

2018

Landscape Master Plan



BIRMINGHAM
The **MUSEUM**

Brian Devlin, Nagy Devlin Land Design
Leslie Pielack, Birmingham Museum
Approved by the Museum Board, 2/20/2018
Accepted by the City Commission, 3/12/2018

This Landscape Master Plan for the Birmingham Museum and grounds, a City of Birmingham property, is the result of contributions from a wide range of stakeholders. These include members of the public; the City Commission and other advisory boards and commissions; the Friends of the Birmingham Museum; donors; and city administration and staff. In particular, we would like to acknowledge the following:

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THE ROSSO FAMILY FOUNDATION

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I. Introduction



The site of the Birmingham Museum is one of the most historically and topographically complex in the city. It has distinctive natural landscape features on a steeply sloping lot with a rich history from pioneer times to the 20th century. Its location makes it accessible to both people and haven for a wide range of wildlife, yet it is centrally located in downtown Birmingham. In 2009, a preliminary landscape master plan by Michael Dul & Associates proposed a highly developed site with activity areas, a playground, paved terracing, extensive pathways and gardens, lighting, structures such as an arbor, decorative stone walls, and sculptures. Cost estimates exceeded 1 million dollars; at the time, it was hoped that park bond funds would be available to pay for the plan. However, sufficient park bond funding was not available, and it was not implemented. Dul's plan did provide guidelines for the final design and construction of Americans with Disability Act (ADA)/barrier-free access to the Allen and Hunter Houses in 2010 and 2012. These were completed largely with federal Community Development Block Grant (CDBG) funds, which support ADA projects.

The Dul plan was preliminary only, and is now incompatible with the direction of recent museum strategic planning. It also does not reflect changes in technology that have occurred since it was proposed. For example, providing public WiFi was not a consideration at that time, but now our digital needs have developed in new ways, making this a key focus of public programming and providing alternative access opportunities. Also, the Rouge Trail Corridor plan was not incorporated into the 2009 plan, although the museum site shares a long boundary with the consistently used area as part of its overall landscape. But most importantly, the Dul plan did not survey the significant historic nature of the site and its existing features, so that no provision could be made for their protection or preservation.

In 2016, the Museum Board considered the most appropriate approach for the landscape in the course of reviewing its general Museum Strategic Plan for 2017-2020. The Museum Board wished to identify general concepts for the park, determine how phased approaches (such as improvements at the pond) could be utilized, and make additional recommendations. As the park is part of Birmingham's Mill Pond Historic District, the first step was to survey existing historic and natural features of the landscape, to understand and make recommendations to preserve and protect those resources and factor in public education and access in planning. The Friends of the Birmingham Museum and the Rosso Family Foundation provided funding, and Brian Devlin, historic landscape architect of Nagy Devlin Land Designs was selected to study the landscape and make recommendations to the Museum Board before further master planning was undertaken.

The Museum Board worked with Mr. Devlin to review his findings and integrate them into a final Landscape Master Plan that is closely aligned with the museum's mission and 2017-2020 Birmingham Museum Strategic Plan. It protects and preserves the natural aspects of the landscape, while restoring its unique historic character that has been lost or obscured by invasive plants. Furthermore, the plan integrates a variety of public access options, enhancing the museum's community engagement and educational opportunities. Although flexible and conceptual, it is comprehensive and consistent with the city's other planning initiatives and parks, allowing for coordination of projects. The identified zones also lend themselves very well to project-based funding support through grants or private donations.

II. Goals and Objectives



PURPOSE of PLAN

The overall purpose of developing a Landscape Master Plan for the museum site is to provide long term guidance for improvement projects and other planning that incorporates the needs of the public with the existing natural features, the site's history and location in a local historic district, and city initiatives. The Birmingham Museum Landscape Master Plan is compatible with, but separate from, the 2017-2020 Birmingham Museum Strategic Plan. It is also aligned with the museum's mission, as stated below:

Museum Mission—The Birmingham Museum will explore meaningful connections with our past, in order to enrich our community and enhance its character and sustainability. Our mission is to promote understanding of Birmingham's historical and cultural legacy through preservation and interpretation of its ongoing story.

Goals and Objectives

The specific goals and objectives of the Birmingham Museum Landscape Master Plan are as follows:

1. To Improve public access, especially barrier-free access, to the museum site
2. To preserve the natural and historic landscape features
3. To provide opportunities for education and interpretation of the site, its natural environment and its cultural history
4. To coordinate with the City of Birmingham Parks and Recreation and Rouge River Corridor plans and projects, such as pathways, access priorities, materials, and signage.
5. To utilize phased planning to optimize private donations and grant funding opportunities

Planning Process

In order to approach the museum landscape planning comprehensively, input was gathered from a wide range of sources. These included:

- The Museum Board's extensive review of existing conditions, historical materials, site review and survey data through meetings with historical landscape consultant Brian Devlin. Other consultation included Hubble, Roth, and Clark regarding a pond and wetlands survey and associated state regulations and requirements.
- Input of the city staff from Parks, Engineering, Building, and Planning/Historic Preservation Departments regarding infrastructure, planning, alignment with local historic district ordinance and State Historic Preservation Office guidelines, ADA access and parking issues, and integration/coordination with policies and materials used by other city parks.
- A joint workshop between the Museum Board, the Parks and Recreation Board, and the Historic District Commission was held on January 17, 2018 to discuss the plan and gather input from board members as well as the public.
- Ongoing updates during 2016 and 2017 and formal presentation and discussion with the Friends of the Birmingham Museum Board on January 25, 2018.
- Public input was gathered through the joint workshop on January 17, 2018. Immediate neighbors were contacted

and invited to attend the workshop. Several were present at the meeting, including a neighbor who shares the east boundary with the Hunter House. Some public data was also gathered through the Parks and Recreation Master Plan's survey process in the fall of 2017.

- Meetings were held and the review process discussed with members of the Michigan Department of Environmental Quality, and DTE Energy planners regarding requirements of the site that involve wetlands regulation and utilities issues to aid in additional planning.
- The Historic District Commission Design Review Board reviewed and unanimously approved the plan on January 17, 2018.

The resulting Birmingham Museum Landscape Master Plan is conceptual in nature. While it provides a broad approach to integrating diverse components, it is designed to give general guidance in more detailed future planning. Additional design work will be needed on a project-related or phased basis.

Its strength lies in its careful consideration of providing for public needs while maintaining a fundamental preservation focus to ensure that no irreversible changes are made that negatively impact the historic or natural character of the landscape.



III. Historic Background



EARLY SETTLEMENT PERIOD (1818-1856)

The landscape of the area that is now downtown Birmingham is characterized by its proximity to the Rouge River, which has formed valleys and has several branches and numerous tributaries as it works its way south through Oakland County to the Detroit River. The Saginaw Trail (now Woodward Avenue) followed the best route through swampy areas northwest out of Detroit. It was the only land route through the area when pioneer settlers came to Michigan in the early 19th century.

Settlers sought to purchase land at locations that had multiple resources, especially water and mill sites. Elijah Willits made claim to one of four parcels that intersected near where the Rouge River crossed the Saginaw Trail in what is now downtown Birmingham. This original purchase of 160 acres includes the site of the Birmingham Museum.

The original landscape wilderness was populated by a variety of native plants, trees and woodland wildlife, much of which is still present. Over time, non-native plants have begun to dominate. The museum site includes a portion of the floodplain of the Rouge River valley, as well as a spring-fed pond that drains to the river near Willits Street. Spring seeps also form a wetland environment on the southeast side of the pond.

RED SCHOOLHOUSE PERIOD (1856-1869)

In 1855-56, Willits sold a portion of his acreage to the local school district as a site for the first brick schoolhouse in Birmingham. Built of local brick, the 'red schoolhouse' as it is known, was in service until 1869, when the larger Hill School was built. The red

schoolhouse was converted to a residence, and by the end of the 19th century a small barn was built on the property behind the building and near the edge of the slope to the Rouge. Around this time, fieldstone walls were constructed on the property as well. The former schoolhouse continued to serve as a residence until Marion and Harry Allen purchased the property in the mid-1920s.

ALLEN HOUSE PERIOD (1928-1970)

The Allens attempted to incorporate the schoolhouse into their plans for their new home but were unable to use the entire building, as portions of it collapsed when excavating their basement. However, they re-used the brick and a portion of the school that remained, creating the current version of the Allen House in 1928. It is a Colonial Revival style house with prominent red brick and cedar shingle siding, featuring a large front porch and many dormers.

The Allens made some changes to the landscape that are documented in photos. These included enhancing the park-like appearance of much of the property with large elm trees and open areas of lawn. The area near the house was planted with perennials and shrubs characteristic of the period.

Two years before they built the house, 9 year old Jim Allen was struck with poliomyelitis—reportedly the only person in Birmingham to be afflicted. The spring fed pond was partially enclosed with concrete walls to create a swimming pool to help ease Jim's physical symptoms. Photos show the rectangular edges of the enclosure with a spillway to allow water to drain into the pond and on to the Rouge, and a platform and rail that may have led to a stair into the pool.

CITY OWNERSHIP-1969-PRESENT

In 1969 voters approved the purchase of the house and land by the city to create a historic park, and to move the Hunter House there to save it from demolition. The Clizbe-Allen family continued to occupy the Allen House until 1973 by agreement with the city. From 1973-1977, the Allen House was renovated through efforts of a bicentennial commission and members of the community, who raised funds in a combination of private donations and grants.

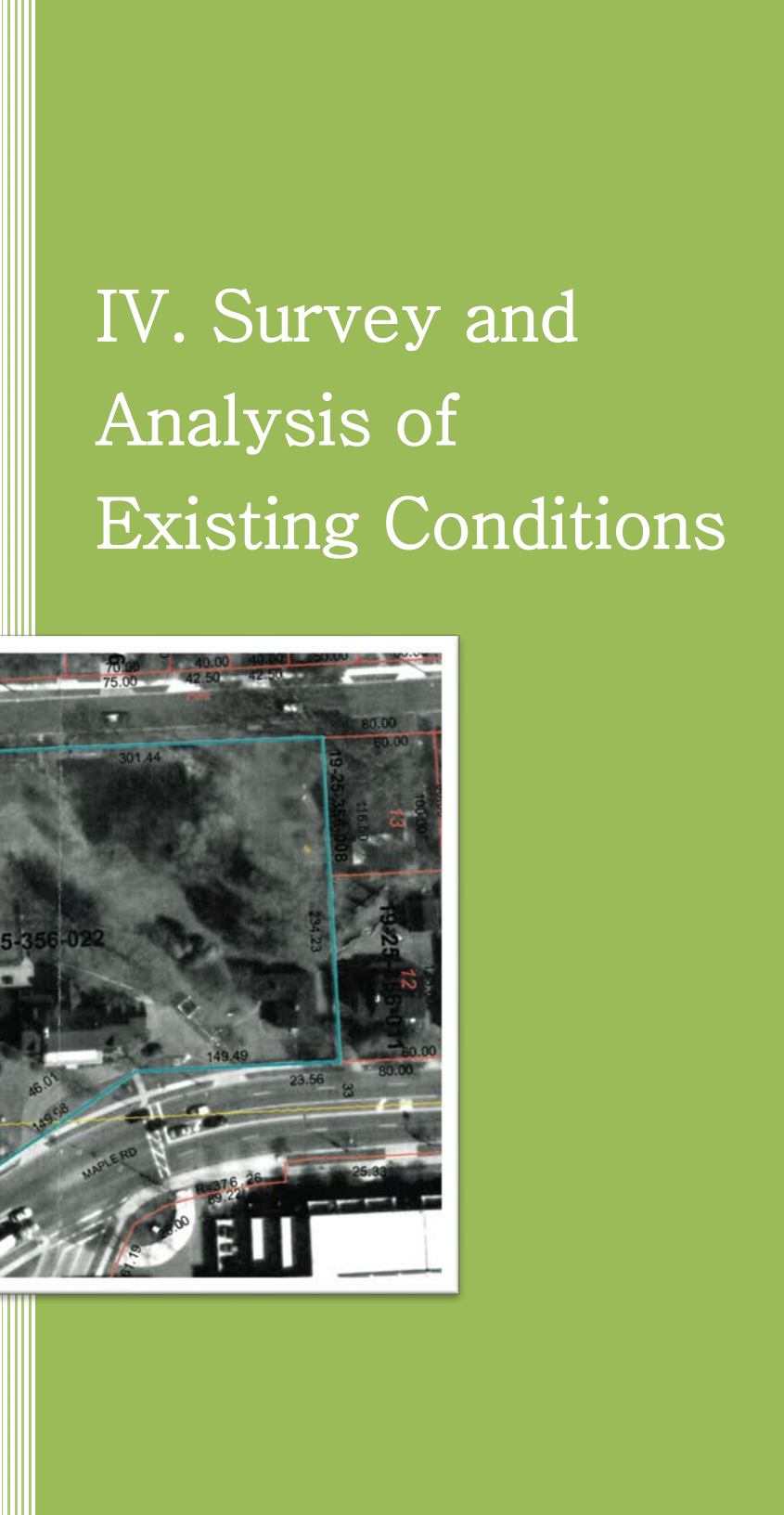
As part of the landscape renovation during this time, the pond and pool were a concern because of maintenance needs and crumbling concrete walls. Filling them in and plowing them over was one solution to make way for more extensive landscaping and development, which included a possible arboretum. This concept for the landscape did not materialize, however due to the high cost. Instead, volunteers planted and maintained flower gardens for a number of years at the Hunter and Allen Houses, which depended on volunteer resources and availability. Boy Scout troops helped with clearing old growth and placing wood chips in pathways. Basic maintenance only was provided for the site otherwise.

