



# A VISION FOR THE SAUGATUCK

A Project of the Senior Landscape Architecture  
Studio at The University of Rhode Island

Prepared for the Town of South Kingstown  
Planning Department

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Under the direction of Professor Will Green



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Finally, thank you to all the local residents and business owners who participated in this project by providing valuable input at our public workshops, at meetings in town and at the final presentation.

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THE  
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OF RHODE ISLAND





## Executive Summary

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In spring 2015, South Kingstown senior town planner, Douglas McLean contacted the University of Rhode Island Landscape Architecture Department (LAR) with a project proposal focused on the Saugatucket River Corridor. The planning office and economic development and planning boards were looking for conceptual ideas for improving the image, function and resilience of the historic village core. South Kingstown has had a long relationship with the department of Landscape Architecture, having worked together on a handful of challenging projects. The LAR 444 Sustainable Design Studio, which typically focuses on sustainability and community design, seemed like a good fit for such a project.

The studio kicked off in mid-September with a walk through the village of Wakefield. Students spoke with business owners and others walking along the streets and river about their town. McLean described local issues of concern while pointing out important places and features. Some of the issues he noted were flooding, erosion and water quality; river use, access and proximity to Main Street; and the local economy. The design process which the students' follow is traditional. It begins with a problem, a site and a need to understand how the site functions. Through analysis, students discover the opportunities and constraints to overcome. They were struck by a combination of factors, which included the center's proximity to the river, the village's unique architectural heritage and robust economy, and the need for better links between the center, surrounding neighborhoods and the river. Students also commented on the value of having an active and vocal community. To engage that community, the class ran a public workshop, which was held at the Contemporary Theatre Company in late September. It was an evening of facilitated activities, and it showed the students the importance of involving local businesses and residents who know the area and use the sites. Later, and at critical times during the semester, professional designers were invited to attend presentations and work sessions in order to critique the students' concepts.

This report summarizes the design process, the students' discoveries, and it illustrates many of their ideas, which were presented at a town hall meeting in mid-December. The students produced four concepts expressing different themes. Highlights of the design concepts include new looped walking trails and boardwalks along the river for walking, fishing, and observing nature. Parking lots were redesigned to improve circulation and infiltration, provide greater buffering with plantings, and allow for passive recreation and river access. On Main Street, sidewalks were to be widened and raised crosswalks and bump-outs added along with bike racks, a solar bus shelter, period lighting, seating and signage. Students identified areas for a boat launch, pergolas and platforms for learning and observing nature. One student proposed a deck on the backside of a commercial business that could spur riverfront development and provide for dining or other uses. Near the Wakefield Elementary School, there were designs for gathering spaces, with one student proposing an amphitheater that could also be used to temporarily store flood waters. There was a green bridge, bioluminescent paving, a new sculpture park near the high school, and branded gateways to the district. There were also rain gardens, bio-swales and an engineered subsurface stormwater infiltration system.

Following their presentations, members from the community questioned the students and indicated ideas they preferred. The concepts expressed in this report can inform consultants and officials and lead to future proposals, grants and funding. I hope these ideas lead to physical changes that link the village to its river.

Will Green, Professor of Landscape Architecture, URI



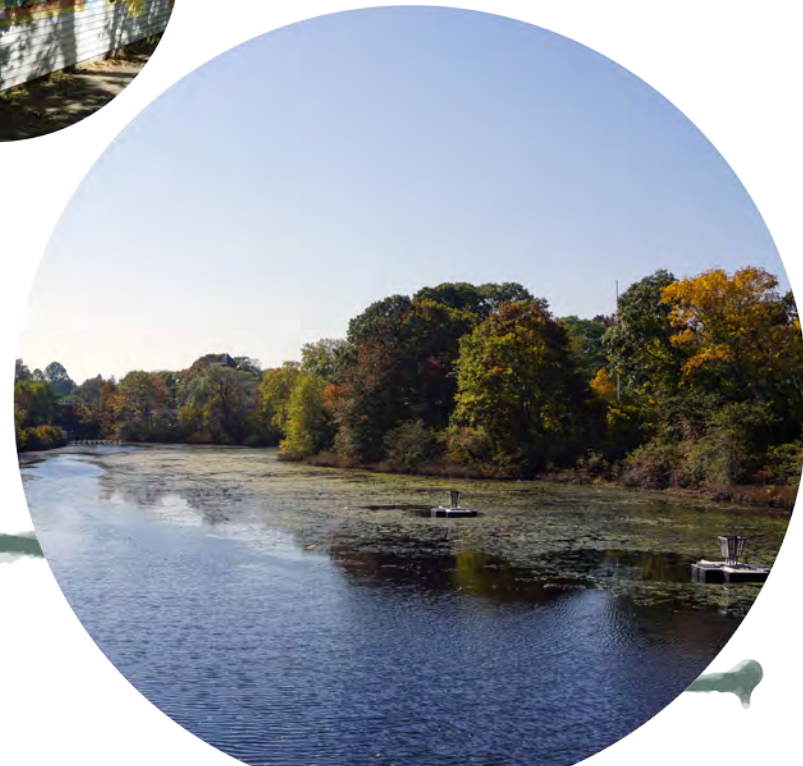
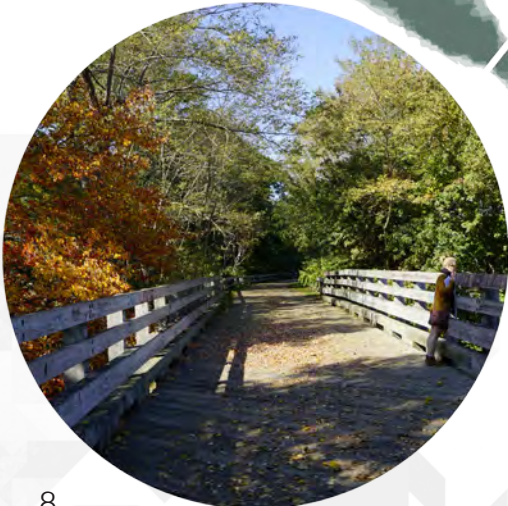
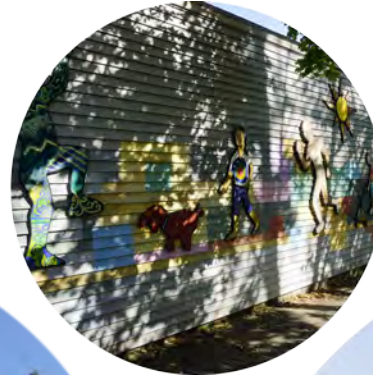


