



16 TECH

Design Standards
January 2020





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CONTENTS

1

Introduction

Purpose	2
Design Principles	3
Application	3

2

Streetscape Design Guidelines

Overview	6
Street Types	6
Intersections	15
Streetscape Elements	16

3

Landscape Design Guidelines

Overview	20
Open Spaces	20
Sustainable Strategies	24
Hardscape Materials	26
Site Furnishings	28
Plants	32

4

Architecture Design Guidelines

Overview	36
Architectural Prominence	36
General Design Criteria	38
Street Level Experience	41
Building Types	44
Building Elements	52

5

Signage Design Guidelines

Overview	60
Sign Types	60
Signage Opportunities	61
Tenant Signage	62
Building-Mounted Signage	63
Graphic Placemaking	64
Parking Signage & Site Wayfinding	64
Prohibited Signs	65





Introduction

Purpose
Design Principles
Application

SECTION 1 : INTRODUCTION

Purpose

The 16 Tech Design Standards have been developed to support and guide the successful implementation of the 16 Tech Master Plan, which was approved by the 16 Tech Community Corporation (16TCC) Board of Directors in June 2019. The overall goals and vision of the master plan are described in detail in the 16 Tech District Master Plan document.

This Design Standards document complements the Master Plan summary report and establishes design principles and guidelines for new development, redevelopment, and renovation to ensure that the vision of the 16 Tech Master Plan is realized. The 16TCC Board of Directors has established a Design Standards Committee (DSC) to review and approve the designs for development projects within the 16 Tech District (boundary indicated below).

16TCC is committed to creating an environment that inspires creativity and requires each development project within the district to include public art. The 16 Tech Design Standards do not prescribe specific locations or define guidelines for public art but do encourage its thoughtful integration into the design of streetscapes, landscapes, buildings, and signage elements. 16TCC, developers, and project designers should work together with artists to identify the best locations and opportunities for artistic expression that align with the spirit of 16 Tech.

16 Tech District Master Plan & Boundary



Design Principles

Consistent with the adopted 16 Tech Master Plan (6.19.2019), the DSC will use the following broad design principles to guide comments, review proposed projects, and approve projects as part of its duties as a committee of the 16 Tech Board of Directors.

Design Principles:

1. The 16 Tech Innovation District should be authentic and unique. This means allowing for renovation of existing structures and building of new structures at a variety of scales and styles, showcasing and promoting architectural diversity. 16 Tech is a district within a city, not a campus of one institution.
2. Designs for proposed buildings and pedestrian entrances should be oriented toward primary streets and open spaces to activate the public realm, encourage active mobility, and visually connect interior building activities to the outdoors. Visitors should be able to see "innovation on display" throughout 16 Tech, even if they are not entering a building.
3. Projects should be designed in context to the whole planned district and leverage specific opportunities of the proposed site, even if future projects are not yet identified. This means finding ways to improve connectivity within the whole district and to the surrounding areas; to create visual vistas and views; to establish welcoming district entries that let visitors know they have arrived in a special place; and to define public space(s) that build community by promoting social cohesion and encourage creativity, artistic expression, and healthy lifestyles.
4. Quality experiences for all district users is critical for the success of the district. Projects should enhance the human *'experience of place'* at 16 Tech and prioritize the pedestrian while recognizing that many people will arrive to the district via automobile and other non-pedestrian forms of transportation.
5. Proposed projects should strive to use as few resources as necessary to achieve the program goals for the space. Innovations in energy use, water management and use, air quality, and waste are important. Projects should demonstrate innovation in these areas when possible.

Application of Design Standards

The 16TCC Board of Directors and the DSC recognize that a consistent application and enforcement of these Design Standards will result in a vibrant and urban built environment that supports a healthy innovation ecosystem and a diverse human experience. The Board and DSC will interpret conformance but may allow non-conformance for specific reasons at their discretion. The Design Standards aim to anticipate future development needs and trends, though unforeseen conditions or proposals with special conditions will likely arise in the future. The DSC should consider these projects individually to interpret their alignment with the Master Plan vision and the goals of 16TCC.

The design guidelines outlined in subsequent sections are a resource and tool for developers, architects, engineers, and others working on real estate development, transportation, landscape, or architecture projects within the 16 Tech district. Design guidelines are divided into the following sections: Streetscape, Landscape, Architecture, and Signage.

Should any aspect of these Design Standards conflict with city zoning, building codes, or other city, state, or federal regulatory codes, they will be superseded by those legally enforced requirements.

Human Experience of Place

A key goal for 16 Tech is to create an experience that is welcoming, inclusive, safe, comfortable, accessible, interesting, and memorable to all district users.

This goal is closely tied to the concept of a sense of place, which is the feeling and perception that a place is special, unique, and meaningful. It results from an environment that has a strong, authentic identity and generates a sense of belonging and attachment to the place.

The opposite condition is placelessness, which describes environments that are inauthentic and lack a special relationship with their surroundings or community. They 'could be anywhere' and therefore do not belong at 16 Tech.

The process of creating active, attractive, people-centric, and quality places is called placemaking, and everyone involved in the design, implementation, and activation of 16 Tech is participating.

2

Streetscape Design Guidelines

Overview

Street Types

Intersections

Streetscape Elements

SECTION 2 : STREETSCAPE

Overview

The purpose of the Streetscape Design Guidelines is to create a consistent, high-quality public realm as new streets are built throughout 16 Tech. This section includes design standards for streetscapes based on street types.

Street Types

The Right-of-Way Zone addresses design criteria for the streets: travel lanes, bicycle lanes, building frontages, crosswalks, and sidewalks. The Street Types Diagram shows locations for the various types of streets, which are keyed to the street sections on the following pages. These guidelines address the right-of-way characteristics for the various street types, including vehicular and bicycle lanes, number of lanes, pedestrian areas and crosswalks.

With a vision for Complete Streets throughout the district, the design of 16 Tech should consider the mobility and safety of all users, ensuring that maximizing traffic capacity and speed is not the dominant consideration in street design. The streets and sidewalks should include elements that provide appropriate visual and physical cues, including signage and bike sharrows symbols, to alert drivers that pedestrians and bicyclists are present and are welcomed users of public streets

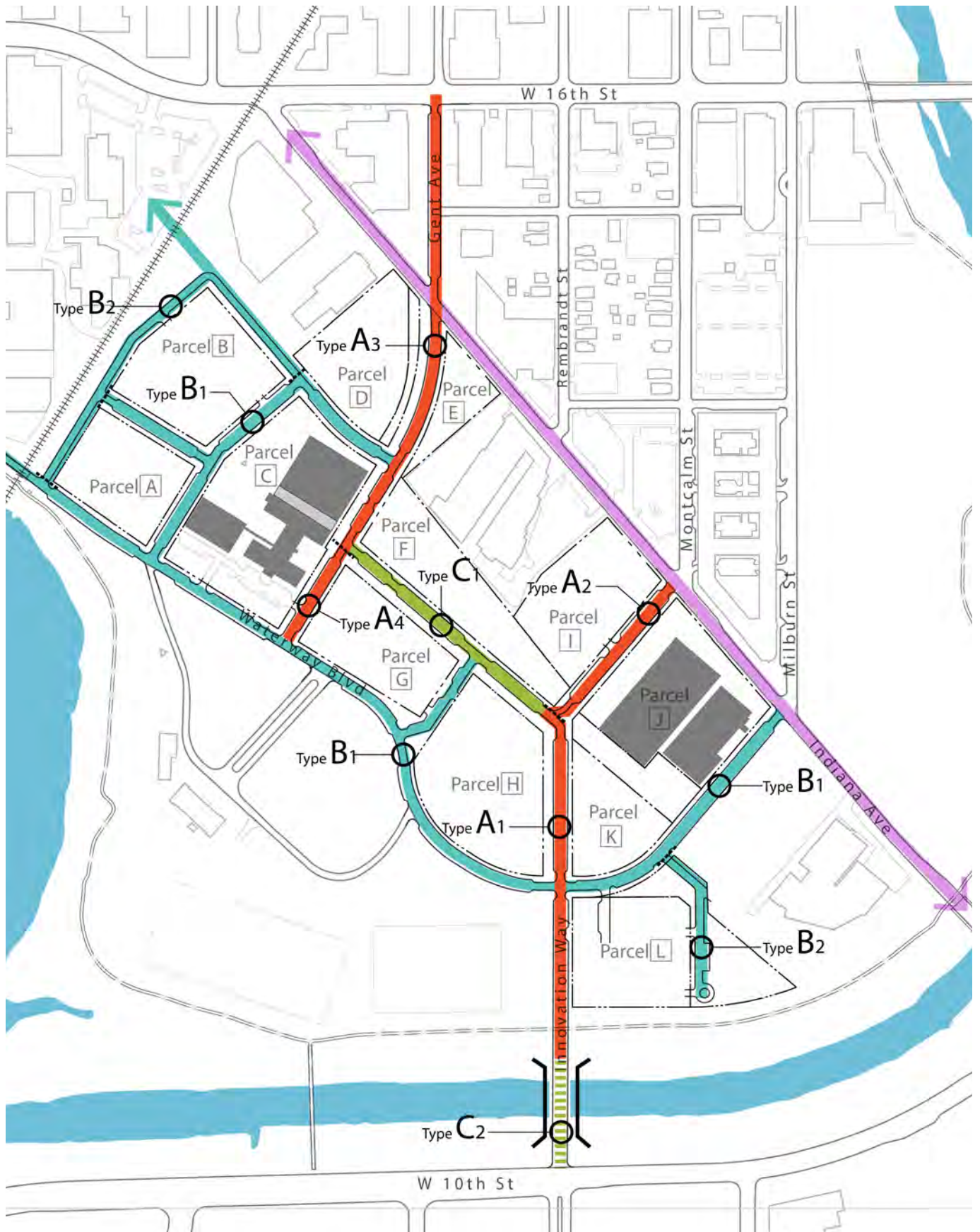
Stormwater management, native plantings, sustainable materials, and energy efficient lighting are all sustainable design elements that can contribute to the overall character of the streetscape. By integrating Best Management Practices (BMPs) to mitigate stormwater, runoff quality can be improved and quantities from impervious surfaces can be reduced. Impurities from road and sidewalk runoff can be treated near the source through rainwater tree pits, rainwater planters, and porous pavement where feasible. Using native plants reduces the need for potable water for irrigation and contributes to a sense of place by supporting regional wildlife and pollinators. Trees and plants can also be selected and sited to encourage pedestrian use by providing shade and reducing the need for pesticides, herbicides, and fertilizers. It is important that the streetscape design also reinforces the area's defining character. These guidelines, therefore, recommend choices in material, color, and texture for such components as crosswalks, pedestrian spaces, and sidewalks that are reflective of the surrounding context.

A Complete Street design approach, together with necessary physical and visual elements, will ensure 16 Tech is safer, more livable, and welcoming to everyone. The streetscape guidelines address the necessary components of Complete Streets, including:

- General provisions for pedestrian sidewalks, on-street parking, and the elements that comprise these components;
- Streetscape Zone design criteria for stormwater management planters, street trees, sidewalks, and all other elements between the curb/edge of pavement and building fronts; and
- Streetscape Palette and Materials.

Street Types

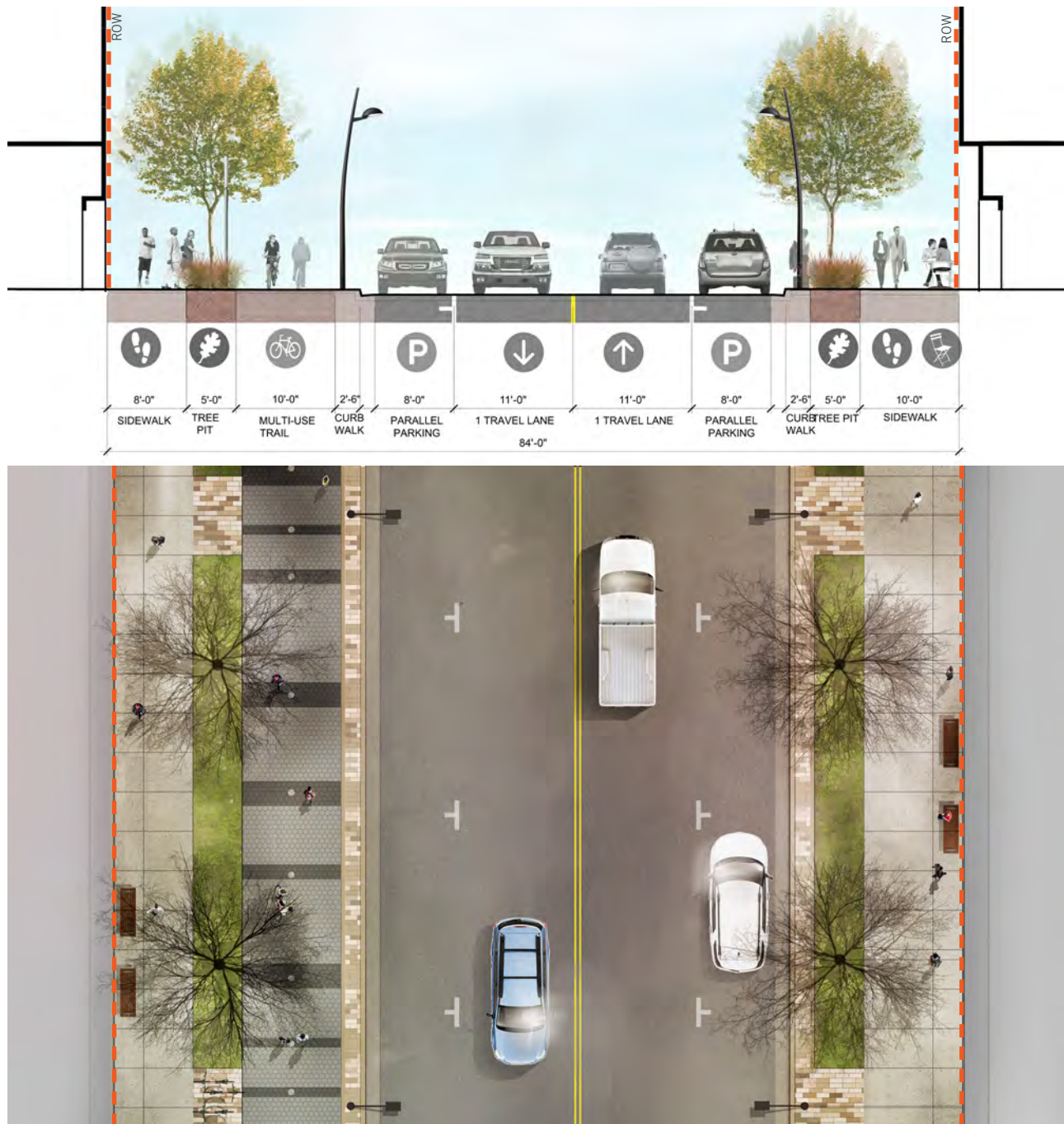
-  Type 'A' Streets
-  Type 'B' Streets
-  Type 'C' Street
-  Indiana Ave



