NOVEMBER 3, 2023

UNIVERSITY OF VIRGINIA

FONTAINE PARK

LANDSCAPE VISIONING FRAMEWORK

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LANDSCAPE VISION

INTRODUCTION

Fontaine Park (also known as Fontaine Research Park) is located southwest of UVA Central Grounds and is immediately east of the Route 29 Bypass. This document establishes a visioning framework for the landscapes for current and future projects at Fontaine Park in preparation for near-term and long-term development of the University's extended research and clinical campus. These landscape design guidelines, created for the long-term development, build on the 2018 Fontaine Master Plan.

PROJECT SCOPE

The landscape visioning framework focuses on expanding the Master Plan's landscape guidelines for the four landscape typologies within Fontaine Park: streets (local connections), neighborhoods (places), pavilion garden (commons), and trails network (regional system). Stormwater is an amenity within each typology, where applicable.

The framework describes the quality and vision of landscape types, including planted form, material palettes, and landscape amenity standards reflecting UVA standards so that with each project, Fontaine Park becomes a more authentic extension of the Grounds. Sample palettes, plan diagrams and precedent images convey these guidelines.

WORKING GROUP

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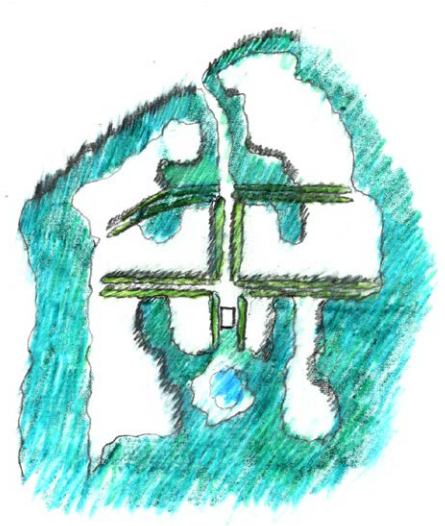


Master Plan Concept Plan 2018

Fontaine Master Plan 2018

LANDSCAPE VISION

PRINCIPLES

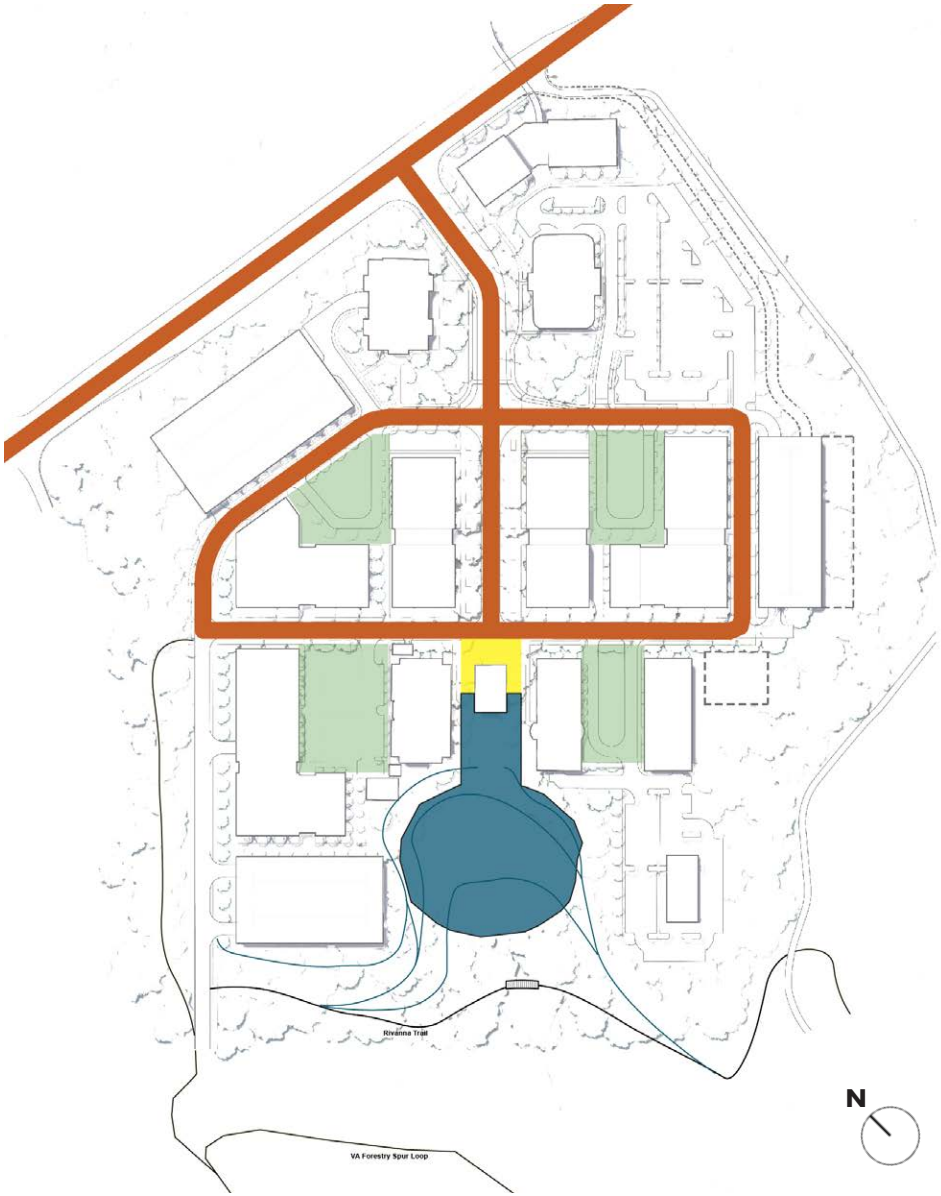
The landscape vision for Fontaine Park includes a strong green identity and pedestrian priority that ties Fontaine to the Central Grounds. Fontaine Park aspires to be a vibrant and walkable place that provides healthy outdoor places for patients, visitors, and research and clinical staff. This new translational campus needs connections to the outdoors to support the enhancement of learning, creativity, discovery, health, and patient care.

The principles of the Fontaine Landscape Vision are to:

- Strengthen UVA identity
- Prioritize pedestrian experience & accessibility
- Support health & wellness
- Enhance the green campus landscape
- Plan for flexibility of development phasing

CONNECTIONS

GREEN OUTDOOR SPACE



LANDSCAPE TYPOLOGIES DIAGRAM

- Streets
- Neighborhood Courts
- Water/Trails Network
- Garden Pavillion/Commons

LANDSCAPE TYPOLOGIES

Streets - Local Connections

Streets - Hierarchy, Character & Materials, Planting

Places - Bioswales & Rain Gardens, Linear Garden Pockets

STREETS - HIERARCHY

The first phase of the transformation of Fontaine Park occurs with roads, streets and sidewalks. The character and quality of streets can be differentiated by the materials (walls & paving), lighting, furnishings, and planting palettes. Wide sidewalks and crosswalks, and ample amenities near entrances and along paths can enhance walkability.

There are two street types at Fontaine.

PRIMARY STREETS

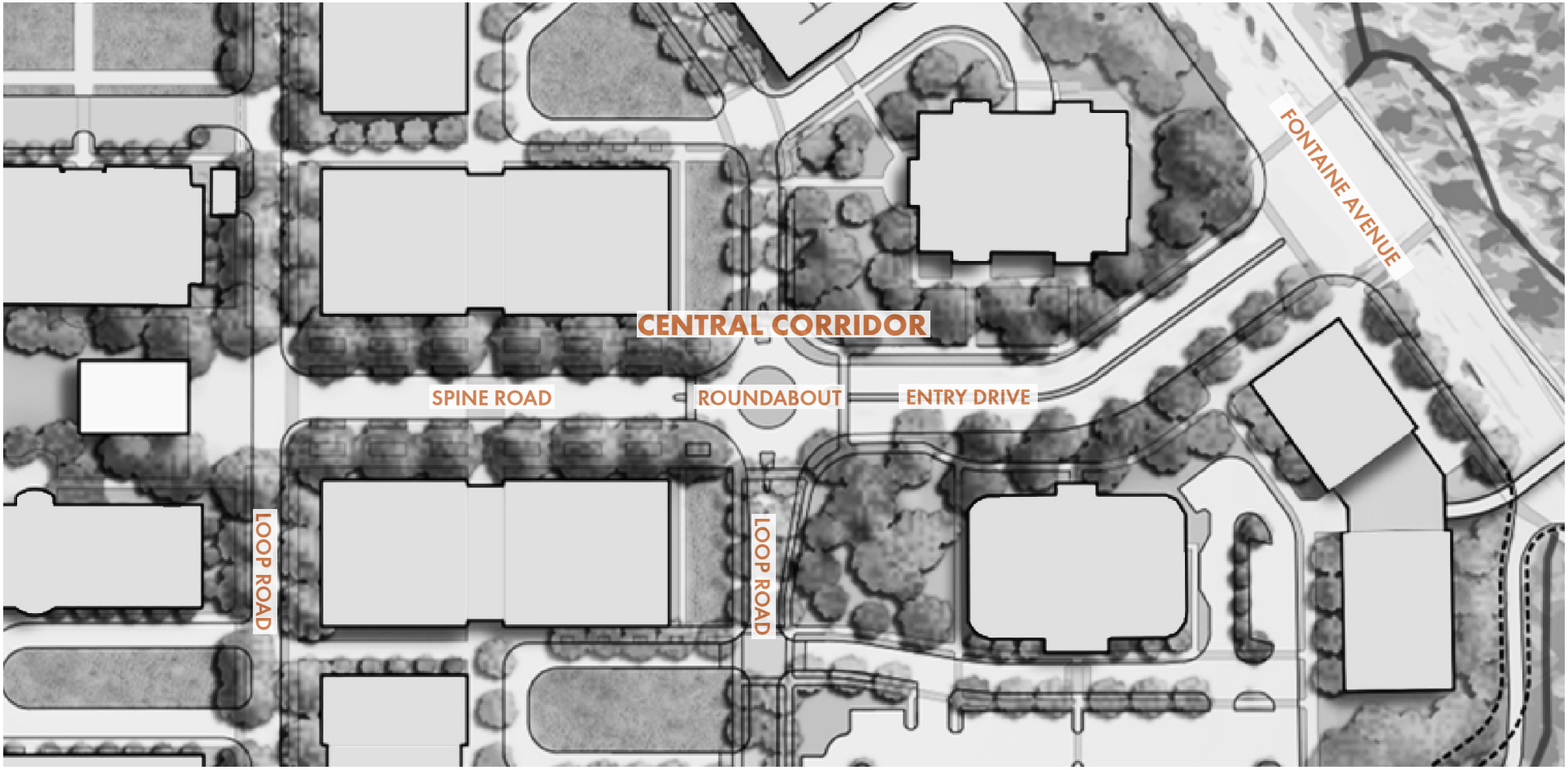
Primary streets connect, orient, and direct vehicular and pedestrian movement toward the center of Fontaine Park, activating the place. The primary streets that connect Fontaine Park to the University are: Fontaine Avenue Extended, the Entry Drive, the Spine Road, and the Loop Road.

The central corridor of the primary streets network consists of the Entry Drive and the Spine Road. This central corridor orients and directs vehicles and pedestrians to the heart of the Fontaine campus. The Loop Road connects to the central corridor at two points - one point at the roundabout, the other point at the south end of the Spine Road.

Fontaine's Entry Drive can accommodate pedestrians as part of the shift from a street with vehicular priority to a street that is a welcoming arrival for all modes of transport.

SECONDARY STREETS

All streets not considered primary are considered part of the secondary streets network. Streets leading to parking garages and parking lots, and all service roads fall into this category.



CENTRAL CORRIDOR OF THE PRIMARY STREETS NETWORK

STREETS - CHARACTER & MATERIALS

PRIMARY STREETS - CHARACTER

The central corridor is composed of two street segments with distinct characters and experiential qualities.

ENTRY DRIVE

Upon entering Fontaine Park, primary streets orient and direct visitors and staff to their destinations. As with other areas of the UVA Grounds, the entry portals and edges should be tied in character and materials to the University. The arrival corridor along Fontaine Avenue Extended and the threshold at the Entry Drive visually defines it as an extension of the University.

The Entry Drive serves as a busy portal that accommodates multimodal traffic. It is a 5-lane street with a bike lane on the ascending south-bound side, a bus layover, a narrow median, and a 7-foot wide sidewalk on the east side that links pedestrians to the pedestrian/bike path along Fontaine Avenue Extended. Shade trees flank both sides of the drive providing dappled shade along the portal.

SPINE ROAD

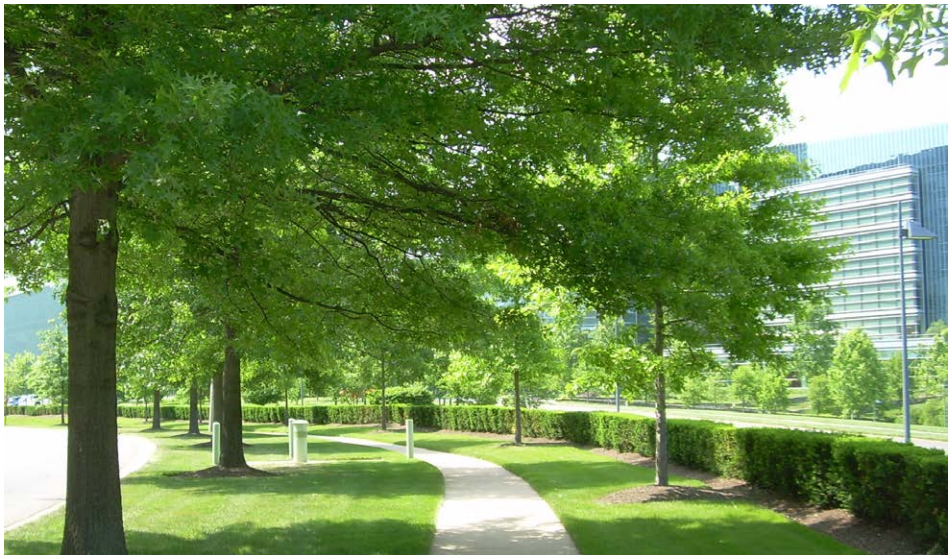
The Spine Road is an active street with a very different nature than the Entry Drive. While it also provides vehicular circulation, its main focus is on pedestrians and their comfort - to encourage lingering and to increase time spent outdoors. Sidewalks flank both sides at the street and along the buildings, offering opportunities for gathering along the edges.

In addition to shade trees, bioswales on both sides filter toxins from stormwater from the roadway to improve the regional water quality. The bioswale planting and the trees create a linear garden along the Spine Road.

A consistent material palette provides cohesion and reinforces identity with the University. To create a walkable environment it is critical to provide seating along pedestrian paths and near entries. Frequent opportunities for resting encourage the elderly and the infirm to rehabilitate and incentivize staff and faculty to go outdoors.

Fontaine Park uses the Roundabout to control vehicular traffic. This feature connects the two segments of the central corridor to each other and to the Loop Road.

Fieldstone & Bus Stop - Gannett USA/Today



Street Planting Character - Street Trees / Hedge

Street Planting Character - Street Trees / Screen Buffer

ROUNDABOUT

The Roundabout is situated at the topographical highpoint of Fontaine Park. It offers a view down toward the Spine Road and southward toward the distant mountain panorama. While its primary function is to move vehicular traffic through the intersection more efficiently, it also provides a safe and pedestrian-friendly connection. Careful attention to paving patterns reinforce pedestrians' right-of-way. Tall canopy trees and a low planting of shrubs and perennials inside the 60-foot diameter plant bed provide color and shade to the central corridor.

LOOP ROAD

The Loop Road connects to the central corridor at two points - at the Roundabout and at the south end of the Spine Road. It plays the vital role of conveying traffic throughout the campus by providing access to the parking lots and garages and also functions as the transit corridor.

PRIMARY STREETS - MATERIALS

Fieldstone walls and Edgewater light fixtures along Fontaine Avenue, at the entry and along the Entry Drive, and along the Spine Road and the Loop Road identify Fontaine Park as part of the Grounds.

As is typical within UVA Grounds, Fontaine's primary streets are standard asphalt and concrete curb with no gutter. Sidewalks along streets are cast-in-place concrete per University standard. Eight-foot wide sidewalks provide a generous path connecting pedestrians to all parts of the Fontaine Park.

SECONDARY STREETS - CHARACTER & MATERIALS

Secondary streets connect to primary streets. While the typical vehicular and pedestrian paving standards continue from primary streets, light fixtures and wall materials do not. Light fixtures are contemporary and walls, when necessary to aid accessibility, are concrete. Trees flanking both sides of the primary streets provide a lush and shady arrival and passage into and through Fontaine Park.

STREETS - PLANTING

CHARACTER & MATERIALS

Street trees along the Entry Drive, Roundabout, and Spine Road are tall canopy trees of diverse species and randomly spaced. Employing hedges where space allows additionally define edges. Along the Loop Road, planting may differ on either side of the street. Tall canopy trees may flank one side or both sides. However, where service yards and garages require screening, provide a planted screen buffer composed of a mix of evergreen and deciduous trees in combination with shrubs or low groundcover. Where space does not allow for a deeply planted screen buffer, employ a vertical green screen to soften.

Planting at the center of the Roundabout should be a massing of plants that do not exceed 4-ft height. A grouping of large canopy trees, offset from the center, provides a focal point and frames the view from the Roundabout. Consider the distant view when locating trees in the Roundabout plant bed. Choose tall canopy trees and keep them limbed high to allow views through to the mountains.