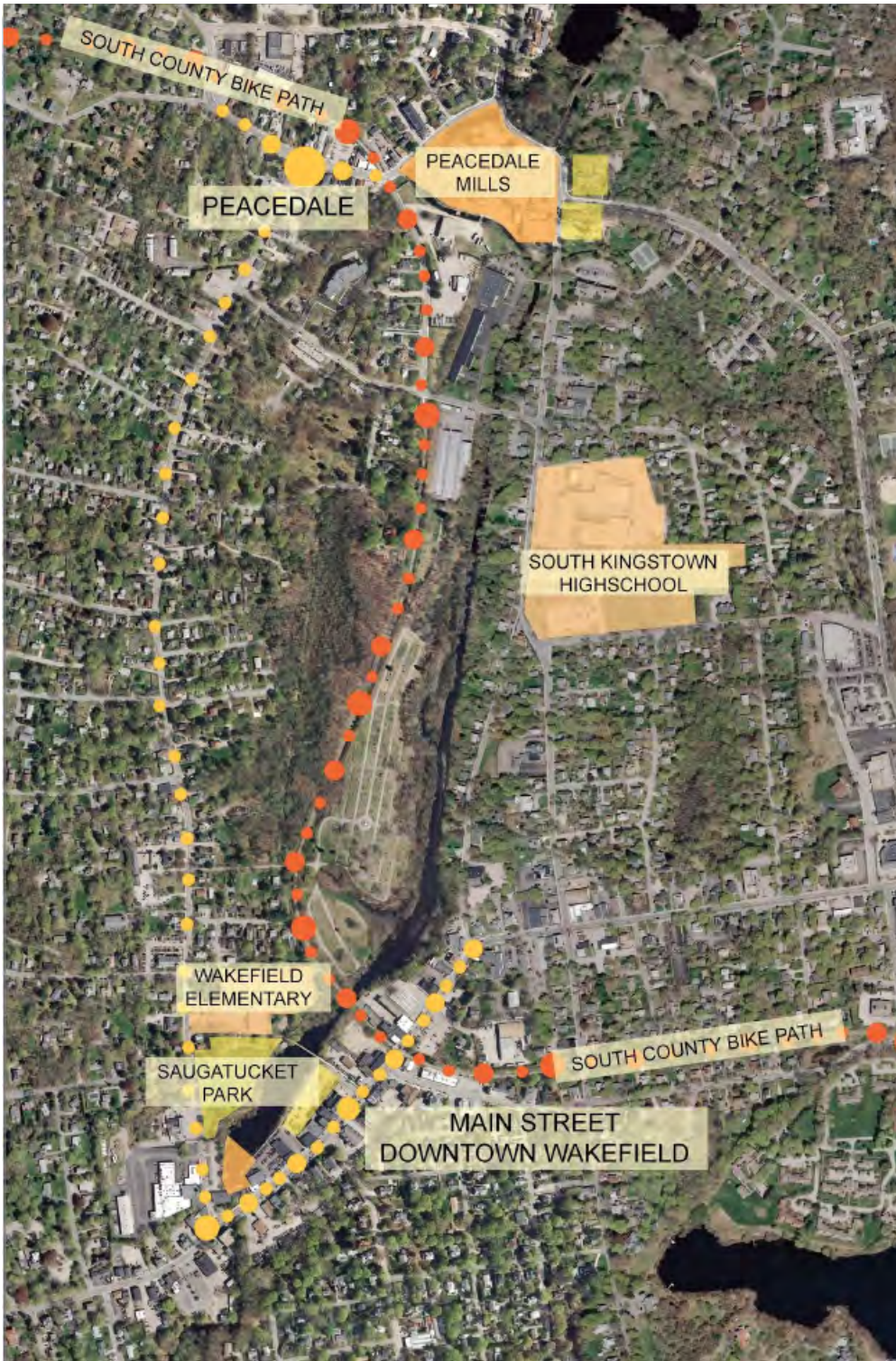


# INTRODUCTION

# Wakefield, Rhode Island

South Kingstown is a municipality in southern Rhode Island made up of roughly 30,000 residents with an influx of visitors during summer months. The town is comprised of 12 villages, of which two — Wakefield and Peace Dale — are located along the Saugatucket River. Textile mills along the river fueled the economy in the 19th century. After the boom years of the Industrial Revolution, the river lost some of its importance to the villages. Industry has degraded water quality, and the town largely turned its back to the river. Today, Main Street is home to local businesses including an ice cream parlor, restaurants, clothing shops, a yoga studio, a performing arts center and professional offices for lawyers, accountants and financial service providers. Wakefield's center is also within walking distance to two schools, Wakefield Elementary, located directly on the river, and South Kingstown High School located on Columbia Street adjacent to the river. St. Francis Cemetery and Saugatucket Park are both important recreational and historic areas of the town, which are also located along the river.





Peace Dale, the neighboring village which is located upriver to the north, has been experiencing a rebirth of its own as its mill buildings and neighborhoods have attracted the attention of business owners and families looking for space. While no longer used by industry, the mills have become home to new enterprises such as a microbrewery and distillery, a rock climbing facility, and offices. Peace Dale Mills is also the winter home of the local farmers' market. Around the mills are the local library, the Neighborhood Guild, a park, residences, and other businesses contributing to an attractive mix of uses.

The loop from downtown Wakefield to the rotary in the center of Peace Dale is about three miles, a very walkable distance on the South County Bike Path or along sidewalks on High Street, which were repaved in 2017. The South County Bike Trail connects Wakefield and Peace Dale and other places in southern Rhode Island; however, it largely bypasses the river, providing only a fleeting glance while crossing Main Street on its way south.

The initial directive for the landscape architecture class was to look at reconnecting the river to Main Street in order to enhance the village center, revitalize economic conditions, improve the village's image, and make the river more accessible, celebrated, safe and clean.





GETTING TO  
KNOW THE SITE  
AND THE COMMUNITY

# WALKING THE SITE

Before beginning to design, the class needed to understand the site and become familiar with issues, places and people. Thus, to kick off the project, the class was taken on a walk by senior planner, Doug McLean. The group walked along the river and through the Village of Wakefield while students made observations, met with a few local business people, and explored the bike path, Main Street storefronts and sidewalks, surrounding parks, schools, and the river's edge.

As they walked, the students asked themselves questions about the sense of place, the quality of streets, buildings, and spaces, and assessed what they could about the values and culture of the community. Students made notes about vehicular traffic; street parking and parking lots; bike traffic on the street and on the bike path; and pedestrian movement on the sidewalks and crosswalks. The group looked at street furnishings including: benches, fences, bike racks, lights, pavements, and walls. They surveyed the river's vegetated edges, wildlife and habitats and developed first impressions of the village's values, and perceived opportunities and constraints. The site visit was important, as it introduced the class to the conditions that would shape their semester.



# PROJECT KICKOFF

## Who?

After gaining a broad understanding of the site, the class organized and facilitated a workshop. The target stakeholders were members of the community and included business owners, home owners, city council members, the economic development committee, the planning board and the conservation committee, educators, parents, landscape architects and the town's planner and engineer.

## What?

This kickoff meeting was held at the Contemporary Theater on Main Street in Wakefield, which is directly on the river. The attendees were randomly divided up into five focus groups, each led by three or four landscape architecture students. The class had prepared three activities they hoped would lead to exciting interactions and offer a deeper understanding of how people viewed and used the river and what they saw as opportunities, constraints, strengths, threats and needs. Having mixed groups allowed the students to gather input from community members with different interests in the town.

## Why?

The information gathered was instrumental in focusing the next phases of the project, and it also served to build trust between the students and the Wakefield community. The most important reason to speak to the public, and have them involved is because, ultimately, the redesign and improvements are for them and the village they know and love.

After the charrette/kickoff meeting, the students returned to class the following day to evaluate materials and discuss what had been learned from the people who live in and regularly use the village. It was an important evening for interacting with and listening to the public. For each exercise, the students compiled a summary list of elements and attempted to identify priorities.

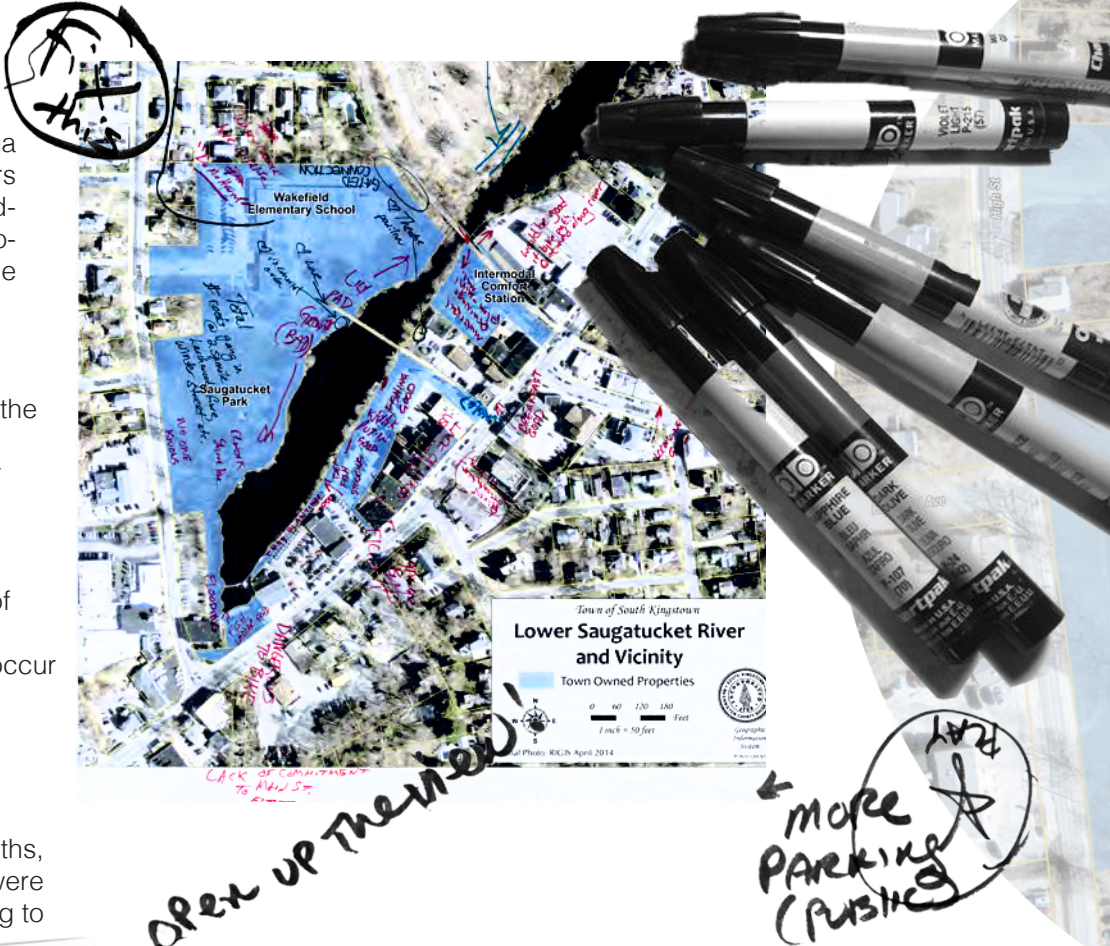


# The first activity....

Each charrette table had a large base map of the village site covering the area from the rotary in Peace Dale to the dam in Wakefield. Each table had markers and blank sticky notes for highlighting points of interest, landmarks and landscape features. The goal of the exercise was to solicit individual's thoughts, stories, ideas, needs, hopes and concerns about locations they could point to. The maps became a valuable reference throughout the design process.

## Discoveries

- Visual, physical and social disconnects between the village of Wakefield and the river
- Missed or failed opportunities to redevelop in ways that could provide greater access to the river or recapture lost views of the river
- Insufficient pedestrian connections between the bike path, walkways and the riverwalk, and zones where pedestrian and vehicular conflicts occur
- Current parking lot conflicts and redesign opportunities at the parking lot off of Main Street adjacent to the Contemporary Theater
- Points of erosion along the river and areas where runoff and severe flooding occur



# The second activity....

Each table referenced its map as a visual aid for a discussion of the Strengths, Weaknesses, Opportunities, and Threats (SWOT) of the project area. Notes were taken, which clearly expressed the thoughts of workshop participants pertaining to key issues that needed to be addressed and considered.

