part of the Northeastern Coastal Zone level III ecoregion (8.1.7) which covers the majority of southern New England. Land use in this area is made up of forested areas as well as urban, and suburban development. The region has four distinct seasons with warm summers and cold winters with abundant perennial streams, lakes, ponds and wetlands. Vegetation includes the Appalachian oak forest, northeastern oak-pine forest and a variety of native mammals. Proximate wetlands provide high carbon sequestration, high nutrient transformation, high stream-flow maintenance, and wildlife habitat.



Ecological Regions of North America (cec.org)



Wetlands Map (Brendan Pugmire, Atlas Collazo, and Iris Armstrong)

Existing Site Conditions

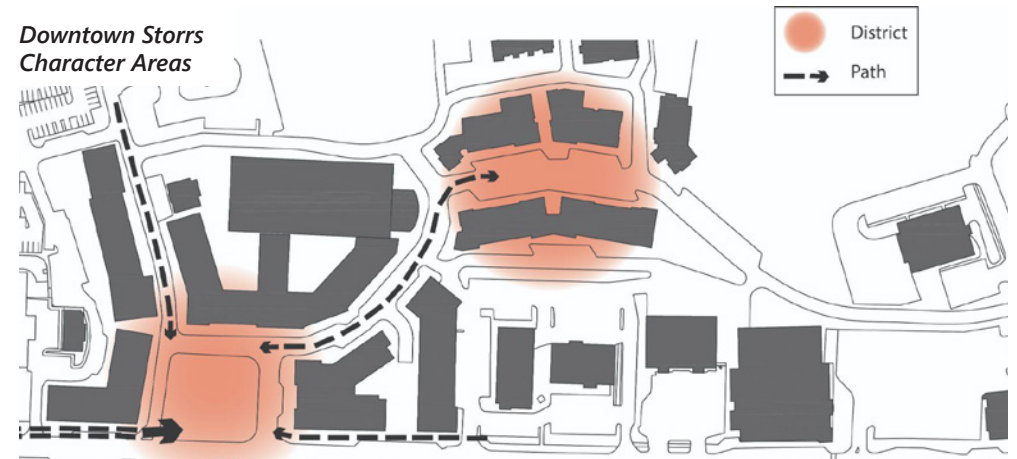
Downtown Storrs

Site Analysis

Downtown Storrs is a central hub of activity, providing a range of dining experiences, shopping and public programming. It is also an area where students and local residents come to relax, away from the university campus. This area has a hierarchy of public spaces ranging from the larger Betsy Paterson square to smaller courtyard spaces. Major roads such as Storrs Road bring vehicular traffic to and from the area, complimented with smaller streets that are quieter in character.

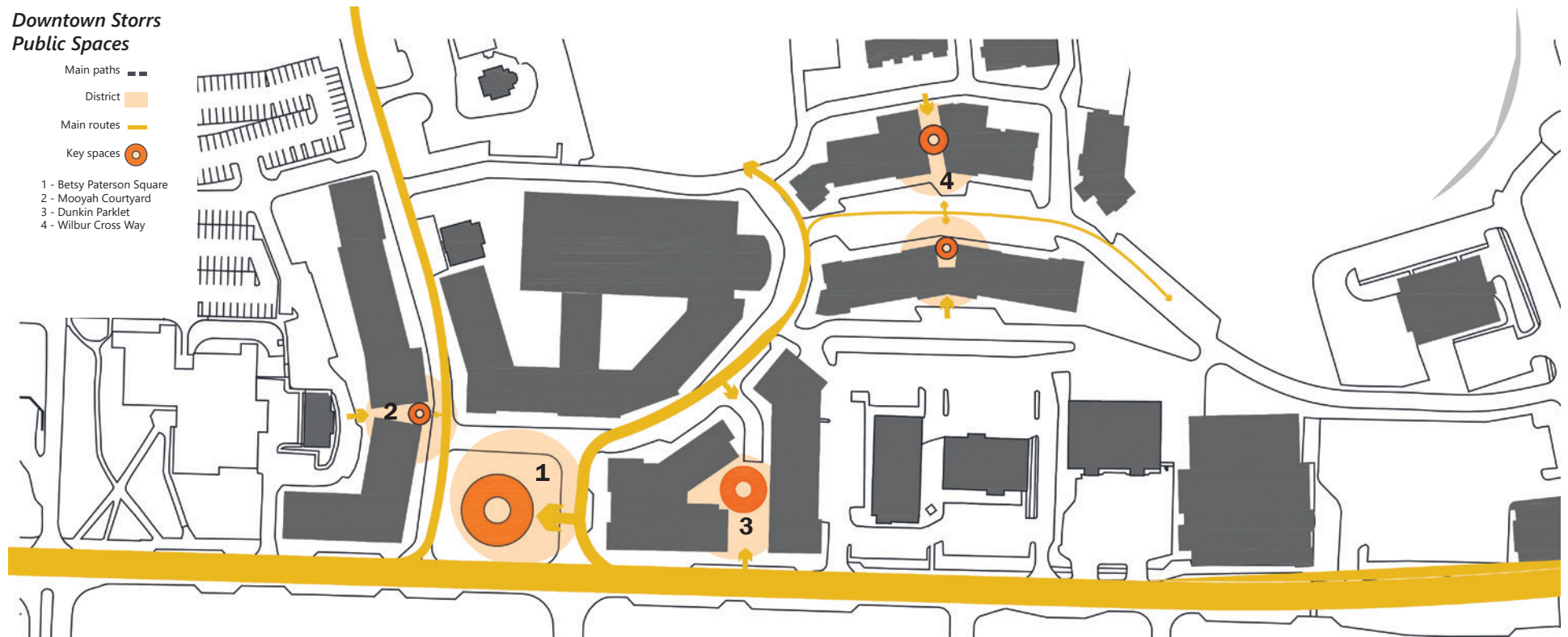
The downtown provides a variety of programming opportunities, hosting annual concerts and holiday events. In terms of built form, the area combines a mix of residential, institutional and commercial land use in close proximity to community recreational spaces. Both Storrs Road and Betsy Paterson Square is a hub for activity.

*Downtown Storrs
Character Areas*



Character Areas Map (Owen Wallenberg)

*Downtown Storrs
Public Spaces*

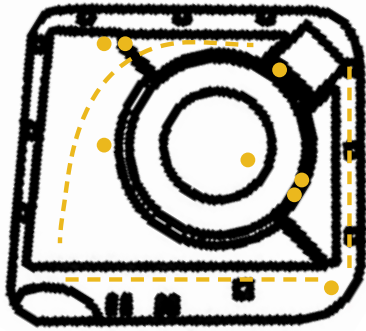


Public Space Analysis (Owen Wallenberg)

Focus Areas: Squares

Betsy Paterson Square

Betsy Paterson Square is at the heart of Downtown Storrs. It's knee level ledges and movable tables and chairs make it the perfect place to sit down and eat with friends, or just simply relax and spend time outside. The central lawn provides a grassy area for kids to play or lounge. Throughout the year this space holds many festivals and events drawing in both residents and visitors alike. Overall the square's vibrant colors, decorative trellises, and beautiful plantings make it a space that everyone can enjoy.



Observations

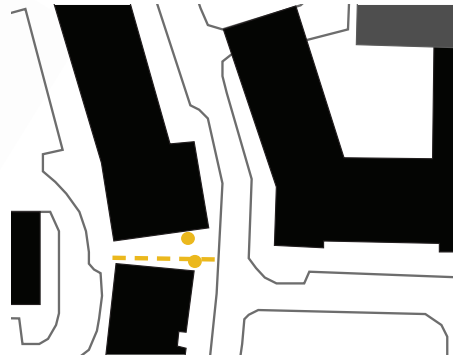
- Loud due to traffic
- Circulation from residents, college and high school students; occasional adults walking
- About 12 people passing through every 5min
- Pedestrian movement follows the given sidewalk



- Circulation Paths
- Areas of Congregation

Mooyah Courtyard

This is a populated space, not only because it is near the shops but because it serves as a connection route from UConn's campus to the main square downtown. The ramp makes this space accessible to all. The addition of the bistro/string lights made this area feel more cozy; and the placement of planters in the area help to give this space a more distinct character. Furthermore, the movable chairs provides space to stop and eat.



