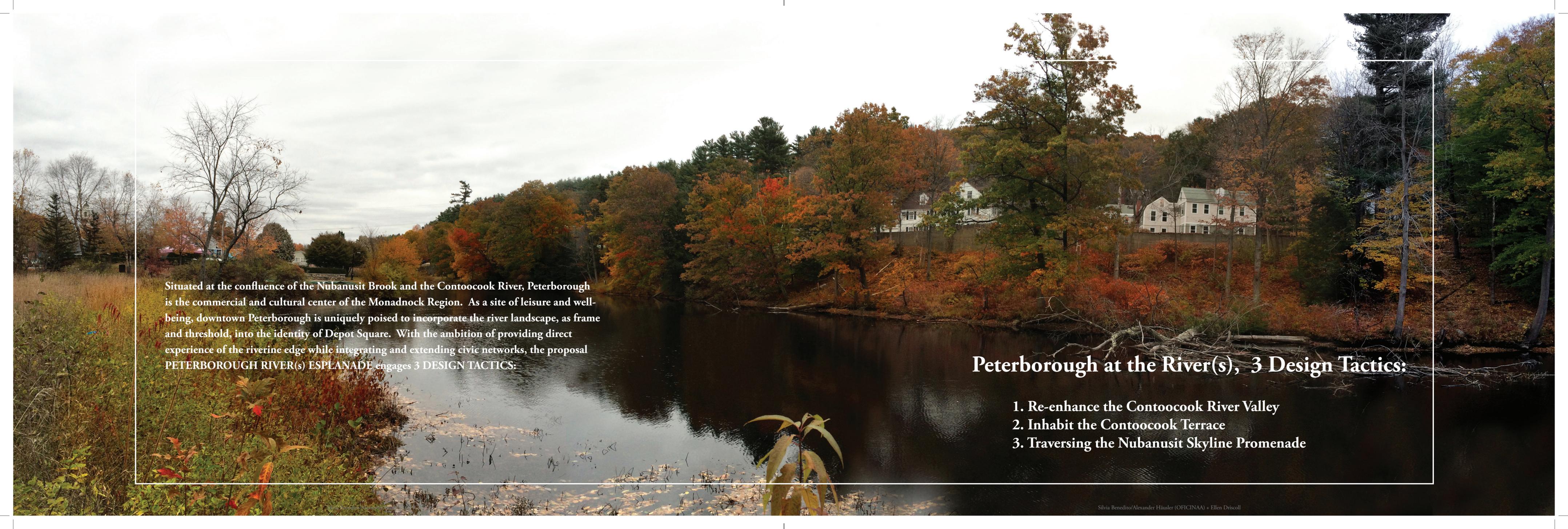


PETERBOROUGH *RIVER(s)* ESPLANADE

Riverfront Park and Parking design proposal | Nov. 2015

Submitted by:

Silvia Benedito / Alexander Häusler + **Ellen Driscoll**
[OFICINAA architecture, landscape architecture] [art, installation]



Situated at the confluence of the Nubanusit Brook and the Contoocook River, Peterborough is the commercial and cultural center of the Monadnock Region. As a site of leisure and well-being, downtown Peterborough is uniquely poised to incorporate the river landscape, as frame and threshold, into the identity of Depot Square. With the ambition of providing direct experience of the riverine edge while integrating and extending civic networks, the proposal **PETERBOROUGH RIVER(s) ESPLANADE** engages 3 DESIGN TACTICS:

Peterborough at the River(s), 3 Design Tactics:

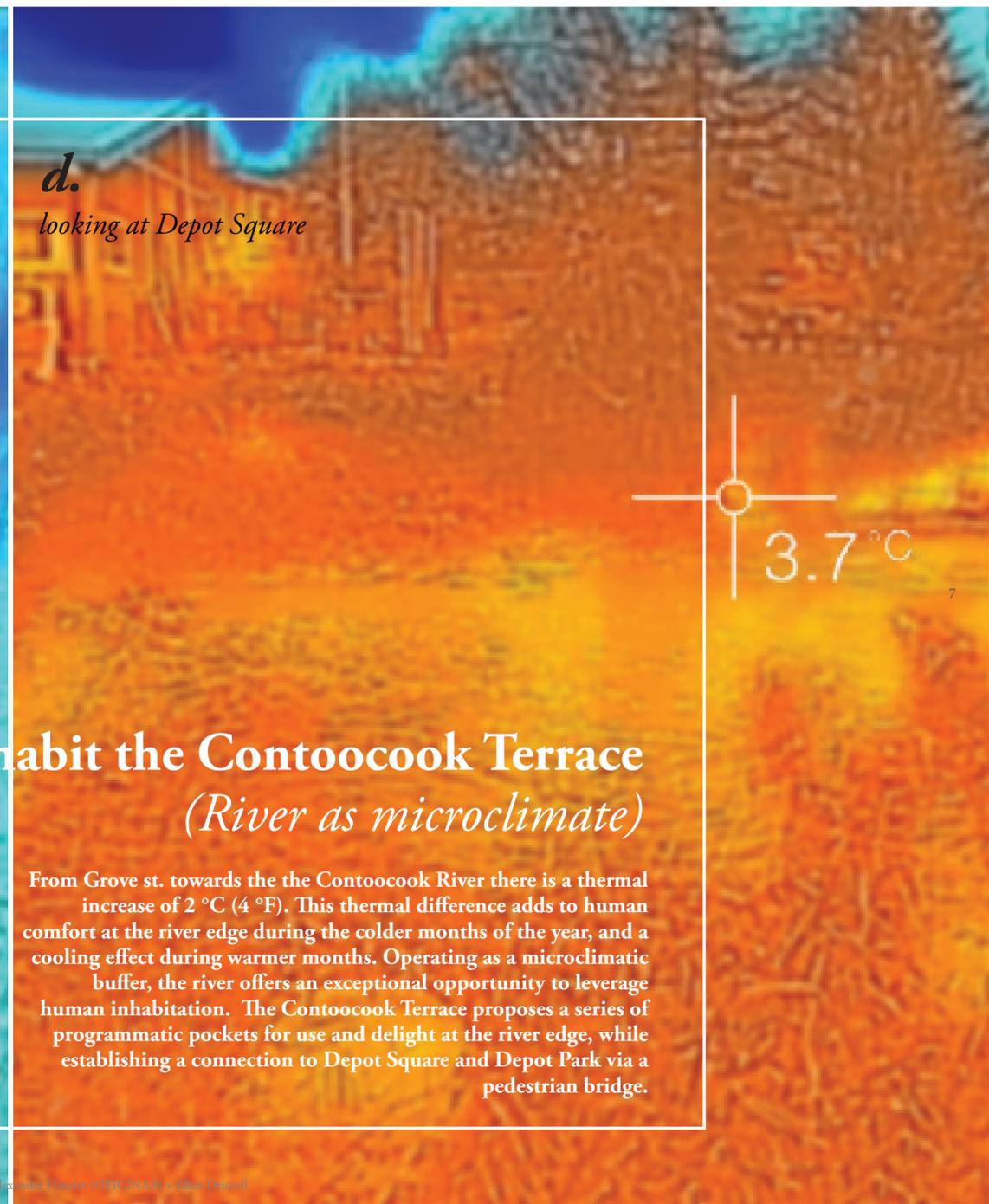
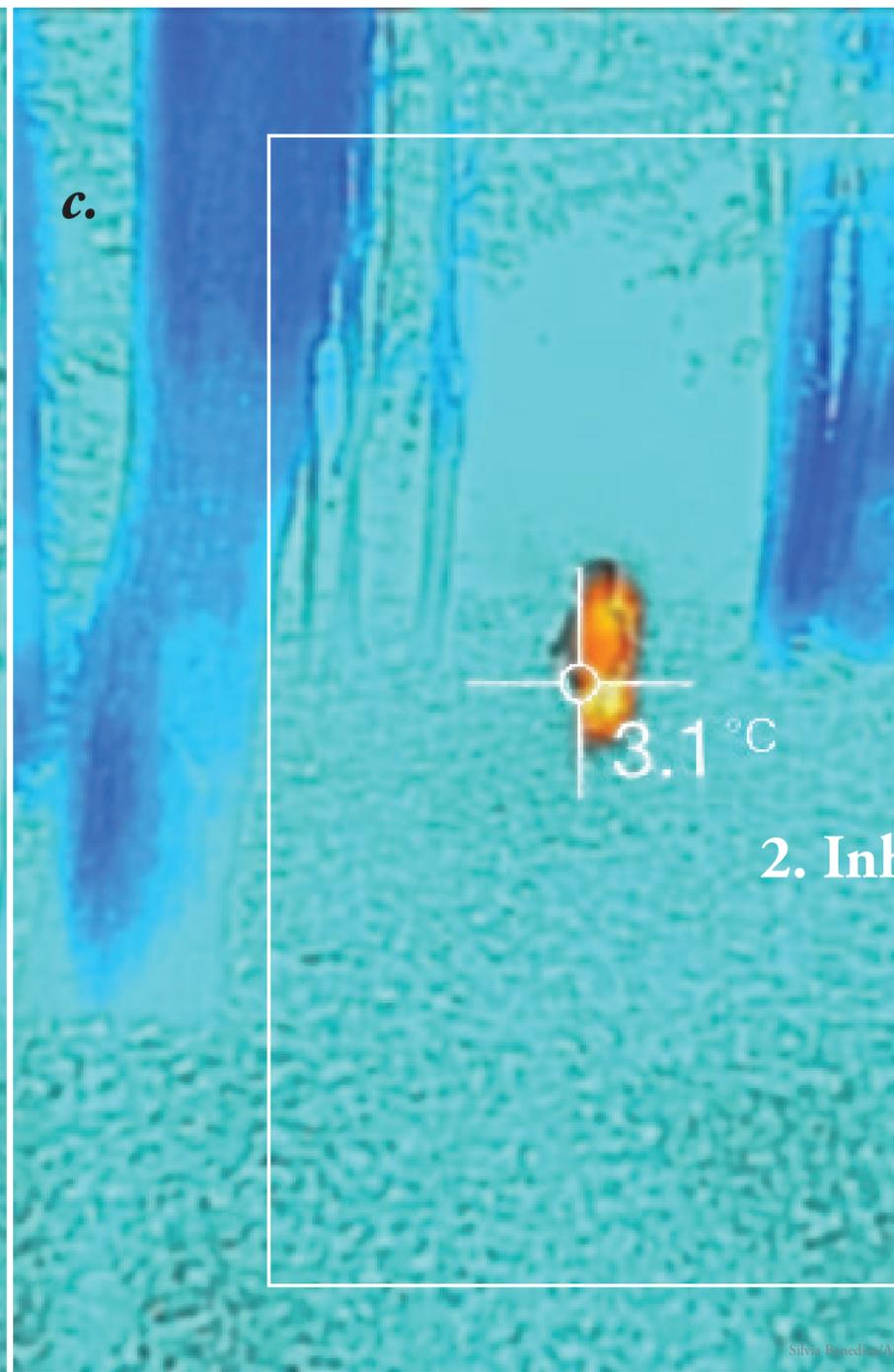
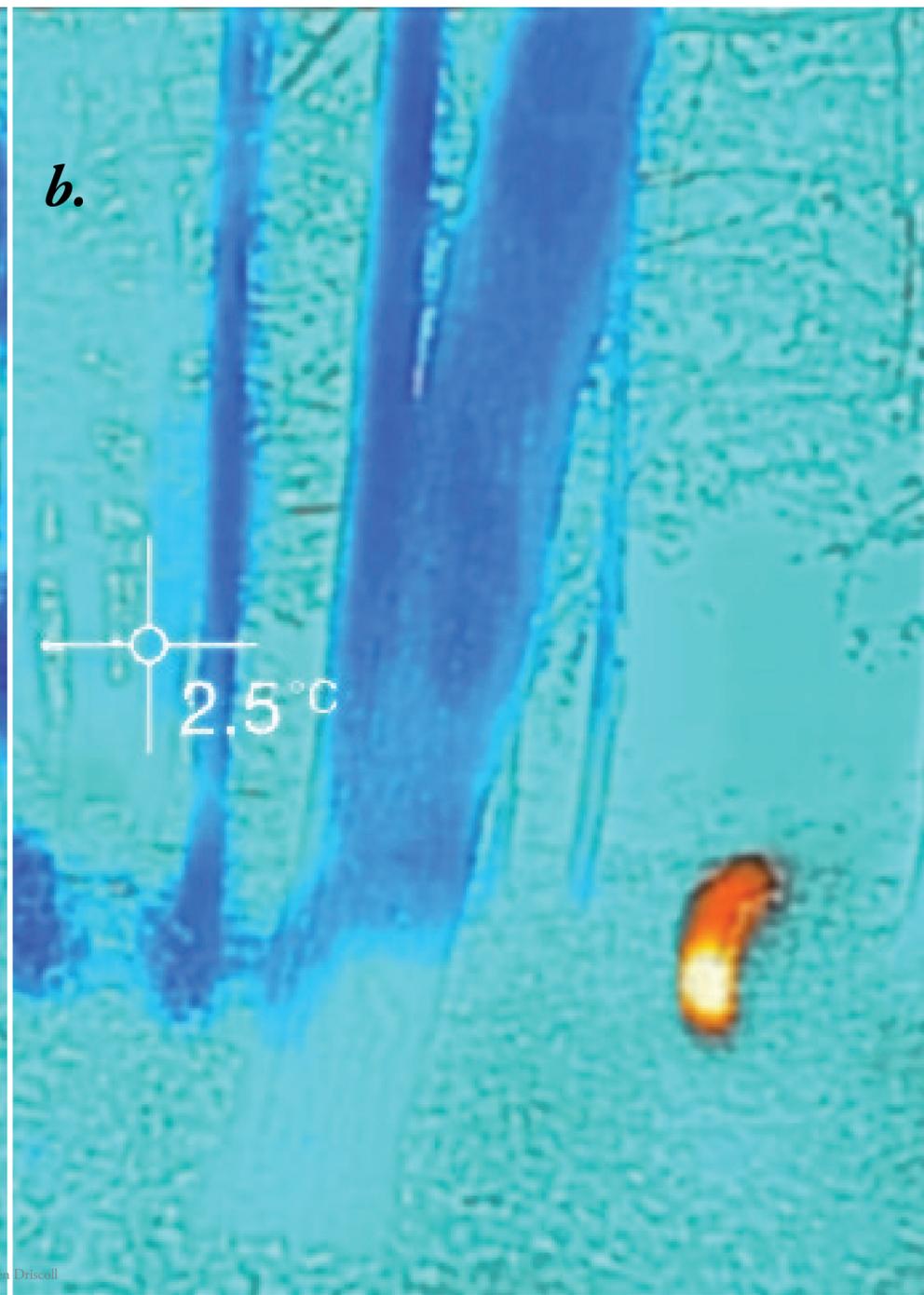
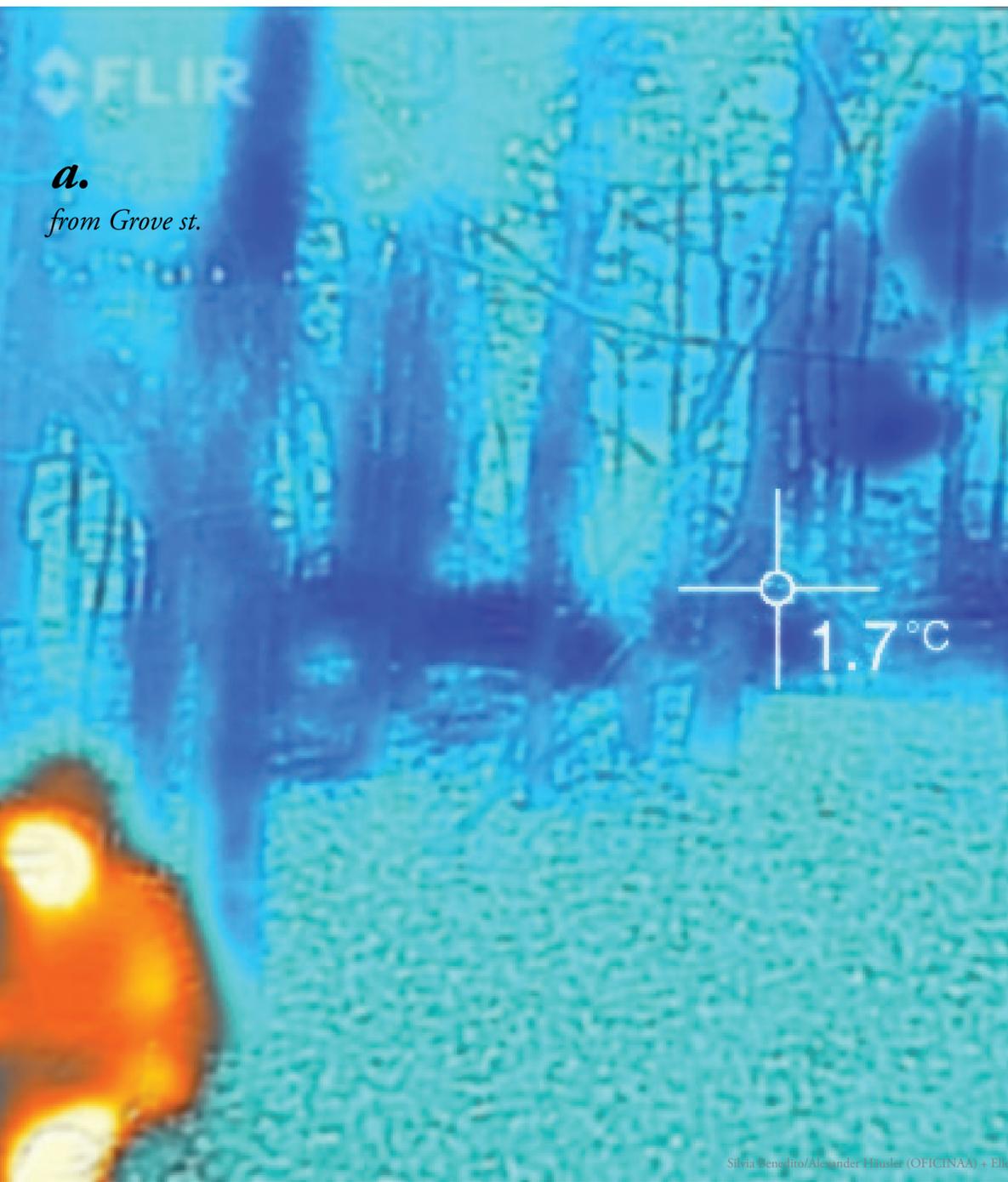
- 1. Re-enhance the Contoocook River Valley**
- 2. Inhabit the Contoocook Terrace**
- 3. Traversing the Nubanusit Skyline Promenade**



