



DRAFT

DOWNTOWN GRAND RAPIDS

STREETSPACE GUIDELINES

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ACKNOWLEDGMENTS

The Downtown Grand Rapids Streetspace Guidelines were created by Downtown Grand Rapids Inc. in close collaboration with the City of Grand Rapids to provide guidance for enhancing projects that affect the quality of the public realm and outdoor rooms of Downtown Grand Rapids.

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CONSULTANT TEAM

Lynée Wells AICP, Williams & Works
Dustin Corr PLA, Nederveld
Maleah Beatty, Nederveld
Kim Nguyen, Williams & Works

DOWNTOWN GRAND RAPIDS INC. STAFF

Tim Kelly AICP, CEO and President
Mark F. Miller AIA AICP
Stephanie Wong

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DOWNTOWN
GRAND RAPIDS INC.

“To love and render service to one’s city, to have a part in its advancement, to seek to better its conditions, and to promote its highest interests, - these are both the duty and the privilege of the patriot of peace.”

Daniel Burnham often spoke eloquently about cities, and this quote is no exception. It speaks of service, love, duty, and promoting the highest of interests.

To love and render service... such an action comes in many forms and can be carried out privately or publicly. Making chicken soup for a sick loved one or delivering a warm meal to a person experiencing homelessness are acts of service. These selfless manifestations of kindness can be shared within a home or on our city streets.

When you take time to undertake, or notice, these small gestures, either at home or in our city, you may find joy and a sense of belonging to a community.

And what is community?

It is a group of people expressing gratitude, caring, hope, and leadership.

It is our job to notice those moments, and replicate them in our own way. To love and to render service beyond the self is the greatest gift of all. The passion and wisdom contained in these guidelines are a manifestation of love and service for a city, and a deep recognition for lives lost, suffered, or altered within our streetspaces.

These guidelines are our commitment to designing better streets, to putting people first, and to always remember those who we have lost, especially those we have lost in their quest to love and render service locally.

These guidelines are dedicated to many, and two who we mention by name.

Nevaeh Alston, 8 years old, who died after being struck on Bridge Street and Scribner while holding her mother’s hand as she was delivering fresh fruit to a person experiencing homelessness. Naveah was a thoughtful in her service to her city and would often share clothes, gloves, even her shoes, with her friends in need.

John Canepa, 87 years old, who died after being struck by a vehicle while crossing Leonard and Quarry. As a philanthropist, banker and civic leader, Mr. Canepa co-founded the Grand Action Committee that built the Van Andel Arena, DeVos Place Convention Center, Grand Rapids Civic Theatre’s renovation and Michigan State University School of Human Medicine.

PROLOGUE

THE PEDESTRIAN IN THE MODERN CONTEXT

The term jaywalking is defined as when “A pedestrian crosses a street without regard to traffic regulations.” This rather derogatory term was first coined at the dawn of the automobile age during a time when “jay” was used as a generic term to describe someone as being dull, unsophisticated, or poor; or as a rube, simpleton, or idiot. More precisely, it was once a common term for “country bumpkins” or “hicks”, usually seen incorrectly as being inherently stupid by “city” folk.

Thus, to “jay walk” was to be stupid by crossing the street in an unsafe place or way, or some country person visiting the city who wasn’t used to the rules of the road for pedestrians in an urban environment. As it stated in the January 25, 1937 New York Times, *“In many streets like Oxford Street, for instance, the jaywalker wanders complacently in the very middle of the roadway as if it was a country lane.”*

Corollary to this terminology, the Merriam-Webster Dictionary provides the following definition:

Pedestrian (adj) (*pə-’de-strē-ən*): commonplace, unimaginative

So the word pedestrian (and the associated term jaywalker) often connotes dullness, ordinariness, or a lack of inspiration. This marginalization of the human being within the modern urban context was a carefully orchestrated public relations initiative by auto manufacturers to undermine the rights of people on foot within urban streetspaces in an effort to appropriate public space for the car.

In most American cities, many of the resulting streets and streetspaces were left as car sewers - effectively moving and storing cars, but providing little else in terms of human comfort, safety, or fulfillment. Downtowns became banal, uninspiring, and unsafe places for human beings. Beautiful tree canopies were lost, sidewalks were shrunk to unsafe widths, human-scale detail was lost, and the pedestrian and the human experience became only distant memories captured in old photos and memorialized in nostalgic movies.

RE-ORDERED PRIORITIES

Today we realize that the pedestrian perspective is exactly the opposite - it is indeed one of the most thrilling and intimate ways to experience a place. A pedestrian can meander beneath verdant green tree canopies and along vibrant and varied street walls, greet friends, provide directions to complete strangers, or simply spend quality time walking a four-legged friend. Streetspaces provide a public platform for people to experience a place with nothing but their own two feet.

When they are good, streetspaces are interconnected, interesting, enduring, and inviting. High quality streetspaces entice people to walk within them, and to be physically active without knowing it. Hence good streetspaces can also play a critical role in physical activity and health, while supporting community and shared spaces.

Everyone, at some point, is a pedestrian, whether they arrive downtown via car, transit, or bicycle. As we embark on building a 21st century city, a city for everyone, the pedestrian (and the pedestrian scale and experience) becomes critical in rethinking, redesigning, rebuilding, and rebalancing our largest public space - the streetspaces of our downtown.

The Downtown Grand Rapids Streetspace Guidelines provide a framework for thinking slightly differently about downtown’s streetspaces. This document frames the streetspace as a recognizable, coherent, and well-framed outdoor room where the pedestrian is an active participant who walks through, and engages with, the room. This outdoor room has a floor (chapters 1 and 2), walls (chapter 3), and furnishings (chapter 2) that work together through design, placement, scale, composition, and arrangement to build safe, accessible, connected, sustainable, interesting, and memorable spaces and places.