Observations

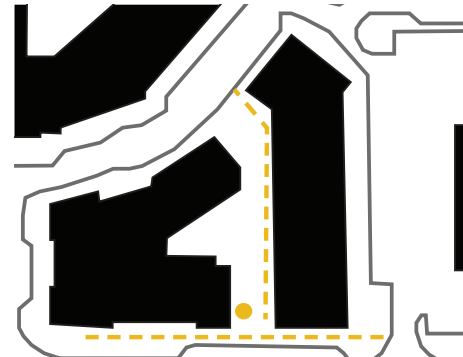
- Area less noisy than Storrs Road
- Circulation from students, and customers of nearby shops



Public Space Analysis (Jason Robinson, Sydnie Jacobsen and Zach Masi)

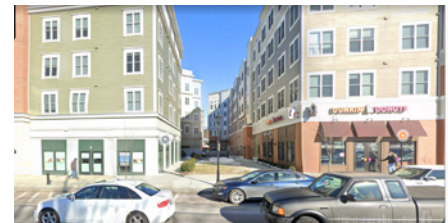
Dunkin Parklet

The Dunkin Parklet is shaded from the sun due to the buildings that surround it. This enclosure provides a nice relief from the vehicular traffic of Storrs Road, though it can at times make the place feel somewhat cold and neglected. The proximity of buildings also funnels wind. Users tend to be Oaks residents coming and going. The space seems to be used primarily for dogs and dumpsters, but has potential to become a quiet, private space for Oaks residents, and patrons of nearby businesses.



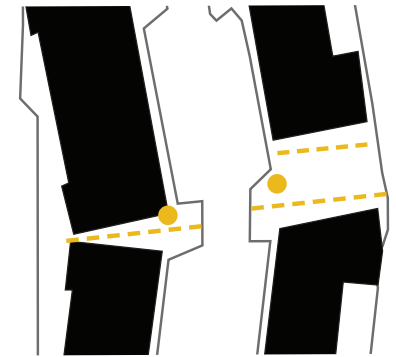
Observations

- Circulation from residents, college and high school students
- Provides a sheltered space
- Access to Royce Circle



Wilbur Cross Way

Located between the Oaks apartments, back near the town homes is Wilbur Cross Way Parklet. This recent addition has helped to make the area more visually appealing and inviting. The plantings and seating create a nice aesthetic for those who pass through the area. It is an ideal place to rest as the area tends to be quieter and trees provide shade.



Observations

- The noise level is muted
- Minimal activity (mostly from residents of the town homes located behind)

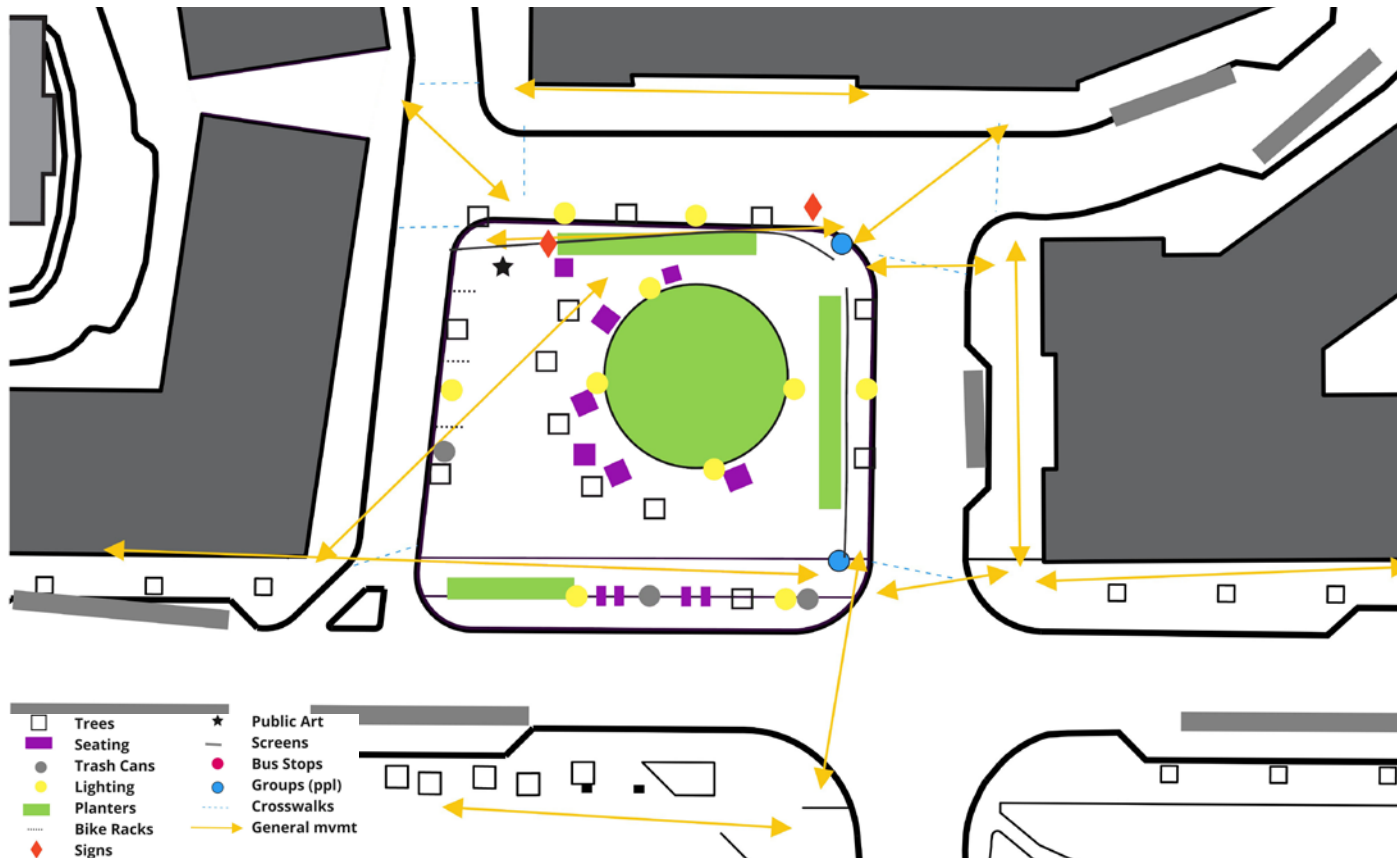


Existing Site Conditions 5

Existing Site Conditions

Area of Interest: Betsy Paterson Square

Extra emphasis was given to the analysis of Betsy Paterson Square as this was identified as a key area of interest by the Mansfield Downtown Partnership and by the students' assessment of users. Student groups were asked to visit the square 5 times over the spring semester for an hour to observe who was using the space and how it was being used. Notable observations that surfaced from this analysis included the high use of this space at night during the week as opposed to weekends, the detrimental impact of noise from Storrs Road, and the potential for more intensive use of the space in general. Student observations also give a sense of how in its peak times this space is used which can give insight for future investment in public space infrastructure to support these trends.



Weekday Use

Date: Wednesday April 19
Time of Day: Afternoon 2pm

User Counts

Pedestrians walking: 50
Pedestrians jogging: 0
Pedestrians sitting: 0
Bikes: 1
Scooters: 1

Weather Conditions

The weather was chilly at around 50 degrees. There wasn't any noticeable smells in the area, and the only sounds that really made a difference were from the wind and vehicular traffic.

What did you notice?

It is an area with lots of potential as a communal gathering place for Mansfield, however, it is quite under utilized, and that is not helped by bad weather. On the few days in the winter where the weather is good and events are planned, the square is popping. Unfortunately, it would seem that most days (such as today) the space is vacant.

How was it used?

In part because it was an overcast day, there weren't any pedestrians using the space in a recreational way. All foot traffic seemed to be through-traffic.

Weekday Use

Date: Thursday April 20

Time of Day: Night

User Counts

Pedestrians walking: 75
Pedestrians jogging: 1
Pedestrians sitting: 16
Bikes: 0
Scooters: 1

Weather Conditions

The weather was quite comfortable at 57 degrees. There was a light wind and traffic. The square had lots of people going through and chatting.

What did you notice?

The space is quite nice at night. The main square is well lit, and the signs from nearby businesses add character to the atmosphere. Traffic is a bit lighter than in the afternoon, and there are many people around enjoying the area. The square almost seems to come alive at night.

How was it used?

It was a clear night with nice weather, and lots of people were taking advantage of the space. There were some people there doing homework, others chatting. There were also people who only stopped to talk for a couple minutes. Noticeably, there were lots of groups. There weren't many people alone. There was even someone going for a jog, even though it was night.

Weekday Use

Date: Friday April 21

Time of Day: Afternoon 2pm

User Counts

Pedestrians walking: 76
Pedestrians jogging: 0
Pedestrians sitting: 32
Bikes: 0
Scooters: 0

Weather Conditions

Sunny 70 degrees, low wind.