## Strengths

Thriving and diverse businesses and a highly involved community

A strong sense of place based on unique conditions and historic elements

The river as an asset (recreation, ecology, aesthetics, economics and education)

Proximity to several schools

Seasonal events such as River Fire and festivals

Bike path popularity, connections, and the tourists and visitors they attract

## Weaknesses

Limited parking and access to businesses

Seasonal traffic and difficult wayfinding (partially caused by visual clutter and inconsistent signage)

Current absence of funding for site improvements

Lack of maintenance on existing infrastructure such as the sidewalks and river-front properties

Poor ecology along the river and degraded water quality

*light + improve this corridor*

## Opportunities

Adding signage, traffic calming techniques and wayfinding information

Creating and renovating recreational and gathering spaces from which to enjoy the river and seasonal events

Orienting future development towards the river

Improving the street and connections for economic growth

Creating and maintaining views

*Safety issue... separate public...*

## Threats

Unsafe conditions resulting from fast moving traffic and inadequate lighting

Relocation or removal of parking affecting businesses and traffic patterns

Further degradation of water quality and river ecology

Inadequate storm water management and flood events, especially in light of expected climate changes

Habitat destruction and changing ecology





## The third activity....

The students prepared four questions to steer conversation that would help them further understand the needs and requests of the community. Participants were encouraged to ask students or each other questions of their own.

**The four questions and the most consistent and unanimous answers to each are listed below:**

### What We Found

WHAT ARE THE DESTINATIONS IN WAKEFIELD THAT YOU FREQUENTLY VISIT?

**What are the destinations in Wakefield that you frequently visit?**

- Brickley's Ice Cream
- All That Matters (yoga studio)
- Phil's Diner, other eateries
- The Contemporary Theater
- South County food co-op

LOOKING AHEAD TO A FUTURE INFLUENCED BY CLIMATE CHANGE, WHAT ARE SOME OF THE PROJECT AREAS/CONDITIONS THAT WILL NEED TO BE ADDRESSED?

**Looking ahead to a future influenced by climate change, what are some of the project areas/conditions that will need to be addressed?**

- Dam restoration or possible removal
- Storm water management and water quality
- Managing invasive species and rebalancing the river ecology
- Water levels and vegetation

IF YOU WERE THE PERSON IN CHARGE, WHAT IS THE MOST IMPORTANT ACTION YOU WOULD TAKE TO MAKE THIS PROJECT AREA MORE VIBRANT & BETTER FOR THE FUTURE?

**If you were the person in charge, what is the most important action you would take to help make this project more vibrant and better for the future?**

- Cleaning up the river - water quality and ecology
- Wayfinding and connectedness of town assets
- Developing ecotourism and promoting education about the river on the river

WHAT SPECIFIC IMPROVEMENTS COULD BE MADE ALONG THE RIVER, BIKE PATH, COMMERCIAL CENTER + CONNECTING ROADS?

**What specific improvements could be made along the river, bike trail, commercial center and connecting roads?**

- Consistent and safe lighting and signage
- Small landscaping improvements along Main Street to create strong visual continuity and sense of place
- Storm water management and green infrastructure
- Improvement of the river's ecology
- Connectedness of river corridor and town assets - developing new and / or highlighting existing

# SITE ANALYSIS

After visiting the site and hearing from the community, the students' next task was to conduct a site analysis. The students divided the analysis into the most necessary components or categories of information that they needed to evaluate and understand. Their categories included the following:

## Historical & Aesthetic....

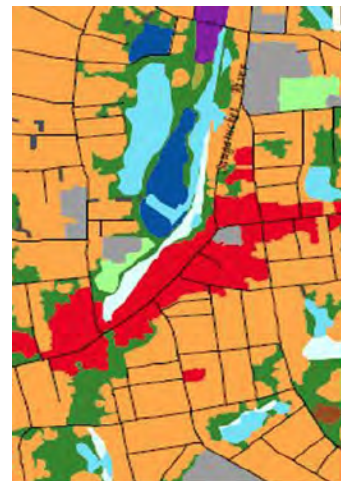
There are 53 structures listed on the National Register of Historic Buildings that make up Wakefield's federally recognized historic district. These structures are major assets to the village and are part of a cohesive architectural heritage that is much valued and reflects the village's industrial past. These buildings contribute to the unique character of Wakefield and are used today as work space for small businesses and as homes.

## Land Use....

Visual clutter and confusing signage detracts from the elements that reference and celebrate the town's colorful history. By looking at maps found on Rhode Island Geographic Information System (RIGIS), students discovered that the project area is primarily residential with a dense commercial district. Wakefield's build-out is at near capacity with medium to high density residential development and limited land for expansion. Green space is scattered through the village, and wetlands are found along the river. In conclusion, there is not much room to grow outwards. Working with and efficiently using and developing that which exists is key.

## Circulation....

Throughout the project area there is conflict between a high volume of vehicular traffic and moderate pedestrian traffic. As of today, not many bikers share the roads (Main or High). However, the bike path does cross Main Street, and if safety precautions were implemented, such as a bike lane, more bike racks, wider sidewalks, or traffic calming devices, there would likely be more bicycle traffic and, thereby, more visitors to local stores and businesses. Circulation tends to be confusing with unclear connections and overwhelming signage. Overall, improvements need to be made for better pedestrian safety, connectivity and accessibility to the center of town and surrounding assets.



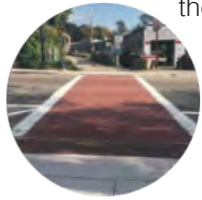
GIS Land Use Map



GIS Circulation Map - Brynn Armstrong

# Hydrology and Geological Characteristics..

Access to hydrological and geological information helped the students understand the major storm water management issues affecting the area. Issues include: intense flooding and puddling, poor water quality, polluted runoff, and the flows and cycles of the river that can lead to low flows and warm waters. The site is in the lower end of the Saugatucket River Watershed. The map (Figure 1), shows where the surface water that crosses the site comes from. The locations of storm pipes, outlets and connecting streams were also mapped out using Rhode Island GIS (RIGIS) and are shown (Figure 2). Knowing these locations uncovers the origins of the water flowing into the river and helps explain the possible sources of nonpoint source pollutants and causes for changing flows (summer is slower, lower and warmer).



These RIGIS maps and the Rhode Island Department of Environmental Management (RIDEM) storm water reports for the Saugatucket Watershed show that the

water quality suffers from excess nitrogen, metals and coliform bacteria and that the polluted water of the Saugatucket River ultimately reaches Point Judith Pond. An issue of concern is related to the intense flooding that occurs in the Main Street parking lot and on other properties close to the river. Familiarity with the existing storm water infrastructure and habits of the river help conceptualize what infrastructure would be necessary to address flooding issues and what needs to be improved in the future to resolve this issue. The students analyzed the impact of fourteen feet of flooding from a major storm event on the river's edge (Figure 3). The analysis helped students use best management techniques to make educated predictions and design accordingly.

