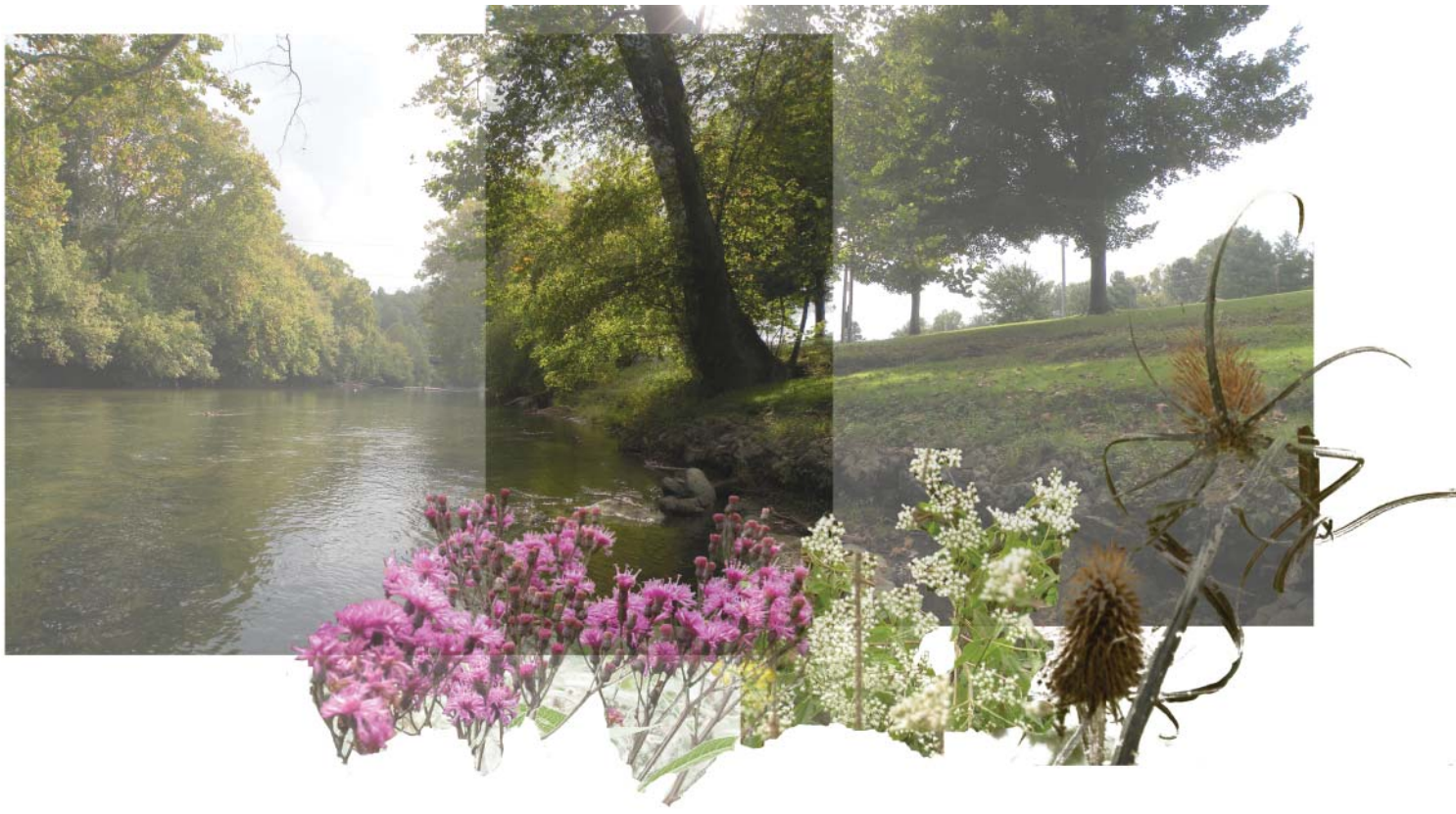
Bluebell Island Natural Area Trail Design
and
Conceptual Redesign of A.R. Matthews Park



Prepared for the Town of St. Paul and St. Paul Tomorrow, Inc.

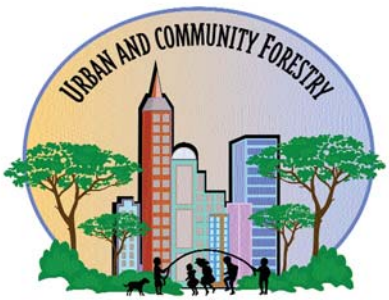
August 2012

community design assistance center

College of Architecture and Urban Studies
Virginia Polytechnic Institute and State University

Funding

Project funding provided by the USDA Forest Service (Region 8) in cooperation with the Southern Group of State Foresters and the Virginia Department of Forestry



SOUTHERN GROUP
OF STATE FORESTERS

Project Team

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Acknowledgements

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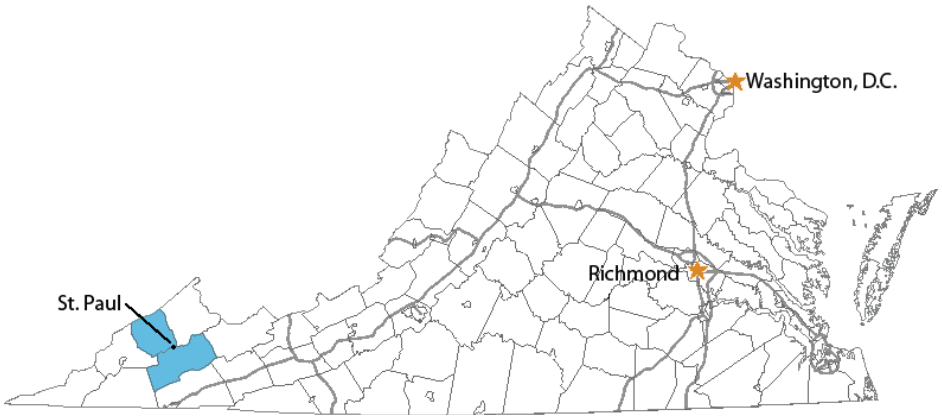
Table of Contents

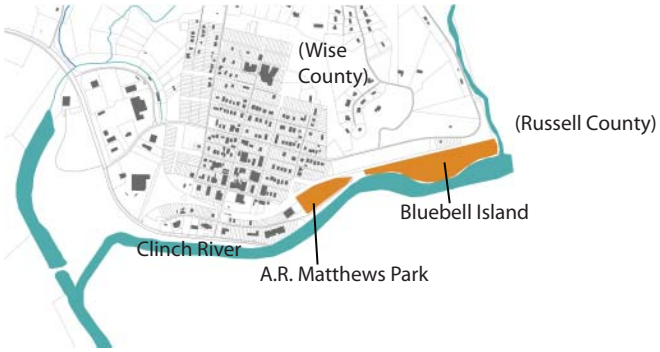
Project Description	**6**
Design Process	**7**
Inventory and Analysis	**8**
A.R. Matthews Park Community Survey	**11**
Preliminary Design Concepts	**13**
Final Conceptual Master Plan	**21**
Conclusion	**30**
Appendices	**31**

Project Description



Virginia state map highlighting St. Paul and Wise and Russell Counties

Project site located within Wise and Russell Counties



Location of project site in St. Paul adjacent to the Clinch River.

St. Paul is a small but vibrant town in southwestern Virginia with a rich history. Situated along the Clinch River and holding land in both Russell and Wise Counties, it is strategically located and poised to serve as a gateway to the region's natural assets. One of the town's biggest natural assets is the Clinch River, which is internationally renowned for its biological diversity. St. Paul seeks to make the Clinch River and other complimentary assets (existing trail systems, Wetland Estonoa, etc.) a "primary focus for a new creative economy dealing with tourism. "[1]

St. Paul currently boasts many individual scenic walking and biking trails, such as the River Trail and the Sugar Hill Loop Trail. A newly proposed trail, the Bluebell Island Trail, could link these trails together and "would make this area marketable to the tourist industry and benefit the town through the increased tourist trade." [1] This aligns well with St. Paul's Master Plan, which "suggests these trails be connected together and also connected to the downtown area, which would also facilitate the incorporation of trail-specific stores and outfitters." [2]

The Community Design Assistance Center (CDAC) worked with the Town of St. Paul and St. Paul Tomorrow, Inc. to develop a conceptual master plan for the Bluebell Island Trail as well as a redesign for A.R. Matthews Park. Bluebell Island is approximately 1.3 acres. This undeveloped natural area is owned by the town and has recently been put in a conservation easement with The Nature Conservancy (TNC). The town and TNC want to see a natural surfaced trail system developed on the island to compliment the biodiversity of the area and to provide connections to existing trail systems in the area. A.R. Matthews Park, the town's current riverside park, is adjacent to Bluebell Island and is home to the annual Clinch River Days Festival (circa 1998). This festival was created to "showcase the Clinch River, and the endangered species that exist in and around the river." [3]

The current park contains a variety of amenities (two tennis courts, a basketball court, children's play equipment, a stage, a covered shelter, a little league stadium, and the start of a skate park) but is aging and doesn't take advantage of its proximity to the Clinch River as well as it could. "The St. Paul's Tomorrow Trails Team is interested in creating a new design for the park that will complement the new trail addition to Bluebell Island and create a Riverwalk that joins Oxbow Lake and the Sugar Hill Loop Trail system." [4]

[1-4] "Town of St. Paul VA Downtown Plan." (2010): 11. St. Paul Virginia. Town of St. Paul. Web. 20 May 2012. <www.stpaulva.org>.

Design Process

CDAC team members Caitlin Edenfield (l) and Laurel Heile (r) present site analysis and preliminary concepts.

The St. Paul Tomorrow Board reviews the preliminary concept boards presented by the CDAC team.

The project began with an initial site visit to St. Paul, A.R. Matthews Park, Bluebell Island, and the Sugar Hill Trail System in September 2011. The CDAC team, Greg Bailey, and Lou Ann Wallace toured the sites, photographing different site conditions and existing elements, discussing design goals, and walking the connecting space for the proposed comprehensive plan. The team discussed ideas with Greg Bailey, Town Councilman, and Lou Ann Wallace, Chairperson of St. Paul Tomorrow, Inc.