What did you notice?

It was hot and there were a lot of people in groups. People seemed to be enjoying themselves, not a lot of people in a rush, more there for recreational reasons. Heard people saying hello to others or conversing, as well as vehicles.

How was it used?

Out of the 32 people sitting in downtown, 14 of them were eating, 10 of those people all sitting in one group at four red tables grouped together. Four people were on their laptops, and 3 were tanning. The shade structure was providing a red tinted shade that let light through without feeling the UV rays.

Weekend Use

Date: Saturday April 22

Time of Day: Weekend 8:30 am

User Counts

Pedestrians walking: 16
Pedestrian sitting 0
Bikes 1
Scooters 0

Weather Conditions

It was a very sunny day and warm for how early it was. It got much warmer later on and became very nice out. It was quiet and very calm outside.

What did you notice?

It seemed like an area people just pass through as the restaurant everyone was eating at has their own outdoor seating thus less people were eating at the square. It was pretty quiet and didn't seem like lots of people were moving around yet because it was so early on a weekend.

How was it used?

Most users were either walking to Dog Lane Cafe which makes sense because it is a breakfast place and CVS which is a pharmacy. Everyone was just passing through at that time as Dog Lane has their own outdoor seating.

Weekend Use

Date: Saturday April 22

Time of Day: 9 pm

User Counts

Pedestrians walking 32
Pedestrian sitting 0
Bikes 0
Scooters 0

Weather Conditions

It was warm out for how late it was and very quiet out especially considering it was a Saturday night. It was drizzling and a little bit windy.

What did you notice?

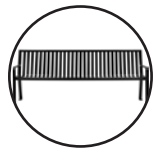
It did not seem busy enough for a Saturday night despite the rain as almost everywhere else on campus and off campus has a lot of people out.

How was it used?

People were using the space to pass through; nobody was sitting in the green or at any of the tables. Lots of people were passing through to go to Insomnia Cookies which is the only late night food option in that area.

Furnishings

Downtown Storrs uses a variety of furnishings for seating, biking and planting. This public space infrastructure includes both permanent fixtures such as bike racks and planters, as well as temporary furniture for seating. Temporary seating can be moved around as the programming of the square changes with different events. There is also temporary seating that is fixed for the season which includes the yellow rockers located in and around Wilbur Cross Way Parklet. Generally the majority of seating is located in Betsy Paterson Square with the notable yellow rockers at Wilbur Cross Way.



Black Benches

- 31 all year round
- Fixed
- An additional 7 from Spring to Fall



Planters

- 20 all year round
- An additional 7 from Spring to Fall



Bike Racks

- 21 all year round



Yellow Rockers

- 3 from Spring to Fall
- Fixed



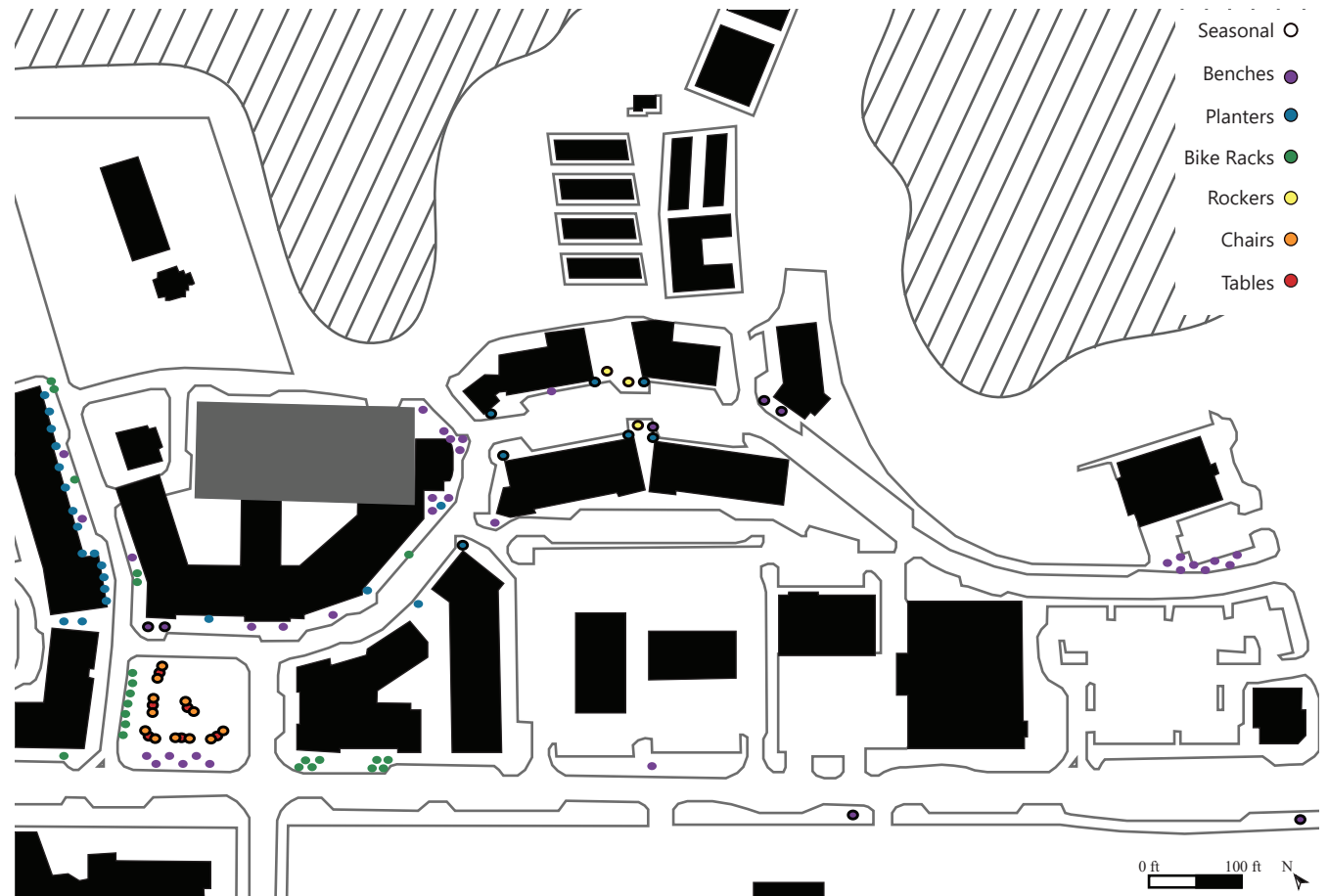
Red Chairs

- 40 from Spring to Fall
- Movable



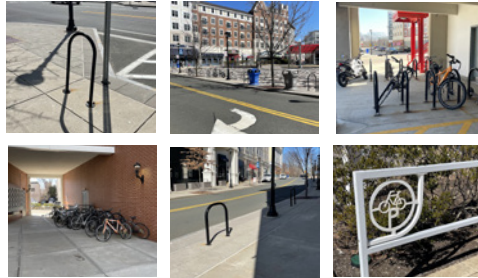
Red Tables

- 30 from Spring to Fall
- Movable



Bike Racks

Bike racks are located individually or in groups along Storrs Road and at gathering spots throughout downtown. Generally they are black and U-shaped. However there are some square shaped gray racks provided as well.



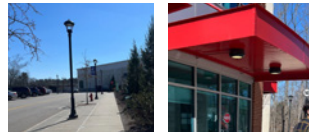
Crosswalks

Crosswalks have a similar approach throughout the downtown area. The crossing is made of red brick between two white lines, with curb cuts and a tactile paving strip.



Lighting

Lighting in the downtown area has a coordinated approach with the black stand-alone lights along roadways, lighting attached to buildings and awnings, and more atmospheric string lights.



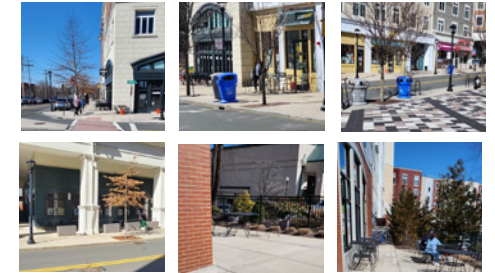
Tree Grates

There are a variety of tree grates and tree planters located on site. Grates offer some level of protection from compaction, however in some instances these have been compromised which can impact tree health and growth.