For a number of years, event rentals were used to help raise funds, but were insufficient to make the building self-sustaining. Even so, the Allen House and grounds was a popular site for parties and weddings. Toward the mid to late 1990s, a joint plan between the city and the Birmingham Historical Society emerged to establish an endowment and to turn the house into a professionally staffed museum. The program met its goals and the Allen House, Hunter House, and surrounding park grounds became a city operated public museum in 2001.

Since then, the museum has expanded its audience and embraced changes in the museum field to incorporate new technology to reach the next generation. At the same time, preserving the historical past as accurately as possible is also of utmost importance. After the recession of 2008/2009, the focus has been primarily on needed maintenance of the two buildings, on preserving and exhibiting the museum collection, and on public engagement.

The landscape has always been important, however. The Museum Board is now in a position to direct its resources and attention to responsible and comprehensive planning. This will ensure the essential history and uniqueness of the site are preserved and that future citizens of Birmingham will experience the benefits of this long term strategy.

IV. Survey and Analysis of Existing Conditions



SURVEY AND ANALYSIS OF EXISTING CONDITIONS

Natural Resources

Two (2) significant natural resources occur on the museum property that substantially contribute to the quality of the overall landscape and offer unique elements for an expanded museum experience. The first is the Riverine Woodland ecosystem which comprises the western portion of the property. This ecosystem includes the Rouge River along the western boundary with a sparse woodland on the steep slopes rising up to the Allen House which sits at the top of the ridge. Plant species comprising the woodland include black walnut, hickory, maple, elm, box elder, cottonwood, mulberry, and catalpa with honeysuckle, privet, barberry, and buckthorn in the understory and grapevine and daylily occurring in the ground layer. Dead trees and limbs occur throughout the ecosystem. Several invasive species also occur in this ecosystem and include common reed (*Phragmites australis*) near the river, garlic mustard (*Allaria petiolata*), oriental bittersweet (*Celastrus orbiculatus*), creeping Charlie (*Glechoma hederacea*), buckthorn (*Rhamnus cathartica*), barberry (*Berberis thunbergii*), and privet (*Ligustrum sp.*), all occurring on the steep slopes.

Two (2) paths meander through the woodland. The primary path enters the woodland near the westerly driveway of the Allen House and runs diagonally to the northwest to the bridge over the Rouge River at Willits Street. The second path enters the woodland at the base of the steep slope behind the Allen House and connects to the primary path at the base of the slope of the Riverine Woodland ecosystem. Both paths consist of wood chips and include timber steps at the steeper sections of the route. Many timber steps are rotting away and need replacement.

The second natural feature is the spring-fed pond on the north central property line immediately adjacent to Willits Street. The pond is fed from groundwater seeps on the east side of the pond. The pond is overgrown with common reed (*Phragmites australis*) and cattails, and has accumulated debris over the years. The outlet for the pond occurs at the northwest point with a small spillway that leads to a catch basin. A wetland ecosystem is associated with the pond as groundwater is near and at the surface creating wetland conditions that, ironically, occur significantly up the slope, particularly in the southeast corner of the pond. The museum property also includes many trees including catalpa, elm, Norway maple, callery pear, Norway spruce, mulberry, European linden, bald cypress, and arborvitae.

Historic Resources

The historic resources on the property include two (2) fieldstone walls. One wall occurs along the top of the ridge to the west of the Allen House and may have been part of a barn that was originally on the property. Unfortunately, a north section of this wall has been undermined and has fallen down the slope. The other fieldstone wall is located midway down the slope to the north of and between the Allen House and Hunter House. Both walls are made of fieldstone, both containing whole rounded stones and split face stones, characteristic of 19th c. farms in southeast Michigan.

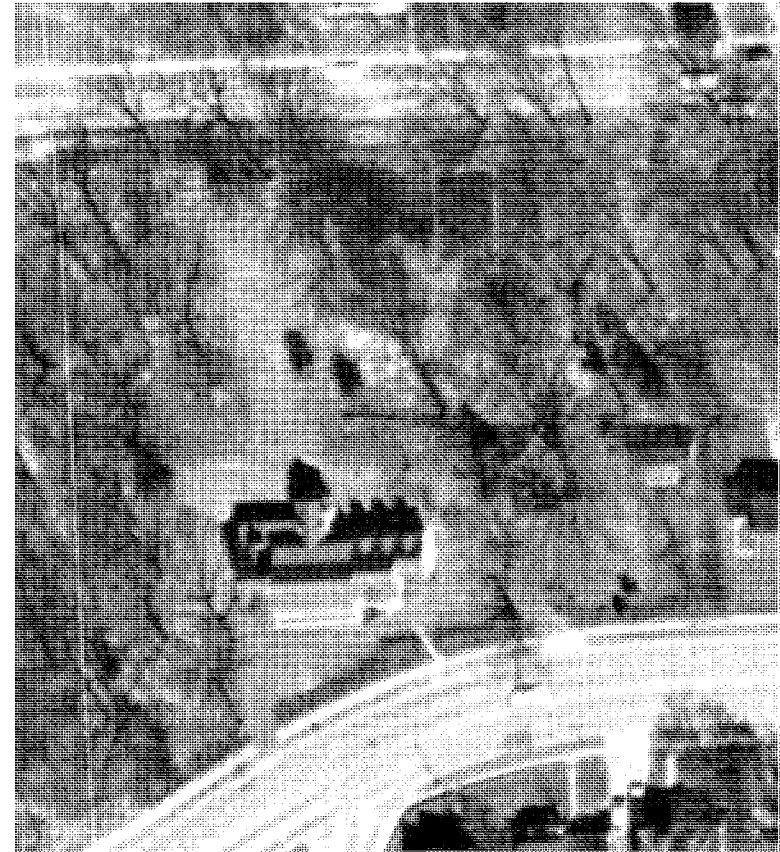
Probably the most unique historic feature on the property is the swimming or bathing pool with cement walls built into the easterly portion of the pond. The pool was used by the Allens' son Jim, who was afflicted with polio, for physical therapy. The swimming pool is evident in the 1963 aerial photograph from Oakland County and from early photographs as indicated below.



Early photograph showing the swimming pool in the pond

The pool is unique in concept and design as well as history. It originally incorporated the spring as a natural water source and utilized a flow gate at the surface of the western divider to permit natural drainage and continuous flow. A landing with rail provided access into the water, presumably for Jim Allen to use. These unique aspects of the landscape are especially important for preservation and interpretation, and are highly desirable elements that may be eligible for special funding opportunities.

The pond has been surveyed and only two (2) partial walls (the north and east corner) of the swimming pool remain. Concrete was discovered at the bottom of the pond which could be one or more collapsed sides of the pool.



*Aerial photograph showing the swimming pool in the pond
(from Oakland County, 1963)*

V. Proposed Landscape Master Plan



GENERAL INFORMATION

A conceptual Landscape Master Plan has been prepared and is the result of a collaborative effort of the museum staff, Museum Board, and landscape architectural consultant over a period of about one (1) year. Early on, the museum property was divided into several zones with distinct elements and characteristics associated with each. These distinct areas include:

1. The Heritage Zone along Maple Road with the Allen House, the Bell Plaza, and the Hunter House
2. The Transition Zone immediately north of the houses and plaza
3. The Riverine/ Woodland Zone on the west side of the Allen House to the Rouge River, the westerly boundary of the property; and
4. The Pond Zone which includes the north edge of the property along Willits Street. Each zone and the resulting master plan components are described below.

Zone 1: Heritage Zone

The Heritage Zone is along Maple Road with the Allen House on the west, the Bell Plaza in the center, and the Hunter House on the east. This section of the museum property has had recent improvements to eliminate the circle drive and provide handicap parking as well as short term parallel parking in front of the Bell Monument. Pedestrian circulation has also been added with a sidewalk along the front and rear of the Allen House, a handicap accessible ramp to the Hunter House, and a plaza and garden area

at the Hill School Bell monument. Wi-Fi provides public access opportunities for visitors to the park and the museum.

The design objective for this zone was to provide features which could unite these three (3) distinct subzones with minimal impact to historical features while providing opportunities for the community to participate in museum activities.

Plan for the Heritage Zone

The Master Plan includes restoration of early elm plantings, a children's garden in front of the Hunter House, and a garden of Birmingham heirloom plants at the Hill School Bell Plaza. The early photograph below of the Allen House shows a simple foundation planting with specimen elm trees planted in front of and behind the house.



Early photograph showing elm trees in the foreground and background of the Allen House

The Master Plan shows removal of undesirable trees and replacement with modern elm cultivars able to withstand Dutch elm disease. Original planting locations are indicated from recent surveys and a couple of elm stumps are preserved to show the impressive size of these trees. Two (2) new elm cultivars have been planted on either side of the bell monument to replace the diseased elms removed in 2016.

A children's garden is proposed for the space directly in front of the Hunter House. This location was chosen because the area provides level ground for gardening activity and the southern exposure is ideal for plants. Impacts from Maple Road are mediated with the existing picket fence and proposed yew hedge and gate for the front sidewalk. Other improvements include removal of undesirable species along the east property line and replacement of the picket fence. The Master Plan proposes a garden with heirloom plants from Birmingham with a boxwood shrub border in front of the bell monument. Residents of the city will be encouraged to bring their heirloom plants to the museum to create this specialty garden.

I'm proud to be a part of the development of this landscape master plan. Each zone preserves and enhances the Birmingham Museum's scenic natural historic site while seamlessly integrating unique interpretive/educational opportunities for community members of all ages.

—Tina Krizanic, Museum Board Chair

Signage for the museum will respect the historic setting by complementing the Heritage Zone surroundings while clearly

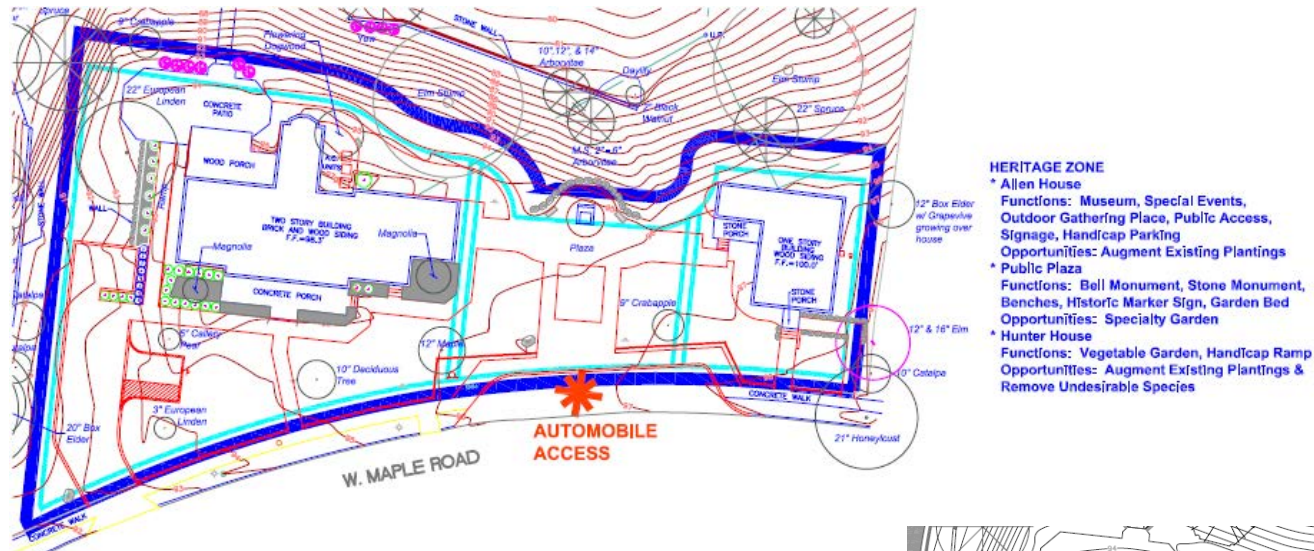
identifying the museum site in a manner that is consistent with historic district requirements. An effective approach is to utilize existing elements and compatible materials; a section of the existing fence can feature signage in a highly visible manner without overwhelming the historic character of the Allen House. Other signage on the grounds will coordinate with that used in other parks to provide a unified experience for visitors.

Heritage Zone Programming and Community Engagement

Opportunities: Public Access, Visibility, and Gathering

- Historical children's garden with heritage plants for educational/demonstration activities and tours
- Community perennial gardens showcasing Birmingham heirloom plants with interpretive information and tours
- Low maintenance organic herb garden with interpretive information and programming
- Family events and activities in the plaza area
- Musical performances and other programs on the back porch of the Allen House
- Outdoor exhibits utilizing app development and Wi-Fi to provide interpretive history of Allen House, Hunter House, Hill School Bell/school history and plantings in Heritage Zone with unobtrusive signage
- Improvements and programs at the plaza that promote public gathering, Wi-Fi connectivity and electronic access to museum collection and online exhibits

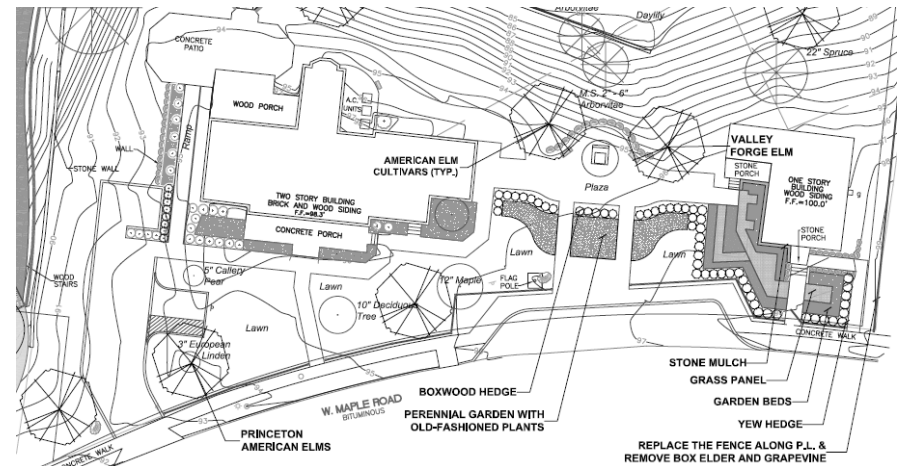
The images below show the characteristics of the Heritage Zone and the concept for the Landscape Master Plan. (See Attachments for additional views).