1. Re-enhance the Contoocook River Valley *(River intersection as transect)*

The valley surrounding the junction of the Nubanusit and Contoocook Rivers is integral to Peterborough's identity. However, the site under study, situated in this valley, is subject to amplified traffic noise from Route 202 as vehicles traverse Granite Street and Pine Street on the eastern slope of the Contoocook River. The localized reforestation of the Contoocook River's east bank below those streets will provide:

- A) Sound buffer to the site, Depot Park, and Depot Square from Route 202 traffic noise
- B) Ecological enhancement and slope stabilization
- C) Intensified experience of the Contoocook valley (lush and ecologically continuous)



2. Inhabit the Contoocook Terrace *(River as microclimate)*

From Grove st. towards the the Contoocook River there is a thermal increase of 2 °C (4 °F). This thermal difference adds to human comfort at the river edge during the colder months of the year, and a cooling effect during warmer months. Operating as a microclimatic buffer, the river offers an exceptional opportunity to leverage human inhabitation. The Contoocook Terrace proposes a series of programmatic pockets for use and delight at the river edge, while establishing a connection to Depot Square and Depot Park via a pedestrian bridge.

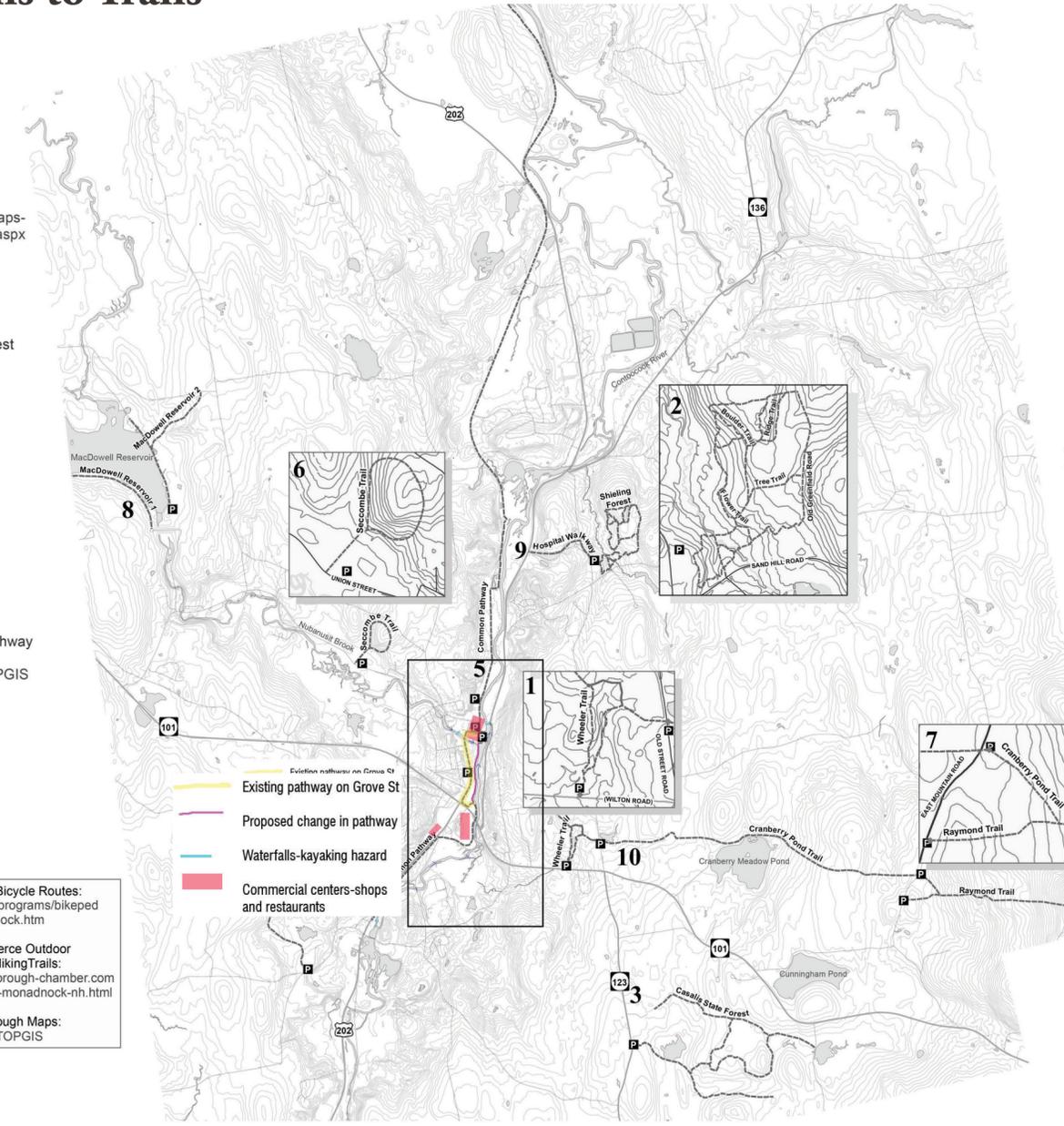


3. Traversing the Nubanusit Skyline Promenade *(Riverbank as prospect / view)*

The topography characterizing the GAR Hall site offers a singular overview of Peterborough's skyline. The creation of a promenade along the southern edge of Nubanusit Brook, within the existing stand of Eastern Hemlock (*Tsuga canadensis*), will provide a pedestrian connection to Putnam Park through the Boccelli Garden, as well as an exceptional welcome to the Town of Peterborough through its unique, elevated view.