SECTION 2 : STREETSCAPE

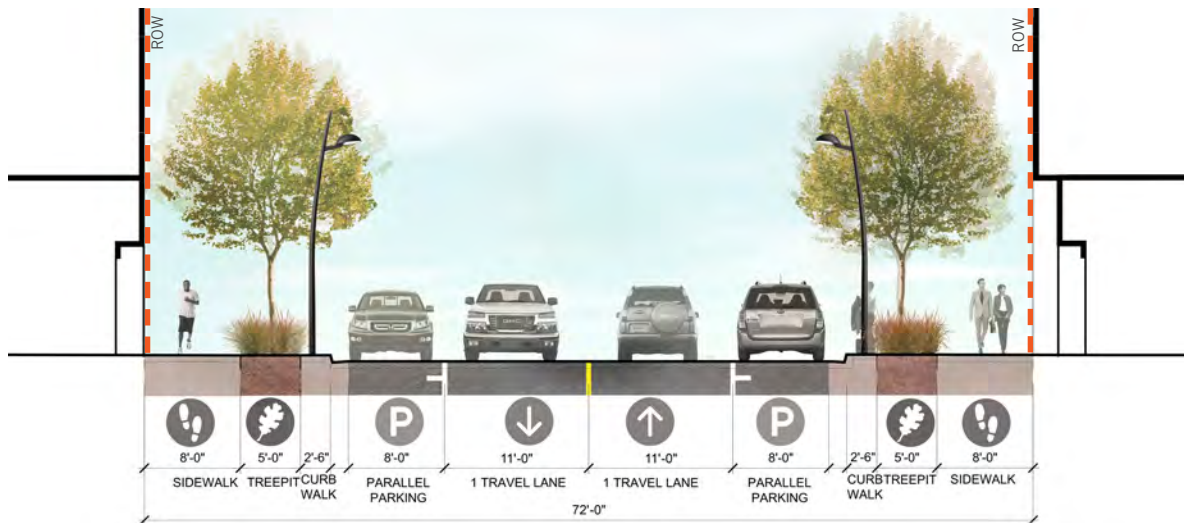
Street Types - 'A' Streets

Type 'A' rights-of-way will define the major entrances into 16 Tech from 10th Street, 16th Street, and Indiana Avenue. These street types will establish a typical 16 Tech palette of streetscape elements which will promote an active street life and define the overall character and image of the district.



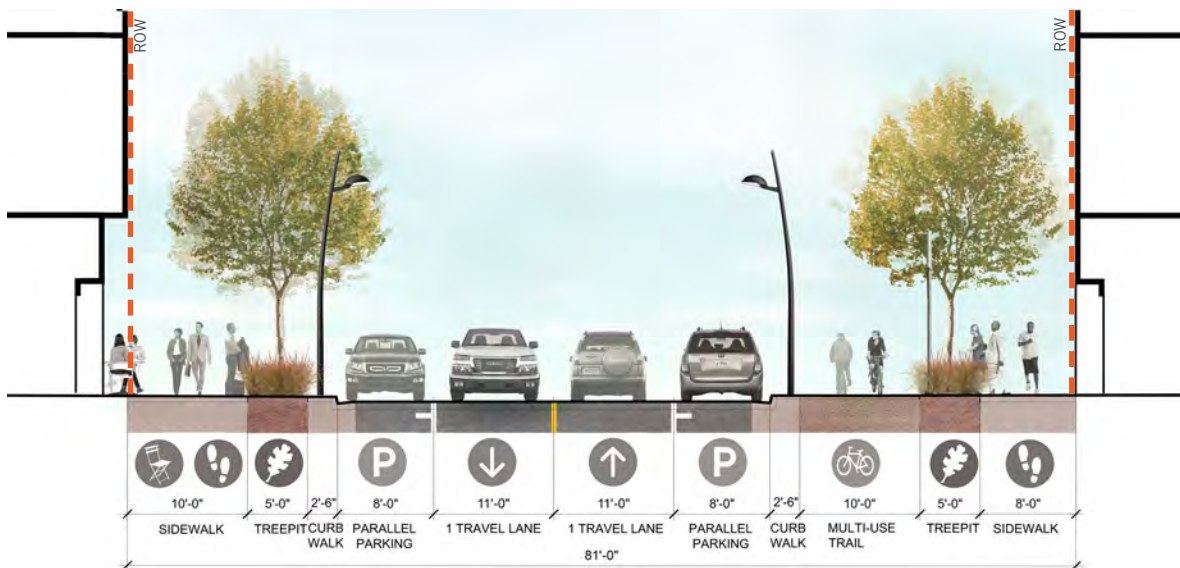
A1 - 84' ROW

- 11' Travel Lanes
- 8' Parallel Parking/Landscape Bump-out
- 10' Multi-use Trail
- Sidewalk (Varies per adjacent property)
- 2'-6" Curb Walks
- Parallel parking scaled to accommodate future travel lane should traffic demand warrant expansion. Bump-outs in this area should be designed without stormwater or public lighting infrastructure to facilitate removal should demand warrant expansion.



A2 - 72' ROW

- 11' Travel Lanes (with Bike Sharrow Symbols)
- 8' Parallel Parking/Landscape Bump-out
- 8' Sidewalk
- 2'-6" Curb Walks
- Parallel parking scaled to accommodate future travel lane should traffic demand warrant expansion. Bump-outs in this area should be designed without stormwater or public lighting infrastructure to facilitate removal should demand warrant expansion.

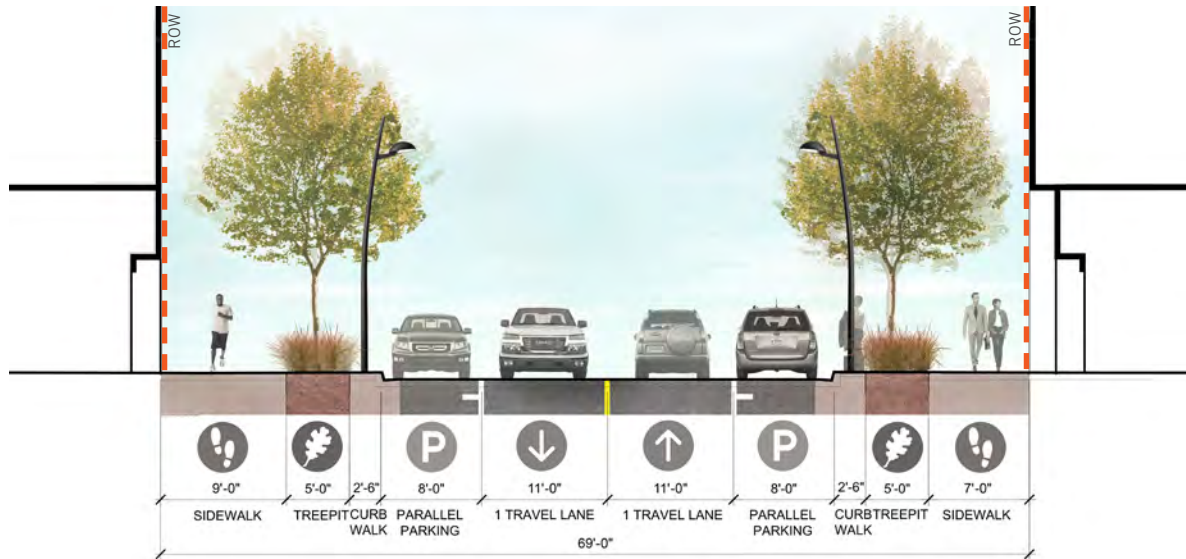


A3 - 81' ROW

- 11' Travel Lanes (with Bike Sharrow Symbols)
- 8' Parallel Parking/Landscape Bump-out
- 10' Multi-use Trail
- Sidewalk (Varies per adjacent property)
- 2'-6" Curb Walks

SECTION 2 : STREETSCAPE

Street Types - 'A' Streets (Continued)

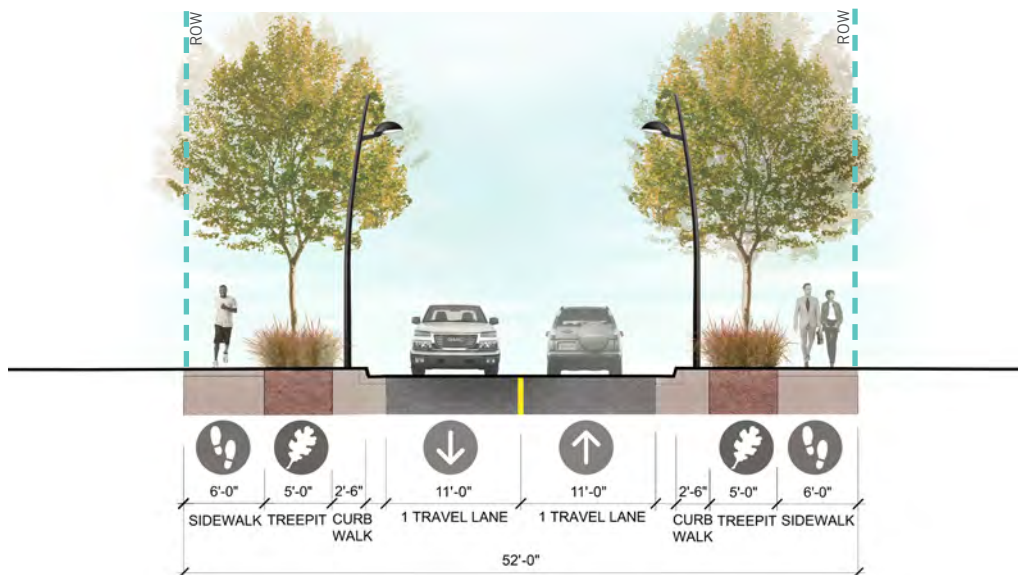


A4 - 69' ROW

- 11' Travel Lanes (with Bike Sharrow Symbols)
- 8' Parallel Parking/Landscape Bump-out
- Sidewalk (Varies per adjacent property)
- 2'-6" Curb Walks

Street Types - 'B' Streets

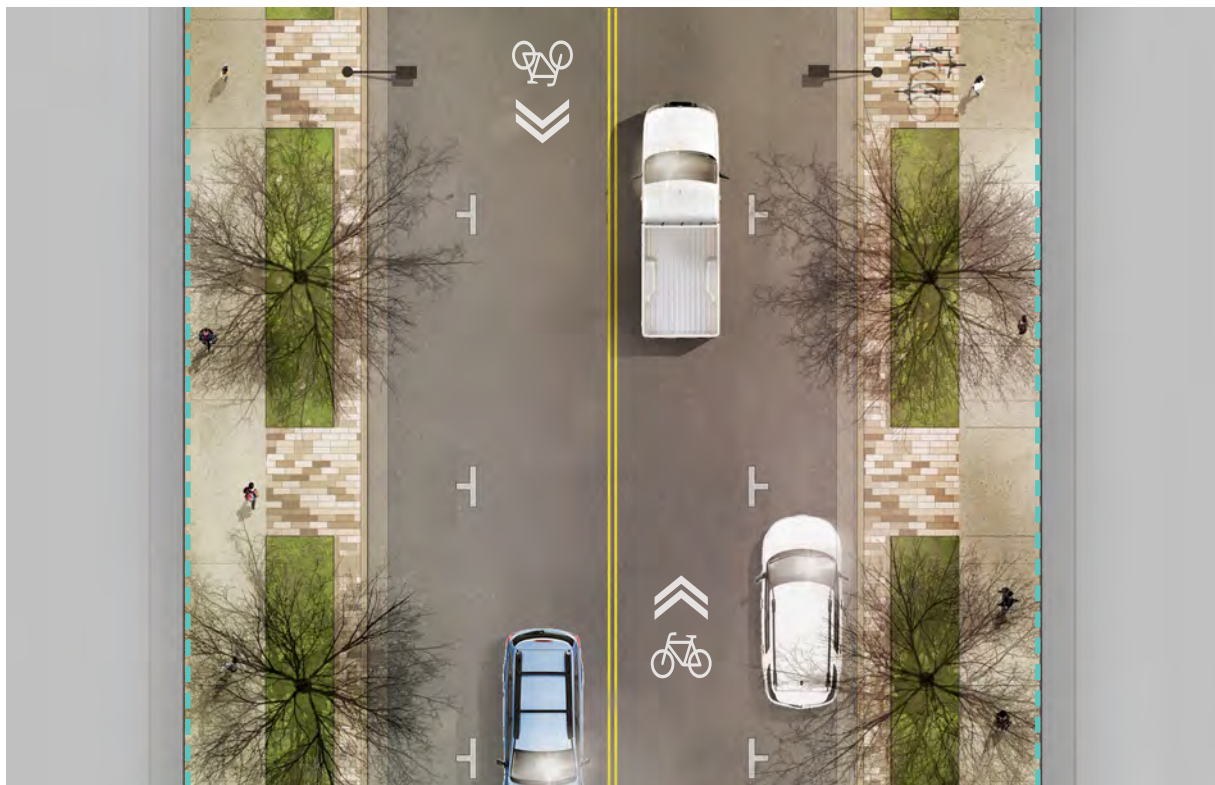
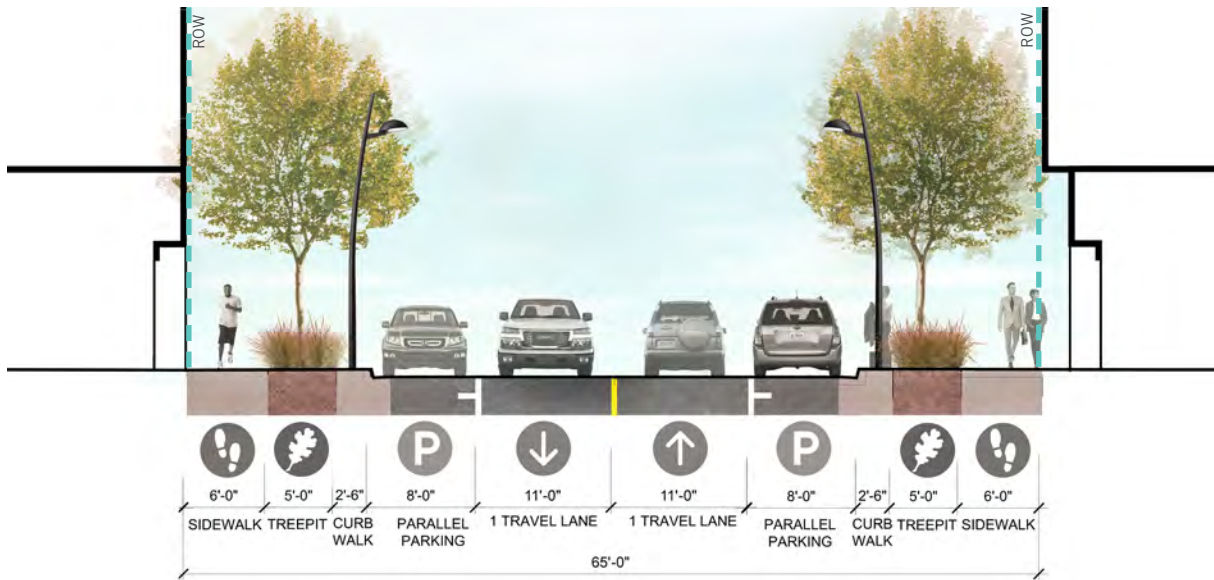
Type 'B' rights-of-way will define the typical condition for supporting streets within the 16 Tech district. These more common district streets will facilitate on-street parking and create a more intimate street section to support residential and office buildings.



