

## Project Narrative

**Name of Project:** Doan Brook Restoration near Horseshoe Park

**Project Location:** Shaker Heights & Cleveland Heights, Ohio

**Project Type:** Public park, stormwater infrastructure

**Date of Completion:** Framework Plan – 2023, Design 2024-2025, Construction 2026-2027

**Owner/Client:** Northeast Ohio Regional Sewer District (NEORS), City of Shaker Heights, City of Cleveland Heights

**Consultants:**

- STIMSON – Princeton, MA
- AECOM – Cleveland, OH
- GPD Group – Cleveland, OH
- EnviroScience – Stow, OH
- Bluestone – Euclid, OH

**Community Partner Organizations:**

- The Doan Brook Watershed Partnership
- The Nature Center at Shaker Lakes
- The Shaker Historical Society
- The Village Garden Club

**Project Summary:**

The plan for a section of Doan Brook takes on failed municipal infrastructure and boldly transforms it into a civic opportunity. Our work integrates Horseshoe Lake Park with its surroundings, remodels the space from a 6-acre park into a 60-acre park, the result of an iterative landscape architecture-led analysis and planning process with significant community engagement. This landscape plan serves as stormwater management for the city, ecological restoration, and as a dynamic, expanded public space.

**Project Narrative:**

It's a watershed moment.

Doan Brook flows through Cleveland, Ohio, into Lake Erie, through several urban communities and shapes the landscape and identity of the region. In 1852 the brook was dammed as a part of the Shaker Center family woolen mill, creating Horseshoe Lake to power the operation. The mill was soon abandoned, and the surrounding landscape was transformed by suburban development, parkways, and a series of disconnected parks. Due to the evolution of the unmaintained dam the environment has suffered, and the dam has become a public hazard. The lake impoundment became clogged with sediment and invasive plants continues to degrade the environmental value.

Despite these challenges, we saw an opportunity.

## Project Narrative

So, our plan turns a 6-acre park into a 60-acre park, aimed at developing a landscape that integrates cultural and environmental requirements and amenities. Through extensive public engagement, including interactive workshops, walking tours, pop up events, and web surveys, we worked with the surrounding communities to develop a comprehensive vision for the new park. Area residents shared a strong desire for a landscape that highlighted the native plant communities of Ohio and allowed direct access to the waterway itself.

Using community feedback and site history as a guide, our framework plan developed an extensive system of circulation allowing diverse ways for interaction with the park and riparian landscape including bridges, boulder crossings, brook overlooks, pollinator gardens, a sensory garden, and an ambitious nature play area in the heart of the park.

Throughout the rest of the park, upland forests will be managed for invasive species and transitioned back to a healthy native forest through careful long-term management of these resources. New hillside meadows will provide a transition between the floodplain and upland areas, creating a rare pollinator habitat in this dense urban landscape and striking seasonal displays.

The central area of the park is built around a series of constructed wetlands located at all major stormwater outfalls from the surrounding communities. These wetlands, built with sediments salvaged from the former lakebed, will filter and clean untreated stormwater from over a hundred acres of urban streets before it enters the restored Doan Brook. These wetlands are also designed to be highly dynamic, transforming with each new storm event into a new hydric landscape. They will create rich habitats and display some of the most distinctive native plants of the region, including buttonbush and highbush blueberry. Even in a 100-year storm event, these floodplain zones will spread out and slow down flood water and the park will remain open to the public, allowing visitors to observe the effects of urban hydrology and the understand the larger ecological forces at play in the region.