These guidelines help to implement the vision of the GR Forward Master Plan by directing purposeful investment related to all six of the Plan's goals. The guidelines also work in conjunction with the City of Grand Rapids Zoning Ordinance, the Planning Department, and the City of Grand Rapids Vital Streets Plan and Design Guidelines for projects that impact downtown streetspaces.

It is important to remember that the Guidelines are guidelines - not mandatory requirements. As such, they provide recommendations to enhance spatial quality within the outdoor room to make the downtown welcome and safe for everyone.

This document encourages urban designers, architects, planners, engineers, and landscape architects to realize that they are designing an outdoor room when they decide:

- >> where to place their buildings,
- >> how their facades engage the sidewalk with entrances and windows,
- >> whether and where to plant trees,
- >> the level of detail provided within the streetspace,
- >> how wide to make their roadways and travel lanes,
- >> whether a right or left turn lane is needed, and
- >> what kind of elements they place in the streetspace.

Finally, the Downtown Grand Rapids Streetspace Design Guidelines guide public and private investment decisions for the physical improvements of downtown streets, specifically for projects that seek either Downtown Enhancement Grants (DEG) or Development Support Reimbursement from DGRI. This guidance is for the following entities:

- >> The development community, private property owners, and tenants during design and implementation of both new construction and rehabilitation of existing buildings within the DDA boundary.
- >> The City's engineering department and Mobile GR during the design and implementation of street and streetscape projects within the public right-of-way.
- >> DGRI's staff, Citizen Alliances, DDA board, and DID board during evaluation of project and program funding requests.
- >> The RAPID during prioritizing of transit routes and transit operations, and determining amenities for transit stops.
- >> Citizens and public advocates to gain knowledge about the complexities that contribute to a truly walkable place by assisting them in precisely articulating their goals and rationales as they advocate for a healthier, safer, and more welcoming downtown - specifically related to the community's input on previous planning efforts including:
 - GR Forward (2015)
 - Green Grand Rapids (2012)
 - The City of Grand Rapids Master Plan (2002)
 - The City of Grand Rapids River for All Plan (2018)
 - The Arena South Visioning Plan (2013)
 - Monroe North TIFA
 - City of Grand Rapids DDA TIF Plan (2016)
 - Monroe North Area Specific Plan (2007)
 - WestSide Area Specific Plan (2014)
 - Michigan Street Corridor Area Specific Plan (2015)
 - Viva La Avenida Area Specific Plan (2017)



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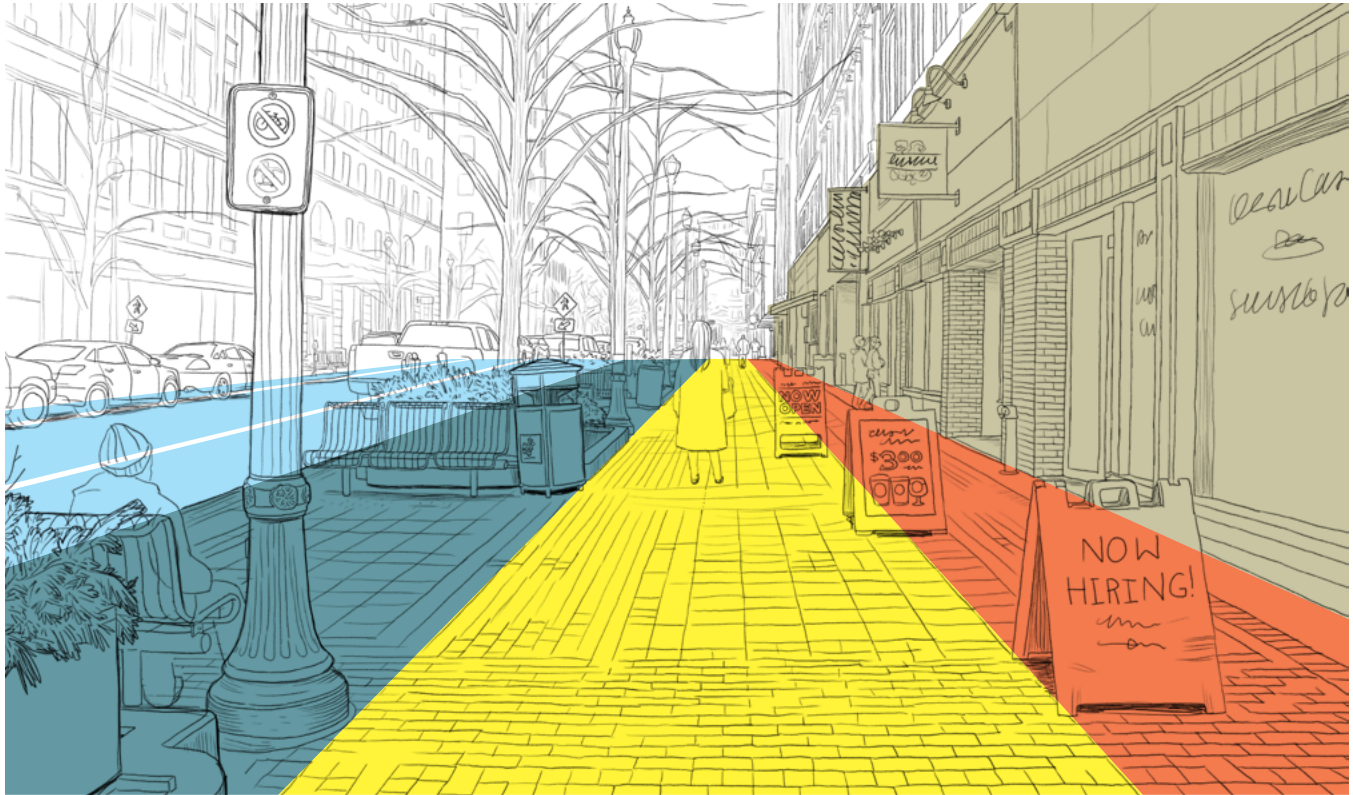
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INTRODUCTION

OVERVIEW

OUR STREETSPACE

This diagram depicts the zones of a typical streetspace in Downtown Grand Rapids. These zones, and the elements that are placed in them, represent the organization for the Downtown Grand Rapids Streetspace Guidelines.