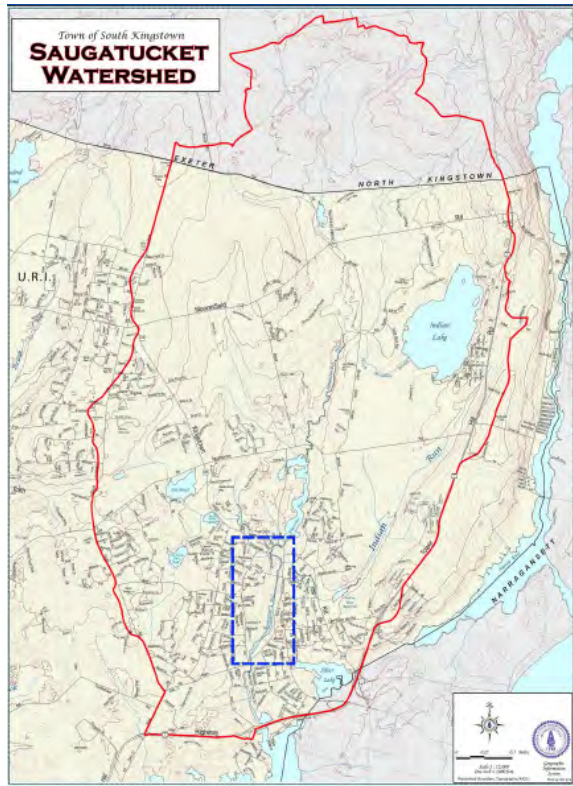


Figure 1  
GIS Saugatucket Watershed Map - Carol P. Baker

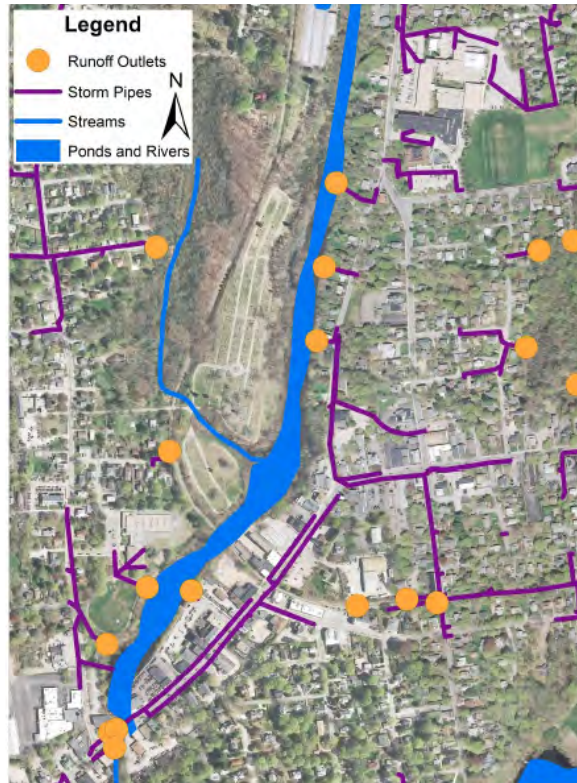


Figure 2  
GIS Outflow Pipe Map - Zachary Driver

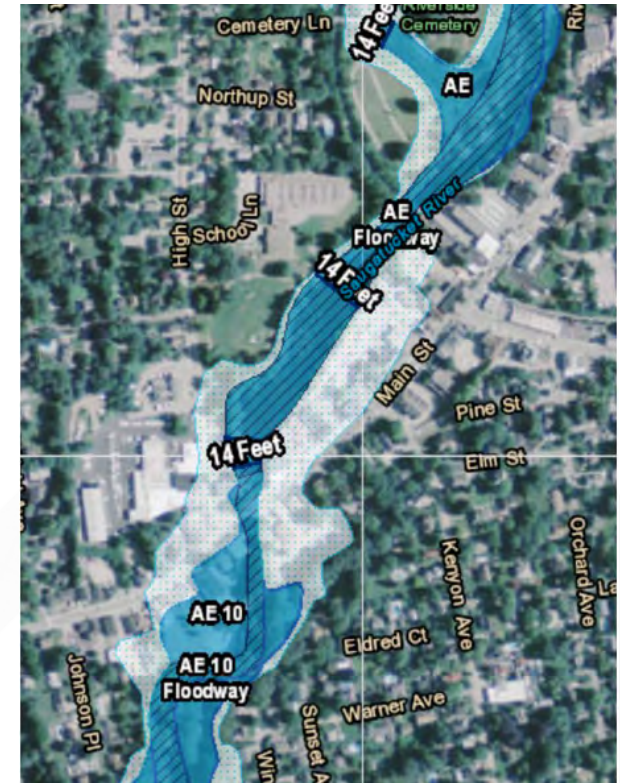


Figure 3  
FEMA Flood Plane Map

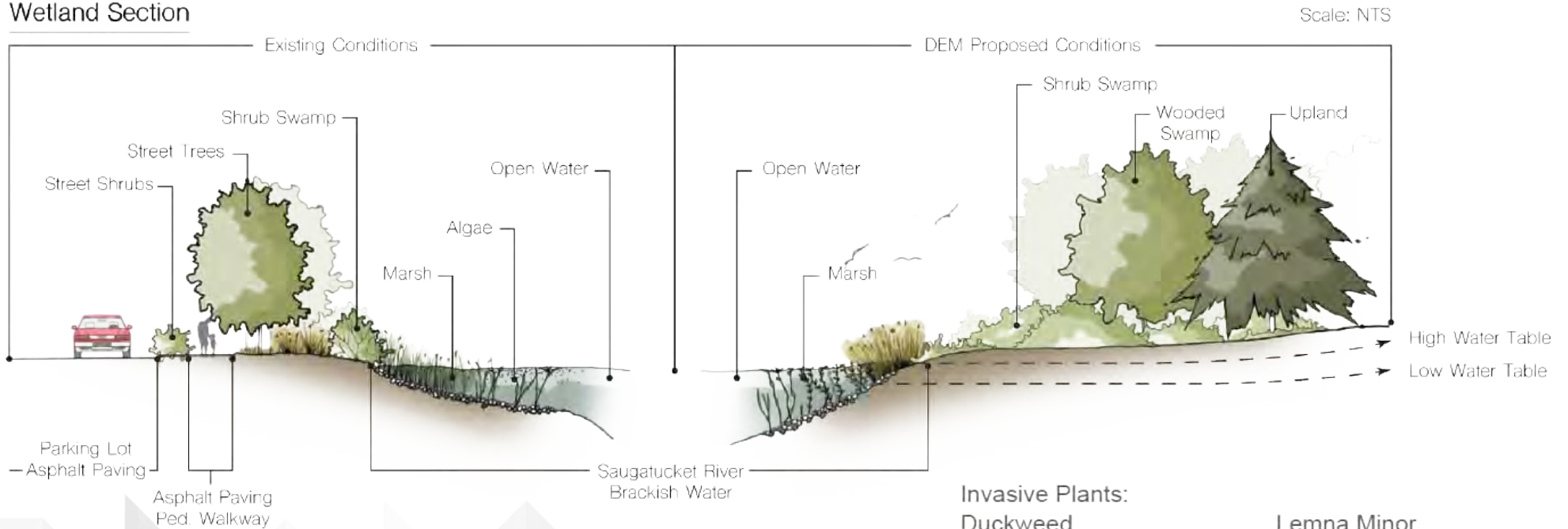
# Ecology . . . .

Students learned about the ecology of the river corridor. It had been pointed out in the public meeting and can be seen when walking through the site, that the ecology is out of balance and unhealthy. When comparing the Department of Environmental Management's definition of a healthy river's edge and the Saugatucket River's edge (see cross section below), it is apparent that the Saugatucket does

not have a healthy edge and could benefit from a redesign. Furthermore, Wakefield suffers from dense development, impervious street and parking lot surfaces and cars too close to the edge. A large and layered vegetated buffer along the river's edge is vital to holding and filtering pollutants and sustaining a healthy balanced habitat. This analy-

sis, found that fecal coliform, predominantly from birds and dogs, and excess nitrogen from poor landscaping practices, polluted runoff from streets and parking lots and unfiltered outflow pipes are reaching the river and affecting water quality. Many invasive species are also identified overtaking the river's edge.

## Wetland Section



Fecal Coliform and Nitrogen are the main pollutants

Nitrogen - lack of best management practices, runoff and unfiltered outflow pipes

Fecal Coliform - birds, dogs and stormwater runoff

### Invasive Plants:

- Duckweed
- Phragmites
- Fallopia japonica
- Rosa multiflora
- Acer platanoides
- Celastrus orbiculatus
- Lythrum salicaria
- Lemna Minor
- Common Reed
- Japanese Knotweed
- Multiflora Rose
- Norway Maple
- Ornamental Bittersweet
- Purple Loosestrife

# Workshop Observation and Analysis Summary...

The students presented their analysis to a group consisting of a professional engineer, landscape architects, professors and representatives from the town. The professional critics provided pointed comments

pertaining to plans, images, and discoveries. This critical phase of work informs the students about the opportunities and constraints they have discovered. It also allows attendees to ask questions about additional information and data that may be needed.

## Major Takeaways...

*Major takeaways from walking the site, conducting a public workshop and performing an analysis are:*

### **- Issues to be addressed**

- the river as an overlooked and ignored asset**
- intense flood and storm water issues and needs for green infrastructure**
- poor water quality, low flows and water temperature**
- declining ecology of the Saugatucket River and its embankments**
- inadequate connectivity through the town to the river and its surrounding assets (pedestrians and bikes)**
- enhancement of the commercial district, streets and sidewalks**
- preservation of the history and culture of the town**
- Ecology, Economy and Equality**





THE DESIGN  
PROCESS

# Preliminary Design Process

**1. Initial Diagrams** - To begin the process, each student had to consider his or her most important physical, functional and ecological places or features for the site. All seventeen students prepared concept plans. During class time, concepts were reviewed and ideas discussed. Similarities were recognized, and, from those rough ideas, the students divided into four teams in order to move forward with thematic designs.

**2. Goals and Strategies** - Each group collaborated and discussed big ideas and sought to pull them together around a unique theme and design concept that would address the issues, concerns and desires of the stakeholders and other participants while recognizing and responding to the functional, physical and ecological needs of the site.

## The four themes:

### Rediscovering the Saugatucket: A Learning Experience

**Focus: education**

Students: Brynn Armstrong, Cameron Frecker, Kyle Savastano, Joe Tricarico

### A River Defines Us

**Focus: ecology of the river and its banks**

Students: Emily Condon, Gabi D'Angelis, Olivia Fow, Emma Winkler

### Creating a Sense of Place Through Culture, History and Sustainability

**Focus: commercial district improvements**

Students: Brian Biezdard, Romeo D'Andrea, Pabel Fernandez, Katie Meegan

### Green Pockets of Sustainability

**Focus: green infrastructure**

Students: Zachary Driver, Casey Harrington, Kelvin Huang, Brian Males



Emma Winkler

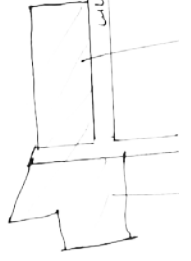


Establish a convenient connection system from T Hall to bike path to greenspace to Main St.

Green corridor, plan for passage thru's edge + functional flood plain?

Low bridge connecting green spaces?

- PROPOSED GREEN SPACE IMPROVEMENTS
- SAUG RIVER
- CONNECTIVITY
- STATE DOWNSTREAM PROSPECT



RETAINMENT WALL WHERE SLOPE IS STEEPEST TO PREVENT EROSION

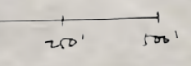
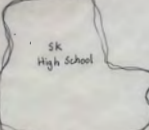
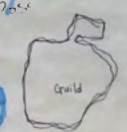
Vista looking out toward river

SAUGATUCKET GREENWAY CONCEPT

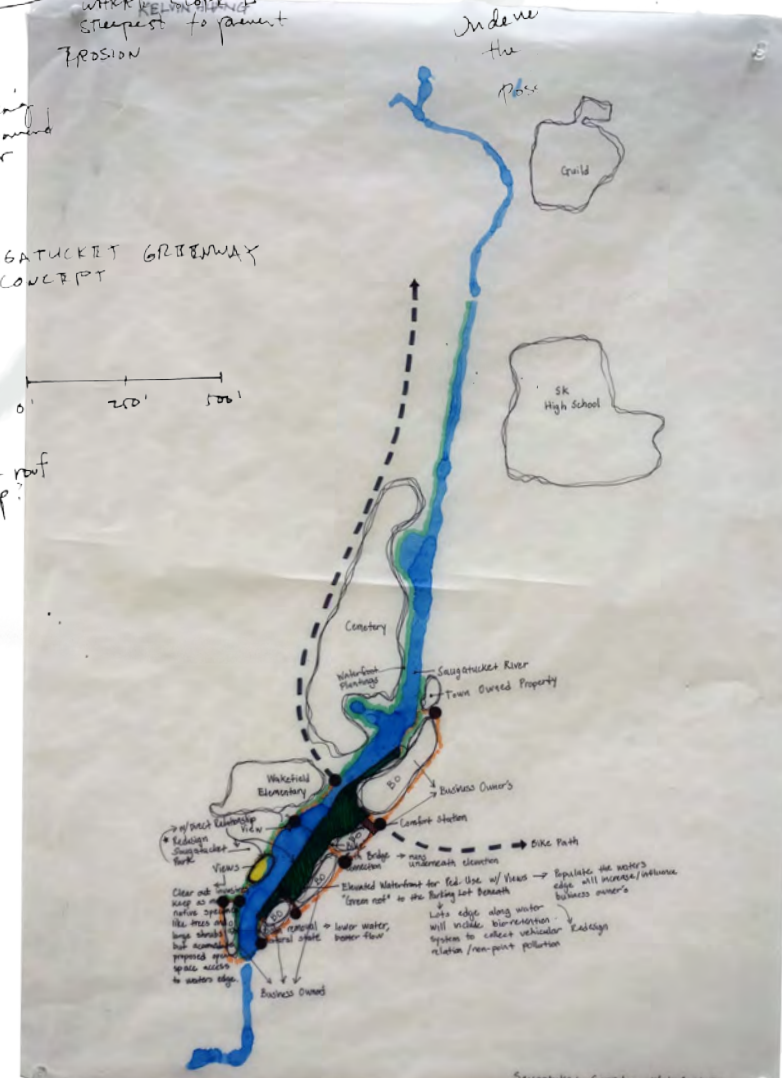


lat green roof on top?