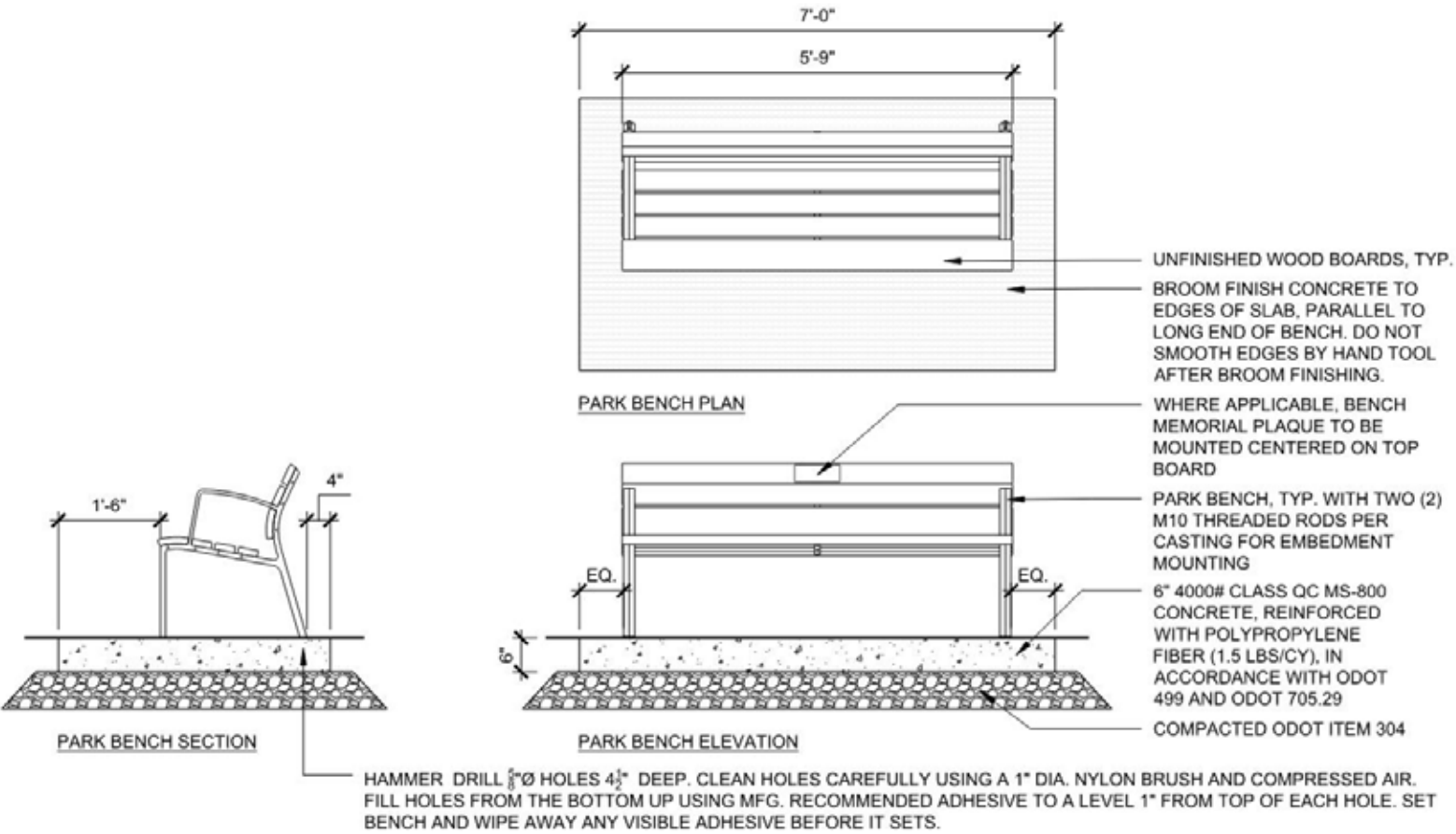
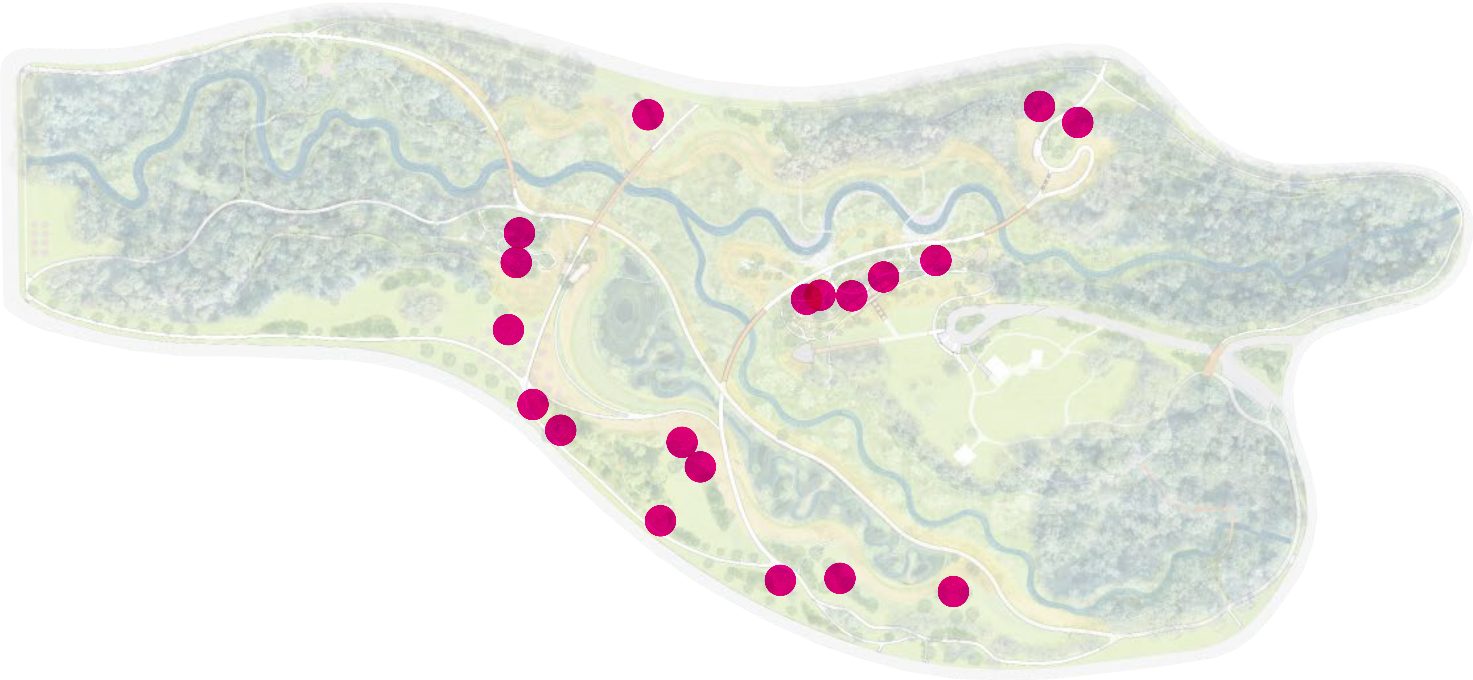
In its role as active hydrological urban infrastructure and ecological refuge, this plan creates a park experience that celebrates regional history and ecology and is dynamic, educational, and dramatically different with every visit.







SITE FURNISHINGS | BENCHES (19)





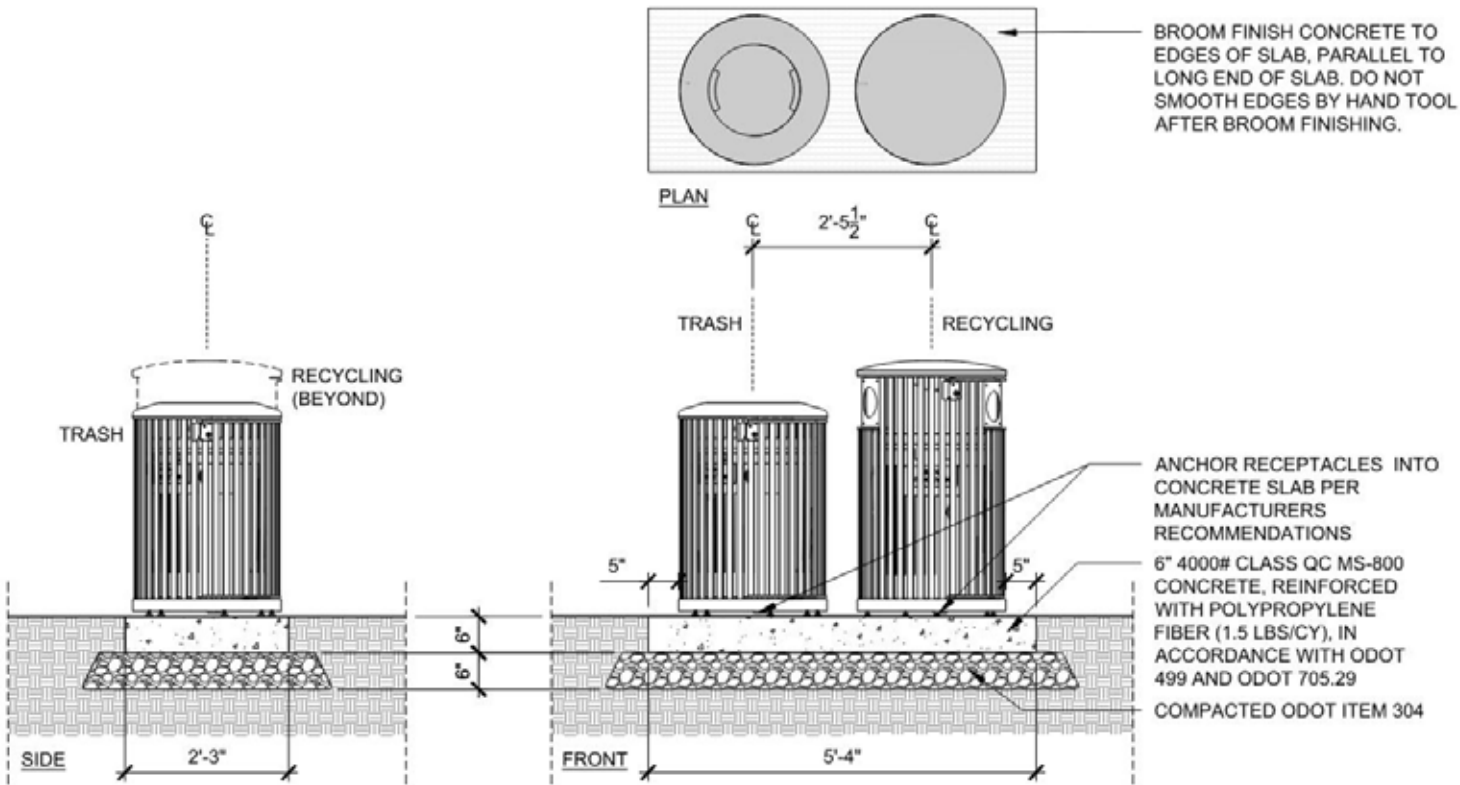
# SITE FURNISHINGS | TRASH & RECYCLING RECEPTACLES