FLEX ZONE

[chapter 1.0]

The Flex Zone (referred to as the Static Zone and Travel Zone in the Vital Streets Plan and Design Guidelines) includes elements directly adjacent to the curb on the street side, such as parking spaces, loading zones, parklets, and curb extensions. Sometimes this zone may even include extra travel lanes, travel lanes that are overly wide, as well as left-turn or right-turn lanes. This zone represents potentially contested streetspace that can be converted into more pedestrian-centric uses by re-balancing the right-of-way.

PEDESTRIAN ZONE [chapter 2.0]

AMENITY ZONE

[chapter 2.0]

The Amenity Zone is a transitional space that buffers pedestrian activity from the Travel Zone and Flex Zone (vehicle-centric areas) of the street. This zone provides the space for essential pedestrian amenities (referred to as elements in these guidelines) within the streetspace, including street trees, public seating, bicycle racks, street lighting, and cafe seating. This zone is oftentimes too narrow to accommodate these essential elements and therefore expansion into the Flex Zone should be considered when possible.

THROUGH ZONE

[chapter 2.0]

The Through Zone is part of the sidewalk that is reserved for pedestrian movement. This zone provides adequate movement for pedestrians to travel within the streetspace. It is recommended that a six (6) foot minimum width be maintained for this zone.

SHY ZONE

[chapter 2.0]

The Shy Zone is part of the sidewalk that transitions from the private development space to the public realm. This zone is typically not considered part of the Through Zone, but because of limited sidewalk space, it may become part of the Through Zone by necessity. This zone can accommodate cafe seating, public seating, and planters.

FRONTAGE ZONE

[chapter 3.0]

The Frontage Zone is considered part of the streetspace because it provides the edge or wall that defines the outdoor room. This zone is part of the development space in the form of the exterior building wall. It also represents an edge that provides doors, windows, lighting, and articulation that accentuate visual interest, activity, and commerce.

The Downtown Grand Rapids Streetspace Design Guidelines seek to not only build functional, well-balanced streets, but also beautiful streetspaces that form recognizable, coherent, and well-framed outdoor rooms. Within the walls of these outdoor rooms, comfortable people spaces that are **safe, accessible, connected, sustainable, interesting, and memorable** should become the default for our city's largest collection of public spaces.

The Downtown Grand Rapids Streetspace Design Guidelines will provide a framework to **DESIGN**:



- Optimize People Space
- Create Outdoor Rooms
- Cultivate Grand Street Trees
- Build for Safety and Accessibility



- Invite People to Linger
- Invite People to Continue the Journey
- Provide Visual Interest
- Create Equitable Access



- Build for Sustainability
- Build for Lasting Investment
- Install Multi-purpose + Useful Elements
- Properly Install and Maintain our Assets



DESIGN FOR PEOPLE FIRST

OPTIMIZE PEOPLE SPACE

In order to fully transform the downtown streets into people first-places, more room needs to be given to the things that make the space inviting, interesting, comfortable, and safe for people.

The Flex Zone *[the space in the thoroughfare used for parking, turn lanes, or extra (or too wide) vehicle lanes]* is a contested space where the most promising change and re-investment potential exists in otherwise tight streetspaces. This space has the discretionary potential to add people space in the form of curb extensions, transit-bulbs, bike facilities, cafe seating, street trees, wider pedestrian zones, and increased pedestrian elements.

To optimize space for people, the design of all downtown streets should:

- Consider transforming the Flex Zone through the replacement or relocation of existing on-street parking and other single-function facilities with new elements that provide optimal benefit for pedestrians, persons riding bicycles, and transit riders.
- Allow and guide the expansion of sidewalks or shared street by incorporating underutilized adjacent traffic lanes where appropriate.
- Promote the combination and installation of multiple elements when changes are made within the Flex Zone to optimize the investment in the public realm. For example, if outdoor seating replaces on-street parking, then other elements that enhance the streetspace, like street trees and benches should be included in the transformation.
- Discourage single-use improvements of the Flex Zone when new features are added, to ensure that this precious streetspace is optimized for all users.

CREATE OUTDOOR ROOMS

The largest collection of public space in Downtown Grand Rapids is represented by the city's streets. Beyond their use for moving people and goods, streets comprise an extensive network of public open space that facilitates economic, social, cultural and civic activities, as well as exchanges between people.

When making design decisions about downtown streetspaces, promoting contact between people and connecting them with their surroundings is a priority.

All downtown streets should be designed as outdoor rooms that have the following components:

- **Walls:** Building facades that are interesting to look into and inviting to visit through the use of clear and transparent glass and multiple accessible entries.
- **Ceilings:** Robust tree canopies that overhang the sidewalk and provide shelter from the elements and textural relief from the hardscape. The ceiling may also be defined by awnings, street lights, and blade signs.
- **Floors:** Pavement (primarily in the Amenity and Shy Zones) that introduces patterns, colors, texture, details, and wayfinding cues that provide interesting things to look at and a material palette to warm the space on cold and drab winter days.
- **Furniture:** Comfortable benches and outdoor seating that invites people to hang out, enjoy the space, and people watch, while promoting civic life and interactions.