Indene Hu Place



CAM FRECKER



Saugatucket Corridor, Wakefield RI

Cameron Frecker

Kelvin Haung

# 3. Interactive Class Work Session -

Halfway through the design process, and late semester, professional landscape architects, professors, the town planner and members of the town's economic development committee returned to see the progress the students had made and to offer insights and recommendations.

Working at presentation tables, teams met with two or three professionals at a time to present their ideas including objectives, design themes, preliminary concepts and major components. These four timed interactions allowed the student teams to develop their thinking, refocus and delve deeper as the afternoon progressed.

A big take away from this day was the importance of branding each project and having accurate and concise graphic representations of each idea. Leaving with these thoughts and constructive criticisms, the students regrouped and resumed exploring and developing themes, concepts and solutions while focused on completing their designs.



# 4. Juried Presentation -

On December 7th, the students presented their designs to several professionals and representatives from the town, all of whom had attended earlier events. This was the students' opportunity to receive a critique of their final work. It was also a chance to prepare for the final public presentation, which would be held at Town Hall one week later, on December 14th. The reviewers commented on the progress shown since the workshop and also on a range of graphic images.

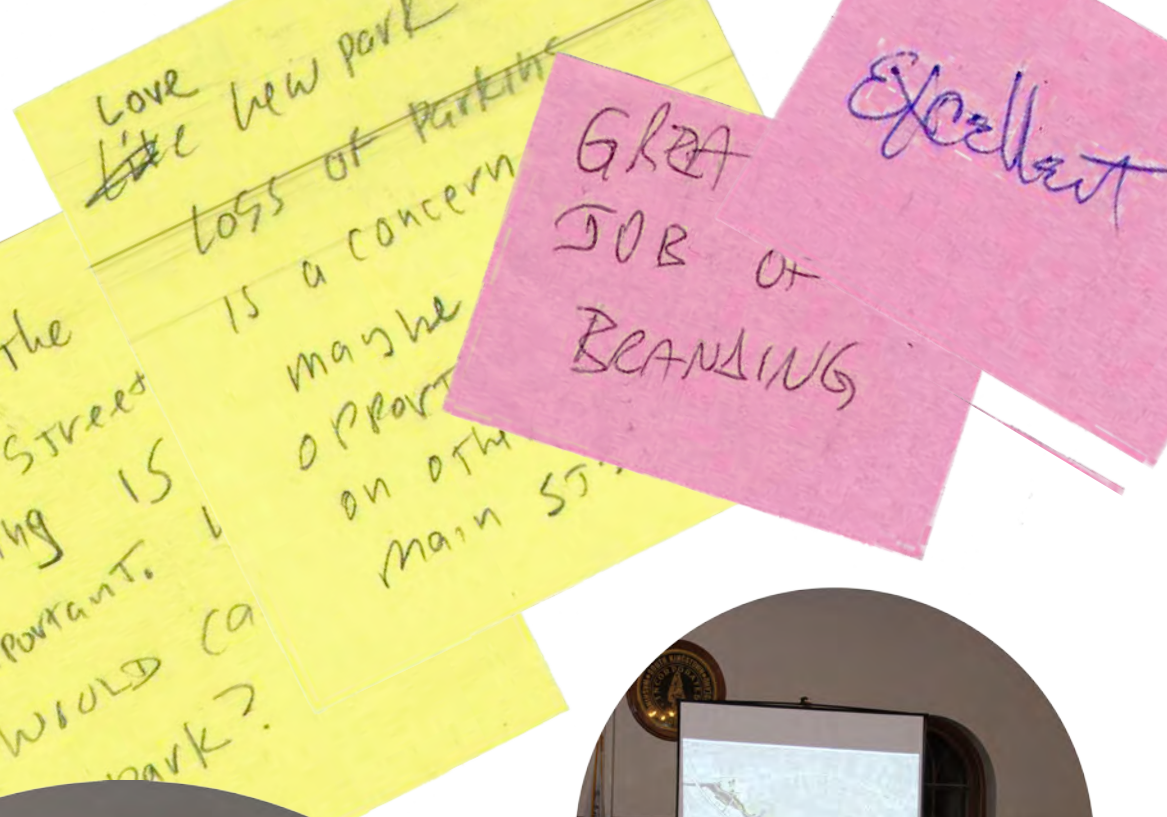


# 5. Public Presentation -

The final presentation was held at Town Hall on December 14, 2016, before a group comprised of townspeople, local business owners, members of the economic development and conservation committees, the planning board, the town planner and town engineer, and local landscape architects.

The presentation began with an overview of the semester, including a short description of each phase of the project. All steps from the initial site walk, to the public meeting, through the site analysis were presented as were precedent projects from around the world. These projects included: river village redesigns and ecological restoration projects that had similar conditions, but were designed for different places.

Through precedents, the students were able to think big ideas and see and learn about real life riverfront installations with approaches and project pieces suitable for Wakefield. From the precedent projects presented in their class, three were selected for presentation to the public. The students found it valuable to be able to show attendees actual examples of what a redesign could look like and how it might function. Finally, each group of students presented their designs. After all four themes were presented, the floor was open to questions, and before leaving for the night, the public was invited to meet with the students and also attach sticky notes to the printed design boards with written thoughts and comments.



# Ecology

The students found it important to address the suffering and unbalanced ecology of the Saugatucket River before suggesting any redesign of the village.

“A Vision for The Saugatucket River” is intended to address the needs and recommendations of the community while emphasizing the story of this river village and creating a resilient, sustainable and bright vision for the Saugatucket River and its communities. Without a clean, healthy river, it will be difficult to interest people in and lure people back to the Saugatucket. It will also be difficult to justify investing in new green spaces and amenities.

Based upon their research in preparing a site analysis, along with assistance from Dr. Brian Maynard, of the URI Plant Sciences Department, the students were able to:

**Identify** the main invasive species living in and along the river’s edge as well as some of the potential causes for the river’s ecological imbalance

**Create** a list of recommended species to be planted to restore balance and a thriving ecology

**Develop** a phased approach to remove and replant species from Peace Dale to Wakefield to restore the corridor’s habitat



# The Program

A Program was developed that could be carried out by volunteers who could begin restoring the ecology of the river today.

1. The program begins with the need to receive approval from the DEM to remove material or dredge in the river. It is important to keep up with the removal of invasive and non-native species as years pass to allow for native species to become established.

2. Community members can be involved with collecting endemic (or native and local) seed from the native species living along the river's edge. These seeds are to be spread where the invasive species are removed. Dispersing seed along with planting small saplings and plugs will promote the dense growth of wildlife that supports the rich and native habitat of the corridor before invasive species have the chance to re-enter the system aggressively.

3. The town must address the causes of the nitrogen imbalance and fecal coliform in the water. Addressing these issues involves:

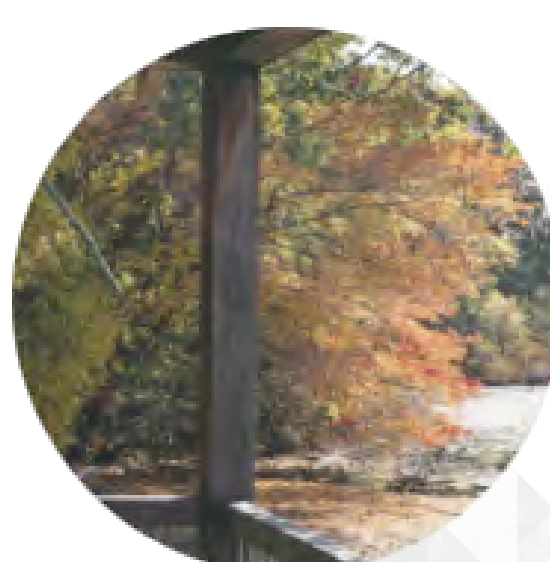
- enforcing dog owners to clean up after their pets
- attracting bird populations to nesting areas beyond the river
- educating and implementing best management practices for pesticide use as well as garden and lawn care
- creating and supporting a layered, diverse and wide river's edge, allowing space between it and vehicles
- rethinking and reworking the filtration and placement of storm water outflow pipes within the corridor

Involving community members can be an effective way to make this project a **reality** and **connect** people to an important local resource: the **river**. The vision is to **celebrate** the river and the **restoration** of its **historic native** environment.

Implementing this program will, in time, restore the river to a balanced and sustainable ecology, allowing Wakefield endless opportunities for activities along the corridor, which may include the development of:

- new recreational spaces and community events
- new places for learning
- new paths and trails
- new economic ventures

Addressing the quality of the river is the first step in implementing any major redesign of Wakefield because the river is integral to the town's history and is currently a forgotten resource.