TRASH RECEPTACLES (5)

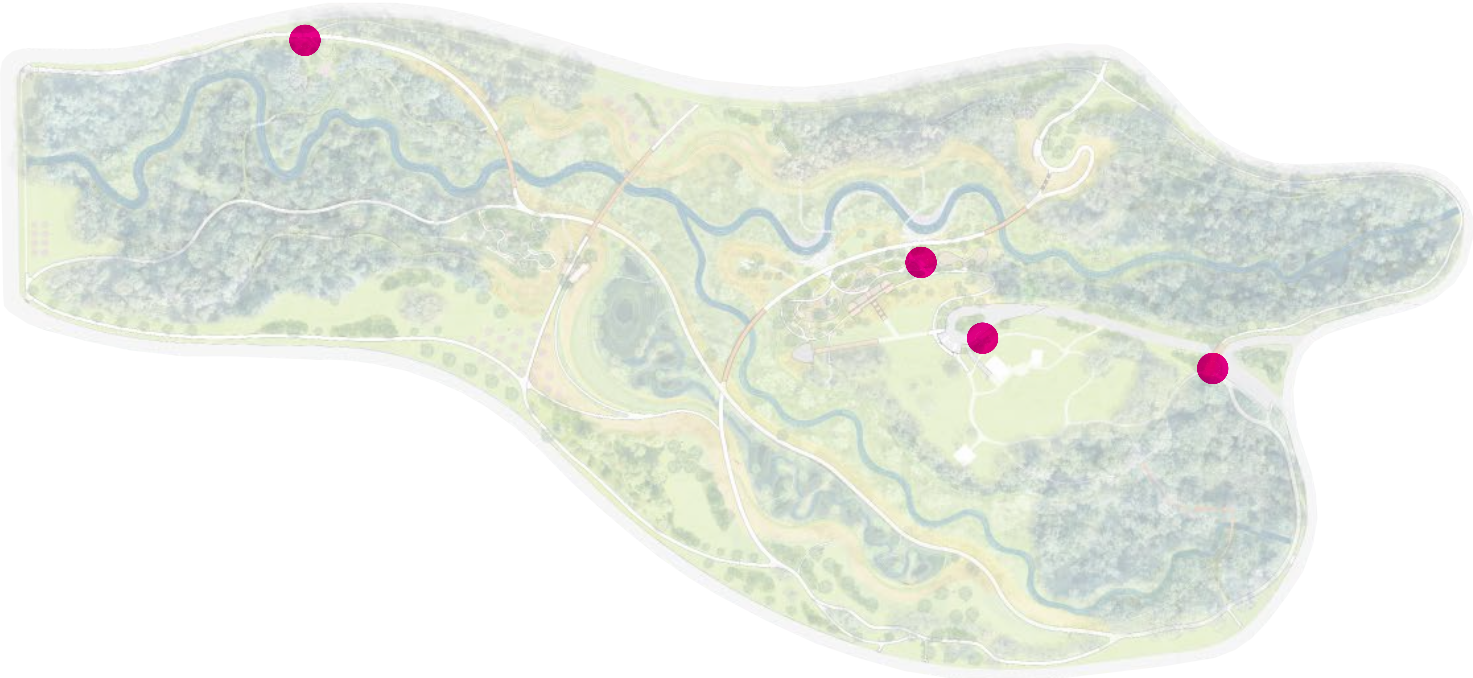


RECYCLING RECEPTACLES (5)



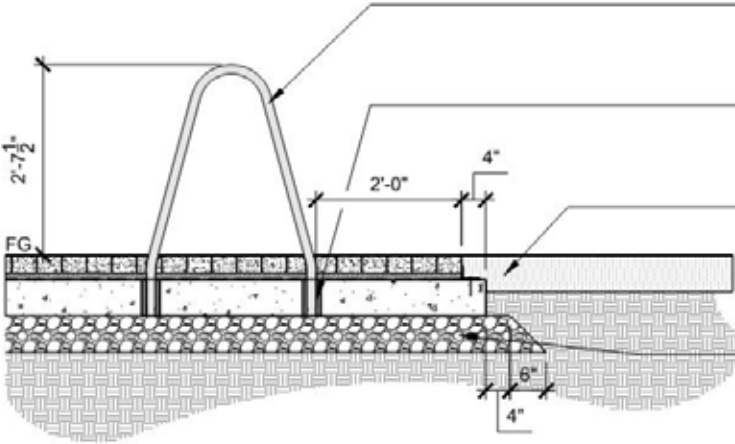
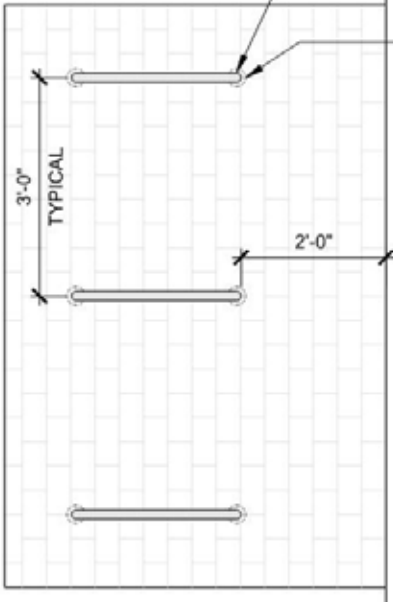


# SITE FURNISHINGS | BIKE RACKS (15)



NOTE THAT THE 3"Ø CORE DOES NOT COME TO THE SURFACE OF THE CONCRETE UNIT PAVING. UNIT PAVERS SHALL BE CAREFULLY CUT TO MAINTAIN A CLEAN AND CONSISTENT CUT AROUND THE BIKE RACK BASE. MAXIMUM JOINT WITH SHALL BE 1/4"

PREPARE CORE HOLES FOR ANCHORING CEMENT. FOLLOW MFG INSTRUCTIONS FOR BLOWING OUT DUST, FILLING WITH WATER, SCRUBBING, AND REMOVING EXCESS WATER PRIOR TO FILLING THE HOLES WITH ANCHORING CEMENT.