Outdoor Dining

Outdoor dining exists both informally and formally. People will bring food to public realm chairs and green space in Betsy Paterson square. More formal seating is provided proximate to restaurants. Courtyard dining areas exist in Mooyah Courtyard and in the Dunkin Parklet.



Signage

Many signage approaches exist in the downtown area. Generally, signage that is specific to the downtown contains the Downtown Storrs logo. This is not always the case as seen with the welcome program banner. Signage uses blue, black and green in it's color pallet.



Public Art

Art is concentrated in Betsy Paterson Square and along to Storrs Road. The color pallet uses silver and red.



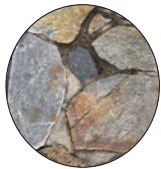
Existing Site Conditions

Built Form

Materiality and Color

The overall color pallet of Downtown Storrs is comprised of neutral tones. The majority of buildings are various shades of gray, brown, and muted red. The materiality of the site varies from porous stones, metal grates, and natural stone to brick, metal/ plastic siding, and concrete. The materiality consists of buildings constructed using stonework, concrete paneling, bricks, or other types of masonry. On top of this base exists various types of siding, some buildings have plastic horizontal siding while others use metal panels. The roofs of the buildings also vary. Some use metal materials for roofing while others have flat roofs.

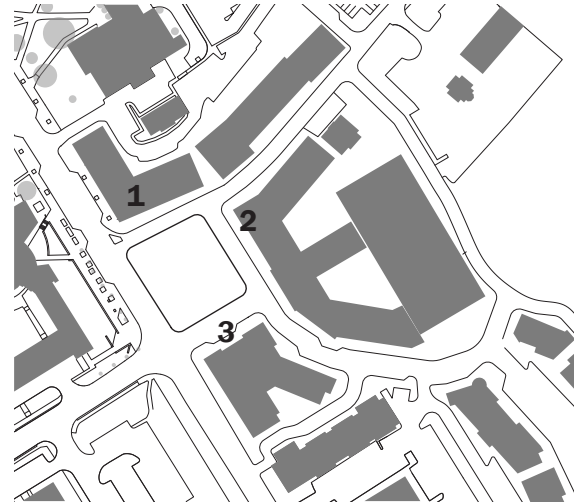
Ground Materials



Building Materials



Materials Analysis (Matthew, Bacon, Sean Houssan and Lucas Silva)



Landmark Buildings

1

The first landmark area consists of restaurants including the Dog Lane Cafe



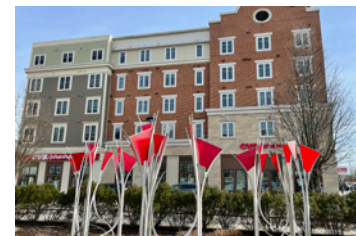
2

The second landmark area consists of a bookstore, and puppet museum.



3

The third landmark area consists of CVS and apartments.



Existing Site Conditions

Microclimate

Sun and Shade

A mature oak tree used to be a major element of Downtown Storrs' Betsy Paterson Square. It provided:

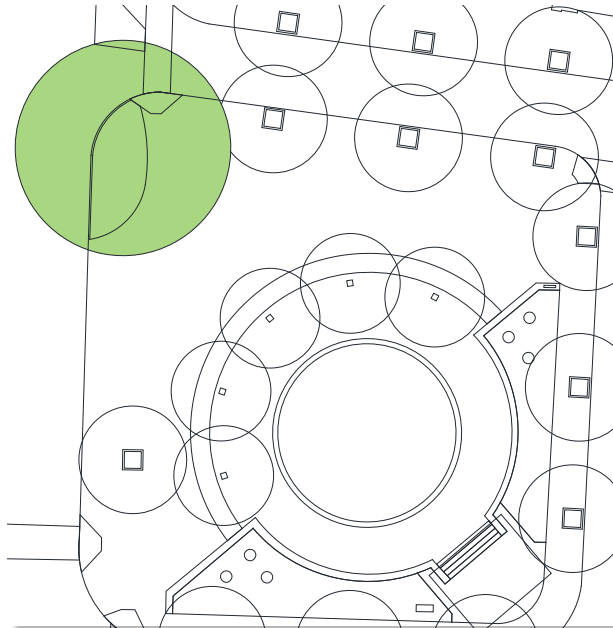
- Shade from the harsh sun
- Cooling of the dark paving
- Shelter from the elements
- Visual enclosure of the space
- Focal point and identity
- Connection to historic Mansfield

The planter that formerly housed the oak has the potential to be used more effectively to provide additional shade to the space or as an 'entranceway' feature.

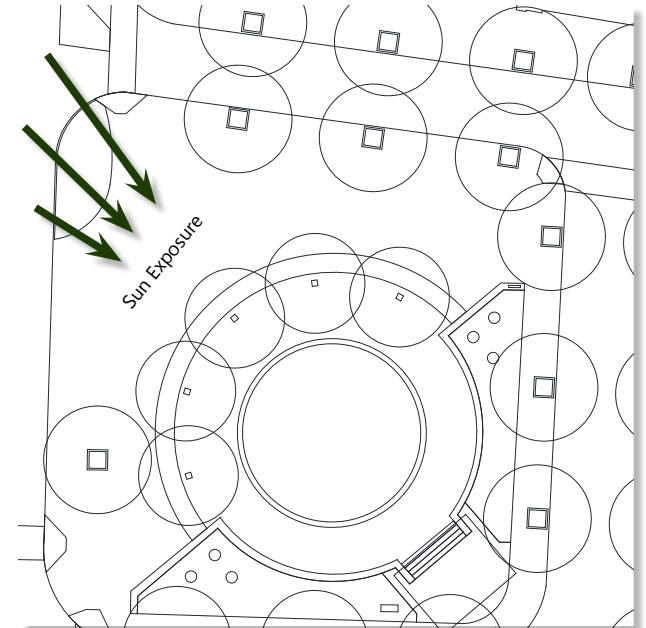
View before oak removal

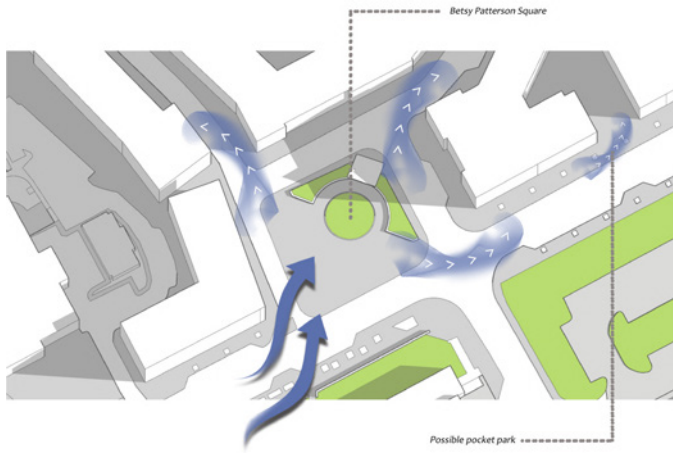


Former site condition



Current site condition





Wind

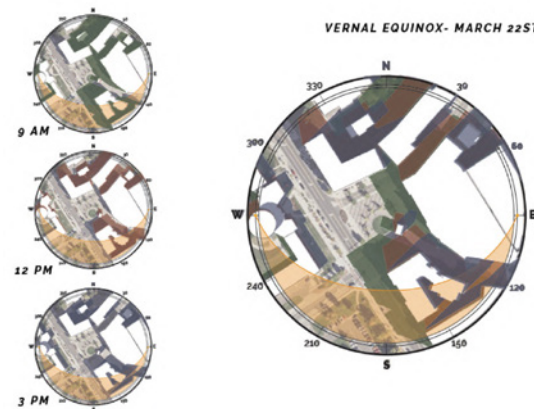
Many weather patterns are determined by the wind. Wind carries heat, moisture and pollen to new areas as well as pollutants. The calmest times of the year are from the end of April to the end of October. The windiest month of the year is in February with an average of 6.8 miles per hour.

The majority of the time the wind comes from the West. It blows to the north west and is stronger on winter nights compared to the summer. In May and June the wind shifts south west, and even for a short while in the end of July and August it blows majority south. The path the wind takes should also factor into future design strategies in terms of mitigation. The wind channels through the corridor forming a wind tunnel through Dog Lane, Royce Circle and Wilbur Cross. This is a particular issue in the winter.