CULTIVATE GRAND STREET TREES

Street trees are one of the most important street elements and should be included in all city streetspaces. Street trees help to define the space of the street, calm traffic, filter the sunlight, shield people from the rain, provide elegant stormwater management, bring order to the street, visually soften the streetscape, and introduce the beauty of nature to the city.

The design, detail, implementation, construction, and maintenance of all downtown streets should propagate healthy and mature street trees that provide meaningful definition of the streetspace by:

- Including and prioritizing street trees that form complete tree canopies over the street and sidewalk to limit the visual length of the street.
- Removing barriers to robust tree planting and healthy tree maintenance, including the removal of areaways and the design of healthy environments for trees to grow to full maturity.
- Cultivating large, healthy trees that define and enclose the streetspace with robust, full canopies through careful selection of tree species and proper ongoing maintenance.
- Arranging street trees with regular geometries, formal repetition, consistent sizes, and consistent forms.
- Seeking opportunities to expand locations for street trees in the Flex Zone by pairing them with other pedestrian improvements.



BUILD FOR SAFETY AND ACCESSIBILITY

Vital Streets has outlined opportunity to enhance street safety through engineering and innovation, while seeking design solutions that build age-friendly streetspaces. This ensures that users of every age and ability can move within and through downtown while having a dignified and safe experience. GR Forward, as part of its 21st Century Mobility Strategy (Goal 3), envisions a stress-free pedestrian experience for all ages and abilities by prioritizing pedestrian safety and creating streets that provide safe access for all users.

To ensure that people of all abilities and ages have safe and dignified access, the design of all downtown streetspaces should:

- Prioritize safety for all street users, particularly more vulnerable groups (children, the elderly, and those with disabilities) and more vulnerable modes (walking and biking).
- Expand and accentuate streetspace elements that provide additional layers of safety & comfort - such as street trees, benches, lighting, and wayfinding.
- Seek to narrow traffic lanes to reduce vehicle speeds as well as reallocate space into the Pedestrian Zone to expand pedestrian-centric improvements and/or space into the Flex Zone to support alternative modes of transportation.
- Consider the conversion of traffic signals to four-way stops on downtown streets in order to slow traffic speeds.
- Consider restoring two-way streets at Ottawa, Ionia, Fountain, and Lyon to aid in reducing vehicle speeds and provide legible navigation.
- Consider accentuating crosswalks through the use of artistic embellishments that draw attention to these important pedestrian spaces within the travel lanes.





DESIGN INVITING SPACES

INVITE PEOPLE TO LINGER

Effective, attractive, and well-used streetspaces are designed for people because people are needed to make them vibrant and active places. Scale and enclosure create comfortable places that invite people to linger. As people are invited into these spaces, more people will follow, because there is a chance to see and be seen.

To invite people to linger in the spaces and places of downtown, the design of all downtown streets should:

- Scale and detail streetspace elements so that they are seen and felt through the lens of people, walking at 3 mph, and not the car traveling at 30 mph. This includes such seemingly mundane things like the materials and construction of planters and benches.
- Provide a wide variety and strategic placement of nooks and spaces for people to comfortably hang-out, rest, converse, and interact.
- Provide spaces that are watched over by windows, doors, clear and transparent storefronts, and/or balconies - effectively giving people a sense of security that there are “eyes on the street”.
- Balance the goal of limiting undesirable activities with the goal of lingering longer by creating dignified seating opportunities where a wide range of users feel comfortable hanging out, sitting close, reclining, or putting their feet up in repose.

INVITE PEOPLE TO CONTINUE THE JOURNEY

Detail, variety, and layers of experiential sequences invite people to continue their journey in between destinations through the streetspace. As people journey through these spaces, more people will follow because nothing attracts a crowd like a crowd.

To invite people to continue their journey in the spaces and places of downtown, the design of all downtown streets should:

- Foster interesting experiences by using a variety of textures, patterns, colors, and other sensory interfaces, while balancing the need for a predictable and legible sidewalk.
- Promote streetspaces that unveil themselves throughout one’s journey in order to provide three-dimensional variety that may include balconies, building projections, street trees, or other elements that cover and then reveal scenes in a progression as one strolls along the street.
- Provide interesting destinations and building edges that compel passersby to look into windows and walk into stores.
- Consider the importance of active ground floor uses and the form of the Frontage Zone. When retail is not of practical use due to market conditions, storefronts could still be built on the ground floor. These spaces may provide house service or even residential uses as interim placeholders until retail becomes viable. Also consider activated ground floor uses with other frontage types such as stoops and dooryards.

PROVIDE VISUAL INTEREST

People and pedestrians are easily bored and are attracted to spaces that are beautiful and distinctive. While “clutter” within the streetspace is considered antithetical to creating high quality space, “good clutter” that creates interesting things to look at can go a long way toward creating a rich, complete, and beautiful experience.

To enhance visual interest in Downtown Grand Rapids, the design of all downtown streets should:

- Utilize streetspace elements to create visual interest through color, texture, and materials while maintaining a coherent, well proportioned space.
- Provide street trees and understory landscaping that create a relief from hardscapes; provide a variety of texture, color, and fragrances; while also introducing seasonal change.
- Balance the Amenity Zone elements with the building wall elements, including any signage, so that the space is interesting but not overwhelming.
- Consider the placement and amount of separate utilitarian features, such as traffic signs and utility boxes, so that they do not unnecessarily clutter the space or compete with other more compelling elements. This should include clustering and grouping them rather than scattering them within a block.
- Consider using art and small murals on (or as) utilitarian infrastructure so that it can become part of the compelling journey.



CREATE EQUITABLE ACCESS

Downtown is for everyone and is made better by diversity in people, place, and experience. Vital Streets investments advance this principle by ensuring that there are available, affordable, and reliable transportation choices to meet a diverse set of needs and by building diverse mobility choices through careful decisions about mode-share. GR Forward, as part of its Reinvest in Public Space, Culture, and Inclusive Programming (Goal 5), envisions improved gateways, event corridors, and outdoor entertainment corridors that connect people to places.