Existing conditions and analysis of the Heritage Zone

I am the most excited for the educational/interpretive parts of the pond area. My personal connections and understanding of our Birmingham community comes from my experiences with the museum as a child. Some of my most invaluable memories involve the "Birmingham, Long, Long, Ago" movie and school tours. They helped me become passionate about this wonderful community. This landscape design and pond interpretation will only add value to those museum programs to provide more access to our historic landscape.

—Caitlin Rosso, Museum Board member



Conceptual Master Plan for the Heritage Zone

Zone 2 : Transition Zone

The Transition Zone begins at the top of the slope immediately behind the houses and plaza and extends down to the base of the slope. This zone provides access from the house to the pool and includes the original fieldstone wall and remnants of early plantings including elm and Norway spruce. Other trees include arborvitae, Norway maple, and mulberry. A wood staircase behind the Allen House provides pedestrian access down the slope to the open space on the west side of the pond. It appears that the stairs are placed over cement steps with fieldstone edges that were built just after the city purchased the property. The slopes of the area consist of maintained lawn.

Plan for Transition Zone

The Master Plan for the Transition Zone shows removal of undesirable trees and replacement with modern elm cultivars. From early photographs of this area it appears that elm plantings formed a glade with maintained lawn and minimal plantings.

The Museum's Landscape Master Plan restores and enhances, in both a timeless and contemporary setting, the natural beauty of a historically significant part of our community.

—James Cunningham, Museum Board member

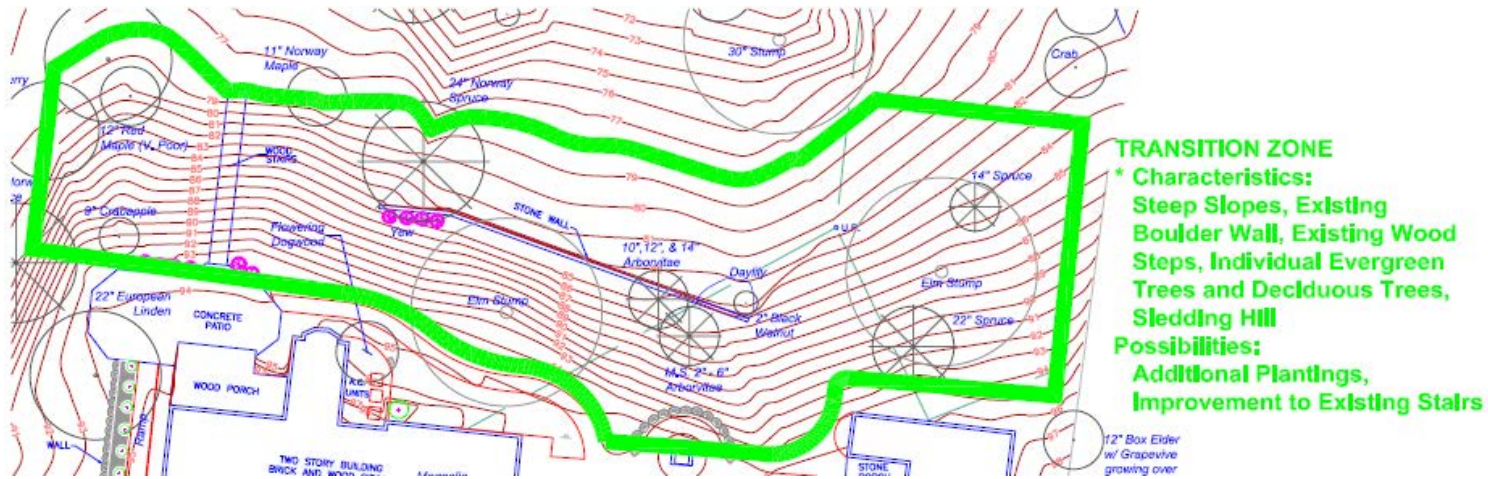
A significant new feature proposed for the Transition Zone is the concrete steps and fieldstone wall to replace the wood staircase. The proposed stairs with walls and handrails provide a safe route for pedestrians to move from the patio behind the Allen House to the woodland trail and pond at the bottom of the slope. The relatively large landing areas of the steps can allow people to congregate for small venues on an intimate scale.

Transition Zone Programming and Community Engagement

Opportunities: Education and Intimate Gatherings

- Stair design provides for multi-use as small amphitheater-like performance area on lower lawn
- Open lawn provides area for traditional lawn activities such as picnics
- Wi-Fi based interpretive education about overall site history from pioneer period to present
- Small garden area for daylilies to feature historic varieties and interpretation of Allen House landscape
- Outdoor photography and art programs and display at stone wall

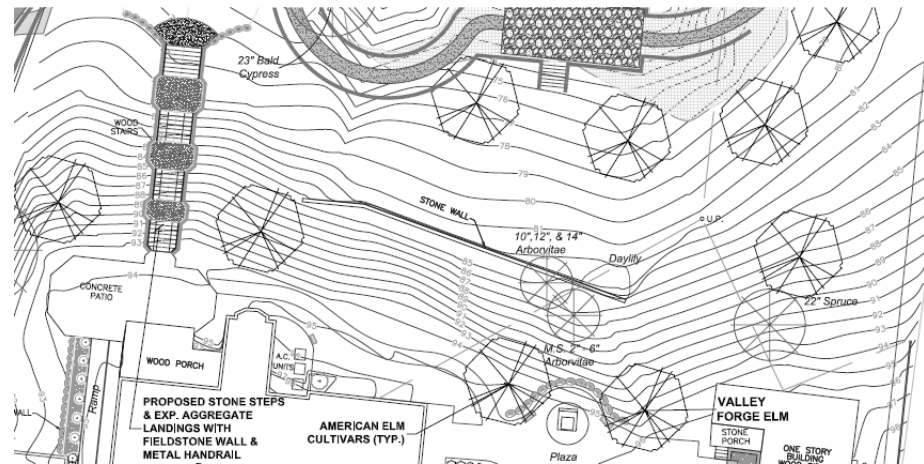
The images below show the characteristics of the Transition Zone and the concept for the Landscape Master Plan. (See Attachments for additional views).



Existing conditions and analysis of the Transition Zone

I'm very excited, as a member of the Museum Board and the Friends Board, regarding the Landscape Master Plan for the museum grounds. These plans will help the community learn more about the grounds and its history.

—Marty Logue, Museum Board member



Conceptual Master Plan for the Transition Zone

Zone 3: Riverine/Woodland Zone

The Riverine/Woodland Zone begins at the top of the slope immediately west of the Allen House and extends to the Rouge River. This space offers an opportunity for residents to enjoy a secluded natural area within the city with trails and the potential to experience the river in close proximity.

Plan for Riverine/Woodland Zone

The Master Plan for the riverine/woodland zone proposes the creation of a climax woodland with the removal of invasive species and planting of sugar maples and associated sub-canopy and ground layer plants. A decision was made to keep the existing trails with the replacement of the timber steps with stone steps and a handrail. To conform to the existing Rouge River Trails Corridor Master Plan, a new path is proposed which runs parallel to the existing stone wall from the entry of the existing trail, where an overlook is proposed, and exiting at Maple Road. The steep slopes in this area will necessitate the use of boulder retaining walls to allow the layout of the path.

What distinguishes Birmingham from our neighbors is the diversity of our topography—the same that Birmingham’s founders (Hamilton, Hunter, Pierce, and Willits) observed 200 years ago. The Museum’s grounds are part of this landscape, and making them more accessible to the public gives a starting point to tell Birmingham’s history and educate future generations about the environment.

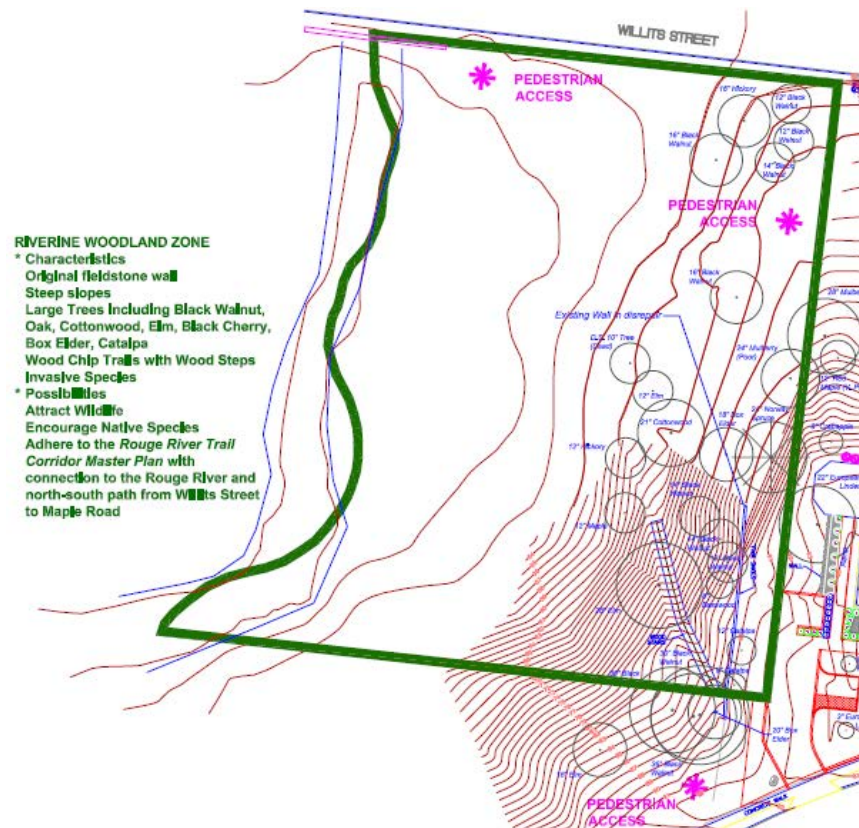
—Russ Dixon, Museum Board member

The original fieldstone wall is proposed to be stabilized and the sections that have fallen will be rebuilt following the original line of the wall. The boulder retaining walls will stabilize the slope and prevent further undermining of the original wall. Also to conform to the Rouge River Trails Corridor Master Plan, a boardwalk is proposed at the intersection of the existing trails which provides access to the Rouge River with a wood deck overlook. Large boulders as sculpture are proposed in the woodland zone.

Riverine/Woodland Zone Programming and Community Engagement Opportunities: Natural Habitat, Native American and Cultural History, and Education

- River Rouge natural history and landscape
- Native American presence in the area and land use
- Settlement and pioneer period of Birmingham and importance of Rouge River
- Wildlife and natural habitat information and interpretive materials (Wi-Fi/electronic)
- Invasive species vs. native plants-tours and interpretive materials
- Bird watching programs
- Other nature programs and tours

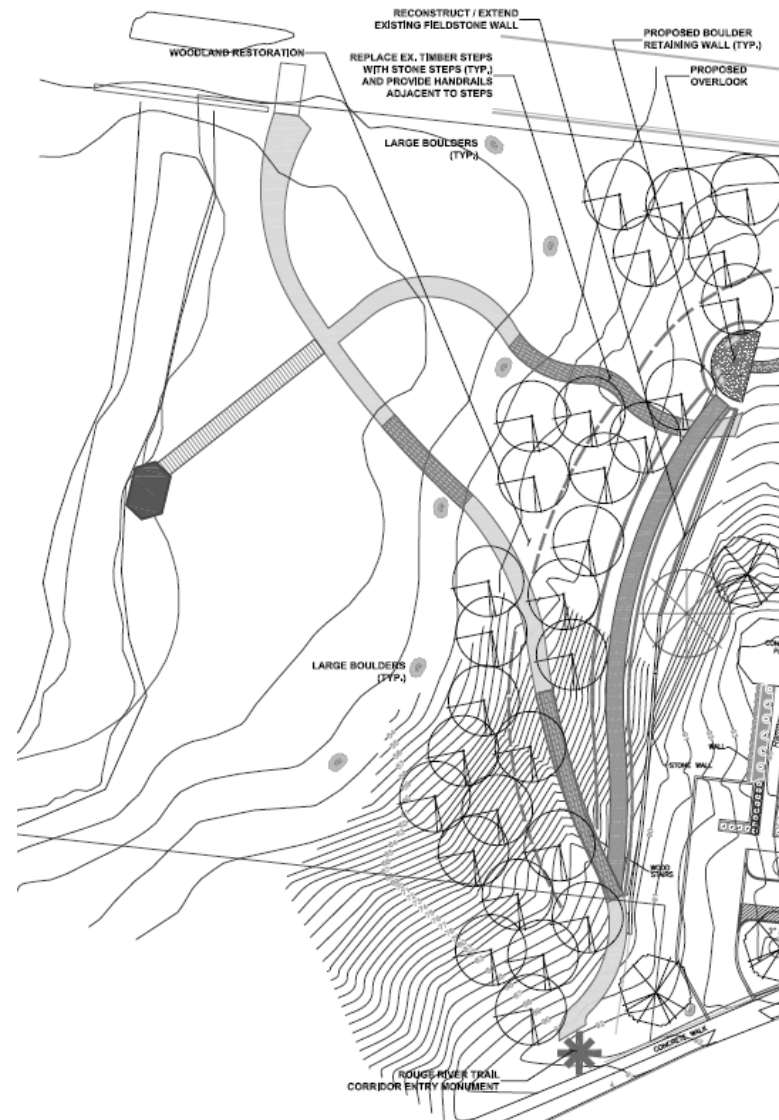
The images below show the characteristics of the Transition Zone and the concept for the Landscape Master Plan. (See Attachments for additional views).