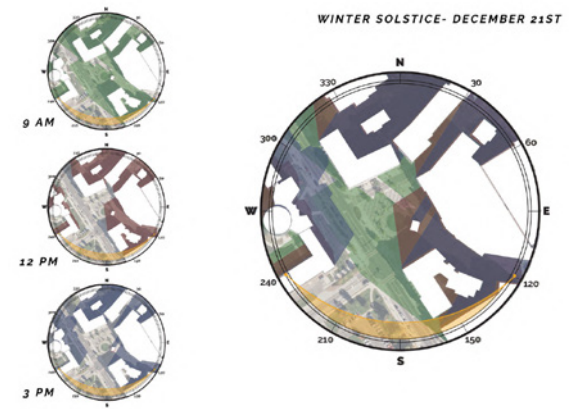
Sun

Betsy Paterson Square is exposed to the sun in the summer months and shaded in the winter months. In the summer, the north west of the square is particularly hot with no shade relief throughout the day. In the winter, the morning hours are particularly shaded which makes this place quite cold.

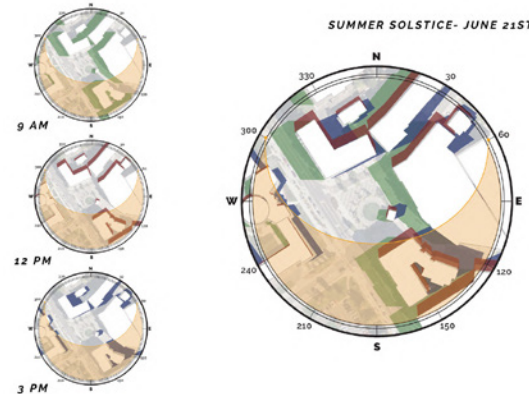
Vernal Equinox March 22



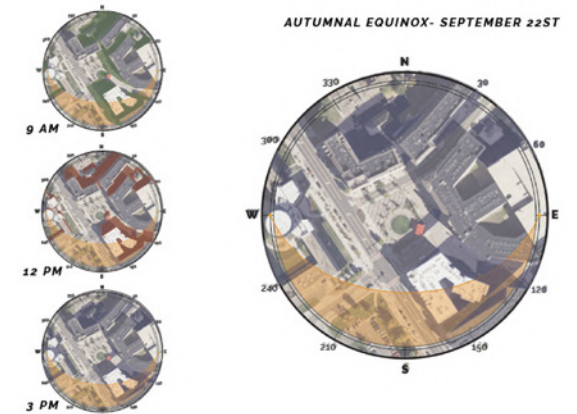
Winter Solstice December 21



Summer Solstice June 21



Autumn Equinox September 22



Charrette

A Charrette is an intensive, brainstorming exercise traditionally used in design schools to stimulate creative solutions. In this environment, our student design teams worked systematically to assess the opportunities and constraints of the site with particular attention given to the role of green infrastructure, climate and comfort, walkability, accessibility and placemaking.

A preliminary activity that students engaged in was identifying the users of Downtown Storrs which are made up of students (university and high school), residents, customers, visitors, employees, families, children and the elderly. A key deliverable of the exercise was identifying opportunities and constraints that would serve to guide future design interventions. Students identified the

need for attracting more visitors to the area as a main goal of the Mansfield Downtown Partnership. To attract more people to the downtown, potential was seen in further activating the diversity of existing public spaces. Some initial ideas focused on the use of shade structures, and a greater number of attractions such as murals, temporary installations, community gardens, food trucks or modular activities. Students identified certain environmental needs as well such as the opportunity to enhance biodiversity and stormwater management. Some notable constraints also surfaced in discussion with the Mansfield Downtown Partnership. For instance the number of vacant shops, noise and wind levels as well as possible budget constraints.



*Junior and Sophomore
Charrette Event*



Green Infrastructure

Students assessed the amount of hard, buried infrastructure on site and how soft alternatives can help support the reuse of resources, especially water, the health of key species and the conservation of key natural areas.

Opportunities

- Access and proximity to open green space. Proximity to wetlands provides valuable ecosystem services and resilience against climate change and extreme weather
- The forest creates a natural edge to the space and gives opportunity for recreation
- Location in a Natural Diversity Area represents an opportunity for habitat creation, community outreach and education
- More biodiversity in public space plantings for a healthier and resilient plant community
- Connecting with regional natural heritage areas to create habitat continuity

Constraints

- Require salt tolerant plantings
- Current lack of plant biodiversity
- Presence of invasive species
- Lack of resources for wildlife

Climate & Comfort

Students assessed opportunities and constraints for climate comfort that mitigate extremes and contribute to wellbeing.

Opportunities

- Create a more inviting/ comfortable space with shade.
- Explore creative solutions to shade issues that could greatly improve function and value of the space

Constraints

- Changing weather patterns including drought and flooding could cause damage
- Pollution and garbage could be issues as the site is highly trafficked and thus vulnerable to pollution coming from Storrs Road and nearby businesses
- Air quality due to proximity to Storrs Road vehicular emissions
- Wind speeds adversely impacts human comfort, especially in the winter months
- Lack of shade in Betsy Paterson Square leads to high exposure and increased pavement temperature

Walkability & Accessibility

Students assessed the opportunities of the site to create walkable neighborhoods that are well connected and fully accessible to major destinations and surrounding areas of interest to provide multiple route options for all modes of travel.

Opportunities

- The main square allows people to have a “landmark” type feel while being downtown.
- Clear open space for numerous activities: eating, kids playing, festivals
- There are small green / open space areas that have potential for further enhancement and public programming

Constraints

- Increase of crosswalks on Storrs Road may benefit pedestrian movement but increase vehicular traffic problems
- Minimized pedestrian walking zones along Storrs Road.
- Would benefit from wider sidewalks or traffic calming measures for safety

Placemaking & Variety

Students assessed the range of housing types, park and open spaces and neighborhood focal points. They discussed opportunities to create streetscape quality, and contribute to neighborhood character, livability and sense of place.

Opportunities

- Wayfinding for downtown attractions can be enhanced through a coordinated streetscape pallet
- Room for bike lanes on Storrs Road
- Create paths where desire lines exist
- Spaces to promote gathering along the sidewalk/alleys especially around open spaces
- More canopy trees and string lights over courtyards and furnishing zones

Constraints

- The downtown area, specifically the square can be quite noisy as it's located right next to a main road
- Too much variety in wayfinding and color pallet currently exists. The space would benefit from a overall strategy.

3

Case Studies

Downtown Storrs is a village not a city. It's a place within a place. The case study analysis of this report took as a starting point the need to consider the unique character of Downtown Storrs. Due to its size and character, several types of case studies were assembled. These included: (1) College towns, and (2) New England towns to inform downtown activation.

Unlike other schools, at UConn the student population reduces dramatically in the summer. As a result, this space needs to diversify who it's catering to without forgetting that the student population is an asset. In the end what is right for Storrs is a combination of the best of these highlighted downtown types.

College & New England Towns

Madison, WI

Festivals every weekend include: live music, cooking classes, crafting, exhibit opening, nature hikes. Programming includes:

Summer: Botanical garden, boat cruises and rentals, arboretum, parks and beaches

Fall: Apple orchards, corn mazes, pumpkin patches, U Wisconsin football games, craft beverage trail, festivals and fairs

Spring: 200 miles of hiking and biking trails

Winter: Frozen lakes, in town ice skating, holiday light display, dome dining, theater, live music, and holiday shopping



Portsmouth, NE

Portsmouth has a variety of restaurants and breweries, a bustling Market Street, as well as arts venues that support a music hall lounge, jazz and blues club set, all set within a historic built environment.

A key element of programming is Market Square Day which hosts 60,000 people attend annually. Key aspects of this event include:

- Entertainment
- Food
- Artists, crafters and merchants from local areas
- 150+ Vendors
- 10k road race through the town
- Over 40 years old



New Haven, CT

New Haven is rated No. 1 in Connecticut, No. 6 in New England, and No. 37 overall for college towns. It has access to libraries, museums, art galleries, cafes, and bookstores.

There are green spaces for gathering and the town hosts a thriving restaurant and bar scene, arts and cultural offerings, walkable downtown and outdoor recreation opportunities.



Portland, Maine

Attributes of this downtown include a high frequency of events that are communicated with the public, an active nightlife and bar scene as well as various dining options, lodging, tours, shopping, shows/plays, art, educational areas.



Burlington, VT

Burlington has a historic downtown due to its built form. Brick paving matches the buildings and indicate pedestrian streets. There are lots of locally owned businesses and restaurants in the area and events are communicated through a mobile app.

