

FEASIBILITY STUDY FOR LINKING THE YONKERS GREENWAY TO VAN CORTLANDT PARK AND THE 242 STREET MTA

MKM LANDSCAPE ARCHITECTURE PC
JULY 2022



GROUNDWORK HUDSON VALLEY
99 Dock Street
Yonkers, NY 10701



**Parks, Recreation
and Historic
Preservation**



MARK K. MORRISON LANDSCAPE ARCHITECTURE PC
271 NORTH AVENUE
NEW ROCHELLE NY 10801
212 . 629 . 9710
www.markkmorrison.com

FEASIBILITY STUDY - CONNECTING THE YONKERS GREENWAY TO VAN CORTLANDT PARK

TABLE OF CONTENTS

Introduction and Team	4-12
Project Timeline	12
Public Survey	13 - 19
Community Outreach Events	20 -22
MKM Site Determinations	23 - 26
BEC Site Determinations	27 -29
Joan Geismar PhD Archaeological Site Determinations	30 - 31
Bicycle Routes and Storage Study	32 - 38

ADDENDA

1. Schedule of work
2. Van Cortlandt Park Master Plan, NYC Parks, 2014
3. Forever Wild Guidelines, NYC Parks
4. NYC Tree Replacement Rules
5. NYC Strategic Trails Plan
6. MKM presentation to CB8 outlining Feasibility Study goals
7. Environmental Report for NW Forest - Bay Environmental Consulting
8. Trail Evaluation and Tree Inventory Report - Bay Environmental Consulting
9. Survey Flyer
10. Riverdale Main Streets Alliance
11. A-1 Archaeological Report - Joan Geismar

INTRODUCTION AND TEAM

This study is designed to address the feasibility and strategies for connecting the Yonkers Greenway to Van Cortlandt Park (VCP.) The study was produced by Mark K. Morrison Landscape Architecture PC (MKM.) The study was envisioned and authorized by Groundwork Hudson Valley (GWHV) with funding provided by New York State Office of Parks and Historic Preservation (NYSOPRHP.)

In late 2019, GWHV published a Request for Proposal (RFP) seeking an environmental and planning firm to assist in assessing the options for creating more connectivity between the termination point of the Yonkers Greenway in Southwest Yonkers, Van Cortlandt Park's Northwest Forest (NW Forest), and the local transit hub at Broadway and 242nd Street. The primary footpath in the NW Forest currently follows the path of the old Getty Square Spur of the Putnam Rail Trail. MKM was selected by GWHV in early 2020 to produce the study. Between 2008 and 2019, MKM was the prime consultant on development of the Putnam Greenway in VCP and has extensive knowledge of the park as well as experience interfacing with NYC Parks & communities surrounding VCP. In addition, MKM has an expertise in rail trail and greenway development over the course of the past 20 plus years. MKM has been active in the design realm in NYC five boroughs for over forty years, with extensive community outreach experience due to MKM's consistent emphasis on community-based and public design work.

Groundwork Hudson Valley's Project Manager for this feasibility study was Oded Holzinger, who serves as Climate Resilience Manager. As GWHV's Rivers and Trails project manager, Oded has greatly furthered the development of the Yonkers Greenway. Oded worked closely with MKM throughout the project; he attended site meetings and worked closely with MKM throughout the community outreach.

MKM reached out to Bay Environmental Consulting LLC (BEC), an environmental firm, to provide an impact assessment for the project. BEC is a multi-disciplinary environmental consulting firm located on Long Island, New York. BEC's team has a broad range of expertise in environmental science, planning, regulatory compliance, and permitting. The company has extensive experience with natural resource management and ecosystem resilience, wildlife management, wetland delineations, endangered species protection, ecological assessments, environmental sampling and reporting, environmental impact assessments, as well as environmental permitting and compliance. BEC has worked on numerous projects for the NYSOPRHP. BEC aided in identifying any environmentally sensitive plantings along the routes which were selected to

be the most prominent. BEC created a detailed topographic map of the Northwest Forest which was crucial in determining slope analysis and potential difficulties with trail connectivity. BEC helped to identify tree species which were located in areas where the trail may be too narrow or where connections may need to be made.

Joan H. Geismar, Ph.D., joined our team as an archaeological consultant. Joan has been a practicing urban archaeologist in the New York-metropolitan area since 1981. Dr. Geismar, who received her doctorate in Anthropology from Columbia University, has extensive experience in documenting the history of sites in the New York metropolitan area, assessing their archaeological potential, and implementing and carrying out fieldwork when necessary. Many of her projects have fulfilled the cultural resources requirement for environmental assessments and impact statements or permitting. Possible archaeological sensitivity is a factor in the selection and development of preferred routes in Van Cortlandt Park's Northwest Forest that could enhance linkage between Yonkers and the Bronx. The archaeological assessment entailed review of reports and documents that pertain to the park's known and potential archaeological sensitivity and history. While only minimal or no ground disturbance is anticipated, the archaeological assessment identifies any related concerns (such as nearby sensitivity) and offers historical information to incorporate into associated park signage.

VAN CORTLANDT PARK ALLIANCE & NYC PARKS

GWHV and MKM worked closely with Stephanie Ehrlich, the Executive Director of the Van Cortlandt Park Alliance and the Van Cortlandt Park Administrator. Andrew Penzi, Bronx Team Leader of the Capital Division, represented NYC Parks. Additional VCP Alliance and NYC Parks representatives attended the project kick-off meeting as well as other periodic meetings throughout 2021.

(See project time line, Addendum 1.)

NYC PARKS 2014 MASTER PLAN FOR VAN CORTLANDT PARK

MKM studied the NYC Parks Master plan for VCP, produced in 2014, as a primary reference document. (See Addendum 2, NYC Parks 2014 Master Plan.) Pertinent to this study in the 2014 Master Plan, NYC Parks recommends the following:

1. More connectivity with Yonkers. The study calls out the need for a celebrated entrance from Yonkers to the park. This has not been completed. (See Figures 1-4)
2. The study calls out for the need for more playgrounds in the NW Forest. This has been achieved; Northwest Playground, near Mosholu Avenue and just off Broadway, was constructed near the Riverdale Stables.

3. The study calls for bike routes; since 2014, the Putnam Greenway has been completed, and provides bike connectivity between Westchester County and Bronx County. In addition, a bike route along South Broadway connects the 242nd Street to Yonkers, and an extension is planned to continue north along Broadway into Yonkers.
4. The study mentions invasive vines, and the invasive Norway Maple species, as threats to the ecosystem. At the time of this study, invasives are winning the battle against the native ecosystem in the NW Forest.
5. The study calls for a perimeter circulation route around the entire park, which includes the NW Forest. MKM walked along the edges of the NW Forest to determine if this could be achieved; for the most part, topography impedes a faithful adherence to this recommendation without introducing ramps, bridges, and other site features which would require grading and tree removal. The NW Forest is a Forever Wild property, see following section. There are fairly steep slopes along the northwest perimeter of the NW Forest, both near the Riverdale Stables, and further north, near Caryl Avenue in Yonkers. However, MKM highlighted a secondary path slightly further inbound from Broadway that would provide the best possible perimeter route.
6. Pedestrian bridges: The 2014 Master Plan, in recognition of the difficulty of connecting sections of the park that have been bisected by highways, strongly encourages bridges. In the NW Forest, there could be a pedestrian bridge spanning two rail abutments which cross an extension of Mosholu Avenue, just east of Riverdale Stables. (See page 20) This feasibility study will address that possibility.

FOREVER WILD DESIGNATION

Within Van Cortlandt Park, more than 600 acres of woodland, including 200 acres within the NW Forest, are designated Forever Wild nature preserve. NYC Parks started the Forever Wild program in the 1970's as a response to broader national awareness of the value of protecting native ecosystems to sustain wildlife and native plant communities. NYC Parks in total manages 30,000 acres of land, and at this time, 12,800 acres are protected by the Forever Wild Program. In urban areas, even small forests and wild properties are highly beneficial by providing habitat for local fauna and valuable stopover habitat for migrating birds; flora and fauna diversity and health are supported by Forever Wild nature preserves.

NYC Parks guidelines for Forever Wild Properties are enforced for the NW Forest.

(See Addendum 3) Primarily these guidelines ban the creation of new path systems; encourage leaving the properties as undeveloped as possible, and therefore recommend that no new paths can be paved, except for NYC Parks service roads; discourage trail amendments such as lighting and emergency call stations; ban the removal of any trees larger than 6" caliper. (Addendum 4 - Tree guidelines)

NYC STRATEGIC TRAILS PLAN

NYC Parks recognizes that the path systems within the NW Forest are poorly marked, and that some of the paths are not named; NYC Parks is currently in the process of addressing this through the NYC Strategic Trails Plan (see Addendum 5, NYC Strategic Trails Plan.) NYC Parks recognizes that directional maps throughout the NW Forest will guide pedestrians, discourage desire lines, and promote safety.

GOAL AND RESULTS OF FEASIBILITY STUDY

The findings set forth in this feasibility study will act as a suggested road map for future design work which may be done to enhance connectivity between the Northwest Forest and the surrounding neighborhoods, as well as any trail enhancements within the NW Forest. The study will cover the following:

1. Community use, attitudes and sentiments, and concerns;
2. Current access points to the NW Forest from Yonkers, condition and potential for enhancement (Figures 1-4);
3. Possibility of linkages between existing trails within the NW Forest;
4. Whether and where universal accessibility is an option, and if so, to what degree;
5. Feasibility of implementation of all aspects of the NYC Parks Master Plan as it pertains to the NW Forest.