Peterborough Rails to Trails

1. Wheeler Trail
0.6 Miles
2. Shieling Forest
2.2 Miles
<http://www.nhdfi.org/maps-and-publications/maps.aspx>
3. Casalis State Forest
3.3 Miles
4. Fremont Trail
1.1 Miles
5. The Common Pathway
6.6 Miles
<http://tiny.cc/TOPGIS>
6. Seccombe Trail
0.6 Miles



Monadnock Region Bicycle Routes:
<http://www.nh.gov/dot/programs/bikeped/maps/monadnock.htm>

Chamber of Commerce Outdoor Recreation and Hiking Trails:
<http://www.greater-peterborough-chamber.com/outdoor-recreation-forests-monadnock-nh.html>

Town of Peterborough Maps:
<http://tiny.cc/TOPGIS>

7. Raymond Trail
1 Mile
8. MacDowell Reservoir Trails
1 Mile
0.7 Miles
MacDowell Reservoir <http://www.nae.usace.army.mil/Missions/Recreation/EdwardMacDowellLake.aspx>
9. Hospital Walkway
0.5 Miles
10. Cranberry Meadow Pond Trail
2.6 Miles
<http://www.monadnockconservancy.org/protected-lands/trail-guides.html>

General Guide to Hiking and Recreational Trails

- ◆ Trail Head
- ▣ Parking
- Trail
- ~ Contour Index

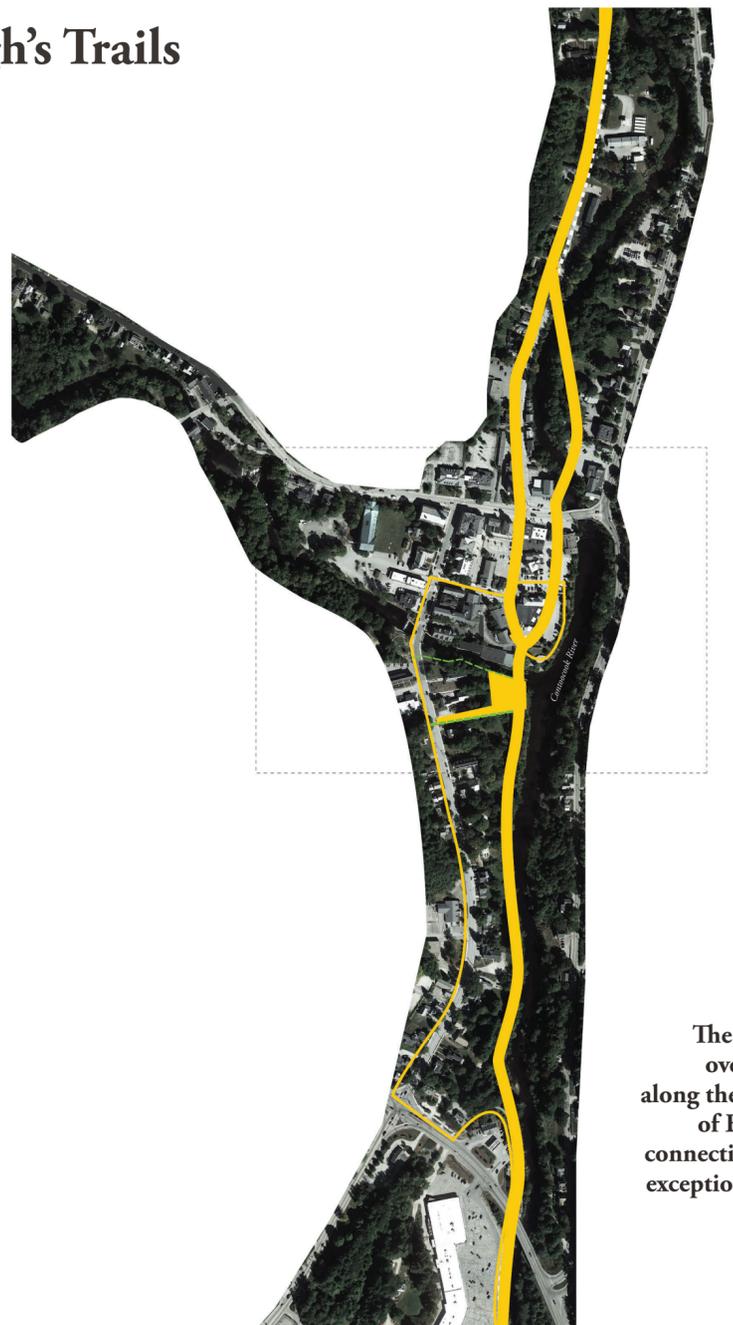
All data is referenced to New Hampshire State Plane Coordinate System (feet, FIPS 2800), North American Datum 1983 and North American Vertical Datum 1988.

All distance measurements were calculated in GIS and should not be relied upon for navigation purposes.

Prepared by the Town of Peterborough
Printed May 2013.
All data from TOPGIS

Silvia Benedito/Alexander Häusler (OFICINAA) + Ellen Driscoll

Connecting Peterborough's Trails

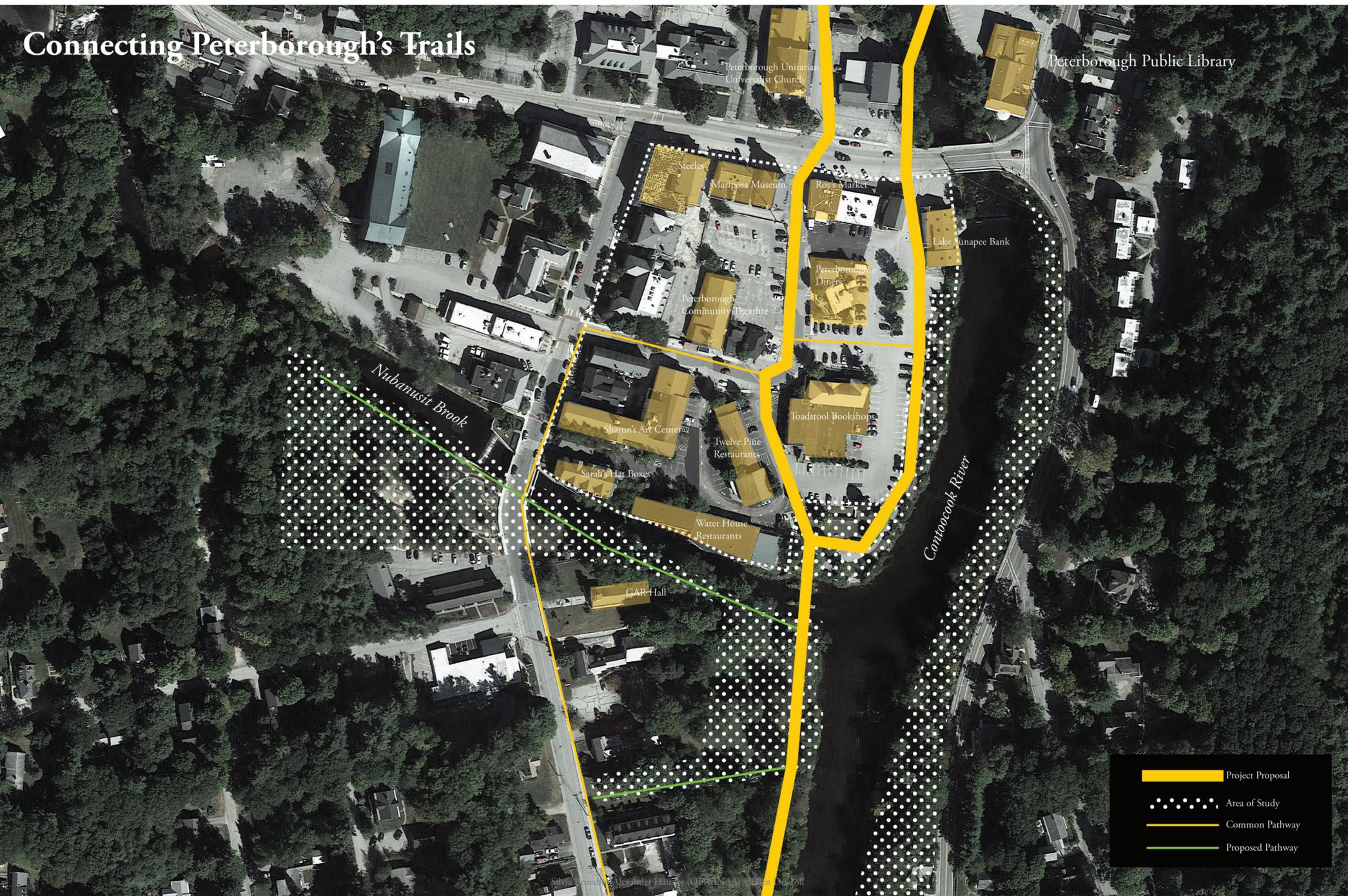


- Project Proposal
- Common Pathway
- - - Proposed Pathway
- ⋯ Historic Boston & Main Railroad

The topography characterizing the GAR Hall site offers a singular overview of Peterborough's skyline. The creation of a promenade along the southern edge of Nubanusit Brook, within the existing stand of Eastern Hemlock (*Tsuga canadensis*), will provide a pedestrian connection to Putnam Park through the Boccelli Garden, as well as an exceptional welcome to the Town of Peterborough through its unique, elevated view.

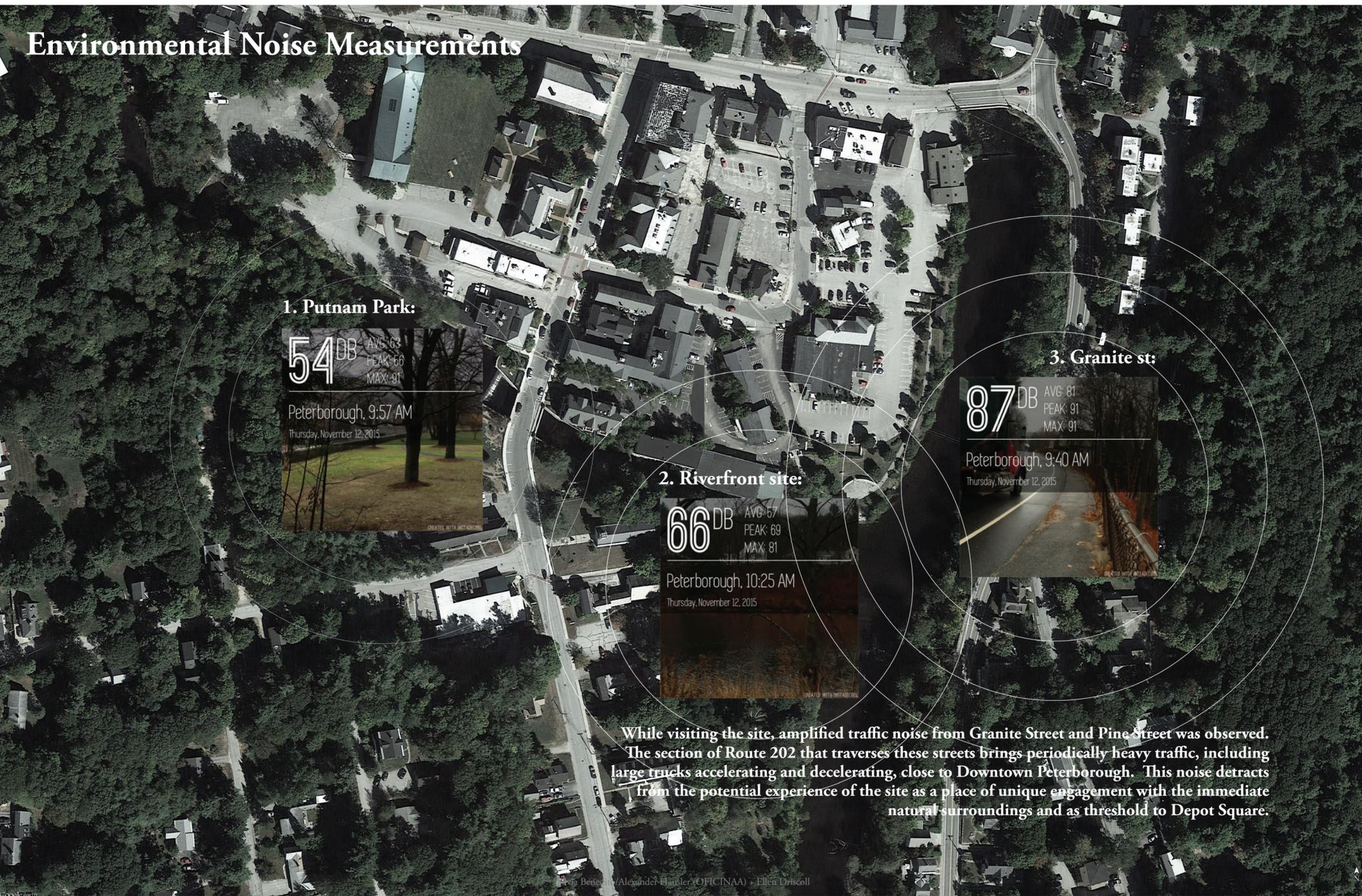
Silvia Benedito/Alexander Häusler (OFICINAA) + Ellen Driscoll

