



Parks

Morningside Park 114th, 116th and 122nd Street Staircases Reconstruction

Located between 112th and 123rd Streets between Morningside Drive and Morningside Avenue in the Borough of Manhattan

Public Design Commission Public Review
November 18, 2024
Laura Drawbaugh RLA, NYC Parks

Total Budget: \$6.3m FY '23
Mayor Eric Adams

Project Size: 30 ac

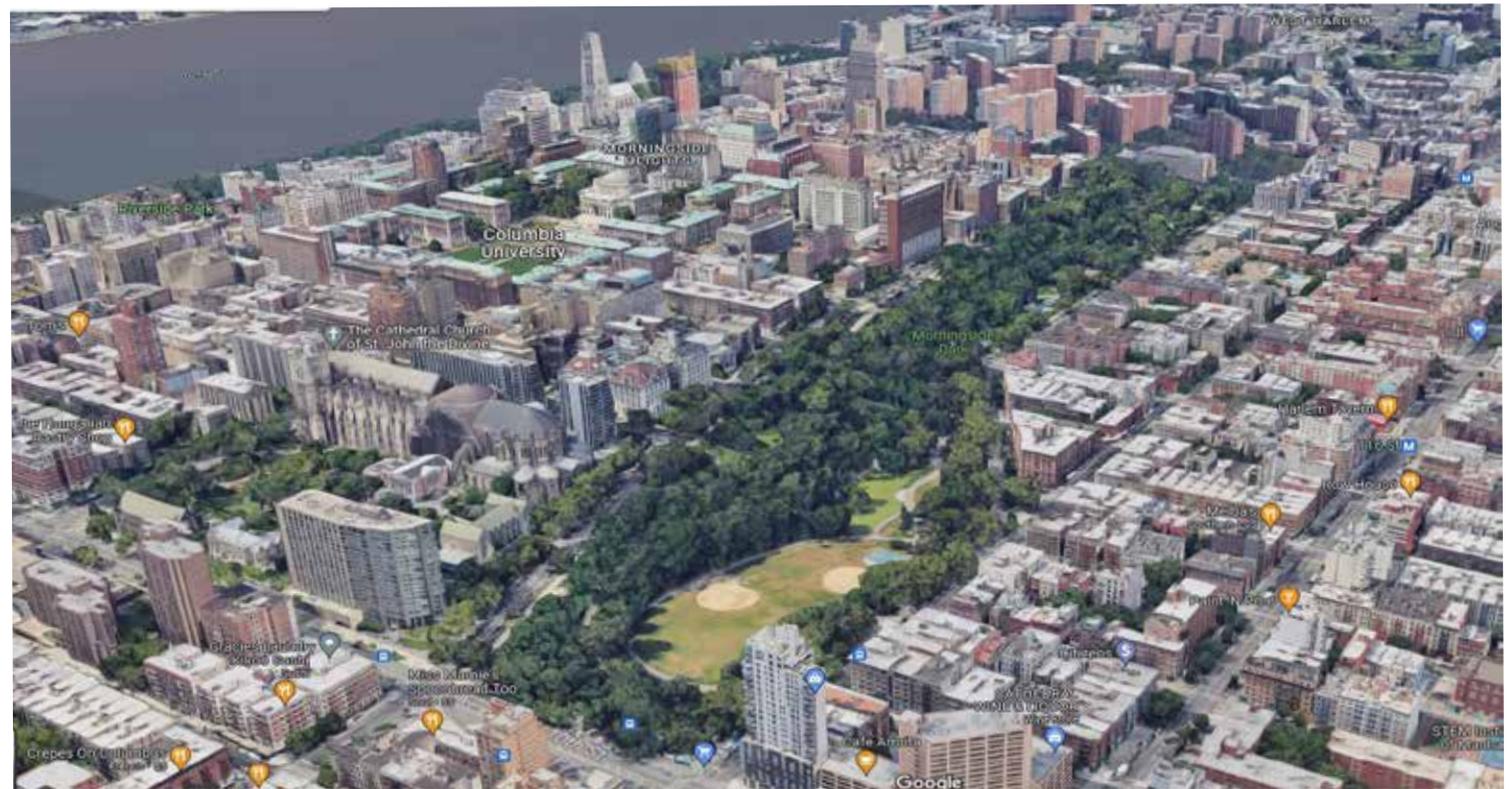
Goals

- Make stairs safer and ADA compliant.
- Manage stormwater to prevent flooding.





New York



Morningside



NYC Parks

Morningside Park | Project Location

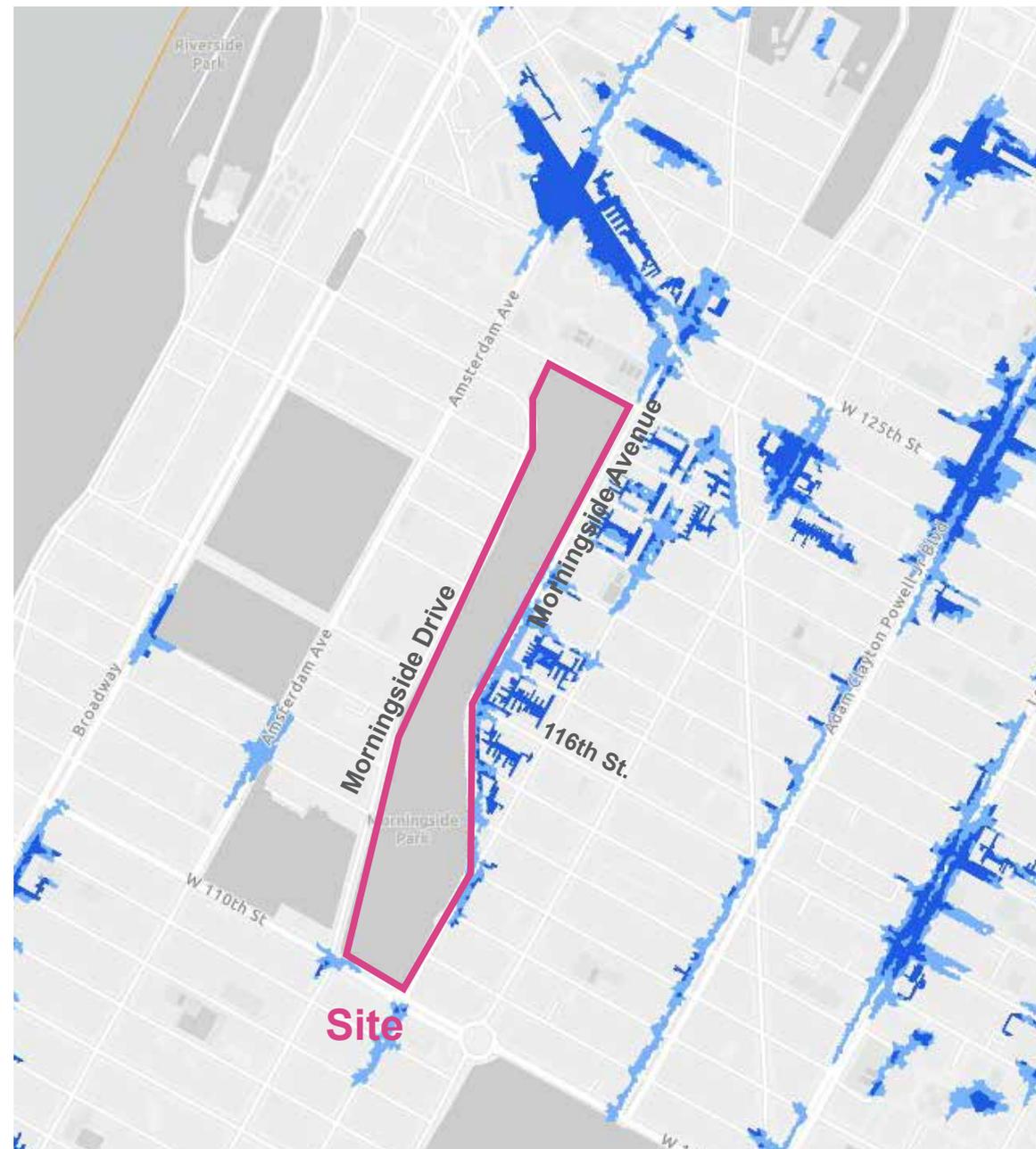
NYC Stormwater Flood Maps

- Area not included in analysis
- Future High Tides 2050 (Moderate) & 2080 (Extreme)
- National Wetlands Inventory
- Deep and Contiguous Flooding (1ft and greater)
- Nuisance Flooding (greater or equal to 4 in and less than 1 ft)

“Construction SWPPP” only required



Moderate Flooding (10-year storm)



Extreme Flooding (100-year storm)
Runoff to the east to Morningside Avenue is from park interior, not Morningside Drive



September 29, 2023
stormwater runoff down the escarpment and stairs at 116th St. vicinity



NYC Parks

Morningside Park | Flood Risk (Stormwater)

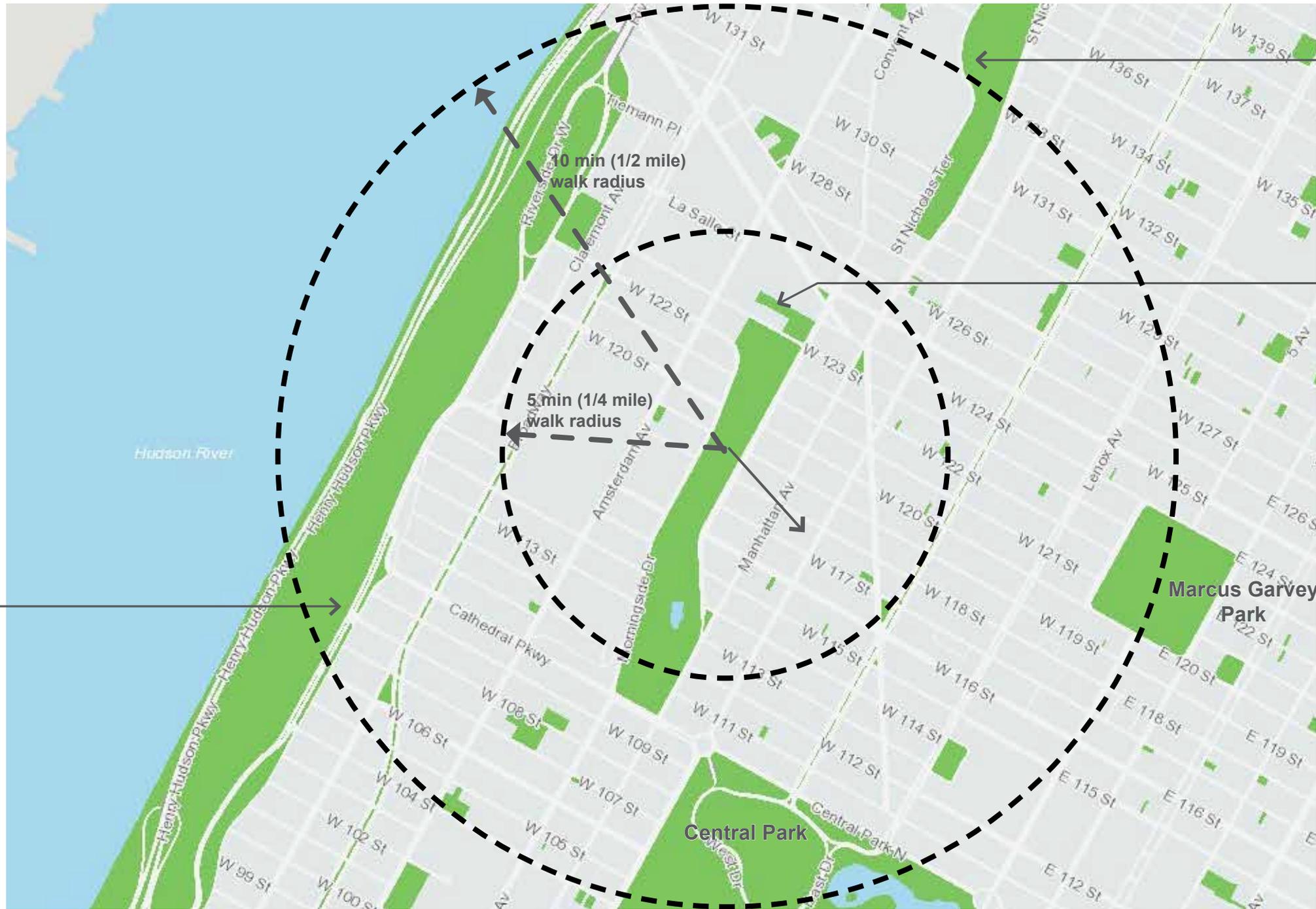




Land Use Categories

- 1 And 2 Family Residential
- Multi-Family Residential (Walkup)
- Multi-Family Residential (Elevator)
- Mixed Use
- Commercial & Office
- Industrial & Manufacturing
- Transportation / Utilities
- Public Facilities & Institutional
- Open Space And Outdoor Recreation
- Parking
- Vacant Land
- Other