Existing conditions and analysis of the Riverine/Woodland Zone

I'm so inspired by our board's dedication to making our museum a cultural highlight of the community. I will always take pride in this opportunity to help with planning for our exceptional landscape and give back to our very unique and special city!

—Judith Keefer, Museum Board member



Conceptual Master Plan for the Riverine/Woodland Zone

Zone 4: Pond Zone

The Pond Zone comprises the north portion of the museum property and includes the gentler slopes at the base of the transition zone and extends to Willits Street. A main goal of the Master Plan is to provide handicap parking along Willits Street with access to the museum property and especially to the pool and pond area. The preservation and interpretation of the swimming pool within the pond is an equally important goal, as this is an extremely unique use of the spring-fed pond.

Plan for Pond Zone

The Master Plan for the Pond Zone proposes a handicap accessible path from a new sidewalk along Willits Street around the pond to a staging area at the historic swimming pool location, then to a seating area on the west side of the pond, and finally to the new overlook at the woodland trail. The construction of this path will necessitate the use of boulder retaining walls to create the level surface for the path. This path is proposed to consist of crushed limestone and will include plantings along the pond side to act as a barrier to the pond below.

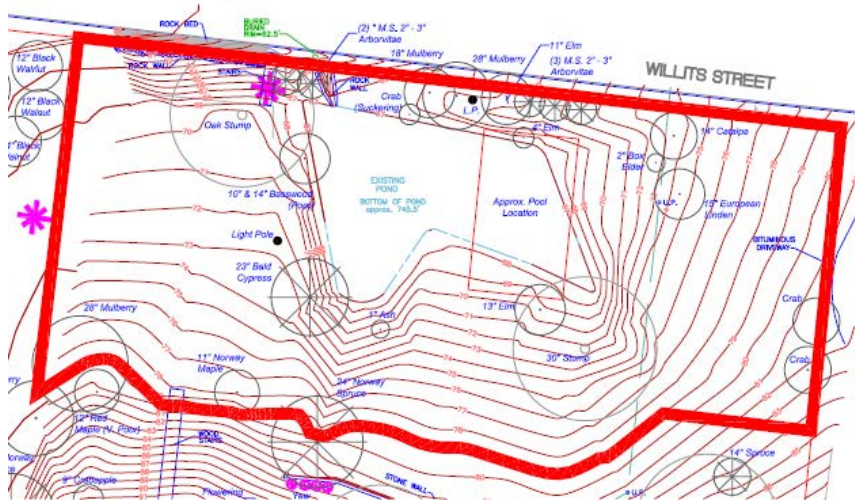
The interpretation of the swimming pool will be accomplished by the construction of a boardwalk along the east edge to complete that side. This boardwalk will also provide an opportunity to experience the pool right in the middle of the pond. A wood fence with cable railing is proposed for the west side of the boardwalk and a curb is proposed for the east side of the boardwalk. A water garden is proposed to the east of the boardwalk, giving an opportunity for visitors to learn about native water plants. A stone surface area is proposed for the south side and the existing

concrete wall defines the north edge of the pool. This stone surface and associated new stone wall allows a relatively large space where groups of people could congregate. To complete the rectangular shape of the swimming pool, a divider is proposed that runs from the south side of the pond to the north side. Care should be taken to preserve existing historical fabric so the remaining walls of the pool should be stabilized and maintained. The boulder walls and new fieldstone wall should be constructed with a different pattern to distinguish these new walls from original walls.

Pond Zone Programming and Community Engagement Opportunities: Barrier-Free Public Access and Polio History

- Wi-Fi/online interpretive materials about poliomyelitis and the unique Allen House pool for Jim Allen's physical therapy
- Acknowledgment of importance of ADA and barrier-free access in signage and surroundings
- Barrier-free outdoor programming for all ages
- Interpretive programs for natural wetlands, native water plants, and wildlife
- Educational activities and programs on environmental value of birds, bees, bats, and butterflies and associated wild plants and flowers for habitat
- Barrier-free tours throughout grounds, including Pool area, Rouge overlook and Allen and Hunter Houses

The images below show the characteristics of the Transition Zone and the concept for the Landscape Master Plan.



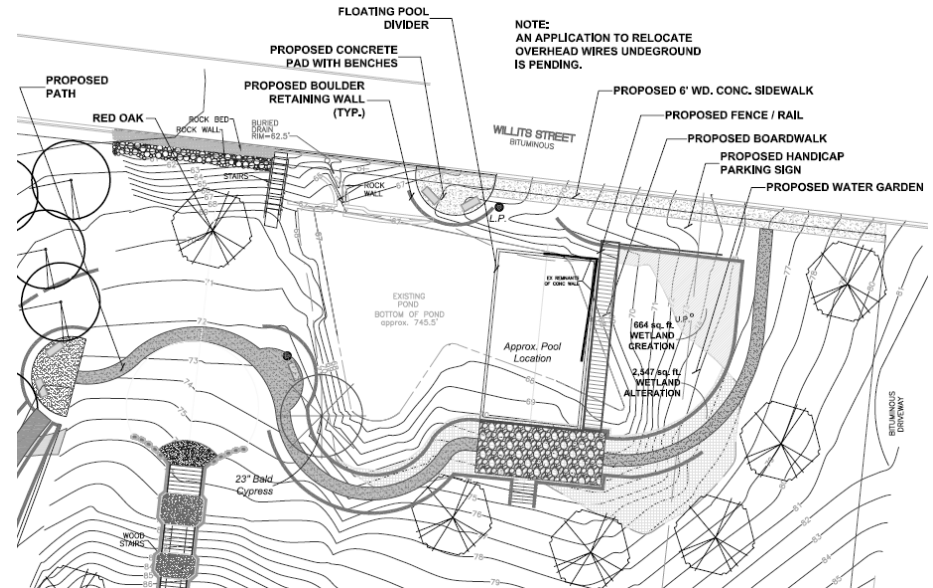
Existing conditions and analysis of the Pond Zone

POND ZONE

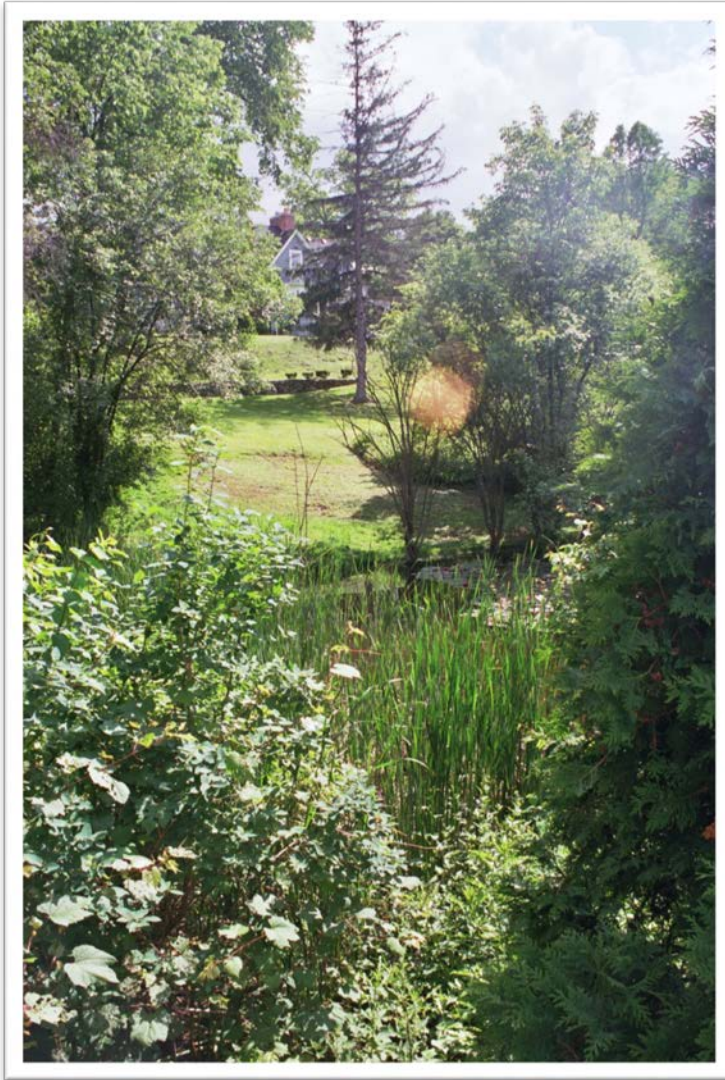
- * **Characteristics:**
Moderate Slopes, Pond with Historic Pool, Pedestrian Access from Willits Street, Light Pole with Internet Access, Overhead Lines
- * **Possibilities**
Automobile Parking
Pond Improvements
Possible Handicap Accessible Path
Seating Area near Existing Light Pole
Tree Planting
Water Garden
Relocate Overhead Wires Underground

It is especially fitting that the Landscape Master Plan pays special attention to accessibility as it echoes the physical challenges young James Allen faced as he struggled to overcome the effects of polio.

—Lori Eaton, Museum Board member



Conceptual Master Plan for the Pond Zone



VI. Capital Improvements and Funding

This conceptual Landscape Master Plan is intended to provide a guideline for long-term planning and project development. Each zone can be approached as a separate project for planning and funding purposes; however available grants, changing conditions, or other needs may make it more efficient to combine certain elements from different zones. Whenever possible, work will be coordinated with other city Parks and Recreation projects for purposes of timing, to avoid duplication, or to enhance progress.

Establishing priorities by zone or project component will assist with planning, especially as regards targeted fundraising and grants. The Landscape Master Plan assumes that funding will be project-specific, but as part of a “big picture” that can be communicated to particular granting organizations and potential sponsors. Special interest grants and private donors are expected to figure prominently in all funding, and some likely sources are noted in the table that follows. Fund-raising initiatives will be held at the museum as well, which will also help connect the community physically to the landscape, promoting the museum’s mission.

PRIORITY LEVELS

Four levels of priority with their expected timelines are used in the table on the following page:

Priority 1—2018-2019

Priority 2—2019-2021

Priority 3—2021-2022

Priority 4—2023-2025

(Components of each zone area are sequentially identified with decimals, e.g., 2.1, 2.2 as first and second steps in Priority 2)

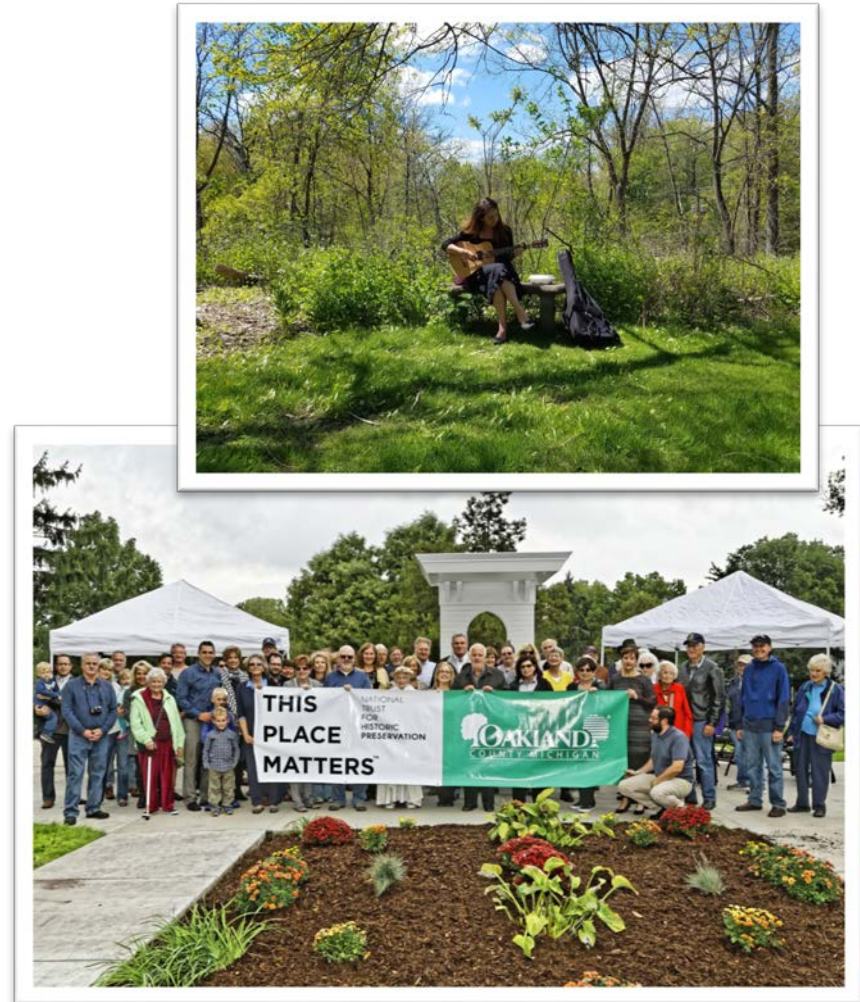


Photo by Carroll Deweese, 2016

TABLE-MASTER LANDSCAPE CAPITAL IMPROVEMENT AND FUNDING

Project Component	Priority	Cost Estimates	Comments	Potential Funding Sources
Heritage Zone	1.0		The visibility and impact of improvements in the Heritage Zone have the highest priority because they lend themselves well to enhanced programming and continued funding for other parts of the plan	
Design	1.1	\$ 3,000.00		Friends of Museum/City
Construction	1.2			Anticipated funding sources for construction includes a combination of grants, donations, funds from Friends of the Museum, and fundraising. Volunteers may assist with garden bed preparation. Plant material may be available through sponsorships or partnerships
tree removal		\$ 4,000.00	Tree removal coordinated with Parks to be re-planted elsewhere when possible	
new plant material				
deciduous trees		\$ 1,950.00		
densiformis yew		\$ 3,600.00		
winter gem boxwood		\$ 3,000.00		
garden bed preparation		\$ 6,000.00	Coordinate work with existing DPS maintenance plan	
wood fence		\$ 2,400.00		
metal edging		\$ 480.00		
stone mulch		\$ 225.00		
Subtotal		\$ 24,655.00		
Relocate utilities	1.0-2.0	\$ 3,500.00	DTE estimates represent the majority of the cost, but do not include relocation of other shared line users	Donations combined with grants