Connecting Peterborough's Trails



- Project Proposal
- Area of Study
- Common Pathway
- Proposed Pathway

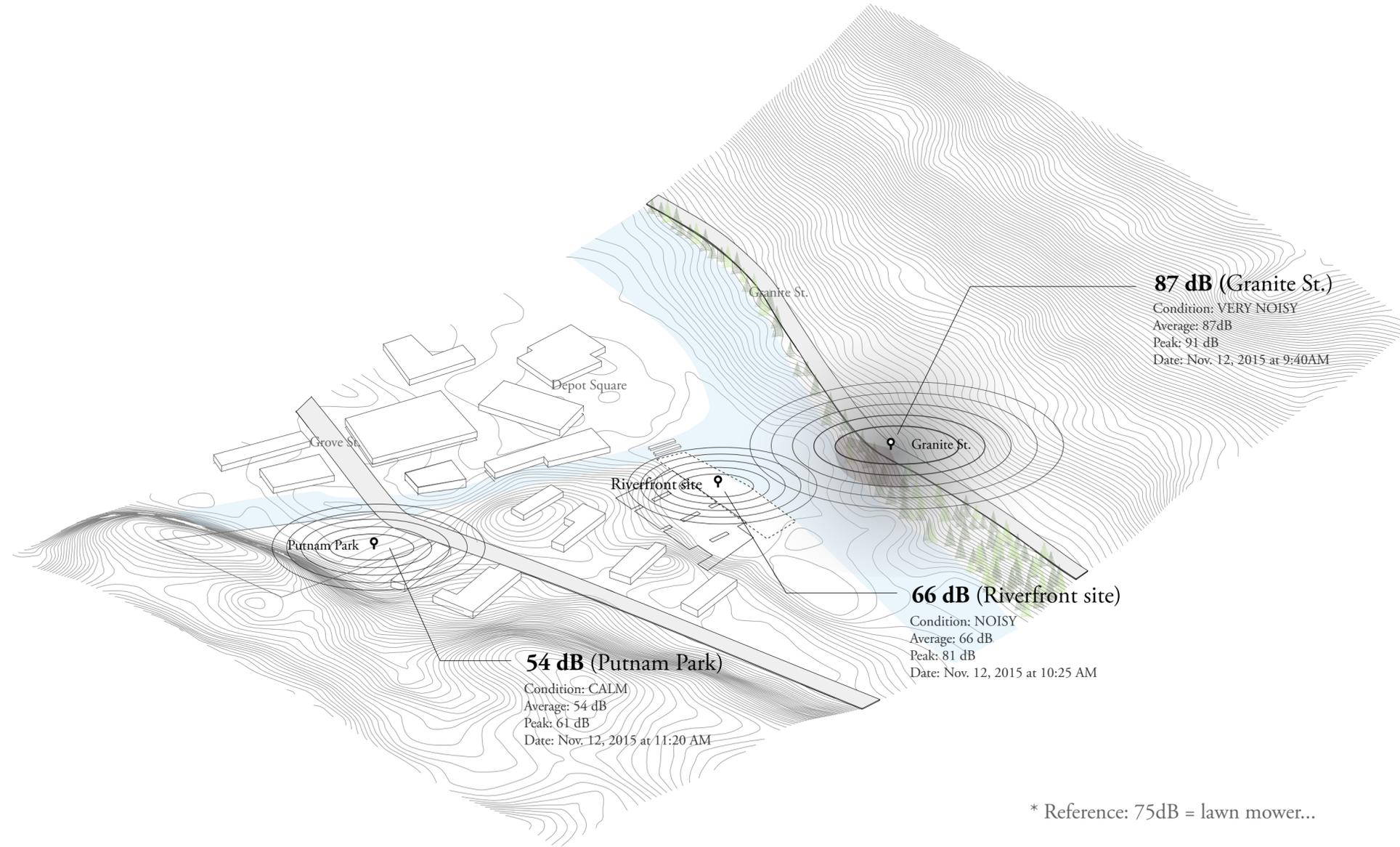
Environmental Noise Measurements



While visiting the site, amplified traffic noise from Granite Street and Pine Street was observed. The section of Route 202 that traverses these streets brings periodically heavy traffic, including large trucks accelerating and decelerating, close to Downtown Peterborough. This noise detracts from the potential experience of the site as a place of unique engagement with the immediate natural surroundings and as threshold to Depot Square.

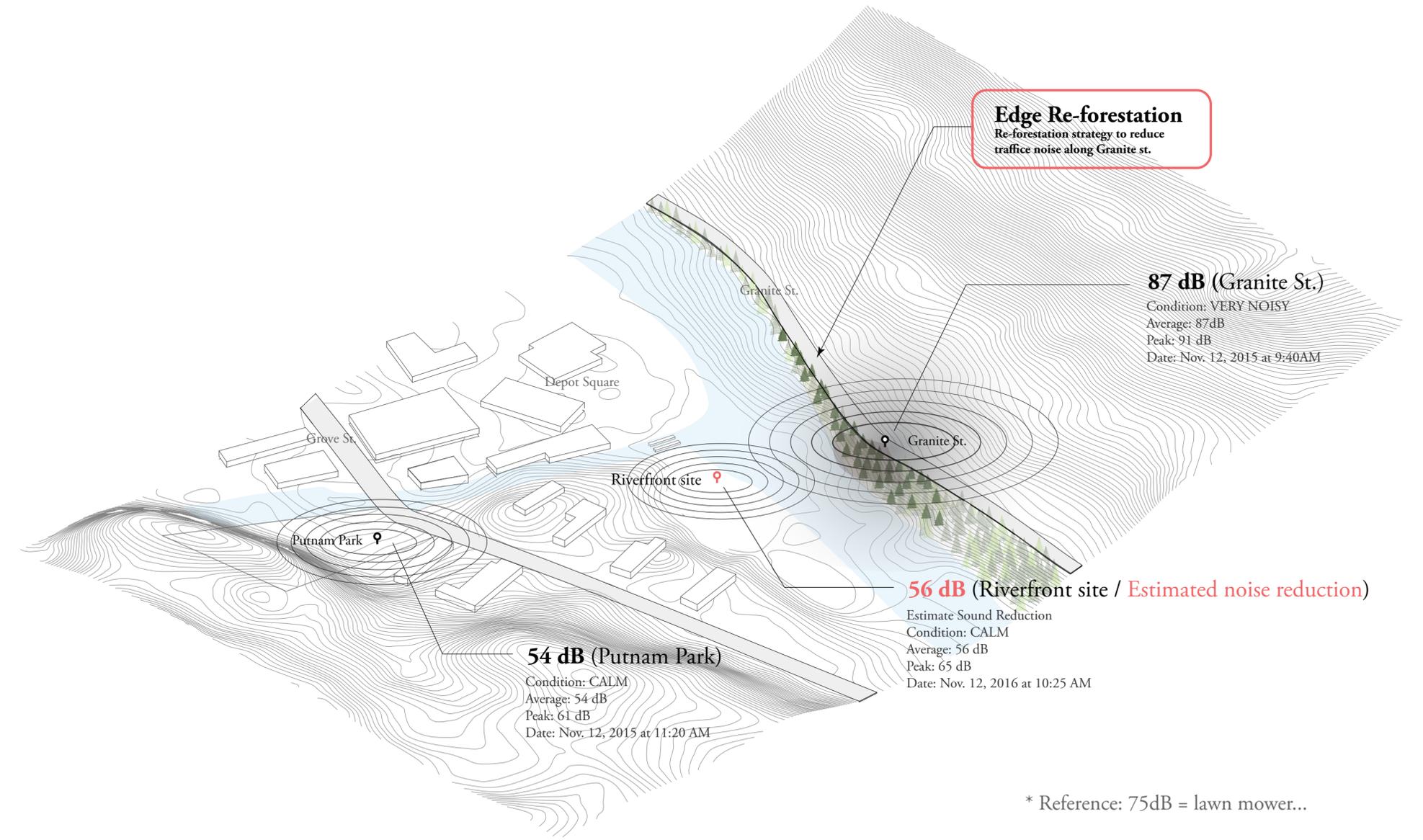
Reforestation as Noise Absorbing / Reducer

Existing condition



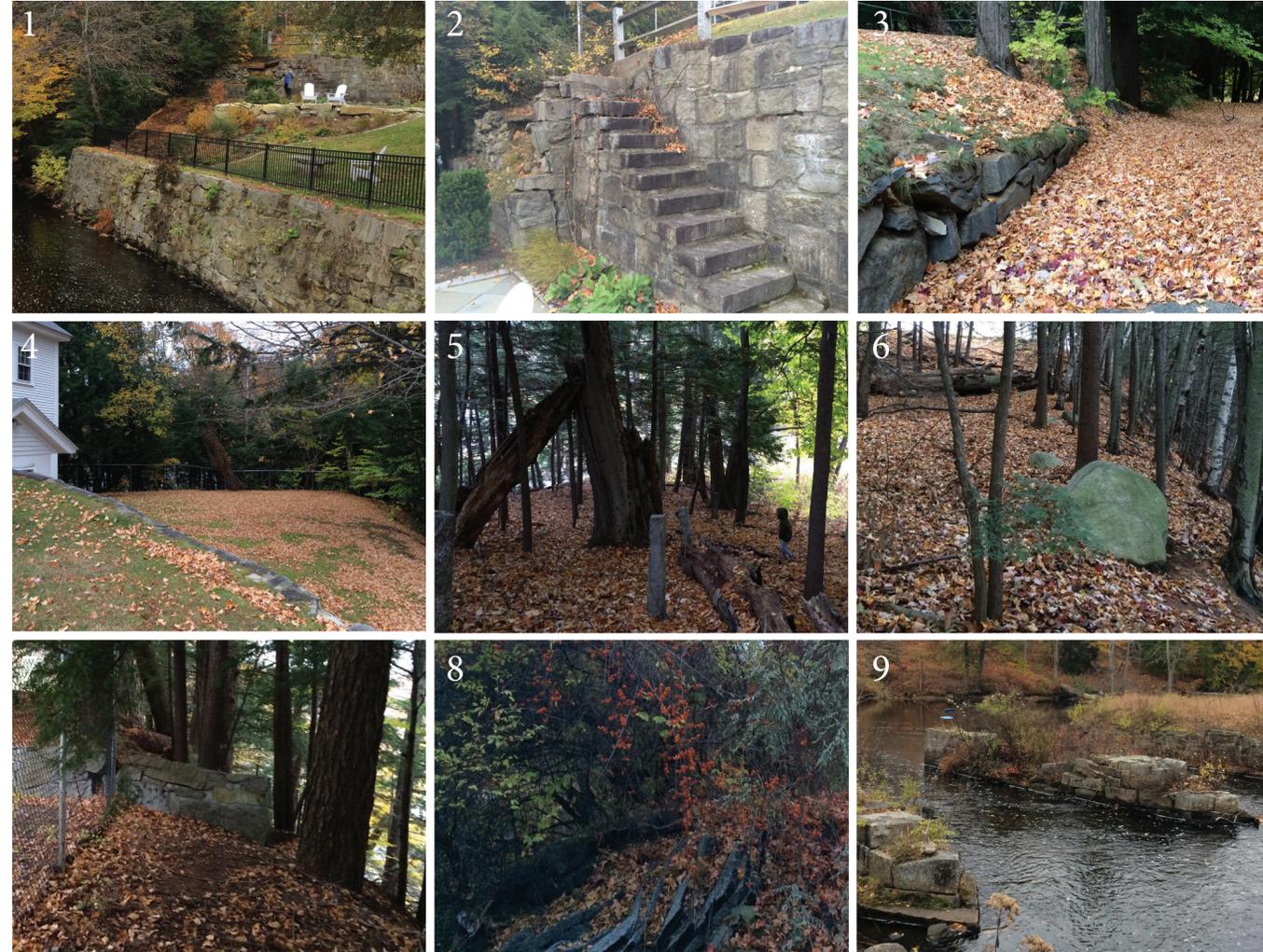
Reforestation as Noise Absorbing / Reducer

After (estimated reduction)