Riverside Park

St. Nicholas Park

Playground One Twenty Five CXXV

Marcus Garvey Park

Central Park



NYC Parks

Morningside Park | Neighborhood Context

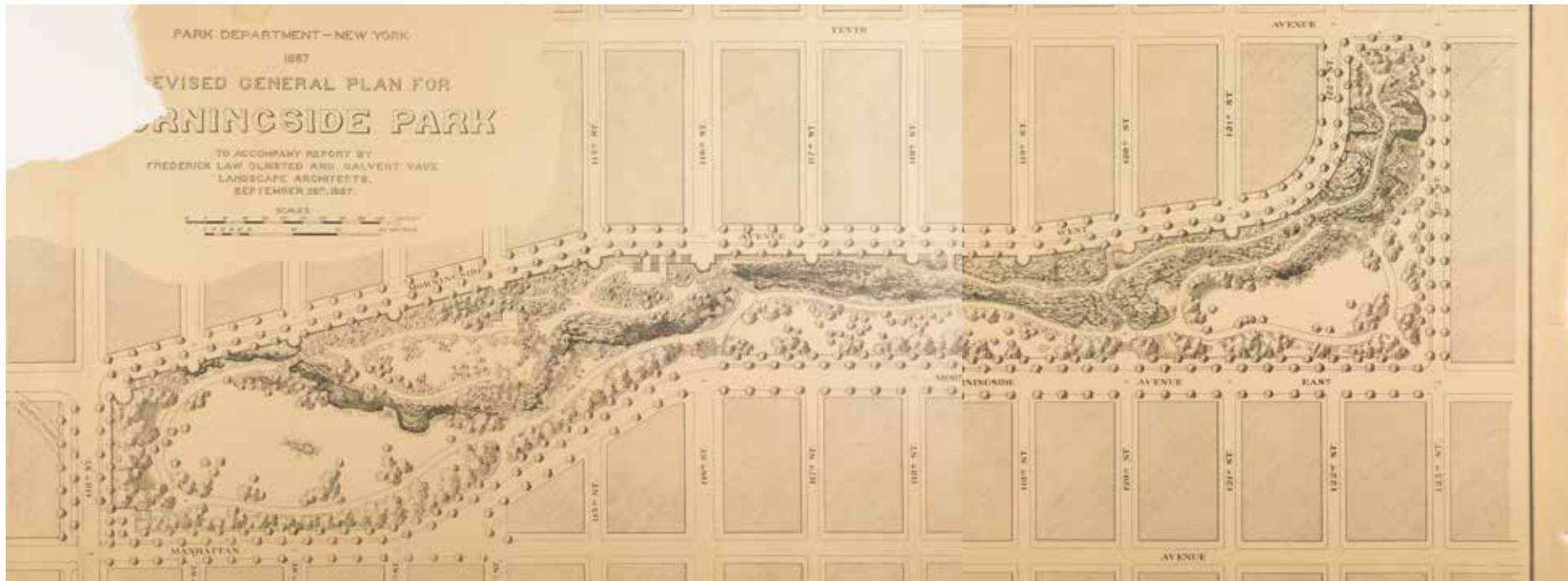


- A.** 114th Street- Bluestone stairs
- B.** 116th Street- Center bluestone stairs, paths, drainage problems and plaza
- C.** 122nd Street-Bluestone stairs