Priority 1—2018-2019
Priority 2—2019-2021

Priority 3—2021-2022
Priority 4—2023-2025

Project Component	Priority	Cost Estimates	Comments	Potential Funding Sources
Pond Zone	2.0			
Additional Survey	2.1	\$ 7,900.00	Survey will determine detail for construction at pond and will complete needed topography	Grants, fundraising + Friends
Engineering Plan	2.2	\$ 15,000.00	Grading plan for ADA paths around pond	Grants, fundraising + partnerships
Design (Pond & Transition Zones)	2.3	\$ 5,000.00	Transition Zone & Pond Zone to be designed together	Friends and donations
Construction	2.4			
tree removal		\$ 6,000.00		Anticipated funding sources for construction includes a combination of grants, donations, funds from Friends of the Museum, and fundraising. Plant material may be available through sponsorships or partnerships
shrub removal		\$ 4,000.00		
pond digging		\$ 10,200.00		
boulder retaining walls		\$ 39,200.00		
stone walls		\$ 31,200.00		
crushed limestone path		\$ 7,320.00		
boardwalk		\$ 23,400.00		
wood and cable rail fence		\$ 2,400.00		
concrete sidewalk & pad		\$ 8,320.00		
benches		\$ 700.00		
stone patio		\$ 14,740.00		
new plant material		\$ 25,000.00		
Subtotal		\$ 200,380.00		

Transition Zone	3.0			
Design (see Pond Zone)	2.3		Transition Zone & Pond Zone to be designed together	
Construction	3.1			Anticipated funding sources for construction includes a combination of grants, donations, funds from Friends of the Museum, and fundraising. Plant material may be available through sponsorships or partnerships
tree removal		\$ 15,000.00		
stone walls		\$ 62,400.00		
stone steps		\$ 27,200.00		
exposed aggregate concrete		\$ 7,200.00		
new plant material- deciduous trees		\$ 3,250.00		
Subtotal		\$ 115,050.00		

Project Component	Priority	Cost Estimates	Comments	Potential Funding Sources
Woodland/Riverine Zone	4.0			
Design	4.1	\$ 5,000.00		
Construction	4.2			
tree removal		\$ 7,500.00	Cost estimates for construction items are likely to change over the projected time period but are presented here in current dollars.	The Woodland/Riverine Zone has a higher level of cost but also may be eligible for grants because of multi-community involvement and importance in Michigan watershed management. Anticipated funding sources for construction includes a combination of grants, donations, funds from Friends of the Museum, and fundraising. Sponsorships or partnerships will be important for this zone, but the possibility of large scale corporate volunteer assistance is also greater for some components.
boulder retaining walls		\$ 86,800.00		
large boulders		\$ 9,000.00		
stone wall		\$ 38,400.00		
stone steps		\$ 26,160.00		
crushed limestone path		\$ 6,300.00		
crushed limestone pad		\$ 1,740.00		
boardwalk				
wood and metal hand rail		\$ 4,750.00		
river overlook		\$ 14,000.00		
new plant material		\$ 25,000.00		
benches		\$ 700.00		
invasive species eradication		\$ 12,000.00		
Subtotal		\$ 232,350.00		

Grand Total	\$ 572,935.00	
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PLANT LIST - WOODLAND RESTORATION

KEY	QTY.	BOTANICAL NAME	COMMON NAME	SIZE / HT.	FLOWER COLOR	FLOWERING TIME
Canopy Trees						
ASR	--	<i>Acer saccharum</i>	Sugar Maple	2" - 2-1/2" cal. B&B		
CO	--	<i>Celtis occidentalis</i>	Northern Hackberry	2" - 2-1/2" cal. B&B		
LT	--	<i>Liriodendron tulipifera</i>	Tuliptree	2" - 2-1/2" cal. B&B		
Subcanopy Trees						
AA	--	<i>Amelanchier arborea</i>	Downy Serviceberry	2" cal. B&B		
CA	--	<i>Cornus alternifolia</i>	Pagoda Dogwood	1" cal. B&B		
CC	--	<i>Carpinus caroliniana</i>	Musclemwood	2" cal. B&B		
OV	--	<i>Ostrya virginiana</i>	American Hopbroom	2" cal. B&B		
Shrub Layer						
HV	--	<i>Hamamelis virginiana</i>	Witch-Hazel	36" ht. B&B		
LB	--	<i>Lindera benzoin</i>	Spicebush	30" ht. 5 gal. pot		
VD	--	<i>Viburnum dentatum</i>	Arrowwood Viburnum	30" ht. 5 gal. pot		
VL	--	<i>Viburnum lentago</i>	Nannyberry Viburnum	30" ht. 5 gal. pot		
FERNS						
AP	--	<i>Adiantum pedatum</i>	Maidenhair Fern	12" - 24"		
PAC	--	<i>Polystichum acrostichoides</i>	Christmas Fern	12" - 24"		
-- Quantity to be determined in the field.						

PLANT LIST - WATER GARDEN

KEY	QTY.	BOTANICAL NAME	COMMON NAME	SIZE / HT.
Shrub Layer				
AG	--	<i>Andromeda glaucophylla</i>	Bog Rosemary	24" ht., 3 gal. pot
CCA	--	<i>Chamaedaphne calyculata</i>	Leatherleaf	24" ht., 3 gal. pot
GH	--	<i>Gaultheria hispida</i>	Creeping Snowberry	24" ht., 3 gal. pot
KP	--	<i>Kalmia latifolia</i>	Bog Laurel	24" ht., 3 gal. pot
LG	--	<i>Ledum groenlandicum</i>	Labrador Tea	24" ht., 3 gal. pot
LL	--	<i>Larix laricina 'Girard's Dwarf'</i>	Dwarf American Larch	24" ht., 3 gal. pot
VC	--	<i>Vaccinium macrocarpa</i>	Cranberry	24" ht., 3 gal. pot
Ground Layer				
MT	--	<i>Menyanthes trifoliata</i>	Bogbean	8" - 12"
DS	--	<i>Drosera</i> spp.	Sundews	6"
PO	--	<i>Pogonia ophioglossoides</i>	Pitcher Plants	9" - 18"
SC	--	<i>Spiranthes cernua</i>	Ladies'-tresses	8" - 20"
SS	--	<i>Sarracenia</i> spp.	Pitcher Plants	9" - 18"
-- Quantity to be determined in the field.				

COST ESTIMATE

AREA	QTY.	COST	TOTAL
HERITAGE ZONE:			
* Tree Removal:	4	\$500	\$4,000.00
* New Plant Material:			
Deciduous Trees	3	\$650	\$1,950.00
Densiformis Yew	30	\$120	\$3,600.00
Winter Gem Boxwood	25	\$120	\$3,000.00
* Garden Bed Preparation:			
Wood Fence:	80 l.f.	\$30 l.f.	\$2,400.00
* Metal Edging:	48 l.f.	\$10 l.f.	\$480.00
* Stone Mulch:	3 c.y.	\$75 c.y.	\$225.00
Subtotal			\$21,655.00

TRANSITION ZONE:			
* Tree Removal:	3	\$500 ea.	\$1,500.00
* Stone Walls:	520 f.f.	\$120 f.f.	\$62,400.00
* Stone Steps:	340 s.f.	\$80 s.f.	\$27,200.00
* Exposed Aggregate Conc.	400 s.f.	\$18 s.f.	\$7,200.00
* New Plant Material:			
Deciduous Trees	5	\$650	\$3,250.00
Subtotal			\$101,550.00

POND ZONE:			
* Tree Removal:	12	\$500	\$6,000.00
* Shrub Removal:			\$4,000.00
* Pond Dredging:	\$85,000 / ac. 0.12 ac.		\$10,200.00
* Boulder Retaining Walls:	1,120 f.f.	\$35 f.f.	\$39,200.00
* Stone Walls:	260 f.f.	\$120 f.f.	\$31,200.00
* Crushed Limestone Path:	1,220 s.f.	\$6 s.f.	\$7,320.00
* Boardwalk:	360 s.f.	\$65 l.f.	\$23,400.00
* Wood & Cable Rail Fence:	96 l.f.	\$25 l.f.	\$2,400.00
* Concrete Sidewalk & Pad:	1,040 s.f.	\$8 s.f.	\$8,320.00
* Benches:	2	\$350	\$700.00
* Stone Patio:	670 s.f.	\$22 s.f.	\$14,740.00
* New Plant Material:			\$25,000.00
Subtotal			\$172,480.00

WOODLAND / RIVERINE ZONE			
* Tree Removal:	15	\$500	\$7,500.00
* Boulder Retaining Walls:	2,480 f.f.	\$35 f.f.	\$86,800.00
* Large Boulders:	6	\$1,500	\$9,000.00
* Stone Wall:	320 f.f.	\$120 f.f.	\$38,400.00
* Stone Steps:	744 s.f.	\$60 s.f.	\$26,160.00
* Crushed Limestone Path:	1,050 s.f.	\$6 s.f.	\$6,300.00
* Crushed Limestone Pad:	290 s.f.	\$6 s.f.	\$1,740.00
* Wood & Metal Handrail:	190 l.f.	\$25 l.f.	\$4,750.00
* River Overlook:			\$14,000.00
* New Plant Material:			\$25,000.00
* Benches:	2	\$350	\$700.00
* Invasive Species Eradication:			\$12,000.00
Subtotal			\$232,350.00

Total \$528,035.00

Pool Restoration: \$180,000.00

date: October 5, 2017

revised:

11-02-2017 Adjust for pond survey.

01-04-2018 Refine plan.

01-05-2018 Minor adjustments.

LANDSCAPE PLAN FOR:

City of Birmingham
151 Martin Street
Post Office Box 3001
Birmingham, Michigan
48012-3001
(248) 530-1808

PROJECT LOCATION:

Birmingham Museum/
John West Hunter Park
556 West Maple Road
Birmingham, Michigan
48009

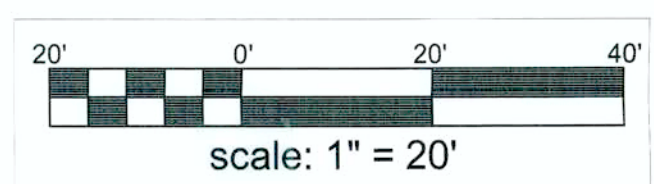
Ms. Leslie Pielack, Director
(248) 530 1928

LANDSCAPE PLAN BY:

Nagy Devlin Land Design
31736 West Chicago Ave.
Livonia, Michigan 48150
(734) 634 9208



J. Brian Devlin
AUTOCAD SIGNATURE
ORIGINAL IN BLUE



CLP - 1:
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LANDSCAPE
MASTER PLAN

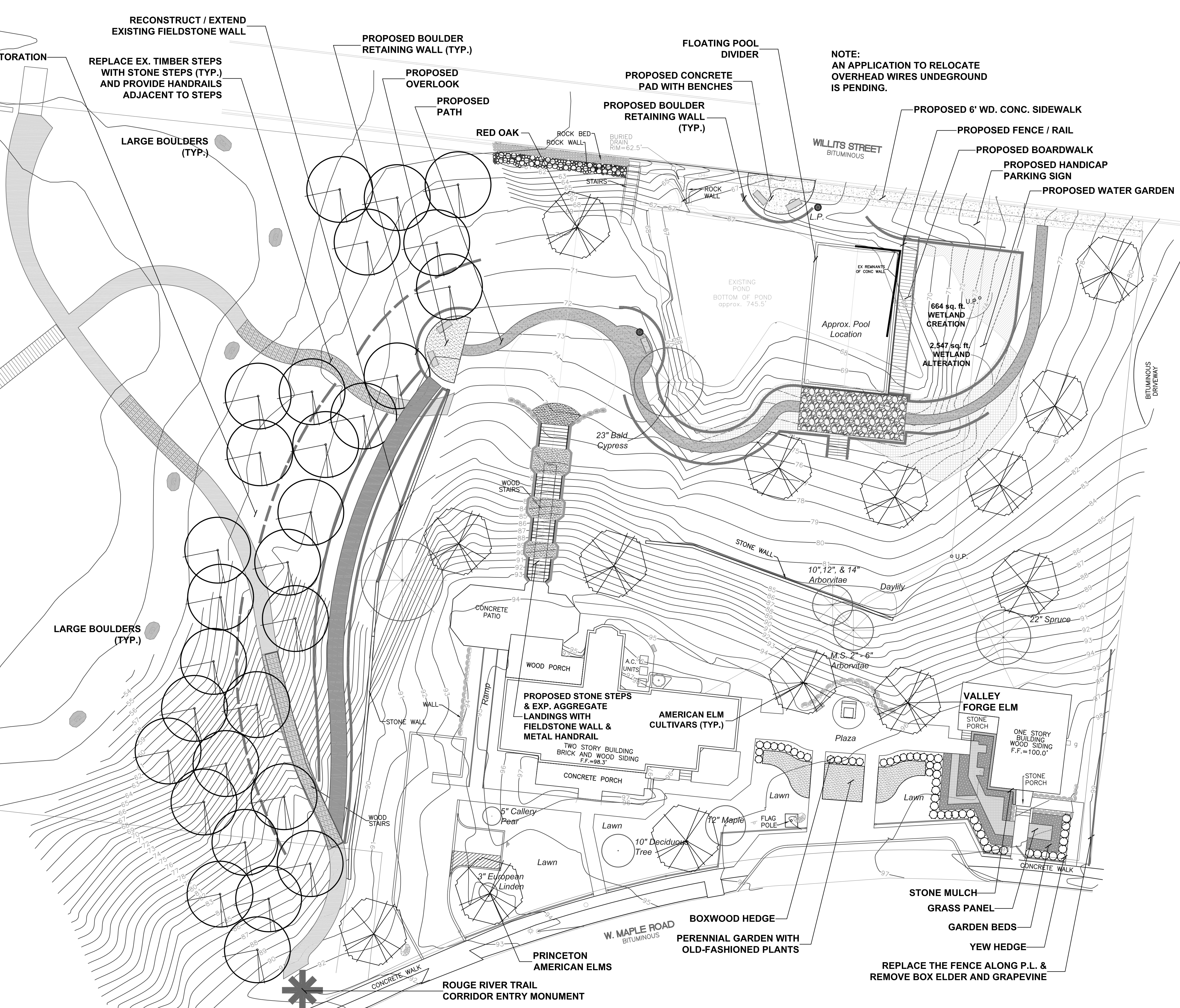
* Base data provided by
Client from Atwell Hicks & HRC.