The CDAC team took an additional trip to kayak the Clinch River to analyze the edge of A.R. Matthews Park and to examine possible trail routing along or close to the Clinch River. Continuing to explore the concept of eco-tourism and St. Paul's connection to the overall Clinch River system, the CDAC team assisted at the Clinch River Community Workshop, brainstorming with residents ideas of a linear state park. Afterwards, the CDAC team prepared inventory and analysis drawings as well as preliminary conceptual designs for A.R. Matthews Park.

The CDAC team presented site analysis findings and preliminary concept ideas for Bluebell Island, Downtown Connector Trail, and A.R. Matthews Park redesign at the December 2011 St. Paul Tomorrow meeting. Following this meeting, preliminary design concepts were revised into final conceptual designs including a comprehensive phased plan based on feedback from St. Paul Tomorrow. This new design was presented to the St. Paul's Town Council on February 20, 2012 for additional feedback before finalizing the A.R. Matthews Park and Bluebell Island Conceptual Master Plans.

This supporting report was prepared to describe the design process and design concepts developed for the A.R. Matthews Park redesign, Bluebell Island Trail design, and downtown connector trail master planning.

Site Inventory and Analysis

CDAC team member Laurel Heile (center) kayaks the Clinch River with local guides to gain a river edge perspective of A.R. Matthews Park.

Lou Ann Wallace (left center), Kim Steika (center), and Greg Bailey (right) observe potential trail connector spots.

Existing conditions at A.R. Matthews Park, Bluebell Island, and dowtown trail connection spots were inventoried during the CDAC team's initial site visit in September 2011. This trip provided information on areas of use on the sites, changing climatic conditions, and existing infrastructure. Numerous photos were taken to document the three areas for specific views, transition spots, infrastructure, and landscape character.

Touring the site with Lou Ann Wallace, Greg Bailey, Ervin Ellis, and Willie Ellis gave insight into ideas for expansion and amelioration of the sites including ideas for new amenities, removal of existing amenities, or upgrading certain site fixtures. Discussions focused on how A.R. Matthews Park could be a positive representation as a gateway park for St. Paul and could better emphasize the Clinch River and the new ecological recreation direction of St. Paul. The ideas discussed for Bluebell Island focused on trail connection and appropriate trail surfacing for accessibility and the potential changing water levels of the site. The CDAC team walked proposed routes for the connector trail from Bluebell and A.R. Matthews Park to the Sugar Hill Trails. This helped the team hone in on important connection spots along the river and in town. Maintenance and ecological educational opportunities were discussed at all sites.

Upon completion of the site inventory and data gathering in September, the CDAC team returned to Blacksburg to continue the site analysis process using the data gathered, along with GIS information and other provided files. During this time, site processes and elements including hydrology, vegetation, pedestrian and vehicular circulation, and site use areas were inventoried of both A.R. Matthews Park and Bluebell Island. Analysis of this data produced valuable information contributing to the development of design concepts for the site.

Analysis drawings can be found on the following pages.

Site Analysis

train noise

re-organize and program play/ equipment

less use of tennis and basketball courts

existing tennis courts

opportunity to paint walls

area of visibility from the river

tall evergreen barrier

pedestrian circulation

existing playground area

worn grass

eroding bank

gabion and rock reinforced bank

other circulation options

Little League Field

Railroad

Skate Park

interaction with the water

bank is a visual buffer

sycamores and silver maples

river as main focus

The Clinch River

East Riverside Dr.

lush grass bank

primary vehicular circulation

potential for flooding of embankment

Oxbow Center

N

Scale: 3/16”=1’

Design Ideas

From the water

Survey results

Existing Conditions

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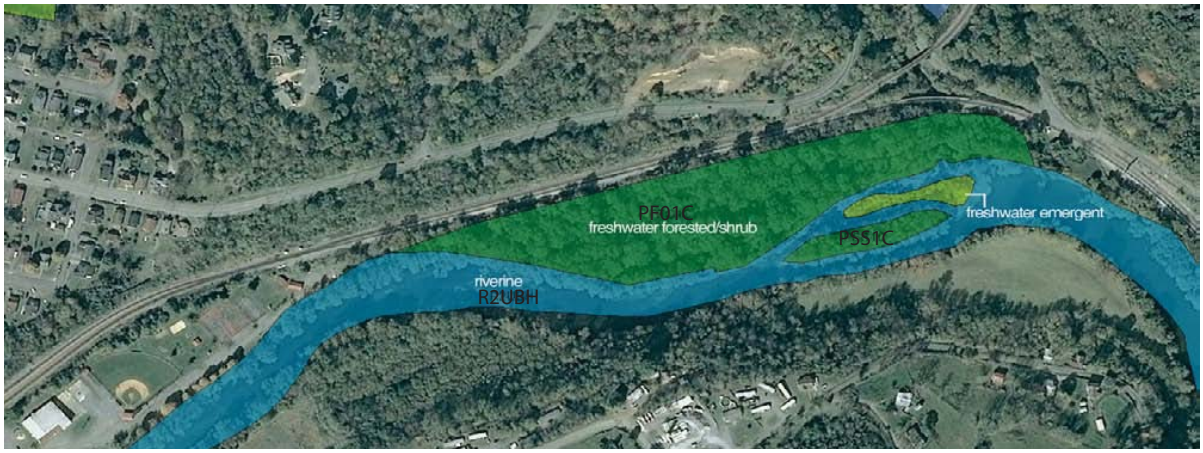
Bluebell Island Analysis



Description for code **R2UBH** :

R **System RIVERINE**: The Riverine System includes all wetlands and deepwater habitats contained in natural or artificial channels periodically or continuously containing flowing water or which forms a connecting link between the two bodies of standing water. Upland islands or Palustrine wetlands may occur in the channel, but they are not part of the Riverine System.

Subsystem:
2 **Subsystem LOWER PERENNIAL:** This Subsystem is characterized by a low gradient and slow water velocity. There is no tidal influence, and some water flows throughout the year. The substrate consists mainly of sand and mud. The floodplain is well developed. Oxygen deficits may sometimes occur.
UB **Class UNCONSOLIDATED BOTTOM:** Includes all wetlands and deepwater habitats with at least 25% cover of particles smaller than stones (less than 6-7 cm), and a vegetative cover less than 30%.

Modifier(s):
H **WATER REGIME Permanently Flooded:** Water covers the land surface throughout the year in all years.

Description for code **PFO1C** :

P **System PALUSTRINE:** The Palustrine System includes all nontidal wetlands dominated by trees, shrubs, emergents, mosses or lichens, and all such wetlands that occur in tidal areas where salinity due to ocean derived salts is below 0.5 ppt. Wetlands lacking such vegetation are also included if they exhibit all of the following characteristics: 1. are less than 8 hectares (20 acres); 2. do not have an active wave-formed or bedrock shoreline feature; 3. have at low water a depth less than 2 meters (6.6 feet) in the deepest part of the basin; 4. have a salinity due to ocean-derived salts of less than 0.5 ppt.

Subsystem :
FO **Class FORESTED:** Characterized by woody vegetation that is 6 m tall or taller.
1 **Subclass Broad-Leaved Deciduous:** Woody angiosperms (trees or shrubs) with relatively wide, flat leaves that are shed during the cold or dry season; e.g., black ash (Fraxinus nigra).

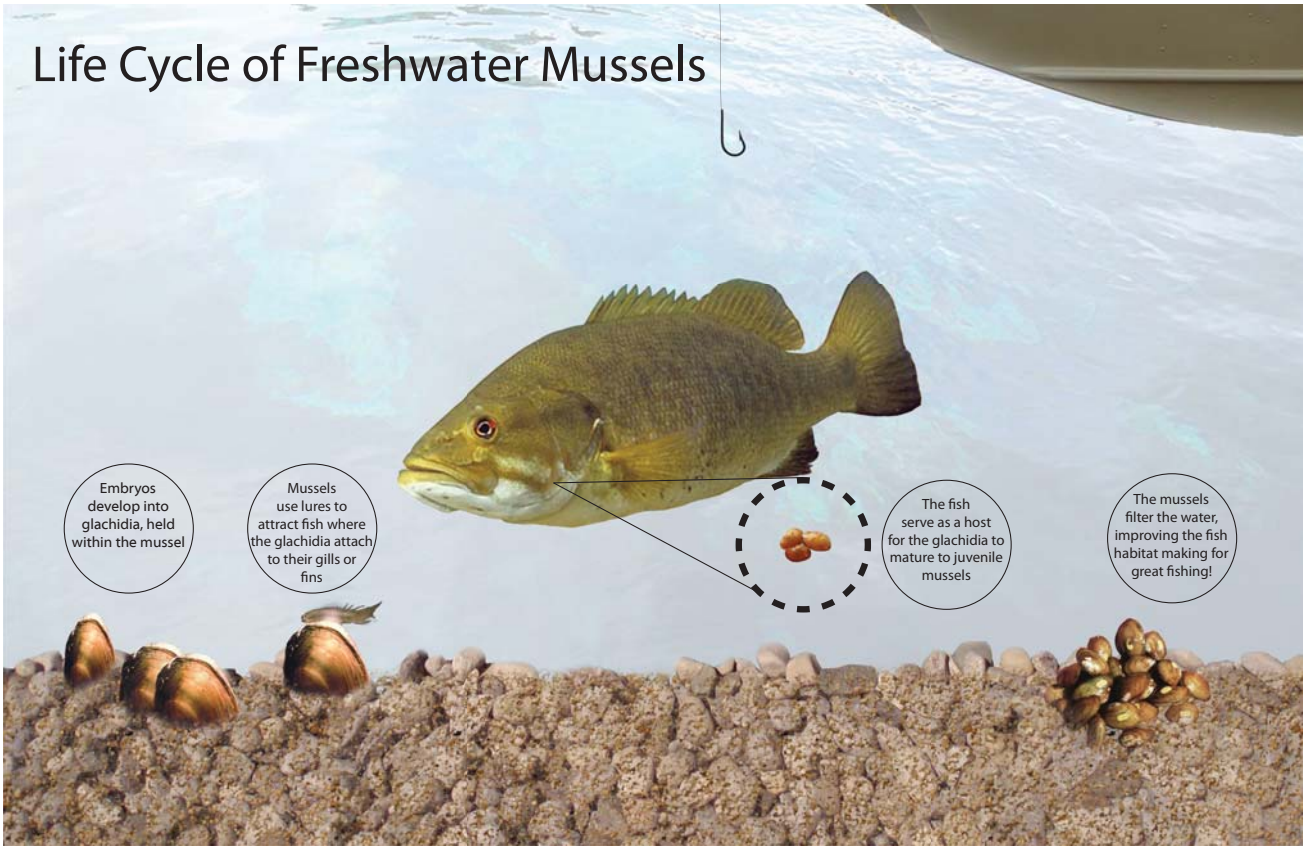
Modifier(s):
C **WATER REGIME Seasonally Flooded:** Surface water is present for extended periods especially early in the growing season, but is absent by the end of the growing season in most years. The water table after flooding ceases is variable, extending from saturated to the surface to a water table well below the ground surface.