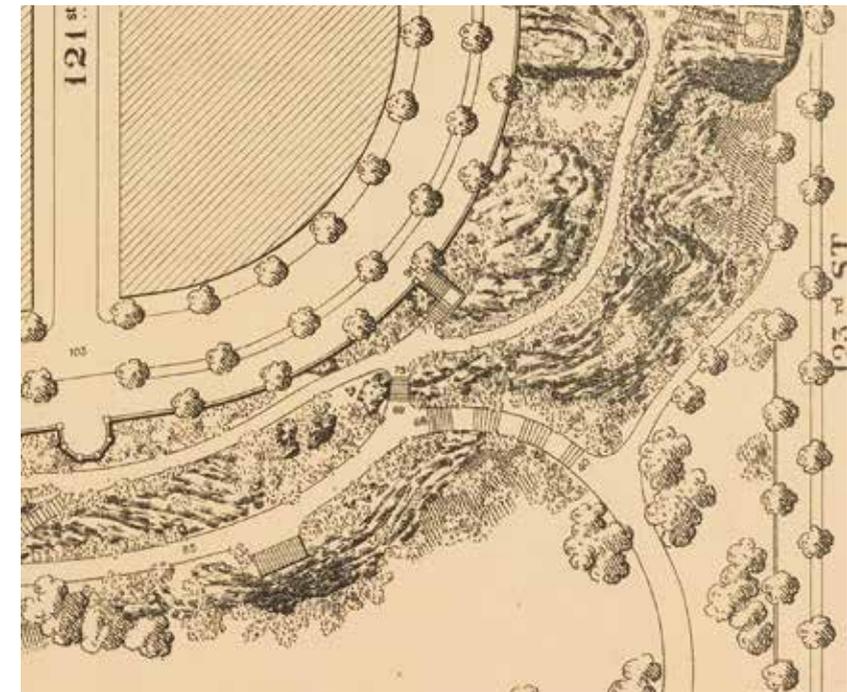
Project Area

■ **Flights of Stairs**

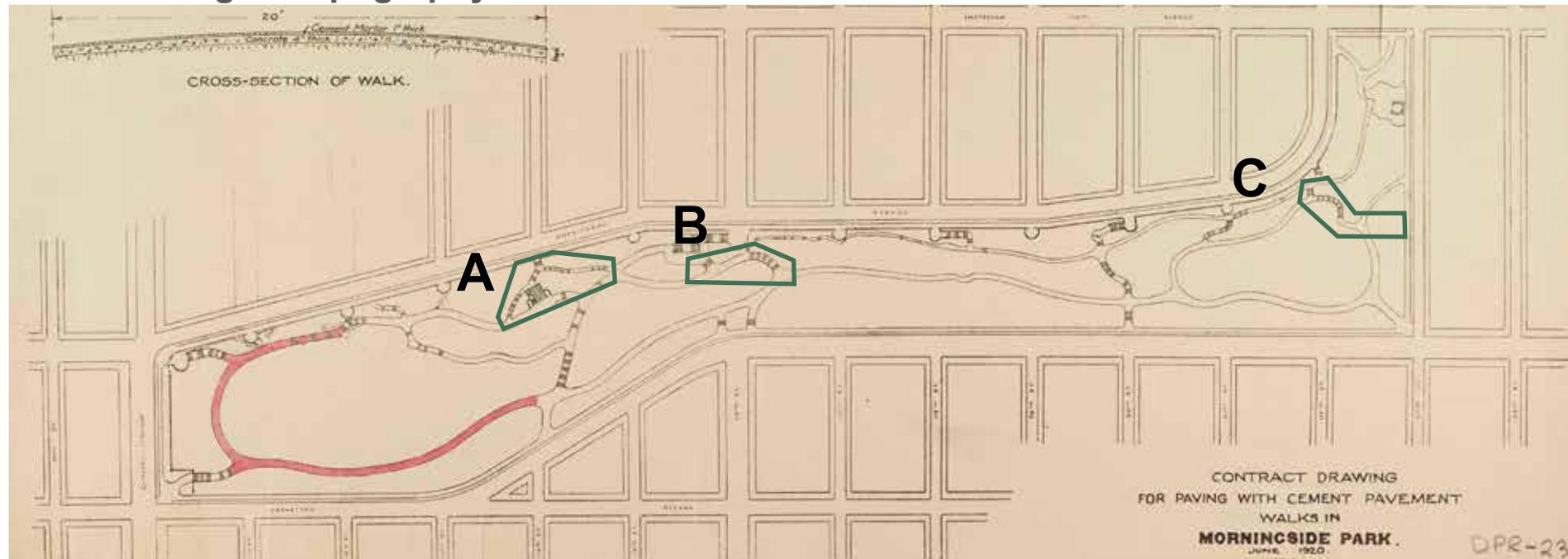




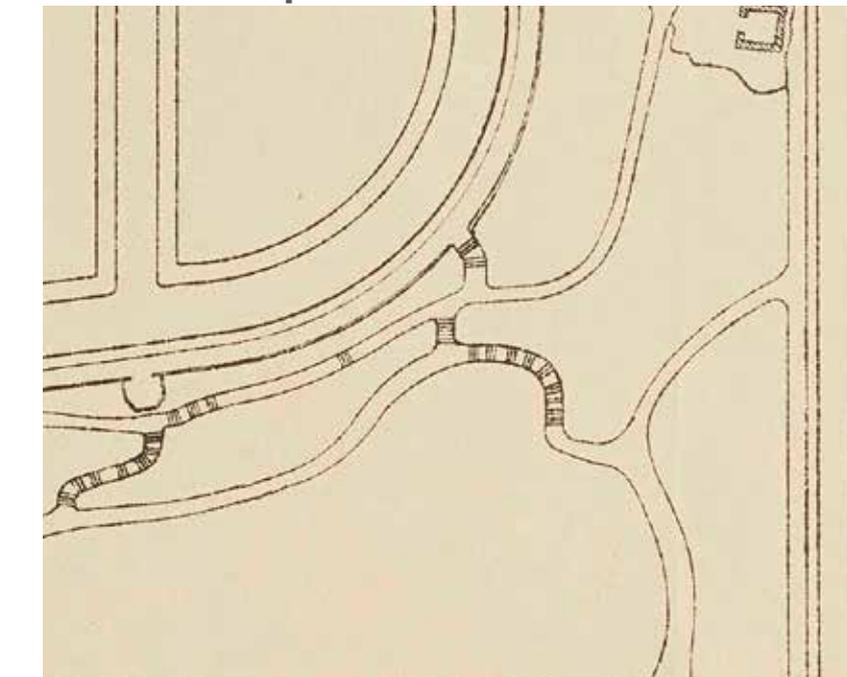
1887-Drawing of Topography and Paths



1887-Blow-up of 122nd St. Stairs

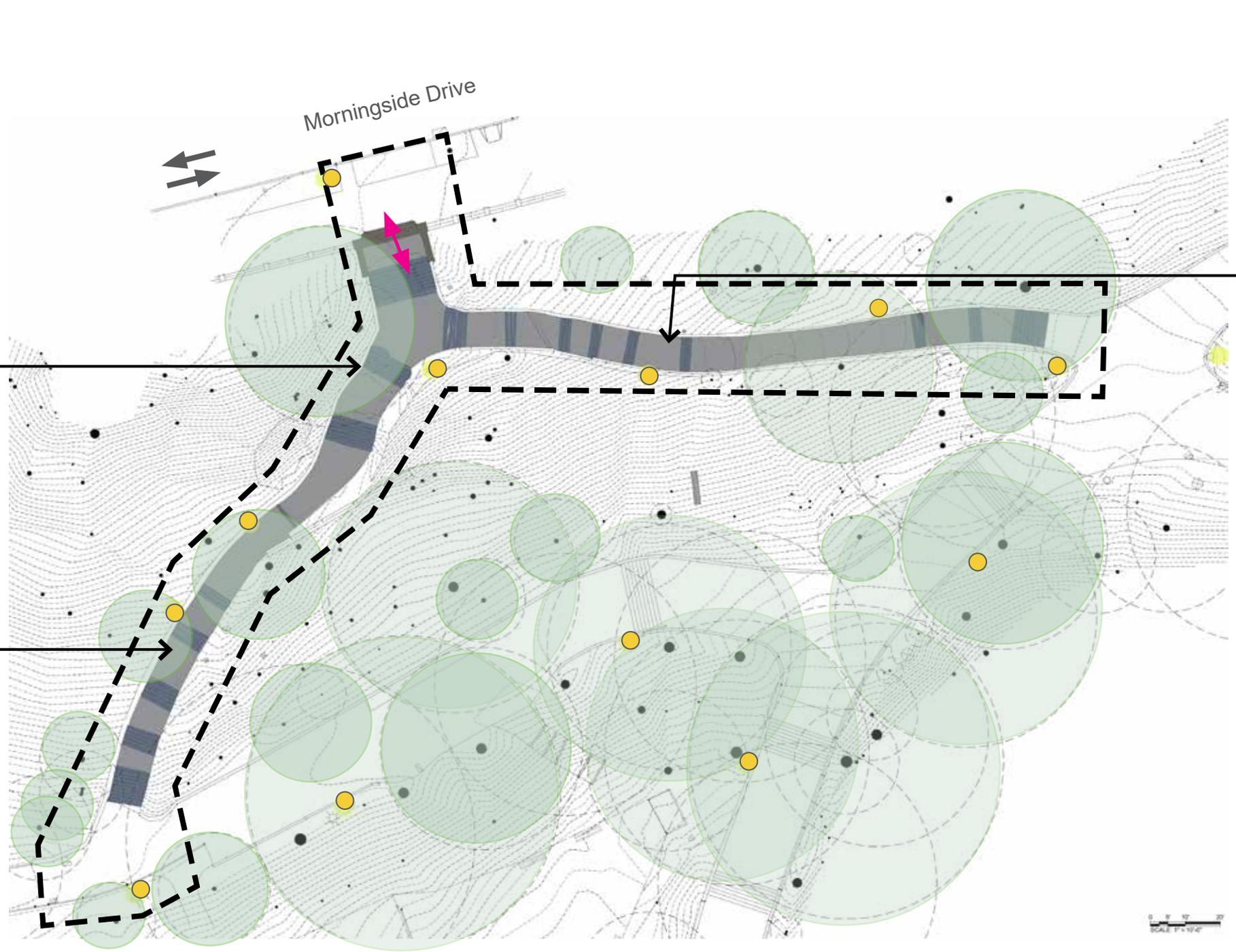


1920



1920- Blow-up of 122nd St. Stairs





Bluestone treads
Asphalt landings
Carved boulder cheekwalls
Rustic schist ashlar cheekwall
Mis-aligned treads

Bluestone treads
Asphalt landings
Carved boulder cheekwalls
Mis-aligned treads

Legend

- Project Limit
- Park Entrance
- Asphalt Pavement
- Concrete
- Bluestone
- Granite
- Parks Lightpole
- Traffic
- Tree

Park Tree Canopy Information

65% Parkland Canopy Cover

Heat Vulnerability Index 5

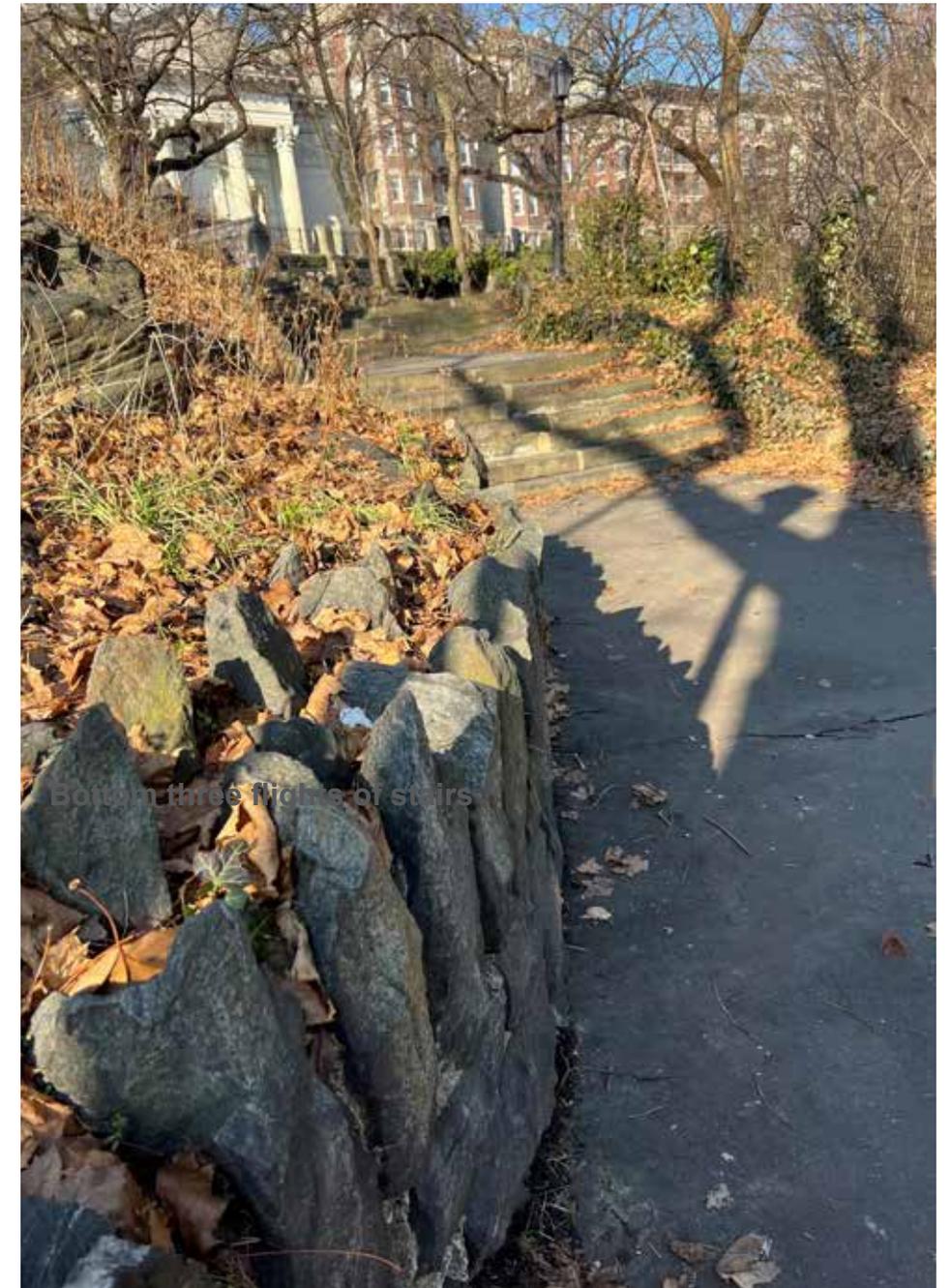
Community board is in high HVI area.