B2 - 52' ROW

- 11' Travel Lanes
- 6' Sidewalk
- 2'-6" Curb Walks

Street Types - 'B' Streets (Continued)



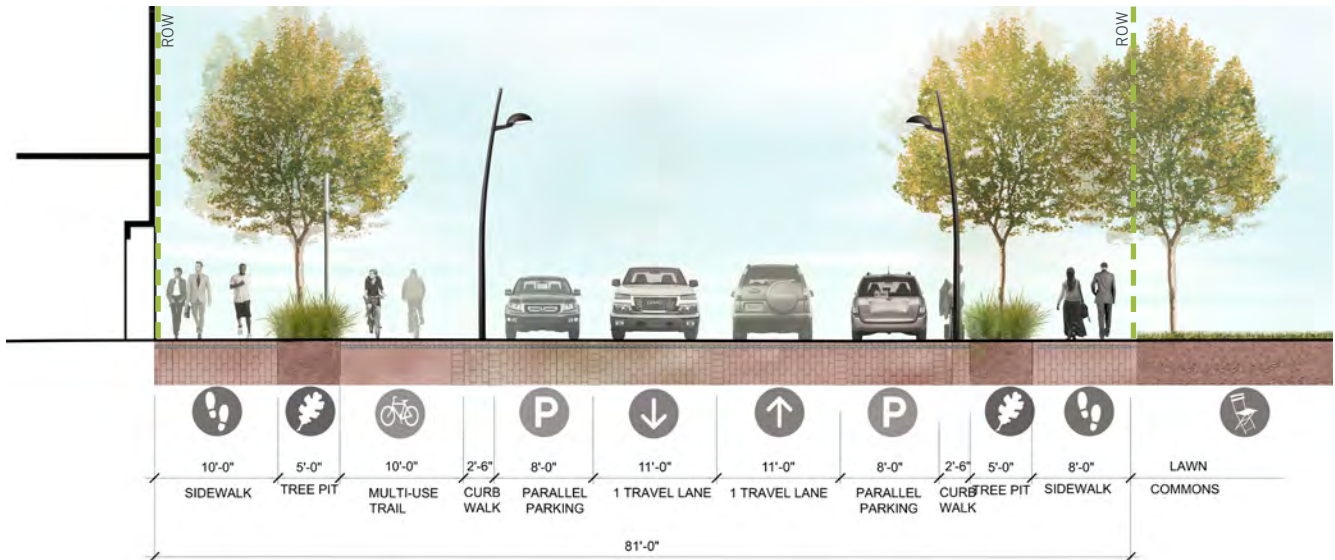
B1 - 65' ROW

- 11' Travel Lanes (with Bike Sharrows Symbols)
- 8' Parallel Parking/Landscape Bump-out
- 6' Sidewalk
- 2'-6" Curb Walks

SECTION 2 : STREETSCAPE

Street Types - 'C' Streets - The Central Woonerf (C1)

A 'woonerf' is a low-speed, shared-surface, complete street that supports traffic calming and establishes a unique sense of place. Equal priority is given to all modes of transportation including automobiles, bicycles, and pedestrians along its length. It is designed without a standard curb and gutter and instead utilizes unit pavers or natural stone to create a sense of a shared, single space. Bollards, street lights, and subtle changes in materials can be used to distinguish drive lanes.



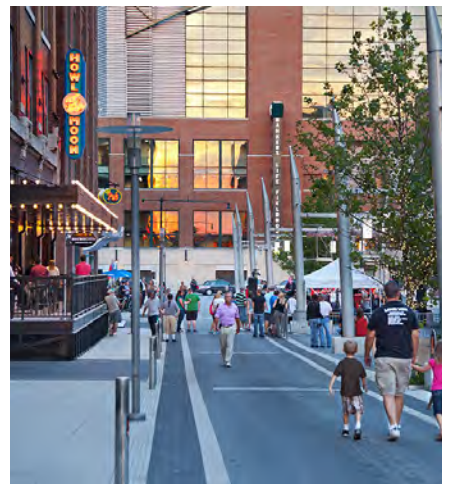
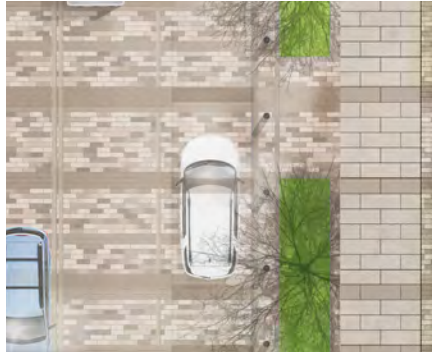
C1 - 81' ROW

- 11' Travel Lanes
- 8' Parallel Parking/Landscape Bump-out
- 10' Multi-use Trail
- Sidewalk (Varies per adjacent property)

Woonerf Alternatives

While the Type 'C1' streetscape condition is designed to utilize pavers or natural stone, an alternate option may include a combination of pavers and stamped or scored decorative concrete to achieve a similar high-quality aesthetic. Stamped or scored decorative concrete should complement the paver color and finish and may be used in no more than two of the following zones:

- Pedestrian Sidewalk
- Parking Lane
- Travel Lane

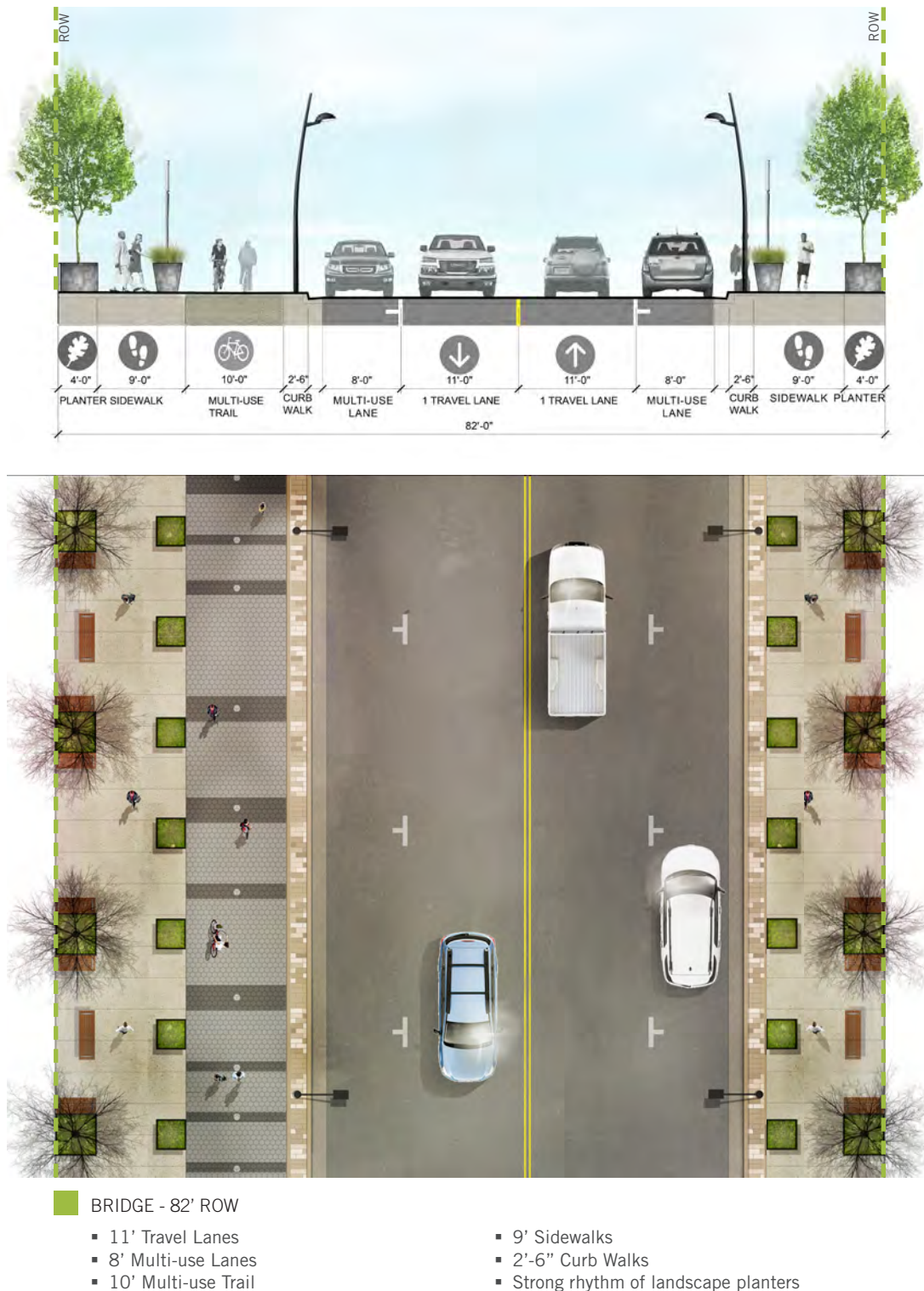


Character of successful woonerfs.

SECTION 2 : STREETSCAPE

Street Types - 'C' Streets - Bridge Improvements (C2)

A new bridge over Fall Creek will become a signature entrance into 16 Tech from 10th Street and the academic and medical campuses south of the district. The bridge should be designed to extend the character and quality of 16 Tech streetscapes and create a welcoming entry experience for all bridge users. It should take advantage of the unique opportunity to create a waterfront experience at Fall Creek. The bridge edges should be designed to highlight views of the river corridor. It should utilize above-grade planters to introduce a strong rhythm for traffic calming and “greening” of the streetscape as well as provide direct access to the adjacent levee trail and future creekside park.



Intersections

Thoughtful intersection design is pivotal to ensure a safe street experience for all users. Accidents are most likely to occur as vehicles, bicycles, and pedestrians cross routes, but intersections can be made safer for all users by ensuring clear sight lines, purposefully contrasting materials, minimizing crossing distances, and providing proper signage and lighting.

Sight Lines

Intersection design should allow all users to see one another with plenty of time to react to the movement of travelers in all transit modes. Sight lines should be determined using National Association of Transportation Officials (NACTO) standards, the right-of-way dimensions, and roadway speed. Clear sight lines need to accommodate amenities located near intersections such as bus shelters and bicycle parking. Lower speeds and tighter turns should be used as traffic calming measures in conjunction with sight lines. Wide corners with large sight triangles create visibility, but they can also encourage drivers to move faster and ultimately reduce safety.

Materials

Elevated or changes in materials in the roadway and at intersection sidewalks are encouraged in areas with high pedestrian activity. These improvements should increase safety and pedestrian visibility. A signature materials palette for intersections could be applied district-wide to create consistency and improve district identity.

Bump-Outs

Bump-outs are extensions of the curb and sidewalk at intersections that place on-street parking further away from intersections and create a larger space for pedestrians to gather and wait to cross a street. Bump-outs also shorten the distance that a pedestrian travels to include only the drive lanes, not drive lanes plus the additional width of on-street parking. Bump-outs should have consistent materials to the adjacent sidewalk, even if the area is elevated, and all four corners should have a consistent treatment. Bump-outs should be incorporated at all intersections at 16 Tech, except where on-street parking is planned to be removed to accommodate extra travel lanes in the future. Bump-outs can also be used as stormwater treatment areas and planting zones.

Multi-Use Trail Crossings

Intersections that include the multi-use trail require particular design attention to reduce the risk of collisions. Cycle tracks should have signage warning users they are nearing an intersection at least 8' before the pedestrian zone. The pavement style of the sidewalk should be dominant to that of the cycle track to make cyclists aware that they need to be alert and slow down. The transition to the roadway elevation should happen adjacent to the roadway and leave the bump out and sidewalk area at an aligned elevation. Where cyclists are crossing the roadway a treatment similar to a crosswalk should exist to mark the appropriate area for cyclists to occupy. It is preferable for this material to be consistent with the style of the cycle track.



SECTION 2 : STREETSCAPE

Streetscape Elements

The Streetscape Zone outlines the design criteria for all on-street parking and elements of the sidewalk including curb walks, landscape zone, street and pedestrian lighting, outdoor amenity areas, pedestrian walkways, multi-use trail, and building frontage zone. Streetscape characteristics including sidewalk widths, appropriate stormwater management methods, street tree types, landscaping, lighting, outdoor furniture, paving materials, dimensional criteria for the various zones, and other details in accordance with a particular street type are discussed following the Streetscape Zone summary. Design of the streetscape zone for all streets, including materials, pattern, and colors, shall be consistent and compatible, although some slight differentiation amongst streets is encouraged, especially the Central Woonerf.

Elements of the Streetscape Zone

- PP** Parallel Parking: On-street parallel parking
- CW** Curb Walk: Buffer zone adjacent to street parking
- LZ** Landscape Zone: Trees and planting, stormwater management, lighting, signage, bike storage
- PZ** Pedestrian Zone: Defined pedestrian thoroughfare
- AZ** Amenity Zone
- BF** Building Frontage
- MT** Multi-use Trail



Parallel Parking

Parallel parking is an integral component as it activates the streetscape and increases the parking capacity of the site. In most cases, parallel parking is to be 8'-0" wide inclusive of a 2' integral curb and gutter. However, street type 'A' creates future-proofing using 10' parallel parking that can be converted into travel lanes in the event that traffic volumes require expansion. Parallel parking is encouraged on all internal streets.

Curb Walk

The curb walk zone ranges from 6"-36" wide inclusive of curb face (depending on street type). This space allows pedestrians flexibility to exit from vehicles with direct access to sidewalks and helps accommodate the vehicle's door swing, eliminating conflict with site furniture, signage, lighting, or landscape. The curb walk for all public streets should reflect the materials and patterns used throughout the district.