See the Material Palettes chapter for guidance for all landscape materials.

Swarthmore College Roundabout - 60ft diameter with 15ft concrete skirt and mountable curb

Mixed evergreen & deciduous screen buffer

Vines & trees green screen

PLACES - BIOSWALES & RAIN GARDENS

CHARACTER & MATERIALS

The Spine Road is at the heart of Fontaine Park. As such, the details and character define the identity of the district. Central to its identity is its function as a working landscape for stormwater in a bio basin that is both functional and aesthetically beautiful throughout the seasons to enhance the pedestrian experience. Plantings for the bio basin appear as a cultivated garden with some low shrubs, predominantly grass-like plants, and floral accents.

Native plants comprise the majority of the plants list but adapted non-natives that thrive (without being invasive) complete the plants palette. Prioritize plants that provide all seasons color and presence. Avoid plants with high maintenance requirements.

The list of stormwater basin plants is too broad to list, however the UVA Facilities Management has a short list of plants that perform well. These plants are identified in the Plants section of the Material Palettes chapter.

See the Material Palettes chapter for guidance for all landscape materials.

Barton Basin GSI for Control Project – SvR Design Company

Batignolles - Paris, France

Sheffield Grey to Green - UK

Campbell Hall UVA - NBW

PLACES - LINEAR GARDEN POCKETS

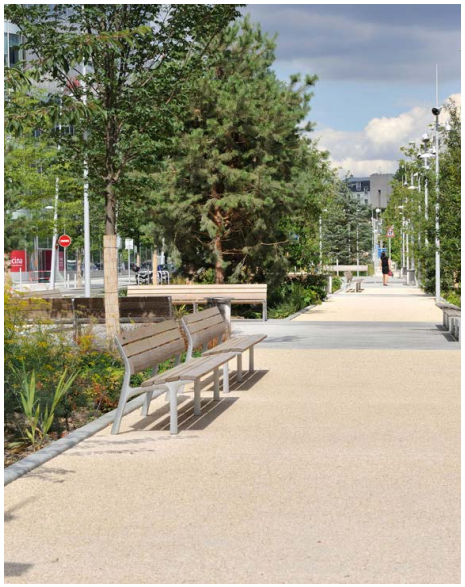
CHARACTER & MATERIALS

To support a healing environment for the Fontaine community, materials and plantings are essential components to create a healthy setting for all users.

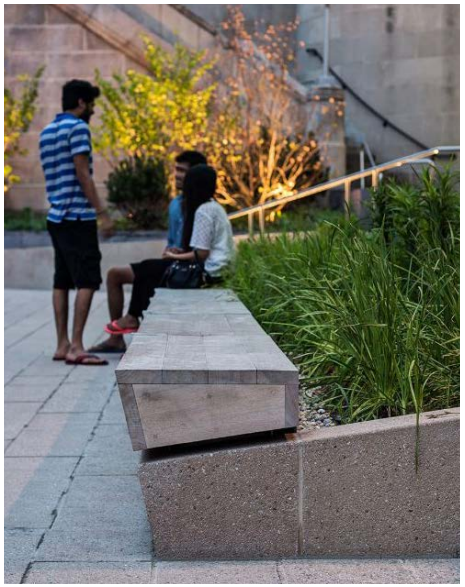
Fontaine Park has a diverse population with varying needs for outdoor activities. To support walking outdoors, locate seating along paths for convenient pauses, spaced approximately 30-60 feet apart. Where space allows, create intimate places with landscape materials. Provide space for wheelchair(s) near seats within these places.

Providing frequent seating areas for individuals and for groups offers places for outdoor retreat and repose. Seats can be a low wall or a bench along a path. Seats surrounded by planting can provide additional enjoyment. Seats with backs and armrests are user-friendly and, where it is beneficial for users to have the choice of facing either direction, use backless benches. Vary the number of grouped seating areas and the layout to provide a variety of group sizes.

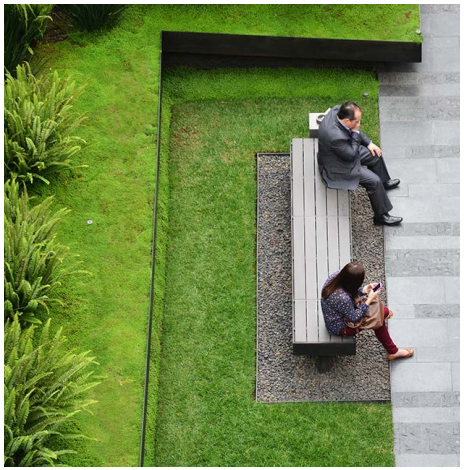
See the Material Palettes chapter for guidance for all landscape materials.



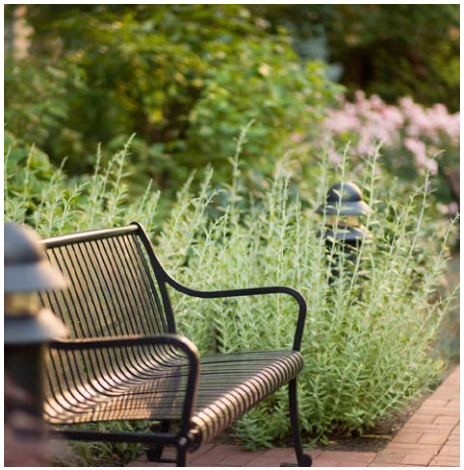
Patrick Chavannes-Boulogne Cours Seguin - Paris



Chicago Riverwalk - Sasaki



Coyoacan corporate campus - DLC Architects



Bench set within a plant bed

Patrick Chavannes-Boulogne Cours Seguin - Paris

Streets - View from the Sidewalk Toward Spine Road Linear Pocket Parks & the Pavilion

LANDSCAPE TYPOLOGIES

Neighborhoods - Places

- Garden Courts
- Materials
- Planting
- Drives, Dropoffs & Entries

NEIGHBORHOODS - PLACES

NEIGHBORHOODS

Distinct neighborhood precincts cultivate a sense of place and stewardship of amenities. Fontaine Park is quartered into four precincts. Each core neighborhood is defined by two buildings that create an outdoor room - the garden court.

GARDEN COURTS

Garden courts vary by character and use. Building use dictates whether the garden court needs a drive and drop-off. The two buildings that shape garden court A are dedicated to research and do not require a drop-off but does need fire truck access. Neighborhoods B and C could be a combination of research and clinical uses thus may require a drive and drop-off. Neighborhood D is slated to be flanked by two clinical buildings and may require a drop-off and a driveway connection to an existing surface parking lot. Refer to the Drives & Drop-offs section of this chapter for more details.

DRIVES, DROP-OFFS & ENTRIES

Prioritize people in garden courts by providing uninterrupted green space that is easily and safely accessed by pedestrians of varying mobility. Locate building entries, when possible, close to the primary road circulation to reduce intrusion of vehicular traffic into the center of the garden courts. Shorten drives and use one curb cut with a circular drive to lessen pedestrian-car conflicts.

Entries to buildings must be clearly marked. Use of special paving at main building entries highlights the threshold and orients users.

Duke University Crown Commons

GARDEN COURTS

CHARACTER

Gardens are an inherent part of the University's identity and its ethos. People and wellness are the two top priorities in creating neighborhood gardens at Fontaine Park.

Gardens for people need to prioritize comfort, safety, and accessibility. These goals can be met by providing shade, varied seating options, and a cohesive material palette that enhances the identity of place. Create outdoor rooms of varying sizes and activate edges and centers with different uses to offer choices.

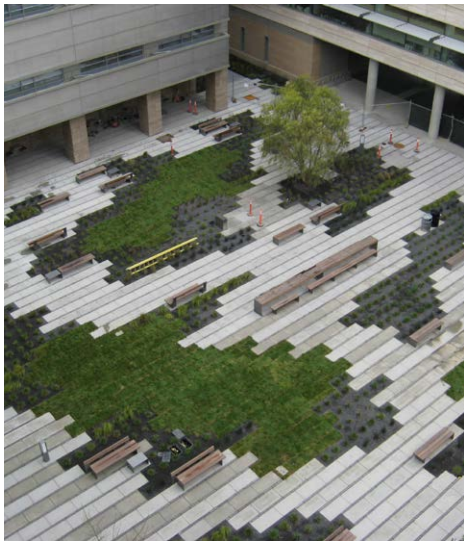
Incentivizing movement through gardens promotes wellness. Provide options for frequent respite to support movement by different users with varying mobility.

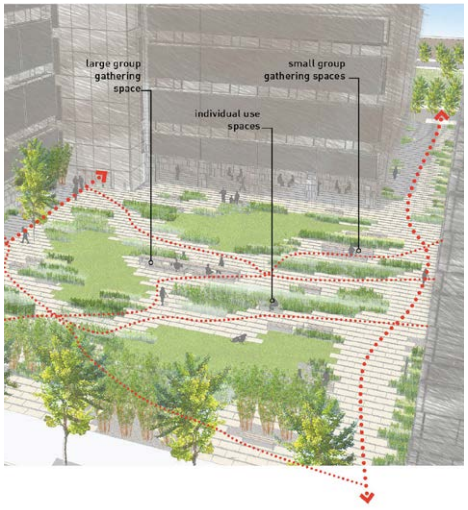
Furnishings should consider various users with comfortable benches and movable seating. Paths must be wide, stable and connect to desirable destinations.

The topographic conditions vary greatly between the four garden courts. These conditions create opportunities for terraced spaces for sitting and gathering. Activating edges and transitions between grade changes maximize usable spaces and provide options for users.

Gardens that inspire awe and whimsy also promote wellness. Spaces that accommodate both group interaction and quiet reflection allow for both active and passive enjoyment. Where possible, incorporate calming water features or public art to evoke delight.

Smith Cardiovascular Research Building





GARDENS COURTS

CHARACTER

Each garden court is unique to its core neighborhood however, some qualities and materials are consistent throughout. These are the primary characteristics that all garden courts share:

1. OPTIMIZE GREEN SPACE
   - Plants dominate to provide a lush landscape
   - Green center with minimal path cut-throughs

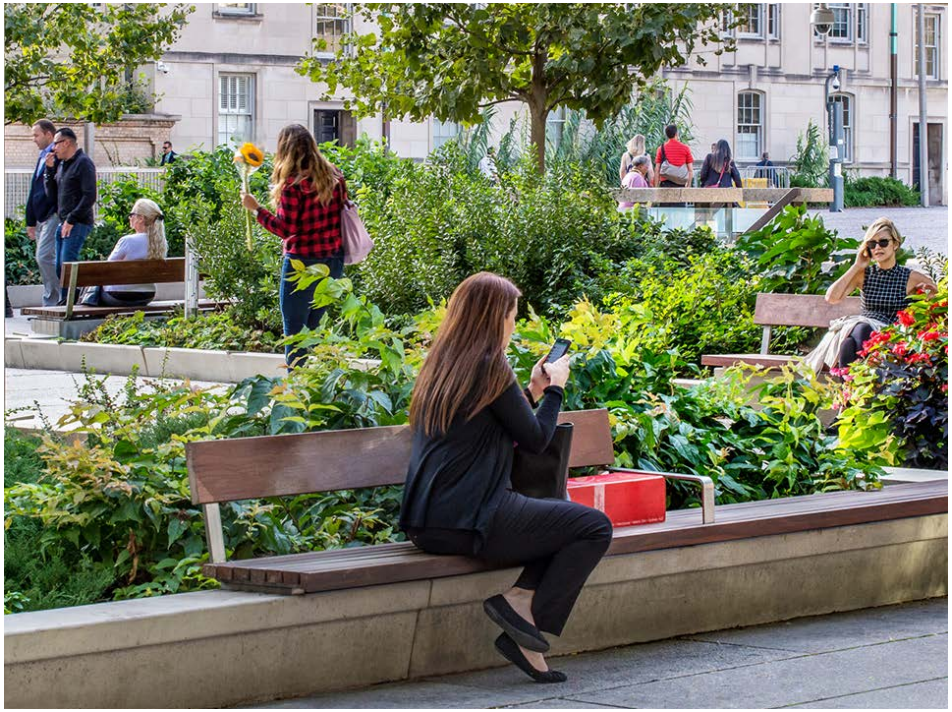
2. PROVIDE SPACES THAT WELCOME AND INVITE
   - Clear visual & physical connection from inside to outside
   - Sensory experience year-round
   - Furnishings for respite, lingering, gathering

3. OFFER CHOICES
   - Distinct character for each court
   - Private, semi-private, or public spaces

4. APPRECIATE FROM SEVERAL PERSPECTIVES
   - From inside building looking out
   - From above looking down
   - From inside garden looking out

Duke University Crown Commons

Duke University Crown Commons



St Leonards Health Organisation Relocation

La Samaritaine, Paris

Rice University Brochstein Pavilion

MATERIALS

Cast-in-place concrete with saw cut joints is the primary paving material for paths that cut through the garden courts. Use special paving at thresholds and entries, areas where people gather or linger, and garden paths and places. Limit the number of materials in each garden court, including the drives and drop-offs area.

Drives and drop-offs use special paving to express clear intention that vehicles share the drive with pedestrians and other modes of transport. Use pavers rated for vehicular use, patterns that withstand wheel rotations, and colors that resist or hide oil stains.

See the Material Palettes chapter for guidance for all landscape materials: walls, paving, lighting, seating and dining, and site furnishings.

Washington University in St. Louis

Residence for the Sisters of St. Joseph of Toronto

Rice University Brochstein Pavilion

Duke University Crown Commons

City Ridge - Washington DC

PLANTING

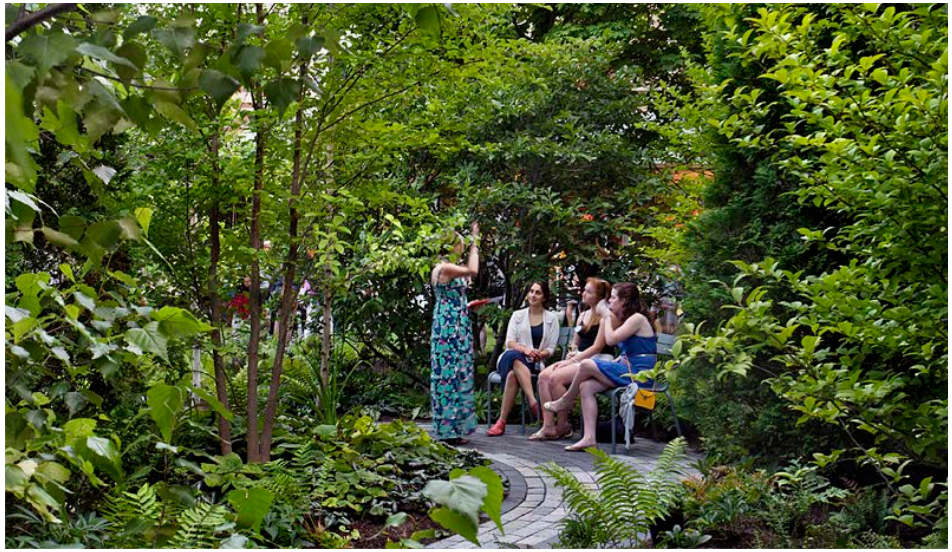
CHARACTER & MATERIALS

Each garden court, the heart and center of its core neighborhood, is green and lush. A layering of high-limbed shade trees, flowering understory trees, low shrubs and hedges, and perennials beds offer visual complexity vertically and horizontally. Use trees to provide canopy and shade. Use understory trees, shrubs, and plant beds to shape outdoor rooms within the court. Drought tolerant, native, and adapted plants that have low irrigation needs are preferred. Avoid invasive species and plants that self-sow too readily.

Review project plants selections with University's Landscape Architect and Associate Director of Grounds.

UVA Law School

Rice University Brochstein Pavilion



Monk Botanical Gardens

Victorian Comprehensive Cancer Centre

Coyoacán Corporate Campus

DRIVES, DROP-OFFS & ENTRIES

CHARACTER

Drives, drop-offs and entries are important components of the arrival experience and how people get to the clinics, research labs, and the gardens. Creating a comfortable and safe drop-off experience must be prioritized. Reduce vehicular and pedestrian conflict by prioritizing zones for walking. Suggestions for achieving these goals include using circular drives when applicable, using special paving for traffic calming, and providing a good balance of seating and planting at the drop-off area. Use bollards sparingly and strategically. Lighting should provide safety, comfort, and respect the night sky.

Circular drives minimize curb cuts and impervious surfaces. They also reduce the intrusion of vehicles into the garden space. The center of circular drives can vary in size but has to be large enough to accommodate lush planting but not encourage pedestrian access.

Comfort is the highest priority at the waiting and drop-off areas. Provide shade and plenty of seating. Extend the garden into the waiting areas. Lush plant beds provide additional comfort when users are surrounded by the garden. Trees and architectural canopies can provide shade.