Description for code **PSS1C** :

P **System PALUSTRINE:** The Palustrine System includes all nontidal wetlands dominated by trees, shrubs, emergents, mosses or lichens, and all such wetlands that occur in tidal areas where salinity due to ocean derived salts is below 0.5 ppt. Wetlands lacking such vegetation are also included if they exhibit all of the following characteristics: 1. are less than 8 hectares (20 acres); 2. do not have an active wave-formed or bedrock shoreline feature; 3. have at low water a depth less than 2 meters (6.6 feet) in the deepest part of the basin; 4. have a salinity due to ocean-derived salts of less than 0.5 ppt.

Subsystem :
SS **Class SCRUB-SHRUB:** Includes areas dominated by woody vegetation less than 6 m (20 feet) tall. The species include true shrubs, young trees (saplings), and trees or shrubs that are small or stunted because of environmental conditions.
1 **Subclass Broad-Leaved Deciduous:** Woody angiosperms (trees or shrubs) with relatively wide, flat leaves that are shed during the cold or dry season; e.g., black ash (Fraxinus nigra).

Modifier(s):
C **WATER REGIME Seasonally Flooded:** Surface water is present for extended periods especially early in the growing season, but is absent by the end of the growing season in most years. The water table after flooding ceases is variable, extending from saturated to the surface to a water table well below the ground surface.



A.R. Matthews Park Community Survey

Based on survey feedback, the park is viewed as an asset to the community,

The Clinch River was the resounding winner for favorite attraction at the park.

A short survey was prepared to complement the CDAC team's site analysis by gathering input from residents on the current use of A. R. Matthews Park so that the users' needs and wants could be reflected in the park redesign. Area residents were asked what they currently loved about the park, what they used the most, and what they would like to see in the future. The survey was made available online, hosted by survey.vt.edu, and was promoted through the town's Facebook page as well as the local paper. Hard copies of the survey were also printed and made available at the Oxbow Center.

Feedback from the survey became the framework from which design decisions were made for the conceptual design of the project site. Some key findings from the survey responses were as follows:

1) The Clinch River is a major feature of this park. Over half of the respondents reported that their favorite thing about A.R. Matthews Park had to do with the river (boating, location, views, etc).
2) There was an overwhelming desire for updated playground equipment, new layout for tennis and basketball courts, and adding skate park equipment.
3) The majority of respondents viewed the park as an asset to the community (opportunity for large gathering spaces and events and access to the Clinch River), but definitely agreed that renovations were necessary to portray growth and development of St. Paul.

A copy of the survey instrument as well as a full list of responses can be found in Appendix A. A graphic summary can be found on the follow page.

A.R. Matthews Park Community Survey

Valley Times

Public input sought on ideas for possible redesign of A. R. Matthews Memorial Park

The Community Design Assistance Center (CDAC) at Virginia Tecj is working with the Town of St. Paul and St. Paul Tomorrow, Inc., to develop con-ceptual ideas for a redesign of A. R. Matthews Memorial Park as well as conceptual design plans for a trail system con-necting Bluebell Island to Oxbow Lake. The public's help is needed!

Ideas from people in the community are sought to understand what aspects of the park that are liked and which elements the public would like to see changed or added.

In order to provide that input, please complete a five-minute survey. The conceptual design alternatives that are derived from the completed surveys will e presented at a community meeting later in the fall for public review and comment.

Please access the survey at http://survey.vt.edu/survey/entry.jsp?id=1317241100187, complete it and submit it by Friday, October 14.

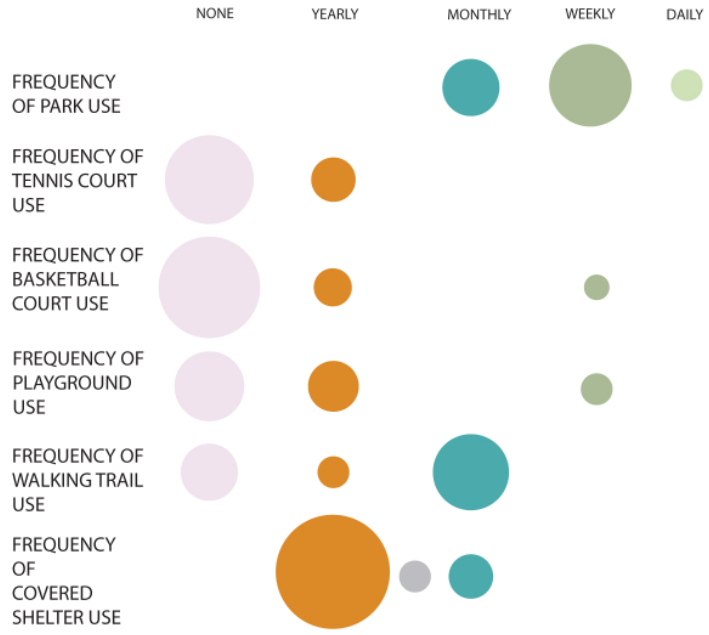
If you don't have Internet access, pick up a "hard copy" of the survey at Sweet Pea's, C. R. Pate Insurance, or the St. Paul Town Hall.

Citizens invited to Clinch River Workshop October 4

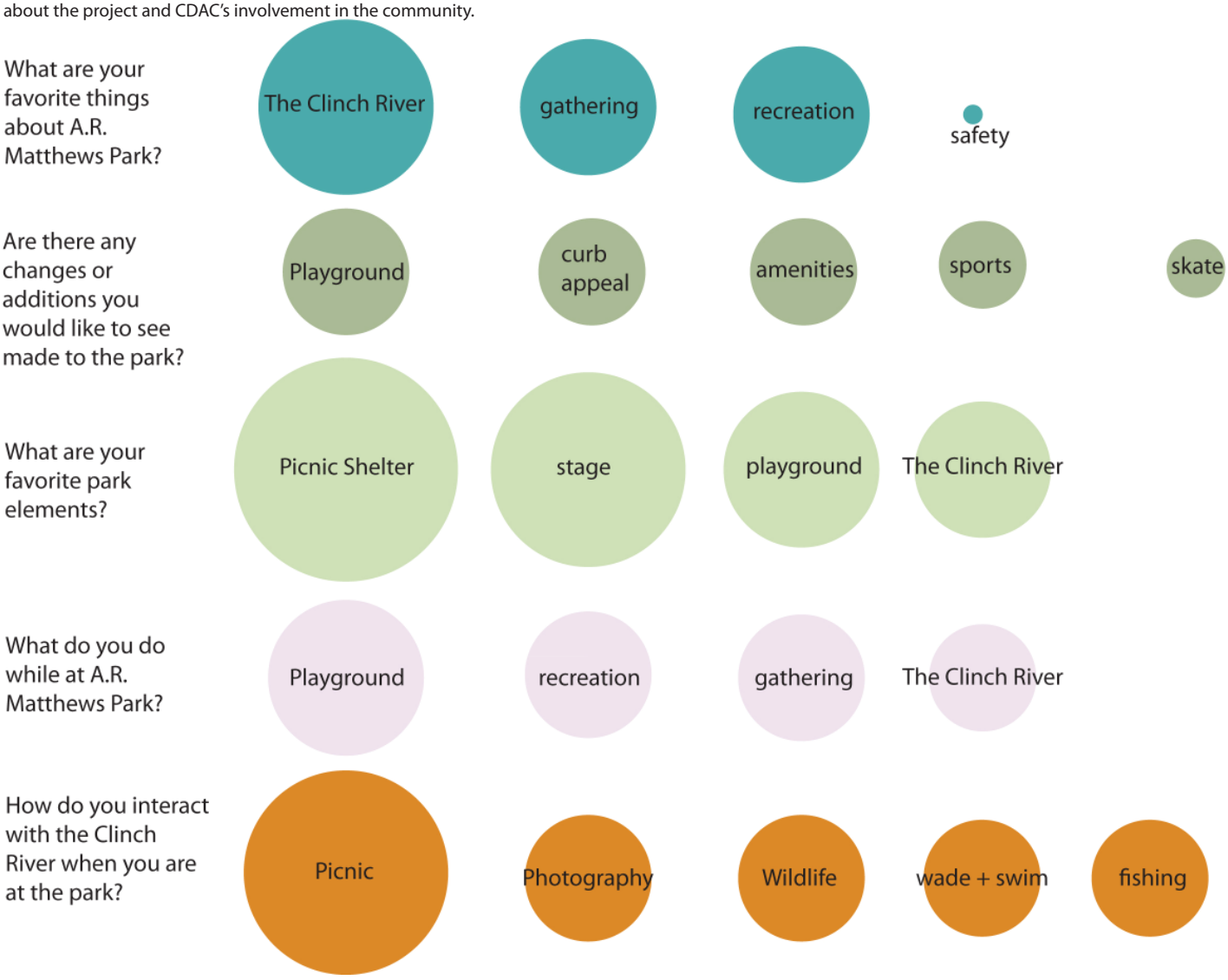
Area residents are invited to attend a workshop designed to collect stories and photographs of the Clinch River. The event will be held at the Oxbow Center in St. Paul on Tuesday, October 4 from 5:30-8:30 p.m.

Dinner will be at 5:30 p.m., and the meeting will begin at 6:30. Reservations are requested by Friday, September 30. Call 540-231-5644 or email ksteika@vt.edu. If you are unable to make reservations, you may still attend.

Co-sponsors are Virginia Tech's Community Design Assistance Center and the University of Virginia's Institute for Environmental Negotiation. U.S. Forestry Service funding also supports the workshop.