HISTORY AND BACKGROUND OF YONKERS GREENWAY

Since 2012, GWHV has championed the development of the Yonkers Greenway in partnership with the City of Yonkers, New York State Parks, the South Broadway Business Improvement District, and hundreds of neighborhood residents along its route. The Greenway follows the abandoned path of the Yonkers Branch of the Putnam Railroad that stopped running over 70 years ago. The project's long-term goal is to connect the Hudson River waterfront in downtown Yonkers to Van Cortlandt Park and New York City via a multiple-use path. The new trail will link playgrounds, urban habitats, public art, interpretive signs and will provide opportunities to walk, run, and bike.

CARYL AVENUE YONKERS ENTRANCE TO VCP NW FOREST



Figure 1: View looking south, at Caryl Avenue entrance



Figure 2: View looking north, at Caryl Avenue entrance

VAN CORTLANDT PARK AVE. YONKERS ENTRANCE TO VCP NW FOREST



Figure 3: View looking south, at Van Cortlandt Park Ave.

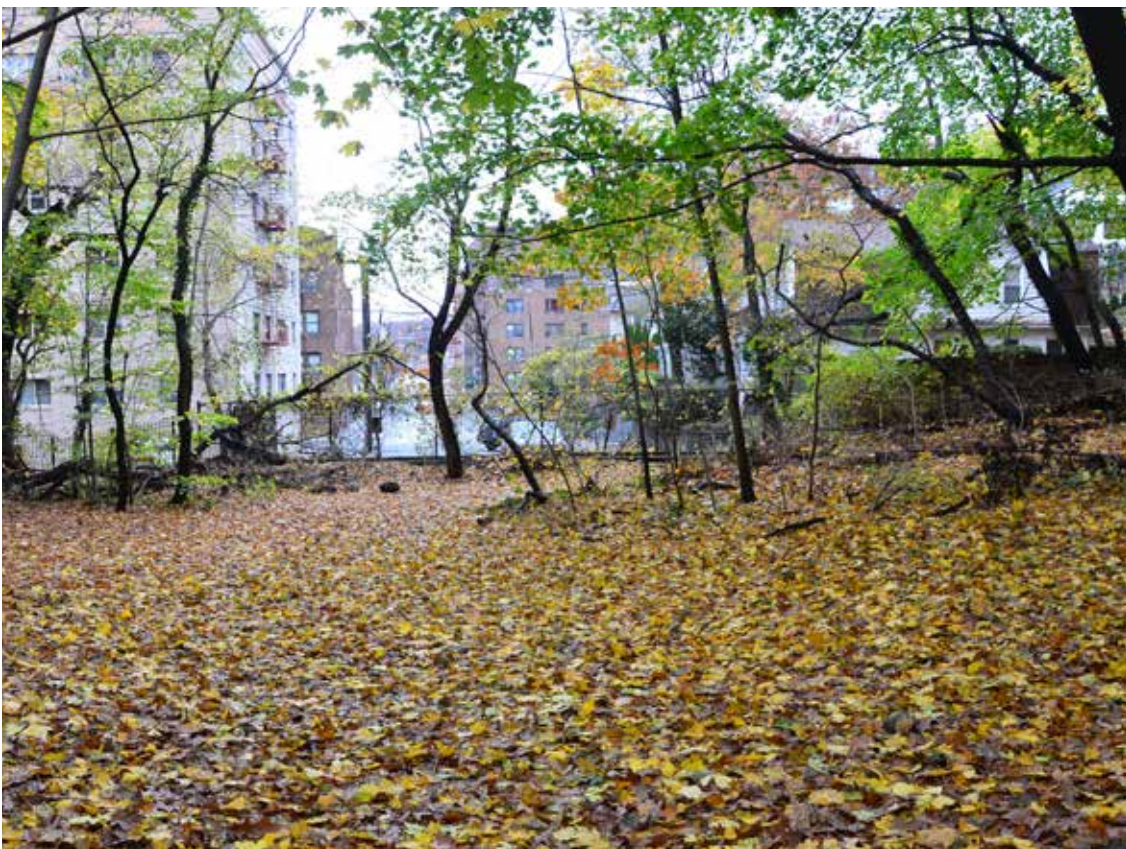


Figure 4: View looking north, at Van Cortlandt Park Ave.

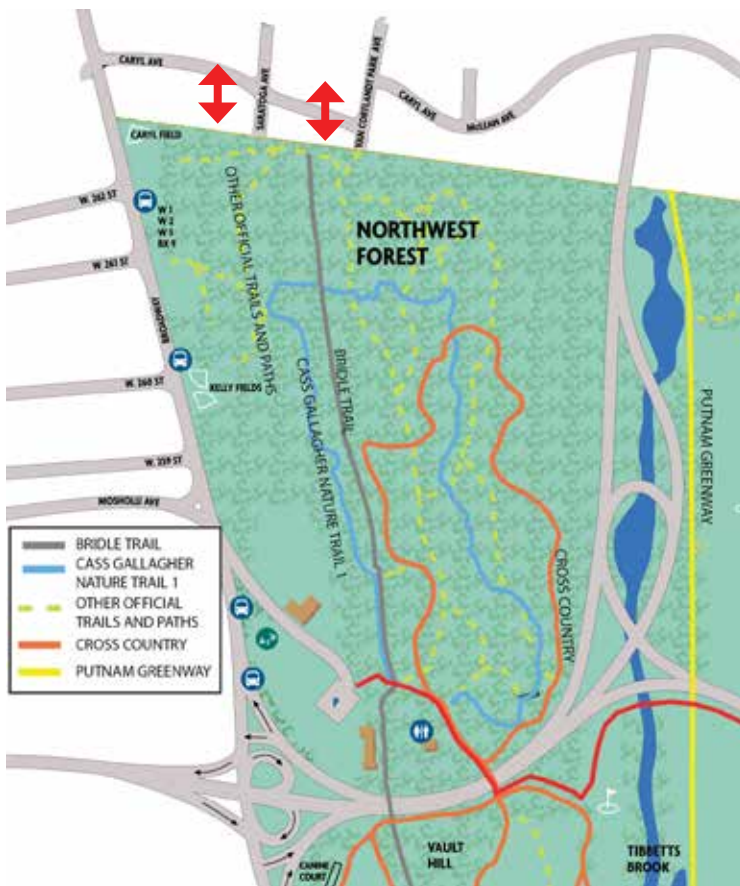


Figure 5: Current official NYC Parks map of the NW Forest showing trails and indicating current pedestrian openings between Southwest Yonkers and the NW Forest - one at Caryl Avenue and Saratoga Ave. and one at the south end of Van Cortlandt Park Avenue.

In Yonkers, the path of the former rail line traverses some of the most disadvantaged neighborhoods in the region, including communities with significant public health issues that greatly need better and more accessible green space.

Groundwork Hudson Valley has been working for years to bring the Yonkers Greenway to life. As part of their vision to connect Westchester County and New York City, GWHV funded this study to investigate the path of the commuter line that once crossed into Southwest Yonkers from Van Cortlandt Park. The neighborhoods featured in this study include Southwest Yonkers and North Riverdale.

GWHV has a strong conviction that the interface between Yonkers and Van Cortlandt Park serves as a gateway, and is essential to the overall success of the project and its continuity. There are two entry points to VCP NW Forest from Southwest Yonkers, one at Caryl Avenue, near the intersection of Caryl and Saratoga (Figures 1 & 2), and one at Van Cortlandt Park Avenue. (Figures 3 & 4 & 5.) For the purposes of providing access to the park, these entry points are currently difficult to see and use. As a part of this study, the team visited both entry points on

numerous occasions to ascertain visibility from the street toward the park; and once in the park, visibility toward path system; ease of use and safety from a pedestrian standpoint; and any outstanding issues, such as trip hazards and garbage, that may impede or imperil pedestrian use.

There are two entry points to VCP NW Forest from Southwest Yonkers. One entry, at the intersection of Caryl Avenue and Saratoga Avenue (Figures 1 & 2), terminates at the park just south of Caryl Avenue. The entry is by way of a steep and narrow alley between two buildings. At the foot of Saratoga, two wide doors on the wall of a building provide access and egress to an indoor parking garage, causing pedestrian and vehicular conflicts. The entry point, a break in the chain link fence is quite narrow, approximately 36 inches wide, to prevent people from dumping refuse in the park and / or bringing in ATVs. Directly inside the opening to the NW forest, understory is overgrown, and path systems are confusing to decipher. This area is subject to dumping, since it is possible to toss large unwieldy items from the windows of a row of apartment buildings edging the northern boundary of VCP NW Forest.

THE NW FOREST OF VAN CORTLANDT PARK IS A FOREVER WILD PROPERTY

- Forever Wild Properties expand public awareness of ecosystems
- Encourage public stewardship of undeveloped lands
- Provide habitats for urban flora and fauna
- Are accessible by public transportation
- No biking or motorized vehicles are allowed
- Citywide program includes 8,700 acres
- The NW Forest of Van Cortlandt Park includes 200 acres of Forever Wild property



Figure 6: Forever Wild map of Van Cortlandt Park

The second entry point is at Van Cortlandt Park Avenue. It is a narrow gap on the eastern side of a length of chain link fence. (Figures 3 & 4) This entrance gap in the fence is the one most used by Yonkers residents. (See Survey, Question 5, Figure 13.) As is true of the other entry point, this extremely narrow entry gap is designed to prevent the dumping of refuse in the park, and to keep out any small vehicles such as ATVs. This entrance is slightly visible in the winter and early spring, before the chain link fence along the municipal border is overgrown with vines; in summer it is hard to see that there is an entrance to the park at this spot. Many Yonkers residents were unclear whether this was an entry, whether it was a sanctioned entry, and whether they should use it. The path into the park is steep and rocky, certainly difficult for people who are older and less firm-footed. It is absolutely not universally accessible.