THE DESIGNS

# GROUP 1

## Rediscovering the Saugatucket: A Learning Experience

Brynn Armstrong, Cameron Frecker, Kyle Savastano, Joe Tricarico

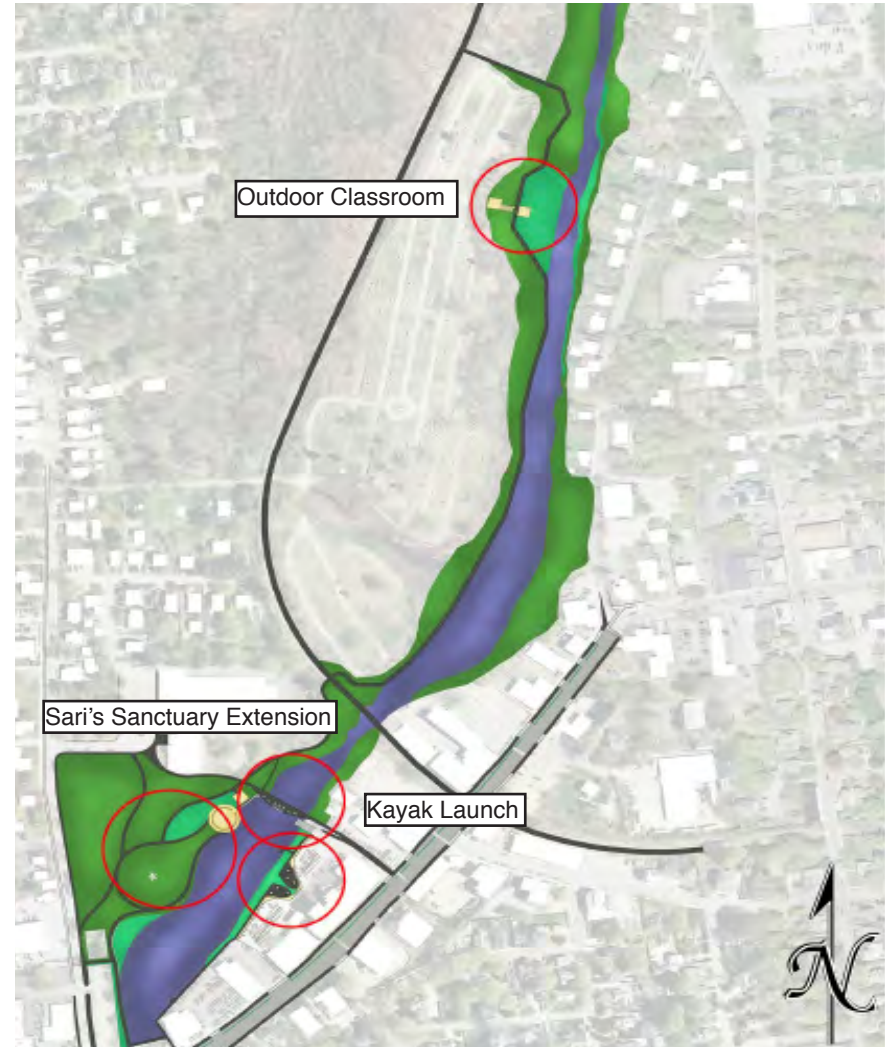
“Rediscovering the Saugatucket: A Learning Experience” seeks to create, promote and stimulate a strong linkage to the river for the students of Wakefield Elementary and South Kingstown High School. It also provides opportunities for observing, learning about and interacting with the river and its environments. This redesign creates and develops a network of spaces and features that encourage education on, in and over the Saugatucket River recognizing it as a unique and valuable experience for all.



Perspective view of the proposed extension off of Sari's Sanctuary

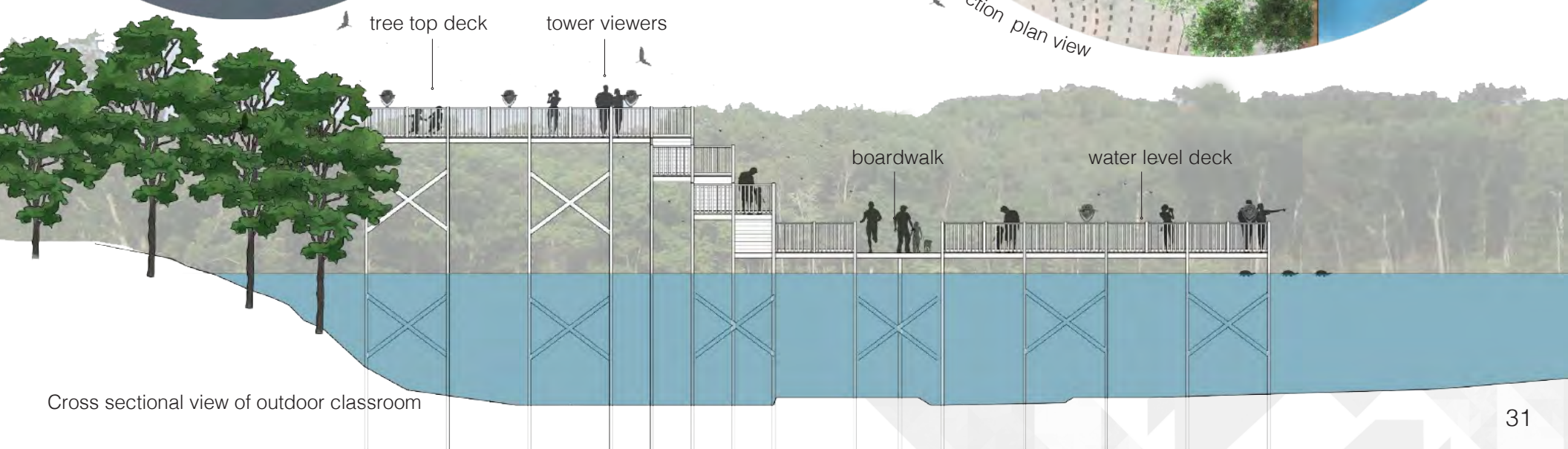
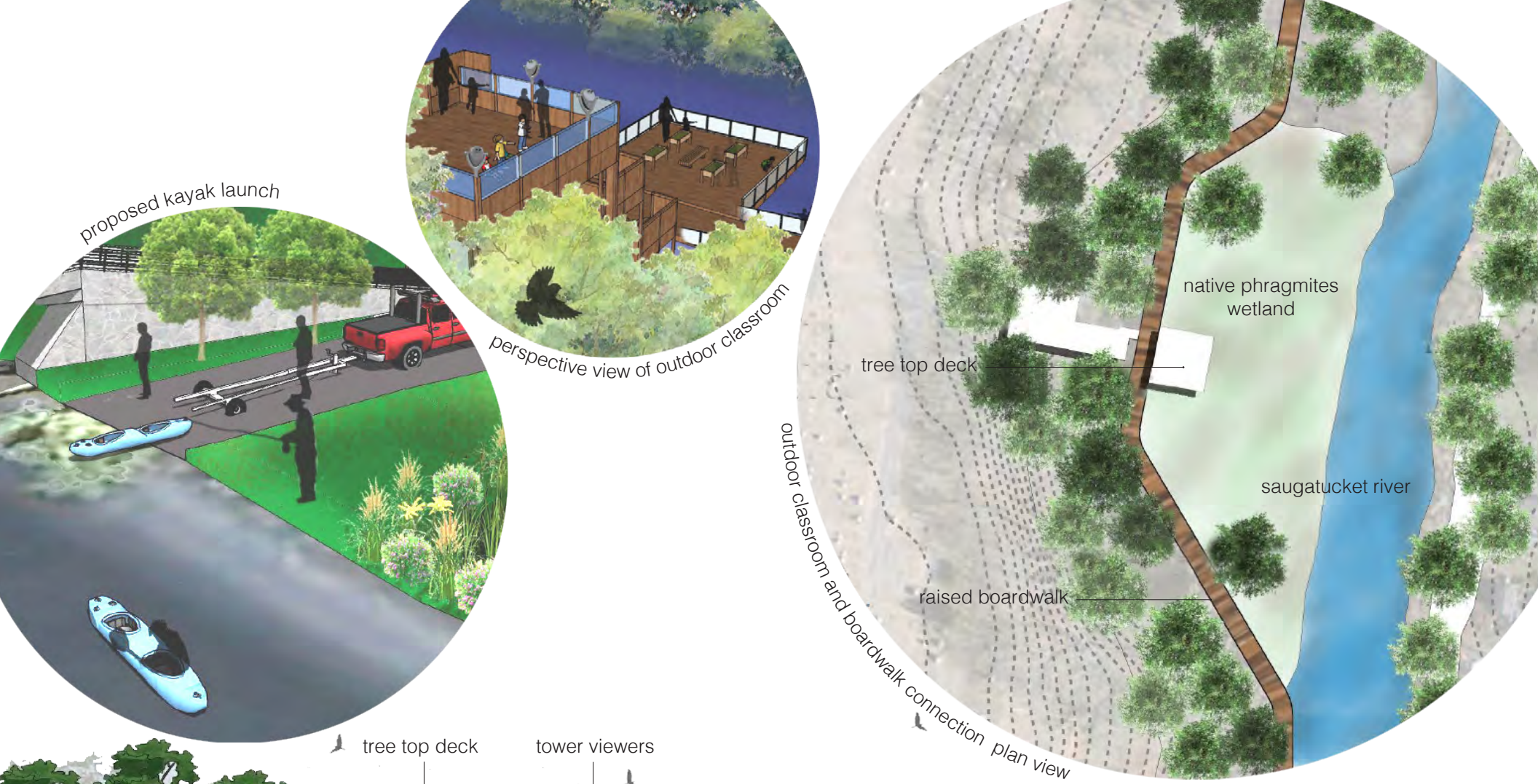


Cross sectional view of the proposed extension off of Sari's sanctuary



The designs come together to create a loop of outdoor classrooms and experiences for the public and students. These spaces encourage interaction and education and can be programmed to accommodate school-year and summer activities as well as experiences for the public. The loop also connects the existing physical assets of the town to the river including the schools, Main Street, the existing riverwalk, bike trail and Saugatucket Park.