To ensure that all people feel welcome and are able to visit, linger, and enjoy their public spaces, the design of all downtown streetspaces should:

- Prioritize and invite access to the Grand River by creating streetspaces that are “fingers of access” to better and more clearly connect the river to the city.
- Promote diversity of travel mode choices and prioritize pedestrian, bike, and transit modes.
- Maintain, enhance, and reconnect the street grid and network while also restoring two-way streets and discouraging any further vacations of street or alley rights-of-way.
- Create predictable and clear navigation through enhanced and improved wayfinding programs.
- Provide ample sidewalk space to accommodate groups of people.
- Make sure that public seating is available on all blocks, that public seating is near trees to provide shade, and that public seating encourages a wide range of comfortable “hanging out”.





BUILD FOR SUSTAINABILITY

The citizens of Grand Rapids, the city’s leadership, and Vital Streets all require that sustainability is integrated into public infrastructure. GR Forward, as part of its Restore the River as the Draw and Create a Connected and Equitable River Corridor (Goal 1) seeks to create a series of east-west green corridors to connect neighborhoods to the river, create infrastructure to protect and enhance the river, and enhance ecological systems - all of which have sustainability and resilience at their core. These sustainable elements provide health, safety, and welfare through a connected network of enhanced streets.

To continue to build upon and increase sustainability in downtown, the design of all downtown streets should:

- Incorporate elegant and sustainable elements into all public spaces through the use of Low Impact Design (LID) for storm water management.
- Accentuate navigable and legible east-west connections to the river by prioritizing River Gateway Street investments that extend the elements of the river corridor improvements into the downtown fabric.
- Prioritize expanding and increasing the tree canopy of downtown while also seeking innovative solutions to maintain and encourage the sustained growth of large, healthy, and robust street trees.
- Promote the use of rain gardens and other stormwater management strategies along existing parkways.
- Consider the selection and strategic placement of porous pavements that are aesthetically compatible with other streetspace paving while also maintaining pedestrian-scaled materiality and long-term durability.

BUILD FOR A LASTING INVESTMENT

Building streetspaces that are durable, lasting, and lovable will ensure that the investment is meaningful and long-term.

To ensure that investments are long-lasting, the design of all downtown streetspaces should:

- Prioritize the design, construction and maintenance of credible environments that foster the long-term health and nourishment of large and verdant street trees.
- Prioritize materials and elements that are durable and time-tested, yet practical for the use that they are required to handle.
- Design and choose streetspace elements that are simple and that provide multi-functional tasks in order to maximize both precious street space and resources.
- Incorporate streetspace elements that will stand the test of time and age well over the course of their service by choosing materials and elements that age gracefully, hold up to the rigors of use and the Michigan climate, and develop an elegant patina over time.
- Consider the whole block and both sides of the street when designing and installing elements - not every property or frontage (or even block) needs every single element.

INSTALL MULTI-PURPOSE + USEFUL ELEMENTS

Grand Rapids streetspaces are required to provide a vast amount of services in a small amount of space. The competition for space is therefore rigorous, resulting in contested space - particularly in the Amenity Zone and the Flex Zone.

To ensure that we make the most of our limited pedestrian spaces, the design of all downtown streetspaces should:

- Select streetspace elements that provide more than a single use. For example, planters may provide seating or a parking meter may provide a bike rack.
- Promote the combination and installation of multiple elements when changes are made within the Flex Zone to maximize the investment in the public realm.
- Consider how and where required elements are placed along adjacent blocks and across adjacent streets so that streetspaces remain balanced with amenities. Specific amounts of elements should be based on current and planned land use.



PLANTER + BENCH = MULTI-PURPOSE



BIKE RACK + PARKING METER = MULTI-PURPOSE

PROPERLY INSTALL + MAINTAIN OUR ASSETS

While design of our downtown streetspaces is the essential framework of these guidelines, proper installation and ongoing long-term maintenance is critical to the continued work of making people-centered places.

To ensure that we make the most of our investments and build understandable, credible, and enduring public spaces, due care should be taken to:

- Install all elements in a manner that tells users of the space that we care about where we live, work, and play. It is not sound policy to allow elements to be haphazardly or only partially installed because it gives users of the space the false notion that no one cares, and that they don't have to either.



PARKING SIGN INSTALLATION WITH DISTURBED GROUND LEFT UNFINISHED



IMPROPER PAVER INSTALLATION AT EXISTING FIRE HYDRANT

DESIGN ENDURING PLACES [continued]

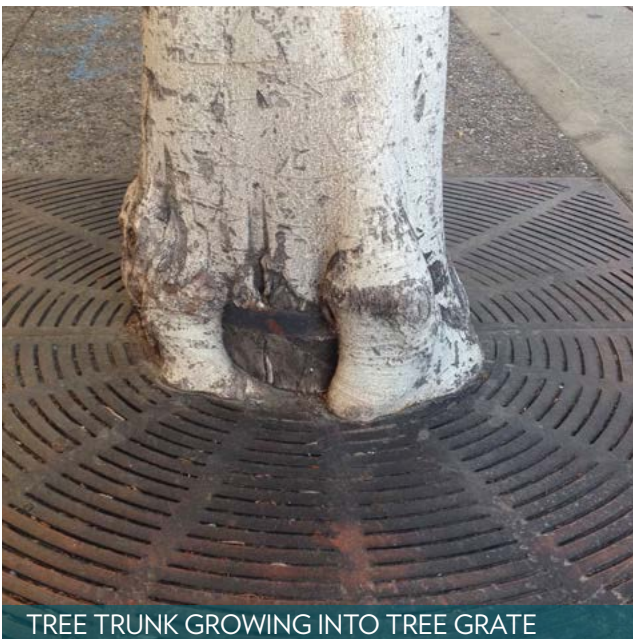
PROPERLY INSTALL + MAINTAIN [continued]

➤➤ Continuously and rigorously maintain street tree installations throughout downtown including:

- Removing tree guy wires and stakes when they are no longer needed to support the tree AND maintaining the guy wires and stakes until they are no longer needed to support the tree.