Ryan Ranch Outpatient Campus - Monterey, CA

Drop-off Planted Waiting Area

UVA Children's Hospital Battle Building

The Luna - Nantong, China

DRIVES, DROP-OFFS & ENTRIES

Thomas Moore Square - London

Wentworth Point Library Forecourt - NSW

Riverlight - London

Neighborhoods - Garden Court Dropoff

LANDSCAPE TYPOLOGIES

The Commons - Pavilion Garden

- The Commons
- Topography & Materials
- Planting
- Pavilion
- Grove & Woodland
- Grove & Pavilion

THE COMMONS

CHARACTER

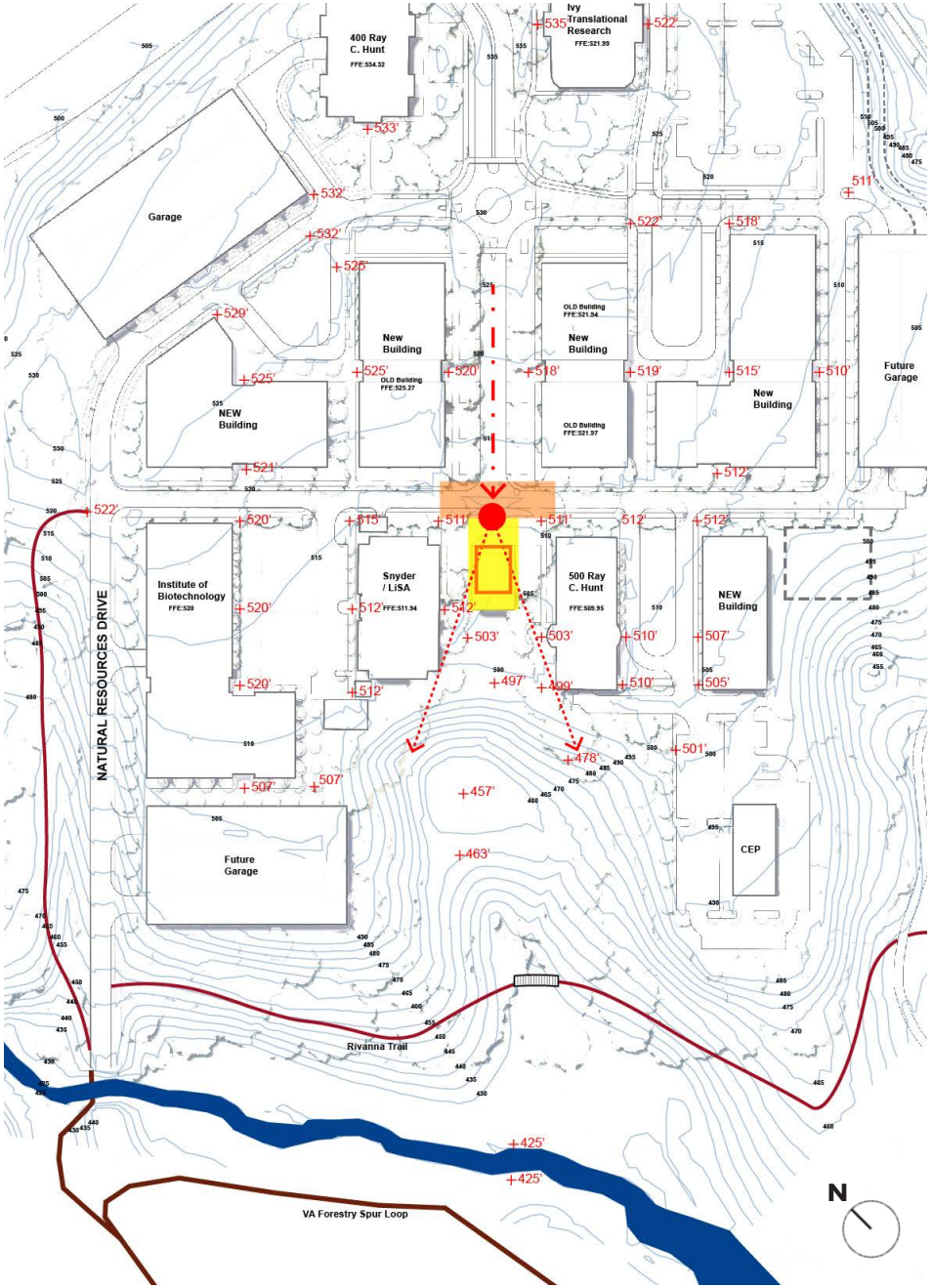
The commons is the shared social center of Fontaine Park. While the garden court is the heart of each core neigborhood, the commons, at the terminus of Spine Road, helps support the public identity of Fontaine Park.

The distant view from the roundabout, the highpoint of Fontaine Park, over the commons orients a person to the regional context. The grove and woodlands beyond provide the background for a leafy central plaza. As a public and communal place, it is welcoming and adaptable to various uses. As a social center, it provides a large central gathering space with intimate edges for small groups. It is the destination for large events with music and food, under and around the pavilion.

A pavilion at the center of the commons provides a focal point for the terminus. The grove filters through the commons and surrounds the pavilion on two sides. The pavilion provides an active center while its edges provide a more passive experience.

Street-side, the commons extends into the streetscape to claim the street as part of the plaza. Apply special paving in the street and sidewalk along the entire east-west length of the commons to create a pedestrian-friendly threshold. Bring lush planting right up to the sidewalk to bring the garden into the threshold. Movable tables and chairs welcome and invite people to linger and gather. The activity will enliven the street and invite people to interact.

On the grove side of the pavilion, the commons is a quiet and calm naturalistic landscape for retreat. It is a cultivated and open landscape with tall shade trees as canopy and mown turf as groundcover. Movable lawn chairs scattered about invite people to pause and connect with nature.



View south from Fontaine Park Loop Road at the Commons

TOPOGRAPHY & MATERIALS

TOPOGRAPHY

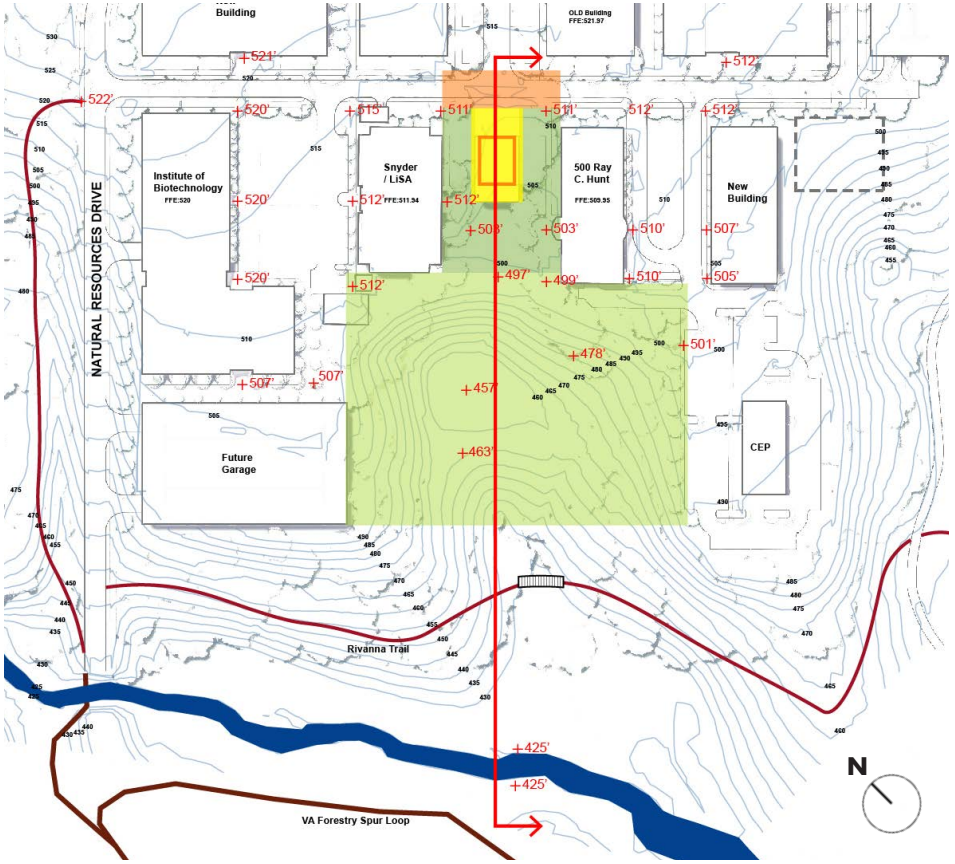
The grade change from the north to south end of the commons is approximately 12 feet. Terracing is a necessity to create accessible places. On the north side, the pavilion should relate directly to the streetscape. On the south side, use seat walls and terracing to bring people into the grove and the woodlands. Maximize placemaking by combining stairs with seats to transform passages into places and to optimize group gathering.

There are two ways to experience the edge of the woodland at the top of the slope down to the stormwater pond. An overlook provides a passive view over the pond from above. Alternatively, seating steps invite people down the slope to the pond. Program and user needs determine which approach fits the site.

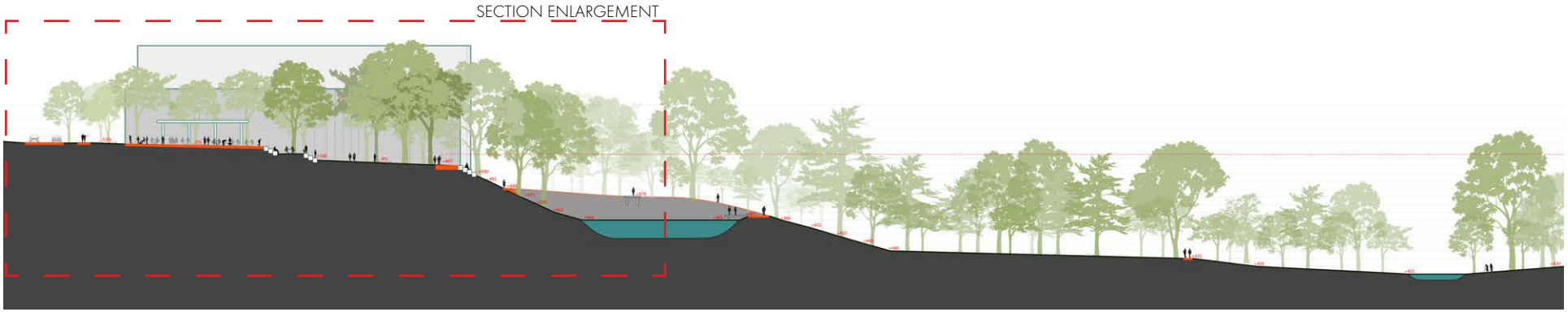
MATERIALS

As the terminus to the Spine Road, the materials in the commons should reflect its role as the social center of Fontaine Park. Use fieldstone or cubic fieldstone for walls and seating walls. Lighting, seating and dining furniture, and site furnishings are contemporary. Paths along and near the building are cast-in-place concrete. Places to sit, linger, and gather are paved with special paving.

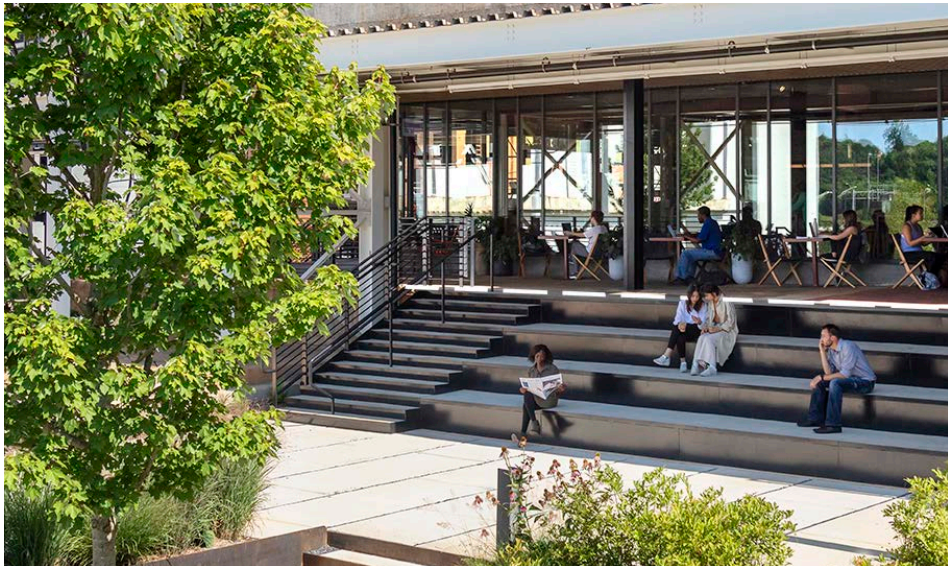
See the Material Palettes chapter for guidance for all landscape materials.



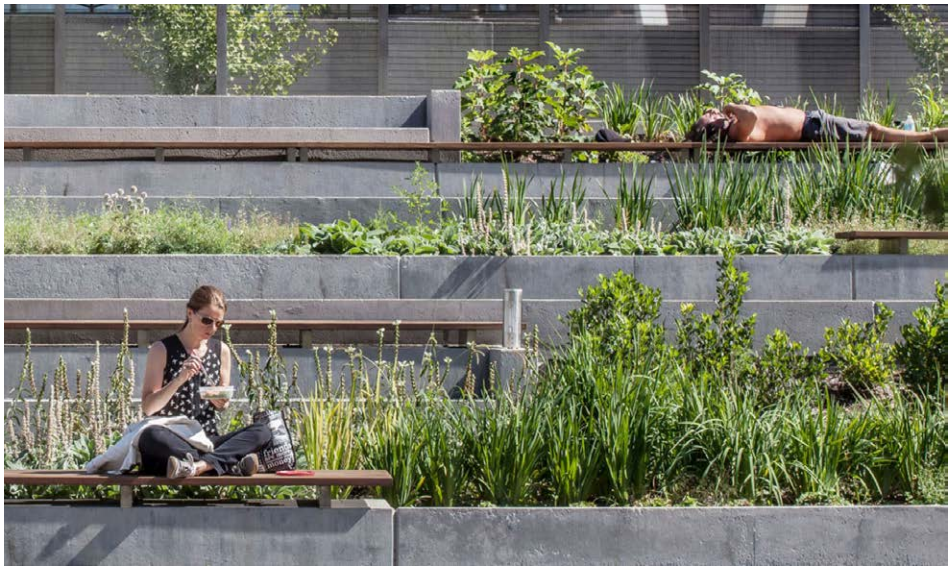
- Street-side
- Commons
- Pavilion
- Grove
- Woodland



Commons - Section Looking East



Atlanta Dairies



Nathan Phillips Square

Commons - Section Enlargement

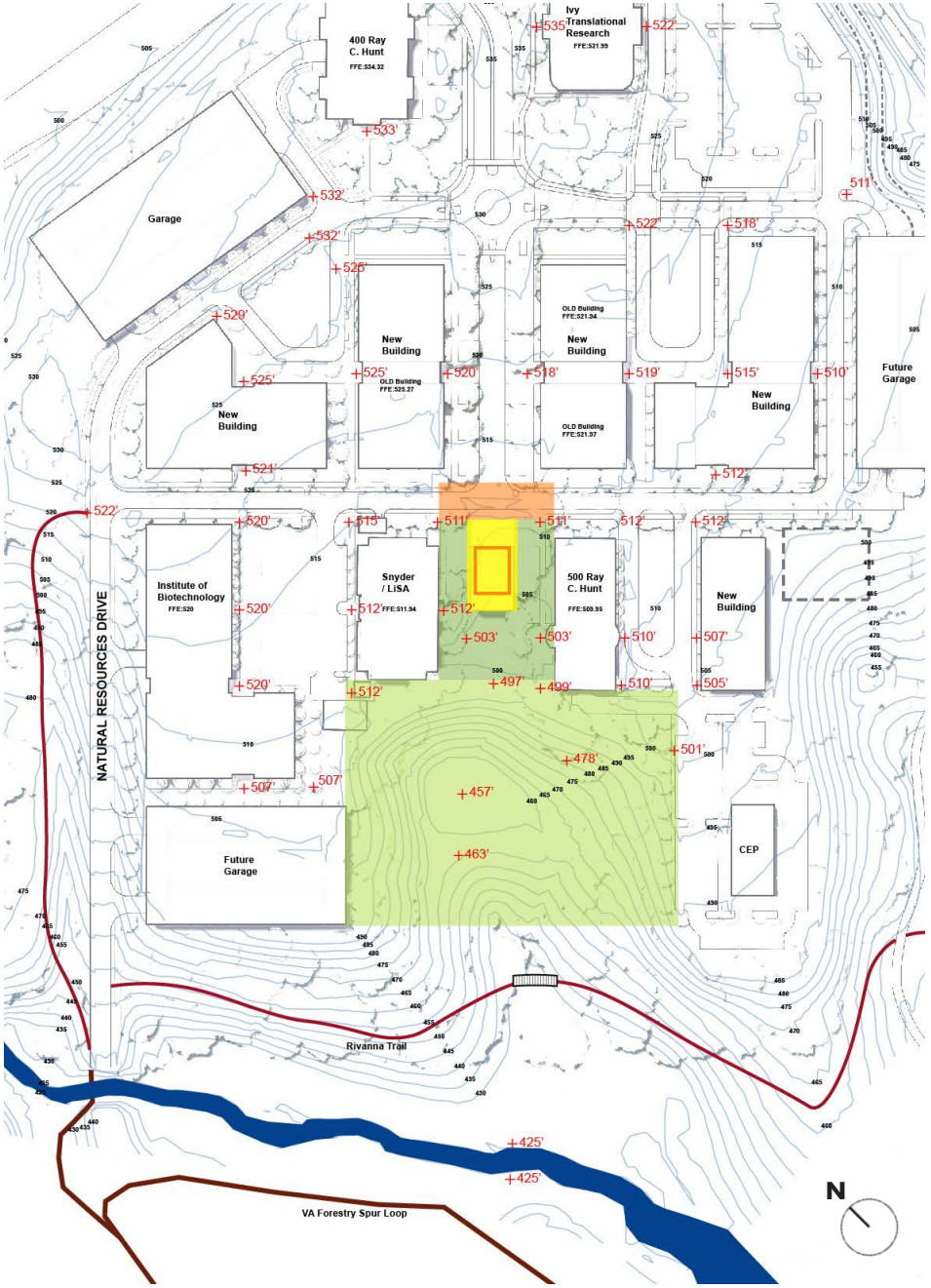
PLANTING

CHARACTER & MATERIALS

The commons is a shared garden destination for Fontaine Park. Near the street and on either side of the the pavilion the landscape should be garden intensive - plant beds consisting of low deciduous and evergreen shrubs, perennials and groundcover. Plant beds shape intimate spaces. Use tall shade trees and/or flowering understory trees to provide canopy and filtered views.