The survey was featured in the St. Paul local newspaper to increase awareness about the project and CDAC's involvement in the community.



Preliminary Design Concepts

Caitlin Edenfield (l) and Laurel Heile (r) present preliminary concept designs for St. Paul Tomorrow meeting.

Question and answer discussion with St. Paul Tomorrow and CDAC team members to work feedback into next design stage.

The CDAC design team created two preliminary design concepts for A.R. Matthews Park as well as a conceptual design to link Bluebell Island Trail to downtown St. Paul and the existing Sugar Hill Trail System, synthesizing the feedback from the community surveys and site analysis findings. The concepts addressed a range of potential budgets and offered both a more intensive (cost) design concept and a less intensive but high impact design concept. These preliminary concepts were presented to the St. Paul Tomorrow board members in December 2011 for initial feedback before a more formal public presentation was made to Town Council.

Preliminary Concept A

Concept A utilizes many of the existing assets of the park and highlights and improves upon community favorites in an efficient way. The concept maintains the existing little league field since it is a well used and permanent fixture in the park. Consolidating the two existing tennis courts and one basketball court into a single multi-purpose court will save space in the linear park. This paved court with basketball and tennis lines painted will also be used for toddler tricycle use, as highlighted in the survey. Moving the court with the high chain-link fence closer to the little league field consolidates the organized recreational uses of the park and bisects the park less. This shift creates a new expansive open space that will now accommodate a larger lawn for the bandstand. The bandstand will be rotated to create an axis with the large family picnic shelter. Keeping the bandstand at the far end of the park maintains views of the river while watching performances. To facilitate interaction with the river, Concept A includes an observation pier, riparian buffer for runoff mitigation, and a carved viewshed. Low growing riparian buffer vegetation is proposed to allow for views into the park for kayakers and out to the river for park users. A larger river-themed walking loop along the back edge of the park connects different play stations with the younger age play stations closer to the individual picnic shelters for easy monitoring.

Preliminary Concept B

Concept B addresses a longer term, more intensive design proposal. Removing the little league field opens up a significant amount of space, allowing the design to enhance river recreation and to accommodate larger staged events that could really put St. Paul on the map. The larger bandstand includes a wooden dance floor with a combination of permanent terraced amphitheatre seating and flexible lawn space. This lawn space can also be used for informal recreation when the bandstand is not in use. A smaller, paved river-themed walking loop connects different play stations ringed by picnic

shelters for easy monitoring. This recreation center also lines up with the curved terrace system that flows down into the river, creating an excellent view. The curved terraces provide controlled access to the river and an enjoyable experience as some of the terraces are submerged under water during different seasons and water levels. A low riparian buffer mitigates runoff along the riverbank while still allowing views of the river from the flat bench or picnic table platforms. At the far end of the park, a carved viewshed allows views into the park for kayakers and out to the river for park users. The multi-use basketball and tennis court is consolidated on the site of the existing basketball court, but the tennis courts are removed, opening up the park so it can seamlessly flow from end to end. This also provides easier police monitoring and recreational access. To mitigate runoff and enhance a seamless connection between the Clinch River and the park, the road along the river will be changed to a low use service road and re-paved with reinforced grass pavers. This allows greater water infiltration and a flowing green edge from the lawn to the reinforced grass to the river edge.

Clinch River Trail System

The Clinch River Trail System includes the existing Sugar Hill Trails as well as the proposed Bluebell Island Trail and downtown connections. This trail system offers a natural, waterfront experience on the Bluebell Island Trail, a casual walk along the Clinch River as it passes through A. R. Matthews Park, connections to downtown St. Paul, and linkage to the end destination- the existing Sugar Hill Trail System.

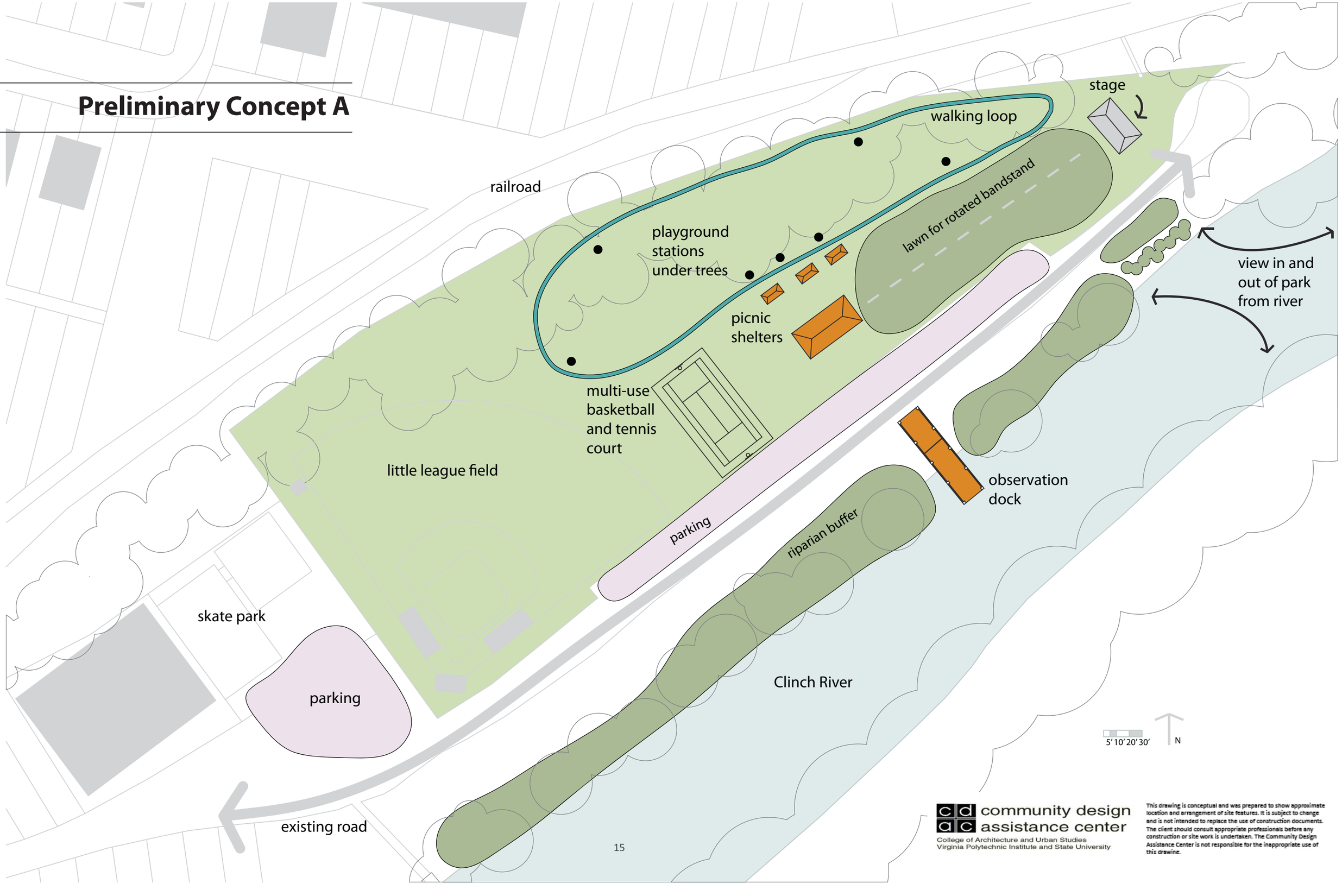
The trail begins on Bluebell Island as a simple wooden boardwalk loop that connects visitors to the river edge and varied riparian ecosystems of the island. The boardwalk trail then transitions into a trail through the park along the river bank, providing views of the Clinch River and recreation areas of A. R. Matthews Park. In Preliminary Concept A, the trail through the park runs along the existing road connecting to the observation pier, overlooking the river. In Preliminary Concept B, the trail is sited on the new reinforced grass paved road providing a fun trail surface that is connected to the ecological theme of the park.

The first phase of the connector trail to Sugar Hill Trail System will run along East Riverside Drive on the sidewalk, which while be painted blue, signaling the downtown river walk. East Riverside Drive has the potential to pull eco-tourism visitors into the downtown area for lunch after a day exploring the Clinch River. East Riverside Drive would be an ideal outdoor recreation hub complete with outfitters, retailers, outdoor recreation information center, and other tourism amenities along the festive blue painted downtown river trail.

The second phase of the trail system would be a boardwalk/cantilevered trail that would hug the river's edge starting at A.R. Matthews Park, continuing underneath US 58 and ultimately connecting to the Sugar Hill Trail System. This trail will require more complex infrastructure and construction, therefore it is a second phase goal after establishing the downtown river walk.

11x17 pullouts of the preliminary design concepts can be found on the following pages.

Preliminary Concept A



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Preliminary Concept A Renderings

To increase river bank protection and reduce runoff pollution, a thick riparian buffer of native and wetland species is proposed along the edge of the Clinch River. Key views and access areas are maintained as existing grassed areas.

To incorporate better blend the t-ball field, a popular fixture in the community, into the fabric of the park's ecological design concept murals will be added to the walls. The interpretive murals will highlight the biodiversity, natural processes, and scenic beauty that makes the Clinch River famous. These murals offer welcoming first impressions to visitors and community members as they enter they park. They will also be visible from the river, catching the eye of those floating the river.