Morningside Park | A. 114th Street Stairs , Existing Conditions



South stairs, toothed retaining wall and carved boulder cheekwall



Top three flights of stairs



Morningside Park | A. 114th Street South Stairs , Existing Conditions

Legend

--- Project Limit

↔ Park Entrance

■ Asphalt Pavement

■ Landmarks
Grey reinforced
conc. landing

■ Reset existing
bluestone treads on
new foundation

○ Tree

● Existing Parks lightpole
to remain

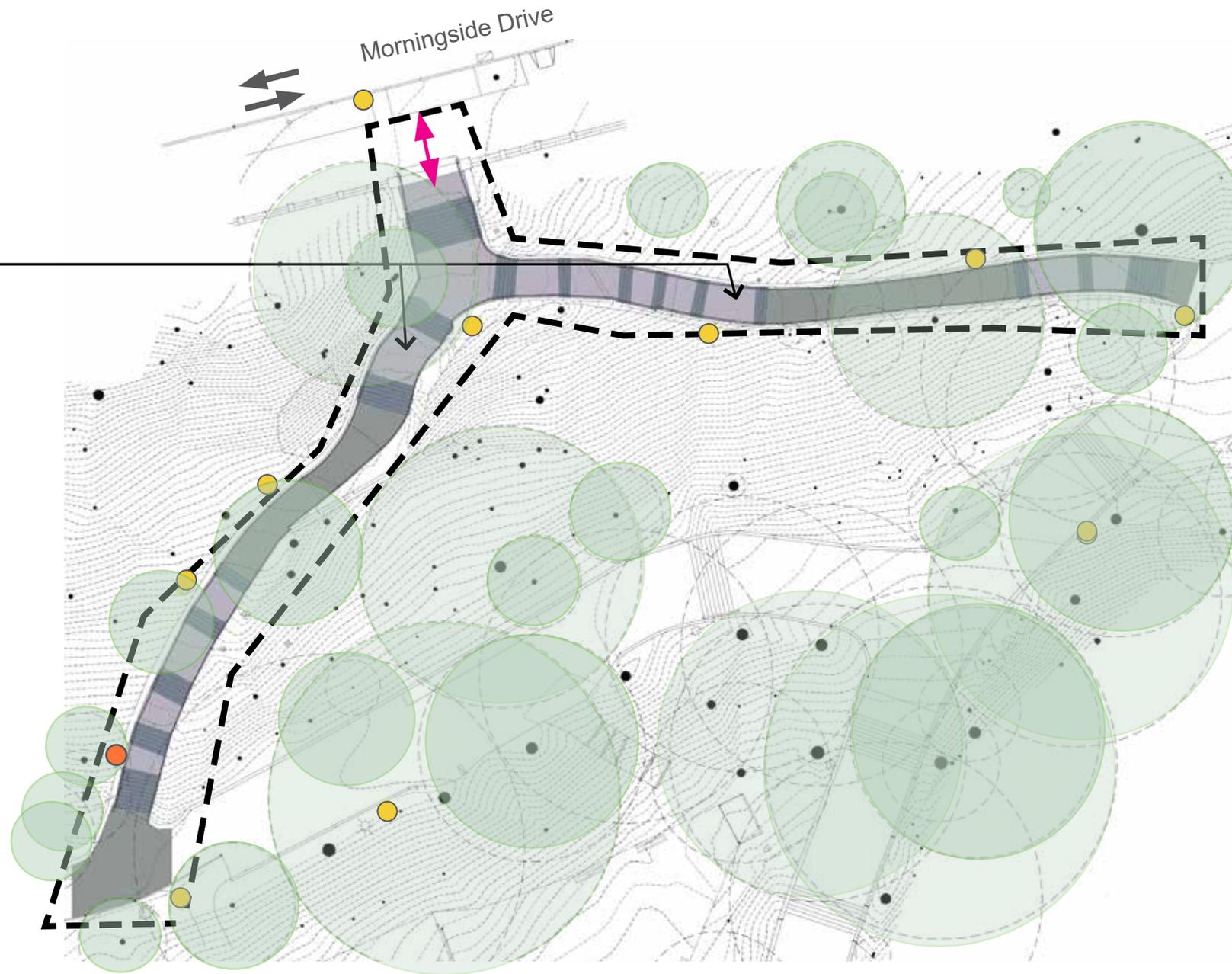
● Proposed lightpole

← Traffic

Add handrails on both sides

Remove and reset boulder
cheekwalls with drainage
material

Repoint ashlar cheekwall

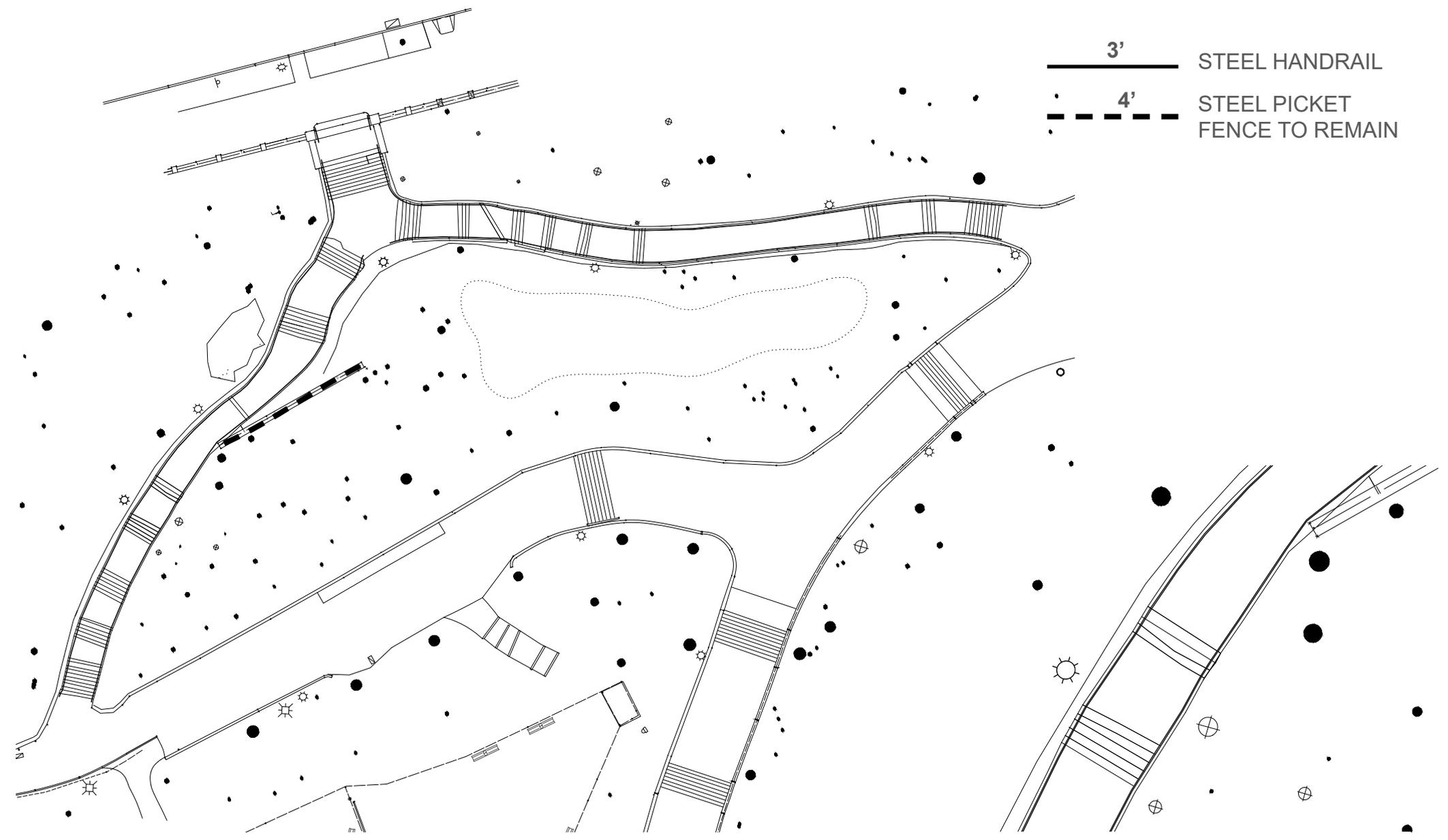


Morningside Park | A. 114th St. Stairs, Proposed Reconstruction

LEGEND

■ PROPOSED FENCES (x = HEIGHT)

3' STEEL HANDRAIL
4' STEEL PICKET FENCE TO REMAIN



TYPICAL CLOSE-UP



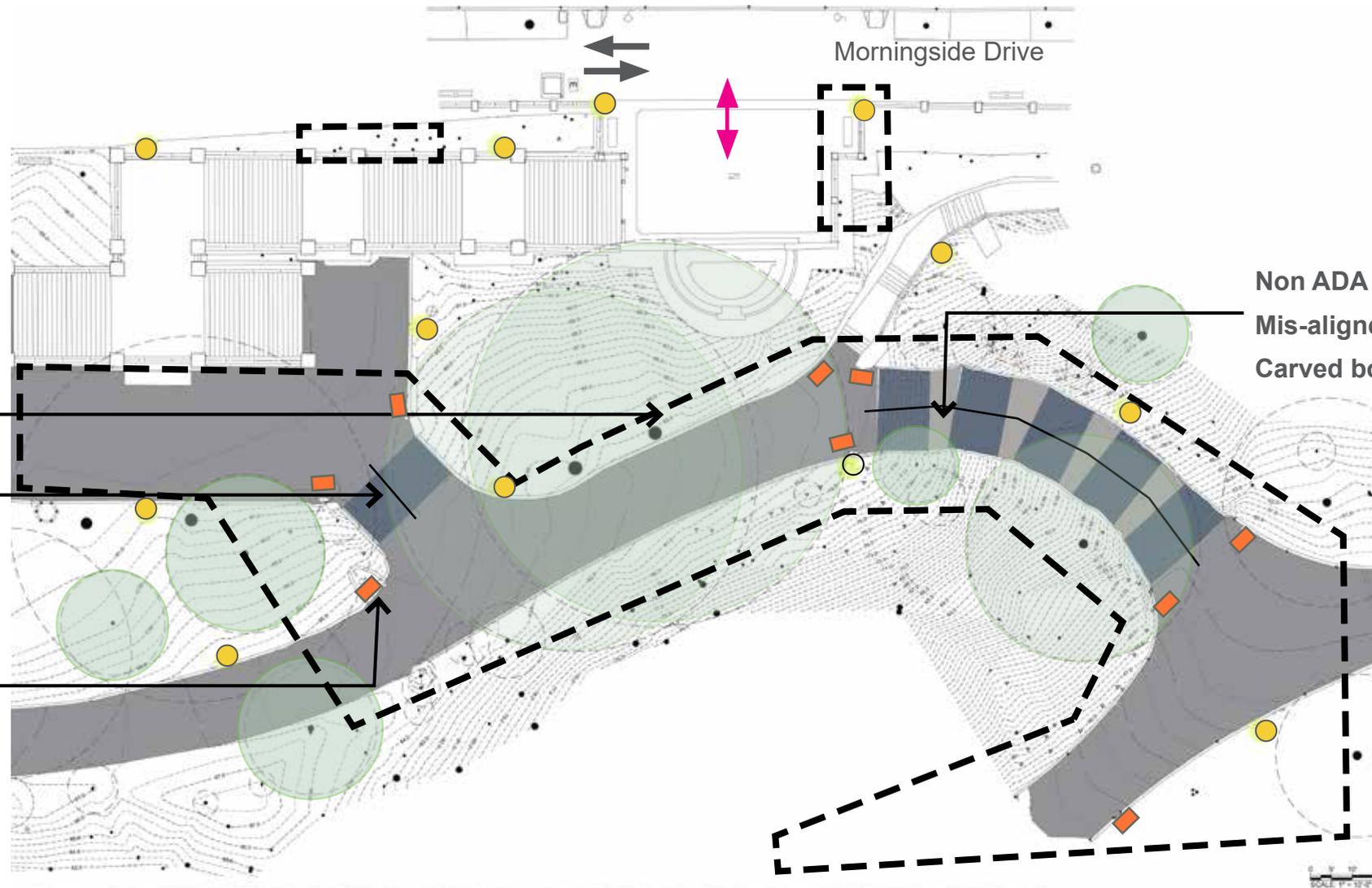
Morningside Park | A. 114th St. Proposed Fence Diagram

Legend

-  Project Limit
-  Park Entrance
-  Asphalt Pavement
-  Concrete
-  Bluestone
-  Granite
-  Parks Lightpole
-  Traffic
-  Existing Catch Basin
-  Tree

Park Tree Canopy Information
65% Parkland Canopy Cover

Heat Vulnerability Index 5
Community board is in high HVI area.