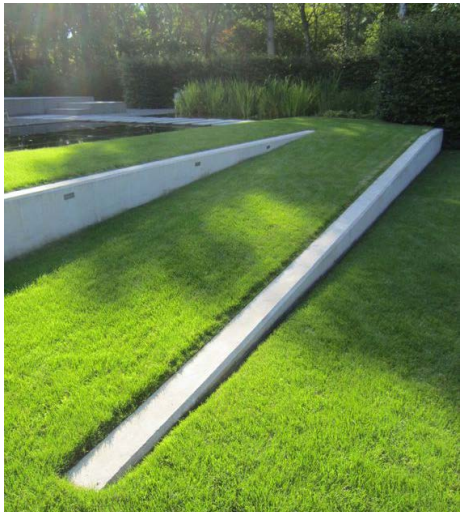
Moving south from the pavilion, transition from the intensive garden to a naturalistic landscape with the grove and woodlands, as defined in previous sections of this chapter. Locate trees and plant beds to frame views and orient users to the larger landscape.

Use native and adapted non-native plants. Avoid invasive plants listed by local and regional urban forestry institutions. Review project plant selections with the University's Landscape Architect and Associate Director of Grounds.



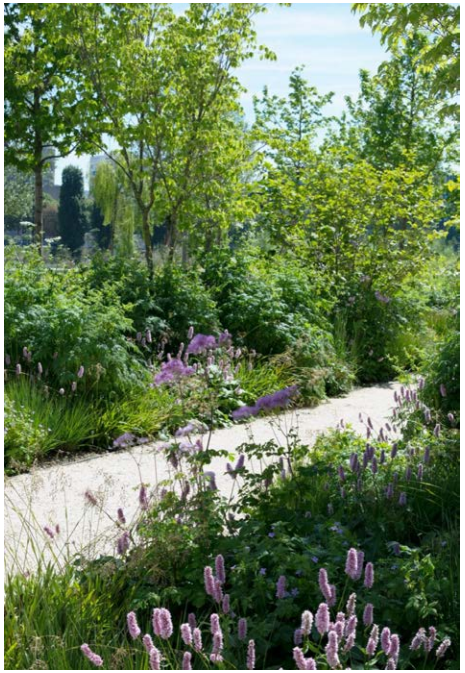
Street-side
Commons
Pavilion
Grove
Woodland

Battery Park, NYC



Mown Turf Ramp

Glenstone Museum Cafe Terace



Garden Path

PAVILION

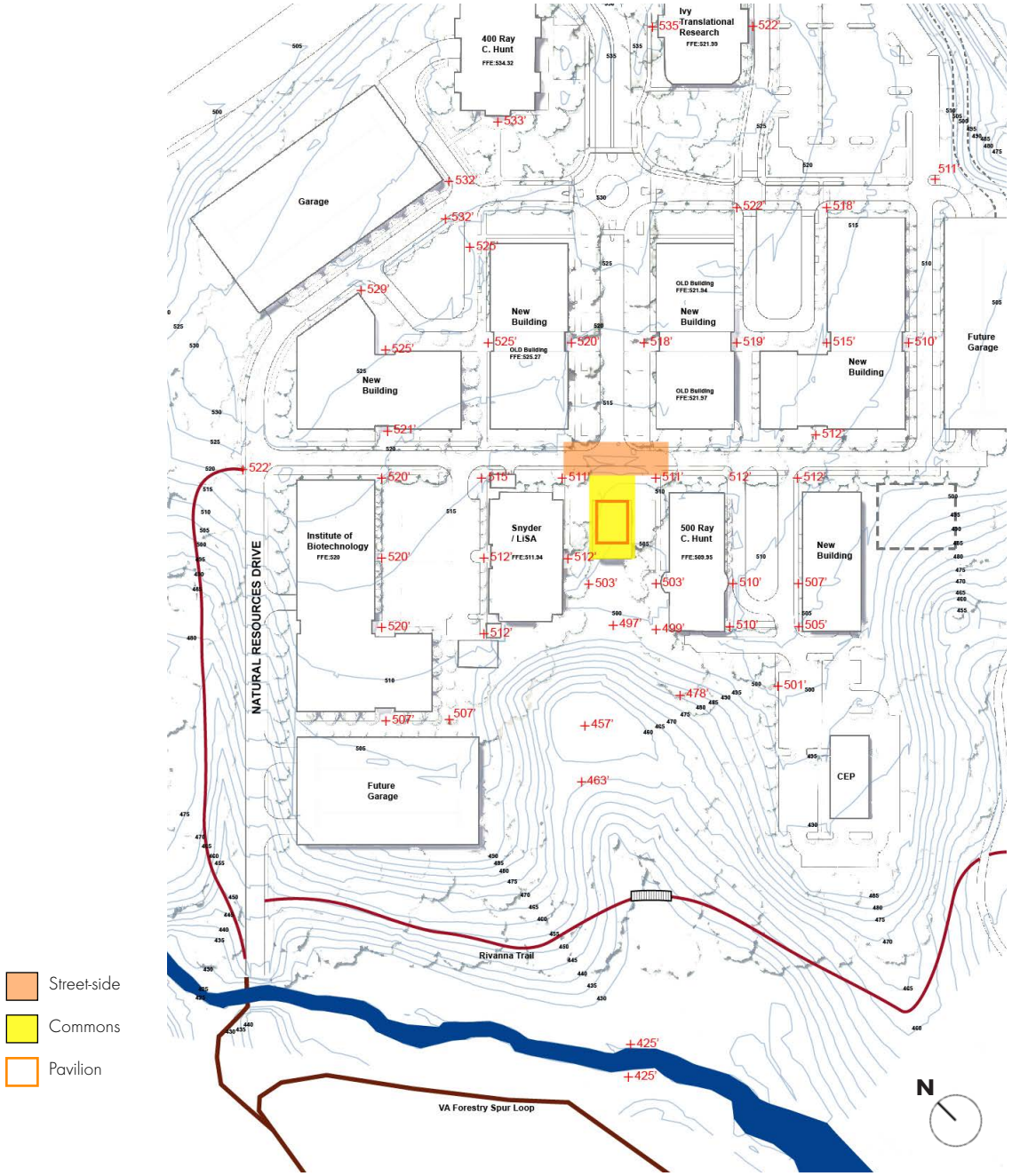
CHARACTER

The pavilion at the commons is a garden structure that is:

1. light on the land,
2. tall and lofty,
3. transparent,
4. diminutive in footprint, and
5. artful.

As a structure that blurs the line between architecture and landscape, the pavilion sits at the transition of urbane and wild nature. Its form should reflect its unique role in this pivotal location. Transparent or translucent walls allow views through and light to pass.

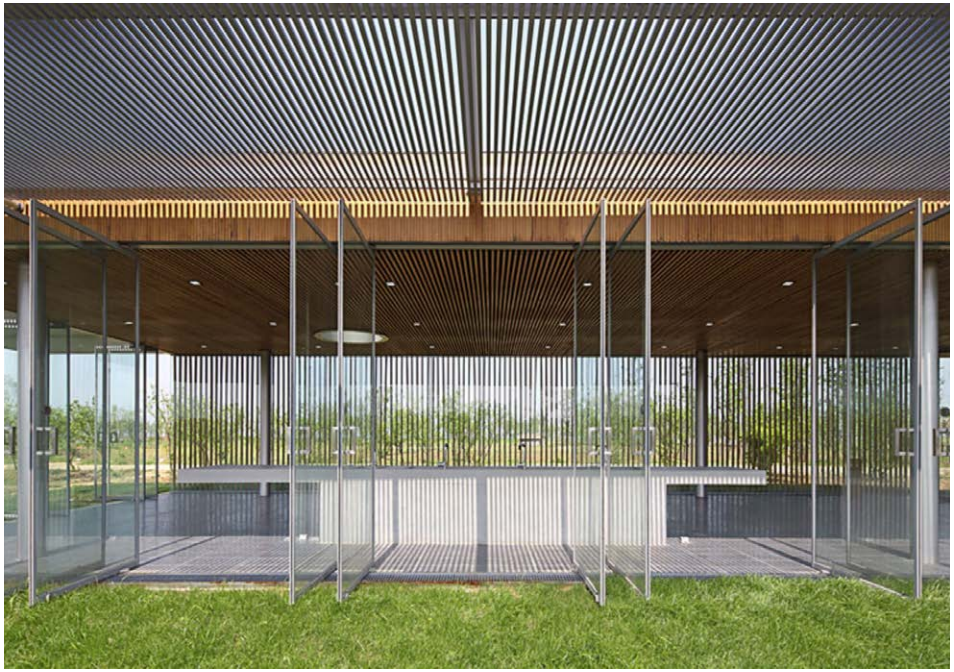
For nighttime lighting, highlight only the structure, paths, and active spaces to create a welcoming evening destination but avoid overwhelming the natural landscape. This naturalistic setting creates a place for the woodland context to connect to Fontaine Park.



The South Entrance - Helsingborg, Sweden

Kayak Pavilion at Long Dock Park, Beason NY

St. Elizabeths East Gateway Pavilion - Washington, DC



Harvest Pavilion - Kunshan, China

GROVE & WOODLAND

CHARACTER

The planting adjacent to the pavilion, especially on the north, west and east sides will be garden intensive, with lush plant beds under filtered shade from tall canopy shade trees and understory trees. This highly cultivated garden setting will transition to the grove and woodland.

The grove and woodland are managed naturalistic landscapes as defined in the Office of the Architect's Landscape Typologies and Standards. These typologies provide a seamless transition from garden to the undisturbed/natural landscape that exists on the slopes and flood plains beyond the stormwater pond.

The grove is an open, cultivated landscape with widely scattered high-canopy shade trees, of 4-5 species, and turf grass or groundcover.

The woodland is less open with a more diverse shade tree species palette. The woodland landscape is also more vertically layered with native understory trees and hardy groundcovers. Use drifts of low growing native shrubs as accents only as needed.

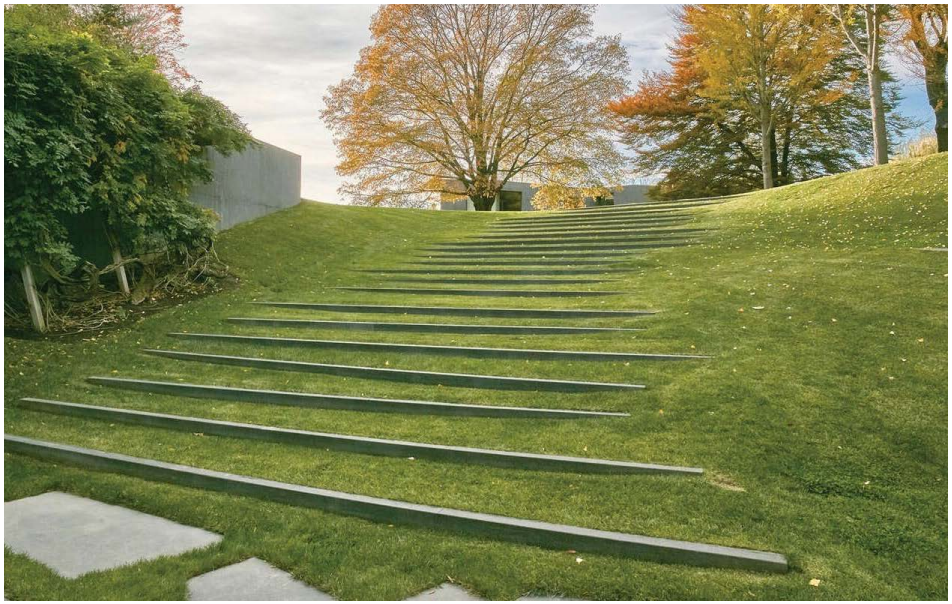
The edges between garden, grove and woodland can be definitive and hard or blurred and soft. However that edge is defined, its aesthetic must be considered as part of the design process. A clear demarcation between areas can simplify maintenance.