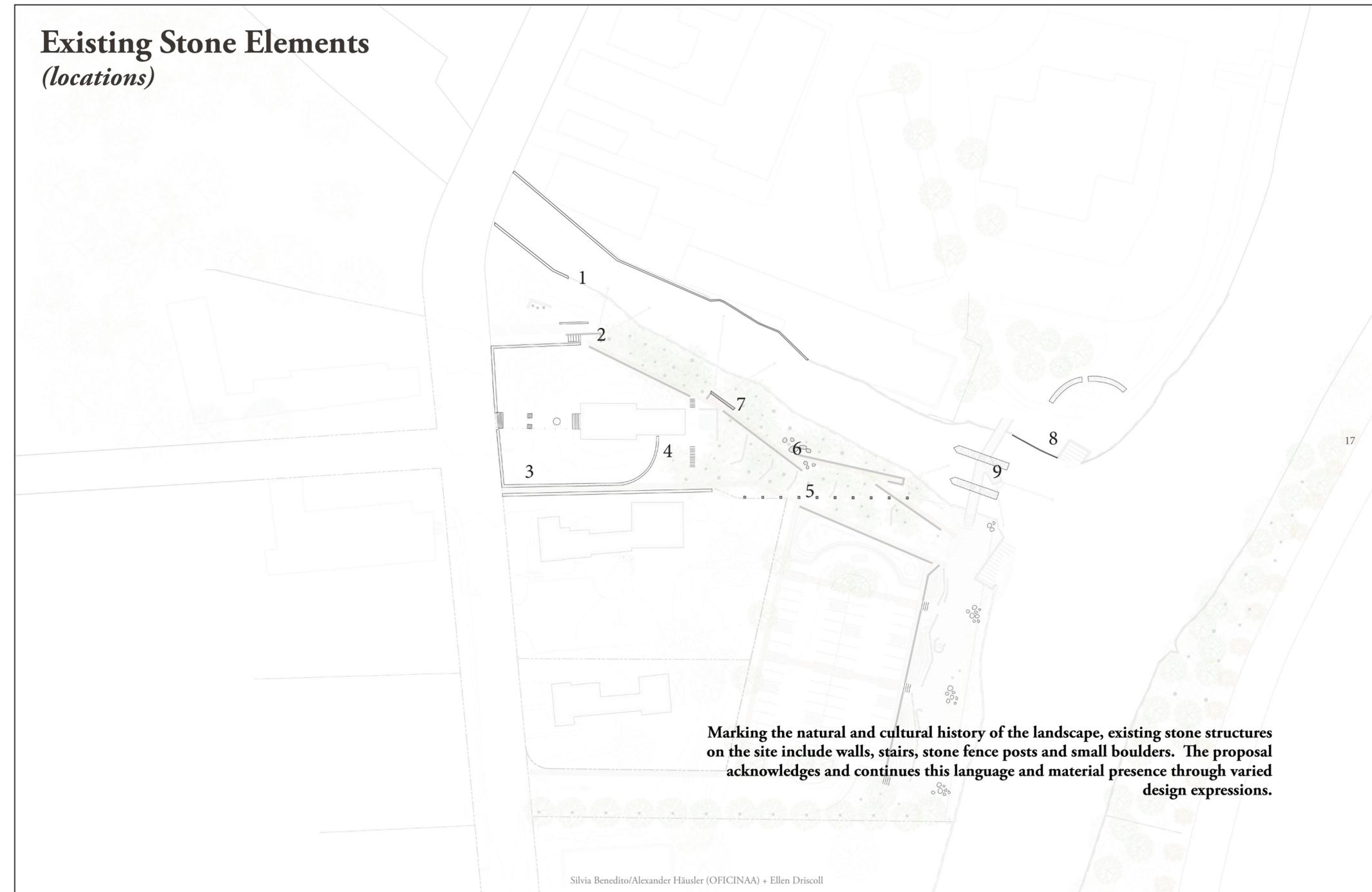


Existing Stone Elements

Existing stone walls and other stone elements on site:



Existing Stone Elements *(locations)*



Site Plan



- 1- Nubanusit Skyline Promenade
- 2- Overlooks
- 3- Outdoor event area (GAR HALL)
- 4- Boulder croppings (existing)
- 5- Pedestrian Bridge
- 6- The Contoocook Terrace
- 7- River steps (Kayak launch)
- 8- Seating (conversational types)
- 9- Seating and Fire Pit
- 10- Seating cove
- 11- Wind shelters (mounds)
- 12- Riverine edge
- 13- Dogs Run
- 14- Parking Lot (60 spaces)
- 15- Re-planted area (sound barrier)
- 16- Bus Stop
- 17- Boccelli Garden / Nubanusit Terrace
- 18- Putnam Park
- 19- Depot Square

The proposal “Peterborough River(s) Esplanade” generates a new place for residents and visitors to experience Peterborough’s unique landscapes. While creating a continuous connection to existing greenspace (Putnam and Depot Parks), it proposes a series of pocket areas to be used throughout the seasons. Inspired by the existing stone structures on the site (walls, stairs, stone posts, boulders), a proposed series of walls and stone partitions organize a sequence of programmatic pockets. These not only accommodate the programmatic requirements (seating and picnic area near water’s edge, outdoor fireplace, dog run) but also, when associated with landform, shelter the site against car headlights as traffic accesses the adjacent parking lot.

Silvia Benedito/Alexander Häusler (OFICINAA) + Ellen Driscoll

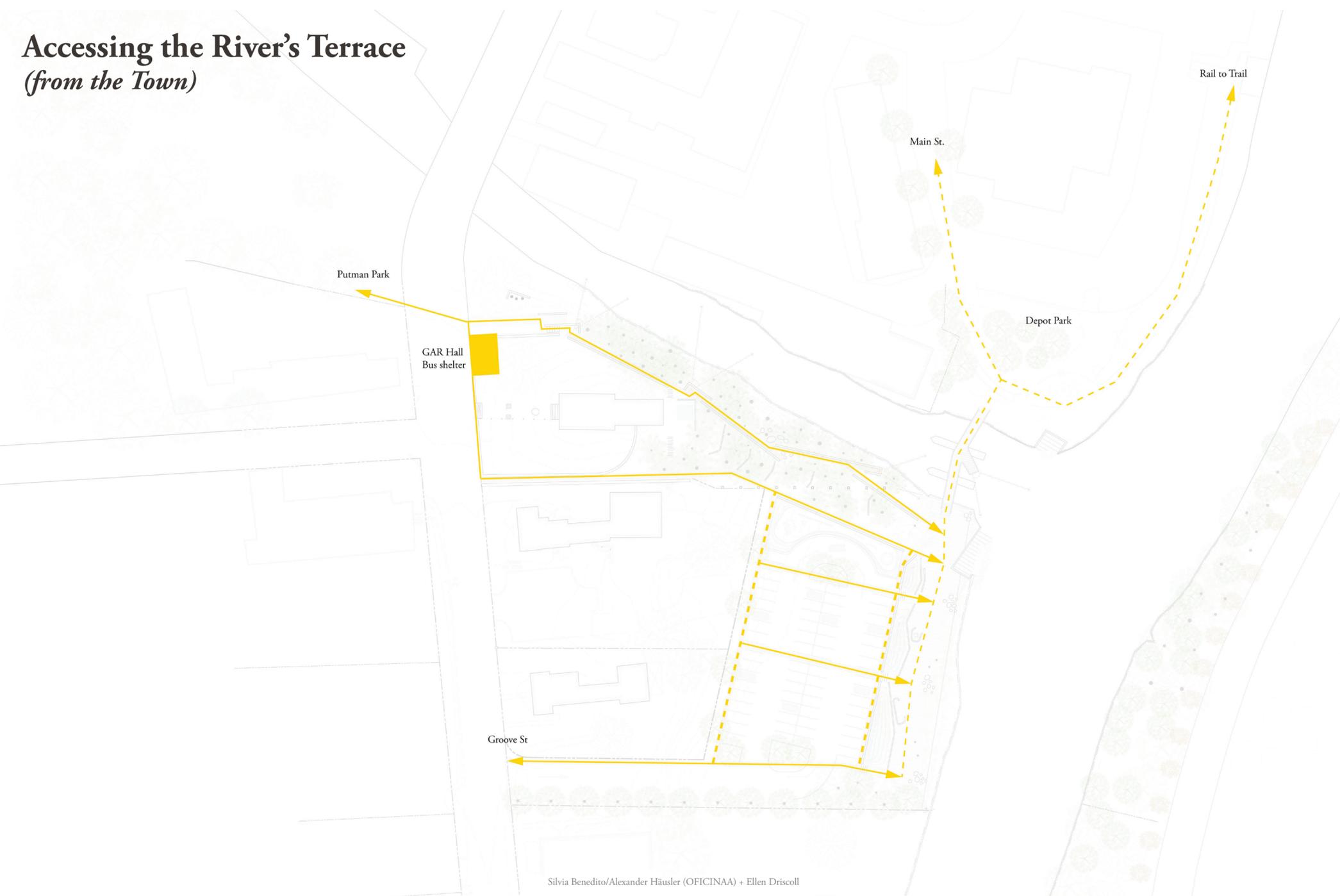
18. Site Plan (zoom-in)



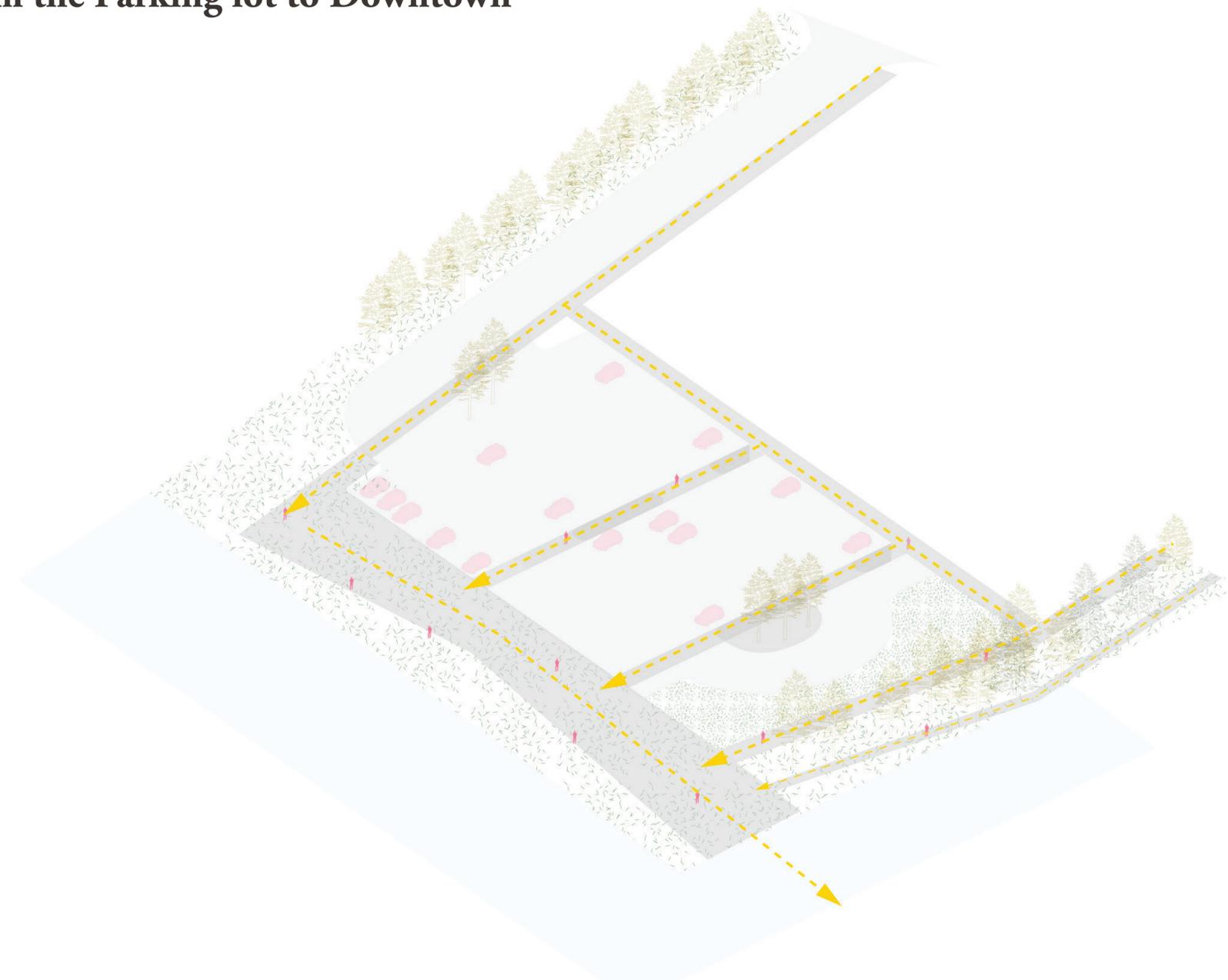
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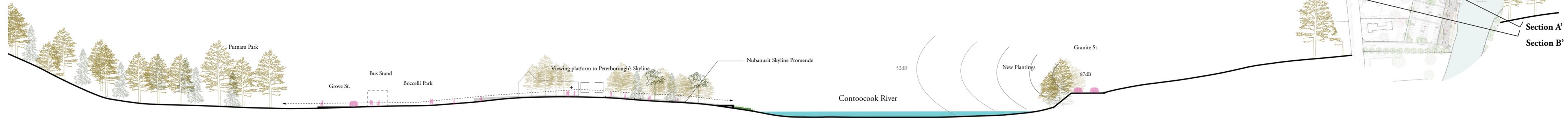
Accessing the River's Terrace *(from the Town)*