Stormwater runoff from retaining wall weep holes

Non ADA Handrails

Mis-aligned bluestone treads

Exposed pipe creates flooding on path and stairs and street

Non ADA handrails

Mis-aligned bluestone treads

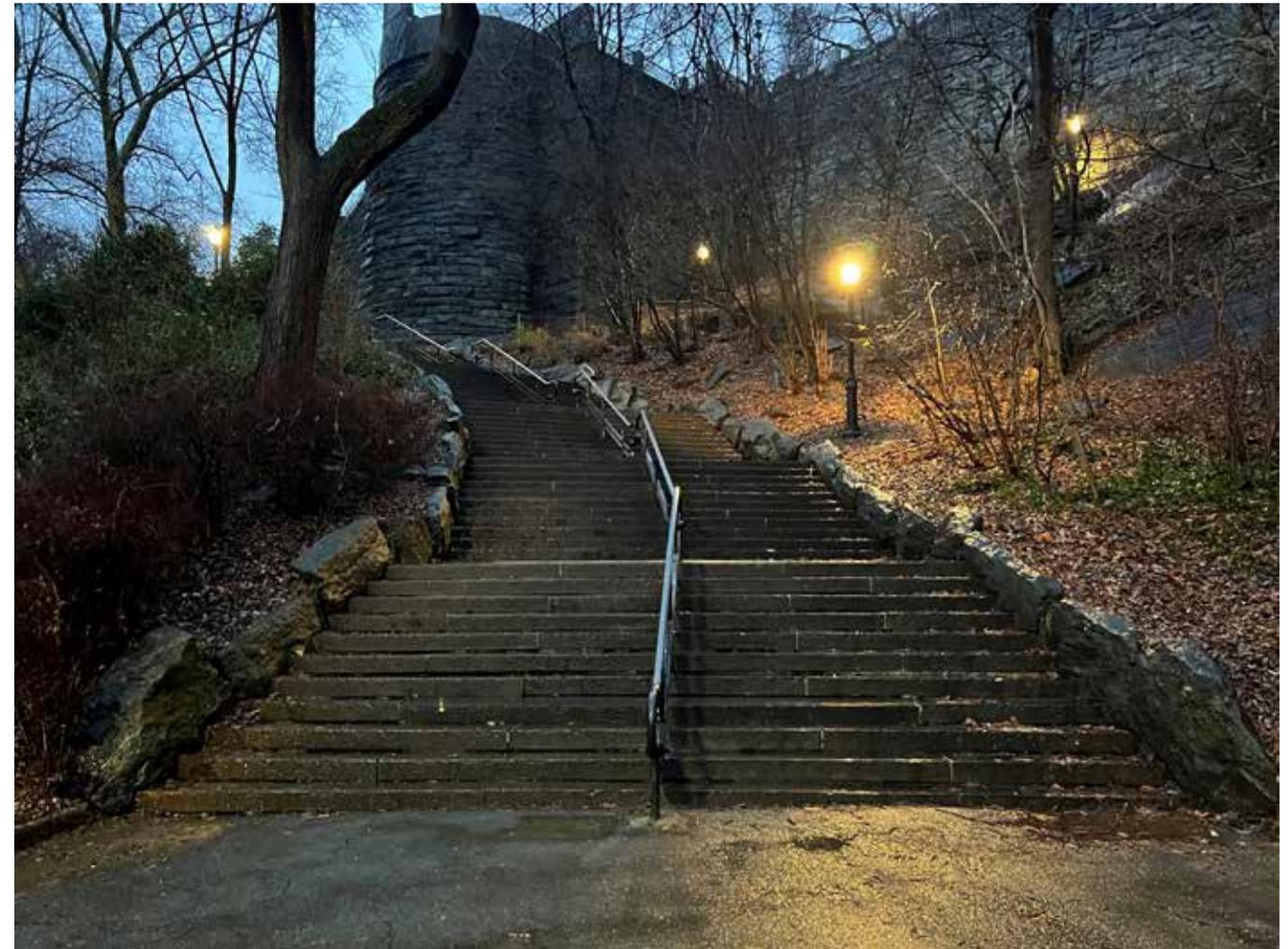
Carved boulder cheekwalls



Morningside Park | B. 116th Street Stairs, Existing Conditions



Top of stairs -stormwater from higher elevations and groundwater create flooding



Bottom of stairs

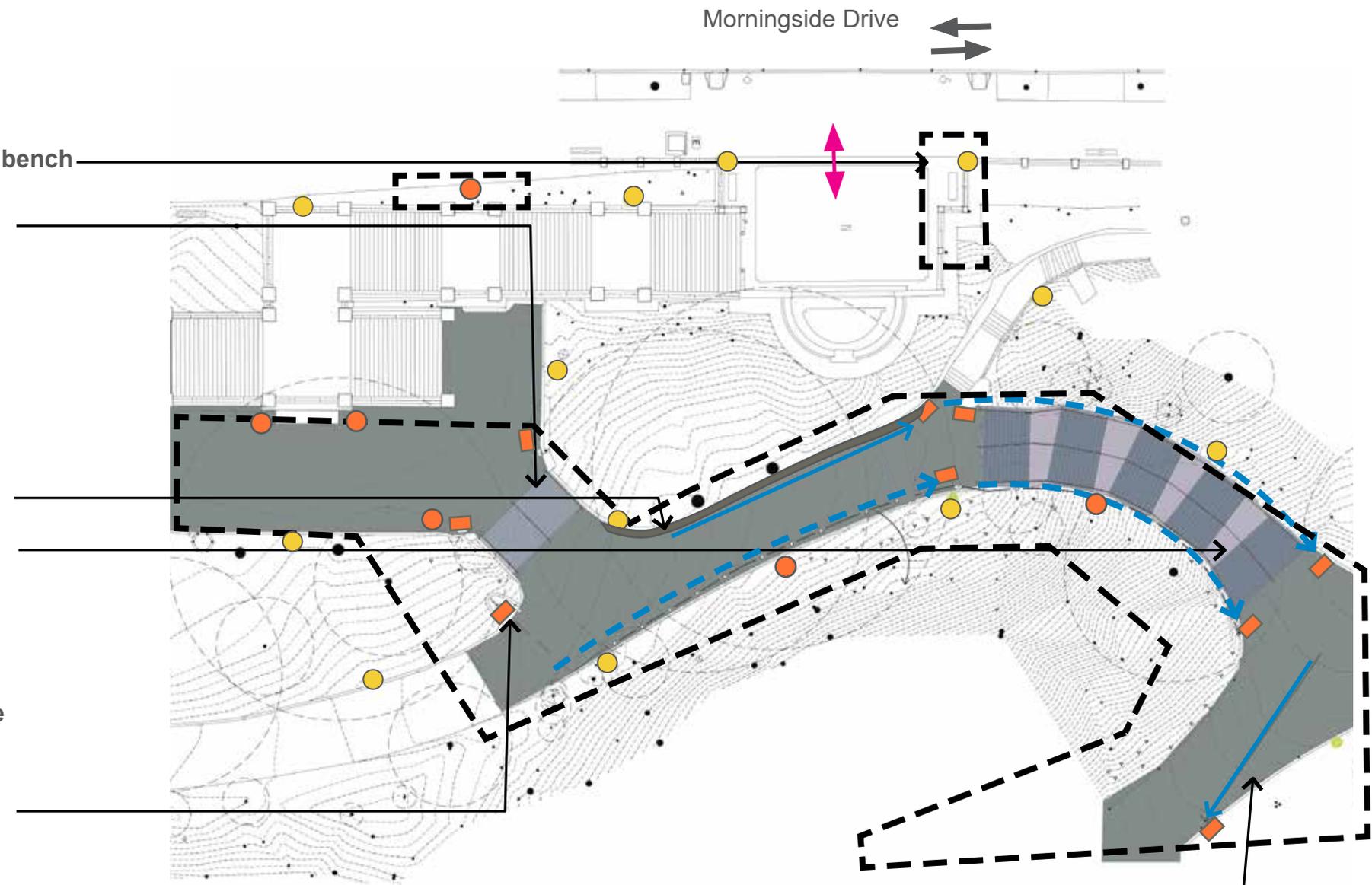


Morningside Park | B. 116th Street Stairs, Existing Conditions

Legend

-  Project Limit
-  Park Entrance
-  New Asphalt Pavement
-  New Landmarks
Grey reinforced
conc. landing
-  Reset existing
bluestone treads on
existing foundation
-  Granite
-  Tree
-  Existing Parks
Lightpole to remain
-  Proposed lightpole
-  Existing Catch Basin
-  Surface drainage
-  Below grade drainage
-  Traffic

- Reset light and pedestal, coping, bench
- Remove existing non-ADA handrails
- New ADA compliant "Central Park" handrails-center and both sides
- New granite block swale for surface drainage
- Remove existing non-ADA handrails
- New ADA compliant "Central Park" handrails-center and both sides
- Remove and reset existing boulder cheekwalls with drainage materials
- Reconstruct drainage of birdbath with dome grate to prevent overflow
- Regrade asphalt path to existing catch basin

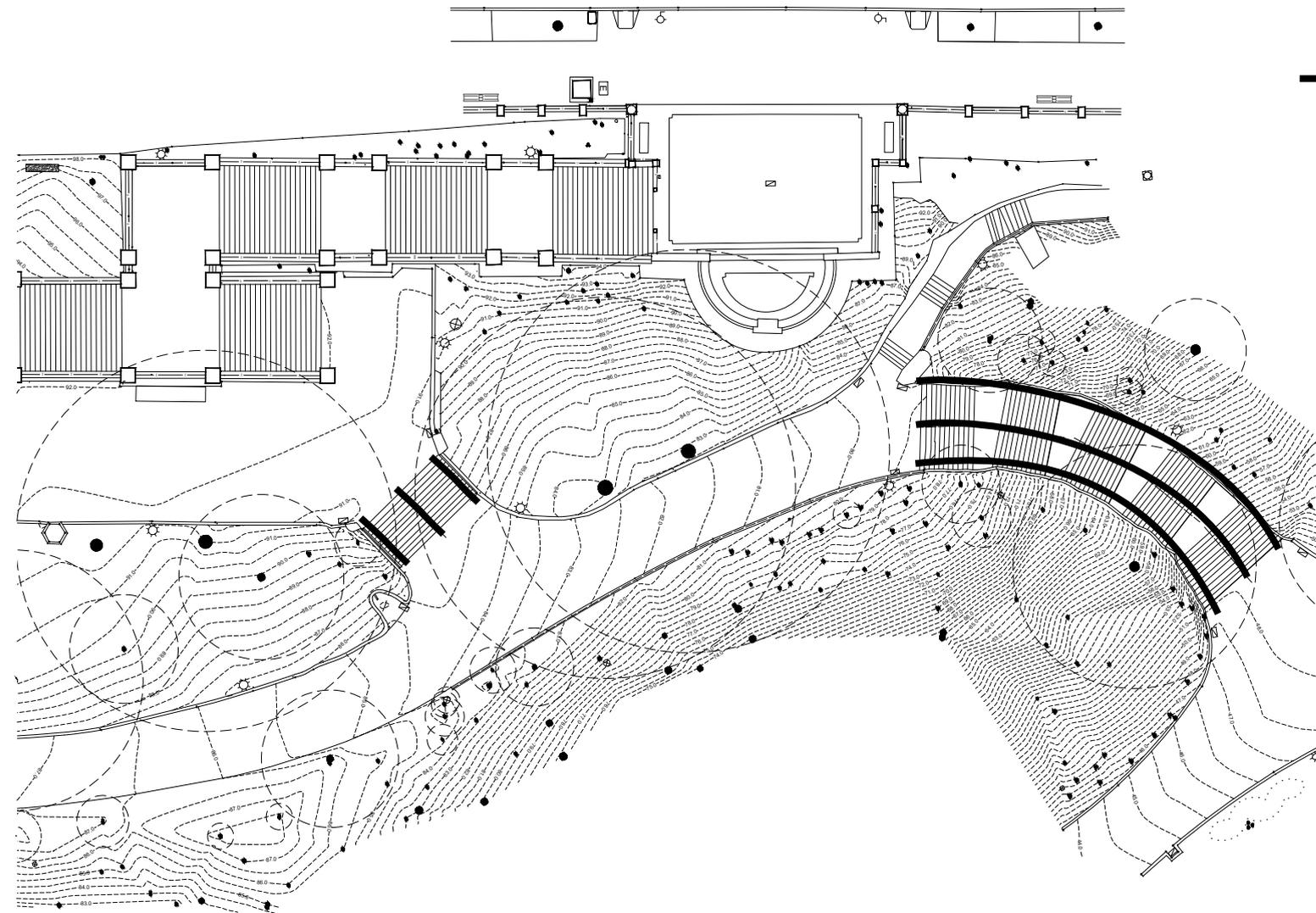


Morningside Park | B. 116th Street Stairs, Proposed Reconstruction

LEGEND

■ PROPOSED FENCES (x = HEIGHT)

3' STEEL HANDRAIL

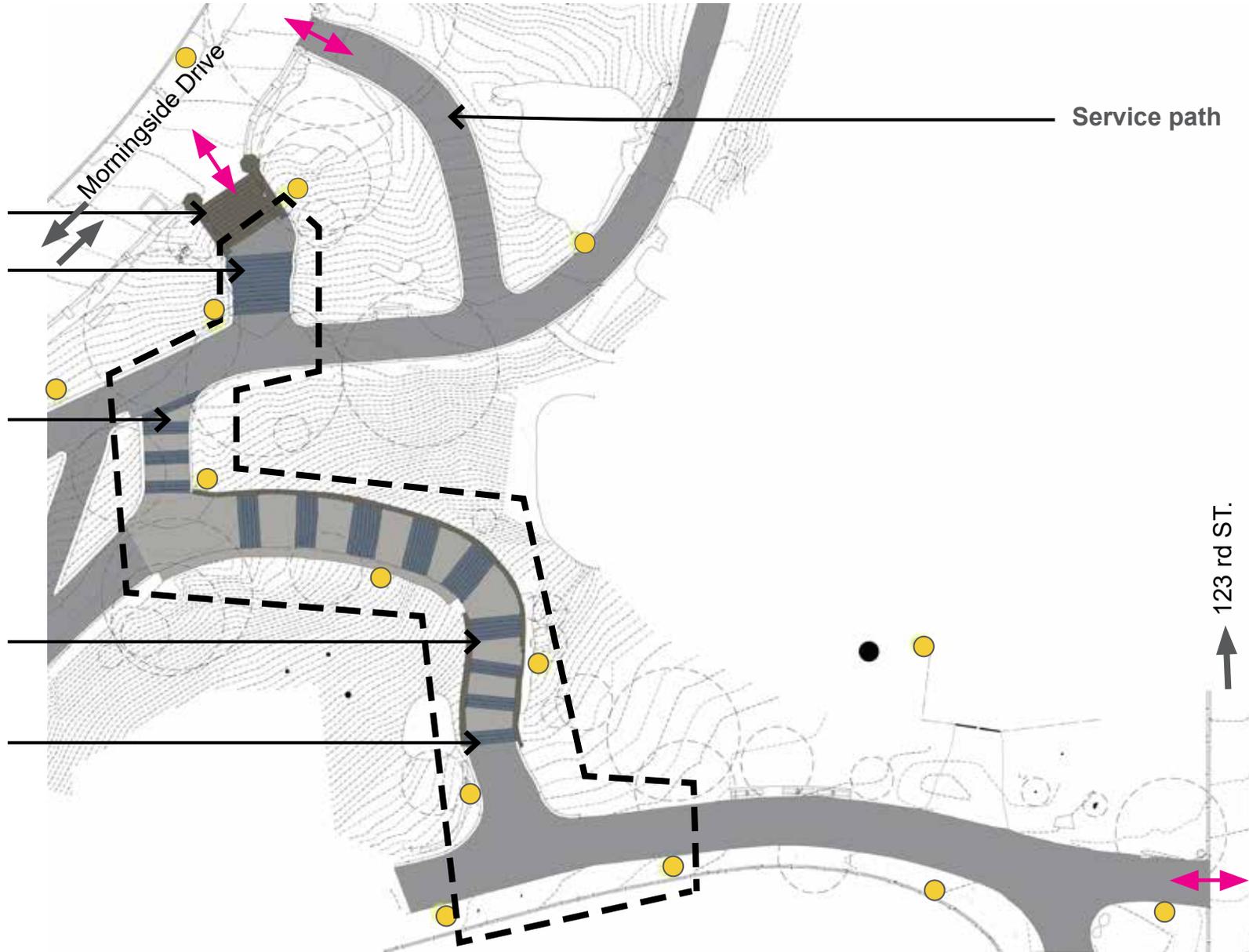


Morningside Park | B. 116th St. Proposed Fence Diagram

Legend

-  Project Limit
-  Park Entrance
-  Asphalt Pavement
-  Concrete
-  Bluestone
-  Granite
-  Parks Lightpole
-  Traffic

- Granite stairs-good condition
- No handrails
- Misaligned bluestone treads
- No handrails
- Asphalt landing
- Carved boulder cheekwalls
- Misaligned bluestone treads
- No handrails
- Concrete landings
- Concrete cheekwalls in poor condition
- Misaligned bluestone treads
- Pipe handrail in poor condition
- Concrete landings in poor condition
- Concrete swale in poor condition
- Granite block cheekwalls, disintegrating