STAINLESS STEEL BIKE RACK, WITH CUSTOM 4" EXTENSIONS FOR FULL EMBEDMENT IN CONCRETE SLAB.

CORE DRILL 3"Ø HOLES 6" DEEP IN SLAB. USE ANCHORING CEMENT PER MFG. RECOMMENDATIONS

6" 4000# CLASS QC MS-800 CONCRETE, REINFORCED WITH POLYPROPYLENE FIBER (1.5 LBS/CY), IN ACCORDANCE WITH ODOT 499 AND ODOT 705.29

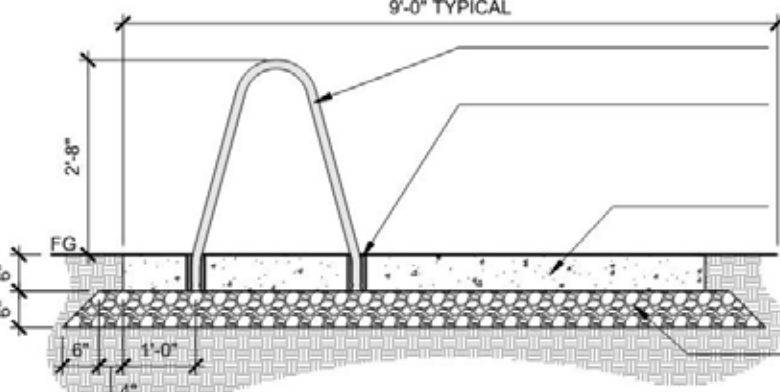
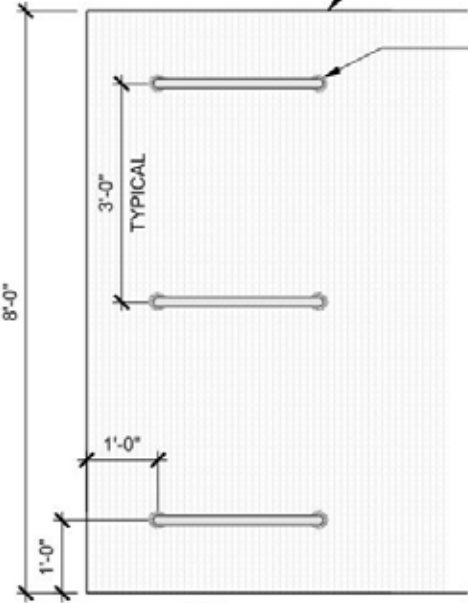
COMPACTED ODOT ITEM 304

PLAN

SECTION

BROOM FINISH CONCRETE TO EDGES OF SLAB, PERPENDICULAR TO BIKE RACKS. DO NOT SMOOTH EDGES BY HAND TOOL AFTER BROOM FINISHING.

USE EXTREME CARE WHEN PREPARING CORE HOLES FOR ANCHORING CEMENT. FOLLOW MFG INSTRUCTIONS FOR BLOWING OUT DUST, FILLING WITH WATER, SCRUBBING, AND REMOVING EXCESS WATER PRIOR TO FILLING THE HOLES WITH ANCHORING CEMENT. CAREFULLY WIPE AWAY EXCESS ANCHORING CEMENT FROM SURFACES BEFORE IT CURES.



STAINLESS STEEL BIKE RACK, TYP.

CORE DRILL 3"Ø HOLES 6" DEEP. USE ANCHORING CEMENT PER MFG. RECOMMENDATIONS

6" 4000# CLASS QC MS-800 CONCRETE, REINFORCED WITH POLYPROPYLENE FIBER (1.5 LBS/CY), IN ACCORDANCE WITH ODOT 499 AND ODOT 705.29