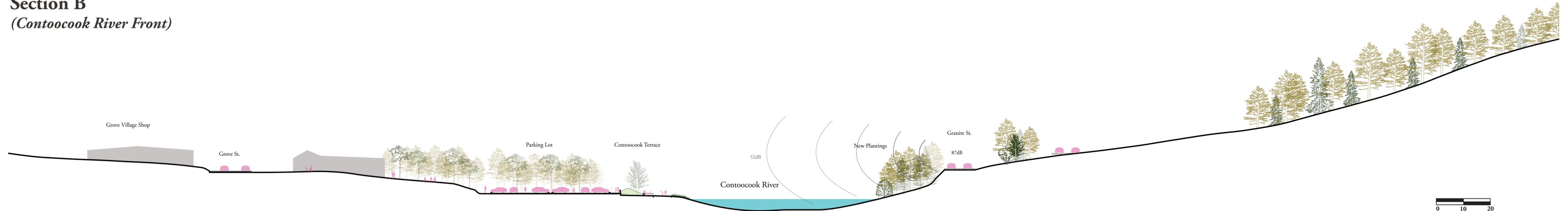
From the Parking lot to Downtown



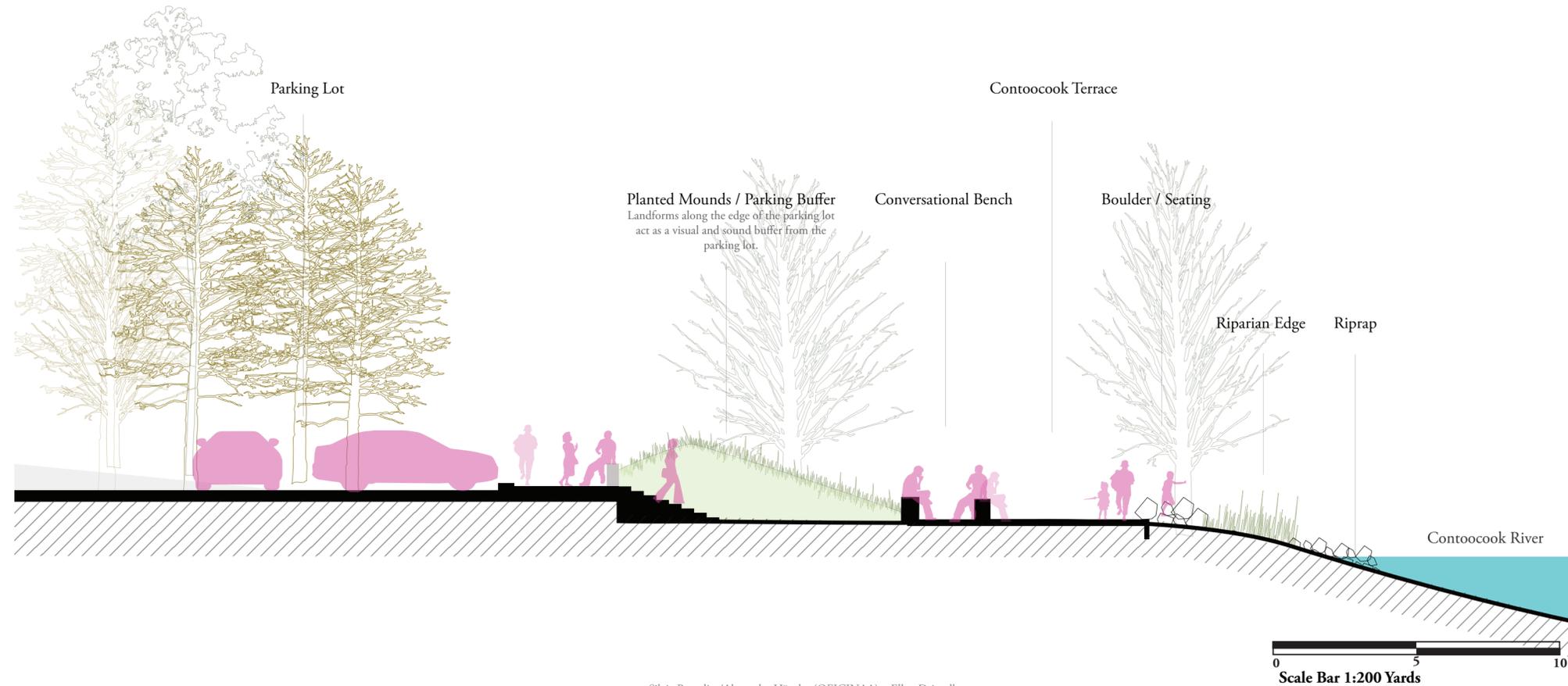
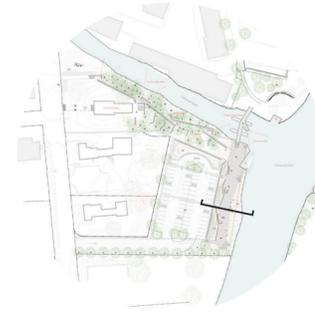
Section A
(Nubanusit Promenade)



Section B
(Contoocook River Front)

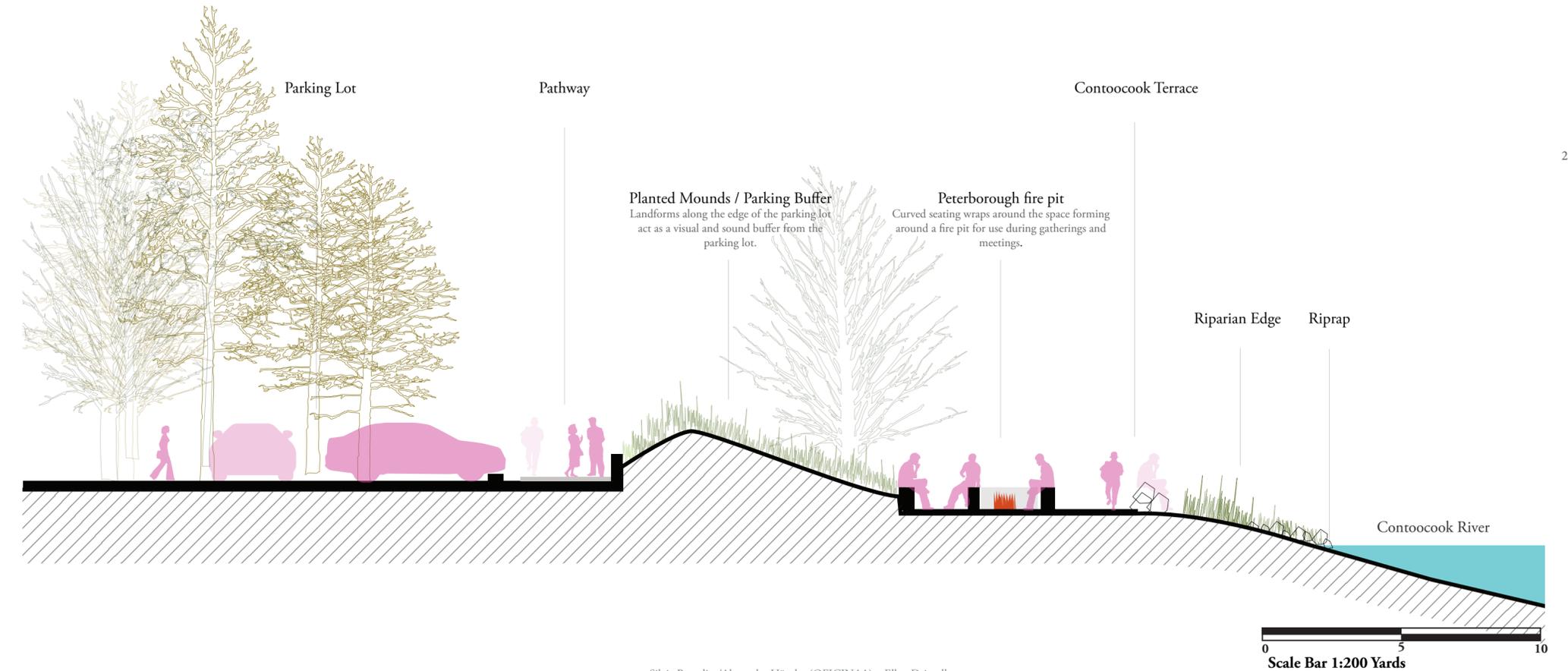
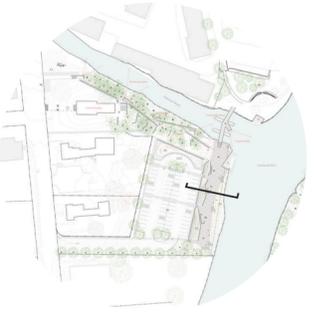


Section C (Contoocook Terrace)



Silvia Benedito/Alexander Häusler (OFICINAA) + Ellen Driscoll

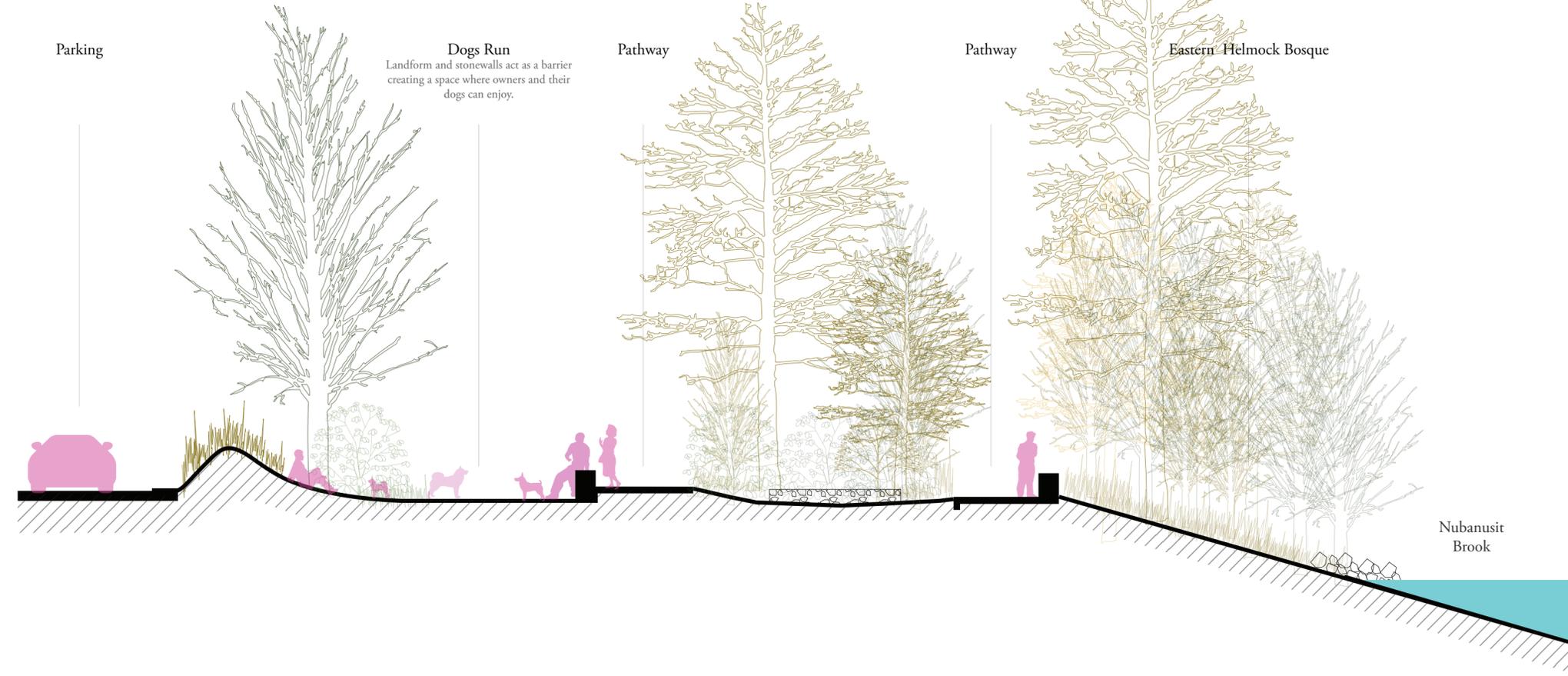
Section D (Contoocook Terrace)