Landscape Zone

The Landscape Zone is a minimum of 5' wide and shall use a diverse selection of site appropriate plants as outlined in the Landscape Section. Other permanent accommodations may be amenities such as planters, light poles, street signage, benches, bike share stations, and bike racks. This zone may also incorporate non-permanent elements including restaurants menu signs, waste receptacles, potted plants, and additional seating. Additionally, this zone should be fully paved adjacent to a transit stop. Where conditions warrant, the Landscape Zone may be 5' wide by a minimum 12' long. In no instance shall a planting zone be less than 48 square feet.

Pedestrian Zone

The Pedestrian Zone is a minimum 5' wide clear path. This zone is reserved for the use of pedestrian circulation and should be clearly differentiated by paving materials or other visual cues.

Amenity Zone

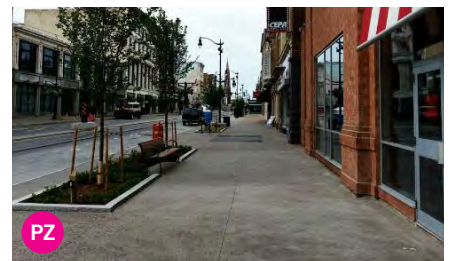
The Amenity Zone can range from 3'-12' wide (3'-5' for smaller bistro tables or 4'-12' for larger dining tables). This zone is reserved for amenities that may be customized depending on adjacent uses. Typical amenities include, but are not limited to café tables, benches, planters, street trees, lighting, wayfinding signage, bollards, trash and recycling receptacles, bike racks, and painted scooter parking areas. The Amenity Zone is optional; this zone is encouraged where heavy pedestrian traffic for dining or entertainment uses is anticipated and can occur within the Landscape Zone.

Building Frontage

The Building Frontage Zone should be a minimum of 2' wide and is reserved for the building tenant/owner. This zone is adjacent to the building frontage and may be used for signage, sidewalk displays, benches, stoops, and planters or to accommodate door swings and projecting window bays. This zone may be part of the pedestrian zone, as long as a minimum of 5' clear is reserved for pedestrian movement.

Multi-Use Trail

A multi-use trail should serve as a definable linear corridor throughout the district and help support a sustainable goal to link the surrounding neighborhoods and city trail networks with the new public amenities, retail, and open space parks of 16 Tech. This 10' trail provides recreational opportunities for a safe, reliable, efficient, and socially equitable transportation system that enhances the district's environment and economic vitality.



3

Landscape Design Guidelines

Overview
Open Spaces
Sustainable Strategies
Hardscape Materials
Site Furnishings
Plants

SECTION 3 : LANDSCAPE

Overview

The design character, quality, consistency, function, and programming of all exterior spaces within the district is of paramount importance to the success of 16 Tech and the experience of place that it seeks to provide. This section defines design standards for all landscaped and hardscaped areas that together comprise the public realm of the district.

Open Spaces

Public open spaces in urban areas assume many forms, such as plazas, parks, squares, and greenways. These spaces can differ substantially in type, particularly with respect to programming, character, size, landscaping, and uses. When planned as a system, public open spaces should provide a range of activities to meet a variety of needs and interests. A well-designed system will appeal to people of all ages and encourage social gatherings.

The goals established by 16 Tech are to create well-designed public open spaces that will contribute significantly to the quality of life within the 16 Tech district, its surrounding community, and the city of Indianapolis. The Master Plan calls for the creation of a 16 Tech Central Green that will be accessible to all who work and live in the district and surrounding neighborhoods. The Master Plan focuses on improving the quality and utilization of public open space, whether new or proposed, by increasing accessibility, visibility, programming, and appearance. Recommended build-to lines are also established to define the proposed open spaces that will have limited flexibility in location and orientation and are illustrated to represent the approximate demarcation between the public open space and sidewalk.

16 Tech Open Space Network



 Open Space Network

 Connection to potential future rail trail

Open Space Design Goals

- Explore design opportunities to incorporate, commemorate, and celebrate the site's strong connection to water: the White River, Fall Creek, the former water utility headquarters, the historic pumping station, and the active role it continues to play in providing water to the city.
- Design open spaces to be highly visible, active, programmable, flexible, and safe.
- Provide a diversity of open space types that reinforce the urban experience of the district. Avoid landscaping that will result in a suburban or 'office park' feel.
- Coordinate plaza and park design with adjacent buildings and uses.
- Distinguish effectively between private and public spaces.
- Provide high durability landscape and hardscape features.
- Use a blend of plant species.
- Ensure handicap accessibility across the open space system.
- Plan and design for festivals, concerts, food trucks, farmers markets, and other activating uses, particularly at the 16 Tech Central Green.
- Incorporate public art, graphic place-making, and creative use of lighting.
- Apply Crime Prevention through Environmental Design (CPTED) principles.
- Leverage opportunities to blend sustainability, innovation, education, and design. For example, consider sculptural solar elements to educate visitors and supply power to lighting and park pavilions.
- Incorporate Low Impact Design (LID) features. For example, consider pervious paving, water filtration gardens, and cisterns within open spaces and adjacent buildings to capture rainwater for park irrigation.

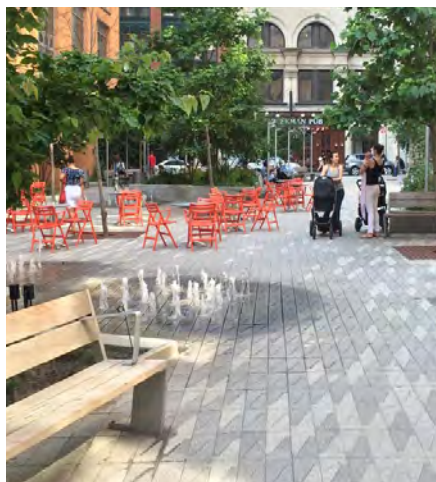


16 Tech Central Green

This central amenity is the signature programmable space designed as a communal destination for those who live and work nearby. The Central Green should be treated with high level finishes, incorporating a variety of materials such as brick, stone, and specialized pavers to reinforce the character of the 16 Tech district.

The layout of the space should provide flexibility to host a variety of events and other opportunities for its users while also incorporating street parking, access for service vehicles, and infrastructure for major public events. The landscape should include flexible public open spaces, outdoor seating, shade trees/shade structures, and a diversity of landscape elements (water features, gardens, play spaces, bicycle infrastructure).

Sustainable design elements should be integrated such as innovative stormwater management features, incorporation of native plant materials to minimize water usage and/or need for irrigation, and the use of local and regional materials to establish a character and unique sense of place for the district. The Central Green should also provide connectivity to other public open spaces within 16 Tech.



Character of central common spaces



SECTION 3 : LANDSCAPE



The Passage

This open space amenity should be designed to link The Central Green with the eastern part of the district. It should leverage unique programming, adaptive reuse, and placemaking opportunities presented by existing adjacent warehouses and balance utilitarian functions of service, loading, and emergency access.

DESIGN PERFORMANCE

1. Due to minimal vehicular traffic, The Passage may be constructed using low-impact materials such as pervious or modular paving.
2. Bicycle traffic may use The Passage without the need for dedicated lanes or signage.
3. This zone can be restricted for traffic during non-delivery hours for outdoor seating and other uses.
4. Due to intersections and potential conflicts from obstructed visibility between pedestrians and vehicles, warning signs should be provided to alert vehicles of pedestrian traffic.
5. Delivery vehicles may use The Passage for loading and unloading to reduce double parking on nearby streets.
6. Maintain clear access in areas where vehicle access is permitted. Site furniture and bollards should be designed to minimize conflicts with freight movements.



Character of successful pedestrian-friendly passages and alleyways



The Creekside

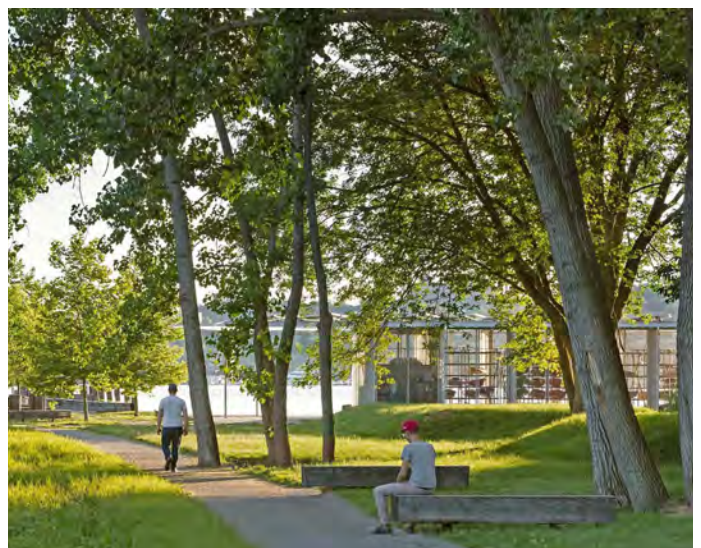
This amenity should act as a continuation of the pedestrian linkage from The Passage to the White River Trail and Fall Creek waterfront, as well as connecting to the multi-use trail on the new bridge. This open space will be the most natural and heavily planted in the district because of its proximity to Fall Creek and the greater Indianapolis river system.

DESIGN PERFORMANCE

1. Due to creek adjacency, the park should use low impact materials, preserve mature existing trees, and incorporate native plant material that is appropriate for the slope approaching the Fall Creek.
2. The northern portion of The Creekside could incorporate features such as a picnic shelter, playground, and amphitheater space with significant planting buffer between the park and the Cook Regentec property.
3. The Creekside should be accessible to all users and incorporate spaces for both leisure activity and small boat launches.
4. Clear connections should be made to the multi-use trail and the bridge to create a seamless open space experience.



Character of successful waterfronts



SECTION 3 : LANDSCAPE

Sustainable Strategies

Stormwater Management

Open space and streetscapes within 16 Tech are planned to advance sustainable practices. They should comply with the regulations and best management practices of the metropolitan Indianapolis not only in public right-of-ways but in development sites within 16 Tech to support a comprehensive approach to stormwater management. Furthermore, landscape improvements should utilize low-impact development techniques (LID) and manage water as close to the source as possible. Plantings and vegetation in green spaces surrounding buildings should incorporate native species and sustainable measures aimed at:

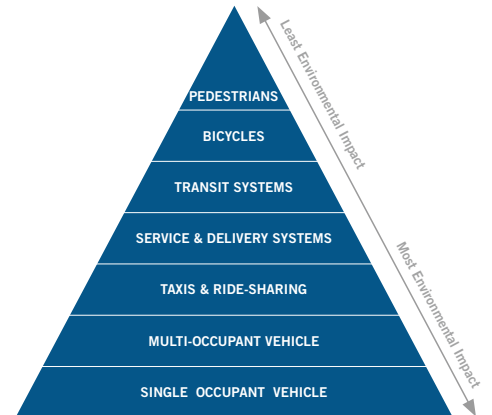
- Minimizing stormwater runoff from surrounding streets, parking lots, and buildings.
- Limiting post-development net gain in runoff volume.
- Installing porous and permeable pavements in hardscape and some parking areas to absorb rainwater.
- Harvesting and reusing rainwater through the use of water conservation techniques.
- Using recycled products.
- Implementing soil management techniques.
- Adopting and integrating renewable energy measures where applicable, including but not limited to, solar-powered landscape lighting.
- Incorporating green roofs into building designs.
- Installing bioretention features adjacent to hardscape areas, such as streets, sidewalks, and parking lots, to store and filter stormwater runoff and allow it to infiltrate within the site.
- Adhering to the City's stormwater requirements for both water quality and water quantity during planning, design, and construction.
- Incorporating proposals for sustainable or infiltrative stormwater practices that include analysis for identifying effective long-term operations and maintenance actions and resources.
- Coordinating sustainable infiltrative stormwater practices being considered for turn-over to the City with the DPW Operations Division.
- Adhering to the standards and requirements for digital submittals for the stormwater infrastructure being sent to the City in order to effectively illustrate and represent stormwater infrastructure in the City's GIS Infrastructure layer(s).
- Avoiding impacts to the flood works structures (levees and appurtenant structures).
- Documenting unavoidable impacts to the levee and appurtenant structures for review by the City and utilizing appropriate US Army Corps of Engineers standards and specifications for levee design, construction, and/or reconstruction.
- Ensuring the area of the levee surface and adjacent vegetation management zones are not considered developable.
- Educating users about the history of the 16 Tech site as the former headquarters of the Indianapolis Water Company and its historic and ongoing role as a source of water to the city.



Alternative Transportation

16 Tech should support multiple forms of transportation in an interconnected system of multi-modal streetscapes, open spaces, and existing infrastructure. A comprehensive approach will make the site more accessible to users and more environmentally-friendly through the reduction of single user vehicular traffic.

- Transit, bike, electric scooter, electric car, car share, and ride share infrastructure and amenities should be integrated into the design of all streets and open spaces.
- Transportation infrastructure should align best management practices and regulations and maximize access across the whole district. It should react to major points of interest in order to assure an ease of use and the necessary visibility.
- Private development projects should also enhance the network and promote alternative use by providing appropriate end of trip amenities such as covered bike storage, changing rooms, lockers, and showers.



SECTION 3 : LANDSCAPE

Hardscape Materials

Sidewalks

A primary streetscape sidewalk material, pattern, and color should be consistent throughout the 16 Tech district and denote the clear, unobstructed circulation route. Beyond this clear pedestrian zone, paving options that denote other zones and uses of the sidewalk through varying materials, patterns, colors, and/or textures is encouraged. For example, where a sidewalk adjoins a plaza seating area, a change in paving type differentiates a movement zone from an area of rest. Unlike the more uniform streetscape, hardscape areas within amenity spaces may differ from, and contrast with, the typical sidewalk paving.

- Streetscape sidewalks shall be constructed with natural or brushed concrete, or masonry concrete unit pavers with accents of concrete pavers. Materials should consist of neutral colors.
- Porous pavement systems or pervious asphalt are permitted on waterfront trails or paths, but not allowed for sidewalks within streetscapes.



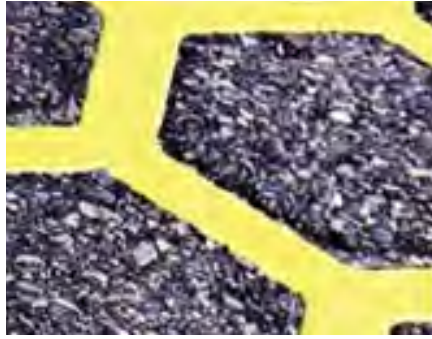
Paving Character



Clear pedestrian sidewalk zone



Variations in paving type and sizes to define zones (planting, furniture, amenity, landscape)



Crosswalks

All improved street intersections should include crosswalks and depressed curbs connecting to existing sidewalks or new sidewalks, except in limited situations where there is no traffic control device. Crosswalks should be of a different paving material, texture, or color from the street paving and establish a coordinated and unified aesthetic. All crosswalks shall be the same and be a minimum of 10' wide. Crosswalks may be asphalt block, unit pavers, or an imprinted thermoplastic material pattern (images above). The design of all crosswalks at 16 Tech could be part of the district's branding and wayfinding strategy.