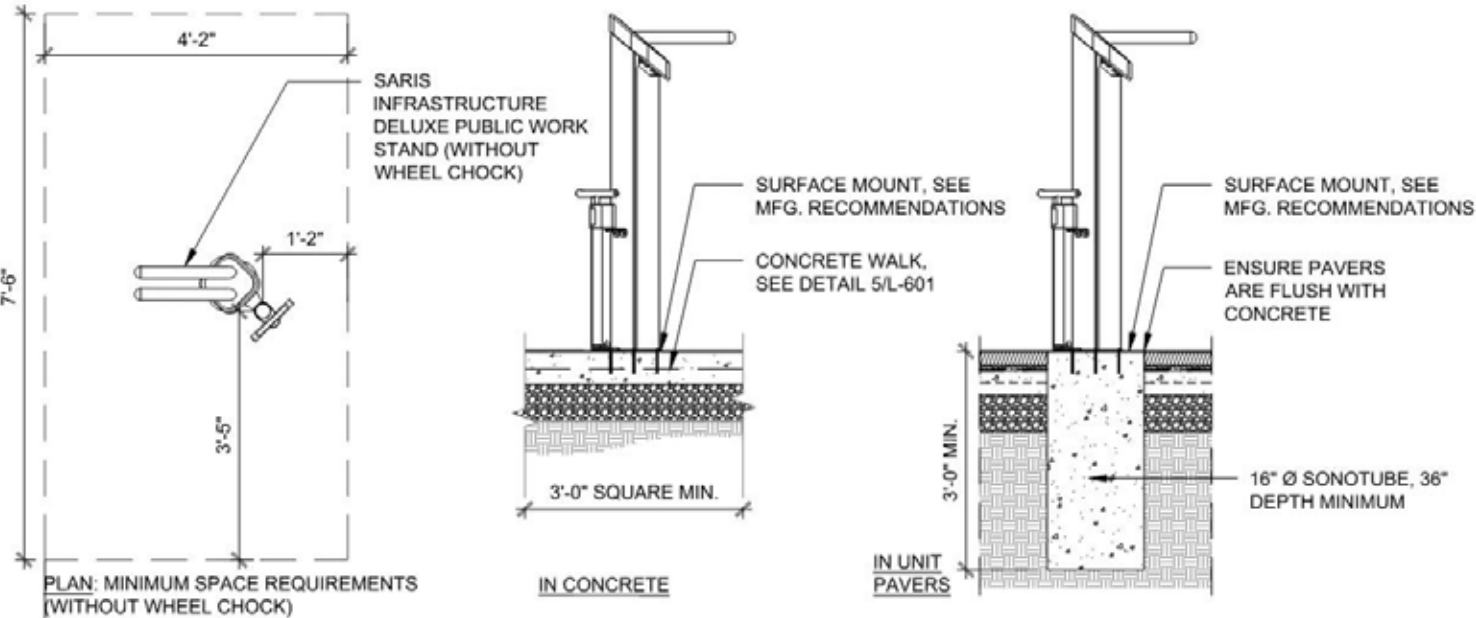
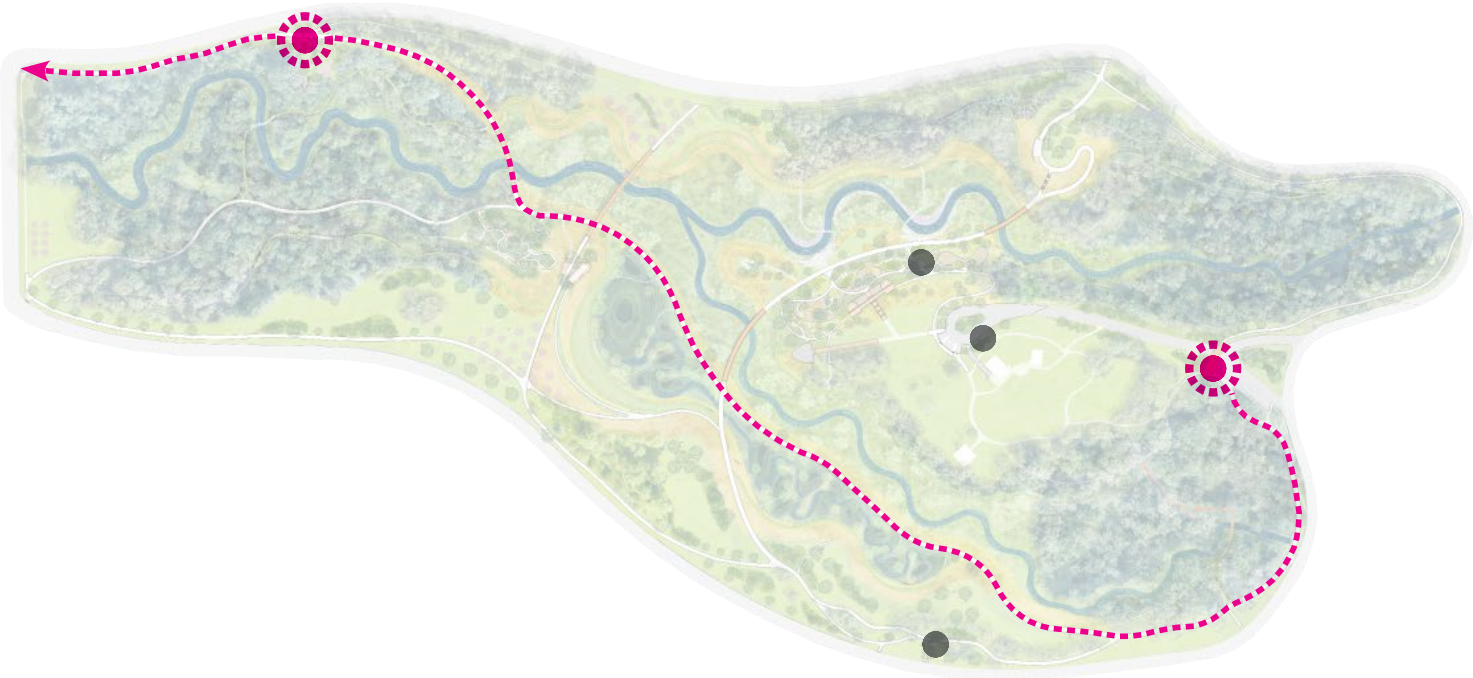
COMPACTED ODOT ITEM 304