# GROUP 2

## A River Defines Us

“A River Defines Us” is intended to respect and highlight the history of Wakefield, establish access to the river’s edge and emphasize the corridor’s unique natural and built characteristics. The design focused on the river and recognizes the important opportunity to create spatial and ecological improvements that enhance local systems, inspire community involvement, and repair and lead to economic growth. The design proposes a loop of new and reimagined spaces to spend time in, stroll through and gather.



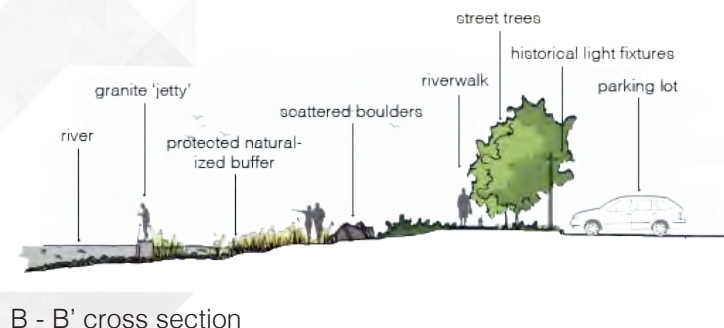
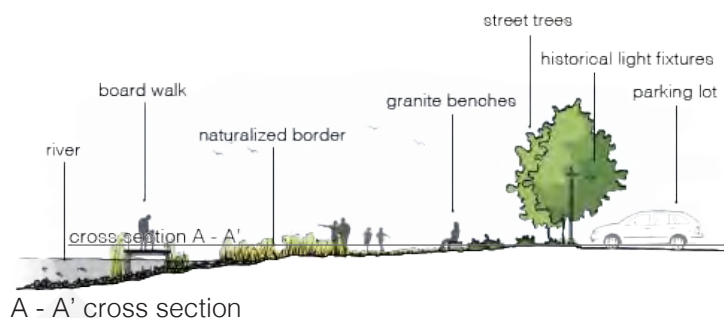
The design is comprised of three phases, each defined by a pedestrian loop for improved connectivity and access within the village. Pocket parks pop up along the loops and are connected by a boardwalk in and along the river. A phased approach also allows the town to implement the design over time.



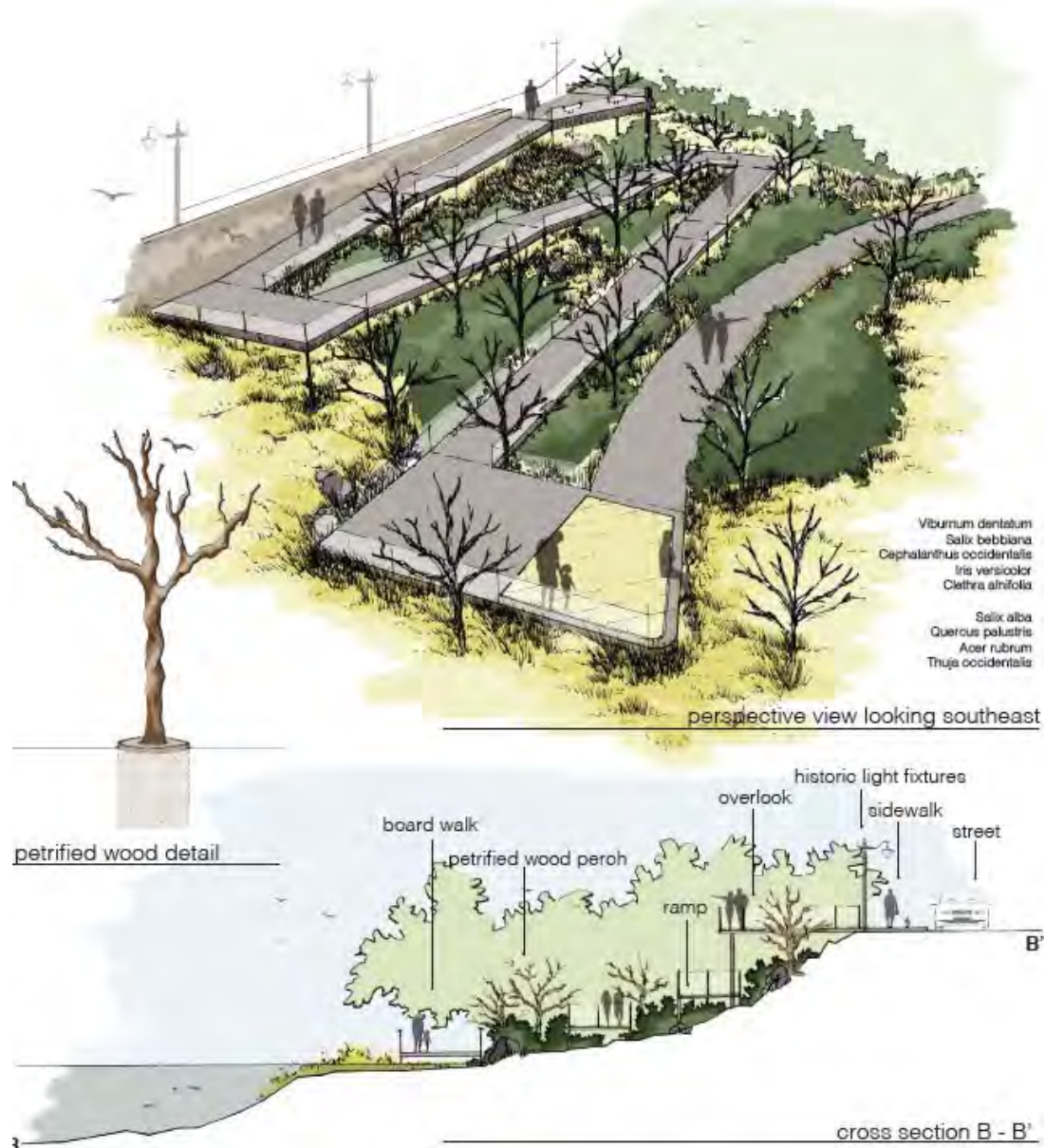
Emily Condon, Gabi D’Angelis, Olivia Fow, Emma Winkler



1. The first phase is defined by a pedestrian loop around downtown Wakefield. Continuous design elements implemented on Main Street include consistent lighting, signage and seating, new paving materials, as well as sculptural crosswalks that add a unique and recognizable design element and work as a traffic calming device. Access points and ways to experience the river will be highlighted to establish connectedness to the river by opening up views and inviting visitors to the water. This phase also includes revamping the existing riverwalk to be a greenway in and along the water and expanding it to a new park and a reimagined public parking lot with more efficient parking and a 60-foot wide green space along the river’s edge.



2. The second phase completes a loop further up the corridor. This will include the continuous design elements implemented in phase one as well as the construction of Perch Park, the final pocket park completing the boardwalk loop. This park is designed on currently unused town land and recognizes the space's unique opportunities. The extended river walk brings pedestrians through the park and up to River Street on a series of handicapped-accessible ramps. It is designed with native plantings and sculptural bird perches to support native bird and species habitats.



3. The final phase connects to Peace Dale and provides opportunities to create a safe and attractive pedestrian loop that will tie the surrounding neighborhoods to the village center and connect Peace Dale to Wakefield and the river. It will allow for more pedestrian paths with easier connections while also making use of road connections that can be enhanced.

# GROUP 3

## Creating a Sense of Place Through Culture, History, & Sustainability

Brian Biezard, Romeo D'Andrea, Pabel Fernandez, Katie Meegan

"Creating a Sense of Place Through Culture, History and Sustainability" hopes to enhance the pedestrian experience and the street environment. Several design and planning elements come together to make a pedestrian-oriented vision. Green infrastructure is used to reduce negative human and environmental impacts on the river. The installation of rain gardens along the street and other strategic locations and the use of pervious pavements aim to treat toxic storm water and improve local water quality. Street improvements such as a clear delineation of pavements for people and vehicles, creation of new commercial space and focused design decisions for accessing the river and the South County Bike Trail all contribute to a safer, and more pedestrian-oriented village center.