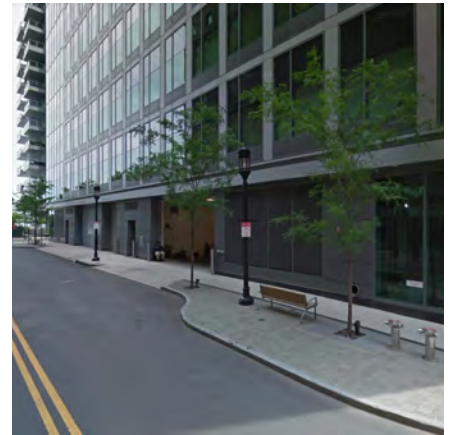
Vehicle Drop-off/Lay-By

Vehicle drop-off or pull-off zones should be either consistent in material with the travel lane paving or differentiated through a change in material (preferred). In addition, the edge separating the travel lane from the drop-off should be defined by a band denoting a border.



Parallel Parking

Parallel parking paving should be either consistent in material with the travel lane paving or differentiated through a change in material (preferred). Additionally, an edge band denoting the border between the travel lane and parallel parking spaces is encouraged and can be differentiated by either color or material.



Loading/Service

Curb cuts and access drives will be required for loading and servicing a building. At these locations, the sidewalk material(s) should be carried across the access drive where possible. Variation in streetscape materials or use of bollards may be incorporated to identify loading and service areas and provide safety for pedestrians.

SECTION 3 : LANDSCAPE

Site Furnishings

Benches, Tables and Chairs

Outdoor seating is an important element in creating a vibrant, welcoming environment that provides places for social interaction and repose. Benches along the street edge that are part of the street furnishings should be uniform and consistent throughout 16 Tech. Benches, tables, and chairs belonging to commercial or institutional tenants, or within adjacent amenity space, should be unique and expressive of the overall composition and character of the building or storefront. Opportunities for benches to serve as public art pieces are strongly encouraged.

- Benches should be surface-mountable or able to be embedded in paving. Tables and chairs should be movable.
- Benches along the street edge that are part of the street furnishings should be metal (aluminum, steel, or cast iron) and consistent in material, style, and color with the other street furnishings, including street lights, bollards, and trash/recycling receptacles.
- Benches, tables, and chairs belonging to commercial tenants should be metal (aluminum or steel) and a combination of wood and metal, stone, or other durable material.
- Materials with a high percentage (75% or more) of recycled content are encouraged.
- For benches also serving as public art, other materials may be approved.

Pots and Planters

Pots and planters should add interest, color, and pedestrian scale to the streetscape. Low-maintenance planters with perennial and annual plantings are encouraged within 16 Tech. Movable pots and planters should be used where permanent planters may limit the versatility and use of a sidewalk area. Pots and planters belonging to commercial or institutional tenants should reflect the unique character of each building or storefront.

Opportunities for pots and planters to serve as public art pieces are strongly encouraged.

- Pots and planters should be of a durable, low-maintenance material.
- Pots and planters should not impede pedestrian circulation or block visibility.
- Pots and planters do not count towards minimum landscape requirements for zoning.



Tree Grates

Tree grates are appropriate within the streetscape or private properties where high pedestrian activity is anticipated.

- A minimum of 80 square feet (250 cubic feet per tree) of planting soil is recommended where tree grates are used. This may include multiple tree grates that cover the planting pit or paver grates.
- Tree grates should be properly maintained and cleaned for the safety of visitors and for the welfare of the trees they protect.
- As part of the streetscape, tree grates should be consistent in material, style, and color with the other street furnishings, including street lights, bollards, and trash/recycling receptacles.

Fencing and Site Walls

Fences and site walls can be used to define private spaces, mediate grade, and conceal parking, loading, service, and trash areas.

- Fences and gates within the Streetscape Zone should be metal (aluminum or steel) and consistent in material, style, and color with the other street furnishings, including street lights, transit shelters, benches, and trash/recycling receptacles. Fencing to define outdoor dining or amenity zones shall not obstruct the pedestrian sidewalk zone and shall not be permanent.
- Fencing utilizing recycled material is encouraged.
- Chainlink fencing (except where required for temporary security), barbed wire, and paneled materials are not permitted.
- Site walls should use materials, patterns, and colors consistent with the surrounding streetscape materials or building architecture and, if visible from streets or amenity space view, should be brick, precast, stone, cast stone, or vegetated screen wall.
- Straight-faced decorative architectural block retaining wall may also be used if site conditions warrant.
- Precast, stacking block wall systems are not permitted.
- Fences and walls cannot intrude on the clear-sight triangle at intersections.

Waste & Recycling

Waste and recycling receptacles should be conveniently located where high pedestrian activity is anticipated.

- Waste and recycling receptacles should be coupled together.
- For sanitation purposes, receptacles should have a rain guard over the main opening and should conceal the main recycling or trash container.
- Trash/recycling receptacles along the street edge that are part of the street furnishings should be metal (aluminum or steel) and consistent in material, style, and color with the other street furnishings, including street lights, benches, and bollards.
- Trash/recycling receptacles belonging to commercial or institutional tenants may vary, but should be metal (aluminum, steel, or cast iron) or a combination of wood and metal.



SECTION 3 : LANDSCAPE

Bollards

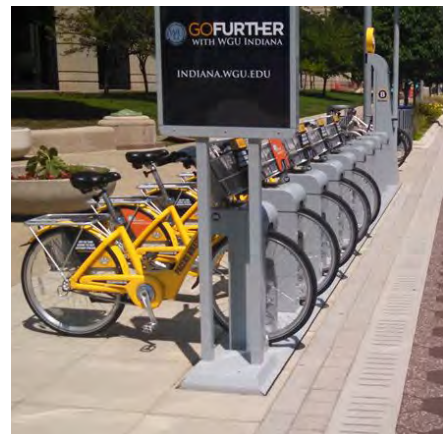
Bollards should be used in 16 Tech primarily where amenity space abuts the roadway to protect pedestrians from vehicles. Bollards are encouraged to alert all users, pedestrians, bicyclists, and drivers to a pedestrian realm or crossing. Bollards may also be used to add visual interest and provide ground-level lighting. Bollard use should be limited and specific to areas that require increased pedestrian safety.

- Bollards may be permanent or removable, depending on limits of access.
- Removable bollards are recommended where possible in order to provide maximum flexibility.
- Bollards along the street edge or along drivable, curbless conditions (woonerf) are part of the street furnishing/curb walk zone and should be metal (aluminum, steel, or cast iron) and consistent in material, style, and color with the other street furnishings, including street lights, benches, and trash/recycling receptacles.
- Bollards belonging to commercial or institutional tenants should be unique and expressive of the overall composition and character of the building or storefront and should be of a durable, low-maintenance material.

Bicycle Infrastructure

Bike racks should be installed to promote and encourage bicycling as a means of travel. Locations of bike racks are contingent on site conditions, but generally, bike racks should be placed near entries to commercial and institutional buildings and/or within parking garages near the pedestrian entry/exit. In all cases, bike racks should be located conveniently for use by cyclists, but where the racks will not interfere with pedestrian movement and building entrances.

- Bike racks should be permanently installed.
- Bike racks should enable both the front wheel and frame to be locked securely and the bicycle to remain upright.
- Single racks should be mounted at 30 inches minimum on center to allow room for two bicycles to be secured to one rack (on either side).
- Bike racks along the street edge that are part of the street furnishings should be metal (aluminum or steel) and consistent in material, style, and color with the other street furnishings, including street lights, benches, and trash/recycling receptacles.
- Bike racks belonging to a commercial, institutional, or residential building may be unique and expressive of the overall composition and character of the building or storefront.
- Bike infrastructure should be scattered throughout the site to allow for easy access to a multitude of destinations, rather than organized in large groups.
- Follow IndyRezone and RC Guidelines to meet required number and siting of protected bike storage.



Lighting

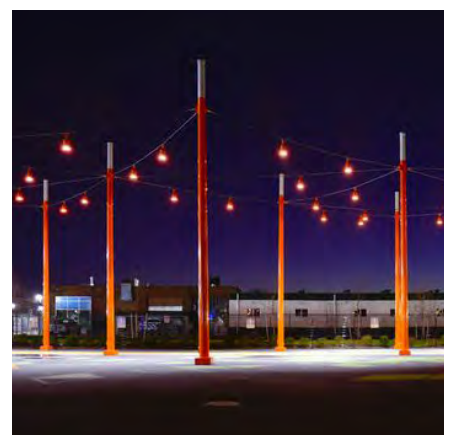
Street lights should be selected and placed to create an even rhythm and consistent, safe light levels along streets. Pedestrian-scaled street lights of approximately 14' in height are encouraged to light the sidewalks as supplement to the existing, taller vehicular lights. New, higher poles may be required to adequately light wider street intersections. Pedestrian- and vehicular-scale lights may be combined on a single pole. Light levels and quality of light should be appropriate for the streetscape character and use. All streetscape lighting should be selected from a family of the same design-related fixtures. Street light selection should conform to the City lighting standards.

- Lighting may be installed on utility poles in areas where ground-mounted poles are constrained.
- Banners may be attached on street light poles where appropriate.
- All light poles should be fiberglass. If metal poles are desired, breakaway bases will be required.
- All lighting fixtures should be Dark Sky compliant, as defined by the International Dark Sky Association (IDA).
- LED fixtures are recommended with a target wattage in the range of 70 to 100 watts (pedestrian) for the 14' pole locations.
- Higher wattage fixtures (vehicular) may be used on the 30' pole locations.

Decorative Lighting

Lighting can activate a space by adding interest, color, and a safe environment. Lighting in amenity spaces should change in scale and type according to the adjacent use and the scale and character of the space. A variety of lighting types are encouraged in amenity spaces and may include pole-mounted, bollard, sconce, step, uplighting, accent, and similar types.

- All light poles and fixture housings should be metal.
- All lighting fixtures are encouraged to be Dark Sky compliant, as defined by the International Dark Sky Association (IDA). Lighting fixtures should be LED with a lamp color near 4000k.
- For pedestrian-scale area lights, lamping of 1000-1300 lumens should be used.



SECTION 3 : LANDSCAPE

Plants

Street Trees

Street trees should be planted at regular intervals along streets per the 16 Tech Streetscape standards and be appropriate to the particular character and function of the street. In general, trees should be planted 30' on center or to shade at least 40% of the sidewalk within 10 years. Variation in tree spacing may be appropriate in some circumstances, depending on location and adjacent uses, underground utilities, and above ground structures.

Street trees of the same genus and species should be planted continuously and along both sides of an entire street. In some instances, where a natural change in species seems logical due to an adjoining amenity space, civic building, or other important feature, a change in species may be appropriate. Genus and species should differ from street to street to add variety, biodiversity, and interest. No more than 25% of trees on site are to be of the same species to prevent future devastation from insects.

- Street trees should have straight, true trunks, with a 3.0 inch minimum caliper. County to consider a credit for using larger caliper trees. Multi-trunk trees are not recommended as street trees.
- As street trees mature they should be limbed to a minimum of 8' clear.
- Flowering street trees should be selected for areas where limited pedestrian and/or outdoor dining activity is anticipated to minimize the impact of bees, insects, and falling debris.
- At retail storefront zones, trees should be selected that do not have a dense canopy.
- Curb cuts and access drives will be required for loading and servicing buildings in 16 Tech. At these locations, selection of tree species and placement should accommodate these access drives. Street trees should be limbed to avoid conflict with loading and service traffic.

Planting over Structure

- Structural soil should extend under sidewalks adjacent to trees to allow for horizontal root growth.
- A minimum soil depth of 3' should be provided for all trees.
- Soil volume of 2 cubic feet of soil per square foot of canopy area at full tree maturity should be provided for all trees.
- A minimum soil depth of 18" should be provided for all shrubs.



Specific tree species should comply with the overstory trees list curated by Keep Indianapolis Beautiful and recommended by the Indianapolis/Marion County Tree Board. Preference should be given to salt tolerant trees. No less than 50% of the 16 Tech street trees are to be Indiana native species.

Tree Planters

Tree planters should be regularly spaced along the streetscape to include street trees. Tree planters should be a minimum of 60 square feet per individual tree and a minimum of 5' wide. In limited locations where physical constraints may require narrower planters, a 4' width is permitted. In some instances, where less pedestrian activity is anticipated, a continuous planter can be used to accommodate two or more trees. Continuous planting strips can be used on frontages with lower intensity and where there is no adjacent on-street parking.

In addition to street trees, planters may be planted with, preferably, native, low ground cover and/or shrubs. Tree planters may also be planted with perennials and annuals; again, native or adaptive plant species are encouraged. Plantings should be limited to a maximum height of 30" for visibility and safety concerns. Tree planters may not be raised. They may include a low, 8" to 12" decorative fence to protect the tree and plantings in areas of heavy pedestrian traffic. The design should be consistent along the street and for the entire block; variations from street to street are encouraged. Where tree grates are used in lieu of planters, the minimum 60 square feet per tree is still required. This area may include multiple tree grates that cover the tree planter, allowing for air and water circulation while still accommodating intense pedestrian activity. It is important to restrict pedestrian foot traffic around the tree to prevent soil compaction. If adequate surface area is not available, an expanded soil volume should be created utilizing techniques such as Silva Cells and engineered structural soil under paving systems.

Above ground tree planters are to be limited to the bridge over Fall Creek and should only hold small ornamental trees.

Foundation Plantings

Along a street, where the foundation of a building does not have storefront and/or entry doors, foundation plantings are required. Foundation plantings should complement the streetscape. Native shrubs, groundcover, perennials, and annuals are encouraged. In some instances, if the space allows, small flowering trees may be permissible. All plantings should be selected so that their mature height does not extend excessively above the ground level window sill. Plants should be selected and placed within the planting areas creating a layered composition with lower shrubs/groundcover at the sidewalk edge transitioning to taller shrubs near the building. Lawn is not permitted along primary frontages.