- Inventory of existing tree grates to determine their performance relative to tree growth. In cases where grate opening size is constraining tree trunk size, the grates should be cut back or replaced with alternative solutions referenced in the Street Tree section of Chapter 2.



- Trimming trees and “limbing up” trees to ensure long-term health and make sure that sidewalk clearances for pedestrians and clear vision corners are maintained.
- Strategic root pruning of existing street trees during construction projects (rather than wholesale excavation near their roots) to ensure that the health of mature street trees is not compromised.
- Adequate watering regimes, especially throughout the establishment period (first two growing seasons). This may include use of slow release water bags in open planters, or through the use of water distribution pipes in instances where planting soil volumes are paved over.
- Monitoring, maintenance, and repair of existing porous resin bonded paving over tree wells to ensure that they are still permitting water to permeate and do not have uneven or damaged surfaces which can cause accessibility issues for more vulnerable groups of pedestrians. Repairs should be undertaken immediately. *Note that these guidelines recommend the use of low-rubber content mixes for such applications.*
- Monitoring and trimming of existing resin bonded porous paving aggregate mixes at the tree trunk to foster continued tree growth and health.



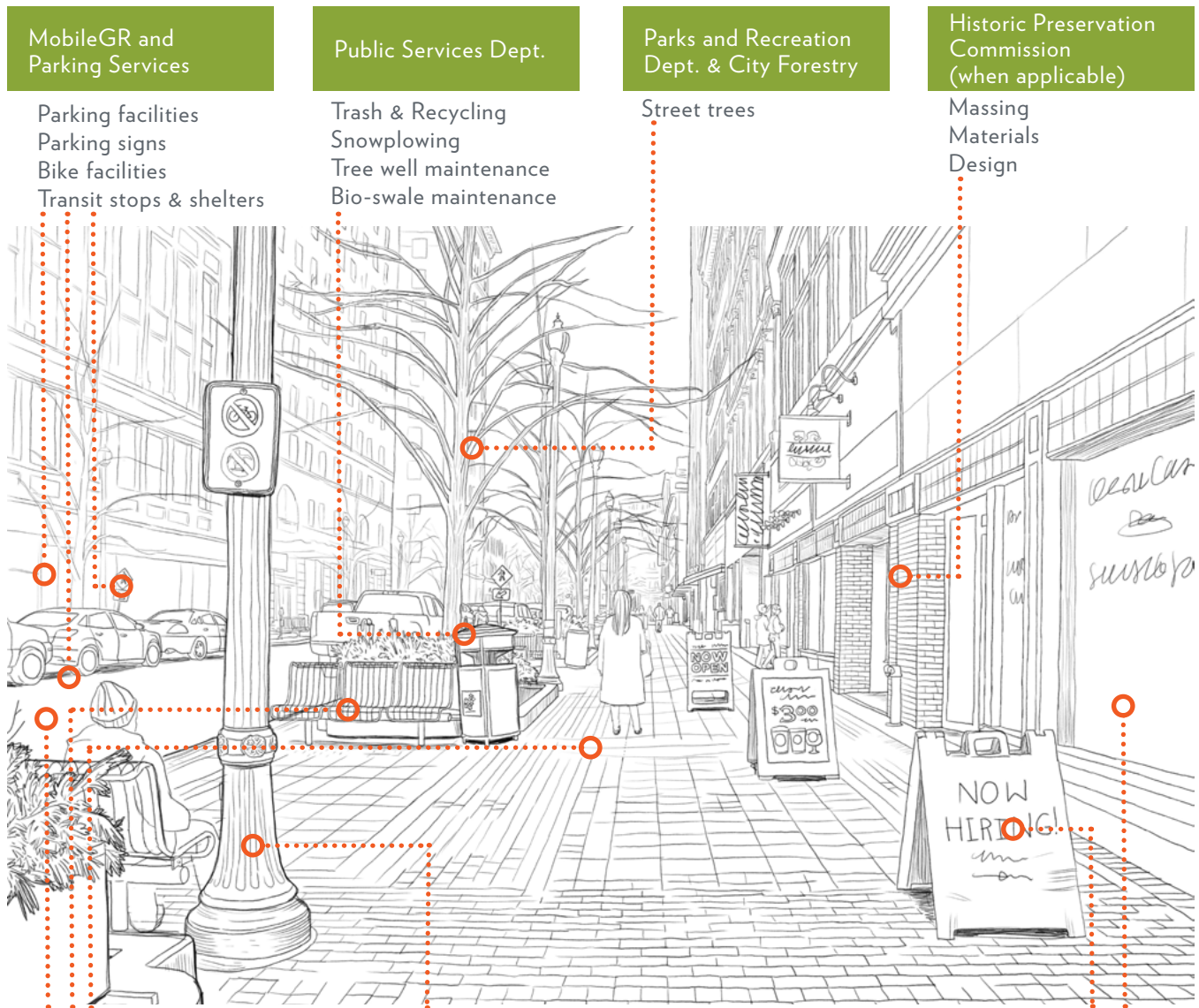


SHAPING THE STREETSPACE

WHO IS INVOLVED IN SHAPING THE STREETSPACE?