Silvia Benedito/Alexander Häusler (OFICINAA) + Ellen Driscoll

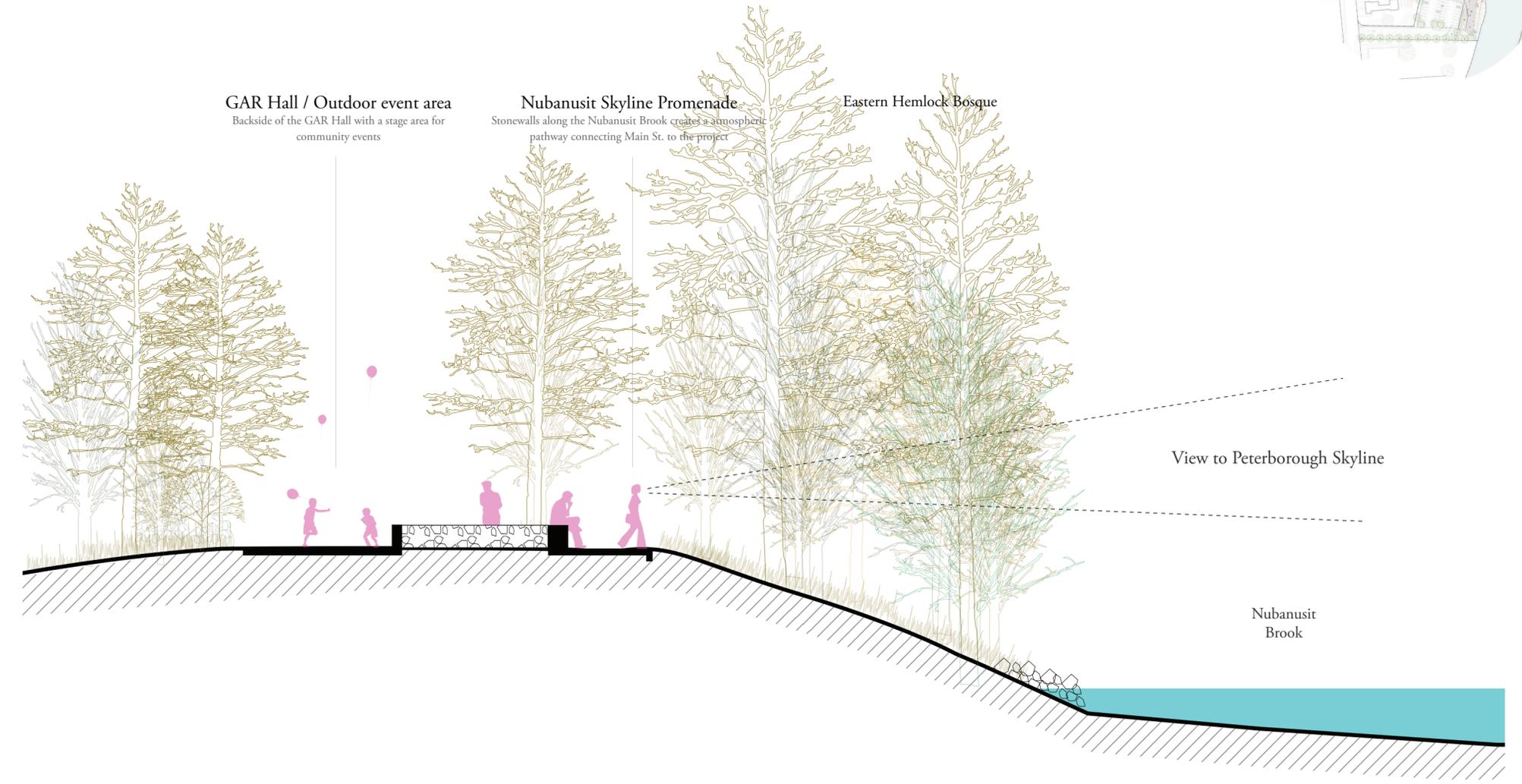
Section E

(Peterborough Dogs Run)



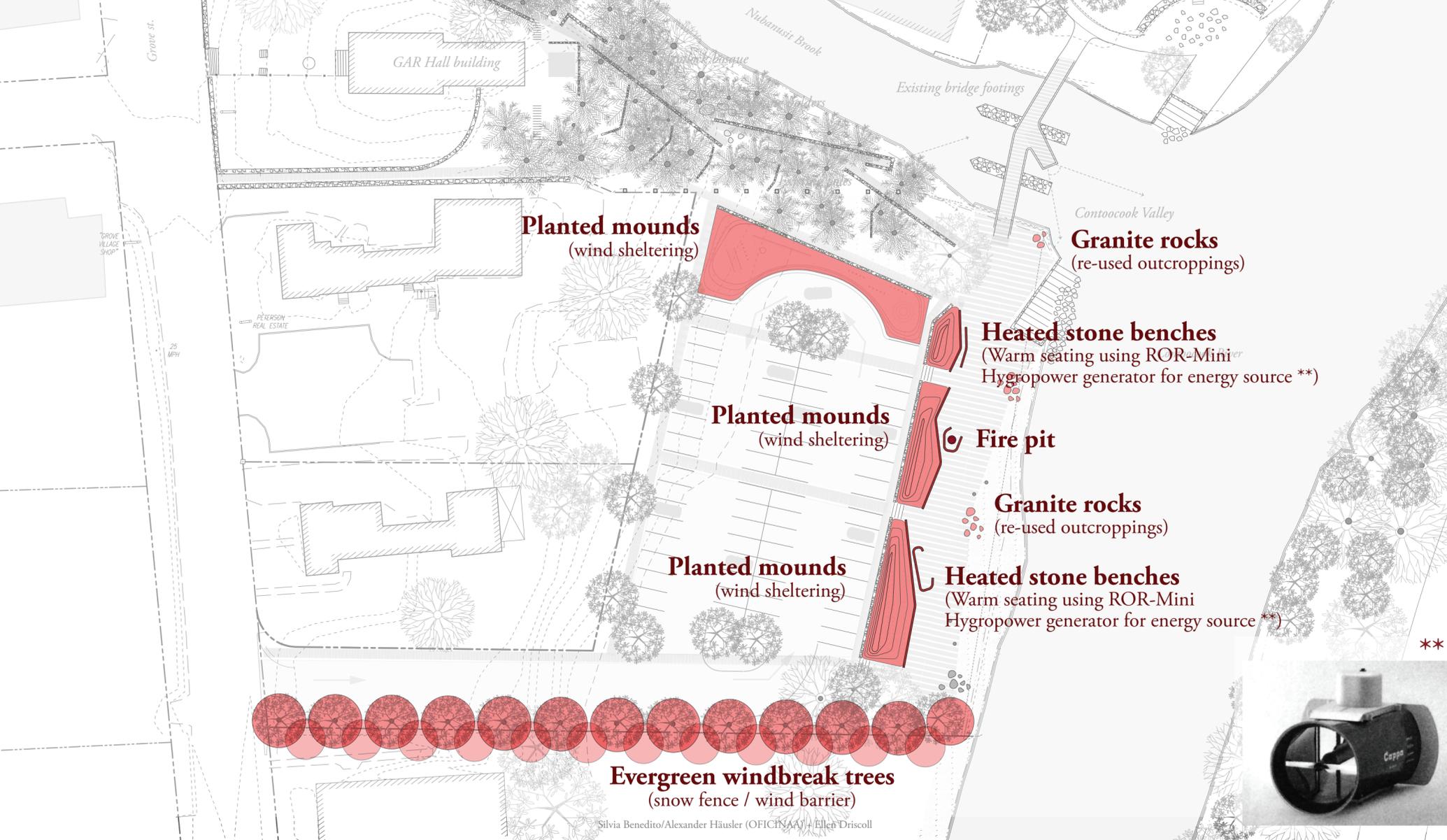
Section F

(Nubanusit Skyline Promenade)



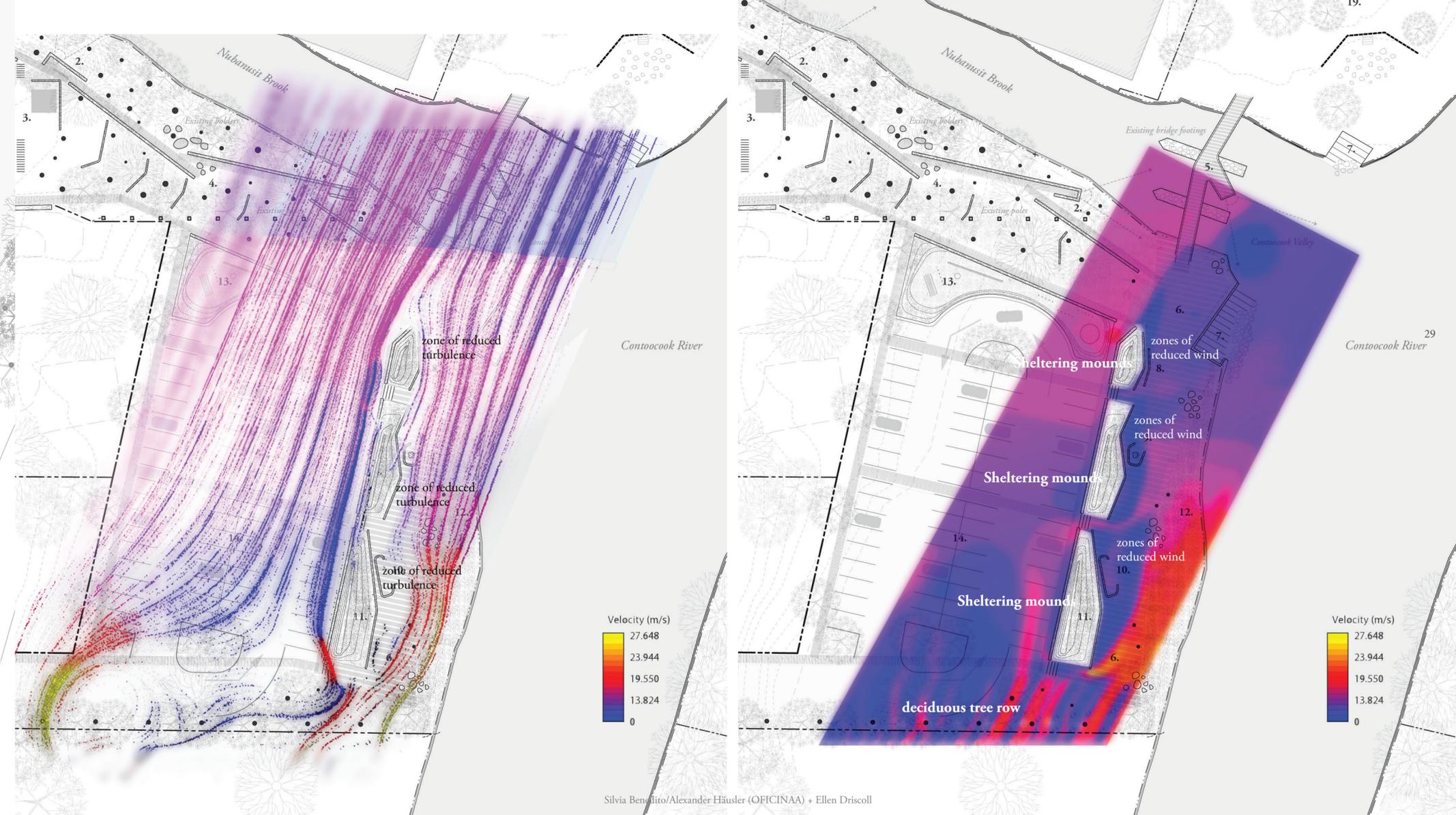
Taxonomies of Climatic Remediation Elements

These elements include evergreen windbreaks, snow fence, sheltering landforms, planted mounds, heated benches, firepit, and granite outcroppings



Localized wind simulations at the Contoocook River's Terrace

Flow simulations showcase the sheltered conditions on the seating zones along the Contoocook River's edge. The dominant winds of the winter season (S-W) is reduced with tactical insertions of landforms and deciduous hedgerows.



Planting Plan

EXISTING PLANTS:

Hemlocks, American beech, Gagus grndifolia
Sugar mazple, Acer saccherum, Red oak, Quercus rubra,
Black cherry, Prunus serotina

EXISTING PLANTS:

Eastern Hemlock, Tsuga canadensis,
Black birch, Betula lenta, White Birch, Betula papyrifera

EXISTING PLANTS:

Beach Plum, Prunus maritima
Salt tolerant, can be planted under powerlines
along Granite St as sound and salt buffer

PROPOSED PLANTS:

Norway Spruce, Picea abies
Soundbreak Spacing: 8-16' within rows 20'
apart. Fast growing, shade tolerant -existing ma
ture canopy can be densely underplanted with
spruce seedlings.