PROJECT TIMELINE

October 2020: Project awarded to MKM Landscape Architecture PC

November 2020: MKM has initial field visits

December 2020: MKM field visit with GWHV & VCP Alliance

January 2021: MKM field visit with GWHV, VCP Alliance, and NYC Parks

February 2021: BEC performs initial site visit, creates topographic model and path plan

March 2021: MKM provides initial analysis, BEC completes environmental report

May, June, July 2021: MKM makes multiple site visits. MKM outreach within park.

June 2021: MKM walks site with Archaeologist, Joan Geismar

September 2021: CB8 Community Outreach meeting

October 2021: Southwest Yonkers Community Outreach

November 2021- January 2022: MKM compiles feasibility study

See Addendum 1, Project Timeline

PUBLIC SURVEY

MKM Landscape Architecture PC developed a survey designed to determine how the communities adjacent to Van Cortlandt Park's Northwest Forest feel about a variety of issues, whether local residents use the park, and if so, how they use it. In total (including English and Spanish surveys) 296 residents completed all the questions.

Key factors that MKM hoped to answer in the survey were:

1. Where people walk in the park, including where they enter and where they exit;
2. Why people use the park -- recreation, or as pedestrian connector;
3. Safety: do park users feel safe or unsafe in the park, and if not safe, why;
4. Wayfinding and path systems - are park users clear about where they are in the park.
5. Any other issues or comments.

The survey was constructed in Typeform and consisted of thirteen questions. These questions were sent to Stephanie Ehrlich (Director of the Van Cortlandt Park Alliance, to Oded Holzinger (GWHV) and to Bob Bender, the Parks and Recreation Committee Chair from Community Board 8. Both provided MKM with comments and suggestions for modifications to some of the questions prior to publishing the survey.

Subsequently, the survey link was posted on the Groundwork Hudson Valley's website, on CB8 website, on VCP Alliance's website, and on MKM Landscape Architecture's website. As soon as the survey went live on the websites, survey users mentioned that several of the questions were flawed by not allowing respondents to select "not applicable" for two questions which then prevented them from advancing to the next question. MKM immediately altered those questions to allow for a "not applicable" response.

MKM created 20 laminated copies, and 50 paper copies of the survey leaflet. (Figure 8) Laminated copies were posted at the locations shown on page 14 (Figure 7) and paper flyers were distributed at restaurants along Broadway between 242nd Street in the Bronx and Radford Street in Yonkers; were left on car windows near the Riverdale Stables; were handed directly to any park users encountered by MKM on pathways within the Northwest Forest; and were securely posted to the entry point to Riverdale Stables and the comfort station in VCP near Riverdale Stables.

Responses from both English and Spanish surveys were added together and tabulated into the graphs on the following pages. (Figures 9 - 21)

PHYSICAL PLACEMENT OF LAMINATED SURVEY COPIES AND DISTRIBUTION OF PAPER COPIES:

1. Heafy Park, Yonkers
2. Clemens Park, Yonkers
3. Fay Park, Yonkers
4. Playground at Caryl Avenue, Yonkers, near parking lot at Yonkers Greenway origin
5. Caryl Avenue, near Elinor Place
4. Loehr Houses, Yonkers
5. Cary Field, VCP, Bronx
6. Kelly Fields, Bronx
7. Riverdale Stables, VCP, Bronx (2)
- 8 Northwest Playground, VCP, Bronx
9. Parade Grounds, VCP, Bronx (2)
10. 242 Street Subway, (3)

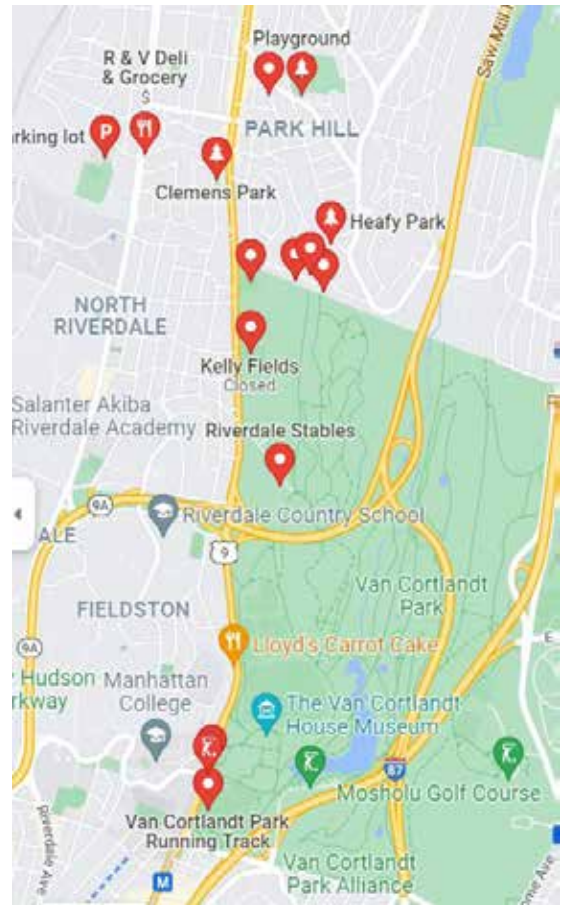


Figure 7

In addition, 50 paper copies were distributed to pedestrians in the park, placed on cars in parking areas, tacked onto boards in numerous restaurants along Broadway, at the comfort station near the Riverdale Stables in VCP, and in bodegas and grocery stores in Southwest Yonkers. (Survey leaflet, Figure 8)

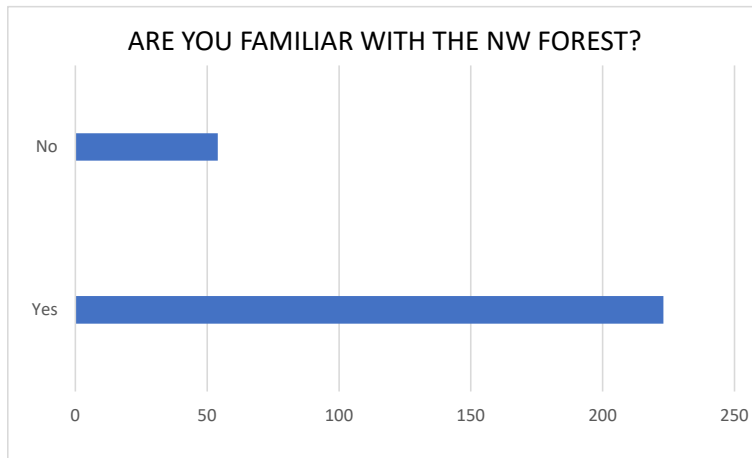
Connecting the Yonkers Greenway to Van Cortlandt Park