The downtown provides plenty of outdoor seating options (permanent and temporary) and places to eat outside. The programming and amenities are not just catered to students and there is attention to multi-season interest, functional/flexible spaces, the maintenance of large street trees and a cohesive pedestrian public realm that adds continuity throughout the site.



Provincetown, MA

Provincetown hosts a long strip of various shops housed in colorful buildings with lots of variation. Programming-wise there are many events/festivals planned during the summer months. These events are inclusive and the area is an active promoter of pride. The area is walkable and integrates multiple modes of transportation.

Due to the pedestrian traffic the main Commercial St does not close down but many drivers avoid it and traffic guards are also used. Little parking is provided on the street, as most is located in a central parking lot.



Providence, RI

Home to Brown, RISD, PC and Johnson and Wales, Providence has a variety of educational institutions while also retaining a small city atmosphere.

The natural attributes of the city include its river and waterfront. Providence hosts an eclectic dining and nightlife scene with public programming especially along the river with the well-known event Water Fire. Historic architecture and tree-lined streets make this city a tourist destination while also catering to the needs of local residents.



Cambridge, MA

The City of Cambridge in Massachusetts is home to Harvard University and a variety of historic buildings that give the area a particular sense of place. Programming includes live music, night markets, local breweries and restaurants. The area is bike accessible and has made investments in public art.



Woodstock, VT

An example of creating multi-seasonal interest, Woodstock VT emphasizes family friendly activities and has a variety of bookstores, farmer markets and museums. The town has a variety of family owned restaurants and shops.



Hanover, NH

Hanover's public realm boasts a significant tree canopy which structure the space and provide shelter from the elements. The public realm is comprised of live/dynamic edges which give animation throughout the day and into the night.

A lighting strategy that is consistent throughout the downtown helps to unify this space and support wayfinding. There are various seating options and shops spill out to occupy the sidewalk space adding to the dynamism of this area.



Montpelier, VT

A small but walkable downtown, Montpelier has a distinct architectural style with unique buildings that frame key intersections. The downtown is pedestrian friendly and easy to navigate for tourists. Sidewalks are wide and shops are unique and local to the area. Street art and dynamic edges help to give this area a unique feel.



4

Design Recommendations

The resulting products proposed by the junior studio (LAND 3430: Program Development) are focused around creating vibrancy and building character to the Downtown Storrs. Yet, to achieve this a combination of these needs to be implemented. More importantly, the downtown needs to understand its essence and speak to the needs of a multitude of users. The work of the students resulted in a range of solutions represented here under the following categories:

Site Furnishings
Shade structures
Planting
Water Features

Site Furnishings

Signage

Median Signage

Apply bold application of signage to identify Downtown Storrs as a place. This application would promote (1) entrance and (2) create sense of place. Suggested placements for signs include median entering from Mansfield Center towards UConn and on Betsy Paterson Square. Use of this type of sign on the square will secure a boundary.



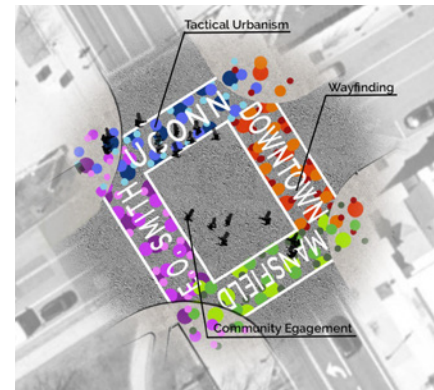
Signage and planting to frame Betsy Paterson Square (John Mooney)



Welcome sign on median across from Price Chopper (Mia Tunucci)

Store & Street Signage

Many stores in downtown already have blade signs installed. Yet their placement is inadequate for the pedestrian scale. Some signs are placed very high and are only visible from a certain distance. Street signs, such as the downtown flags do not match the color palette (dark blue, instead of red). This affects the legibility of the space, and makes it less recognizable.



Tactical urbanism applied on crosswalks (Mia Tunucci)

Informational Signage

The suggested selection of seating is intended to compliment the existing suite of seating options. The studio project proposals integrated seating that related to the history of the UConn campus (e.g.: swings as a reminder of Mirror Lake), and color selections that match the existing palette in the square. Others proposed the addition of sculptural seating.



Informational signs to be distributed across downtown (Mia Tunucci)



Multiuse structures that includes access to information (Elizabeth Helmnin)

Seating

Seating for the Square

Seating across Downtown Storrs is variable. From the red tables and chairs on Betsy Paterson Square to the yellow Adirondack gliders on Wilbur Cross Way, the variation in typology and color is significant. We suggest choosing seating options that adhere to a theme and color palette. We recommend using red and adding attraction pieces for seating on the square.



Sculptural seating for visual interest (Abigail Varga).



Adirondack Swings to form cohesion with gliders (John Mooney)

Sidewalks

Many students proposed expanding the seating area to sidewalks close to businesses. Seating on the sidewalks would support vibrancy in areas distant from Betsy Paterson Square and generate permanence. Some restaurants currently use seating adjacent to their facades, yet boundaries with movable planters and railings would enhance the experience.



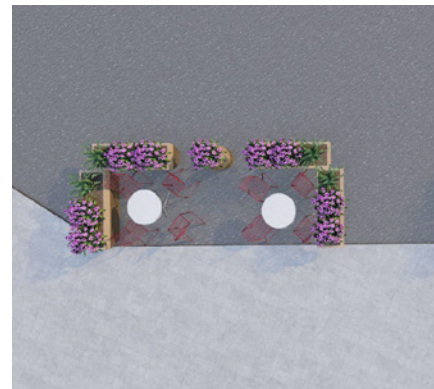
Incorporate seating on sidewalks to promote vibrancy (Abigail Varga).



Seating on sidewalk with railing and plantings (John Mooney).

Parklets

Where sidewalks are narrower, as in Royce Circle, students also proposed the deployment of parklets. These temporary setups would enable parking spaces to be used as additional seating and dining spaces during weekends and holidays.



Temporary parklets on parking spaces (Andrew Simmons).



Temporary parklet in perspective (Andrew Simmons)

Coherence

The suggested selection of furnishings intends to compliment the existing suite of seating options. The studio project proposals integrated seating related to the history of the UConn campus (E.g., swings as a reminder of on Mirror Lake), recently purchased Adirondack gliders, expression of public art, and color selections that match the existing palette in the square. At the heart of the proposed furnishings, including signage and shade structures, is adhering to a style and color palette that will make Downtown Storrs unique and identifiable. We suggest the color red in Betsy Paterson Square due to its current application in elements on the site. Yet, red should not be the only color applied. Careful consideration should be given to developing a color palette for furnishings and plantings alike.

Permanence

To create vibrancy means to promote enjoyable spaces that people desire to spend time in. The concept of permanence in this project suggests that Downtown Storrs can benefit from creating spaces that are more than passages. Moreover, "permanence" should be applied beyond Betsy Paterson Square. It should encompass the entire downtown. Along with "cohesion", "permanence" is a spatial invitation to stay.

Shade Structures

Permanent

Sun Sails

Many of the students identified sun sails as a permanent and hard-scaped solution to promote shading on Betsy Paterson Square. For many of them the design would align with the current Downtown Storrs logo, which resembles flags. Similar to the previously proposed umbrellas, sun sails could be a removable alternative to promote shade in late-spring to early-fall. However, sun sails will require permanent infrastructure, such as posts, for installation. This might make it a more costly option, yet the posts can be used to incorporate outdoor lighting, as seen in the Mooyah inlet.



Example of use suggested use of sun sails on Betsy Paterson Square (Abigail Varga).



Photovoltaic permanent shade structure can enable energy generation in addition to coverage (Richard Patai).

Photovoltaic Structures

Two students (Richard Patai and Elizabeth Helmin) suggested a more innovative approach to developing permanent shade structures. Richard Patai went a step further and suggested a solar energy-generating shade structure. Such an approach is novel and fundable through existing state and federal grants that support alternative energy generation.

We could not find similar examples in any location in Connecticut, and there are limited approaches in other parts of New England. Yet, this seems to be a unique opportunity to develop a functional project, that is energy-generating and revenue-building for the town. Furthermore, Downtown Storrs can serve a growing number of electric vehicle owners who need locations to charge.

Temporary

Umbrellas

We suggest the installation of commercial-grade outdoor umbrellas to strengthen cohesion and introduce shade in the short term for Betsy Paterson Square. We recommend installing three to four umbrellas. And to ensure cohesion, we believe the color red will help match the existing palette of the square. Maneuverable umbrellas are preferred to create flexibility for users.



Rendered model of commercial-grade umbrellas. Color palette should be adjusted for context. (Leon Li).