Rhine Terrace

National Cathedral Amphitheater

Grove Precedent

PAVILION & GROVE



Hastings-on-Hudson

Xian Leaders Primary School

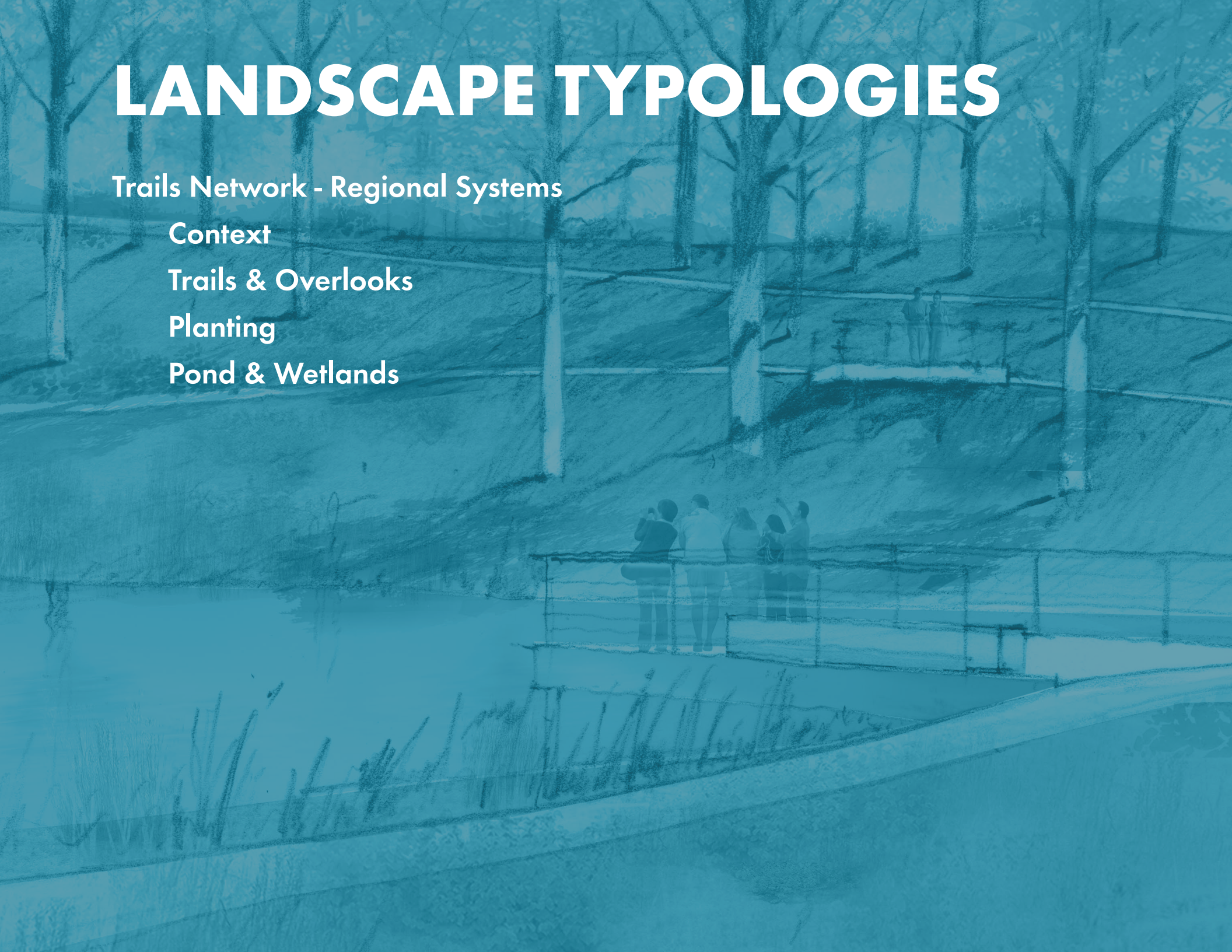
Grove Precedent

The Commons - View to the Pavilion from the Grove

LANDSCAPE TYPOLOGIES

Trails Network - Regional Systems

- Context
- Trails & Overlooks
- Planting
- Pond & Wetlands



CONTEXT: REGIONAL/LOCAL TRAILS

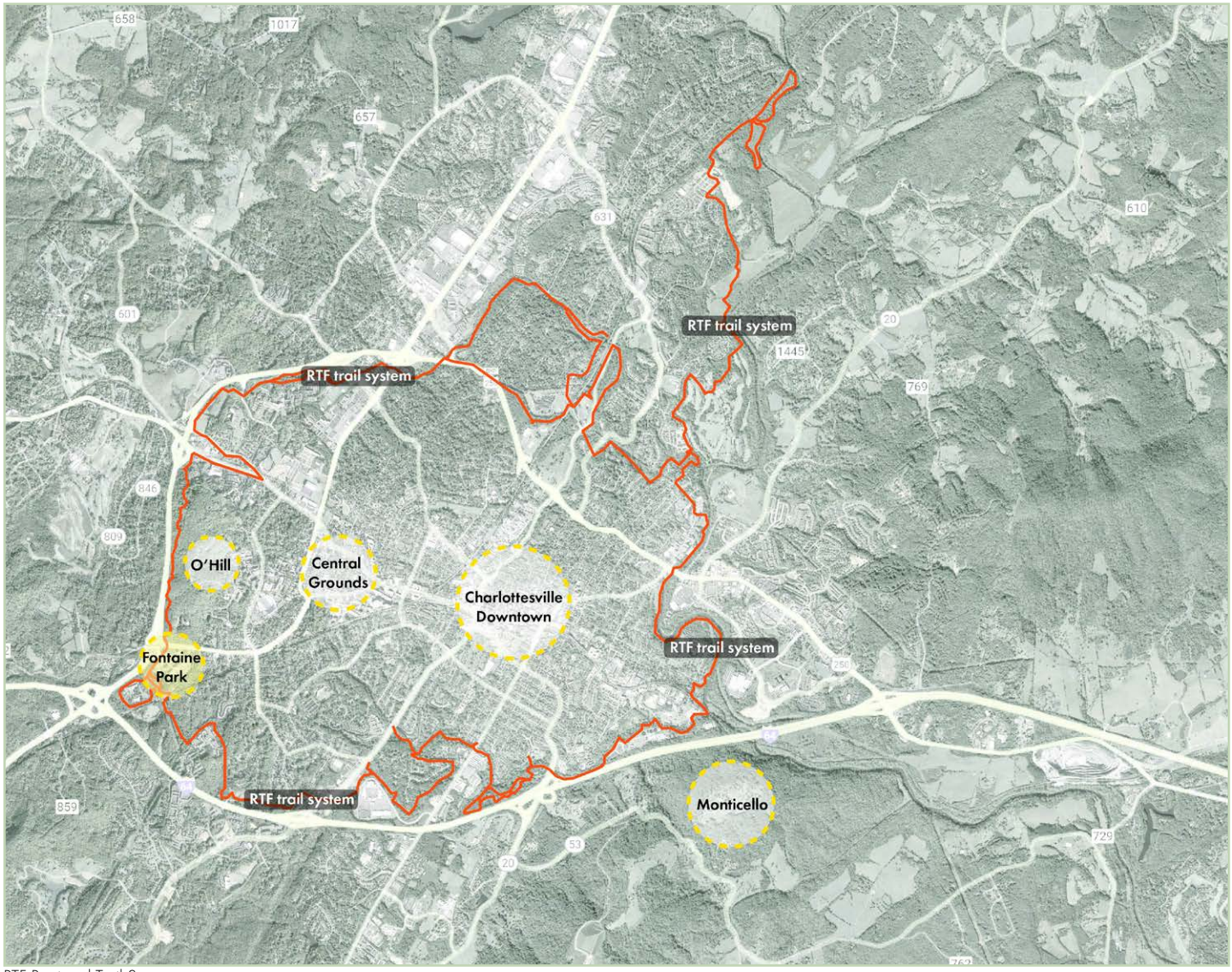
REGIONAL & LOCAL

New trails at Fontaine Park connect people to nature and the regional trail network. The Rivanna Trails Foundation (RTF) trail system is a regional loop that links Fontaine Park to the other communities in Rivanna River Watershed.

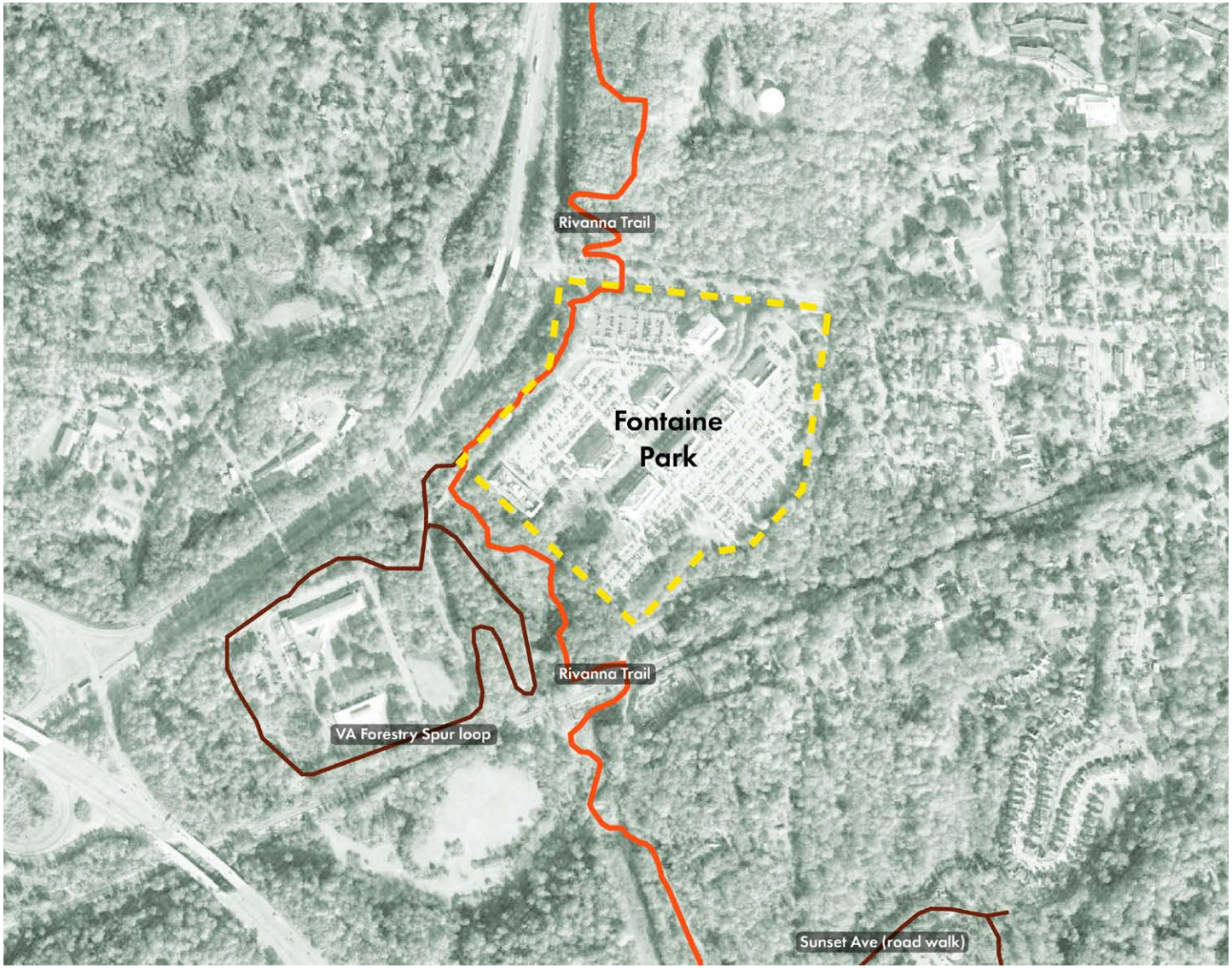
The RTF trail runs along the northwest and southwest boundaries of Fontaine Park. At the regional level, the RTF trail offers a connection to the city and other parts of the University by bicycle. At the local level, the RTF trail offers more options for mobility and connection to the natural systems.

Along the northwest perimeter of Fontaine Park, the RTF trail runs along a swale that joins the floodplains of Morey Creek. The leg of the RTF that runs along the south-western boundary of Fontaine Park skirts the Creek's floodplain.

To complete the connection from Fontaine Park to the RTF trail, add a trail network that starts at the transition betwen the grove and the woodland. This local trail can traverse the slopes around the stormwater pond. The local trails allow people with greater mobility to take longer walks. For those with less mobility, add overlooks for immersive natural places at the edges.



RTF Regional Trail System



Existing Trails At Fontaine Park

N

TRAILS & OVERLOOKS

CHARACTER

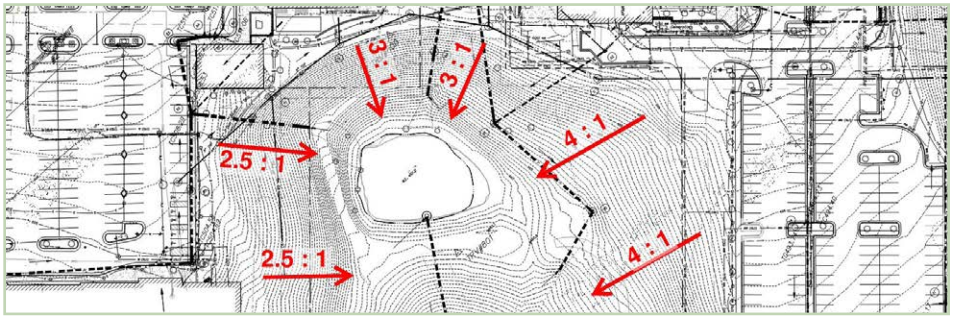
Passive recreation is a valuable activity of wellness. Trails provide additional options for movement, meditation and rehabilitation. Create trails with materials and slopes that are accessible to all levels of mobility. Follow contour lines and provide switchbacks as often as needed to build paths less than 5%. Prioritize accessbility near the top of the commons and to the overlooks. Provide backed benches along trails every 100 - 200 feet near the commons. Further down the slope, provide benches every 200-400 feet.

Trails are for walking and running only, with widths ranging from 5-6 feet. Reinforced mown shoulders allow service and maintenance vehicles to traverse. Shoulders may require fieldstone retaining walls along paths with steep drop-offs. Consult with the University's Landscape Architect and Associate Director of Grounds for desired path details and clearance.

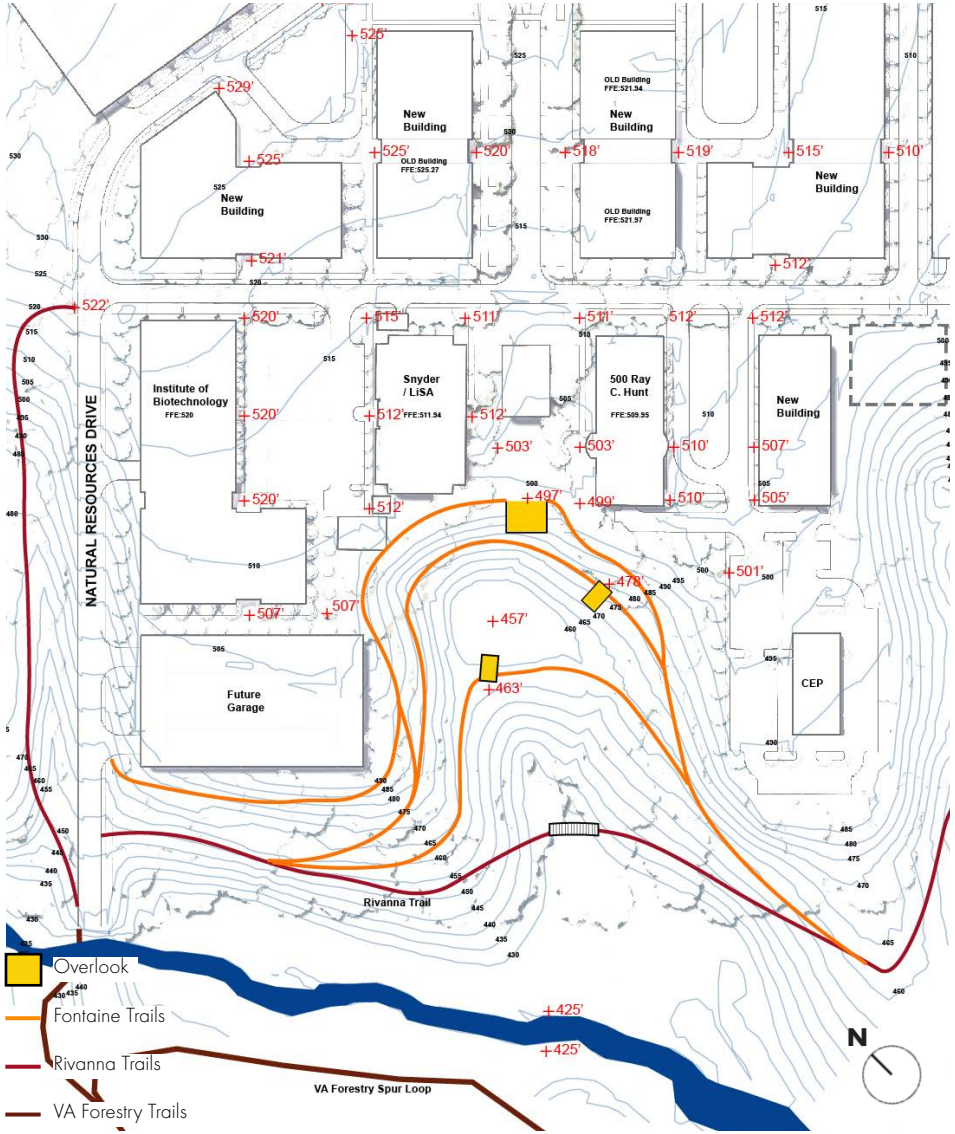
MATERIALS

Use asphalt paving and Flexi-Pave to provide accessible trails. Flexi-Pave is a permeable surface and is more desirable for areas that require reduced stormwater run-off. Also when tree preservation is required, use Flexi-Pave to allow tree roots access to air and water. Use mulched trails where accessibility is not required.

Overlooks are a combination of fieldstone, where walls are needed, or timber when a lighter touch is desired. Bluestone pavers, permeable pavers or wood decking are good complements to fieldstone. Use wood decking with timber framing.



Slope Analysis At Stormwater Pond Woodlands



Asphalt Trail With Mown Shoulders

Flexi-pave Trail

Mulched Trail At Mt. Cuba Center, Delaware

PLANTING

CHARACTER

As an amenity and an asset to Fontaine Park, the woodland, trails, pond and the overlooks compose a naturalistic landscape that is wild but managed. Planting aesthetic is focused on seasonal interest, texture and color. Large massing of species with accents of color from foliage or flora provides a calming but inspiring background.

Frame the pond's edge with plants. Choose plants that feed wildlife and provide habitat.

Use native and adapted non-native plants. Avoid invasive plants listed by local and regional urban forestry institutions.

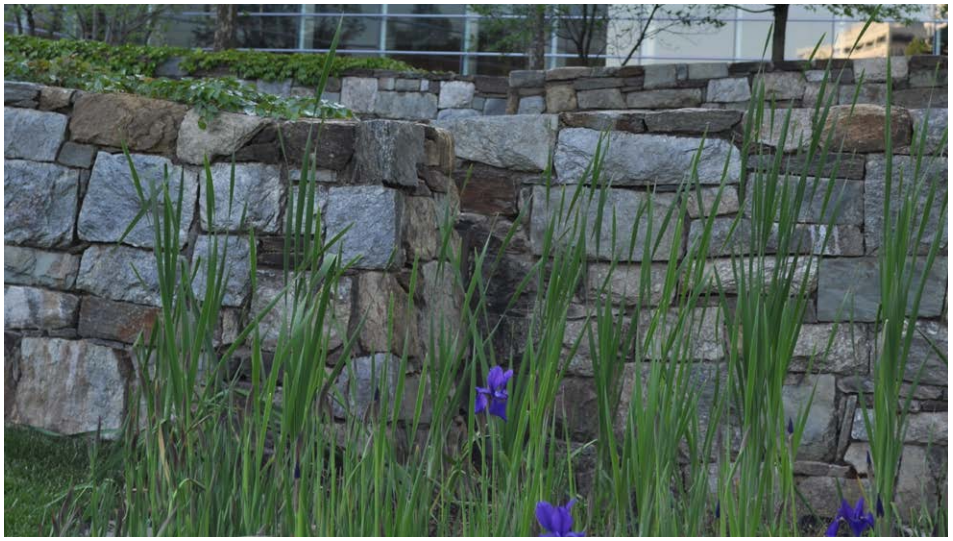
Review project plant selections with the University's Landscape Architect and Associate Director of Grounds.

Gannett USA/Today

Episcopal High School

Duke University Water Reclamation Pond

Gannett USA/Today



Gannett USA/Today

Gannett USA/Today

POND & WETLANDS

CHARACTER

The stormwater retention pond is a great asset and complement to the woodland. Showcase the treatment of site stormwater to connect people to nature and the natural systems.