Several public and private entities are involved with our streetspaces:

➤➤ **Private property owners and tenants** are responsible for the placement of their personal possessions within their front yards and inside their windows, their entrance spaces, signage, and the character of the building frontage. They are also frequently required to build and maintain the sidewalk in front of their property, ensuring that it is clear of tripping hazards, trash, and snow. Private property owners and tenants are also responsible for ensuring that sandwich board signs and cafe seating not encroach on the six foot minimum Through Zone.



MobileGR and Parking Services

- Parking facilities
- Parking signs
- Bike facilities
- Transit stops & shelters

Public Services Dept.

- Trash & Recycling
- Snowplowing
- Tree well maintenance
- Bio-swale maintenance

Parks and Recreation Dept. & City Forestry

- Street trees

Historic Preservation Commission (when applicable)

- Massing
- Materials
- Design

City Engineering

- Street design
- Encroachments
- Sidewalks
- Seating

Dept. of Energy, Lighting, & Communication

- Lighting

Planning Dept. & Community Development Center

- Setbacks
- Transparency
- Height
- Use
- Signage

- **Designers and architects** are responsible for how interesting and engaging the building frontage is to walk past—how frequently entrances are spaced, the placement and transparency of the windows, the architectural articulations that cast light and shadow and add depth, the materials, the landscaping, and many other design factors that are informed by local zoning regulations and these Guidelines. Many of these decisions are made within the allowable building envelope, and while they are more typically associated with the building design, they drastically impact the sidewalk experience.
- **MobileGR** regulates the right-of-way to the curb area to determine whether it is traffic, parking, or bike lane. The Traffic Safety division of MobileGR also reviews the type and location of traffic signals. The DASH system, a local circulator connecting parking facilities to community anchors, is supported by MobileGR, and decisions related to the routing and placement of DASH stops is regulated by MobileGR in collaboration with The Rapid.
- **City Engineering** ensures that the design of the street and its intersections are adequate for moving people, transit, bicycles and vehicles.
- The **Planning Department and Community Development Center** ensures that the building frontage meets the requirements for building height and placement, fenestration, signage, use, lighting, and landscaping. With the Engineering Department, they review and consider temporary or permanent encroachments into the rights-of-way, including outdoor dining on the sidewalk, and also signage or balconies that may cantilever over the sidewalk. The Planning Department also reviews permits for food trucks, and ensures that safe and accessible sidewalks are present for people with mobility challenges.
- The **Parks and Recreation Department and City Forester** ensure that tree planters are adequately sized so that trees survive, and that the tree type is appropriate for urban conditions. The forester also maintains street trees.
- The **Grand Rapids Department of Energy, Lighting, and Communication** reviews the type and placement of street lighting. Within these guidelines, the selected decorative light fixtures are consistent with those currently offered by the Department. An additional fixture has been added to reflect fixtures specified within the Grand River Corridor Design Guidelines.
- The **Public Services Department** manages and maintains various assets within the downtown, including:
 - Waste collection and recycling (some of which is handled by the Downtown Improvement District and Downtown Grand Rapids, Inc). *Waste receptacles within these guidelines have been selected for their legibility within the streetspace as well as ease of maintenance.*
 - Porous resin bonded paving at tree wells.
 - Bio-swales and select bulbout (or curb extensions).
 - Snowplowing streetspaces.
- The **Historic Preservation Commission** reviews requests for development projects and street work within established historic districts and for any landmark properties. The design of the building and its frontage impacts the character of the streetspace.
- **The Rapid**, as the local transit authority, determines route configuration, stop placement, operations, and scheduling for the transit system. The design and placement of transit stops is coordinated through The Rapid, as well as operational preferences.

Streetspaces are complex, and the elements that make up the outdoor room will vary from place to place. It is important to coordinate the design, placement, funding, and maintenance of each element with **Downtown Grand Rapids, Inc.** to ensure that the assembly of these items reflects the overall design vision expressed in these Guidelines.

NAVIGATING THE DOCUMENT

DOCUMENT INTENT

These Guidelines are meant to provide insights and design solutions for entities involved in streetspace improvements, especially decision-makers representing both the public and private sectors. The Guidelines establish baseline expectations for our downtown streetspaces that further the goals of GR Forward. This baseline is achieved by the public- and private-sector when initiating improvements within the streetspace, and also when seeking development support from Downtown Grand Rapids, Inc. and other city departments when applicable. Some of the streetspace elements, such as bike racks, include “enhancements” which can be used by DGRI Alliances and staff when considering funding requests.

DOCUMENT ORGANIZATION + OVERVIEW

CHAPTER 1.0 REBALANCING THE STREETSACE

»» AREA OF INFLUENCE

Flex Zone, space next to the curb and extending into the Travel Zone (referred to as Static Zone in Vital Streets Plan and Guidelines)

»» WHAT IT IS ABOUT

Use this chapter and Chapter 2.0 as streets and intersections are redesigned, rebuilt, or repaved. It will provide guidance in the form of key questions to ask during the design phase, and prototypes to optimize constrained streetspace and ensure favorable outcomes for all modes of transportation. This section would be used in conjunction with the Vital Streets Plan and Guidelines, The Align Study, GR Forward and the Bicycle Action Plan.

»» POTENTIAL USERS

City of Grand Rapids Various Departments >> MobileGR >> DGRI The Rapid >> Vital Streets Oversight Commission

CHAPTER 2.0 PEDESTRIAN ZONE

»» AREA OF INFLUENCE

Pedestrian Zone, space next to the curb and extending to the face of the building/private property line. This is divided into three sub-areas, the Amenity Zone, the Through Zone, and the Shy Zone.

»» WHAT IT IS ABOUT

Use this chapter to select, design, place, and maintain streetspace elements such as seating, lighting, waste receptacles, bike parking, etc. Each element includes guidance for the specifications for these elements, including type, size, material, and placement. Some of these elements include “enhancements” which may be funded by DGRI through its enhancement program. Note that elements like pavement, benches, and waste receptacles are designated by Streetspace Type. There are **five** streetspace Types within the DDA boundaries.