Figure 8

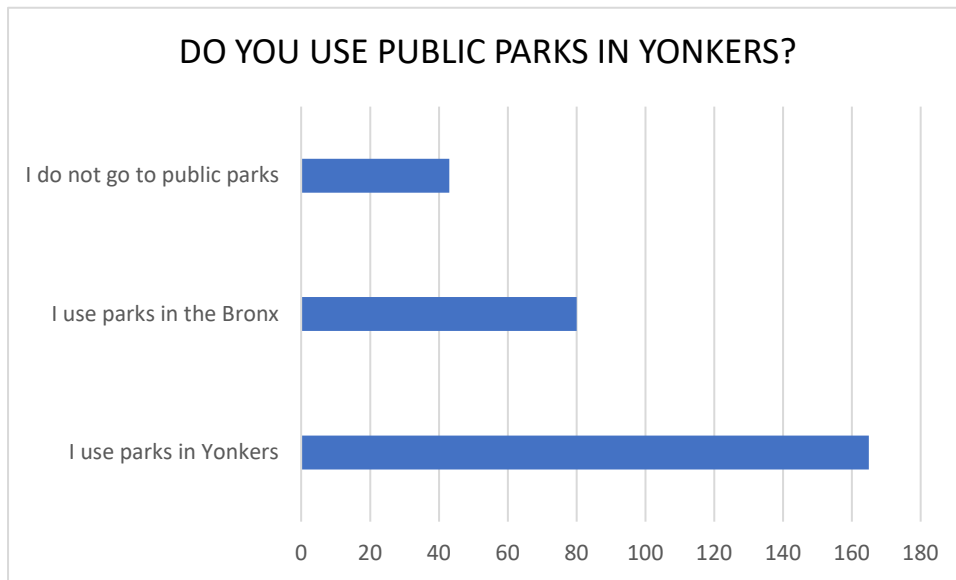
QUESTION 1

Figure 9



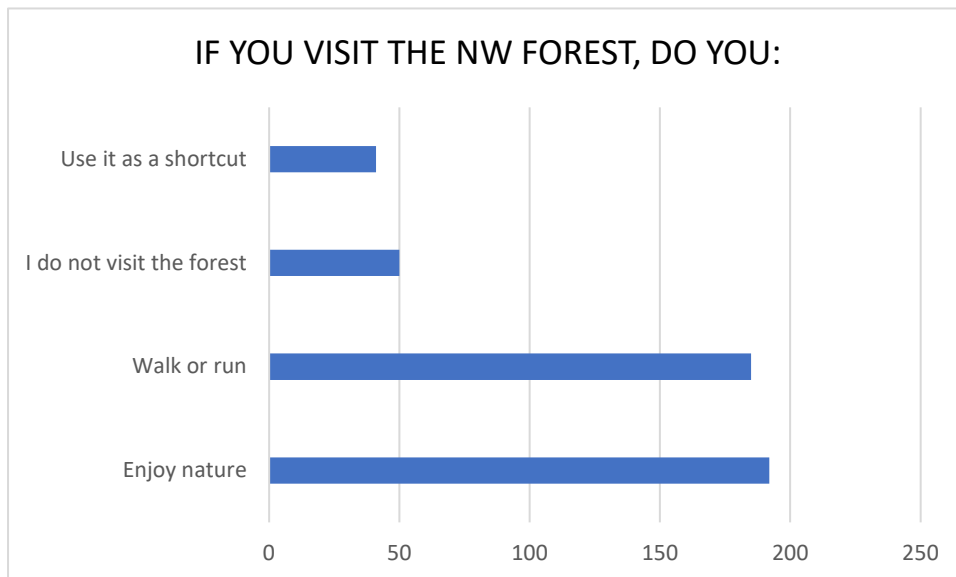
QUESTION 2

Figure 10



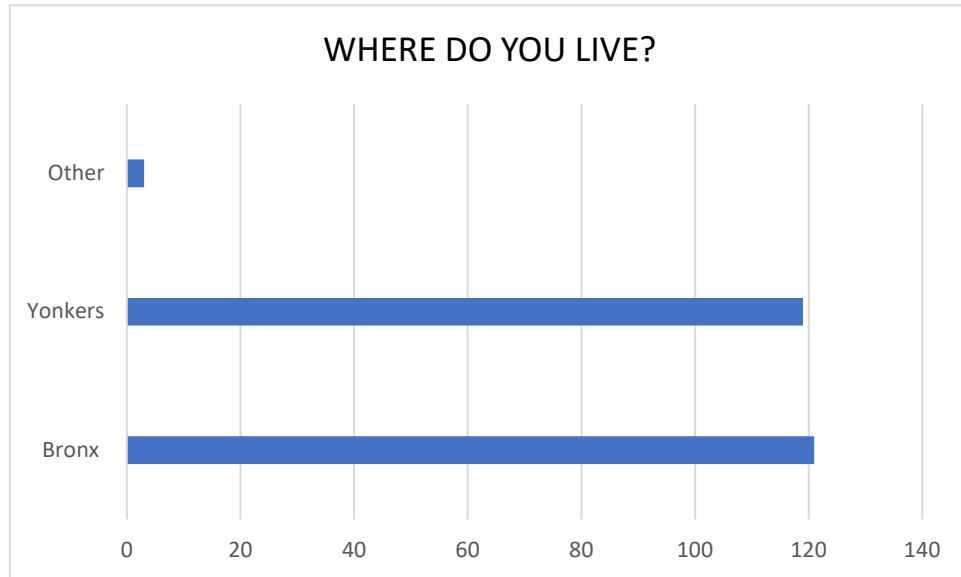
QUESTION 3

Figure 11



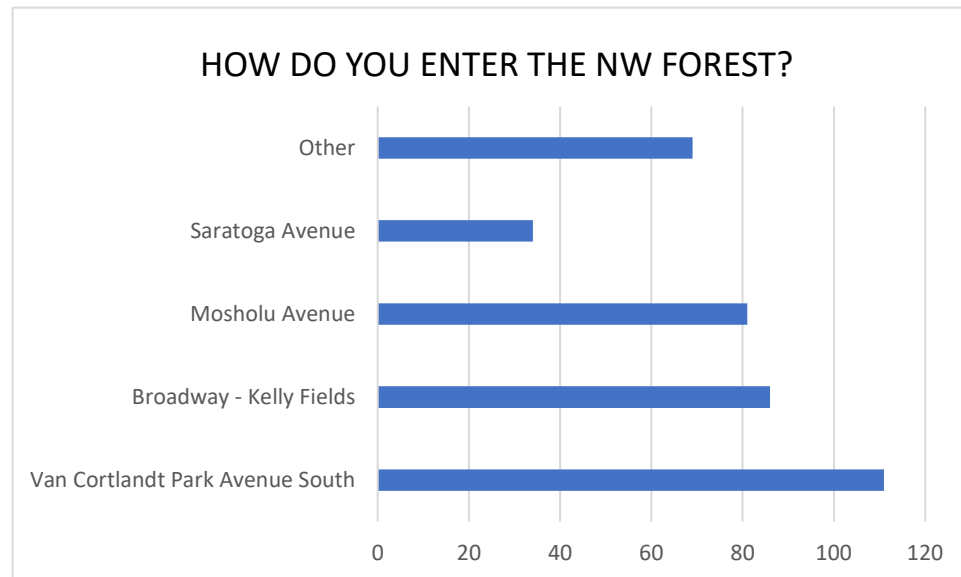
QUESTION 4

Figure 12



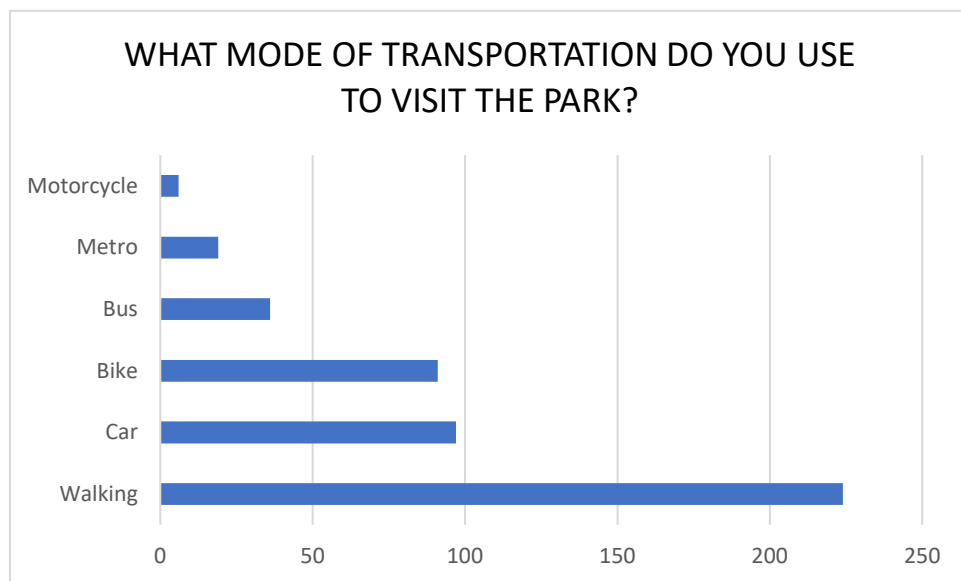
QUESTION 5

Figure 13



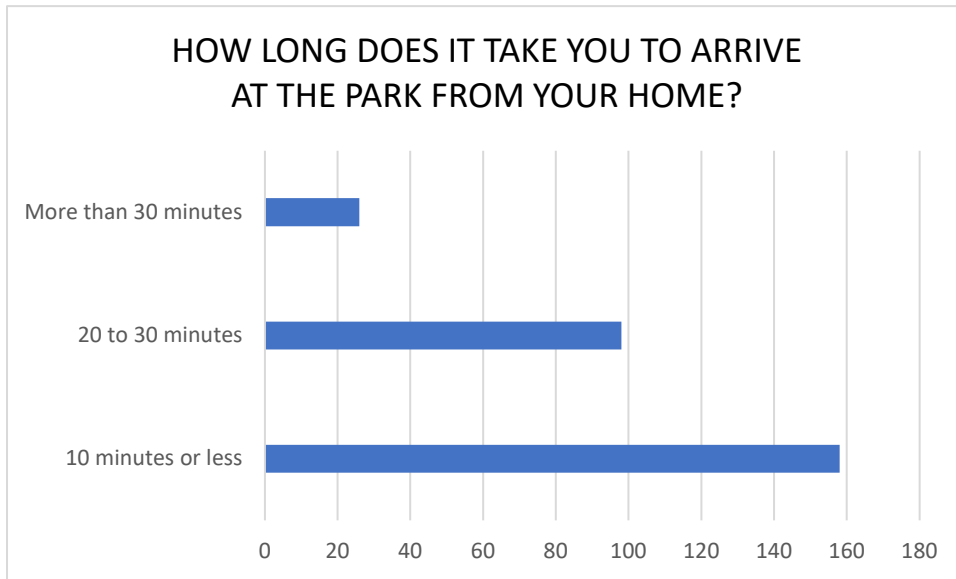
QUESTION 6

Figure 14



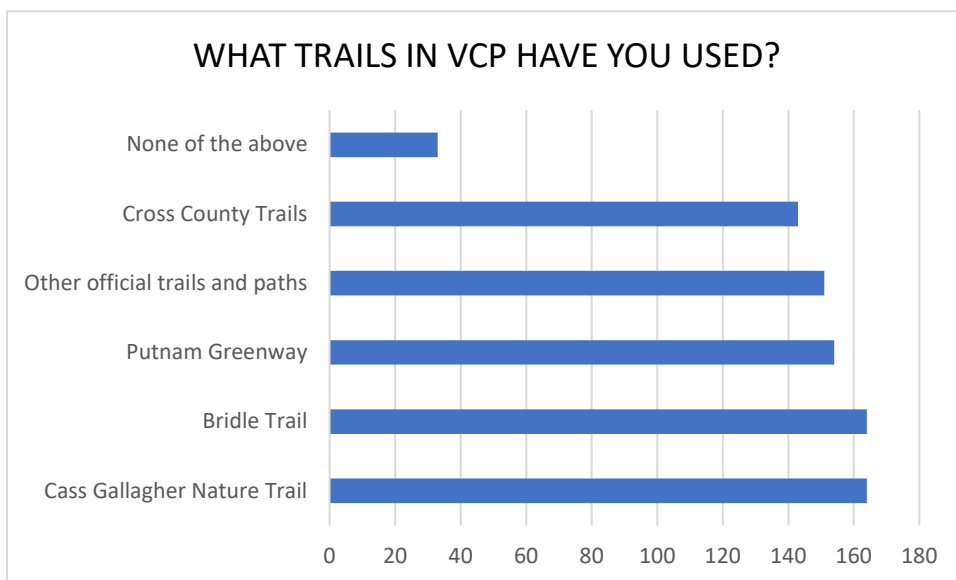
QUESTION 7

Figure 15



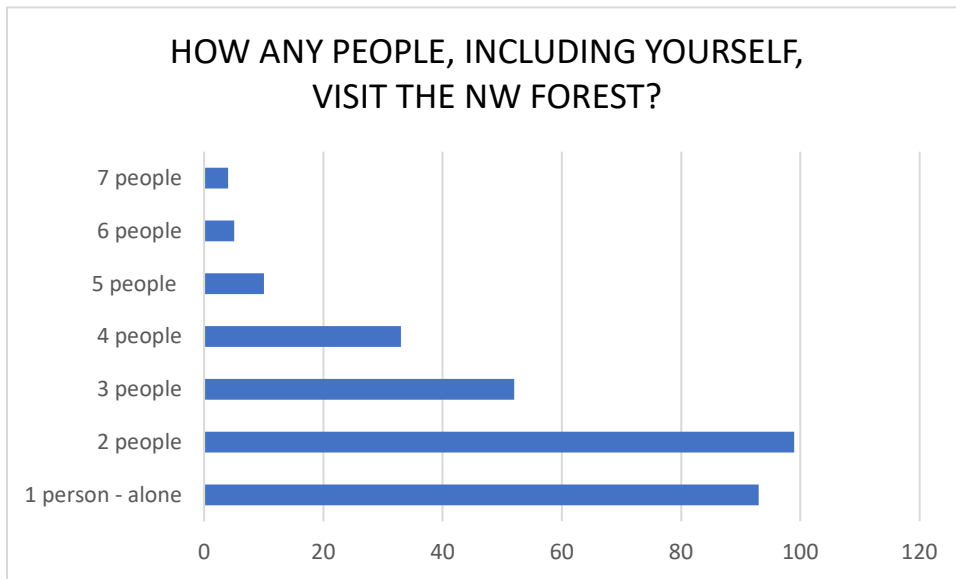
QUESTION 8

Figure 16



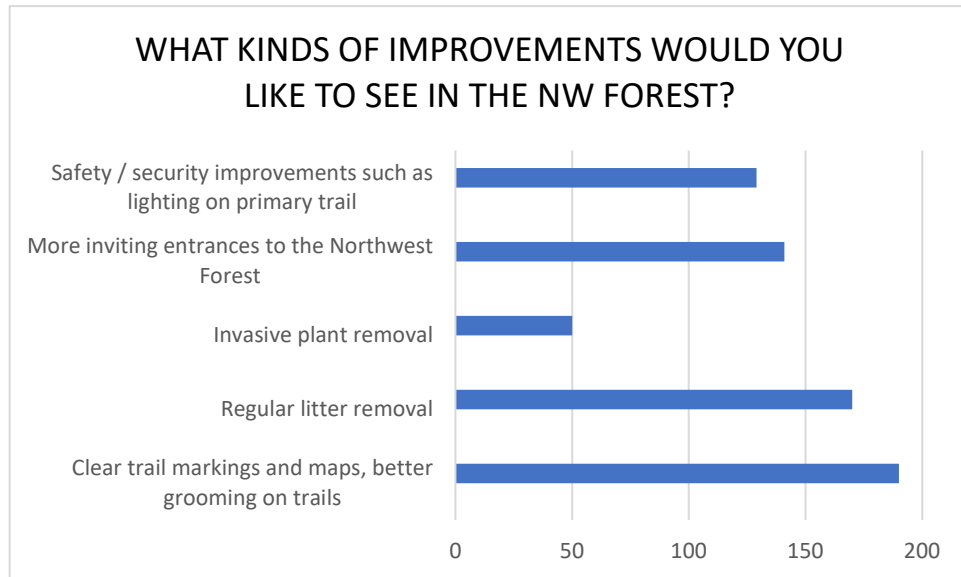
QUESTION 9

Figure 17



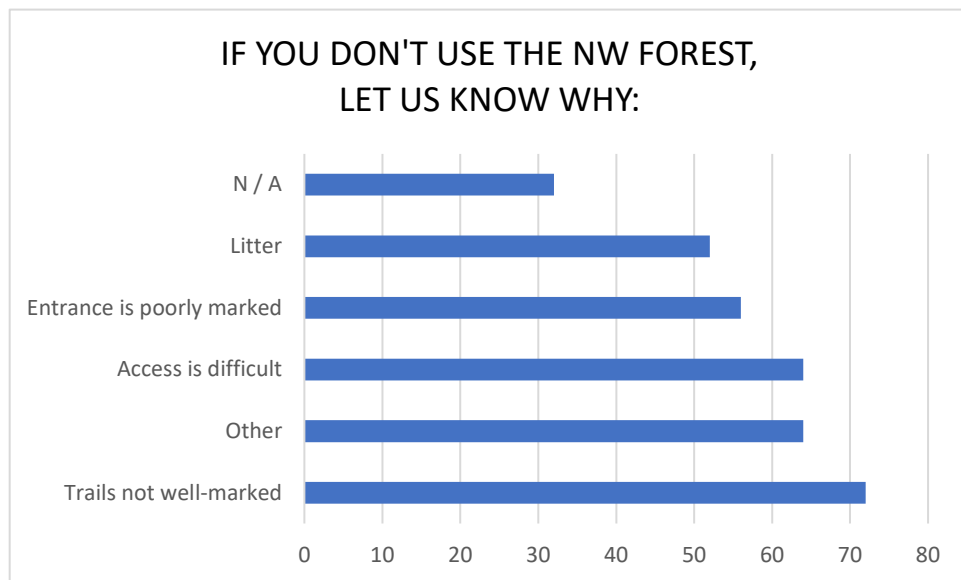