PLAN

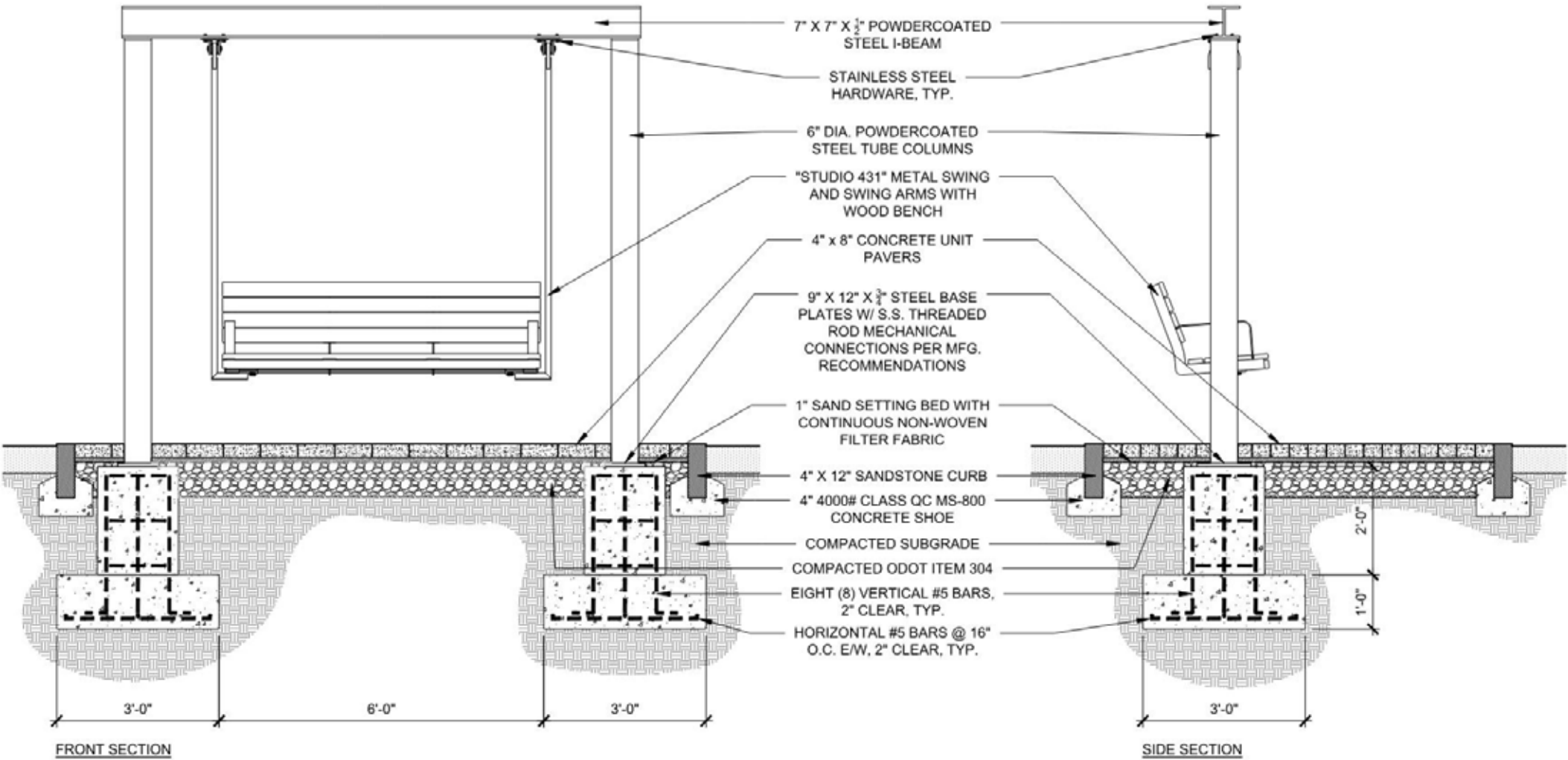
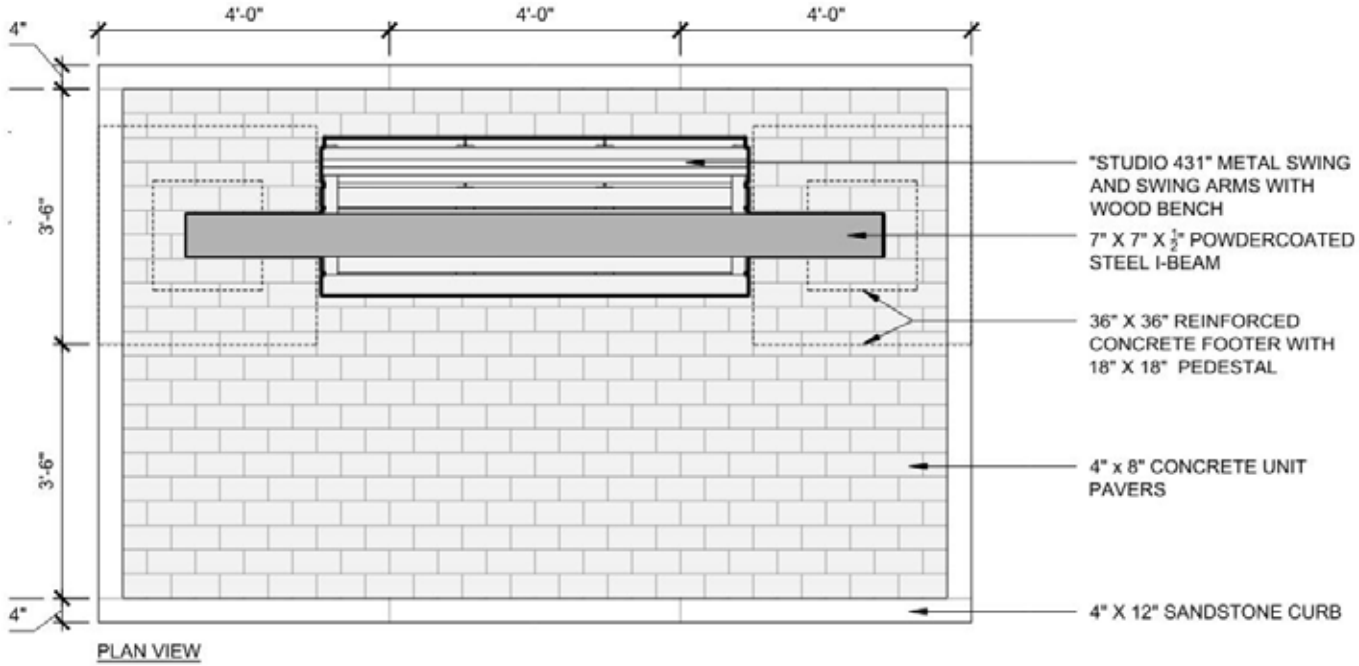
SECTION