PLANT LIST - WOODLAND RESTORATION

KEY	QTY.	BOTANICAL NAME	COMMON NAME	SIZE / HT.	KEY	QTY.	BOTANICAL NAME	COMMON NAME	SIZE / HT.	FLOWER COLOR	FLOWERING TIME
Canopy Trees											
ASR	—	<i>Acer saccharum</i>	Sugar Maple	2" - 2-1/2" cal. B&B	VL	—	<i>Viburnum lentago</i>	Nannyberry Viburnum	30" ht., 5 gal. pot		
CO	—	<i>Celtis occidentalis</i>	Northern Hackberry	2" - 2-1/2" cal. B&B	Ground Layer						
LT	—	<i>Liriodendron tulipifera</i>	Tuliptree	2" - 2-1/2" cal. B&B	ACA	—	<i>Asarum canadense</i>	Wild Ginger	6" - 12"	Dark red to brown	Late Spring
Subcanopy Trees											
AA	—	<i>Amelanchier arborea</i>	Downy Serviceberry	2" cal. B&B	AT	—	<i>Arisaema triphyllum</i>	Jack-in-the-Pulpit	12" - 30"	Green	Spring
CA	—	<i>Cornus alternifolia</i>	Pagoda Dogwood	1" cal. B&B	CV	—	<i>Claytonia virginica</i>	Spring Beauty	6" - 12"	White	Spring
CC	—	<i>Carpinus caroliniana</i>	Musclewood	2" cal. B&B	GM	—	<i>Geranium maculatum</i>	Wild Geranium	12" - 18"	Light purple to pink	Late Spring
OV	—	<i>Ostrya virginiana</i>	American Hophornbeam	2" cal. B&B	HA	—	<i>Hepatica americana</i>	Round-Lobed Hepatica	4" - 6"	Pink, white, blue	Spring
Shrub Layer											
HV	—	<i>Hamelis virginiana</i>	Witch-Hazel	36" ht. B&B	PP	—	<i>Podophyllum peltatum</i>	Mayapple	12" - 24"	White	Late Spring
LB	—	<i>Lindera benzoin</i>	Spicebush	30" ht., 5 gal. pot	PB	—	<i>Polygonatum biflorum</i>	Solomon's Seal	12" - 36"	Yellow	Late Spring
VD	—	<i>Viburnum dentatum</i>	Arrowwood Viburnum	30" ht., 5 gal. pot	SCA	—	<i>Sanguinaria canadensis</i>	Bloodroot	6" - 12"	White	Spring
VL	—	<i>Viburnum lentago</i>	Nannyberry Viburnum	30" ht., 5 gal. pot	SM	—	<i>Sanicula marilandica</i>	Black Snakeroot	12" - 48"	White	Spring/Summer
					SR	—	<i>Smilacena racemosa</i>	False Solomon's Seal	12" - 36"	White	Late Spring
					TG	—	<i>Trillium grandiflorum</i>	Showy Trillium	9" - 18"	White	Spring
FERNS											
AP	—	<i>Adiantum pedatum</i>	Maidenhair Fern	12" - 24"	— Quantity to be determined in the field.						
PAC	—	<i>Polystichum acrostichoides</i>	Christmas Fern	12" - 24"							

PLANT LIST - WATER GARDEN

KEY	QTY.	BOTANICAL NAME	COMMON NAME	SIZE / HT.
Shrub Layer				
AG	—	<i>Andromeda glaucophylla</i>	Bog Rosemary	24" ht., 3 gal. pot
CCA	—	<i>Chamaedaphne calyculata</i>	Leatherleaf	24" ht., 3 gal. pot
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KP	—	<i>Kalmia polifolia</i>	Bog Laurel	24" ht., 3 gal. pot
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SS	—	<i>Sarracenia</i> spp.	Pitcher Plants	9" - 18"
— Quantity to be determined in the field.				



LANDSCAPE DEVELOPMENT PLAN

scale: 1" = 20'

COST ESTIMATE

AREA	QTY.	COST	TOTAL
HERITAGE ZONE:			
* Tree Removal:	4	\$500	\$4,000.00
* New Plant Material:			
Deciduous Trees	3	\$650	\$1,950.00
Densiformis Yew	30	\$120	\$3,600.00
Winter Gem Boxwood	25	\$120	\$3,000.00
* Garden Bed Preparation:			
Wood Fence:	80 l.f.	\$30 l.f.	\$2,400.00
Metal Edging:	48 l.f.	\$10 l.f.	\$480.00
* Stone Mulch:	3 c.y.	\$75 c.y.	\$225.00
Subtotal			\$21,655.00
TRANSITION ZONE:			
* Tree Removal:	3	\$500 ea.	\$1,500.00
* Stone Walls:	520 f.f.	\$120 f.f.	\$62,400.00
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POND ZONE:			
* Tree Removal:	12	\$500	\$6,000.00
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* Pond Dredging:	\$85,000 / ac. 0.12 ac.		\$10,200.00
* Boulder Retaining Walls:	1,120 f.f.	\$35 f.f.	\$39,200.00
* Stone Walls:	260 f.f.	\$120 f.f.	\$31,200.00
* Crushed Limestone Path:	1,220 s.f.	\$6 s.f.	\$7,320.00
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* Wood & Cable Rail Fence:	96 l.f.	\$25 l.f.	\$2,400.00
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* Benches:	2	\$350	\$700.00
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* River Overlook:			\$14,000.00
* New Plant Material:			\$25,000.00
* Benches:	2	\$350	\$700.00
* Invasive Species Eradication:			\$12,000.00
Subtotal			\$232,350.00
Total			\$528,035.00
Pool Restoration:			\$180,000.00

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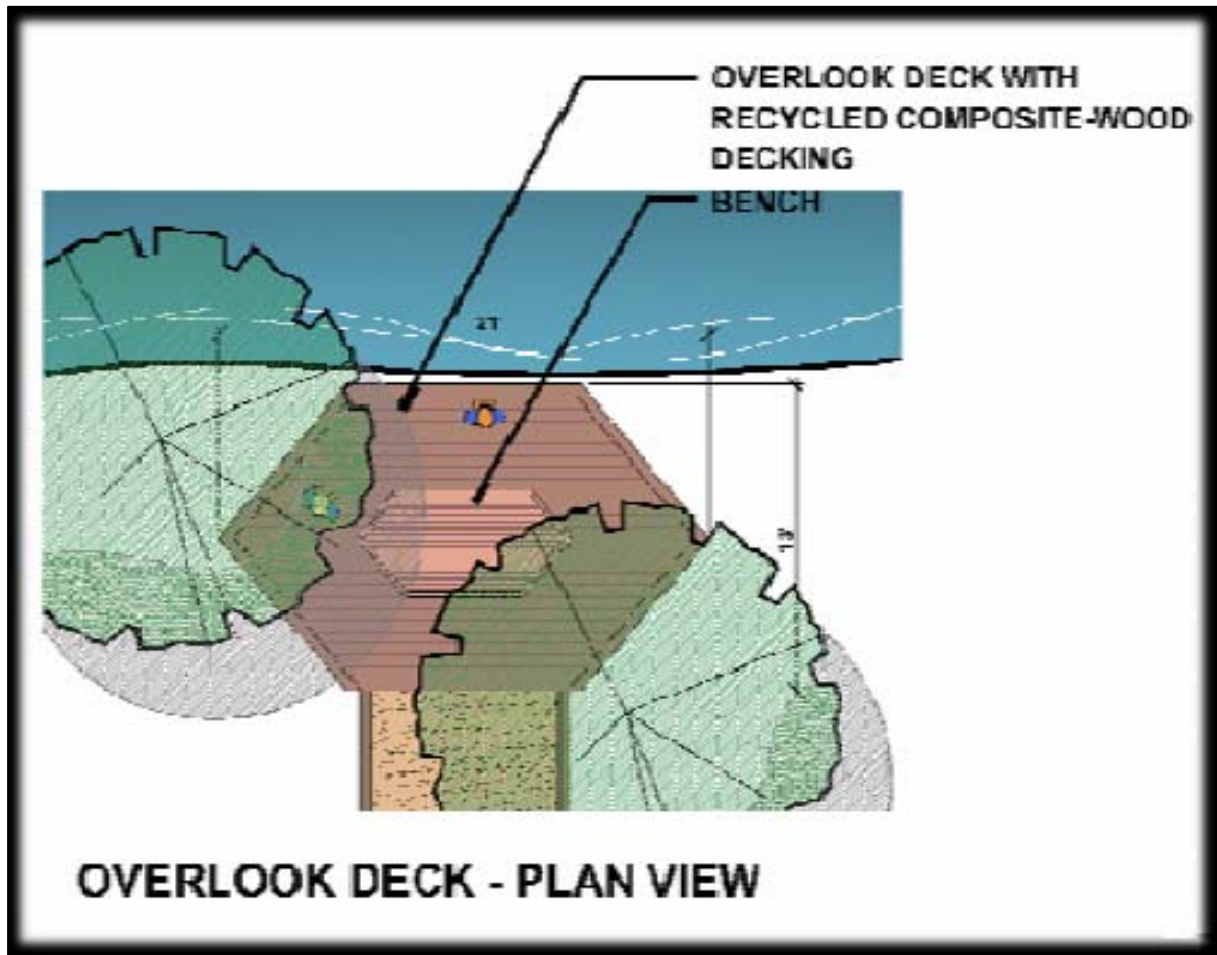
811 Know what's below. Call before you dig.

north

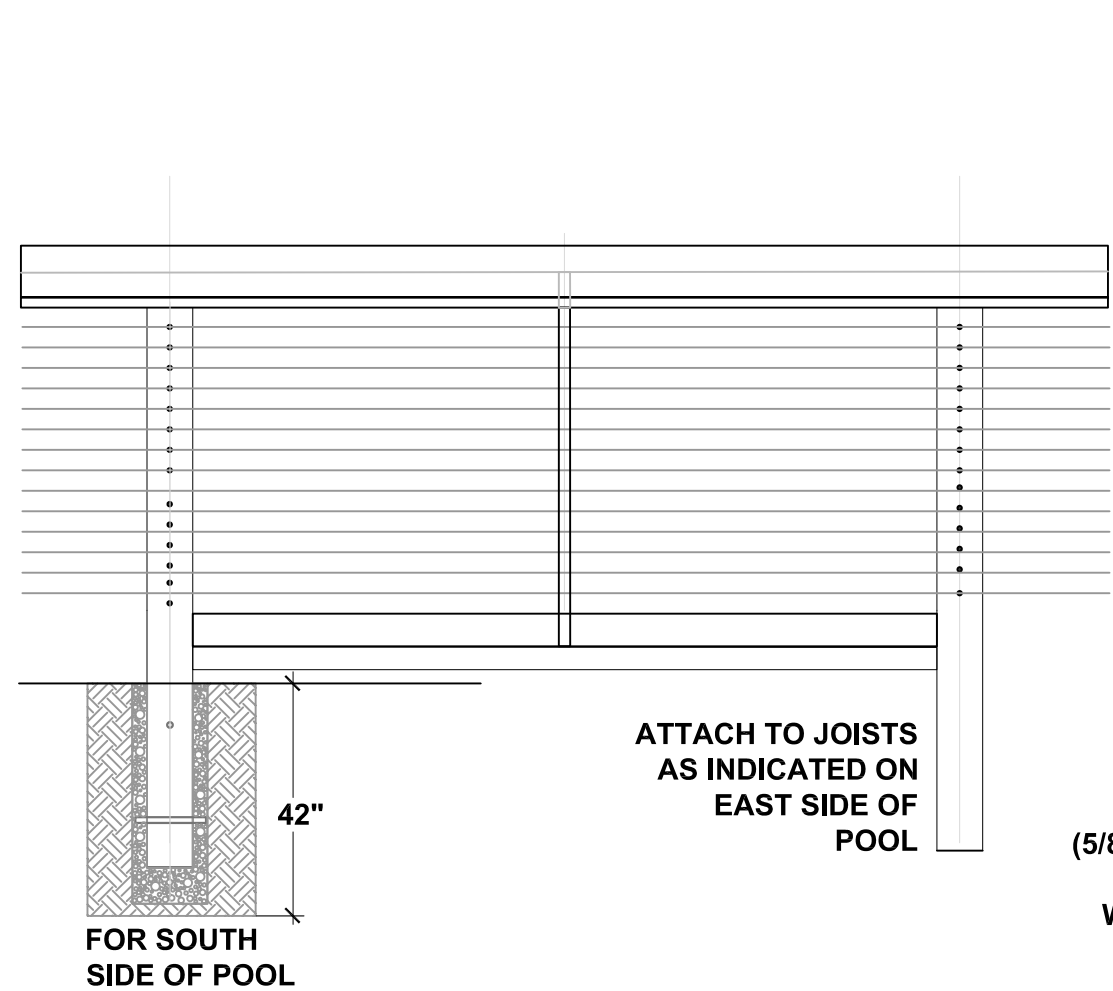
CLP - 1:
CONCEPTUAL
LANDSCAPE
MASTER PLAN