Plant Selection

Native Plants and Shrubs

We suggest introducing the application of low-maintenance plants, meaning using ornamental grasses, flowering shrubs, and ground coverings that do not require replanting and are adaptable to site conditions. Most of the plants students suggested were winter hardy, and salt and drought tolerant. The class also focused on selecting native and non-invasive plants that support pollinators, enhancing the existing Downtown Storrs sustainability plan. There was a considerable overlap in the plant selection of the eleven proposed projects. This is due to the site limitations and the focus on native plantings. However, this is not a limiting factor to developing a vibrant color scheme that can compliment the palette chosen for the previously presented furnishings.

Trees

Students deployed a similar approach to tree selection. We carefully picked species alternatives that were winter, salt, and drought-tolerant. However, trees can also serve as elements to enhance coherence. The choice of species of different sizes, flowering palettes, and foliage coloration can support a sense of place. Yet cohesion is needed throughout Downtown Storrs' boundary. Limiting planting effort strictly to Betsy Paterson Square reduces the permanence needed to promote vibrancy in adjacent streets and inlets.

SHRUB SELECTION



TREE SELECTION


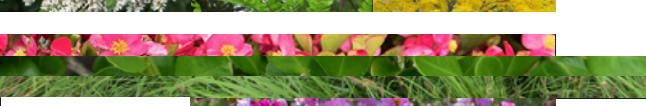


Example of plant and tree selection proposed by Mia Tunucci.

Plantings

Color Palette

As indicated previously, one of the solutions suggested by the students was the development of a planting color palette that would ensure seasonal interest and would compliment the existing palette of hardscaped structures within Betsy Paterson Square. This palette also brings together colors from furniture choices, such as the yellow gliders installed along Wilbur Cross Way. The play on color can function to tie together the entire downtown and create a sense of place and promoting wayfinding. Seasonal interest can also support the vibrancy of the downtown, including the choice of native grasses that retain color even in winter months.






















































































































Plant Name	Quantity	Water Usage	Sun Exposure	Spring	Summer	Fall	Winter
Acer buergerianum / Trident Maple	58	Medium	Part shade, Full sun				
Chamaecyparis thyoides / Atlantic White Cypress	37	Medium - High	Part shade, Full sun				
Fraxinus pennsylvanica / Green Ash	8	Medium	Full sun				
Gleditsia triacanthos inermis 'Shademaster' / Shademaster Honey Locust	15	Low - Medium	Full sun				
Begonia cucullata / Wax Begonia	50						
Buxus microphylla / Littleleaf Boxwood	19	Medium	Part shade, Full sun				
Carex pensylvanica / Pennsylvania Sedge	852	Low - Medium	Deep shade, Shade, Part shade				
Coreopsis bipinnatus / Garden Cosmos	49						
Erica carnea 'Springwood White' / White Spring Winter Heath	343	Medium	Part shade, Full sun				
Euonymus fortunei 'Emerald Gaiety' / Emerald Gaiety Wintercreeper	169	Medium	Part shade, Full sun				
Forsythia x intermedia / Border Forsythia	78	Low - Medium	Part shade, Full sun				
Panicum virgatum / Switch Grass	164	Low - High	Part shade, Full sun				
Pelargonium x hortorum / Geranium	51	Low - Medium	Part shade				
Zinnia elegans / Zinnia	66	Medium					

Example of plant selection, schedule, and seasonal color palette developed by Abigail Varga.

Perennial, Flowers, Evergreen and Grasses

ATTRIBUTE	COMMON NAME	SCIENTIFIC NAME	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
  	Faulkner Littleleaf Boxwood	<i>Buxus microphylla</i> 'Faulkner'												
  	Littleleaf Boxwood	<i>Buxus microphylla</i> 'Tide Hill'												
  	Fox Sedge	<i>Carex vulpinoidea</i>												
   	Dutch Crocus	<i>Crocus vernus</i>												
   	Winter Heath	<i>Erica carnea</i>												
     	Blanket Flower	<i>Gallardia aristata</i>												
     	Gaura	<i>Gaura lindheimeri</i>												
    	Bloodred Geranium	<i>Geranium sanguineum</i> 'Stratum'												
   	Japanese Forest Grass	<i>Hakonechloa macra</i>												
     	Dolce® Spearmint Coral Bells	<i>Heuchera</i> x 'Spearmint'												
    	American Holly	<i>Ilex opaca</i>												
   	Best Bet German Iris	<i>Iris</i> x <i>germanica</i> 'Best Bet'												
    	Becky Shasta Daisy	<i>Leucanthemum</i> x <i>superbum</i> 'Becky'												
     	Walker's Low Catmint	<i>Nepeta</i> x <i>faassenii</i> 'Walker's Low'												
    	Blue Jean Baby Russian Sage	<i>Perovskia atriplicifolia</i> 'Blue Jean Baby'												
   	Dwarf Mugo Pine	<i>Pinus mugo</i> 'Pumilio'												
    	Goldsturm Coneflower	<i>Rudbeckia fulgida</i> 'Goldsturm'												
   	Butterfly Blue Scabiosa	<i>Scabiosa columbaria</i> 'Butterfly Blue'												

Trees

ATTRIBUTE	COMMON NAME	SCIENTIFIC NAME	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
     	Canadian Serviceberry Multi-trunk	<i>Amelanchier canadensis</i>												
    	Eastern Redbud	<i>Cercis canadensis</i>												
    	Thornless Cockspur Hawthorn	<i>Crataegus crus-galli inermis</i>												
   	Green Ash	<i>Fraxinus pennsylvanica</i>												
   	Maidenhair Tree	<i>Ginkgo biloba</i>												
   	Thornless Honey Locust	<i>Gleditsia triacanthos inermis</i>												
     	Spring Snow Crabapple	<i>Malus x 'Spring Snow'</i>												

Example of plant selection, schedule, and seasonal color palette developed by Nancy Pan.

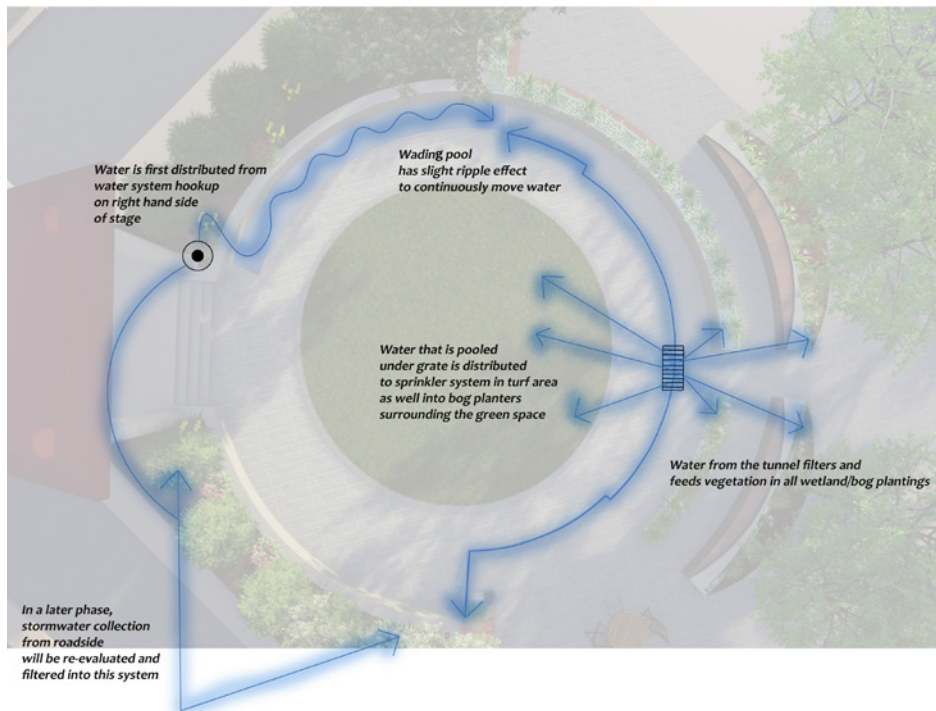
Interactive Cooling

Summer Interest

Due to the lack of shade, Betsy Paterson Square can be quite hot during the summer. Students Elizabeth Helmin and Richard Patai suggested the inclusion of water features as a heat mitigation strategy that could spike summer interest. Both designs proposed systems that take advantage of wind to disperse water, functioning as a cooling strategy, while providing an interactive space for children.