QUESTION 10

Figure 18



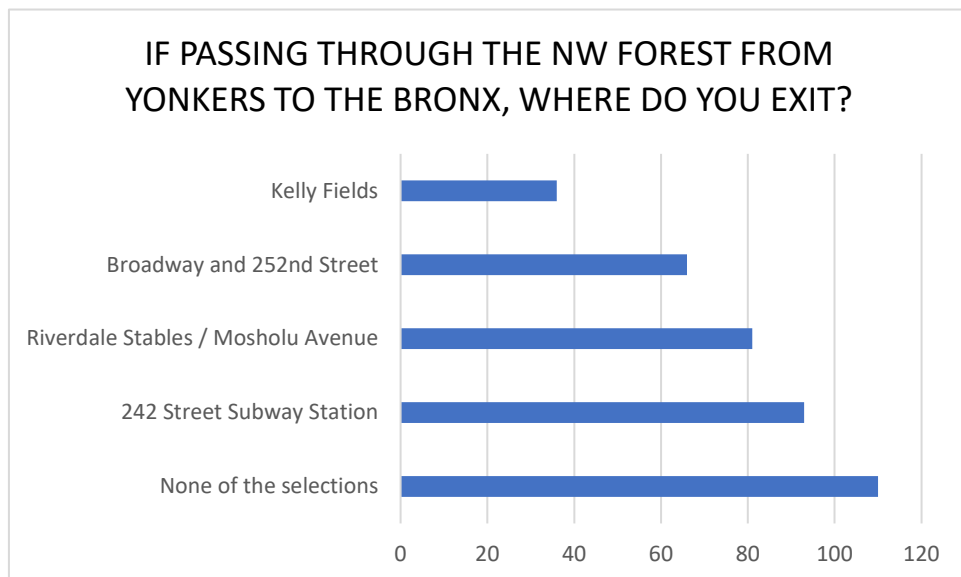
QUESTION 11

Figure 19



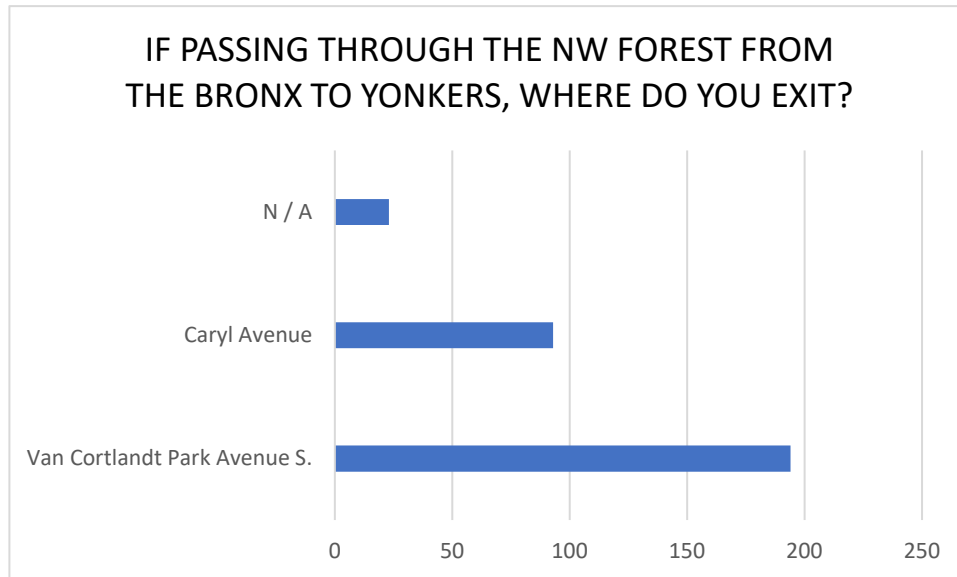
QUESTION 12

Figure 20



QUESTION 13

Figure 21



COMMUNITY OUTREACH

COMMUNITY BOARD 8, BRONX - Community Outreach

In addition to the survey, MKM Landscape Architecture and GWHV made a presentation to Bronx Community Board 8 (CB8) to listen to and respond to concerns about the feasibility from Bronx residents. The team made a presentation by Zoom to the Bronx community members on Thursday, September 30. The meeting was chaired by Bob Bender of the CB8 Parks and Recreation Committee.