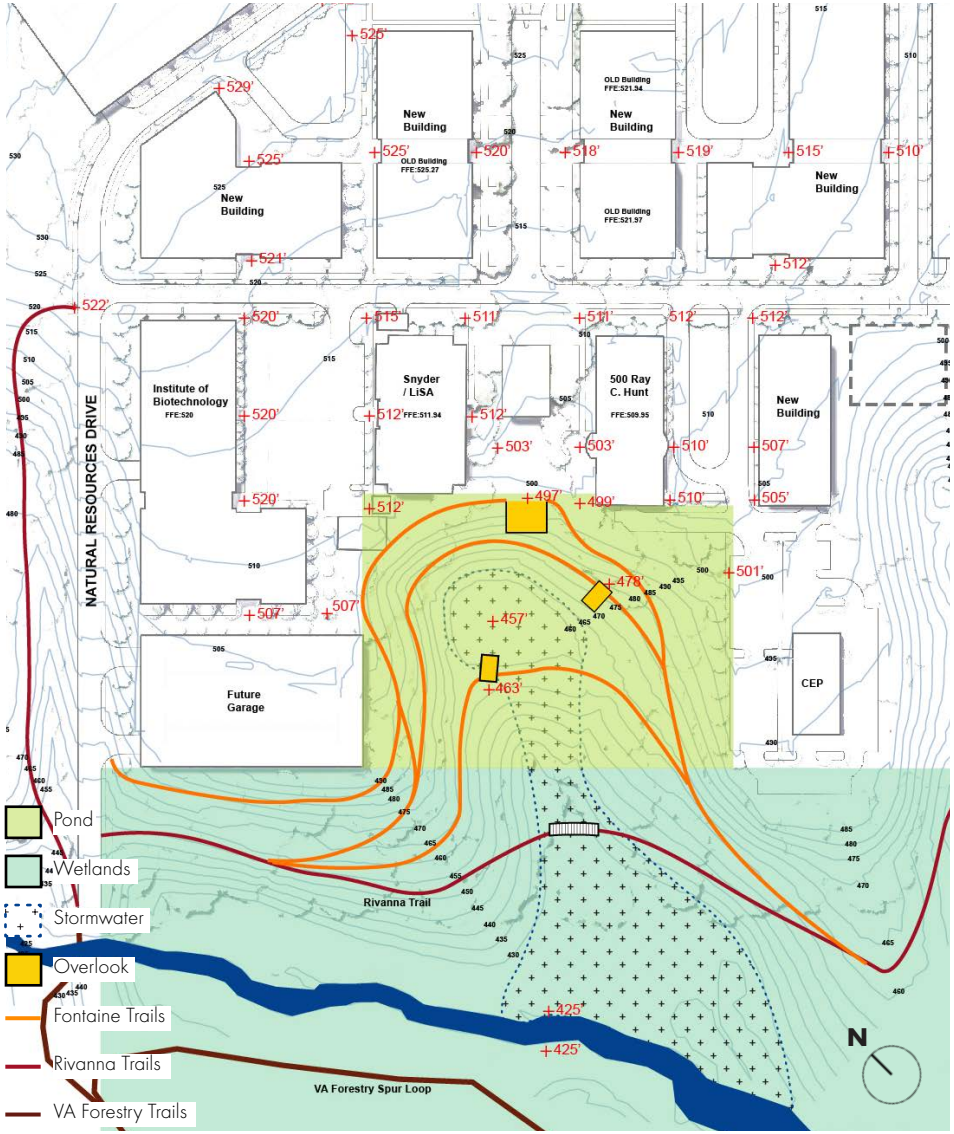
Where possible, provide opportunities to interact either visually or physically with the water. Overlooks and platforms that extend into or toward the pond bring people closer to the water and allow a more intimate enjoyment of nature.

MATERIALS

Where necessary, use fieldstone walls and weirs to provide pond infrastructure. Also use fieldstone walls to terrace steep slopes to create occupiable spaces.

Choosing mulch, Flexi-Pave or asphalt paving for trail materials depends on accessibility, surface porosity, tree preservation, durability and maintenance requirements. Trails around the pond and wetlands are similar in palette to the trails in the woodland.

See the Material Palettes chapter for guidance for all landscape materials.



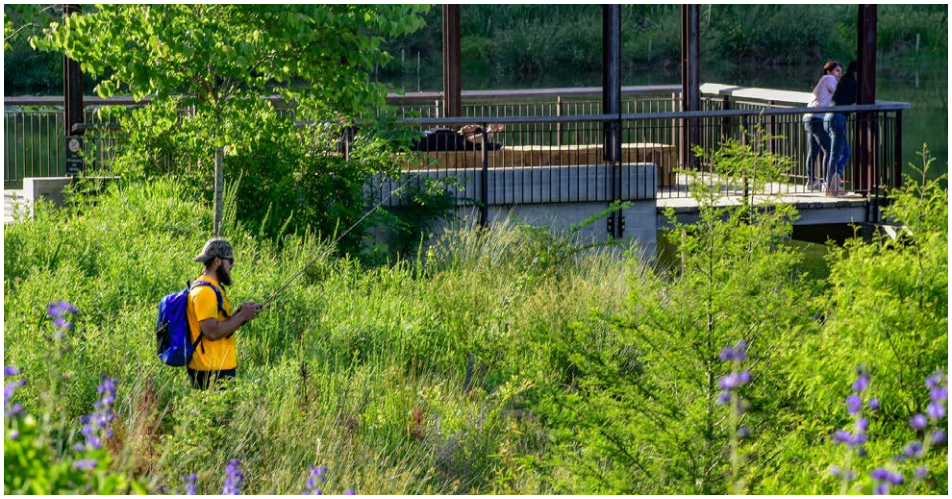
Duke University Water Reclamation Pond

Bench from Felled Logs Precedent

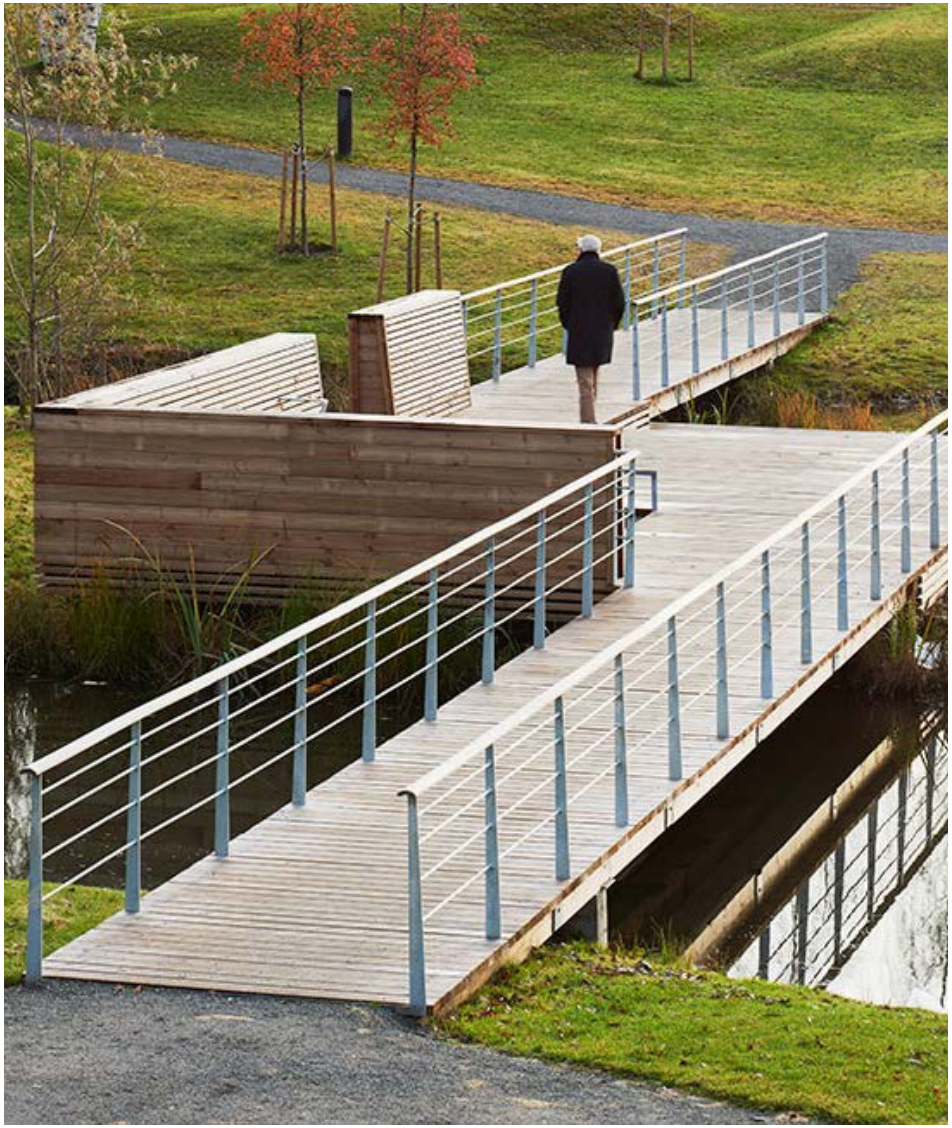
UVA Sawmilling Gathering Felled Logs

POND & WETLANDS

UVA Sawmilling Trimming Felled Log



Duke University Water Reclamation Pond



Campus Park at Umea University - Sweden

Trails - View from Trail Toward the Overlooks, the Grove and the Pavilion

MATERIAL PALETTES

Walls & Weirs

Paving - Paths

Paving - Special Paving

Lighting

Seating & Dining

Site Furnishings

Plants

- Sunlight Analysis
- Street Trees & Hedges
- Screen Buffer
- Stormwater - Rain Garden

WALLS & WEIRS

Walls mark entries, negotiate grades, and define edges. Low stone walls throughout the University Grounds announce arrival corridors and thresholds.

To reinforce Fontaine Avenue Extended as the arrival corridor for Fontaine Park, line the edge of sidewalks along the road with fieldstone walls. The existing signage concrete walls deviate from the scale and character of the standard University walls. Entry signage walls should be a low wall (3-4ft) that is human-scaled and welcoming.

When walls are needed along the primary streets, use fieldstone walls to retain and define boundaries and places. Use fieldstone for weir walls in the bio basins along Spine Road. Use cast-in-place or precast concrete for site walls adjacent to buildings along the primary corridor. In the commons, use only field stone due to its prominence as the social hub of Fontaine Park and as the terminus of Spine Road.

Walls in the garden courts have more material options. Fieldstone can be used in addition to brick and precast or architectural concrete. In general, it is highly desirable that all walls are low and wide to invite sitting where applicable.

Refer to the Office of the Architect's Landscape Typologies + Standards for additional guidance.

Fieldstone Wall

- Height to be human-scaled where walls are adjacent to paths
- Where walls are at seat height, wall widths will be wide enough for comfortable seating (18" minimum)

Cast-in-Place Concrete Wall

- Concrete walls are appropriate for contemporary and utilitarian areas
- The surface treatment must be thoughtfully detailed and meet exposed finish concrete industry standards.

Precast Concrete Wall

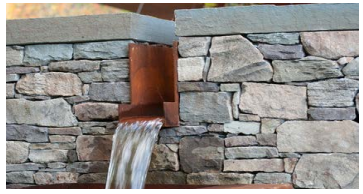
- Height to be human-scaled where walls are adjacent to paths
- Architectural finish
- Abrasive-blast finish or approved equal
- Eased edge or 1/16 inch chamfer at all exposed corners

Brick Wall

- Height to be human-scaled where walls are adjacent to paths
- Where walls are at seat height, wall widths will be wide enough for comfortable seating (18" minimum)

Weir Wall

- Weir walls on Spine Road at the Bioswales
- Fieldstone with option to combine with metal (stainless for urban or corten for natural setting)



Streets

Fieldstone Wall

Cast-in-Place Concrete Wall

Weir Wall

Neighborhoods

Fieldstone Wall

Precast Concrete Wall

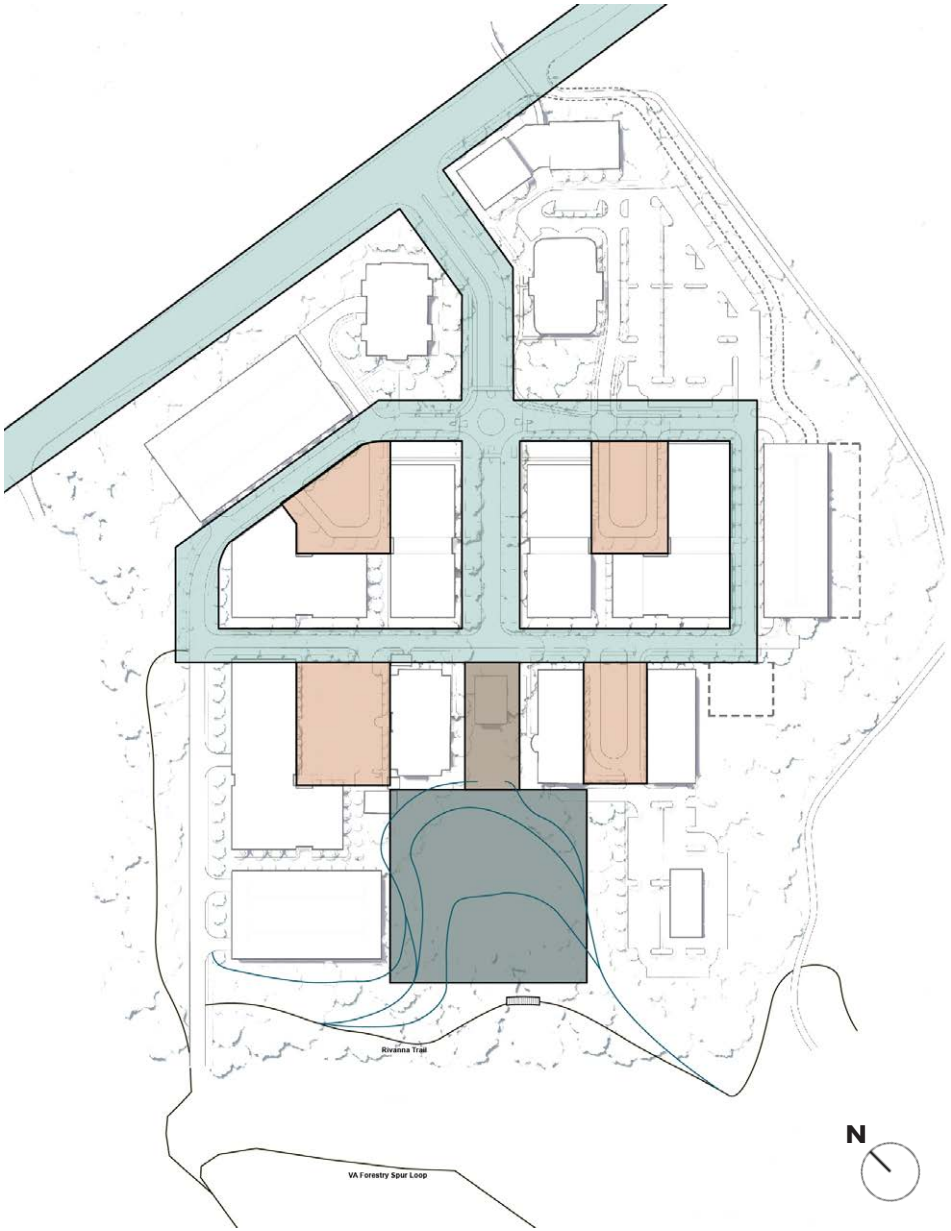
Brick Wall

Pavilion

Fieldstone Wall

Pond & Trails

Fieldstone Wall



WALLS & WEIRS

PAVING - PATHS

Linear paths convey and connect people to their destinations. Consistent use of path material provides coherence throughout Fontaine Park. Paving materials at Fontaine Park will adopt the University's standards for paths.

Use cast-in-place concrete for paths along both primary and secondary streets. Also use cast-in-place concrete for linear paths that go through garden courts and the commons.

Provide a minimum path width of 8 feet along primary streets. Along secondary streets and adjacent to buildings, provide a minimum width of 6 feet.

When paths expand beyond 6 or 8 feet, they are considered places. Refer to the Special Paving section of the Material Palettes chapter for design guidelines.

Provide asphalt or Flexi-Pave trails at 5-6 feet wide when accessible paths are required. Include mown shoulders along trails for maintenance vehicle acess.

Vehicular pavings are typically asphalt with concrete curbs.

Refer to the Office of the Architect's Landscape Typologies + Standards for additional guidance.