Water Circulation

Elizabeth Helmin's design proposed the incorporation of a wading pool, connected to bog plantings through grates that would serve as water filtration systems. This loop would benefit stormwater runoff management on site, while promoting cooling. Her project was inspired by a redevelopment project in Normal, Illinois, designed by Farr Associates of Chicago, which has a similar circular configuration.



Schematic design of water circulating around Betsy Paterson Square, including a wading pool and bog plantings for water filtration (Elizabeth Helmin).

Splash Pad

Richard Patai's proposal incorporated a splash pad aligned with the predominant wind. This design suggests an approach that could create vibrancy and activity, independently of programmed events. Furthermore, the position of the splash pad could promote cooling for the entire square and to adjacent streets.



Wind circulation and alignment with splash pad location (Richard Patai).



Positioning of splash pad in coordination with new tree plantings (Richard Patai).



Rendered model of splash pad positioned within the wind path to serve as both an interactive space for children and a cooling mechanism (Richard Patai).

Immediate Solutions

Short-term solutions range from furnishings to shade structures and planting solutions. Here we present a host of elements immediately deployable to address some of the issues previously discussed in this section.

First and foremost, we recommend creating a design guideline and color scheme for all new elements added to Downtown Storrs in the future. A well-crafted yet simple guide that sets a theme and color palette will help future purchases and replacements for worn-out furnishings.

Furnishings

Seating is one of the priorities of this work, and we presented a host of ideas that range from custom-made sculptural pieces to pre-fabricated options.

1. **Sculptural seating:** We suggest benches or chaises that could be part of a local competition for a functional work of art intended for seating. The winning design could offer a cash prize. The competition guidelines should be clear on desired color and vision of Downtown Storrs and could include affordable construction and maintenance as part of the requirements.
2. **Adirondack seating:** This type of seating is along Wilbur Cross Way in yellow. We suggest adding seating in a similar context to Betsy Paterson Square to create cohesion between the square and the broader downtown. Variations of this seating type, like swings instead of gliders, are a twist to the deployment of this seating typology.
3. **Chair and Table sets:** Existing chair and table sets are adequate and we recommend simply replacing worn-out pieces.

Shade Structures

Temporary shade structures are immediate options, as presented previously. We recommend the use of commercial-grade umbrellas in red. Manufacturers vary vastly for umbrellas.

Plantings

A revision of planting selections focused on native plants can begin immediately. Downtown Storrs has a few planters that receive annuals, and we suggest committing to options with a vibrant color palette that aligns with the overall color scheme yet that will work to attract pollinators. We previously shared the students' work and suggest choosing a color palette and plant selection that aligns with your final color scheme.

Aspirational Solutions

Long-term solutions depend on a strategic vision that outlines Downtown Storrs' desires and needs. This document serves as an initial step towards understanding: "What type of Downtown does Storrs want to be?" We established on these pages that no single place has the unique settings of Storrs. That is an asset. While others strive to be unique, Storrs is already special and "a place within a place." Therefore, we recommend that Downtown Storrs embrace the vibrancy and livelihood of a college place within a town. It needs to be Mansfield and UConn. A taste of both. Rural, yet contemporary. Yet though contemporary, our downtown lacks the lush vegetation that newer trends in landscape architecture propose to create vibrant and healthy communities. Therefore, we suggest that Downtown Storrs needs a long-term plan to deploy structures that can make it reflect its uniqueness.

Furnishings

We recommend deploying an overall vision and color scheme of Downtown Storrs to inlets, promoting pocket parks that serve other purposes, such as children's play areas (not to compete with the Community Center playground), a dog park, and additional seating areas for cafés and restaurants. Explore parklets to help create permanence along streets and support business owners not directly adjacent to Betsy Paterson Square.

Shade Structures

Permanent shade structures are necessary for the summer months. Yet some of the shadings can and should be complemented with trees. We presented two options for reflection. Approaches range from tried and true options (sun sails) to high-tech options (PV shade structures). Either option will demand infrastructure, yet existing funding opportunities could make a high-tech alternative timely and affordable.

Plantings

Existing tree beds are inadequate along Betsy Paterson Square. Careful consideration should be given to rethinking beds when trees need replacements. Some suggestions included expanding and raising tree beds to allow roots and canopies to mature into full-grown specimens. These solutions include seating or mounding around trunks to limit trampling. The following section includes further recommendations for maintenance and immediate solutions for trees.

6

Maintenance Guide

Many of the solutions suggested in the previous section reflect an attempt to create coherence and vibrancy in the downtown. Once strategies are deployed, we suggest the creation of a standard that will ensure that future projects adhere to the vision of the downtown.

This section will go over some suggestions to ensure that we create and maintain a sense of place. Solutions range from color schemes to tree maintenance and use of planters and coverings.

General Recommendations

Deployment

The work presented in the design recommendations section indicates a host of options that could serve to support the improvement of a sense of place. However, we suggest two approaches to deployment: (1) use temporary installations to better understand how spaces are used, (2) survey and involve users (e.g. Mansfield residents, downtown residents, students, visitors, etc.) to capture public perception and usability.

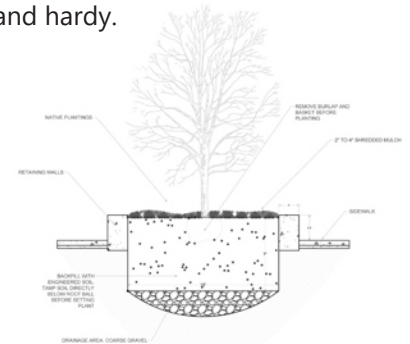
Trees

Currently a number of trees appear stunted and are in poor health, particularly within Betsy Paterson Square and along sidewalks. Trees need planter beds that are as wide as the width of the desired canopy. We did an initial survey of the trees with the UConn Plant Pathology lab (Dr. Nicholas Goltz), who believes some trees are in decline due to soil compaction and limited space in planter boxes. And we recommend contacting Dr. Goltz for further

inquiry on testing and solutions for specific trees, particularly the elms planted on Betsy Paterson Square. Additionally, we recommend planting tree beds with tall, lush, native grasses that will protect trees from trampling and enable nutrient exchange to occur. For instance: Prairie dropseed (*Sporobolus heterolepsis*), Little bluestem (*Schizachyrium scoparium*) or Pennsylvania Sedge (*Carex pensylvanica*). Finally, tree beds installed with grates need to be surveyed and trimmed as trees are ingrowing on metal grates.

Planters and Coverings

Plant selection is an important piece of ensuring coherence in the downtown. We recommend the use of native, non-invasive species and the application of a color scheme that brings (1) year round attraction and (2) compliment the color choices of furniture and other hardscaped structures. More importantly, we suggest the application of low maintenance plantings that are drought tolerant and hardy.



7

Next Steps

Based on the results of the Sophomore and Junior site analysis and design proposals the following section outlines some next steps to enhance human comfort and activity in the main plaza spaces in Downtown Storrs.

One additional overarching recommendation is the need to test future investments before being deployed throughout the downtown area. It is also recommended to foster a strong dialogue with residents and the wider community to better understand what they would like to see in this space. This will ensure community buy-in, a sense of connection with the space and most importantly, an increased use of the area.

Next Steps

Park(ing)

Highlighted in student proposals is the need to test future interventions and receive feedback from the community. One event that Mansfield Downtown Partnership could integrate into their programming is Park(ing) day. This event uses a parking space(s) to re-imagine what a street could be to enhance health and well-being. Park(ing) day is a great venue for testing student ideas.



Test Sites

However, test sites don't need to be limited to parking spaces. Various types of interventions for sun/ shade, wind and public space infrastructure can take place throughout the downtown. These can build on what's already working. For instance the Downtown Partnership working group could test student project ideas such as extended dining options and assess the reception before expanding this initiative.

Funding

The Mansfield Downtown Partnership can take advantage of funding options through grants that target health, energy, heat and sustainability improvements. For instance: the U.S. Department of Energy's (DOE) Solar Energy Technologies Office (SETO) offers grants for small innovative projects in solar (EERE). Additionally, the State of Connecticut's Department of Energy and Environmental Protection (DEEP) currently offers the Non-Residential Renewable Energy Solutions Program (NRES), which includes support for municipalities.

Design Visioning

There is the potential to partner with UConn in future design studios to conduct a more targeted investigation, building from the work compiled in this report. For instance the development of a public realm furniture strategy or native planting palette that pick up on student visions and recommendations.

Tree Strategy

The working group can work with Dr. Nicholas Goltz to assess the health of the trees in Downtown Storrs with specific attention to those in Betsy Paterson Square.