# SITE FURNISHINGS | BIKE REPAIR STATIONS (2)

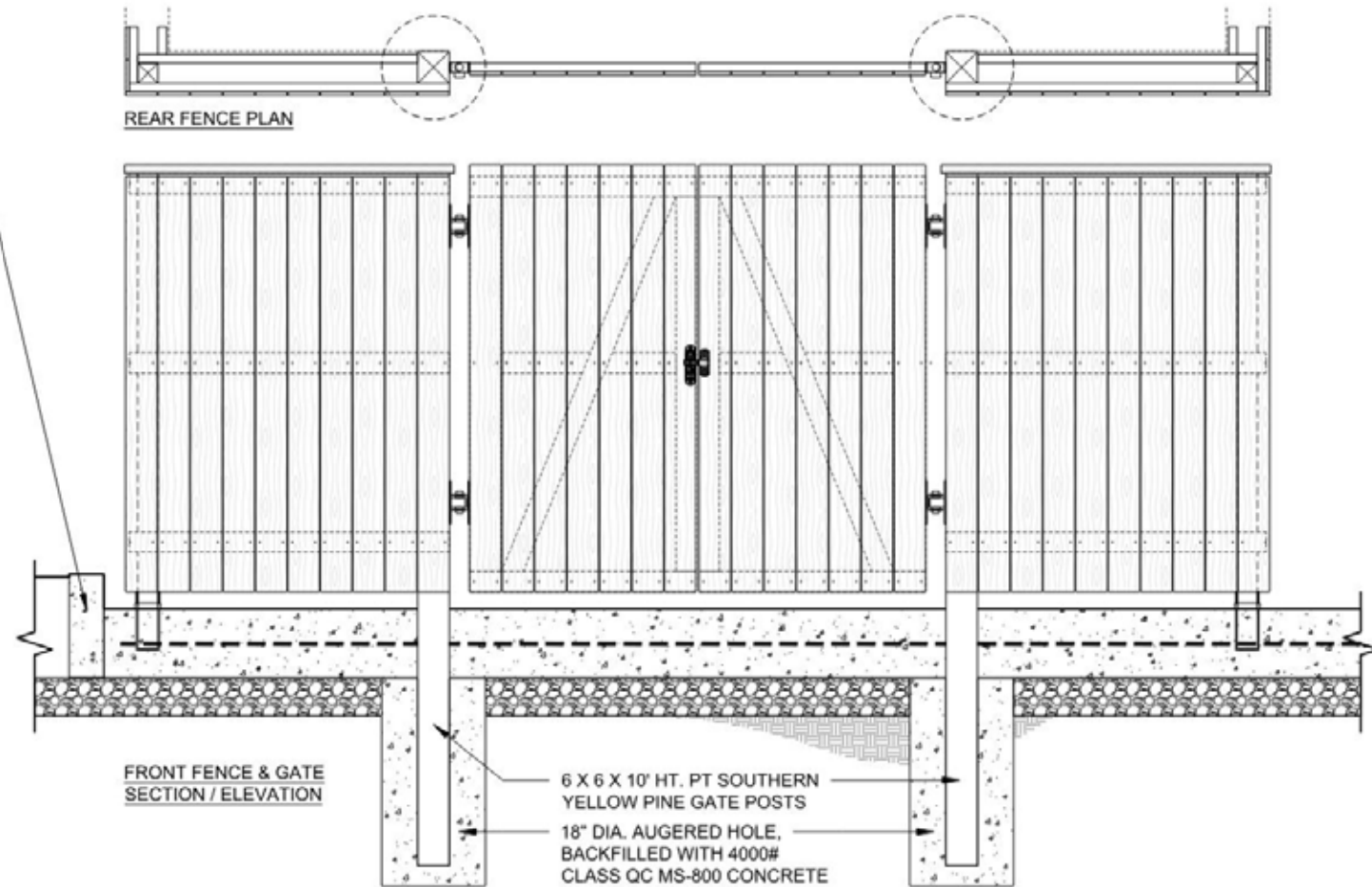
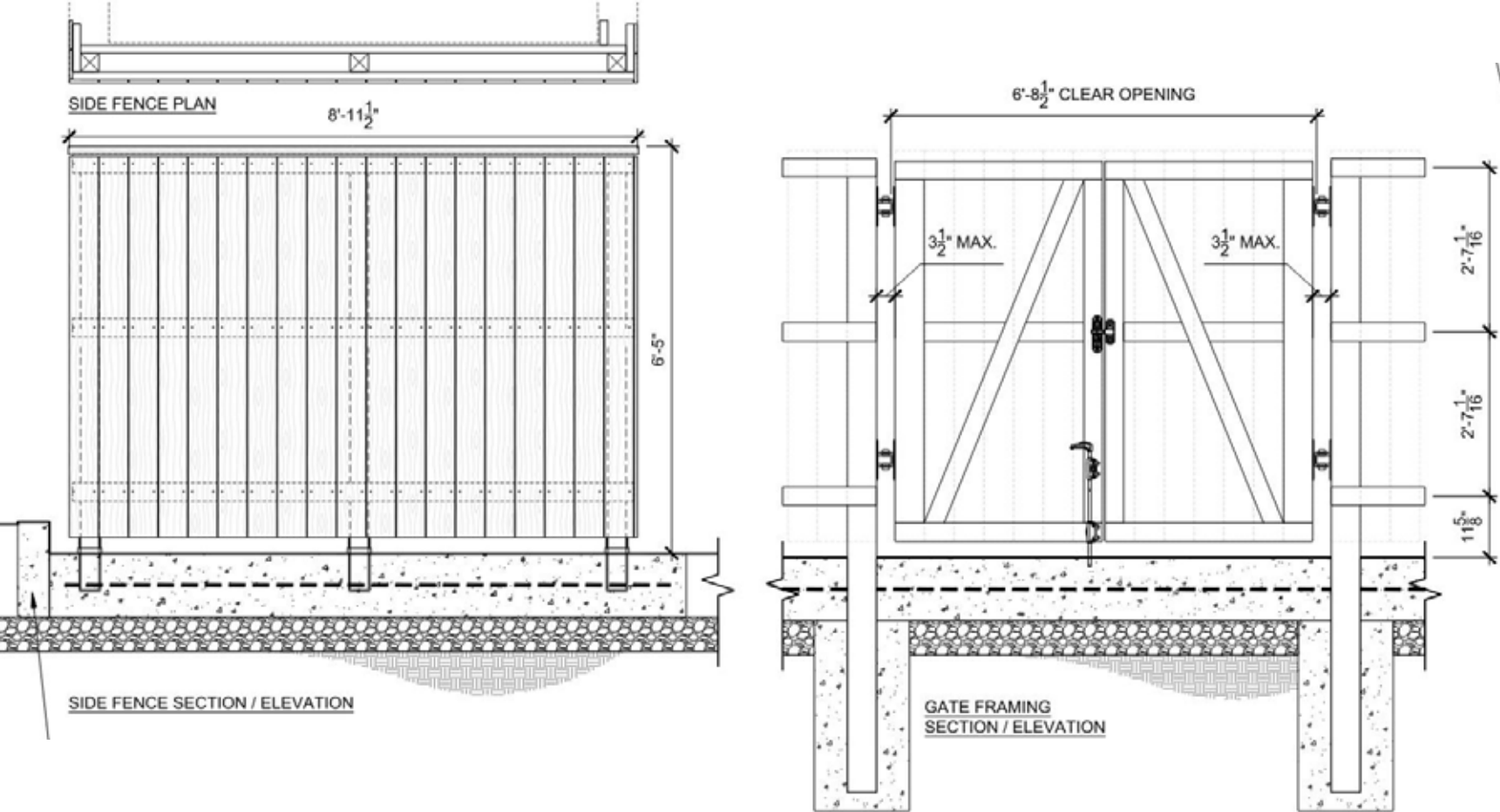