Preliminary Concept B

railroad

picnic shelters

multi-use basketball and tennis court

river walk walking loop

play stations

view in and out of park from river

multi-purpose lawn

amphitheatre

dance floor

bandstand

skate park

reinforced grass plaza and service road

flat bench area

curved terraces down to river

Clinch River

parking

riparian buffer

5' 10' 20' 30'

N

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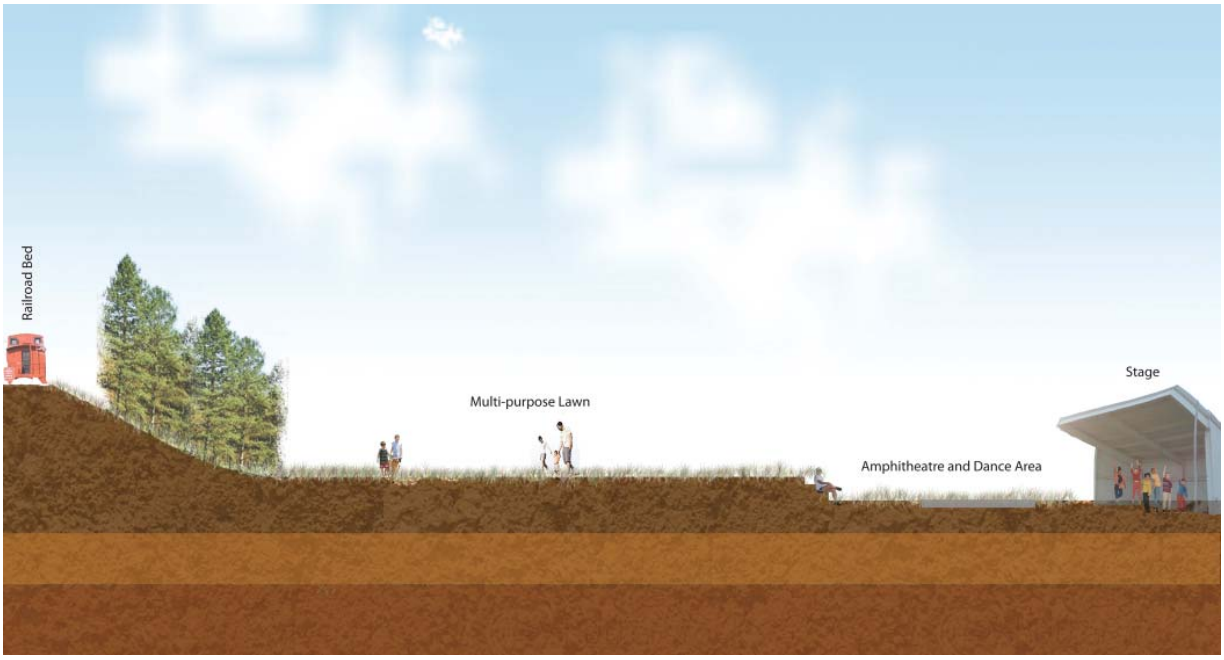
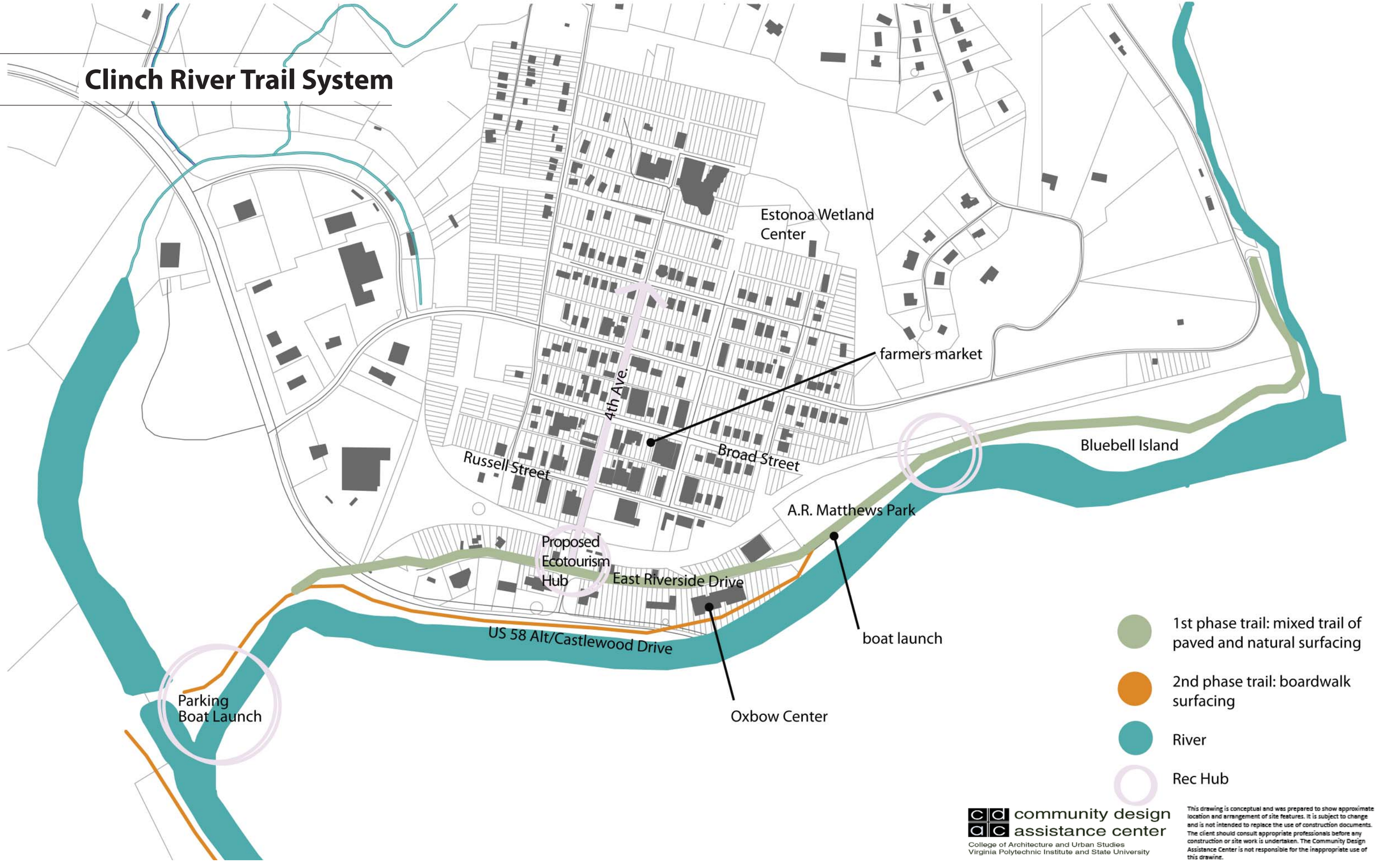
Preliminary Concept B Renderings

The themed children's play area has a combination of traditional play equipment and natural adventure play, using logs, rocks, and other elements that evoke the feeling of the Clinch River. The new paved path also allows for children to ride bikes, scooters, etc. while cave givers meander along the path with them.



Relocating the amphitheatre closer to the river separates it more from the existing railroad tracks and visually connects users to the river more. The multi-purpose lawn flows down to the amphitheatre and enhanced dance area, allowing for multiple uses of the space.

Clinch River Trail System



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Clinch River Trail System Rendering

Transforming the current Riverside Drive into an ecotourism hub of restaurants, outfitters, and other complimentary shops and businesses adjacent to the Clinch River Trail will link the Bluebell Island Trail and Sugar Hill Trails. This inviting and dynamic space will embrace the river and invite people into town and give them a reason to linger.

Final Conceptual Phased Plan

The Clinch River's ecological diversity is a major asset to the region.

The Clinch River was a major inspiration for the redesign of A.R. Matthews Park.

To create a flexible design that can grow with St. Paul's current and future plans, the final conceptual master plan for A. R. Matthews Park was divided into three phases. A site scale conceptual design for the Bluebell Island Trail was also prepared. Each phase is described below, with accompanying 11x17s on the following pages.

Final Concept Phase 1

The first phase of the final conceptual master plan for A.R. Matthews Park seeks to incorporate smaller design changes that have a high impact on the space and to add of the important elements. This includes the addition of the Bluebell Island boardwalk trail, the children's play loop, small picnic shelters, new bathrooms, and picnic patios. To enhance the park's aesthetics, foundation plantings and artistic screening would be added to the tennis courts, reinforced grass parking spots will be incorporated along with a concessions terrace and low riparian buffers and viewshed plantings will engage the river visually.

Final Concept Phase 2

The second phase enhances the flow and amenities of the park. Redesigning the parking lot and entrance with vegetated medians will warmly welcome users. Reinforced grass pavers will extend from the parking spaces to the beginning of the Clinch River bank. To further access the river, a wooden observation pier will allow users to experience the water closely. By removing the tennis and basketball court, space is created for the addition of a large picnic pavilion oriented toward the river that connects the children's play area and the stage lawn. A full walking loop will incorporate adult recreation opportunities throughout the park. An ornamental tree line will help shade the parking areas and connect the existing tree allee to the space.

Final Concept Phase 3

The final phase adds a multipurpose court near both the little league field and the children's play area. A new dance floor and stage will anchor the park and greatly expand the opportunity for and scale of events the park can support. All these elements will help transform A.R. Matthews Park into a river park and crowning asset of St. Paul.