There were approximately 12 attendees. Several felt that any additional pedestrians in the Northwest Forest could threaten the wildlife and plant life. Most felt that the NW Forest is a precious resource and habitat above all should be protected. None felt that lighting should be installed in the NW Forest. GWHV representative Oded Holzinger stated that the feasibility study would not recommend more lighting within the NW Forest. (Lighting is not allowed in Forever Wild properties.)

Several attendees to the CB8 meeting stated that they are not in favor of allowing a more functional gateway between Yonkers and the Bronx. Several attendees expressed concerns about ATVs on pathways in the NW Forest.

MKM and GWHV both reassured the attendees that the result of this feasibility would be to inform any future design efforts, and that there are no immediate plans to make any changes to the NW Forest.

(Addendum 6, MKM Presentation)

(Addendum 7, CB8 Meeting Minutes)

COMMUNITY OUTREACH IN SOUTHWEST YONKERS

On October 23, 2021, MKM and GWHV held a community outreach event on Van Cortlandt Park Avenue, at the intersection of Caryl Avenue. The event took place between 11 am and 3pm. Paper flyers announcing the event were taped at intersections throughout the neighborhood of Southwest Yonkers, and the outreach event was also announced on the website of GWHV, the VCP Alliance, and MKM Landscape Architecture PC. Having obtained a permit from the Yonkers Department of Parks and Recreation, MKM and GWHV set up tables, a banner, and a portable kiosk on the street. Residents who approached the booth were encouraged to take the survey, either in Spanish or English. MKM produced posters showing maps of the park trails,

aspects of the park, and asking residents to select a precedent typology for a gateway to the park. Survey results from online users and responses collected at the event are added together in the results, (Figures 9 - 21)

Most residents of SW Yonkers knew of the VCP, and many walk there. Most stated that safety was a concern, and that a more open gateway would make them feel safer. Residents living close by strongly advocated for a gateway so that illicit and illegal behavior and practices could not take place behind the overgrown fence. Most residents of SW Yonkers complained about the illegal dumping that takes place.



Figure 21



Figure 22



Figure 23



Figure 24



Figure 25

Figures 21-25: Community outreach event held in Southwest Yonkers on October 23, 2021. Figure 21 shows the Green Team, a youth group who participated in the outreach on behalf of GWHV. They walked surrounding streets speaking to residents and posted flyers throughout the community. Figure 25 shows the three preferred precedent images which demonstrate varying approaches to keeping ATVs from entering the park, should a gateway be built. Most community participants selected traditional and formal entrances in keeping with NYC Parks standards.

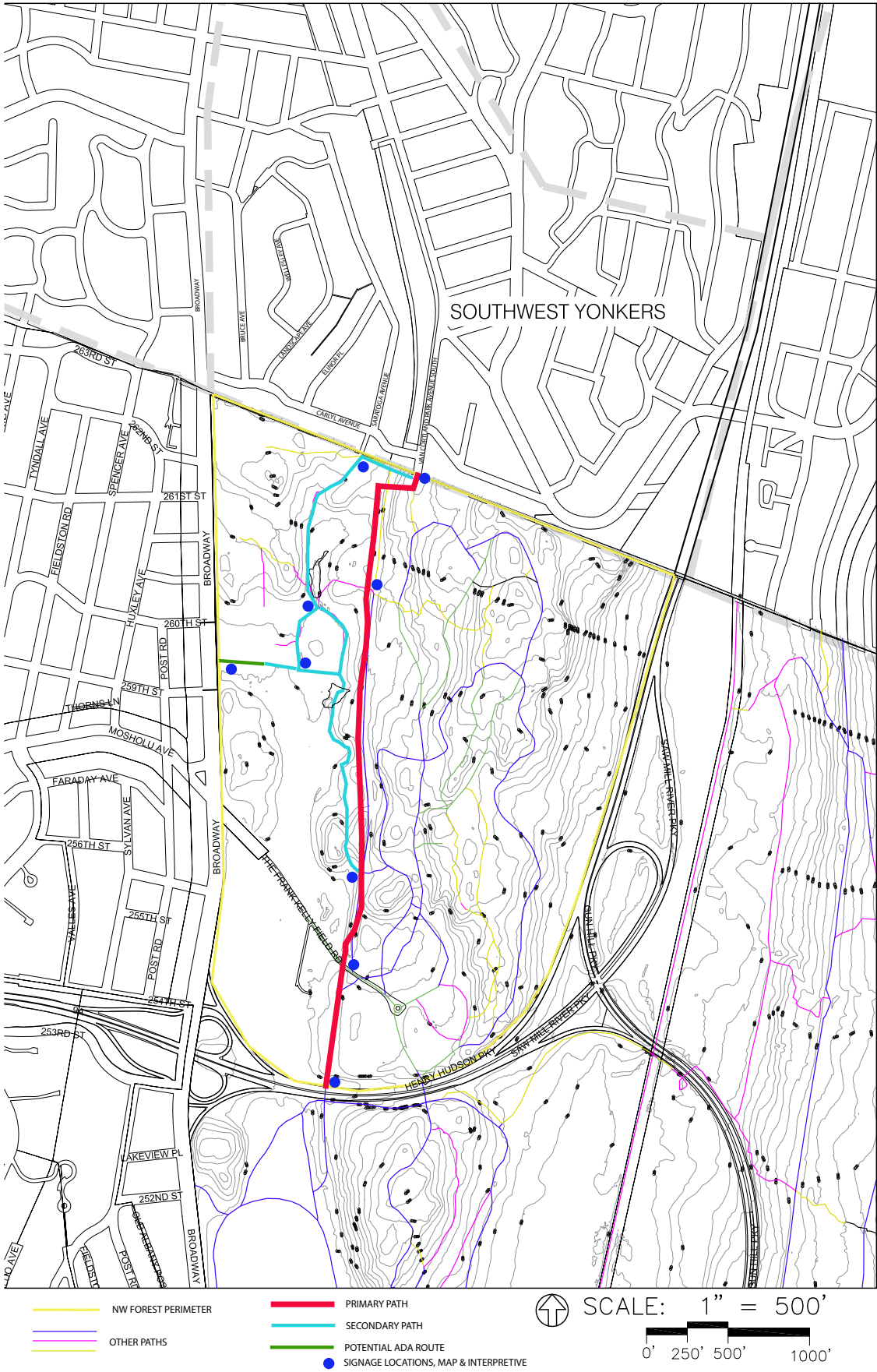


Figure 26

MKM and GWHV DETERMINATIONS OF SITE INVESTIGATIONS

After canvassing the community with outreach, analyzing survey data points, and visiting the site on multiple occasions, MKM determined the following:

1. A primary route connecting Yonkers and VCP amenities should be on the Bridle Trail, and this should be indicated with signage and trail maps. This path offers a gentle slope, the closest route possible to universal accessibility, and is wide and well-traveled. This route would not require paving, it is already worn hard by foot traffic. (See Figure 26, path shown in red)
2. A secondary route, (indicated in Figure 26 in Cyan), The Cass Gallagher Trail, is a winding footpath which connects residents of Yonkers to Kelly Fields, to the 252nd Street bus stop, and also ultimately to Riverdale Stable after linking with the Bridle Trail. This route is often used to get to Broadway by way of the NW Forest. We recommend adding trail markers and signage to indicate to residents where they are and how far they are from exiting the NW Forest. NYC Parks condones this approach. (See Addendum 5, NYC Strategic Trails Plan) Trail markers and maps would discourage park users from straying off the path, which often creates alternative, unofficial pathways (called "desire lines") and damages the ecosystem.
3. A third trail, a small spur shown on plan in Figure 26 as a green line between the secondary path and Broadway, could provide an ADA compliant entry point into the NW Forest. With community input, NYC Parks would need to approve the installation of an asphalt path that skirts the forest edge south of Kelly Field. A small seating area just inside the NW forest would provide a peaceful and comfortable spot for residents with limited mobility to enjoy the forest.
4. Community residents within Yonkers, and some within the Bronx, are supportive of an expanded gateway between Yonkers and VCP NW Forest. (See figures 18, 19, and 21.) Most residents voiced preference for a traditional NYC Parks entry. (See figure 24.) One of the preferred selections showed bollards which could be integrated into the gateway to keep ATVs from entering the NW Forest. The entry of ATVs into the park is a universal concern shared by community residents of both Yonkers and the Bronx. Most residents voiced opinions about safety and visibility, and stated that an expanded and open gateway to the NW Forest from Yonkers would reduce crime and dumping. Some residents are concerned about an improved gateway encouraging bicycles in the NW Forest. We recommend that a gateway could be designed to encourage pedestrian access and to discourage cyclists from entering the park where they

are not allowed. Such design features would include bike parking, narrower access points, improved signage, and ongoing enforcement by NYC Parks.

There are only two potential entry points between Yonkers and the NW Forest, and the most feasible of these two is the south end of Van Cortlandt Park Avenue, for the following reasons:

- There could be accessible parking at the end of the avenue.
- There could be a seating area directly inside the park for those who have mobility issues and it would be possible to ramp up from the street to a seating area just inside the NW Forest.
- The entry would be visible from distances along VCP Avenue and from within VCP NW Forest.
- It is possible to provide connectivity between this entry point at VCP Avenue and the primary path, the Bridle Trail. Initially NYC Parks could provide simple granite steps set into the hill. Ultimately, should the agency be committed, it is possible to provide a ramp from the entry point to the Bridle Trail. (See Addendum 8, Trail Evaluation and Tree Report, section 2.3) If NYC Parks is interested in this, MKM recommends removing all trees in potential ramp area at this time to reduce the cost of possible future restitutions. Currently the entry point at VCP Avenue is approximately forty feet higher than the Bridle Trail.
- Increased signage, with mapping of locations, has been recommended both by NYC Parks (in their 2014 Master Plan for VCP and also in their NYC Strategic Trails Plan (see Addendum 5, NYC Strategic Trails Plan.) See Figure 26, showing MKM recommended locations for mapping and signage as blue dots.