Park Tree Canopy Information
65% Parkland Canopy Cover

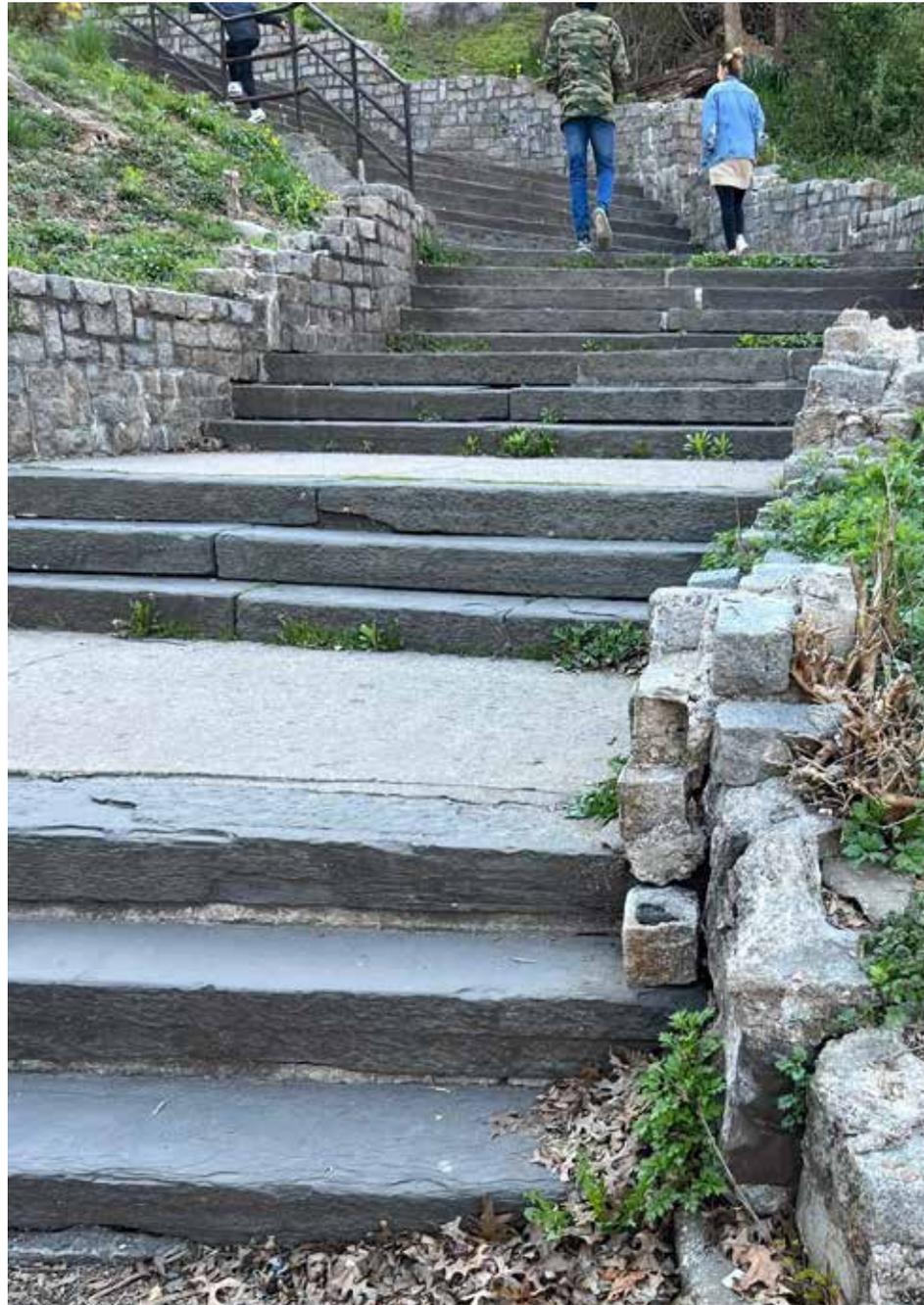
Heat Vulnerability Index 5
Community board is in high HVI area.



Morningside Park | C. 122nd Street Stairs-Existing Conditions



Top three flights of stairs



Lower nine flights of stairs



Drainage swale

Legend

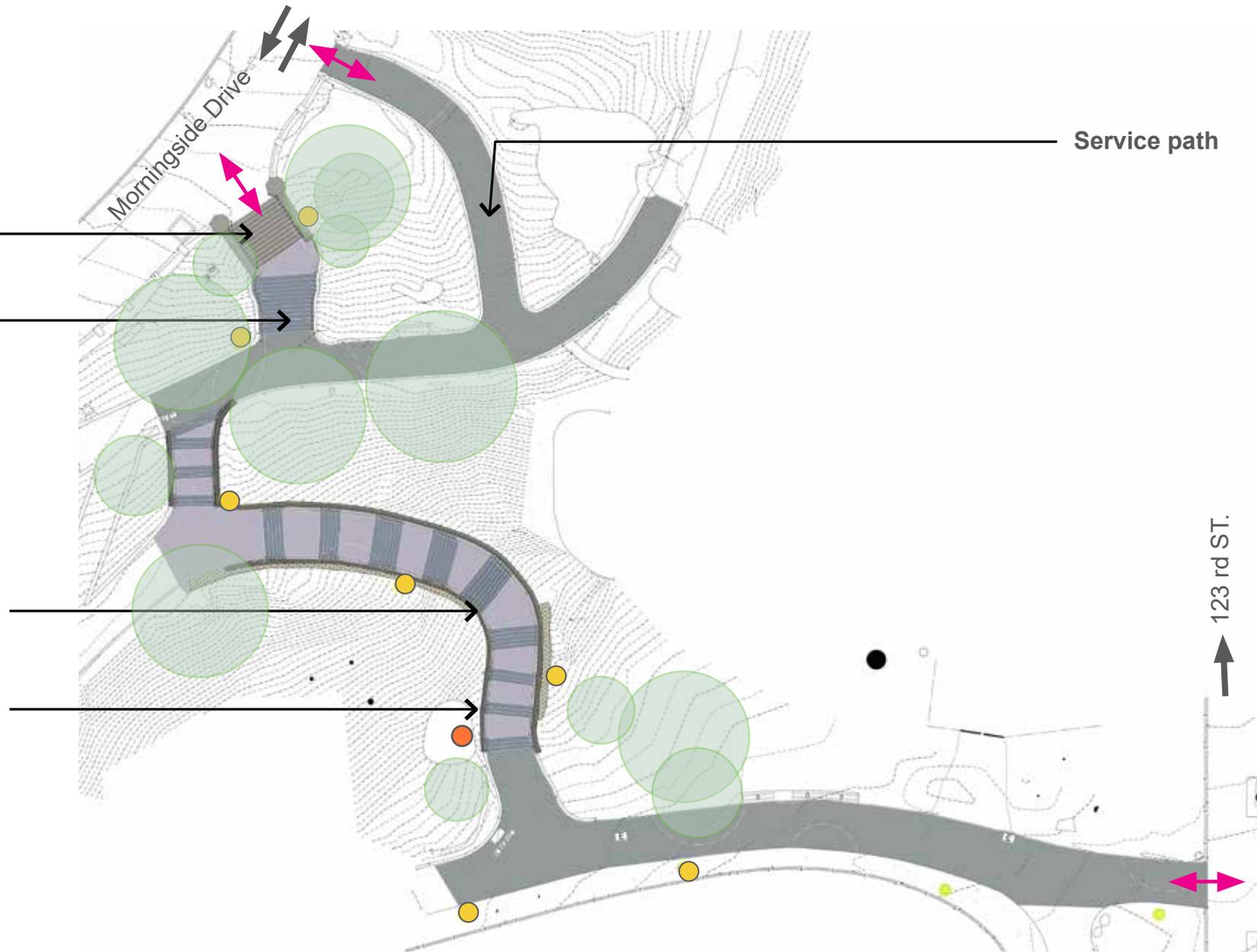
- Project Limit
- ↔** Park Entrance
- Asphalt Pavement
- Landmarks
Grey reinforced concrete landing
- Reset existing bluestone treads on new foundation
- Tree
- Existing Parks lightpole to remain
- Proposed lightpole
- ←** Traffic

Granite stairs to remain
Add handrails

Add handrails
Reset carved boulder cheekwalls

Remove concrete swale- reconstruct as granite block swale

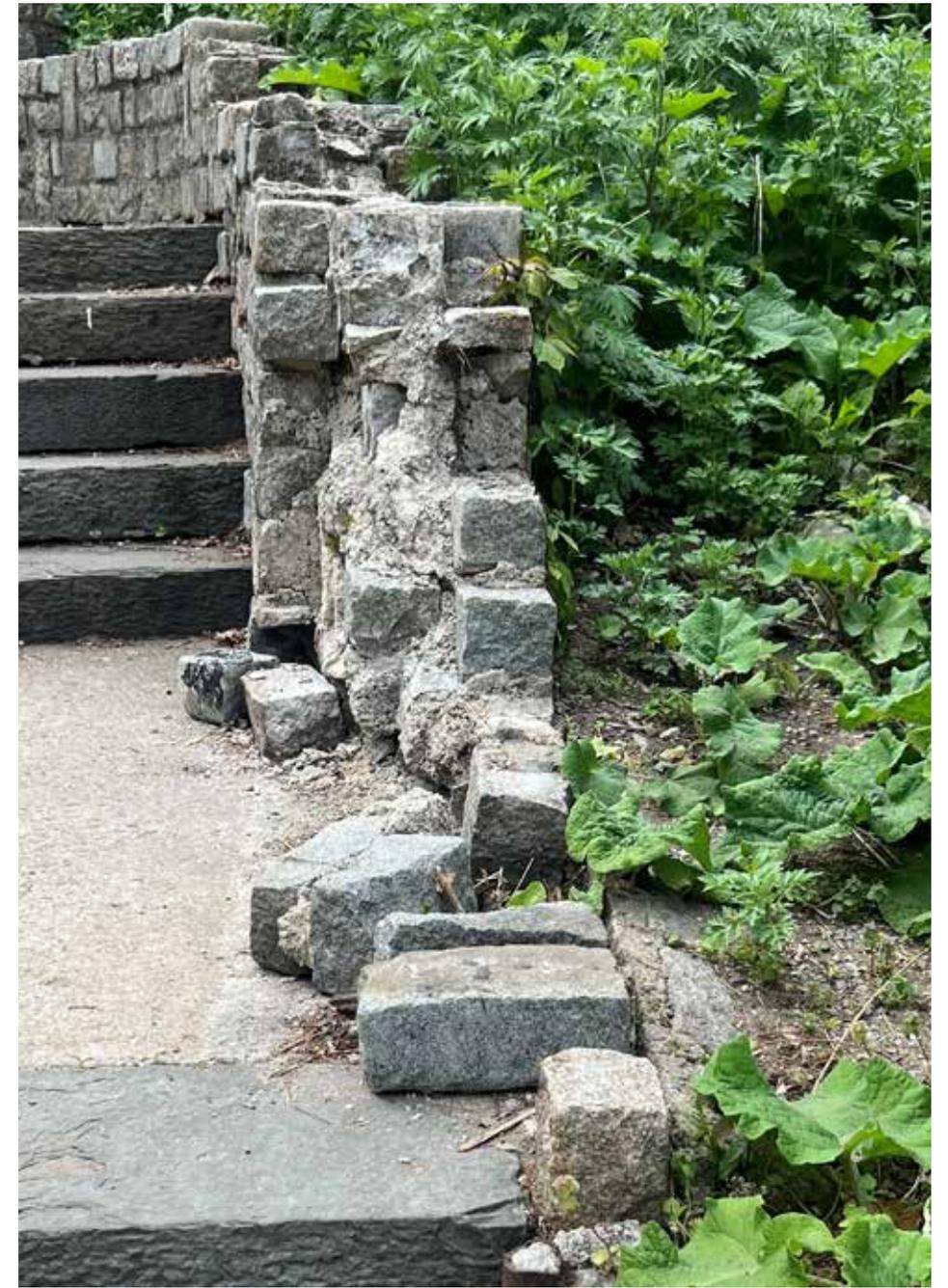
Add handrails
Remove granite block cheek walls- reconstruct as granite schist veneer cheekwalls