Phasing Progression for Site Features

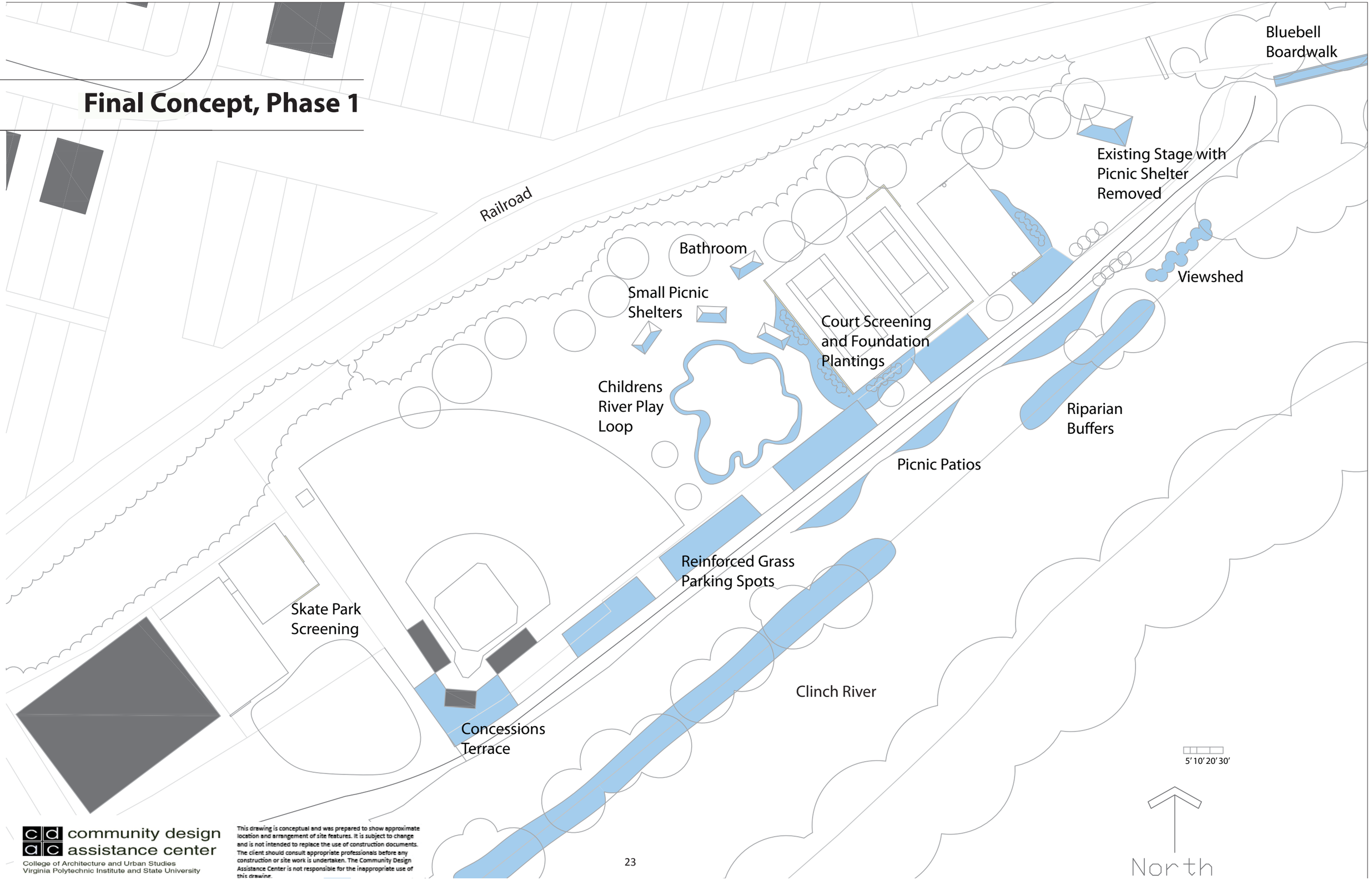
The chart below shows potential sequencing for adapting and transitioning site fixtures. For example the picnic shelter can be easily transitioned by adding wooden architectural details as a first step before later on rebuilding a larger one, when timing is right. The same philosophy applies to the other staging ideas for each fixture.

Little League Field →	temporary roll away outfield fence_____remove fence for solely casual use_____add plants to make a "baseball diamond" garden
Road →	reinforced grass paving parking spots_____reinforced grass road_____ reinforced grass road with limited access, only maintenance and performers
Walking Loop →	children play circuit loop_____full park loop that goes into the shade
Tennis and Basketball Courts →	green screening_____foundation plantings_____remove basketball court_____resurface tennis court with mulit-purpose lines
Western Star Building →	renovate and add new businesses_____convert to visitor/eco center
Picnic Shelter →	add architectural details_____rebuild a larger one near play loop
Stage →	add architectural details_____remove adjacent pavilion and add wing
	_____rebuild a larger one parallel to grass lawn

Bluebell Island Trail

Creating a simple boardwalk loop through Bluebell Island will increase universal access to the island and create a strong start to the future trail network connecting through downtown and along the river. This trail network will link the main St. Paul attractions for both residents and visitors into a cohesive landscape. The wheel chair accessible boardwalk design will be minimally invasive on the site while providing strong but flexible infrastructure to accommodate different levels of flooding on the island. The boardwalk running along the high points of the center of the island will compliment more ephemeral and rougher secondary dirt trails on the island which will vary in accessibility during different seasons.

Final Concept, Phase 1



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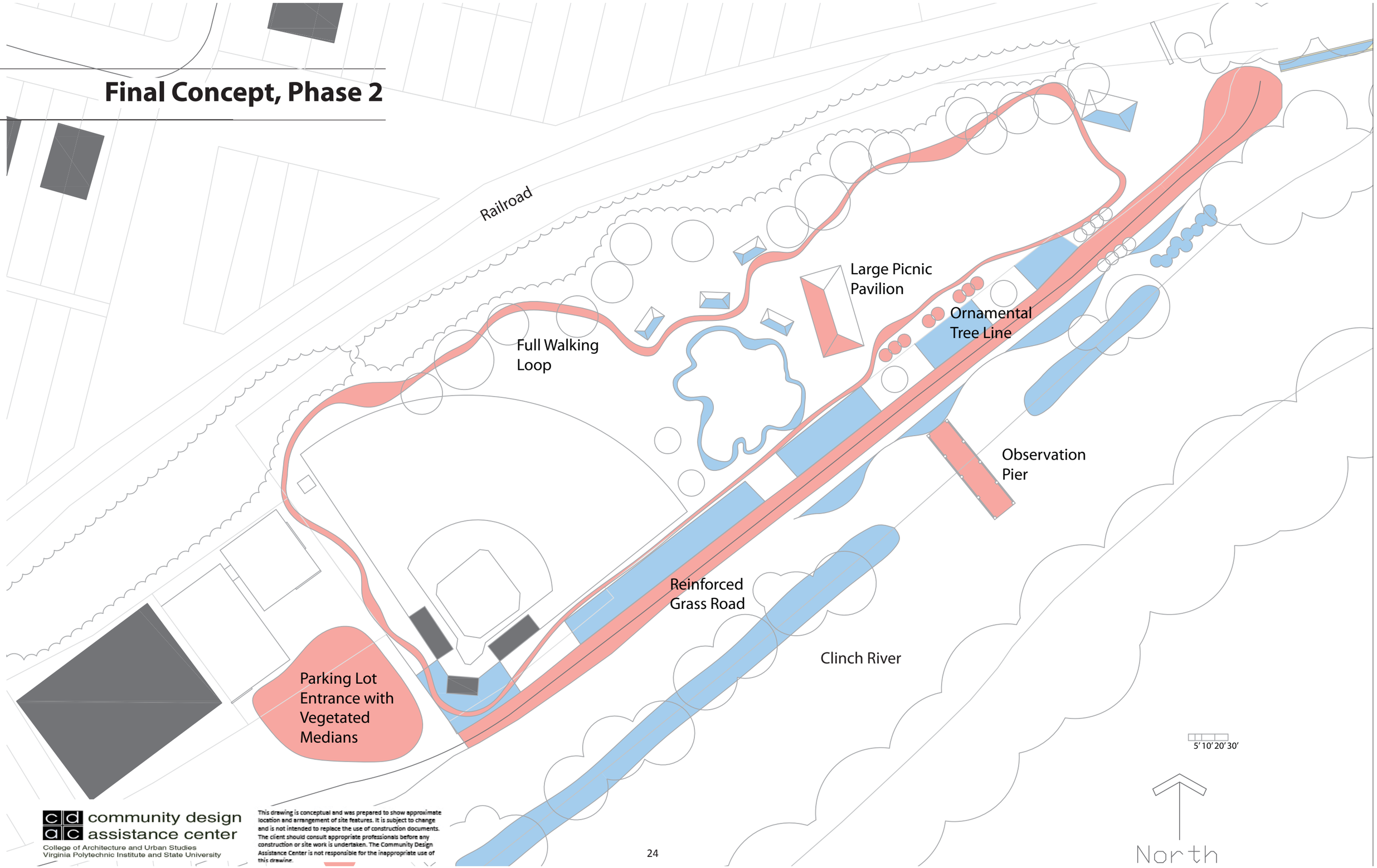
Final Concept, Phase 2



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Final Concept, Phase 3

Railroad

Multipurpose Court

Larger Stage with Performer Bathroom

Dancing Deck

Clinch River

5' 10' 20' 30'

North

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Illustrative Master Plan

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N

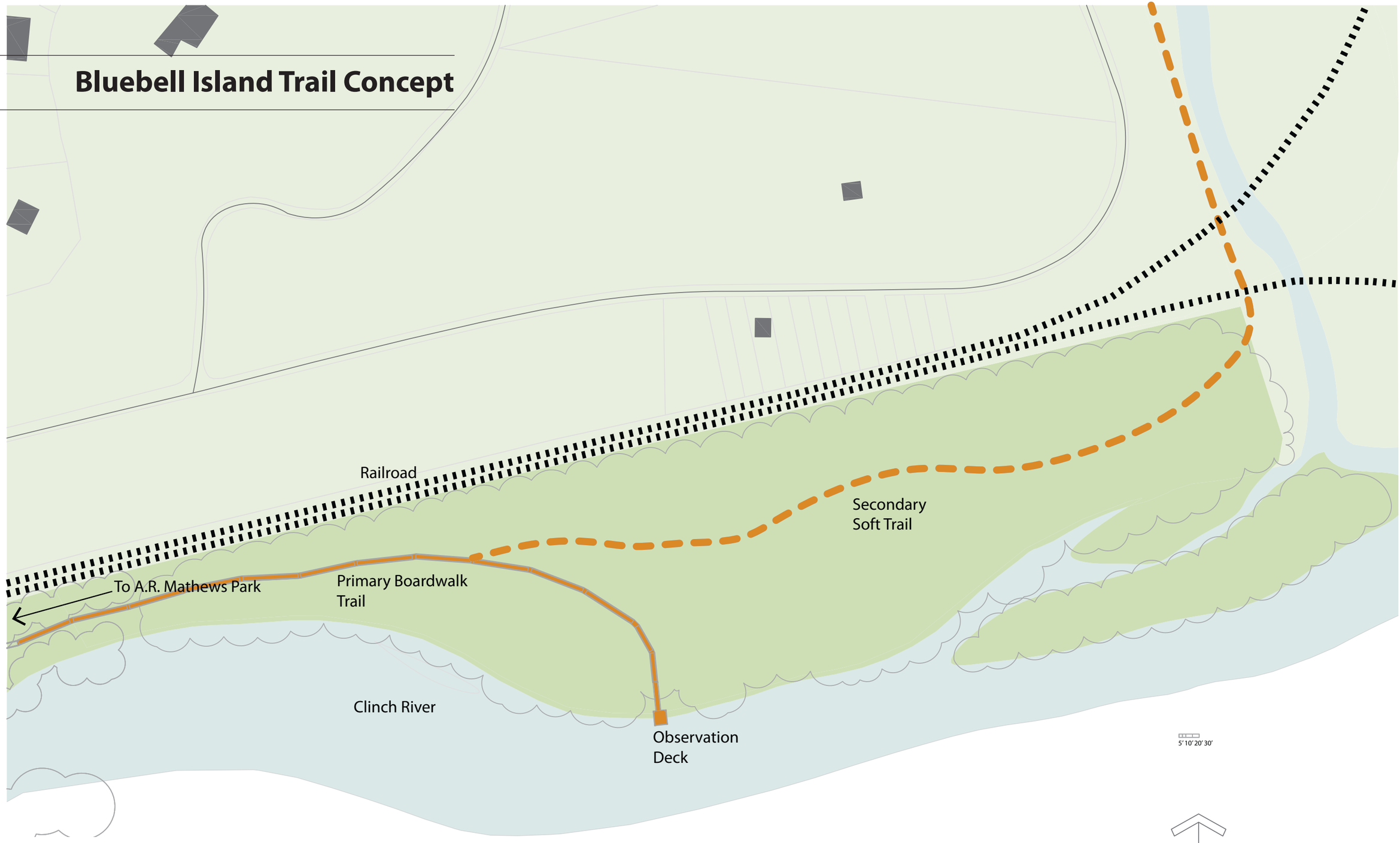
Not to Scale

Final Conceptual Master Plan Renderings

To increase riverbank protection and reduce runoff pollution, a riparian buffer of native and wetland species will be planted along the edge of the Clinch River. Picnic patios and a pier create fun ways to observe the river.