5. In the 2014 NYC Parks Master Plan for Van Cortlandt Park, one of the primary goals overall is connectivity between disconnected path systems, and one manner of connecting these systems set forth in the Master Plan is with bridges. This study promotes the goal of continuing the primary route, the Bridle Trail, into the Parade Ground area by spanning Mosholu Avenue (which runs next to Riverdale Stables.) A small pedestrian bridge could be seated on two existing bridge abutments. Currently the trail wends downhill from the existing rail bed (Bridle Trail) and then uphill again on the south side of Mosholu Avenue (also called Rockwood Drive.) This study promotes maintaining current pedestrian access to the rail bed from Mosholu Avenue by these paths, and promotes extending it in length to achieve ADA access on the north side of the road. The existing path is 10.5% slope and is 95 feet long. The rail bed is 10 feet higher than the road at the abutments. The feasibility of such a bridge is discussed in more detail in the environmental report.



Figure 27 - existing abandoned rail abutments along Mosholu Avenue extension, Rockwood Drive, near Riverdale Stables.

Due to the necessity of paying reparations for removal of trees over 6" DBH (diameter at breast height) this report notes that there are currently six such trees. (See Addendum 8, Trail Evaluation and Tree Report, section 2.3, see Map 1) If NYC Parks is interested in the potentiality of a pedestrian bridge, MKM recommends removing all trees less than 6" DBH on the rail bed near the abutments at this time to reduce the cost of possible future restitutions.

BEC SITE DETERMINATIONS

Greenway Planning from Van Cortlandt Park to Yonkers Trail Evaluation and Tree Inventory Executive Summary

Bay Environmental Consulting (BEC) assessed key areas in Fall 2021 to evaluate the feasibility for new trails from an environmental perspective. An aspect of this phase of the project was a tree inventory to estimate the number of trees that may need to be removed due to project actions, and to evaluate if there is potential to adjust plans to save trees. BEC also assessed other environmental factors, such as habitat type, trail width, existing trail condition, and elevation change in relation to the proposed trails, and provided recommendations to reduce environmental impacts. The purpose of BEC's effort was to help ensure that major project goals related to environmental conditions are achieved. Key findings from this assessment are summarized here and detailed in the Trail Evaluation and Tree Inventory report.

Bridle Trail and Pedestrian Bridge

There are no major issues on the existing bridle trail. However, in the area where a pedestrian bridge is proposed near the former railroad bridge, it would likely require the removal of two trees on the northern side and five on the southern side. It was determined that if the path was allowed to curve, it may be feasible to prevent tree removal in the northern section. There did not appear to be a clear alternative route to minimize the amount of tree loss in the southern section, but most of the trees in the southern section were in poor condition. No other major issues were found on the bridle trail. (See Figure 29, showing the northernmost bridge abutment along Rockwood Drive.)

Entryway to Trail Connection and Entrance Ramp

BEC examined the potential gateway location near Van Cortlandt Park Avenue and characterized trees in this area. This is a relatively cleared area and it appears that there is only one tree within the proposed trail that would need to be removed. Depending on the entryway design, it may be possible to save this tree. The secondary entrance to the west of Van Cortlandt Park Avenue was also assessed and it did not appear that any trees would need to be removed if this was the selected location for the entryway. (See Figure 30) An area which may be required for an entrance ramp was surveyed for trees to determine approximately how many trees would need to be removed for this ramp. BEC identified nine trees which may need to be removed. If the ramp could be designed to meander, it is possible to minimize the amount of tree loss specifically for the larger, native trees. (See Figure 31)

Cyan Trail

BEC evaluated the proposed cyan trail (Cass Gallagher Trail) as a potential primary pathway to determine if there is enough area to achieve a width of four feet and assessed general concerns regarding accessibility and environmental issues. Most of the cyan trail was found to provide for a minimum of a four-foot-wide path. Seven trees were identified to be within or along the proposed trail which limited the trail's width below four feet. In some instances, it appears that the trail could potentially be re-routed around the trees to eliminate tree removal, but there are other areas where rerouting options are greatly limited due to environmental conditions. There are other features such as roots, rock outcroppings, and muddy areas that make the path difficult for some users. In the south there is an area with significant grade changes, however BEC identified an alternative connection point to the bridle trail that avoids much of these steep grade changes. Lastly, BEC identified a potential small loop trail that is highly accessible from the Kelly Fields access path of the cyan trail. Another consideration is that the proposed cyan trail passes close to wetlands, a sensitive habitat, so efforts to minimize disturbance to this habitat should be made. (See Figure 28) BEC determination is to preserve the cyan trail as a secondary pathway and nature trail, without recommending alterations, and to add additional signage and trail markers to help park users orient themselves as they pass through the Northwest Forest on the Cass Gallagher Trail.

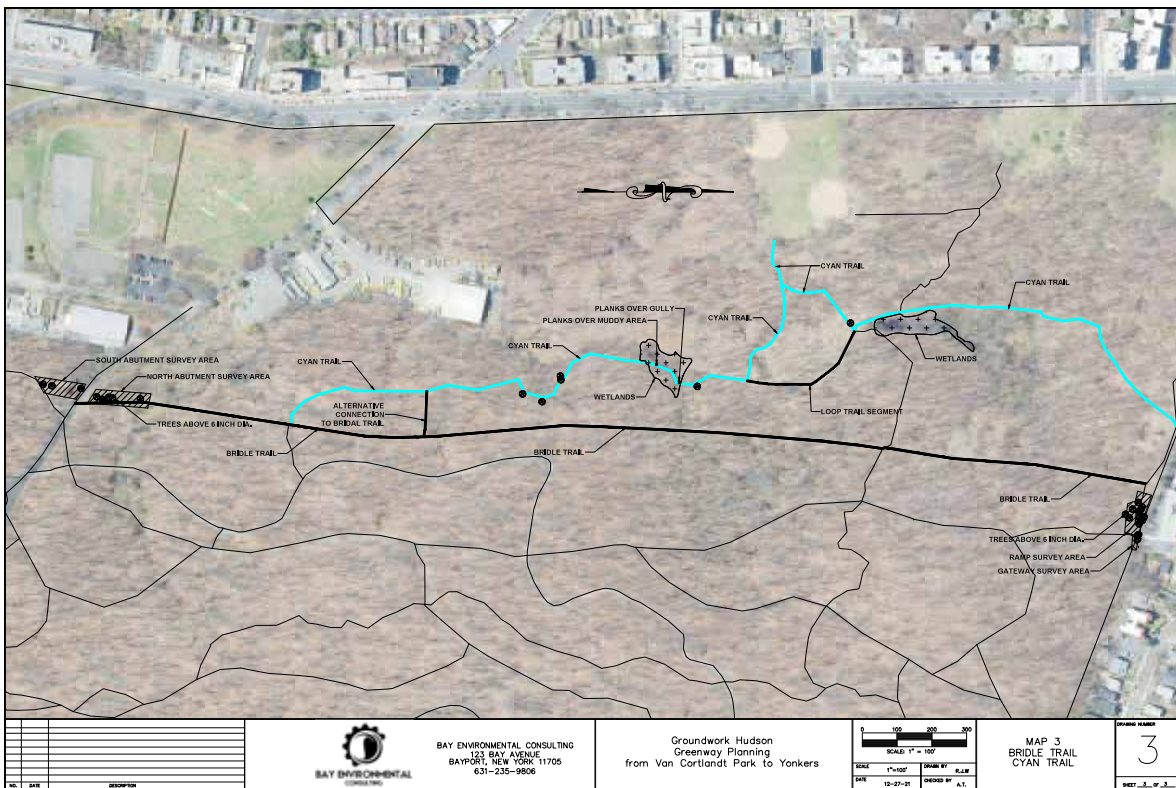


Figure 28 - Primary path, secondary path, proposed entry area, proposed pedestrian bridge.



Figure 29- area of proposed pedestrian bridge over old abutment



Figure 30- Entry point from Yonkers at Van Cortlandt Park Avenue



Figure 31- Area of potential ramp between entry point at Van Cortlandt Park Avenue and the Bridle Trail, at lower elevation

JOAN GEISMAR PHD SITE DETERMINATIONS

Greenway Planning from Van Cortlandt Park to Yonkers

A Phase 1A archaeological assessment was a component of a Feasibility and Strategies Study initiated by Groundwork Hudson Valley (GWHV) to link the Yonkers Greenway to Van Cortlandt Park in Bronx County. The project area is the park's Northwest Forest (NW Forest), a dense mature forest and a major component of the park's Forever Wild acreage. It is defined on the north by the county line between the Bronx and Yonkers, on the east by the Saw Mill and Henry Hudson Parkways, on the south by the Henry Hudson Parkway, and on the west by Broadway (see Figure 1). Forever Wild status protects it from extensive disturbance or impacts, and archaeological resources were not an identified issue. Therefore, rather than concentrating on potential archaeological sensitivity, the NW Forest was researched and reviewed from the perspective of time.

By 1645, land that included the future park was in European possession as part of Nieuw Netherland, but the earliest evidence of a human presence in the park are the artifacts, remains, and features of late-prehistoric or early-historic-era Indigenous People discovered during archaeological excavations associated with creation of the Parade Ground not long after the city acquired the property for the park in 1888. With this purchase, the story of the park began and continues in the recent formal recognition of enslaved people who worked the Van Cortlandt plantation under its first owner/occupier, Jacobus Van Cortlandt, in about 1699. They created the mill pond, later known as Van Cortlandt Lake, and, in 1748 and 1749, undoubtedly erected the Van Cortlandt house, the oldest surviving house in the Bronx. Now the Van Cortlandt House Museum, it is a National Landmark and listed in the National Register of Historic Places.