Morningside Park | C. 122nd Street Stairs , Proposed Reconstruction

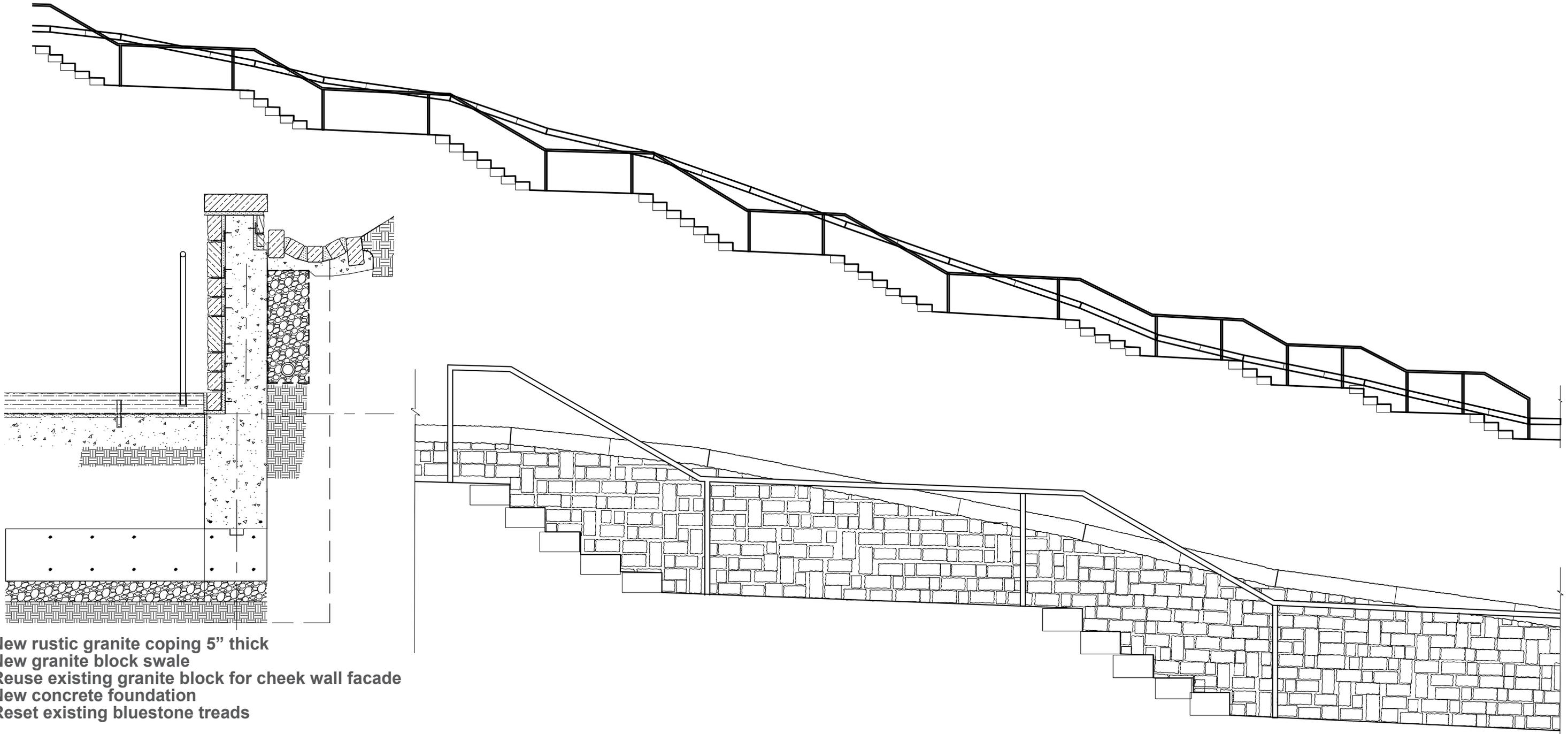


Overgrown swale on the left. 1966 cheekwall was built on top of pre-1964 cheekwall wall but also overlapping the treads, narrowing the stairways.



1966 wall overlaps treads by 1-3 granite blocks. Existing wall is 16" wide. No coping allows water in the joints. Lack of coping and poor base is causing granite blocks to separate.

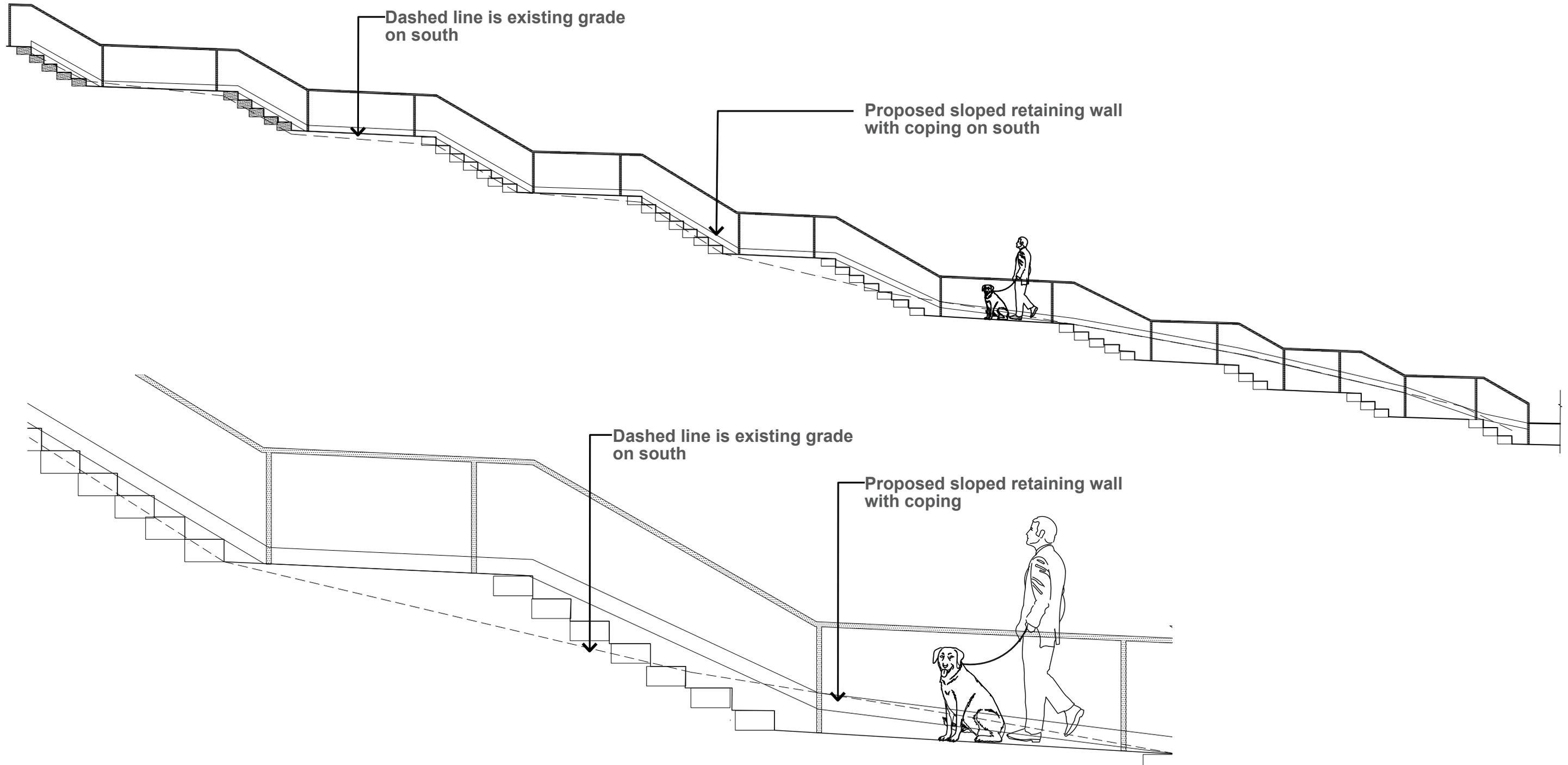




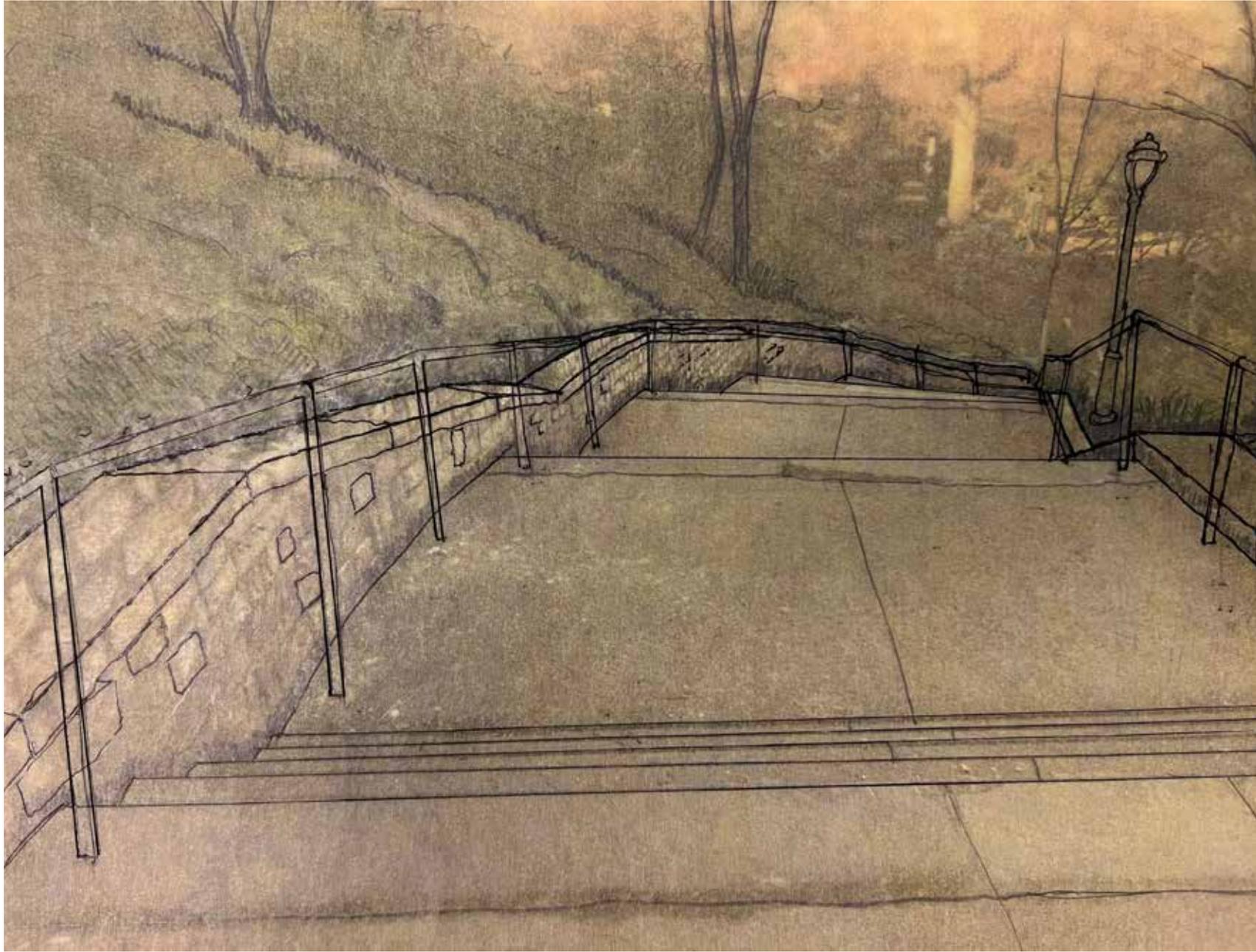
New rustic granite coping 5" thick
New granite block swale
Reuse existing granite block for cheek wall facade
New concrete foundation
Reset existing bluestone treads