Interpretive murals showcase the biodiversity, ecological processes, and beauty that make the Clinch River famous. Screening the tennis courts will soften the division of the park.

Bluebell Island Trail Concept



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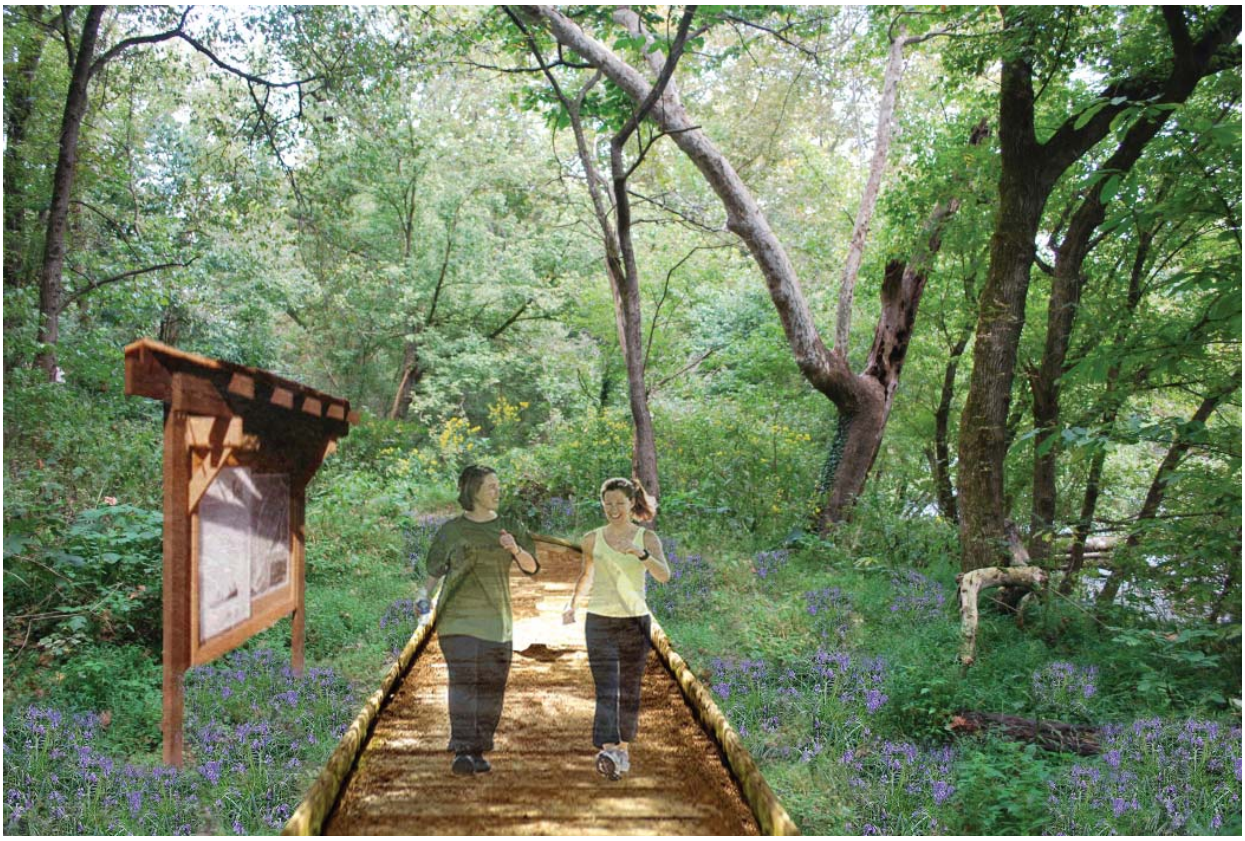
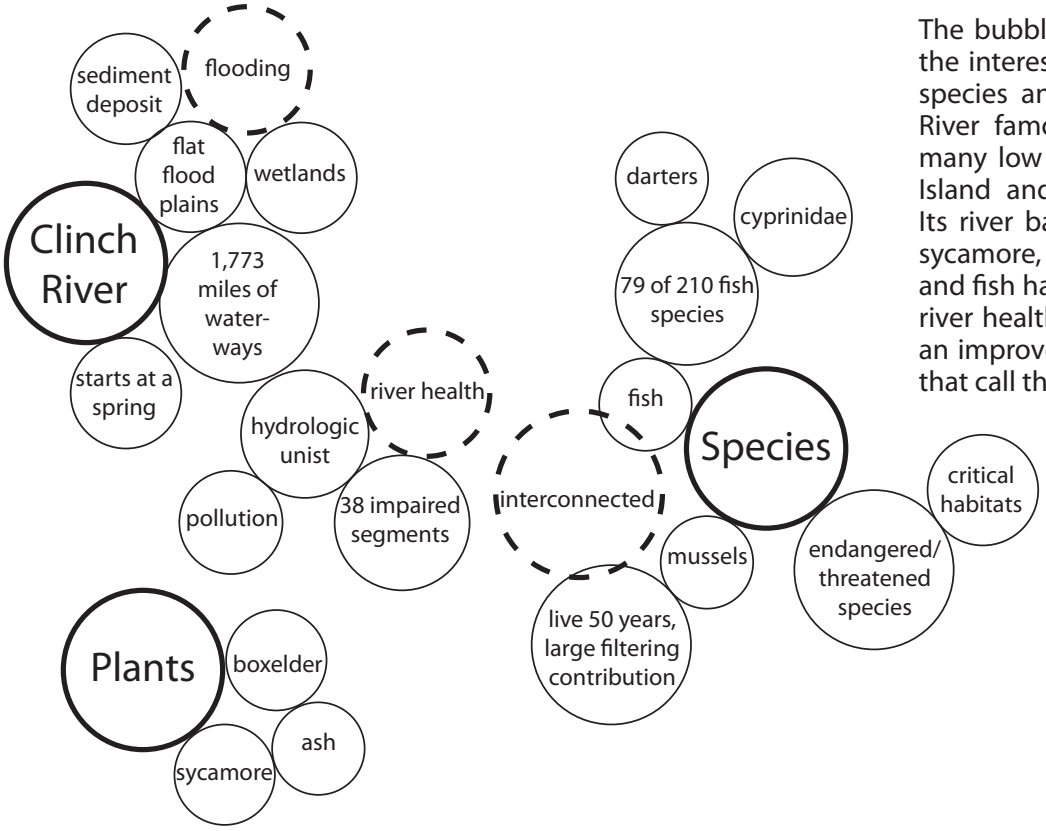
Bluebell Concept Rendering



With a primary boardwalk walking loop and secondary soft trail, Bluebell will cater to a variety of visitors.



The bubble diagram to the left highlights the interesting and complex ecosystem of species and plants that make the Clinch River famous. The Clinch winds through many low flood plains, including Bluebell Island and parts of A.R. Matthews Park. Its river banks are dotted with box elder, sycamore, and ash trees shading the mussel and fish habitat. The mussels are critical for river health and water filtration leading to an improved habitat to the 79 fish species that call the Clinch River home.

Conclusion

Upon the first visit to St. Paul the CDAC team saw numerous opportunities for harnessing the beauty and ecological diversity of the Clinch River. The team realized that A.R. Matthews Park and Bluebell Island are well situated to be key elements in the town that connect the vision for a dynamic community that embraces the Clinch River and its heritage and invites visitors to come experience its grandeur. Enhancing and updating the elements of A.R. Matthews Park with an ecological theme serve to reinforce St. Paul's identity as an eco-tourism destination.

Creating a simple boardwalk loop through Bluebell Island will increase universal access to the island and create a strong start to the future Clinch River Trail System network, connecting through downtown and along the river. This trail network will link the main St. Paul attractions for both residents and visitors into a cohesive landscape.

Creating a phased plan for implementation allows both the trail and park design to grow as St. Paul grows and evolves its downtown, eco-tourism, and recreation plans. The final conceptual master plan balances all the different uses in the park that are important to different user groups, based on feedback from the survey, and highlights the river as a key feature rather than just a backdrop to the park.

Appendices

Appendix A - A.R. Matthews Park Community User Survey----------Page 32

Appendix B - Plant Lists & Palette----------Page 35

Appendix A: A.R. Matthews Community User Survey

Some key findings that resulted from the feedback we received from the online and printed surveys were as follows:

1) The Clinch River is a major feature of this park. Over half of the respondents reported that their favorite thing about A.R. Matthews Park had to do with the river (boating, location, views, etc).
2) There was an overwhelming desire for updated playground equipment, new layout for tennis and basketball courts, and skate park equipment.
3) The majority of respondents viewed the park as an asset to the community (opportunity for large gathering spaces and events and access to the Clinch River), but definitely agreed that renovations were necessary to portray growth and development of St. Paul.

Below are the summaries of responses for each question.