Core Shrub and Grass Species

Cornus sericea	Red Twig Dogwood
Fothergilla gardenii	Dwarf Fothergilla
Hamamelis virginiana	Witch Hazel
Hydrangea quercifolia	Oakleaf hydrangea
Itea virginica	Virginia Sweetspire
Ilex glabra 'Compacta'	Inkberry
Rhus aromatica 'Gro-Low'	Fragrant Sumac
Calamagrostis acutiflora	Feather Reed Grass
Liriope muscari	Lily Turf
Schizachyrium scoparium	Little Bluestem
Sporobolus heterolepis	Prairie Dropseed

4

Architecture Design Guidelines

Overview

Architectural Prominence

General Design Criteria

Street Level Experience

Building Types

Building Elements

SECTION 4 : ARCHITECTURE

Overview

The built environment should be dynamic and reflective of the innovative spirit at the core of 16 Tech's purpose. The following Architectural Design Guidelines describe general design criteria to achieve the high-quality, diverse, and visually appealing urban environment envisioned for 16 Tech. The criteria aim to define the appropriate aesthetic and functional qualities of buildings without limiting design creativity, flexibility, or project feasibility. They seek to promote high-quality design and prevent detrimental effects of misaligned design decisions or oversights. The architectural guidelines also aim to be adaptable as design preferences, building materials, and other technologies evolve and develop over the course of district build-out.

Architectural Prominence

The district will be built incrementally so each building project must be well aware of its place within the broader 16 Tech district. The diagram to the right illustrates the roles of specific sites and frontages within the 16 Tech Master Plan and highlights opportunities for special design considerations at key locations.

The district's natural geography, irregular street pattern, and utility corridors combine to create interesting physical relationships between buildings, streets, and spaces. 16 Tech will look and feel distinct and different from any other place in Indianapolis. Axial, deflected, oblique, and curving views should be leveraged to draw people into and through the district and to create a memorable experience of place. Developers and designers are encouraged to explore other site-specific opportunities, including views to rivers and downtown, and to anticipate their project's relationship to future adjacent context.

Important Axes: Long views into and through the district from primary approaches and streets should be framed and emphasized with architecture and landscape elements.

Terminating Vistas: A building or part of a building that terminates a visual axis will become an identifying icon of the district. These buildings should display a higher level of design and feature special articulation, massing, and elements such as architectural projections, special facade treatments, grand lobby entries, atria, stairs, balconies, and signage. Public, community, and civic uses are appropriate at these locations as well.

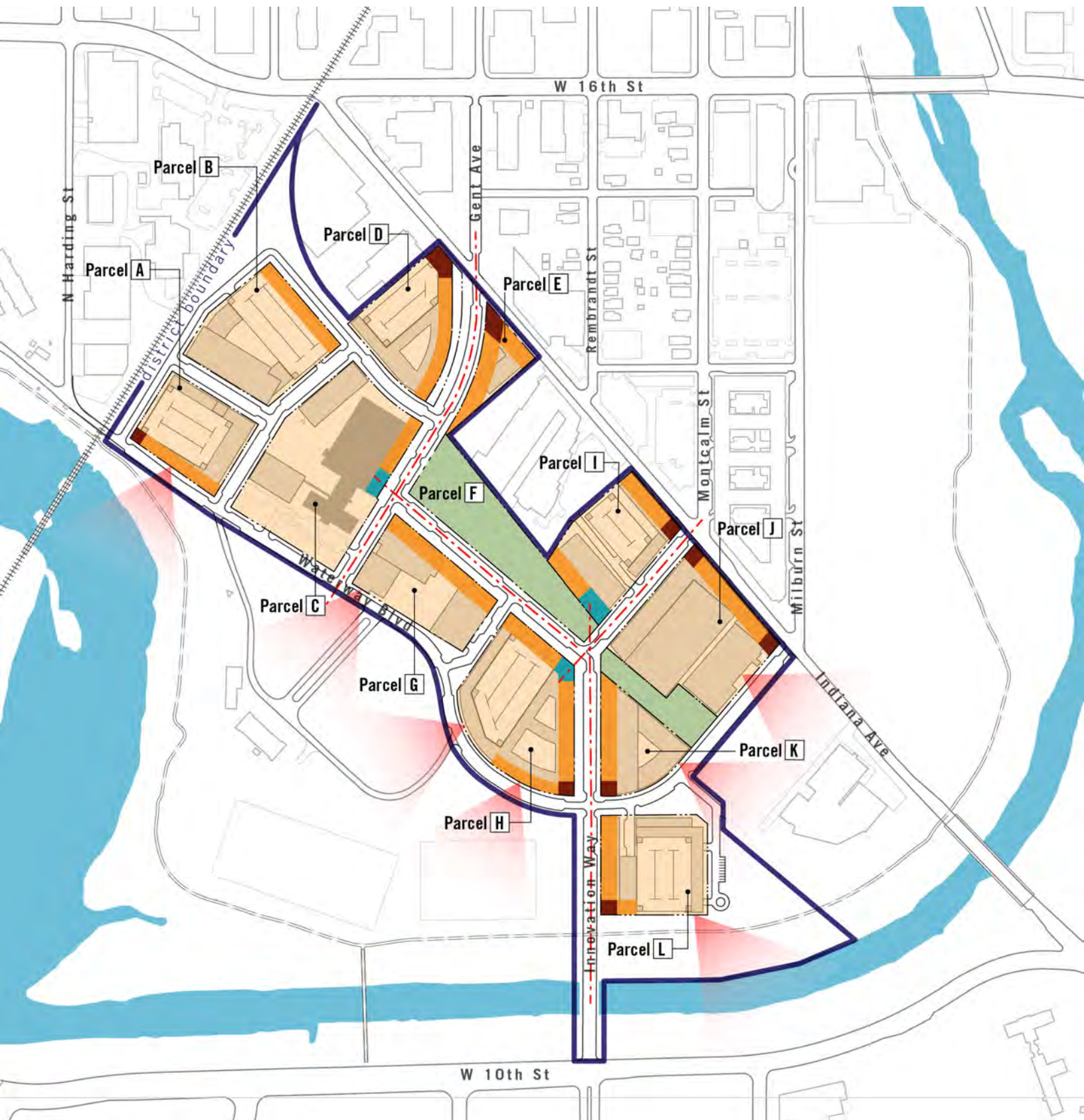
District Threshold Features: Certain buildings create a threshold into the district and give a first impression to visitors. Buildings at these locations can demarcate the district's edges and announce arrival into the district. This can be achieved with corner elements such as projections, chamfers, recesses, or signage.

Prominent Facades: Buildings that line important streets and public spaces and frame important axes should feature a consistently high level of finish and architectural treatment while reinforcing the edge of the space or street they address. These buildings do not need to announce their presence to the same degree as buildings at terminated vistas or district thresholds, but they will receive a significant amount of visual 'heat' nonetheless. Special patterns and rhythms of bays, a higher degree of glazing, more durable or finer materials, and more frequent projections/recesses are appropriate design strategies for prominent facades.

Contextual Architecture: The majority of buildings and street frontages comprising the urban fabric are important but should display a deference to more prominent buildings. They should reinforce the urban 'street wall' with their facades generally aligned parallel to the public spaces they address. They should be well-proportioned and well-detailed, but avoid highly complex massing and overly articulated facade treatments.

Architectural Prominence Diagram

- Important Axis
- Terminating Vista
- District Threshold
- Prominent Facade
- Contextual Architecture Zone
- Opportunities for Views



SECTION 4 : ARCHITECTURE

General Design Criteria

Each project within the district will be different, but most of the following design parameters should apply to all buildings within the district. Refer to Section 3: Master Plan Components in the 16 Tech District Master Plan document for additional requirements and recommendations for new development, including important information on district design framework, connections, uses, and service.

Frontages

- 16 Tech is meant to be urban and dense so a consistent streetwall is encouraged throughout the district to clearly define the public realm.
- Major breaks in the streetwall should typically be limited to 20% of a block length. Consider purposefully organizing breaks with utility easements, required pedestrian passages, or other public open space requirements.
- Buildings should typically be parallel and perpendicular to the streets and open spaces they address. Exceptions should create special conditions or respond to specific site constraints.
- Active ground floor uses should animate primary streets and important public open spaces.
- Buildings abutting or addressing primary streets must have their main entries along those frontages.
- Buildings should provide a sense of safety and 'eyes on the street' with highly transparent ground floors and upper floor windows. Avoid large expanses of blank walls, especially along public sidewalks and open spaces.
- Corners at public streets and open spaces require regularly occupied spaces. Site non-occupied spaces such as exit stairs and utility chases away from building corners. Facades should be designed to turn the corner.

Setbacks

- Typical setbacks should be urban in nature (0'-5'), with larger setbacks (up to 10') allowed for special features such as entry courts and outdoor dining areas.
- New buildings along Indiana Avenue should include a 5' setback to allow for a wider pedestrian and amenity zone along the existing 5' sidewalk condition.
- Plantings, hardscaped terraces, extensions of the public sidewalk zone, and the placement of street furniture are encouraged within the setback zone.
- Projections such as balconies, bays, awnings, signage, and other architectural features are permitted within setback zones.

Massing & Composition

- Buildings should have a legible base, middle, and top defined by datum lines or changes in plane, material, color, or other architectural articulation.
- Base treatment should allow active ground floor uses and retail areas to have a distinct identity, to reinforce human scale, and to engage pedestrians.
- Long and large building masses should be broken down into multiple vertical and horizontal volumes (using stepbacks, recesses, etc.) to reduce perceived size of the overall structure. Minimizing monolithic structures will help create a more comfortable, human-scaled district character.
- Facades and building elements that terminate prominent streets and view corridors should be treated with architectural significance.



16 Tech Framework Diagram

- Primary Streets
- Secondary Streets

Density

- A variety of building scales is encouraged at 16 Tech. Existing low-scale buildings should be integrated with new mid- and high-rise buildings to create a richly-textured and varied urban experience.
- New building heights should be sensitive to existing context, especially along Indiana Avenue.
- Variation of heights within individual blocks and along each street frontage is encouraged.

Style & Expression

- 16 Tech should feature contemporary, forward-looking architecture that blends with and embraces the gritty, industrial character of existing buildings in the area.
- Architecture should seek to root itself in the local context by drawing inspiration from regional building typologies and local materials.
- Buildings adjacent to existing buildings should seek context-sensitive design strategies but avoid imitation of existing building styles.

Program

- The plan configuration and design of buildings should showcase innovation, foster collaboration, and promote interaction. Public, collaborative, and meeting spaces should be celebrated and treated as opportunities for unique architectural expression, such as a high degree of transparency and volumetric projection.
- Development partners should seek economic, social, and programmatic diversity within 16 Tech land uses, building uses, tenants, and retail mix.
- A mix of small and large, interior and exterior spaces is encouraged to accommodate a range of activities and gatherings.
- Incorporate spaces and create opportunity for meaningful integration of arts and culture.
- Mix uses horizontally and vertically when possible.
- Target a range of commercial and residential tenants by providing affordable commercial spaces for startups and affordable housing types/units to ensure a diverse and integrated community.
- Interim activation with short-term and temporary pop-up uses is encouraged.

Sustainability

- Developers are encouraged to pursue or align with third-party certification programs such as LEED, Living Building Challenge, Cradle to Cradle, Sustainable SITES Initiative, or Passive House. If not pursuing or aligning, developers should explain the alternatives being considered to ensure their designs align with leading standards.
- Tracking of overall building performance, building systems, and resource utilization is highly encouraged.
- Projects in later phases of development at 16 Tech should seek to elevate the standard set by previous development in the district and push to achieve higher levels of performance and resource efficiency.
- The goal for 16 Tech should be continual improvement as a district over time: from high performance, to net zero, to net positive.

Street Level Experience

Buildings within the district are encouraged to be mixed-use and all are required to promote a pedestrian-first community. Particular attention should be given to how a building relates to the ground plane and how ‘the first twenty feet’ encourages an active street life throughout the day and week. Three aspects of the building base conditions deserve close consideration:

1. Building Entries
2. Storefronts
3. Service and Loading



SECTION 4 : ARCHITECTURE

Building Entries

- Main entries should be clear and identifiable.
- Building lobbies should be open and inviting. Other common spaces such as sitting rooms, lounges, and gyms should be located at street level.
- Entries should be covered to provide protection from weather and signage opportunities. Coordinate ride-sharing pick-up/drop-off zones with building entries.



Storefronts

- Active ground floor and retail storefront areas should be tall (approx. 14 ') and highly transparent (60-70%) to promote a sense of openness and to connect the indoor activity of the building with the exterior.
- Retail storefronts should establish a pedestrian-scale bay rhythm along the street where possible (approx 30').
- Retail floor elevations should match the grade of the sidewalk to maintain accessibility.
- Flexible and adaptable ground floors are encouraged to allow retail to move in and expand as the district and demand grows. Refer to the 16 Tech Master Plan for desired retail locations.
- Roll-up, folding, and sliding storefronts are permitted and encouraged throughout the district. Other placemaking opportunities such as graphics, lighting, and integrated visual arts are also encouraged for storefronts and activated ground floors.



Service and Loading

- Avoid locating parking and service drives/curb cuts on primary streets. Integrate parking and service access into the design of the building. Make any openings as narrow as possible.
- When possible, consolidate and locate back-of-house, service uses, and utilities out of view and away from the public realm. If required at grade along public realm, ensure any service-related doors, windows, ventilation openings, enclosures, or screens are harmoniously integrated within the overall building design.
- Service areas should be properly secured and remain off-limits to non-authorized or public users but should also ensure a minimum level of visibility for natural surveillance and safety as required by the Regional Center Guidelines.
- Fencing, site walls, bollards and other landscape elements can be used to appropriately screen trash, loading, and service areas from the public realm.



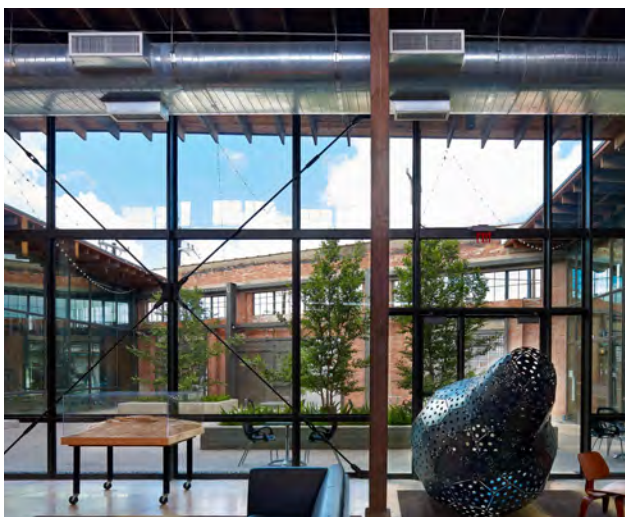
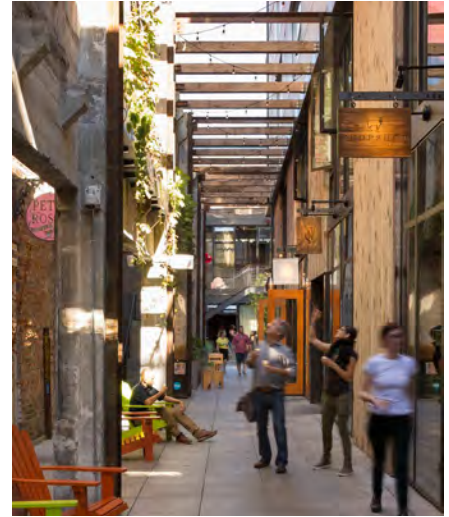
SECTION 4 : ARCHITECTURE

Building Types: Existing Buildings

Adaptive Reuse

When possible, preservation and conversion of obsolete or underutilized existing buildings is encouraged. Creative renovations and conversions should be physical displays of innovation that celebrate, inspire, and promote innovative thinking.