Morningside Park | C. 122nd Street Stairs-North proposed section and elevation



Morningside Park | C. 122nd Street Stairs-South proposed sloped cheekwall



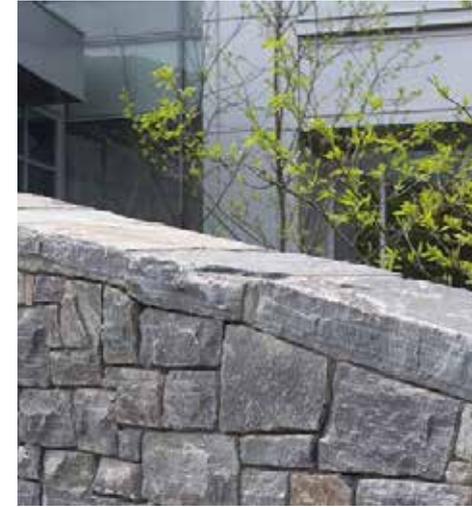




Existing bluestone treads



Existing granite block



Rustic Granite Coping Precedent



Central Park Coping Precedent



Granite block swale



Handrail

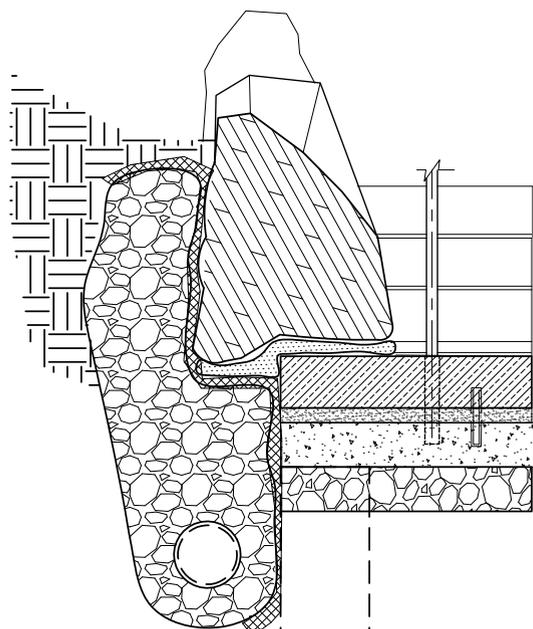




Existing bluestone treads and carved boulder cheekwalls



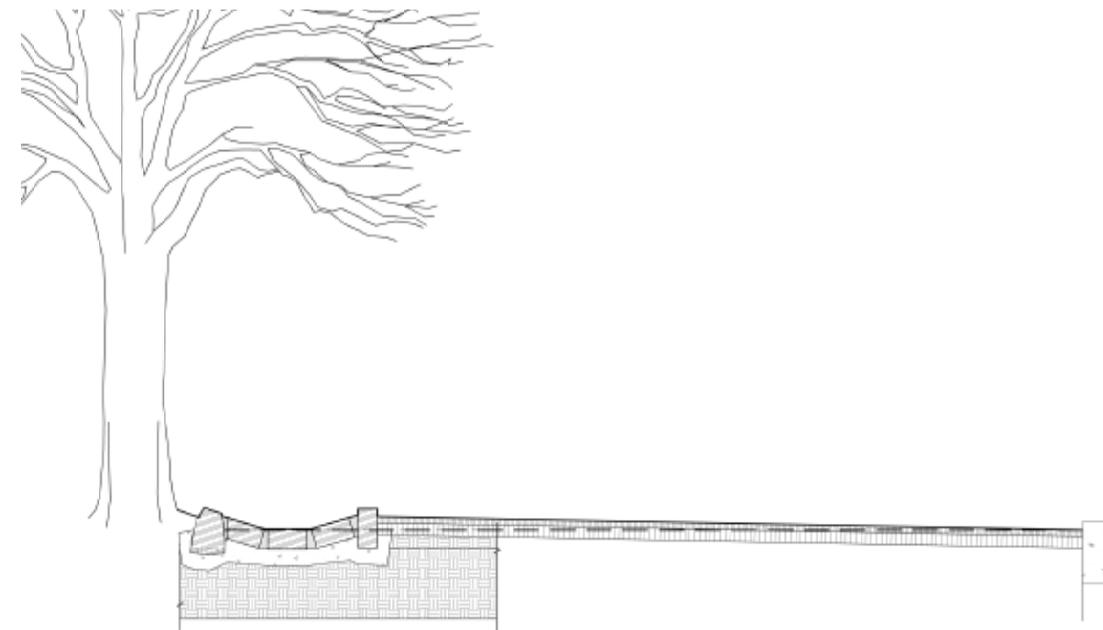
Add new granite block swale



Remove and reset boulder cheekwalls with drainage material and perforated pipe- connect to existing park drainage system



Add new dome grate with drainage connection, connect to existing park drainage system-see next page



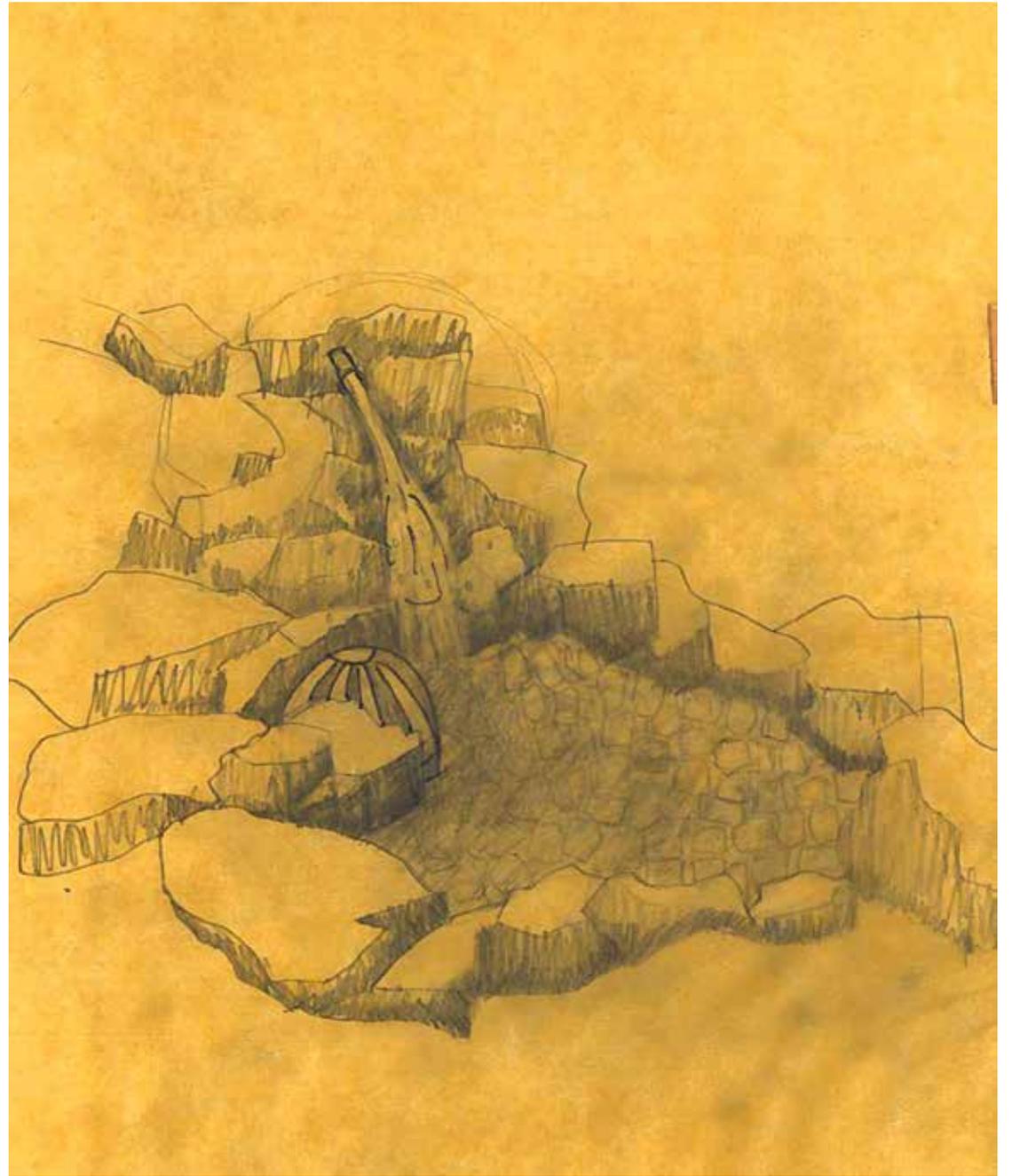
Add new granite block swale-3'-2" wide, with raised edge- connect to existing park drainage system. Raise west grade slightly to protect tree roots
Existing path width: 17'-8"
Proposed path width: 14'-8"



Morningside Park | 116th St. Proposed Site Stormwater Remediation Materials



Existing condition: Exposed pipe in depressed area overflows due to clogged drop inlet. Excess water damages the stairs.



Proposed: Reconstruct drainage of depressed area with dome grate to prevent overflow. Line basin with mortared granite setts.



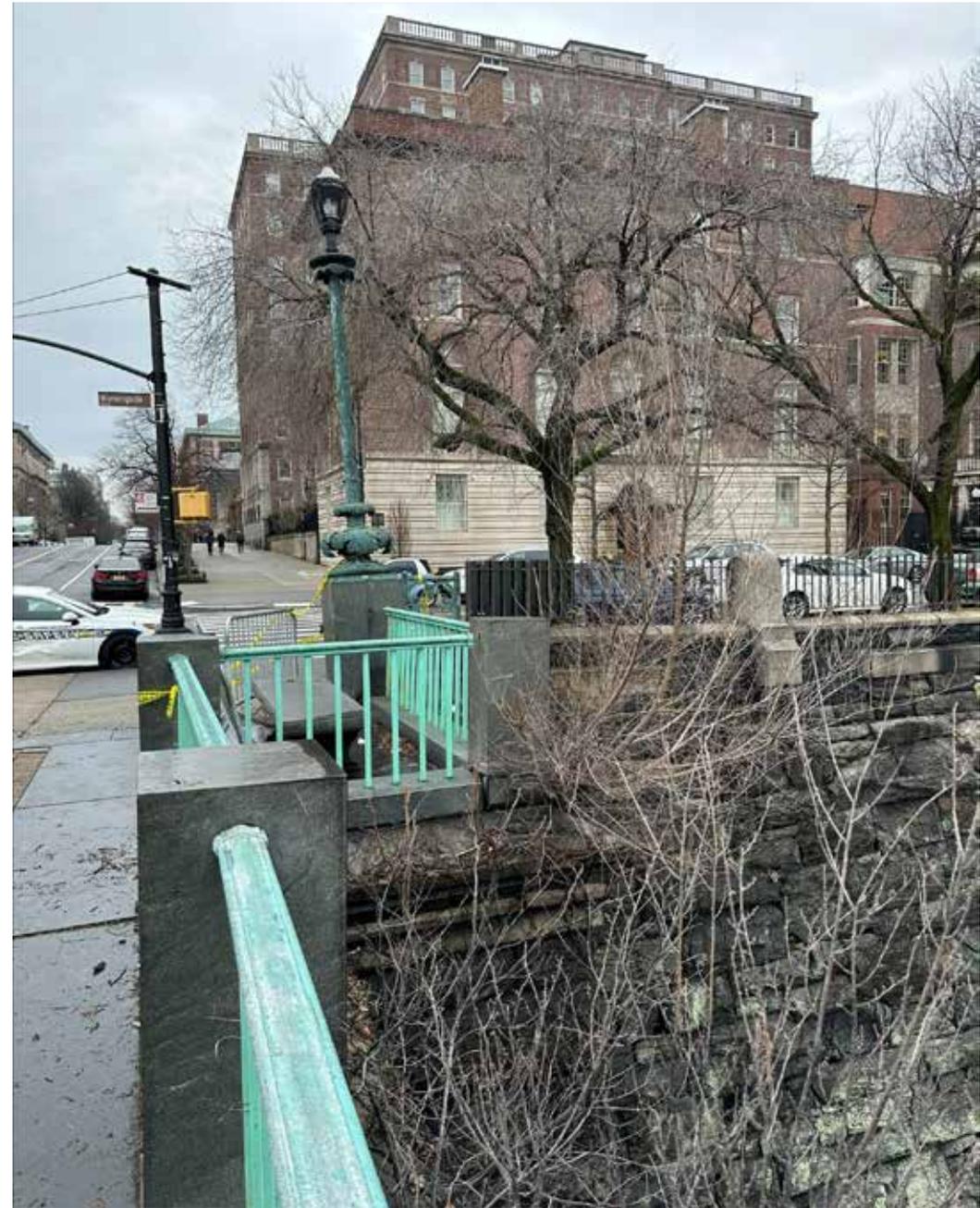
Morningside Park | Reconstruct birdbath with dome grate to prevent overflow



Carl Schurz Monument photograph 1939- Original luminaires were white globes.



Morningside Park | 116th St. and Morningside Drive- Carl Schurz Memorial



Leaning historic light and pedestal:
Remove and reset pedestal and light pole, re-attach railing to removed and reset granite posts, remove and reset schist coping dislodged by roots, remove and reset granite curb



- A.** 114th Street- Bluestone stairs
- B.** 116th Street- Center bluestone stairs, paths, drainage problems
- C.** 122nd Street-Bluestone stairs

Project Area

■ **Flights of Stairs**