Question #1: What are your favorite things about A.R. Matthews Park?

-The river (location, views, recreation, etc.) - 18
-Gathering space (picnic shelter, festivals) - 14
-Recreation (playground, courts, skate park, boat access, ball park) - 14
-Safety (low traffic volume, police patrol) - 2

What's important? The river needs to be capitalized on, it's unique and can draw people to the space, and it also needs to be protected. Gathering and recreation areas need to be re-organized and modified.

Question #2: Are there any changes or additions you would like to see made to the park?

-New equipment
    a. Playground - 13
    b. Sports (courts, horseback trails, walking trail)- 9
    c. Skate - 6
-Curb Appeal (plants, river seating, safety, green space, lighting) - 11
-Amenities (bathrooms, picnic shelters-close to playground, benches, water fountains., parking) -11

What's important? If only the equipment was updated would the park be more successful? In order for the park to be maintained and kept up it needs to have some sort of support system.

Question #3: What are your favorite park elements?

-Covered picnic shelter- 23
-Bandstand/stage- 20
-Playground- 16
-Boat access to the Clinch River- 14

What's important? The picnic shelter is multi-functional- provides shade, seating, grills, gathering spot, landmark. There may need to be more and sited in different locations (closer to the playground).

Question #4: What do you do while at A.R. Matthews Park?

-Playground- 16
-Recreate (tennis, basketball, baseball, skate, walk)- 13
-Attend gatherings (festivals, parties)- 13
-River (proximity, fish, boat, swim, wade)- 11

What's important? Respondents to the survey voiced that the playing on the playground is what they did the most. This means that parents need a place to watch their children from comfortably (i.e. shaded seating area), children need to have adequate places and equipment to play on, and that there is also an opportunity for education through play. The park is also a place for recreation and gatherings, what of these elements are used most and how do we organize them to encourage more and continued use?

Question #5: How frequently do you or members of your household us A.R. Matthews Park?

-Weekly - 13
-Monthly - 9
-Daily - 3

What's important? Respondents are actually using the park in its dilapidated condition. Use this as a measure for use after redesign.

Questions #6: How do you interact with the Clinch River when you are at the park?

-Picnic - 21
-Photography - 13
-Wildlife watching - 13
-Wading/Swimming - 12
-Fishing - 12

What's important? The Clinch River is a huge feature of this park. It's important to understand how we can encourage or limit use of the river depending on how it is used already. Based on this result, it would be wise to create places for people to sit by the river and enjoy a meal. It might also be important to think about trash cans to avoid litter getting into the river. We should also try to frame views or create views for photographs using vegetation. Increasing habitats will also provide greater opportunities for wildlife watching.

Question #7: How frequently do you or members of your household use the tennis courts?

-Not at all - 14
-Once a year - 7

What's important? Based on this result, there is not a great use of the tennis courts. This result is highly reflective of the respondents and their interests. This result suggests that maybe there should be only one tennis court.

Question #8: How frequently do you or members of your household use the basketball courts?

-Not at all - 16
-Once a year - 6
-Weekly - 4

What's important? The basketball court is also used infrequently. It may be important to investigate why the court is not used. Does it need to be repaired or is there no interest in playing basketball?

Question #9: How frequently do you or members of your household use the playground walking trail?

-Not at all - 11
-Once a year - 8
-Weekly - 5

What's important? The walking trail around the playground is not used that much, but it does seem to be used more than the tennis or basketball courts. If the trail remains, how can it be improved to increase use? Does it need to encircle the playground so that parents can watch their children? Should there be multiple paths for further distances?

Questions #10: How frequently do you or members of your household use the playground?

-Monthly - 12
-Not at all - 9
-Once a year - 5

What's important? The playground is used more frequently by most households that responded to the survey. We know that it needs new equipment. This playground could be a great place for children to learn about the Clinch River.

Question #11: How frequently do you or members of your household use the covered shelter?

-Once a year - 18
-Monthly - 7
-More than once a year, but not monthly/other - 5

What's important? The covered shelter is mainly used for special events like reunions and town festivals. How can the covered shelter provide better services for the community? Do we need to include more covered areas? Increase seating and shade?

Questions #12: How many people are in your household?

-Two - 8
-Three - 6
-Five - 5

Question #13: What are the ages of those in your household?

-25-44 years old - 17
-45-64 years old - 13
-6-10 years old - 10
-15-18 years old - 9

What's important? The majority of these answers reflect an age range of about 25-44 years old and 45-64 years old. Although a lot of responses reflected the needs of a younger age group, it is important to understand the needs and wants of these other groups.

Questions #14: Where do you live? (town, city, county)

-St. Paul (either county) - 9
-St. Paul, Wise County - 7
-St. Paul, Russell County - 3
Castlewood, VA - 8 (about 3 miles away)
Wise County - 2

What's important? Most of the respondents are from St. Paul, however there was a few responses from neighboring towns. This reinforces that A.R. Matthews Park is a crucial element for both St. Paul and the surrounding area.

Question #15: Any other comments you would like to make regarding A.R. Matthews Park?

-Believe the park is an asset to the town and community - 6
-Our kids need to be active (skate park, playground) - 3
-Aspects of the river - 3

What's important? These responses reflect the three key points from the synthesis of all of the responses. The park can definitely be an asset for the town especially with the enhancement of the river. Another main goal of this redesign is to create better opportunities for recreation and interaction with the river.

Appendix B: Plant Lists

Areas:

Streambank Erosion Control---------- 36

General Erosion Control Plants---------- 37

Rain Garden Plants---------- 38

Streambank erosion control plant list

Streambank erosion is an issue in many urban watersheds. Higher volumes of water flowing at faster rates combined with riparian vegetation loss are damaging our local streams. The list of species of plants below have been shown to help combat erosion by helping to fortify the banks of urban streams.

Annuals/Perennials	
Swamp milkweed	*Asclepias incarnata*
Marsh marigold	*Caltha palustris*
Flat-top white aster	*Doellingeria umbellata (Aster umbellatus)*
Joe-pye weed	*Eupatorium dubius*
*Blue vervain	*Verbena hastate*
*New York ironweed	*Vernonia noveboracensis*
Grasses / Groundcovers	
Autumn bentgrass	*Agrostis perennans*
Broomsedge bluestem	*Andropogon virginicus*
Bluejoint	*Calamagrostis canadensis*
Partridge pea	*Chamaecrista fasciculata*
Switchgrass	*Panicum virgatum*
Woolgrass	*Scirpus cyperinus*
Great bulrush	*Scirpus lacustris*
Shrubs/Trees	
Red maple	*Acer rubrum*
Canada serviceberry	*Amelanchier canadensis*
Black chokeberry	*Aronia melanocarpa*
Ironwood	*Carpinus caroliniana*
Silky dogwood	*Cornus amomum*
Winterberry	*Ilex verticillata*
Sycamore	*Platanus occidentalis*
Pussywillow	*Salix discolor*
Black willow	*Salix nigra*
Common elderberry	*Sambucus canadensis*
American basswood	*Tilia americana*

General erosion control plant list

Erosion due to development is a major water quality and land loss issue. Where other development threatens to cause topsoil erosion for downstream or adjacent lands, these plants can help to mitigate soil loss in a variety of areas on the site.

General erosion control plant list	
Groundcovers/Grasses	
Wild ginger	*Asarum canadense*
Pennsylvania sedge	*Carex pensylvanica*
Poverty oatgrass	*Danthonia spicata*
Evergreen wood-fern	*Dryopteris intermedia*
Bottlebrush grass	*Elymus hystrix*
Shrubs	
Sweetfern	*Comptonia peregrina*
Smooth hydrangea	*Hydrangea arborescens*
Mountain laurel	*Kalmia latifolia*
Great rhododendron	*Rhododendron maximum*
Rose azalea	*Rhododendron prinophyllum*
Highbush blueberry	*Vaccinium corymbosum*
Blackhaw viburnum	*Viburnum prunifolium*
Trees	
Red maple	*Acer rubrum*
Serviceberry	*Amalanchier sp.*
Pignut Hickory	*Carya glabra*
Redbud	*Cerecis canadensis*
Persimmon	*Diospyros virginiana*
Beech	*Fagus grandifolia*
Witchazel	*Hamamelis virginiana*
White pine	*Pinus strobus*
Chestnut oak	*Quercus montana*
Black oak	*Quercus velutina*
Sassafras	*Sassafras albidum*

Rain garden plant list

Rain Garden					
Common Name	**Botanical Name**	**Minimum Installation size**	**Quantity**	**Mature Size (range)**	**Notes**
purple coneflower	*Echinacea purpurea*	1 quart		3' tall, 2-3' wide	This perennial can look appealing if left standing for the winter. Cut back in late winter. Best in full sun, but can grow in a little shade.
Virginia sweet flag	*Iris virginica*	1 quart		1-3' tall and wide	Full sun.
obedient plant	*Physostegia virginiana*	1 quart		3-4' tall, 2-3' wide	Best in full sun.
turtlehead	*Chelone species*	1 quart		2-4 ' tall, 1.5-2.5' wide, can spread to form large clumps	Cut back in early spring. Full sun to part shade.
green-and-gold	*Chrysogonum virginianum*	1 quart		0.5-1' tall and wide	Full sun to part shade.
swamp milkweed	*Asclepias incarnata*	1 quart		3-5' tall, 2-3' wide	Remove seedheads if reseeding is not desired. Full sun.
blue-eyed grass	*Sisyrinchium angustifolium*	1 quart		0.5-1' tall and wide	Full sun.

Rain Garden planting tips:

Most of these perennials can be purchased in quart size containers. Larger sizes are sometimes sold, but this may not give much of an advantage for the extra cost. If there is someone who is skilled at raising flowers from seed, that would be an inexpensive way to add to this garden. Some mail order companies will sell smaller sizes. Make sure to order from companies with a good reputation for quality. Also, be aware that the smaller the plant, the more often it will need to be watered.

Consult the Virginia Department of Forestry for a technical guide on rain garden construction and additional recommended species. This guide can be downloaded for free via: http://www.dof.virginia.gov/mgt/resources/pub-Rain-Garden-Tech-Guide_2008-05.pdf

Purple Coneflower

Photo courtesy of John M. Hagstrom, on Flickr.com

Turtlehead

Photo courtesy of thebattery.org