- Adaptive reuse can enhance the urban character of the district with authenticity and grit.
- Maintaining and preserving existing buildings can provide a link to the neighborhood's history and evolution.
- Adaptive reuse can add value to the district and help achieve the desired mix and diversity of building types within the urban fabric.
- Light industrial and warehouse buildings can become flexible social and commercial spaces.
- Creative conversions and adaptive reuse can create approachable, low-cost entry into the district for small businesses and startup companies.
- Developers and designers are encouraged to explore and leverage unique interior and exterior place-making opportunities of existing buildings.



Building Additions

Renovations and adaptive reuse projects may include new building additions or extensions, either small or significant. These should complement, support, and enhance existing architecture wherever possible. In general, the following recommendations should be followed:

- The architectural expression of additions to existing buildings should be juxtaposed to the style of the existing structure, but still relate with appropriate proportions and datum line relationships.
- Replicating existing materials exactly is typically discouraged, as it is often impossible and unfeasible to find a perfect match.
- Consider the function of the addition to establish an appropriate degree of visual separation from the existing structure. Utilitarian functions should be downplayed compared to new entries, common spaces, and more prominent building programs.



SECTION 4 : ARCHITECTURE

Building Types: New Construction

The 16 Tech Master Plan allows for flexibility in locating different uses within the district. However, buildings must function for specific uses, which influence and drive their design. To ensure new construction is coherent and compatible with the goals of the 16 Tech Master Plan, the most common building typologies for new construction are described on the following pages in order to inform the creation of a high-quality built environment.

In general, each new building facade should be organized in three horizontal layers: base, middle, and top. The specific qualities and relationships between these layers will be particular to individual building design and may be explicit or subtle depending on the building use, context, and design intent. New buildings should be contemporary and forward-looking, not seeking to replicate historic styles, while reinforcing the urban and pedestrian-focused environment at 16 Tech.



Office Buildings

This building typology will provide the district with office, research, lab, innovation, meeting, and other business-related spaces.

- Office building locations should not be segregated from other uses or concentrated in separate clusters.
- They should typically feature large and flexible open floor plans and generous floor-to-floor heights, though dimensions may vary.
- Office buildings are encouraged to accommodate multiple tenancies and a mix of uses, with ground-floor retail, amenity, or other active uses lining primary streets, important open spaces, and key intersections.
- Design of office buildings should showcase innovation and foster collaboration. When programming ground floors, consider creating a sense of 'street science' where scientific and research activities are made visible to passersby.
- Developers and designers should seek to provide a range of price points and choice in space arrangements, including modern and unconventional workplace arrangements.
- Rooftop mechanical equipment and elevator overruns should be screened and integrated into the design of the building facade.
- Consider exterior shading systems to limit summer solar heat gain.
- Consider utilizing large roof areas for solar energy capture or green roofs.

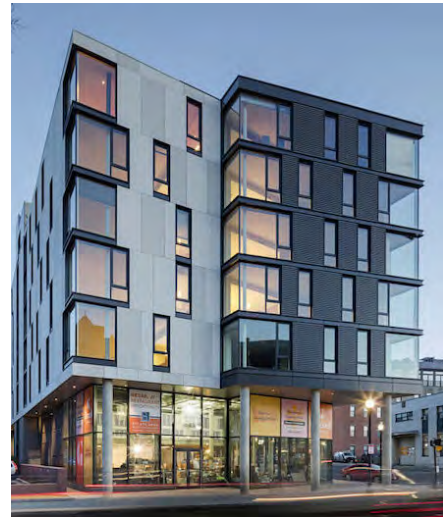


SECTION 4 : ARCHITECTURE

Residential Buildings

Multi-family housing is incorporated in the 16 Tech District to ensure vibrancy and to create density. A variety of building and unit types and sizes should be provided to attract and grow a healthy, diverse community.

- Housing should be located adjacent to or in close proximity to public parks and open spaces.
- The Master Plan allows for low-, mid-, and high-rise residential buildings as permitted by zoning and dictated by future market demand.
- Target a range of residential tenants and provide for affordable housing types/units to ensure a diverse and integrated community.
- Community and shared amenity spaces should be highlighted within building facade designs.
- Animate adjacent public sidewalks and spaces with active ground floors and retail uses, as specified by the Master Plan.
- Use building massing to create exterior spaces such as entry forecourts and private amenity courtyards.
- Openings, bays, and facade elements should be human-scaled.
- Balconies, terraces, rooftop gardens, and other indoor-outdoor connections are encouraged.
- Single-loaded residential liners and wrappers are encouraged to screen parking garages.
- Utilize reused, recycled, regional, and rapidly-renewable materials.
- Apply passive design strategies to optimize daily and seasonal solar exposure and natural ventilation to reduce heating and cooling demand.



Hotels

Hotels serve a key function within the innovation ecosystem, allowing local businesses and entrepreneurs to host out-of-town visitors and provide important meeting and gathering spaces.

- Hotels should feature very clear guest drop-off areas, either along a designated curbside zone or pull-off drive, and large covered lobby entries.
- The bottom floor(s) should include restaurant, bar, retail, flexible meeting spaces, conference/banquet facilities, and other guest amenity spaces. Guest rooms should be located on upper floors.
- The architectural character should be distinct from residential buildings and establish the building as a recognizable local landmark.
- Repetition of guest rooms can be enriched by patterns of window groupings, balconies, plane changes, and alternating alignments of facade elements.
- Terraces and rooftop amenity or garden spaces are encouraged.



SECTION 4 : ARCHITECTURE

Light Industrial & Manufacturing

This building type is unlikely to be common in the district, but paired with certain uses, it can enhance the experience of place at 16 Tech. While scale and massing may vary, it is typically characterized by large footprints, big volumes, and tall ceiling heights to accommodate special equipment, activities, or processes. It can be designed specifically for a particular use or be highly adaptable and flexible. A wide range of potential uses can be accommodated by this typology, including small-scale and advanced manufacturing, special research functions, greenhouses, creative office spaces, special events, interior athletics or recreation, and brewing or distilling.

- Large volumes and long-span structures create opportunities for unique massing and design gestures. Building forms should be derived from structural bays and any special structural conditions.
- When appropriate, interior functions and equipment should be put on display.
- Locate active program uses, common spaces, and circulation at the perimeter of the floor plan, and highlight these spaces in the facade design.
- Limit exposure of large solid facade areas on public streets and open spaces. Large expanses of solid wall should be punctuated with windows (where appropriate to interior use) and articulated with material patterns, reveals, shadow lines, color changes, textured screens, or similar design elements.



Parking Structures

Ample and convenient parking is critical to support the desired density and activity at 16 Tech, but if not sited and treated correctly, it can diminish the urban and pedestrian-oriented character of the district. Temporary surface lots will be replaced by structured parking as the district develops and grows. Acceptable parking solutions include stand-alone district parking garages, wrapped garages, parking plinths, and other forms of building-integrated parking. See Section 3: Master Plan Components in the 16 Tech District Master Plan document for parking and service access locations.

- Pedestrian and vehicular access points should be signed and clearly visible.
- The siting and design of structured parking must balance ease of use, accessibility, and its impact on the public realm.
- Parking garages should be concealed from public view along primary streets and open spaces by embedding in the interior of the block and lining or wrapping with buildings.
- When possible, conceal and screen parking garages along non-primary frontages also. Exposed parking decks along secondary streets or frontages should be clad with architectural facade treatments or screens.
- Screens may be treated as opportunities for lighting or public art.
- Parking garages should not be taller than the buildings that line or wrap them.
- Stair and elevator towers within parking garages can be designed as prominent features to mark entrances and introduce visual interest.
- If/where possible, parking garages are encouraged to be future-proofed and designed to be expandable, contractible, or convertible to other uses in the future.



SECTION 4 : ARCHITECTURE

Building Elements

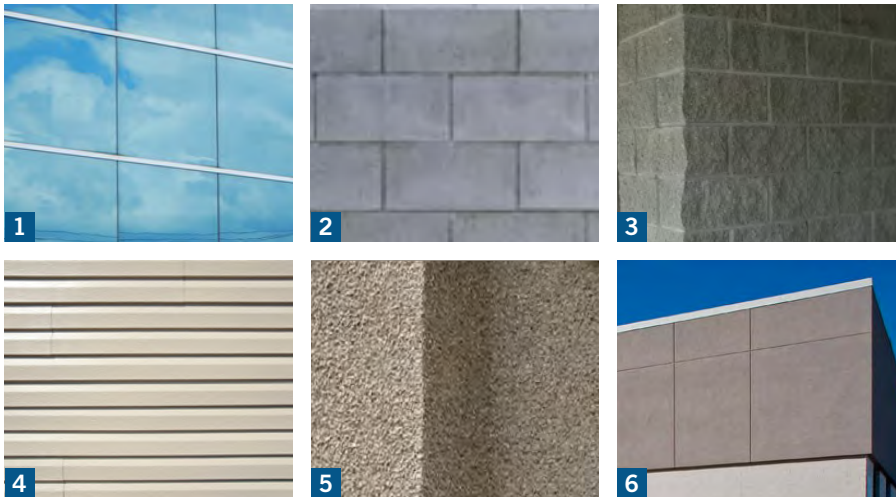
Color

- New construction should generally use a consistent and simple color palette that is complementary to the surrounding context.
- Typically no more than three primary colors and two accent colors should be used in a facade design.
- Neutral colors are generally encouraged as primary colors. Bright colors may be used for special purposes, to create visual interest, and provide accents.
- All or most trim elements (soffits, eaves, windows, doors, railings, etc) should be a single, consistent color across a facade.

Facade Materials

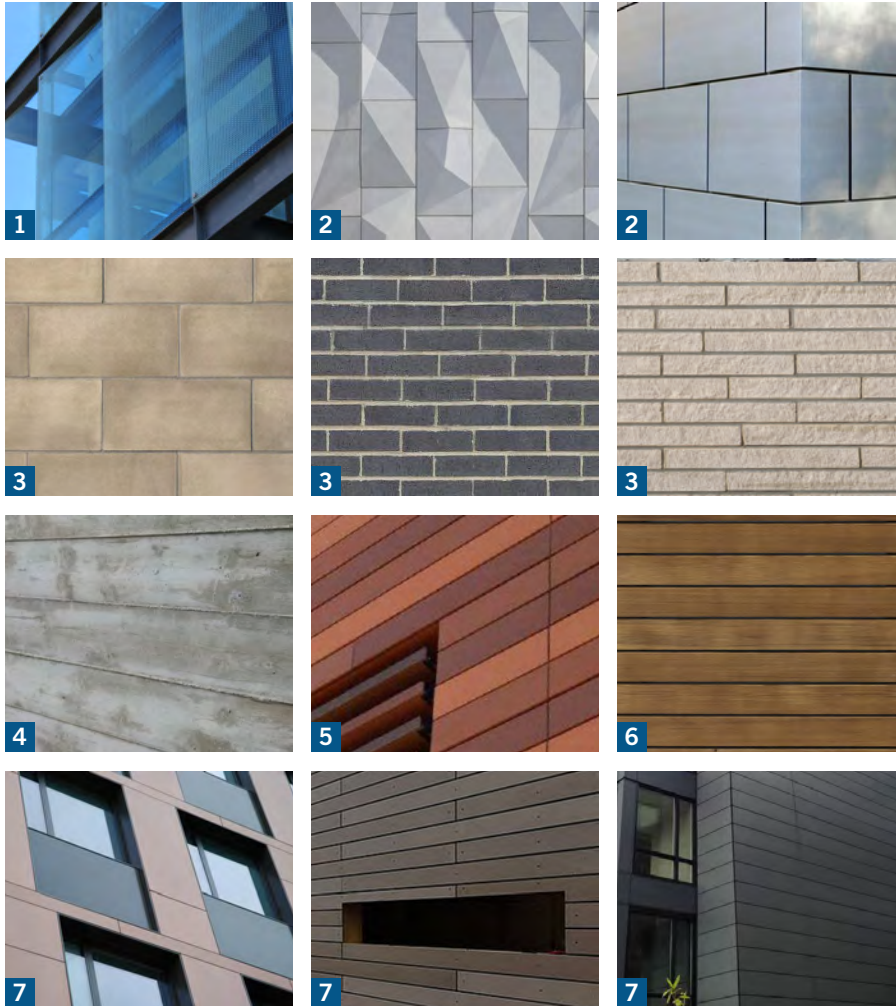
- Exterior building materials should be high-quality and durable to ensure integrity and longevity.
- Material transitions or terminations should occur along vertical or horizontal plane changes, party walls, engaged architectural elements, or delineation lines consistent with the base, middle, or top of a building.

Undesirable Building Materials



1. Highly-reflective, highly-tinted, or mirrored glass
2. Concrete block
3. Split-face block
4. Vinyl or aluminum siding
5. Synthetic Stucco or Exterior Insulation Finishing Systems (EIFS)

Desirable Building Materials



1. Glass: transparent, translucent, fritted, lightly tinted
2. Metal: zinc, steel, aluminum, copper, painted
3. Masonry: brick, stone, cast stone, glazed concrete block, painted
4. Concrete: formed, panelized, scored, textured, painted
5. Tile: ceramic, terracotta
6. Wood: stained or painted (as accent material)
7. Cementitious or fiber cement: panels, siding, or rainscreens (discouraged at ground level)

SECTION 4 : ARCHITECTURE

Windows

- Windows should be aluminum.
- Operable windows are encouraged for most buildings to support natural ventilation, passive cooling, and indoor air quality.
- Window openings, frames, lites, and sashes should be square or vertical in proportion and orientation. Horizontal proportions should be used sparingly for specific design effect.
- Windows should be recessed to create shadow lines and a sense of wall depth, as appropriate to the building style and wall type.
- High-performance glazing systems should be used when possible to enhance the energy performance of buildings.
- Mirrored and reflective glass is prohibited in all locations per the Regional Center Design Guidelines.