* Base data provided by
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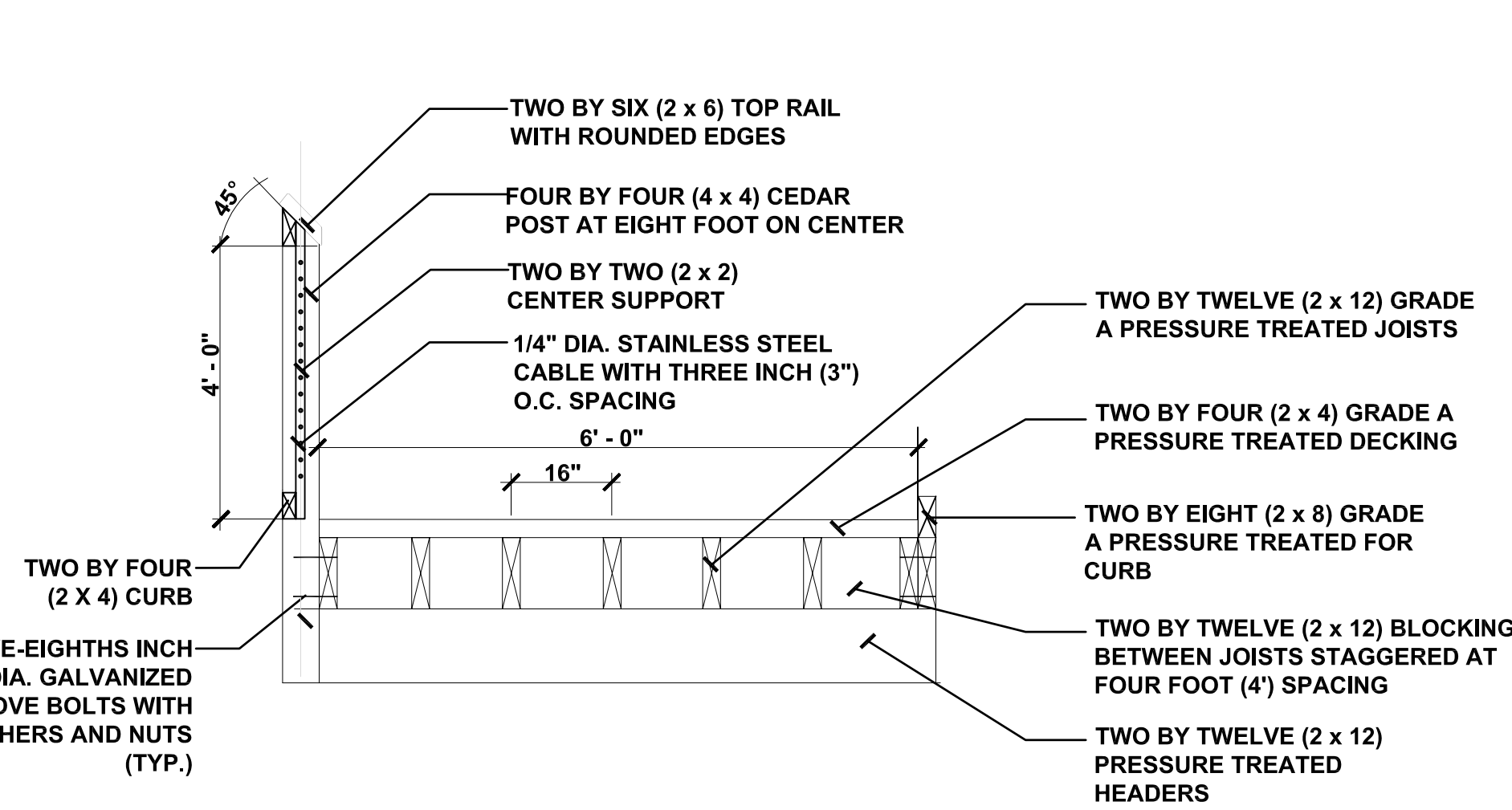
date: October 5, 2017
revised:
11-02-2017 Adjust for pond
survey.
01-04-2018 Refine plan.
01-05-2018 Minor adjustments.



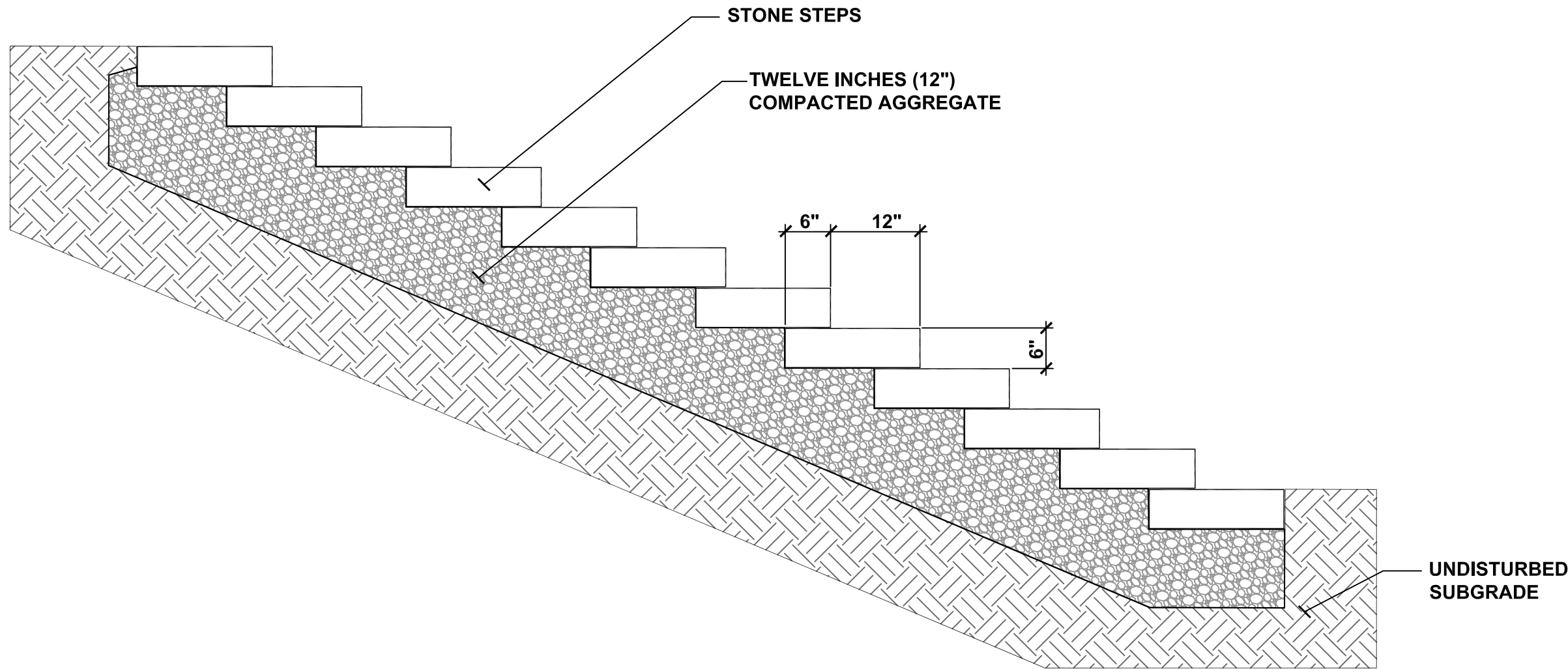
From the *Rouge River Trail Corridor Master Plan* for the City of Birmingham.



BOARDWALK DETAIL & CABLE RAIL FENCE DETAIL

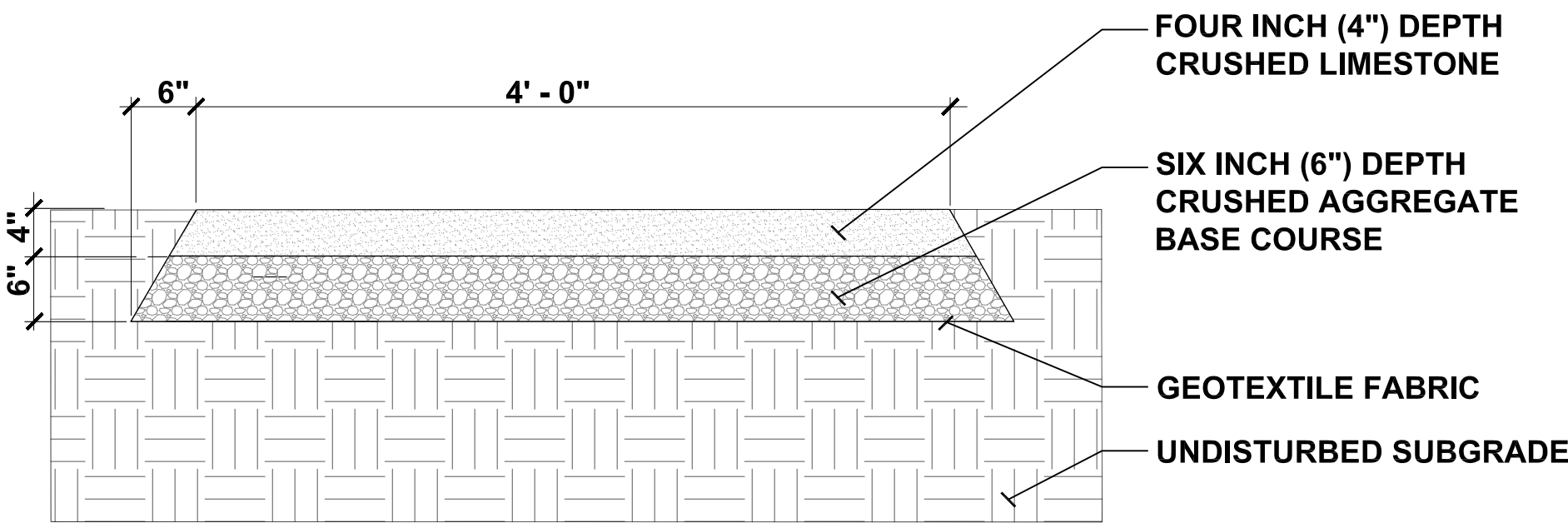


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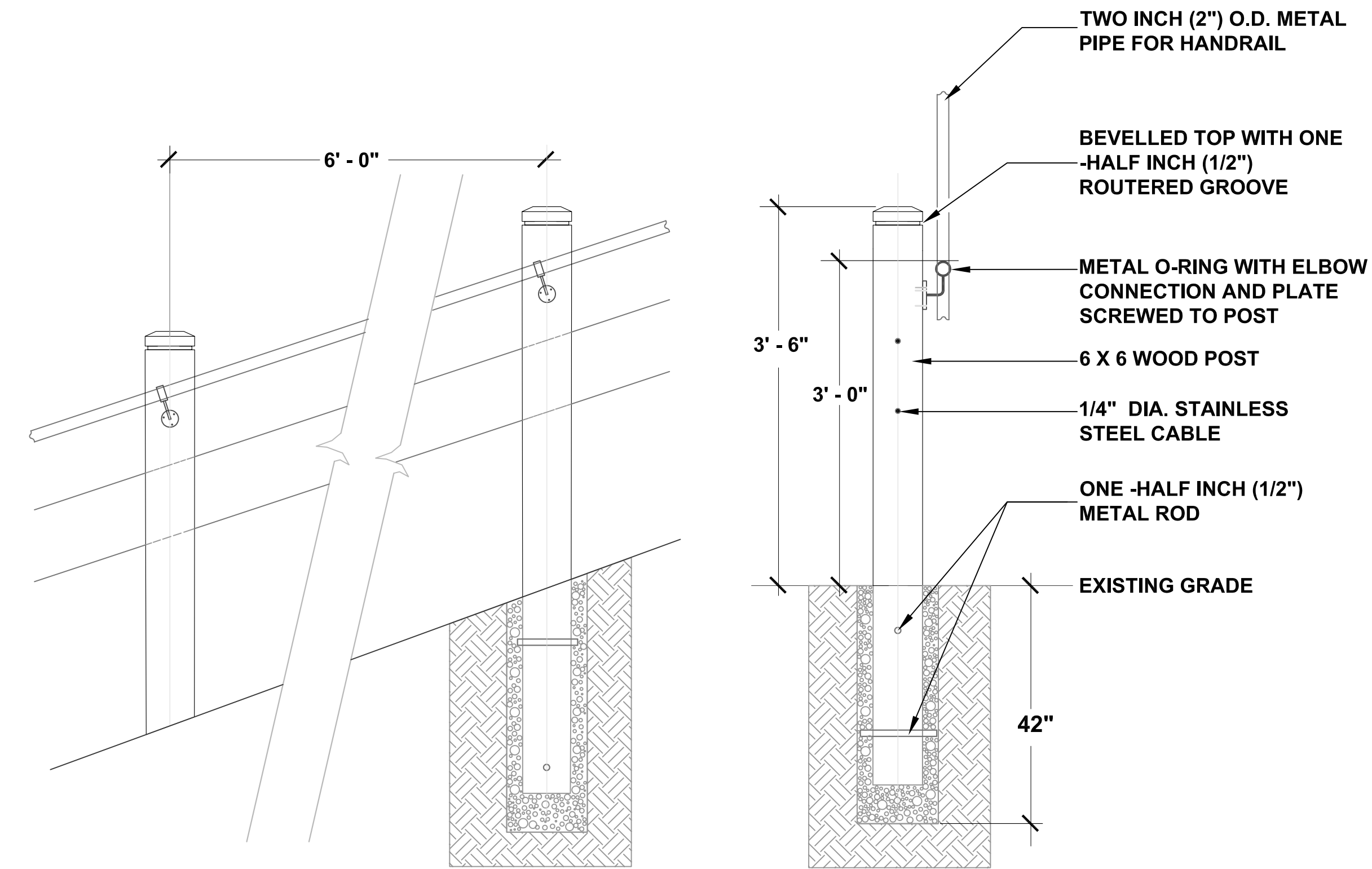
STONE STEPS DETAIL