The Van Cortlandt House, Van Cortlandt Lake renamed "Hester and Piero's Mill Pond" (in recognition of the enslaved miller and his wife), Vault Hill (the late-18th century Van Cortlandt burial ground), and archaeological finds of Indigenous People associated with creation of the Parade Ground, are evidence of the park's history south of the NW Forest. To the east, conduits of the "Old" and "New" Croton Aqueduct that brought water from the Croton River in Westchester to New York City, were or are underground park features. The former, introduced in 1836, predates the park by over half a century, the latter, from 1890, is contemporaneous with the park.

And there are the railroads. While subject to numerous consolidations and reorganizations, the “Old Put,” so dubbed in recognition of its termination in Putnam County, began its run through the park east of the project area in 1887. About a year later, the Yonkers Rapid Transit Railway, a local branch or spur of the “Old Put,” began an approximately 2-mile run through the park. The route was from Getty Square in Yonkers to the Yonkers-Bronx county line that defines the northern limit of the NW Forest and on to a small station, or a flag-stop, where the tracks crossed Mosholu Avenue on a railroad bridge. From there, it continued south beyond the project area to merge with a version of “Old Put” (the Putnam Division of the New York Central and Hudson River Railroad [NYC & HR RR Putnam Division] and travel beyond the park. Discontinued in 1943, the rail route became a Bridle Trail and is the preferred path to link the Yonkers Greenway and Van Cortlandt Park.

A mature forest now covers the project area but, as indicated on an 1874 topographical map, “meadow land,” indicating clearing and cultivation, was once found between the slopes and ridges of the NW Forest (See Appendix 11 for graphics.). The meadow land is long gone, but current environmental studies suggest that slopes and ridges remain. On the 1874 map, the Yonkers Rapid Transit Railway ran near and between these landforms in the vicinity of former brooks and streams. This and other maps indicate there were structures and farms in the project area along Broadway between the Yonkers-Bronx county line and Mosholu Avenue (now Rockwood Drive) from 1867 to 1882. Evidence of this relatively brief pre-park development may remain near Broadway in the project area where there are now playgrounds and playing fields, as might evidence of earlier Indigenous People attracted to the former terrain.

The Forever Wild program not only protects the NW Forest from major impacts but also limits ground disturbance that could eliminate archaeological resources. Therefore, in the unlikely event of future significant impacts in the NW Forest, consideration of archaeological potential is recommended.

BICYCLE ROUTES NEAR THE VCP NW FOREST

BIKE ROUTE

One of the original goals of the project was to investigate a bicycle connection between the Yonkers Greenway, which is planned to be constructed in 2023, and the Northwest Forest. As the Yonkers Greenway will be used by bicyclists, increased bicycle commuting opportunities for Yonkers residents and enhanced bicycle connections to the 242nd Street Subway Stop would help Yonkers residents who work in the Bronx or Manhattan and use public transportation. In Yonkers, there is no NYC Subway Service (the 242nd Street Subway Stop is the northernmost stop on the red line in NYC.)

While it is true that the Putnam Greenway allows bicycles, the only current paved connection between the Putnam Greenway and Southwest Yonkers is at an entry point to the South County Trailway in the Lincoln neighborhood at Alan P. Shephard Place, east of Southwest Yonkers, and the streets leading from Southwest Yonkers to this entry point are extremely steep and congested.

The current status of bicycle connectivity between the Yonkers Greenway and the Broadway bike lane is as follows:

1. Bicycles are not allowed on woodland trails; they are allowed on the various paved pathways throughout the park.
2. While some members of the Riverdale community oppose allowing bicycles within the NW Forest, others, such as the Riverdale Main Streets Alliance, do support a future bicycle connection between the Yonkers Greenway and the NW Forest (see Addendum 10.)

BIKE ROUTE ALONG BROADWAY

In recognition of challenges for bike riders, the NYC DOT has completed a designated bike lane along Broadway starting at 242nd Street and ending at the Yonkers Border. (Figures 32, 33, 34) The bike lane was created by shifting the vehicular parking lane toward the center of the street, thereby protecting the bike lane from the traffic lane.



Figure 32 - Bike lane under construction

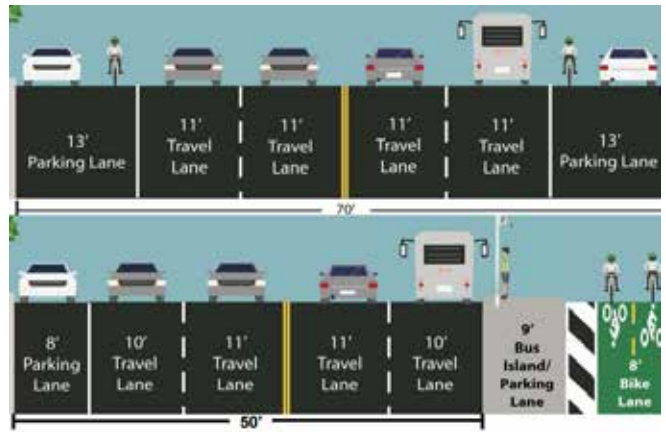


Figure 33



Figure 34 - Bike lane completed

EXTENSION OF BIKE ROUTE ALONG BROADWAY INTO YONKERS

The City of Yonkers has committed to extending a bike path north from the Bronx border into Yonkers. The current expected implementation for the South Broadway bike lanes is early 2023. The South Broadway bike lanes project will include some modifications to the curb line and some street scape work to include benches, trees, and traffic calming islands.

BIKE STORAGE FACILITY

The NYCDOT is in favor of expanded bike paths as alternative transportation and had committed to placing 10,000 bike racks in the NYC greater metropolitan region by the end of 2021. Within the Bronx, the DOT is planning to install bike corrals at all DOT enhancement projects (including along Broadway). The DOT City Racks program has already installed bike racks at the following addresses along Broadway:

1. 5905 Broadway- small hoop
2. 5925 Broadway – small hoop
3. Manhattan College Parkway – 4 locations, City Rack U Rack@242
4. 5973 Broadway, City Rack U Rack (near subway) @242
5. 5975 Broadway, City Rack U Rack (near subway) @242
6. 5979 Broadway, CityRack Small Hoop@242
7. 5983 Broadway, CityRack U Rack @242
8. 5995 Broadway, CityRack Large Hoop
9. 6007 Broadway, CityRack Small hoop
10. 6025 Broadway, City Rack Small hoop
11. 6087 Broadway, City Rack Small hoop
12. 6121 Broadway City Rack Small hoop (south of 251 Street)
13. Mosholu Avenue, at Sheridan Triangle – 5 CityRack Small Hoops

However, while these racks may be safe for riders who leave their bikes for short periods of time, the racks do not deter bicycle thieves when the bikes are parked all day.

In acknowledgement of this, and in support of increased modality and bike use for transportation, DOT has recently stated that one of their objectives is to increase the use of protected bike parking facilities.

Due to the lack of reliable and fast public transportation north of the 242nd Street Subway stop, and the fact that any buses cross municipal boundaries and therefore require additional transfers, this study investigates the feasibility of bike storage near the MTA stop. MKM and GWHV visited the area around the MTA stop several times and has selected two feasible spots for covered bike storage stations.

(See Figures 35 & 36)



Figure 35- traffic island at Manhattan College Parkway



Figure 36- Space under 242 Street stairway, east side of Broadway



Figure 37- Potential locations for bike storage unit.

1. Manhattan College Parkway traffic island has been identified as a good spot for a bike storage unit, by DOT. In this option, the connecting street between Broadway and 242nd Street, Manhattan College Parkway, would be made into a pedestrian mall. NYCDOT representatives have discussed this possibility. (See Figure 35)
2. Space exists under the MTA stairs on the east side of Broadway for either a narrow at-grade bicycle storage unit or a design for hanging bicycles. This would be a long and narrow storage unit. (See Figure 36)

FEASIBILITY OF BIKE STORAGE LOCATIONS

MKM has determined the following:

Site #1, on the site of the current traffic island on Manhattan College Parkway, is the most suitable location. The storage station could be accessed from several sides. The exterior facade would be able to feature easily legible ads which could generate construction and operating revenue. The storage station could be fairly large at this spot, as the current traffic island is approximately 30' x 70'. A space this size could house approximately 60 bicycles. (Figures 38 and 39 show visualizations of similar projects.) One hidden cost of selecting this location would be that the NYC DOT would be required to pay restitution for the removal of any mature deciduous trees in the traffic island, which would increase the price of using this site. (There appear to be 6 deciduous trees on the traffic island.) However NYC DOT is hoping to designate the small road just south of this pedestrian island, which is technically part of the Manhattan College Parkway, as a pedestrian plaza as part of their Plaza Program. This will significantly increase the size of the pedestrian area and will prevent any need for removing trees to accommodate a bike storage facility.

Cost: There is an opportunity to have the facility supported by advertising except for tree restitution if required. If the plaza area is increased, the cost will be free. (NYC-DOT would designate a local organization to take ownership of this potential plaza.)

Site #2: This site, under the MTA stairs leading to the overhead platform, could house a small bike storage facility. Due to the number of bicyclists who are both MTA riders and college students (or both), it would be advisable to install bike storage units at both Site #1 and Site #2 (A visualization of this type of installation is shown in Figure 40.)

Cost: Could be free, if entirely supported by advertising.



Figure 38- visualization of a bike storage pod at Times Square



Figure 39- visualization of a bike storage station at Grand Central Station and Vanderbilt Avenue.



Figure 40- visualization of an installation of a bike storage station which would be feasible to install at 242nd Street under the stairway access