# SITE FURNISHINGS | PARK LOUNGE SWINGS (2)



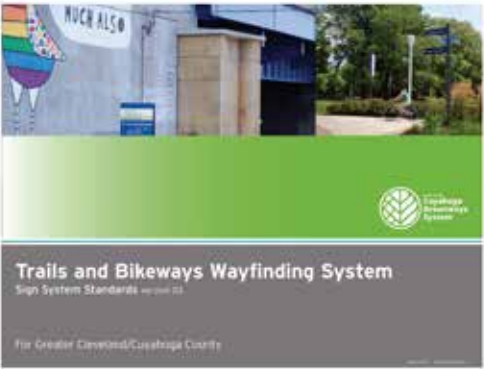


# SITE FURNISHINGS | TRASH ENCLOSURE





# SITE FURNISHINGS | WAYFINDING SIGNAGE



Lake-to-Lakes Trail

Horseshoe Park

↖ Trails

Sensory Garden

Outdoor Classroom

↗ Playgrounds

Doan Brook Overlook

↘ Trails

Lake-to-Lakes Trail

Horseshoe Park

↖ Trails

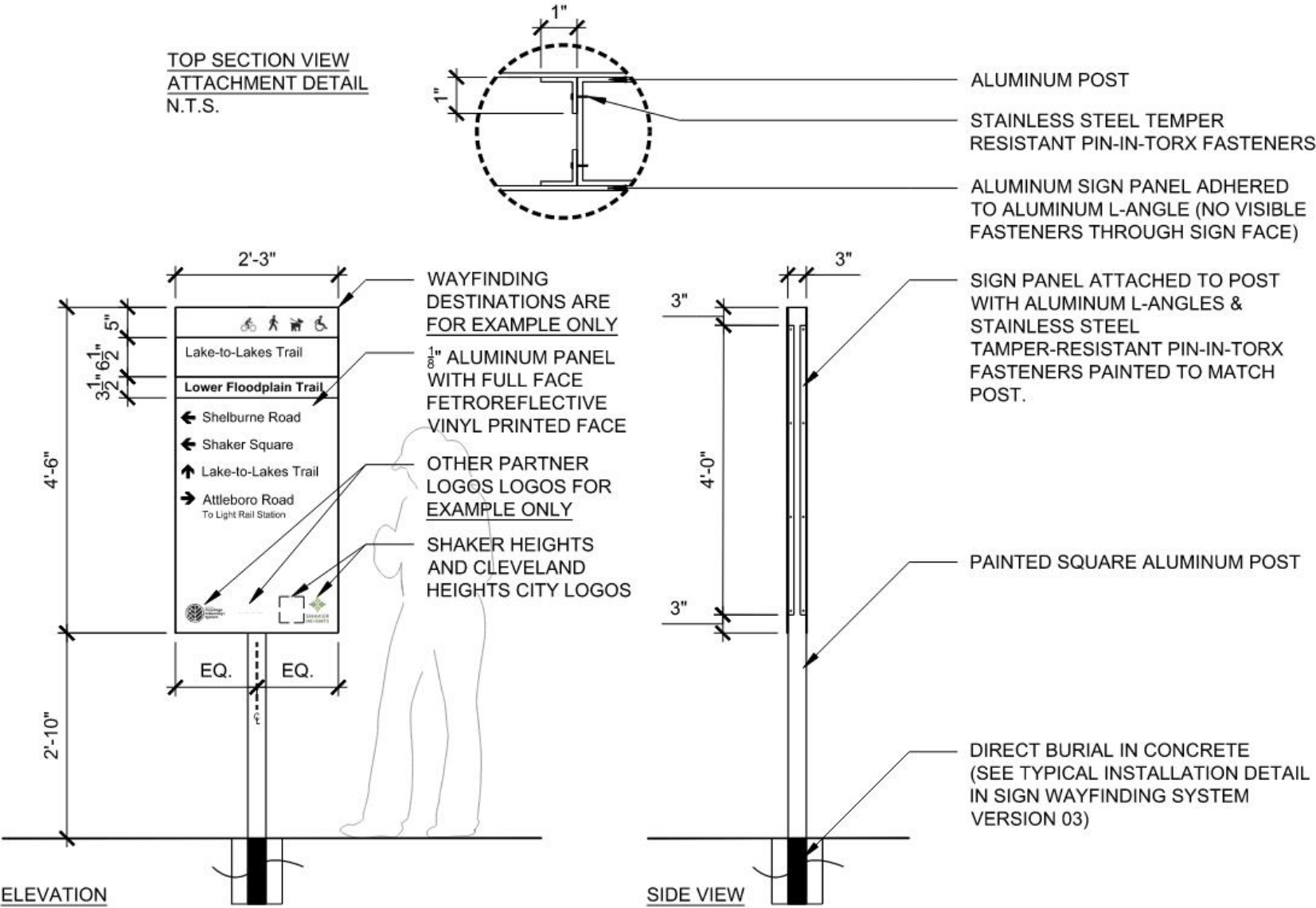
↘ Trails

Sensory Garden

Outdoor Classroom

↙ Playgrounds

Doan Brook Overlook



- TRAIL SIGNAGE NOTES:
1. DETAIL REFERENCED FROM TRAILS AND BIKEWAYS WAYFINDING SYSTEM - SIGN SYSTEM STANDARDS VERSION 03 FOR GREATER CLEVELAND / CUYAHOGA COUNTY.
  2. "INTERSTATE" FONT TO BE USED AS PRIMARY FONT FAMILY. THE FONTS SPECIFIED ON THIS PAGE ARE COPYRIGHTED AND CONTAIN PROPRIETARY INFORMATION BELONG TO THE CREATORS. UNAUTHORIZED COPYING OR SHARING OF THESE FONT IS EXPRESSLY FORBIDDEN. USERS OF THESE FONTS ARE TO PURCHASE THE APPROPRIATE LICENSES FOR THEIR USE. TYPE FACE LICENSING AGREEMENTS MAY VARY. PURCHASERS SHOULD REVIEW TYPE FACE LICENSING TERMS PRIOR TO PURCHASE. FOR INFORMATION ABOUT PURCHASING FONTS SPECIFIED ON THIS PAGE [HTTPS://FONTS.ADOBE.COM/FONTS/INTERSTATE](https://fonts.adobe.com/fonts/interstate)
  3. SYMBOLS HAVE BEEN SELECTED FOR USE WITH THE SIGN SYSTEM. ANY ADDITIONAL SYMBOLS SHOULD BE REVIEWED BY THE DESTINATION CLE TASK FORCE PRIOR TO USE.
  4. SEE DETAIL FOR INSTALLATION TAKEN FROM TRAILS & BIKEWAYS WAYFINDING SYSTEM STANDARDS VERSION 03.
  5. SEE NOTES FOR PERFORMANCE SPECIFICATIONS TAKEN FROM TRAILS & BIKEWAYS WAYFINDING SYSTEM STANDARDS VERSION 03.
  6. CONTRACTOR WILL BE PROVIDED DIGITAL FILE OF ALL DESIGNS IN 300 DPI CYMK FORMAT BY OWNER.
  7. CONTRACTOR TO SUPPLY ALL LABOR, MATERIALS, AND EQUIPMENT NECESSARY TO INSTALL SIGN AS PER DETAIL, INCLUDING ALL NECESSARY CONNECTORS, CONCRETE FOOTINGS, POSTS, AND HIGH PRESSURE LAMINATE PANELS.
  8. CONTRACTOR TO SUBMIT SHOP DRAWINGS FOR APPROVAL BY LANDSCAPE ARCHITECT PRIOR TO CONSTRUCTION.
  9. LAYOUT TO BE APPLIED TO FRONT AND BACK OF SIGN.
  10. CONTRACTOR WILL BE PROVIDED DIGITAL FILES OF ALL DESIGNS IN 300 DPI CYMK FORMAT BY OWNER FOR TWO SIGN FACES. LAYOUT TO BE REVIEWED AND APPROVED WITH LANDSCAPE ARCHITECT PRIOR TO PRINTING.