Doors & Entries

- Doors should be highly transparent and part of a larger glass storefront that provides a high degree of visibility from the public realm into the common space of the lobby or entry vestibule.
- Address numbers and building entry signage shall be visible from the street and sidewalk.
- Primary entries and building lobbies must be distinctly identifiable within the building facade.
- Entries to ground-floor units may include stoop elements that provide a transition from the street to the private front door.

Balconies

- Balconies are encouraged for residential and hotel buildings but may also be used as special features for other building types.
- Balconies may project or recess from the building mass.
- Balconies should typically align in architectural bays, though alternating or shifting alignments are permitted to create dynamism within a facade.
- Structural supports, fascia, and soffits may be concrete, metal, or wood.
- Safety railings may be metal, glass, or wood.
- Regional Center Guidelines mandate 32 sf of space per residential unit, provided by balconies or common space, unless the project is within 400 linear feet along a sidewalk to a public park, trail, or plaza.

Canopies & Awnings

- Canopies and awnings should be seamlessly integrated into the building facade or its associated storefront.
- Fixed and retractable awnings and canopies are permitted at storefronts, building entries/lobbies, outdoor seating areas, and other exterior ground-floor areas that would specifically benefit from shading or weather protection.
- In retail applications, canopies and awnings should project the identity of the retailer.
- Materials must be durable and resistant to fading (canvas for awnings and metal or glass for canopies).
- Awnings and canopies used within storefronts should not exceed the width of the storefront.
- Canopies designed to be an extension of the building and integral to the architectural design of the facade may be continuous across the building.
- Structural supports should match or complement the associated storefront or facade materials.
- Awnings and canopies should be a minimum 9' above sidewalk.

Louvers, Screens, & Shading Devices

- Louvers and screens may be applied on building facades as shading devices, as facade articulation, or to conceal mechanical vents or equipment.
- Louvers and screens must be architecturally consistent with the facade design, whether they are integral or applied to the exterior wall.
- Fixed or adjustable (rotating, sliding, or tilting) louvers and shade devices are permitted.
- Louvers used for shading should respond to solar movements and angles in their spacing and orientation.

Architectural Lighting

- Lighting may be used to add visual interest, dynamism, and highlight special architectural features or programmed spaces of buildings.
- Lighting can be used to animate screened parking structure elevations and vertical circulation.
- For non-essential exterior lighting, controls and timers should be used to save energy and enhance building performance.
- Building lighting fixtures should be Dark Sky compliant and aim to limit light pollution. Facade lighting (downlighting, wall washes, highlights, etc) that eliminates lost light to the sky is preferred, while uplighting should be avoided.

SECTION 4 : ARCHITECTURE

Terraces & Amenity Spaces

- Where a building mass includes a step-back or large flat-roofed area, this space may be utilized as a communal building amenity or social activity space.
- Terraces may be programmed as event spaces, dining areas, bars, meeting spaces, lounges, and gardens.
- Safety railings and parapet walls should be a minimum of 42" and should be set back from roof edges.
- Equipment and non-programmed roof areas should be securely separated from amenity space users.

Utilities, Equipment, & Penthouses

- Rooftop utilities and equipment should be set back from roof edges and concealed using step-backs, roof forms, tower elements, screens, or scrim walls.
- Rooftop screens should be light in appearance to blend into the sky.
- Exhaust vents and other equipment should be consolidated as much as possible.
- Ground-mounted equipment or utility features must be screened from view using landscaping, fencing, or walls.
- All screening elements shall be tall enough to cover the whole of the equipment mass.

Roofs

- Flat roofs should be a light or white membrane with light-colored pavers or aggregate ballast, or be a vegetated green roof to reduce energy costs and reduce the heat island effect.
- Sloped roofs should be metal.
- Rooftop solar panels, or provisions for adding them in the future, are encouraged.

5

Signage Design Guidelines

Overview

Sign Types

Signage Opportunities

Tenant Signage

Building-Mounted Signage

Graphic Placemaking

Parking Signage & Site Wayfinding

Prohibited Signage

SECTION 5 : SIGNAGE

Overview

Memorable environments are created through the use of great placemaking strategies. Utilizing a variety of signs and architectural elements such as project identity signs, wayfinding directionals, and parking signage will play a role in reflecting the authentic character of the 16 Tech district. The district will be further defined and unified through the use of unique project signage with specific colors, forms, materials, and typography.

Great streetscapes will also be reinforced by the use of a mixture of tenant signage that is oriented towards the pedestrian experience. Building and tenant signage should allow for creativity of the individual tenants and add to the overall urban district experience.

Sign Types

The sign types below are desirable additions to the district. All signage is subject to approval.

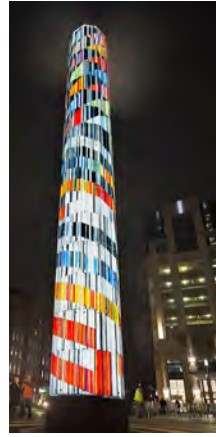
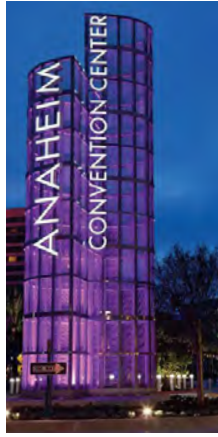
Desired Sign Types:

1. Storefront Signs
2. Canopy Mounted Signs
3. Awning Signs
4. Projecting Blade Signs
5. Sidewalk Signs (Restaurants, Retail, and Event)
6. Window Signs
7. Window and Wall Graphics
8. Office Building Signs
9. Residential Building Sign
10. Hotel Signs



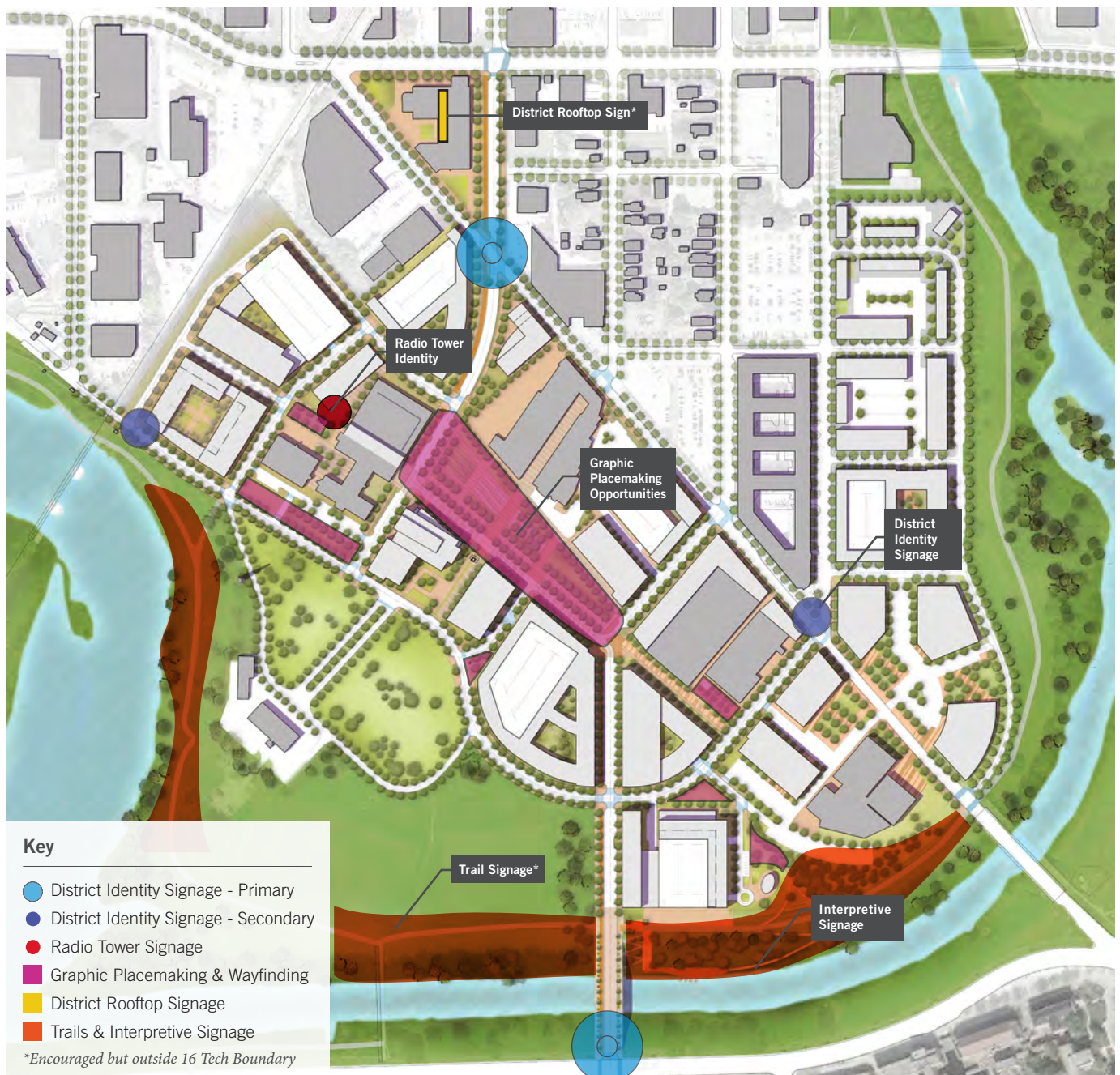
Signage Opportunities

Powerful identity signage for 16 Tech will be located at key entrances and approaches into the district to welcome all district users, offer a sense of arrival, and reinforce the experience of place at 16 Tech. These signs or architectural elements set the tone of the district and signify its brand and character. Prominent intersections, rooftops, or architectural facades should be selected for these unique signage opportunities.



Project Identity Signage.

16 Tech Signage Opportunities



SECTION 5 : SIGNAGE

Tenant Signage

In order to promote and unify a unique urban district, tenant signage throughout the district should be on a smaller, street-level scale. These sign types may be used for shops, cafes, restaurants, bars, co-working spaces, studios, galleries, demonstration labs, or innovation exhibition spaces.

In viewing the following examples of “good design,” tenants should be inspired to aim for signage of a similar quality. This level of quality will not only help elevate the experience of patrons in the district, but it will also provide a strong identity for businesses to thrive.

All signage design is subject to approval by the DSC. These signage guidelines provide additional guidance only. It is the responsibility of all building owners and tenants to follow local laws, ordinances, and permit requirements.



Tenant signage should create a unique sense of identity by using a combination of different sign types.

Building-Mounted Signage

Building signage tends to be the larger and more prominent signage within the district, representing the owners and tenants with the most space or square footage. Some examples of building signage include residential buildings, hotels, and office spaces.

Larger building signage should be designed with the facades and surrounding context in mind. The signage design should consider materials, colors, and appropriate scale.

All design is subject to approval by the DSC. These signage guidelines provide additional guidance only. It is the responsibility of all building owners and tenants to follow local laws, ordinances, and permit requirements.



Larger branded signage on building facades or rooftops should work with the aesthetic of the architecture's materials, colors, and scale.

SECTION 5 : SIGNAGE

Graphic Placemaking



Unique Site Elements

Functional public art and site amenities such as public benches and tree grates, also help set the district apart from other local places. These can be fun and interesting elements usually located in public gathering spaces such as parks.

These elements could be a mix of sourced items, custom designed and fabricated, or unique items created by an artist.



Interpretive Signage

Interpretive signage used to educate people about the natural recreation areas along the river will help create an authentic and unique experience for visitors. These signs can take a number of different forms and become more integrated into the environment or stand out as artistic expressions in the landscape. Interpretive signage should be designed and installed in a way that helps tell the intended story of a place or environment.



Graphic Patterns

Specific patterns or graphics could be developed that relate to the brand of the district or are unique to the built environment of the district. Utilizing these in a number of ways throughout all parking and site signage, including the materials and applications at different scales, can help tie the project together and create a lasting impression on visitors.

Parking Signage & Site Wayfinding



Parking Directional Signage

Parking directional signage is important for helping people navigate quickly once traveling on site in a car. Parking garages, parking lots, and drop-offs at key areas are important to consider. Signage with clear messaging will be important in shared parking infrastructure, which will be open and available to all visitors.

Using color, naming, and/or numbering as a wayfinding strategy can be helpful to simplify decision making.



Parking Garage Signage

Creating a logical naming or numbering system within parking garage areas and utilizing it throughout all parking and site signage is important for consistency and logical navigation.



Trail Signage & Directionals

Directional signage that reflects the aesthetic of trail areas along the river and the overall interpretive signage will reinforce a sense of place. Directionals can lead to key areas of information or use.

Prohibited Signage

In keeping the district's aesthetic appearance and character within this document's guidelines, the following signs, materials, lighting, and/or methods of fabrication are prohibited.

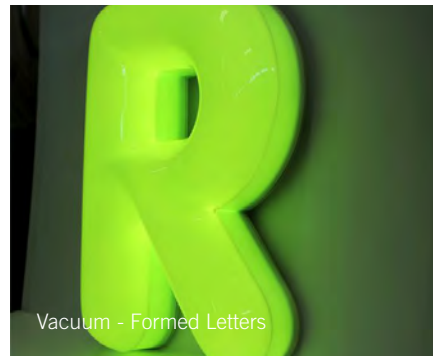
Examples listed below are prohibited due to visual clutter, distracting lighting methods, and an overall low quality signage aesthetic. All proposed signage will be reviewed by the DSC.

The following are prohibited within the district:

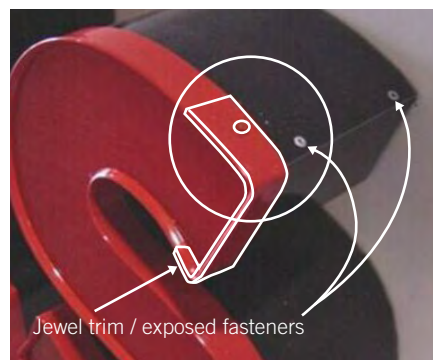
- Light cabinet signs or translucent plastic panels
- Vacuum-formed letters
- Low quality handwritten or painted signs or placards that can be considered visually distracting
- Signage decals or perforated films that cover more than the allowable area on windows
- Change-type or Zip track signs
- Exposed Neon (unless approved by special request)
- Flashing lights or noise-making devices
- Paper, cloth, or cardboard signs affixed to storefront or windows
- Unauthorized painted signs or decals
- Exposed fasteners or sign/lettering attachments that are not concealed or otherwise integrated into overall sign design
- Jewel trim used on sign faces or letter edges; with exposed fasteners such as screws or rivets



Light cabinets/boxes



Vacuum - Formed Letters



Jewel trim / exposed fasteners



Examples of prohibited signage; all tenant signage to be reviewed and approved by the DSC.



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