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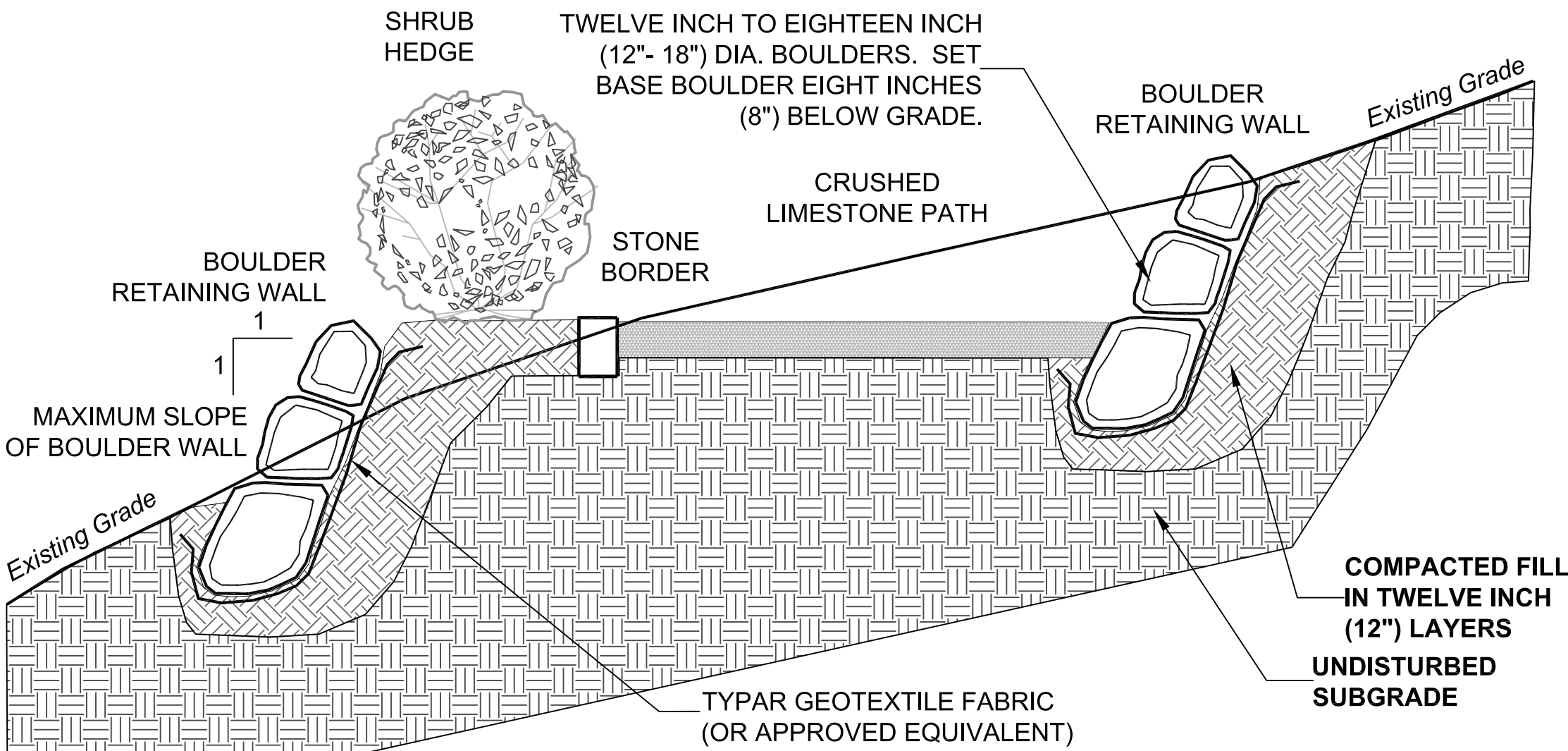
CRUSHED LIMESTONE PATH DETAIL

not to scale



WOOD POST W/ METAL HAND RAIL DETAIL

not to scale



BOULDER RETAINING WALL DETAIL

not to scale

NOTES FOR CONTROL OF *Phragmites* WITH HERBICIDES:

PLANT DESCRIPTION
Common Reed, *Phragmites australis* subsp. *australis*, is a warm-season perennial grass with a rigid, hollow stem that grows between six feet and thirteen feet (6' - 13') in height. The leaves are flat, smooth, and green to grayish-green and the flowers grow as dense branched clusters on the end of each stem that are open and feathery at maturity. It is often found in ditches, swales, wetlands, and on stream banks and pond banks. Common Reed has become an invasive species as it outcompetes native vegetation lowering local plant diversity.
Common Reed can be eradicated with a long-term management strategy that may include burning, mechanical methods (mowing or hand pulling), and / or herbicides. The following guidelines utilize a management program to control *Phragmites* with the application of herbicides.
(Information from the State of Michigan and Wikipedia.)

- The first step in the control of *Phragmites* is the application of herbicides. Glyphosate and imazapyr are two (2) herbicides effective in controlling *Phragmites*. Imazapyr can be used in combination with glyphosate to provide control over *Phragmites* for a longer period of time but can also be used alone for effective control. *Phragmites* should be treated in early to late summer (June through September) when using imazapyr or late summer (August through September) when using glyphosate or a imazapyr/glyphosate mixture to achieve the best results. These herbicides are non-selective and will affect any plant which is contacted by the solution. The applicator should strictly adhere to the chemical manufacturer's specifications for the correct method of application and rate of application.
Methods of application depend on the size of the *Phragmites* stand and existing site conditions. Scattered plants or isolated plant stands may be treated by injecting stems, hand swiping, or selective hand spraying. Large stands may require the use of commercial equipment. The application of herbicides should be conducted by a licensed or certified applicator to provide the best method for eradication of the *Phragmites* while minimizing damage to native plants and following best management practices for required safety procedures.
Either herbicide should be used in a formulation that is specifically approved for use in wet areas.
- The next step in the eradication of *Phragmites* is to mow or cut the dead plant material after the herbicide treatment. This process should not occur until at least two (2) weeks after the herbicide treatment to allow maximum exposure to the herbicide. Mowing or cutting of the treated plants is recommended during late summer to fall (August to first hard frost) or in the winter when the ground is frozen. Hand cutting is effective for removing individual plant stems or very small stands but a brush cutter is more effective for large dense stands. The cutting blade should be set to a mowing height of greater than four inches (4") to help minimize any impact to small mammals and native plants. Any equipment used to manage *Phragmites* should be cleaned of all debris before removing it from the treatment site to prevent the spread of seeds or rhizomes to other sites. If the plants are mowed or cut, the plant material should be immediately collected and bagged to prevent the spread of seeds and disposed of properly.
- Reseeding of the treated area:
Since Glyphosate does not persist in the soil for an extended period of time, reseeding of the desired seed mix can occur after the mowing or cutting process has been completed.
Imazapyr remains in the soil for a much longer period of time, therefore, reseeding of the desired seed mix should not occur for a year after the application treatment.
- Annual monitoring shall be conducted in mid to late summer. Any individual plants should be treated and removed by hand techniques as described above to insure that *Phragmites* does not become reestablished.

NOTES FOR CONTROL OF GARLIC MUSTARD:

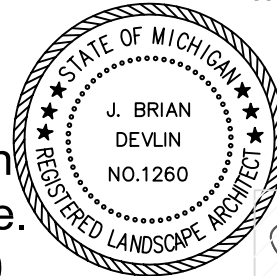
PLANT DESCRIPTION
Garlic Mustard, *Alliaria petiolata*, is an herbaceous biennial flowering plant that smells like garlic when crushed. The plant produces heart-shaped basal rosettes (leaves) that appear in year one at ground level. In the second year, stems shootup to one foot to four feet (1' - 4') in height and develop flowers and seeds while the leaves become more toothed and triangular in shape. In early Spring, clusters of tiny, white, four-petaled flowers bloom before the overstory trees leaf out. The seed pods aree green, long, and narrow and look like stems, turning brown in the Fall. Garlic Mustard thrives in woodlands because it can tolerate deep shade.
Garlic Mustard has become an invasive that spreads quickly through woods outcompeting understory plants including tree saplings.
(Information from the State of Michigan.)
Garlic Mustard can be eradicated with a long-term management strategy that may include prescribed burning, manual and mechanical methods (mowing or hand pulling), and / or herbicides. The following guidelines utilize a management program to control *Phragmites* with the application of manual and mechanical methods.

- The manual method includes the removal of the plants by pulling the entire root mass with the leaves. Care should be taken to disturb the soil as little as possible since the disturbance can encourage seeds sprouting from the existing seed bank. Hand pulling of Garlic Mustad plants may be limited to year one plants. In conjunction with hand pulling, the management program can include the removal of just the flowers and seedheads. With this method it is important repeat the procedure multiple times during the growing season. The goal is to eliminate the individual plants while reducing the potential seed bank and minimizing soil disturbance and desirable plant damage or elimination.
- Another manual technique is cutting the stem at ground level with a weed whip or other cutting device. This method is best employed in the second year of plant growth especially during a period of drought when the plant is already stressed. The resulting vegetative debris should be entirely removed from the site and discarded in a manner that does not allow seeds to escape and colonize other areas. Care should be taken to clean all tools used thoroughly including clothing and footwear to minimize any accidental seed dispersion.
The successful elimination of Garlic Mustard is a process that will take several years and must be attempted with a sustained, long-term management approach.
(Information from the Natural Resources Conservation Service.)

LANDSCAPE PLAN FOR:
City of Birmingham
151 Martin Street
Post Office Box 3001
Birmingham, Michigan
48012-3001
(248) 530-1808

PROJECT LOCATION:
Birmingham Museum/
John West Hunter Park
556 West Maple Road
Birmingham, Michigan
48009
Ms. Leslie Pielack, Director
(248) 530 1928

LANDSCAPE PLAN BY:
Nagy Devlin Land Design
31736 West Chicago Ave.
Livonia, Michigan 48150
(734) 634 9208



J. Brian Devlin
AUTOCAD SIGNATURE
ORIGINAL IN BLUE

date: January 4, 2018
revised:
01-05-2018 Minor adjustments.



CLP - 2:
CONCEPTUAL
LANDSCAPE
MASTER PLAN
DETAILS

Appendix B

Comments from January 16, 2018 Museum Board Special Meeting/Joint Workshop with Parks and Recreation Board, Historic District Commission, and Public

(Heritage Zone): Parks and Recreation Board questions related to

1. Tree restoration and replacement; distinction of volunteer trees vs. intentional/original landscape design, transplanting procedure and costs, use of proposed elm cultivars

Historic District Commission questions related to

2. The impact of volunteer tree removal and replacement with smaller, younger trees
3. Handicap/barrier free access; current accessibility near museum for parking and access and proposed additional access at Willits Street

Public questions related to

4. Planned designated handicapped parking on Willits Street as part of existing street parking

(Transition Zone): Parks and Recreation Board questions related to

1. Construction details of proposed stairs and adjacent fieldstone walls

Historic District Commission questions related to

2. Lighting design opportunities
3. Benefits of using concrete for safety, cost, and historical accuracy

There were no public questions

(Riverine/Woodland Zone): Parks and Recreation Board questions related to

1. Locating a children's play area along the Rouge River

2. Clarification that the Rouge River Master Plan is conceptual only
3. Use of crushed limestone in the zone for barrier free access; barrier free paths from Willits to Maple
4. Proposed replacement of rotting timber steps with stone
5. Prevalence of invasive species and maintenance costs

There were no questions from the Historic District Commission or the public

(Pond Zone): Parks and Recreation Board questions related to

1. Historic use of pool for polio physical therapy by Jim Allen; no public use of pool will be permitted
2. Provisions for water flow in proposed pond and pool design
3. Possibility of future water garden in pond
4. Use of vegetative barriers to maintain safety at edge of pond and depth estimates
5. Proposed relocation of utilities underground
6. Uncertain nature of original pool divider; goal is to educate about the history and its association with disabilities and to emulate the original pool barrier edge, as complete restoration would be costly

Historic District Commission questions related to

1. Ability to lower water to expose concrete structures for study
2. Cost of reconstruction of pool's divider wall; possibilities of partial reconstruction as an educational approach
3. Cost and difficulty of dredging; permitting issues with Michigan Department of Environmental Quality (MDEQ)
1. Reconstruction of MDEQ-required wetlands is a small amount of square footage as an offset of spring seeps

There were no questions from the public

Appendix C

Comments from Parks and Recreation Board Master Plan Process, September and October, 2017

- A. October 3, 2017 Open House Recommendations (Parks-Rec Master Plan draft p. 134)
 - 1. *historical games/playground at museum (1 comment)*
 - 2. *outdoor museum area at museum (1 comment)*
- B. Public Engagement Resource Mapping (Parks-Rec Master Plan draft p. 137)
 - 3. no recommendations
- C. Survey Responses-Park Use (Parks-Rec Master Plan draft p. 155)
 - 4. 18 respondents of 441, or 4.4% (includes Allen/Hunter House facilities)
- D. Survey Comments-(Parks –Rec Master Plan draft p. 197)
 - 5. *#70- Partnering with the schools, library, BBAC, museum, NEXT, Community House, etc is vital.*
 - 6. *#74-The Museum Park has been forgotten. It should be developed as an outdoor historic museum including walking exhibits and a game/play area.*