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Vegetation survey + additional species



Acer rubrum, Red Maple. Zones 3-9. Strong fall color, varies from tree to tree. 40-60' height, up to 120'; rounded crown.



Acer saccharum, Sugar Maple. Zones 3-8. Beautiful fall color; foliage and bark texture vary from tree to tree. 60-75' height, up to 120'; upright oval to rounded habit. Sensitive to road salt.



Betula lenta, Black Birch. Zones 3-7. Strong fall foliage color, plated black bark, catkins provide winter interest. 40-45' height up to 80'; irregular, rounded, sometimes wide spreading crown. Resistant to bronze birch borer.



Betula papyrifera, Paper Birch. Zones 2-6(7). Strong yellow fall foliage color, peeling white bark marked with black at maturity. 50-70' height, up to 120'; irregular, oval to rounded crown. Susceptible to bronze birch borer.



Fagus grandifolia, American Beech. Zones 3-9. Smooth gray bark, golden bronze fall foliage color with leaves often persisting into winter. 50-70' height, up to 120'; wide spreading crown on a short trunk. Susceptible to beech bark disease.



Malus domestica, Apple Tree. Zones 3-8. Gray textured bark, fragrant spring blossoms, edible fall fruit. 10-30' height, form dependent on pruning/maintenance.



Pinus strobus, Eastern White Pine. Zones 3-8. 3-5" long evergreen foliage, bark darkens to grayish brown, deeply furrowed, scaly ridges on mature trees. 50-80' height, up to 150'+, mature crown is gracefully plumelike in silhouette.



Prunus serotina, Black Cherry. Zones 3-9. Dark brown textured bark, yellow to red fall foliage color. 50-60' height up to 100'; oval-headed tree with pendulous branches.



Quercus rubra, Red Oak. Zones 4-8. Distinctly textured bark, strong red fall foliage. 60-70' height up to 100', often round-topped and symmetrical in form. Fast growing.



Tsuga canadensis, Canadian (Eastern) Hemlock. Zones 3-7(8). Fine evergreen foliage, scaly brown bark matures to heavily and deeply furrowed texture. 40-70' height, up to 120'; pendulously pyramidal mature. Threatened by Hemlock Woolly Adelgid.

1. Re-enhance the Contoocook River Section: reforestation plant palette



Picea abies, Norway Spruce. Zones 2-7(8). Dense evergreen foliage, gray flaking scales on mature bark. 40-60' height, up to 100'+, graceful pyramidal form with pendulous branches. Fast growing, effective as wind and sound break; tolerates shade as understory planting within existing canopy.



Prunus maritima, Beach Plum. Zones 3-7. Rounded, dense small tree with white spring blossoms and summer fruit. Up to 10' in height, salt tolerant; appropriate as buffer to roadside salt application as well as underplanting for power lines.

2. Inhabit the Contoocook Terrace: wind shelters and riverine edge plant palette

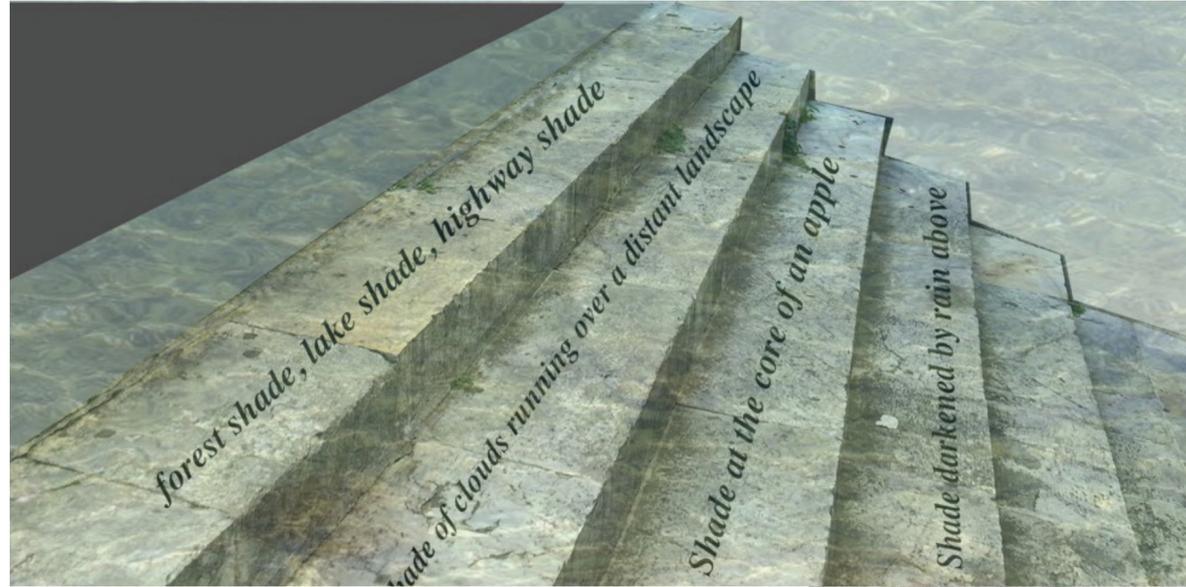


Wet meadow (full sun, flood tolerant): Asclepias incarnata, Swamp Milkweed; Carex stricta, Tussock Sedge; Eupatorium purpureum, Joe Pye Weed; Eupatorium perfoliatum, Boneset; Glyceria canadensis, Rattlesnake Manna Grass; Iris versicolor, Blue Flag Iris.

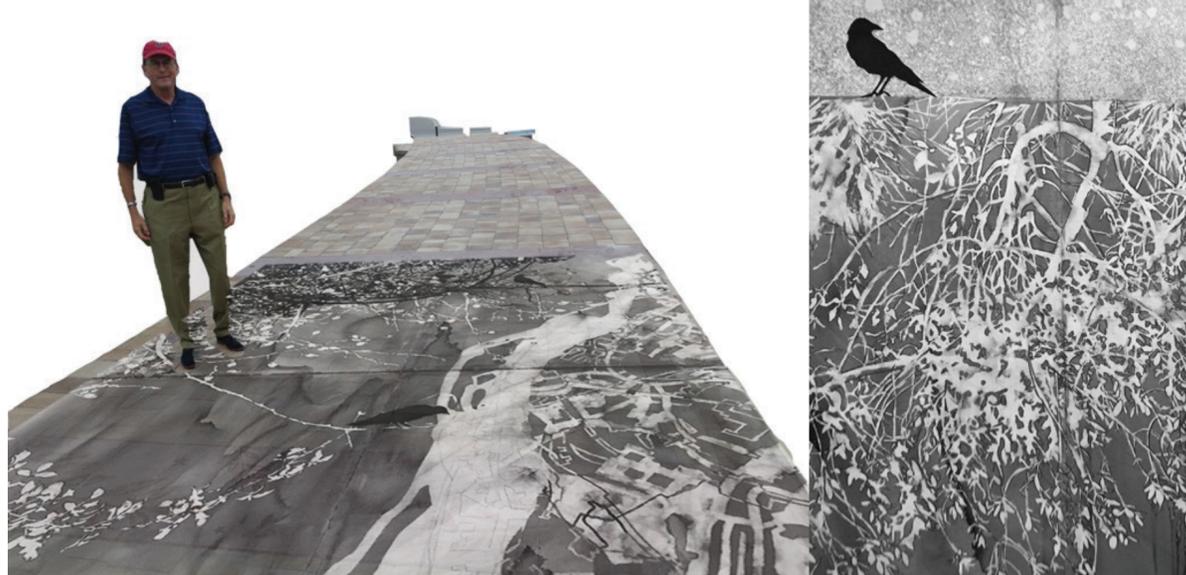


Tapestry of small trees and shrubs (full sun, flood tolerant, up to 15' height): Clethra alnifolia, Sweet Pepperbush; Ilex verticillata, Winterberry Holly; Salix discolor, Pussy Willow; Vaccinium corymbosum, Highbush Blueberry;

Art Installation in Collaboration with Ellen Driscoll



Laser cut text on stone steps going in to the water
 Excerpted here: Anne Carson's Poem
 "Each Day Unexpected Salvation (John Cage)"



Left: Rendering of laser cut granite with combined images that combine botany birds, and local geography.

Art Installation in Collaboration with Ellen Driscoll



Sculptural maps of local geography cantilevered off of the old railroad pilings in chrome plated stainless steel for mirrored elements that will reflect the constantly changing weather of the sky and foliage, and copper which will patina to brown and green. The maps would combine with objects of two scales: one to one household objects like the kitchen chair and the teapot, and architectural model scale of past and present architecture in the town. In this mock up, the old train depot and the present day GAR building. Below: Telescopic Tea Table 2014, and Still Life, 2010



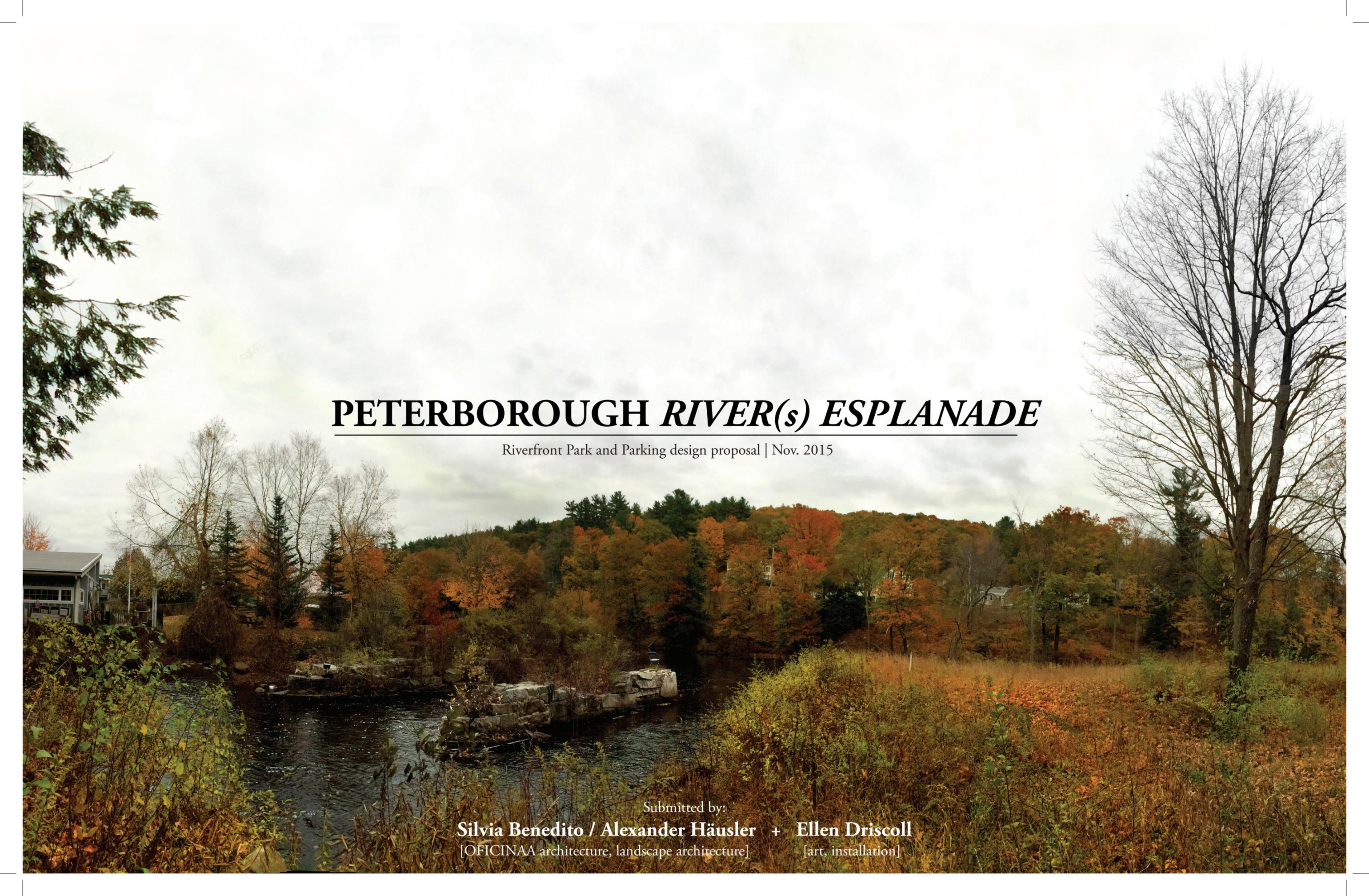


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