CIP Concrete

- Canvas colorant by Soloman
- Saw cut joints
- Width varies – site specific

Asphalt

- Use University standards for asphalt paving

Mulch

- No colorized mulch

Flexi-Pave

- Grey or tan blend

Streets

CIP Concrete

Neighborhoods

CIP Concrete

Pavilion

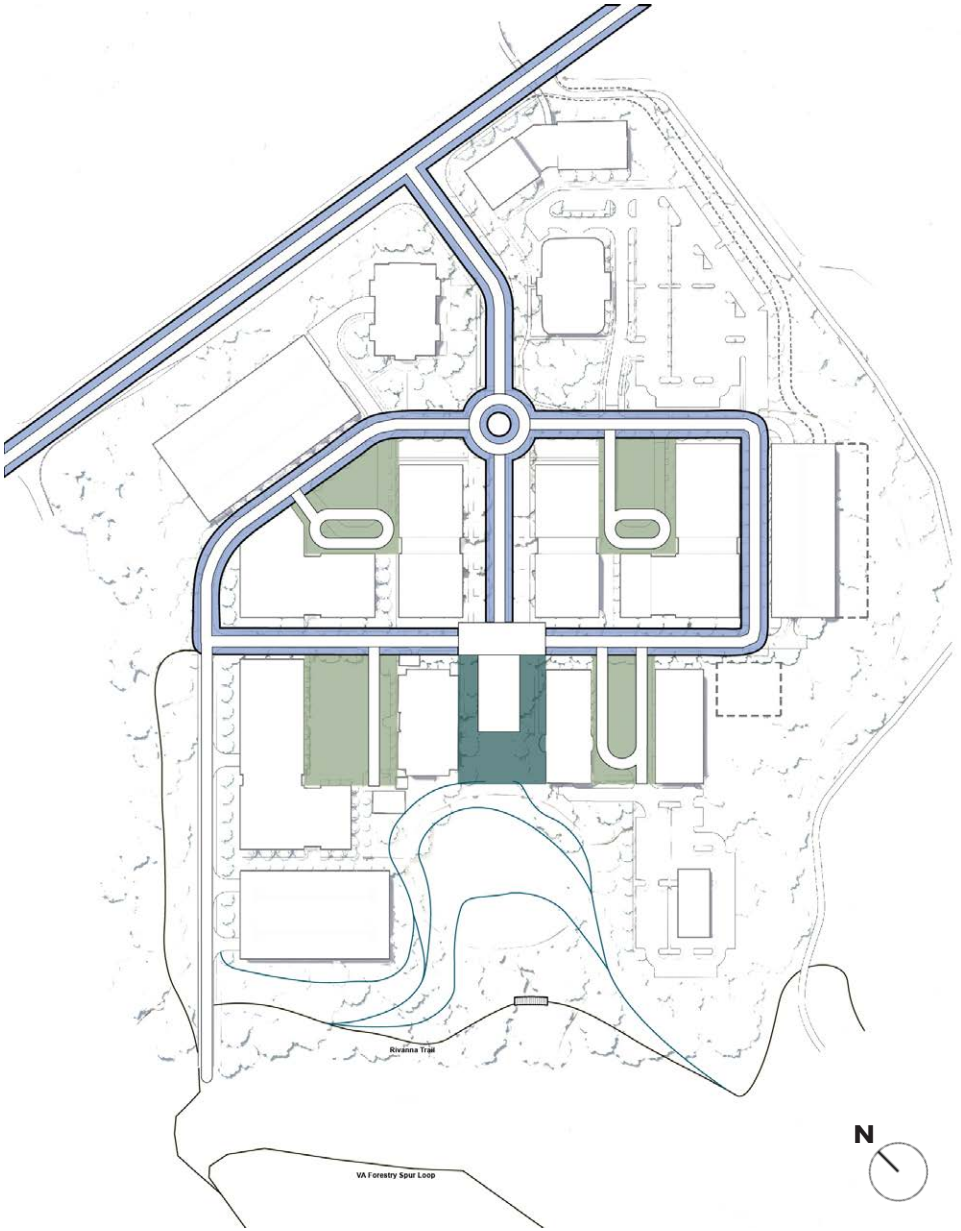
CIP Concrete

Trails

Asphalt

Mulch

Flexipave



PAVING

PAVING - SPECIAL PAVING

Places to sit, linger, and gather should stand apart from paths. Special paving can call attention and upgrade a place to something more than a walking surface.

Special paving is often used to signal to drivers to slow down and pay attention. To highlight multimodal traffic and prioritize pedestrian circulation, use asphalt pavers.

In garden courts and the commons, use special paving to define places of respite or social gathering. Choose from the options provided.

For drives and dropoffs in garden courts, use asphalt pavers or other pavers. When using pavers, use patterns that are resistant to movement by the rotation of vehicular tires.

Refer to the Office of the Architect's Landscape Typologies + Standards for additional guidance.

Asphalt Pavers

- 4"x8"x3" with 1/16" joints
- Color blend – site specific
- Concrete base, bituminous setting bed, sand joints
- Pattern – site specific

Brick Pavers

- 4x8 modular Pinehall
- Flash range

Permeable Pavers

- Aquapave Holland paver
- Brick, 4x8

Bluestone Pavers

- Thermal finish
- Orthogonal shapes, varying sizes

Sandstone Pavers

- Orthogonal shapes, varying sizes
- Sandblast finish

Porcelain Tiles

- Orthogonal shapes, varying sizes
- Slip-resistant finish, for exterior use

Concrete Pavers

- Hanover pres paver, 4x8
- Herringbone Pattern

Hardwood Decking

- Sustainably-sourced exotic hardwood
- Weathered grey color with clear finish

Asphalt pavers at UVA Children's Hospital

Pavilion

Bluestone Pavers

Sandstone Pavers

Permeable Pavers

Pond & Trails Overlooks

Hardwood Decking

Permeable Pavers

Bluestone Pavers

Streets & Drives

Asphalt Pavers

Neighborhoods

Bluestone Pavers

Sandstone Pavers

Porcelain Tiles

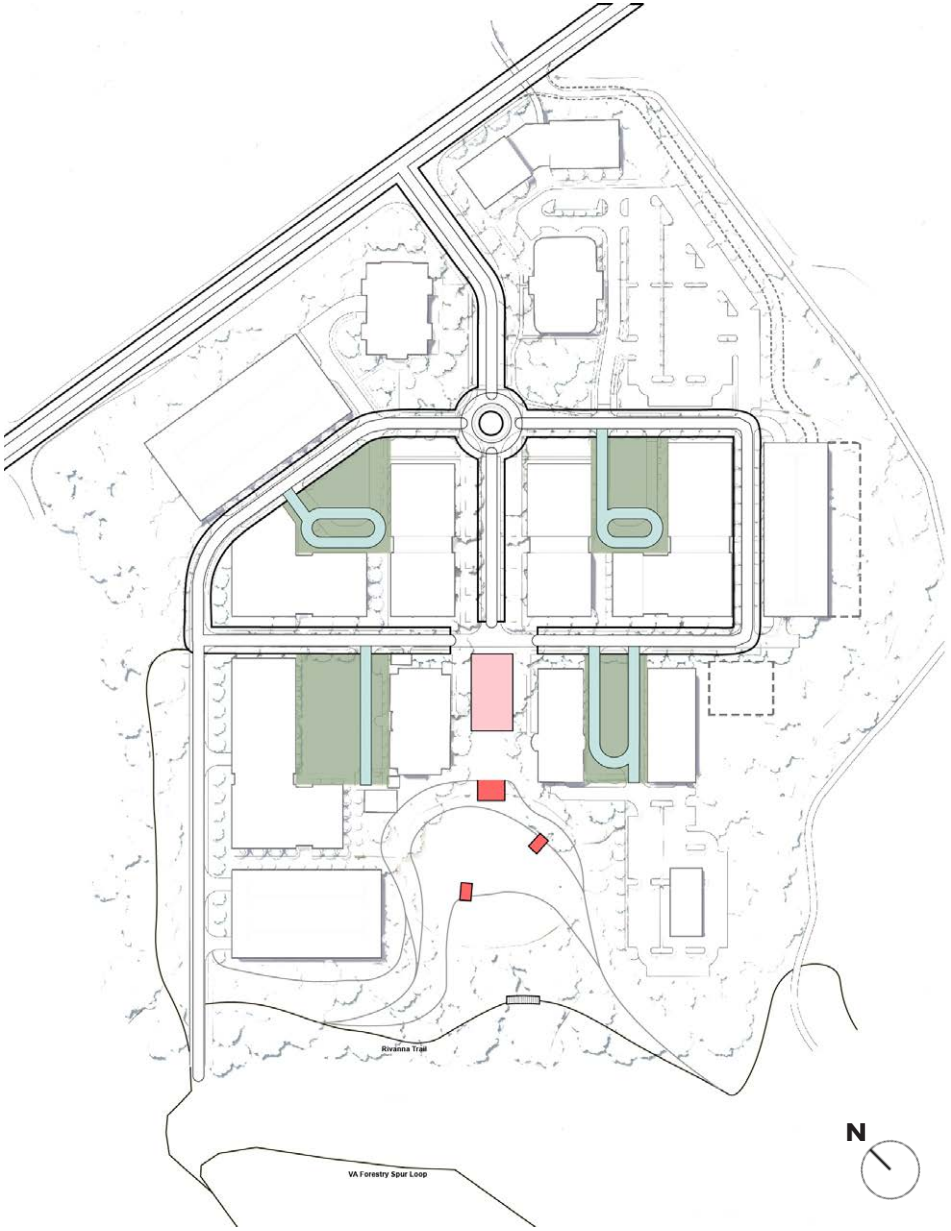
Brick Pavers

Concrete Pavers

Hardwood Decking

Permeable Pavers

Asphalt Pavers



SPECIAL PAVING

LIGHTING

The King Edgewater fixture is strongly identified with the University. To reinforce connection to the Grounds, use the King Edgewater fixture along primary streets. Use the Philips Garco Gullwing fixture along all secondary streets.

In garden courts and the commons, use the Bega indirect cutoff to provide lighting along paths. When needed, use the Bega Indirect Cutoff fixture to light seating and gathering areas.

Place poles in the landscape with top of footings at a maximum of 4 inches above finished grade. Exceptions need to be reviewed on a per case basis during design.

Consistent lighting at half a foot candle provides better visibility and safety than bright inconsistent lighting. Uplight trees selectively to reduce disturbance to the natural cycles of flora and fauna.

Refer to the Office of the Architect's Landscape Typologies + Standards for additional guidance.

King Edgewater

- King Edgewater K-56 metal halide or LED luminaire, pebbled lenses
- Pole - 12ft cast aluminum or cast iron octagonal
- Color & Finish - Rookwood Shutter Green
- Spacing - per lighting designer

Philips Garco Gullwing

- Philips Garco, GL 18 LED Gullwing
- Height - 20ft
- Color & Finish - Dark bronze
- Spacing - per lighting designer

Bega Indirect Cutoff

- Bega metal halide or LED pole top with indirect cutoff optics
- Color & Finish - Standard silver finish
- Spacing - per lighting designer

Streets

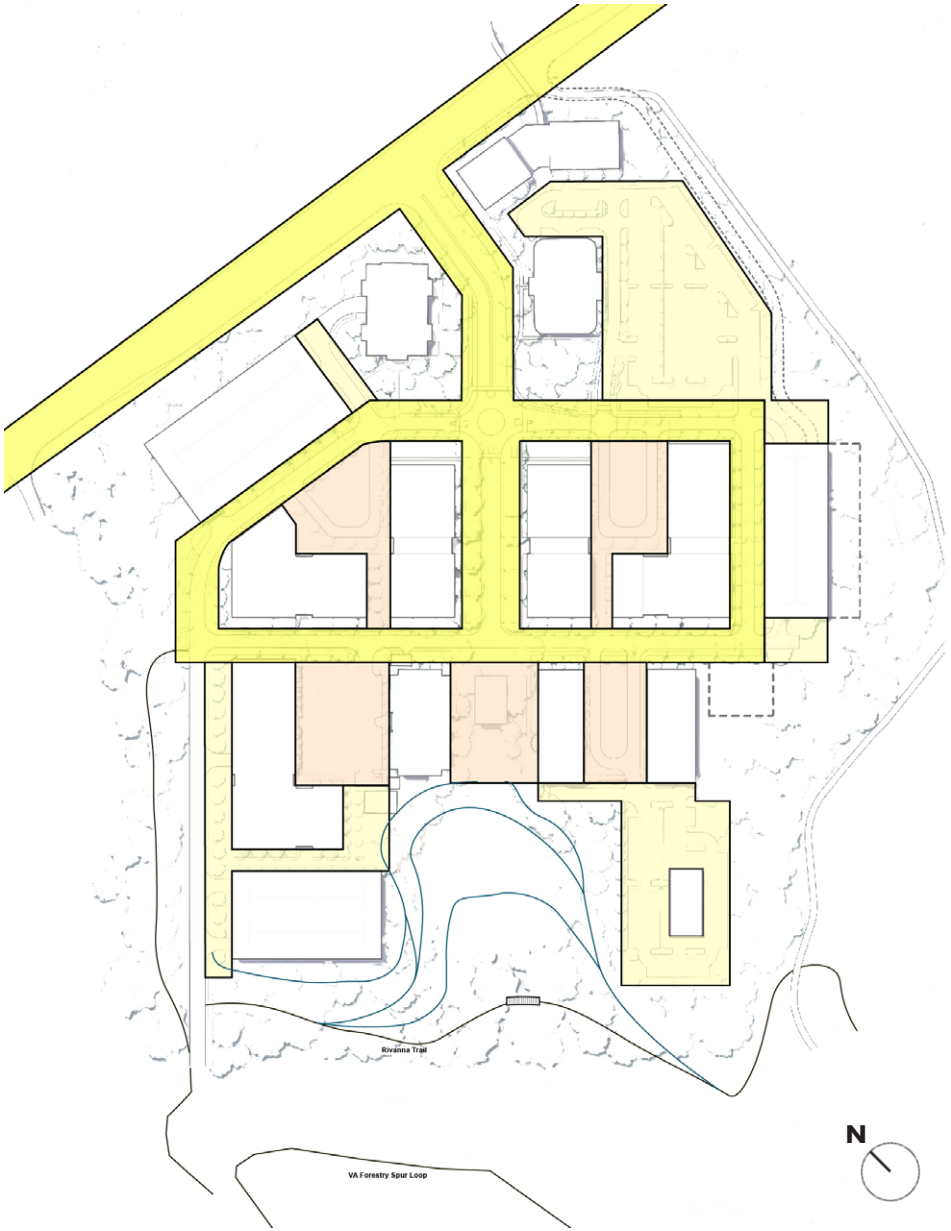
King Edgewater

Parking & Parking Drives

Philips Garco

Neighborhoods & Pavilion

Bega Indirect Cutoff



LIGHTING

SEATING & DINING

The presence of furniture invites people to occupy a place. Movable furniture empower users to customize and maximize their experience outdoors. Add tables and chairs in clusters near entries to optimize usage. Line sidewalks and paths with benches every 30-60 feet if space and conditions allow. With more space, group benches to invite larger gathering and conversation.

Provide space and accommodations to support universal access throughout Fontaine Park.

Refer to the Office of the Architect's Landscape Typologies + Standards for additional guidance.

Backed/Backless Benches

- Landscape Forms Neoliviano, 69" backed & 59"/118" backless bench
- Color & Finish - Jarrah wood

Dining Chair

- Landscape Forms Neoliviano chair 24"backed chair
- Color & Finish - Jarrah wood

Dining Table

- Landscape Forms Marneaux table Top
- Color & Finish - Celery
- Landscape Forms Table Base Color & Finish - Titanium

Umbrella

- Landscape Forms - Disc (rigid)
- Color - Mercury / Natural

Backless Bench

- Landscape Forms Palisade
- Color & Finish - Jarrah wood

Adirondack Chair

- Landscape Forms Americana
- Color & Finish - LOLL Driftwood (light gray)

End Table

- LOLL Satellite End Table, Satellite End Table (Round, 26 inch or Square 18 inch)
- Color & Finish - Driftwood (light gray)

Cafe Table and Chairs

- Landscape Forms Chipman table and chairs
- Table with built-in umbrella sleeves
- Color - Mercury

Picnic Table

- Landscape Forms Gretchen
- Color - ipe and titanium finish

Custom Timber Bench

- Use recycled material or fallen logs
- Finish - natural, weather to gray

Streets

Backed/Backless Bench
Dining Chair
Dining Table

Neighborhoods

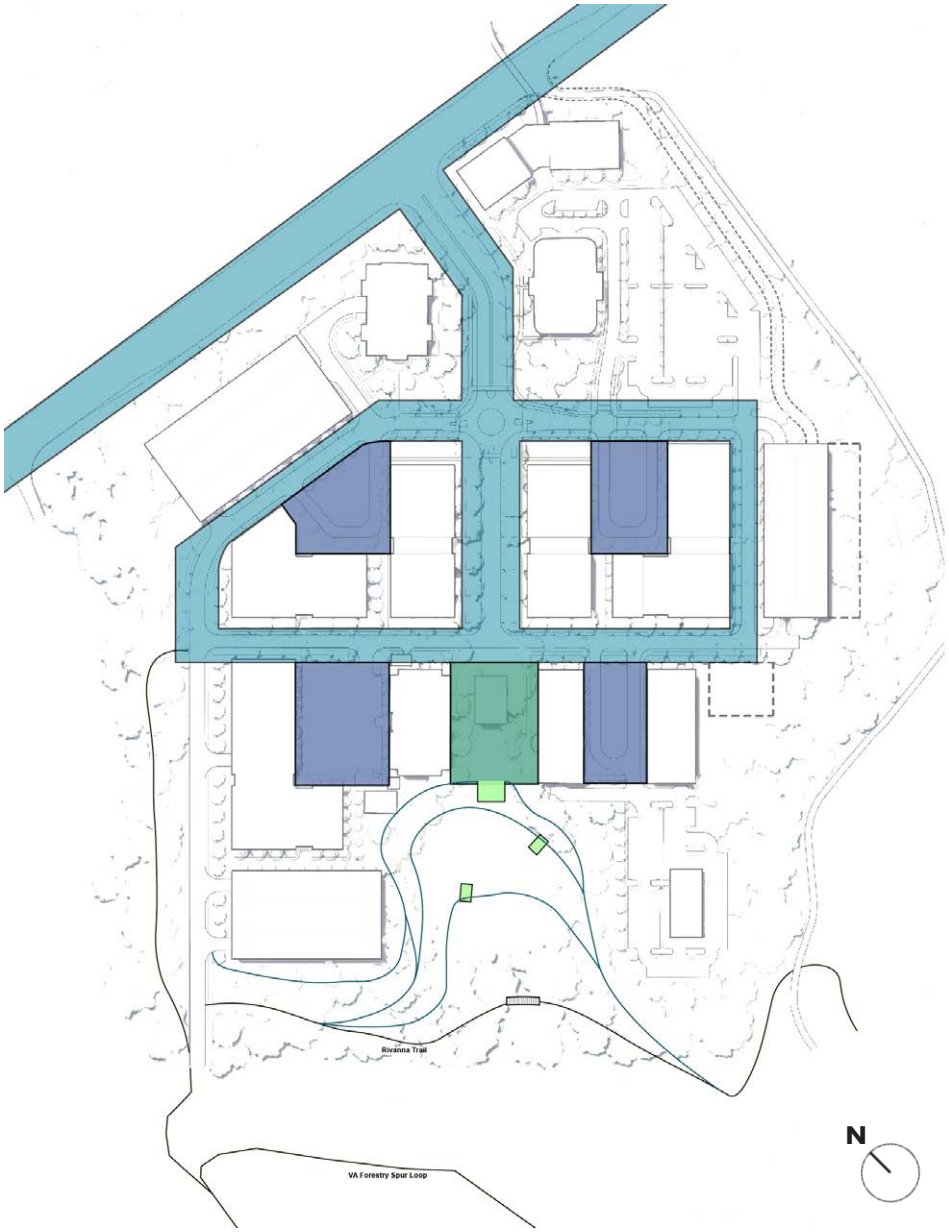
Umbrella
Backless Bench
Backed Bench
Adirondack Chair
End Table
Cafe Table & Chairs

Pavilion

Umbrella
Backless Bench
Backed Bench
Adirondack Chair
End Table
Cafe Table & Chairs

Pond & Trails Overlooks

Picnic Table
Backed Bench
Custom Timber Bench from Felled Trees



SEATING & DINING

SITE FURNISHINGS

While subtle, consistent use of site furnishings across the entire precinct creates a cohesive place identity. The University's contemporary furnishings palette fits the aesthetic of Fontaine Park's campus.