The design proposes creating gateways to Wakefield that can become icons for the town and are visible to motorists. These "gateways" create a sense of place as well as a strong identity that recognizes and acknowledges the rich history and colorful culture of Wakefield. These gateways and Main Street improvements will create a clear and comprehensive system for wayfinding while establishing a powerful sense of place to help draw people to the commercial core. In addition to gateways and street improvements, students suggest constructing a raised deck off the back of a Main Street building. This is an opportunity to create exciting space with a visual connection to the river, starting a transition to a more river-oriented village. Redesigning the Saugatucket Park to accommodate more public gatherings and make sustainable improvements to treat storm water and address flooding is also recommended.



raised riverside park



proposed business boardwalk



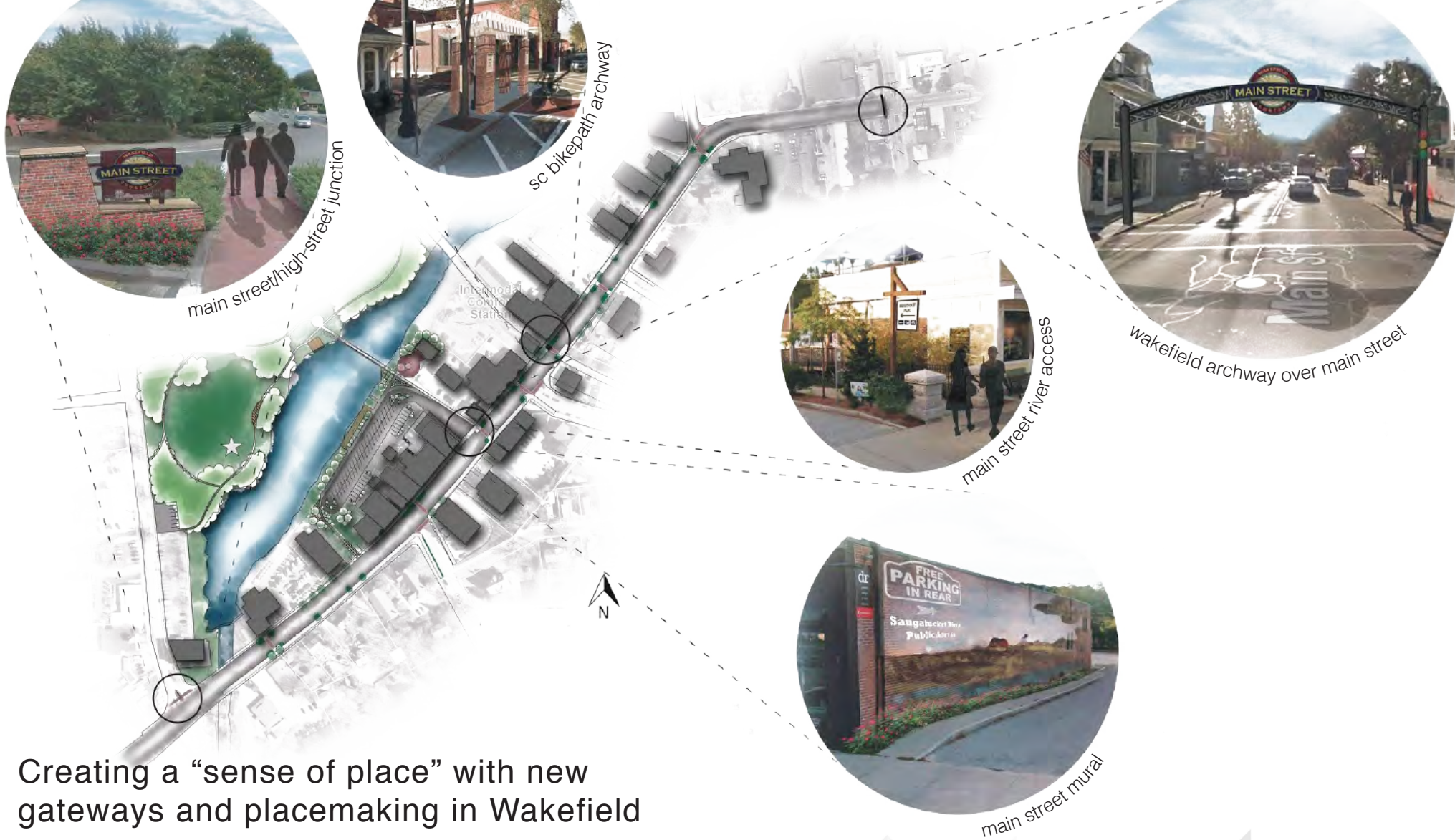
main street river access



proposed park celebration



proposed festival park



Creating a “sense of place” with new gateways and placemaking in Wakefield



proposed main street sidewalk “bump outs” and removable bollards for events



proposed main street planted sidewalks



proposed main street night time safety for pedestrian and bike transportation

# GROUP 4

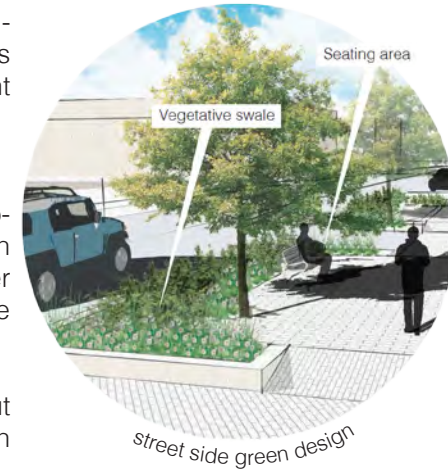
## Green Pockets of Sustainability

Zachary Driver, Casey Harrington, Kelvin Huang, Brian Males

“Green Pockets of Sustainability” seeks to enhance the economic value of downtown Wakefield by providing connected, comprehensive and continuous pedestrian movement and reimagined community spaces. All elements are designed to withstand and address flooding and storm events. These elements tie together the spaces that make up Wakefield in an exciting, sustainable and resilient way that emphasize economic viability, walkability and community.

Driven by a desire to enhance the commercial core, a streetscape redesign will include sidewalk improvements allowing local business to spill out onto the streets and along the riverfront. In addition to creating a more inviting and linked atmosphere for customers, businesses benefit from the increased volume of clientele that can be drawn to and from the village through improved pedestrian routes, the bike trail and vehicular traffic. The design of a “green bridge” creates a strong link across the river and interest on both sides of the river. A bioluminescent pavement system runs along the river and glows in the dark creating a safe and visually impressive environment.

This team proposes a range of sustainable improvements including a bioretention parking lot that will collect storm water, filter out impurities and increase infiltration before releasing water into the river. Rain gardens and bioswales are also proposed along Main Street and in Saugatucket Park eliminating considerable untreated storm water from flowing freely into the river.





Proposed amphitheater plan view

A major element in this design is the creation of an amphitheater in Saugatucket Park that preserves the history of the park while re-imagining its land at a time when there is a growing concern with flooding. The amphitheater design brings people right to the river's edge. Direct and safe access to the river would allow many recreational opportunities and learning experiences for the students and the community. This will become a central gathering space to hold events and festivals and will act as a flood storage area during storm events collecting water before it floods onto streets and commercial properties.



Proposed amphitheater perspective view







FINAL THOUGHTS

*The following highlights design ideas, recommendations and strategies that emerged during the course of the semester.*

## **Project initiation:**

Concerns and Goals: Issues that were introduced from our first site visit

- Stormwater management
- Parking and comprehensive wayfinding
- Open spaces and recreational / pedestrian connections
- Finding / creating opportunities for community engagement
- River ecology and waterside access
- Economic concerns/enhancements of the business district

## **Findings through a public workshop:**

Community comments and recommendations

- The river is a unique asset that can be restored to a healthy and sustainable ecological condition.
- Improve water quality, manage flows, and manage storm water.
- Protect and enhance the village of Wakefield (physical, economic and aesthetic conditions).
- Emphasize the special qualities of place: architecture, natural areas and the river.
- Enhance the quality of life for children and adults through better and safer connections, community spaces and more opportunities for activities and events.

## **Site Analysis Findings:**

Learning the existing conditions

- The river is an underused and underappreciated resource that is largely inaccessible.
- Water quality of the Saugatucket River is degraded and suffers from reduced flows, high water temperatures, non-point source pollutants, excessive vegetation in the water, and aggressive non-native species.
- Edge conditions along the river are not maintained and contribute to sedimentation, physical and visual obstruction and the spread of invasive species
- The village needs to celebrate its rich historic, cultural and architectural heritage.
- The village needs to highlight and enhance the commercial core and street-side environment for commercial development and pedestrian use.
- Unclear signage, cluttered parking and conflicts between pedestrians, bicyclists and vehicles need to be addressed.
- Land use issues associated with existing and vacant public and private properties along the river are sites waiting for designs.

*The following recommendations are the result of a semester's worth of work, which culminated in a Town Hall presentation held on December 14, 2016.*

## **Design Recommendations:**

### Long term projects

- Create incentives for businesses to enhance properties along the river and implement multipurpose green infrastructure and aesthetic improvements.
- Develop a phased approach for improving the village (buildings, streets, open spaces, natural areas and signage) and its river.
- Develop a Saugatucket River Plan (Watershed) that anticipates changes associated with climate change and worsening storm events.

### Individual projects

- Create a boardwalk beltway in and out of the river that stretches from the dam to Peace Dale and reconnects as a walking loop to the bike trail, village core, local schools and other destinations.
- Create an exciting town gathering space by the Wakefield Elementary School that maintains the sports field while also creating an amphitheater that can serve as a flood storage area.
- Encourage local schools (Wakefield, Peace Dale, SKHS, Broad Rock and Curtis Corner) to explore the river and develop a curriculum that can achieve academic standards while teaching the importance of a sustainable and resilient resource. Outdoor classrooms and restoration projects could be integrated into this initiative.
- Redesign the commercial parking lot and create incentives for business owners to enhance views and green space and provide access to the river in order to encourage innovation and business developments.
- Emphasize the river as a unique and important learning experience for families and students of the schools situated on the river through a series of connected outdoor classroom spaces.
- Vacant town owned land offers the opportunity for a sculpture park and bird sanctuary that would become an asset to the community.

### Recommendations to address water quality, river ecology and storm events

- Develop a comprehensive storm water improvement plan for the watershed that reduces flooding, encourages the use of green infrastructure and reduces and, ultimately, eliminates the release of untreated runoff directly into the river and its system.
- Open up views to the river by selectively removing invasive vegetation, identifying areas that might be improved through dredging and replanting to support and reestablish native habitat.
- Create capital through a collaboration of residents, businesses and town officials / boards focused on improving the water quality addressing storm water issues associated with the Saugatucket.
- Develop a collaborative program with schools and the broader community that raises awareness and works to restore the river's ecology and storm water holding capacity.

*The projects that are listed here will contribute to an exciting and sustainable vision for the future. This is not something that will be achieved in the short term. It will require collaboration, persistence and strong leadership.*