Provide bike racks near entries for bicycle commuters. Racks should be spaced to accommodate electric bikes and other modes of mobility. Use bollards sparingly and only when necessary. Place receptacles near entries, at path intersections, and along paths to promote a clean campus.

Refer to the Office of the Architect's Landscape Typologies + Standards for additional guidance.

Bollards

- 4" round stainless or black thermoplastic coat
- Custom fabrication with flat top

Handrails

- 2" tube that can be adapted for LED KlickPod lights for stair applications.
- Custom fabrication

Receptacles

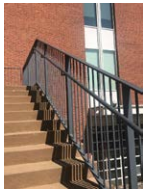
- Landscape Forms Petosley
- Trash & Recycling
- Color & Finish – Stainless Steel

Bike Racks

- Dero heavy duty hoop
- Color & Finish – Stainless Steel or powder-coated silver

Guardrails

- 1/2" x 1.5" bars and 1/2" square pickets and are painted Moon Shadow gray.
- Custom fabrication



Receptacles - Alternate

- Victor Stanley Sage
- Trash & Recycling
- Color & Finish – Stainless Steel

Streets, Neighborhoods, Pavilions

Bollards

Bike Racks

Handrails

Guardrails

Receptacles

SITE FURNISHINGS

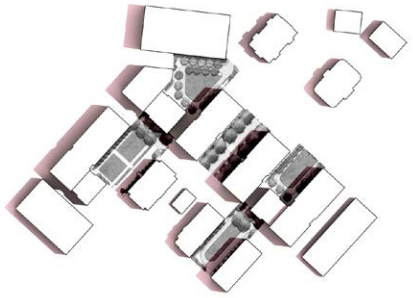
PLANTS

SUNLIGHT ANALYSIS

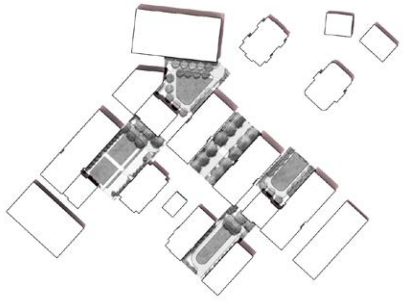
Consider sun/shade aspect when choosing plants to support a sustainable landscape and enhance human comfort. The sunlight analysis for Fontaine Park uses conceptual building heights from the 2018 Master Plan to show the movement of the sun over the entire campus during peak times of the year.

Building height and adjacencies, and courtyard dimensions influence the microclimate of each enclosed garden court. For each garden court, perform a sun analysis to maximize compatibility of plants and human comfort for the specific site condition. Winter and Fall conditions show the courtyards could have significant building shadow. Designs for these spaces need to consider optimizing comfort thorughout the seasons.

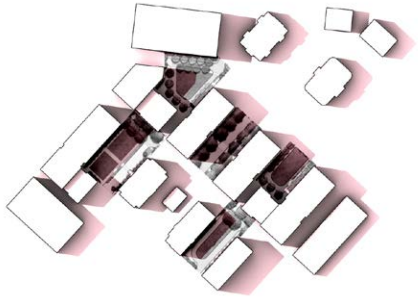
SUMMER SOLSTICE



Summer Solstice-9AM

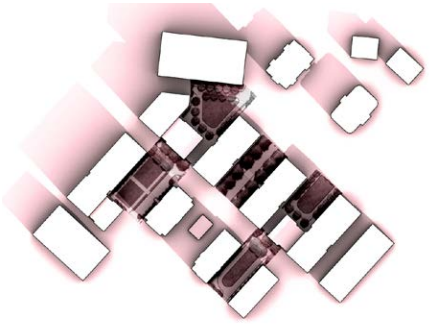


Summer Solstice-1PM

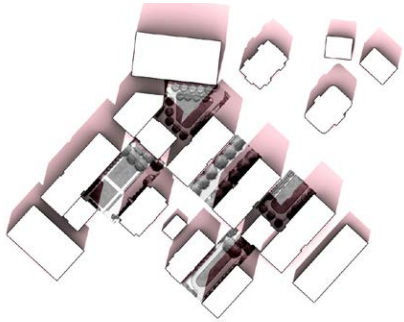


Summer Solstice-5PM

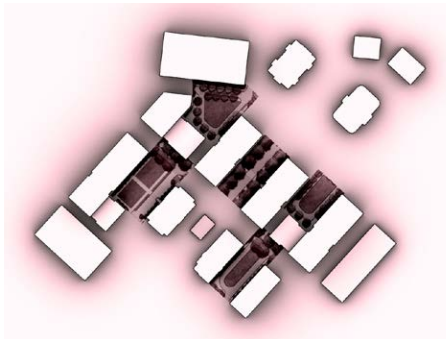
WINTER SOLSTICE



Winter Solstice-9AM

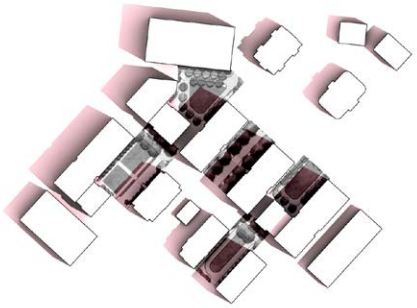


Winter Solstice-1PM

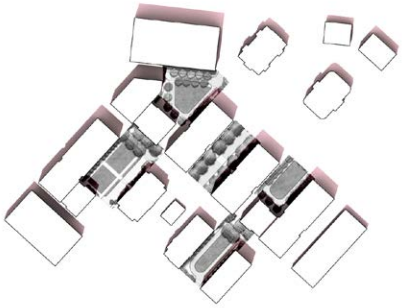


Winter Solstice-5PM

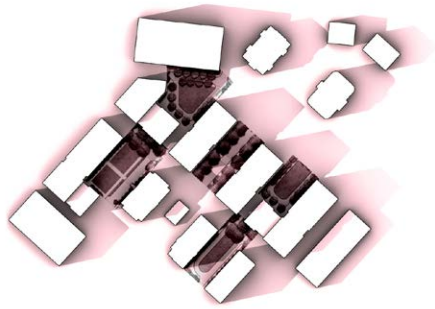
SPRING / FALL EQUINOX



Spring/Fall Equinox-9AM



Spring/Fall Equinox-1PM



Spring/Fall Equinox-5PM

PLANTS

STREET TREES & LOW HEDGES

Tall canopy trees provide shade and their trunks provide structure. Low hedges along primary streets, when used strategically, provide additional landscape structure by defining edges. Low hedges also create boundaries or barriers but allow visual connections.

Tree spacing, ranging from 40-55 feet, should be random to allow flexibility of tree placement between existing above and underground site features. Provide a mix, at minimum, of three different tree species per street block to provide a diverse palette.

The plants on this list are recommendations. Review project plant selections with University's Landscape Architect and Associate Director of Grounds.

* On UVA Facilities Management's list of plants that perform well.

STREET TREES

Honey Locust
Gleditsia triacanthos

Sweet Gum (fruitless)
Liquidambar styraciflua 'Rotundiloba', Happidaze'

Tulip Poplar
Liriodendron tulipifera

Swamp White Oak
Quercus bicolor

Overcup Oak
Quercus lyrata

Willow Oak
Quercus phellos

Basswood
Tilia americana

Elm - Improved
Ulmus americana 'Jefferson', 'Morton', 'Princeton'

HEDGES

***Red Twig Dogwood**
Cornus sericea 'Arctic Fire'

Yellow Twig Dogwood
Cornus sericea 'Flaviramea'

Northern Bayberry
Myrica pennsylvanica

English Laurel
Prunus laurocerasus 'Otto Luykens'

Burkwood Viburnum
Viburnum burkwoodii 'Conoy'

Arrow-wood
Viburnum dentatum

PLANTS

BIOSWALE

The Spine Road is a street with a cultivated garden aesthetic. Plants in the bioswales on the Spine Road are low, not exceeding hip height - a mix dominated by grass-like perennials with shrubs and flowering perennials as accents.

The list of available plants for stormwater conditions is broad. This list provides only a representative of currently preferred plants.

The plants on this list are recommendations. Review project plant selections with University's Landscape Architect and Associate Director of Grounds.

* On UVA Facilities Management's list of plants that perform well.

SHRUBS

Black Chokeberry (dwarf)
Aronia melanocarpa

Red Twig Dogwood
Cornus sericea 'Arctic Fire'

Yellow Twig Dogwood
Cornus sericea 'Flaviramea'

Inkberry Dwarf
Ilex glabra 'Compacta'

Sweetspire
Itea virginica 'Henry's Garnet'

Fragrant Sumac
Rhus aromatica 'Gro Low'

PERENNIALS

Blue Star 'Blue Ice'
Amsonia 'Blue Ice'

***Blue Star**
Amsonia hubrechtii

Lady Fern
Athyrium filix-femina

Grassland Sedge
Carex divulsa, amphibola, cherokeensis

Coral Bells
Heuchera Autumn Bride', 'Dale's Strain', 'Black Pearl'

Blue-flag Iris
Iris versicolor

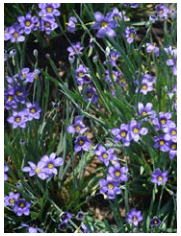
***Common Rush**
Juncus effusus

***Cardinal flower**
Lobelia cardinalis

Golden Ragwort
Packera aurea

***Switchgrass**
Panicum virgatum 'Cape Breeze'

Christmas Fern
Polystichum acrostichoides



Blue Eyed Grass 'Lucerne'
Sisyrinchium angustifolium 'Lucerne'

PLANTS

SCREEN BUFFER

Planted buffers are useful for screening parking lots, service yards, parking garages or any undesired views.

At Fontaine, a screen buffer is a mix of deciduous and evergreen trees or a vertically planted wall. Where space allows, deciduous trees will dominate with evergreen trees grouped as needed to provide a more opaque screen. Include understory flowering trees and shrubs at the mid-level to provide additional screening and support for wildlife habitat.

The plants on this list are recommendations. Review project plant selections with University's Landscape Architect and Associate Director of Grounds.

* On UVA Facilities Management's list of plants that perform well.

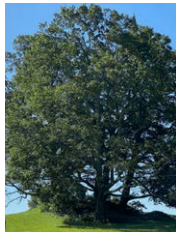
SHADE TREES - LARGE

Sweet Gum
fruitless varieties
Liquidambar styraciflua 'Rotundiloba', Happidaze'

Tulip Poplar
Liriodendron tulipifera

Dawn Redwood
Metasequoia glyptostroboides

Swamp White Oak
Quercus bicolor



Chestnut Oak
Quercus prinus

American Linden
Tilia americana

SHADE TREES - MEDIUM

Pawpaw
Asimina triloba

Sugar Maple
Acer saccharum

Black Gum
Nyssa sylvatica

Sassafras
Sassafras albidum

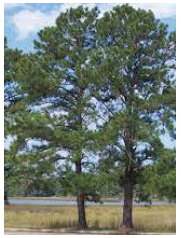
EVERGREEN TREES

Nellie R. Stevens Holly
Ilex Nellie R. Stevens

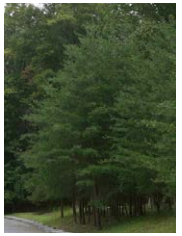
American Holly
Ilex opaca

Eastern Red Cedar
Juniperus virginiana

Southern Magnolia
Dwarf varieties
Magnolia grandiflora 'Kay Parris', 'Little Gem'

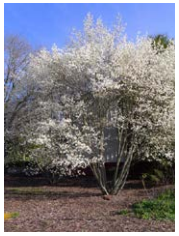


Loblolly Pine
Pinus taeda



Virginia Pine
Pinus virginiana

UNDERSTORY TREES

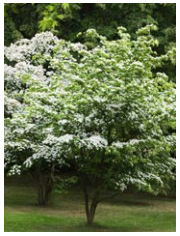


Serviceberry
Amelanchier laevis

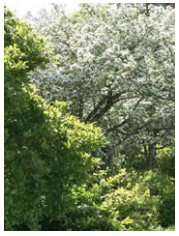
Ironwood
Carpinus caroliniana

Eastern Redbud
Cercis canadensis

Fringe Tree
Chinoanthus virginicus



Kousa dogwood
Cornus kousa



Green Hawthorn
Cratageus viridis
'Winter King'

Carolina Silverbell
Halesia carolina

Sweetbay Magnolia
Magnolia virginiana
'Moonglow'

American Hornbeam
Ostrya virginiana

SHRUBS

Bottlebrush buckeye
Aesculus parviflora

American beautyberry
Callicarpa americana

*Red Twig Dogwood
Cornus sericea '
Arctic Fire'

Yellow Twig Dogwood
Cornus sericea
'Flaviramea'

Witch-alder
Fothergilla gardenii
'Blue Mist'

Witch Hazel
Hamamelis virginiana

Oakleaf Hydrangea
Hydrangea quercifolia
'Snow Queen'

*St. John's wort
Hypercium frondosum
'Sunburst'

Inkberry Dwarf
Ilex glabra
'Compacta'

*Winterberry
Ilex verticillata
'Red Sprite'

*Virginia Sweetspire
Itea virginica
'Little Henry'

Winter Jasmine
Jasminum nudiflorum

Mountain Laurel
Kalmia latifolia

Spicebush
Lindera benzoin

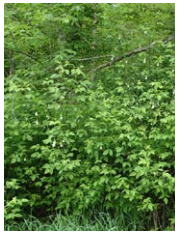
Asian Spicebush
Lindera glauca

Northern Bayberry
Myrica pennsylvanica

English Laurel
Prunus laurocerasus
'Otto Luykens'

Flame Azalea
Rhododendron
calendulaceum

Fragrant Sumac
Rhus aromatica



Bladdernut
Staphylea trifolia

Silky Camellia
Stewartia
malacondendron

Highbush Blueberry
Vaccinium corymbosum

Burkwood Viburnum
Viburnum burkwoodii
'Conoy'

Arrow-wood
Viburnum dentatum

PLANTS

SCREEN BUFFER

Groundcovers provide continuity to planting bed, add texture and color, and help suppress weeds.

Instead of mulch, provide a continuous and dense groundcover from the sample list to support weed suppression during shrub and tree establishment. Tight spacing during establishment will provide a quick cover.

Green walls have precedents at the University and have performed exceptionally well to soften garage building elevations. Some vines require treillage to climb while others do not.

The plants on this list are recommendations. Review project plant selections with University's Landscape Architect and Associate Director of Grounds.

* On UVA Facilities Management's list of plants that perform well.

GROUNDCOVERS

Wild Ginger
Asarum canadense

Pennsylvania Sedge
Carex pensylvanica

Plantain-Leaf Sedge
Carex plantaginea

Marginal Wood Fern
Dryopteris marginalis

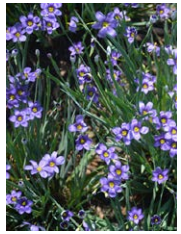
Big Blue Lilyturf
Liriope muscari

Golden Ragwort
Packera aurea

Fountain Grass
Pennisetum alopecuroides 'Little Bunny'

Variegated False Solomon's Seal
Polygonatum odoratum 'Vareigatum'

Christmas Fern
Polystichum acrostichoides



Blue Eyed Grass 'Lucerne'
Sisyrinchium anugustifolium 'Lucerne'

Barren Strawberry
Waldsteinia fragarioides

VINES

Cross Vine
Bignonia capreolata 'Tangerine Beauty'

Climbing Hydrangea
Hydrangea barbara (native)

Climbing Hydrangea
Hydrangea petiolaris

Honeysuckle Vine
Lonicera sempervirens 'Blanche Sandman'

Honeysuckle Vine
Lonicera sempervirens 'Dropmore Scarlet'

American Wisteria
Wisteria frutescens 'Amethyst Falls'

MICHAEL VERGASON
LANDSCAPE ARCHITECTS