»» POTENTIAL USERS

Adjacent Property Owners >> City Engineering >> MobileGR >> DGRI The Rapid >> Vital Streets Oversight Commission

CHAPTER 1 REBALANCING THE STREETSACE
1.1 OVERVIEW

FLEX ZONE OVERVIEW

The Flex Zone (referred to as the Static Zone and Travel Zone in the Vital Streets Plan and Design Guidelines) includes elements directly adjacent to the curb on the street side, such as parking spaces, loading zones, parklets, and curb extensions. Sometimes this zone may even include extra travel lanes, travel lanes that are overly wide, as well as left-turn or right-turn lanes. This zone represents potentially congested streetspace that can be converted into more pedestrian-centric uses by re-balancing the right-of-way.

As referenced in the City of Grand Rapids Vital Streets Plan and Design Guidelines, the Flex Zone is composed of both the Static Zone and the Travel Zone.

STATIC ZONE The space along the curb that is used for parking, loading zones, bulb-outs, parklets, food trucks, and other primarily stationary uses. This zone is a seam between the pedestrian zone and travel zones. Importantly it protects those on the sidewalks from automobile traffic, helps to dictate the flow of foot traffic, and provides a myriad of opportunities to rebalance the streetspace to a more multi-modal environment.

TRAVEL ZONE The Travel Zone is the area devoted to vehicular movements, and sometimes shared space for bicycles, skateboards, transit and vehicles. In Downtown, the ideal travel zone would include one travel lane in each direction, with a width not greater than 11', consistent with the Vital Streets Plan and Vital Streets Design Guidelines, and the GR Forward Plan.

2 | DOWNTOWN GRAND RAPIDS STREETSACE DESIGN GUIDELINES

CHAPTER 2 PEDESTRIAN ZONE
2.1 OVERVIEW

PEDESTRIAN ZONE OVERVIEW

AMENITY ZONE The Amenity Zone is a transitional space that buffers pedestrian activity from the Flex Zone (vehicle-centric areas) of the street. This zone provides the space for essential pedestrian amenities (referred to as elements in these guidelines) within the streetspace, including street trees, public seating, bicycle racks, street lighting, and cafe seating. This zone is oftentimes too narrow to accommodate these essential elements and therefore expansion into the Flex Zone should be considered when possible.

THROUGH ZONE The Through Zone is part of the sidewalk that is reserved for pedestrian movement. This zone provides adequate movement for pedestrians to travel within the streetspace. It is recommended that a 6' foot width be maintained for this zone.

SHY ZONE The Shy Zone is part of the sidewalk that transitions from the private development space to the public realm. This zone is typically not considered part of the Through Zone, but because of sometimes too narrow sidewalks, it becomes part of the Through Zone by necessity. This zone can accommodate cafe seating, public seating, and planters.

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DOCUMENT ORGANIZATION + OVERVIEW, cont.

CHAPTER 3.0 FRONTAGE ZONE

- >> AREA OF INFLUENCE
Frontage Zone, the building and building wall facing the streetspace (right-of-way), with close attention to the ground floor.
- >> WHAT IT IS ABOUT
Architects, developers, tenants, and others will find this chapter helpful when designing a new building or making updates to existing buildings. Recommended best practices are found in this chapter related to building massing and scale, storefront design, building entries, window glazing (transparency) and building lighting. This chapter harmonizes with the City’s Zoning Ordinance, and also provides “enhancements” which go above and beyond zoning requirements should an owner or other interested party seek funding from DGRI as part of its incentive programs.
- >> POTENTIAL USERS
Property Owners >> Tenants >> DGRI
Planning Department >> Economic Development Department

CHAPTER 3 FRONTAGE ZONE
3.1 OVERVIEW

FRONTAGE ZONE OVERVIEW



FRONTAGE ZONE
(chapter 3.0)

The Frontage Zone is considered part of the streetspace because it provides the edge or wall that defines the outdoor room. This zone is part of the development space in the form of the exterior building wall. It also represents an edge that provides doors, windows, lighting, and articulation that accentuate visual interest, activity and commerce.

Pedestrians are apt to prefer streetspaces high in complexity since these spaces provide interesting things to look at, building details, signs, surfaces, changing light patterns, shadows and highlights, and of course, other people. Low complexity within the streetspace will be boring. However, if this complexity is not balanced with some sense of visual order, the streetspace may likely be viewed as “messy” and incoherent.

Therefore a goal is to create places that have both high complexity and just enough visual order to ensure that the place is dynamic enough to support and enhance street life within the urban context. The building wall, especially at the ground level, should be “rich and organized” while contributing to a busy and dynamic streetspace. This ground level provides legibility of elements when one is very close to the building – the human scale (or sometimes referred to as the pedestrian scale).

In addition to this human scale, overall scale is also important because it provides building legibility from a distance, some level of visual order within the larger urban framework, and links the ground plane with the rest of the building.

These frontage zone guidelines address both the human scale and the overall scale of the building wall to provide various opportunities to invite people to linger within the streetspace and to continue their journey along the sidewalk. This frontage zone chapter provides:

- >> Building composition guidelines to inform the overall scale.
- >> Active wall guidelines to inform the human scale of the ground plane. To support this human scale, ground floor building walls should aspire to the higher end of the A, B, C, scale to the right.

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CHAPTER 4.0 APPENDICES

- >> AREA OF INFLUENCE
The appendices summarize public engagement efforts that informed the crafting of these streetspace guidelines, provide a bibliography for reference, and provide photo credits for reference.
- >> WHAT IT IS ABOUT
Use this chapter to gain insights into the priorities expressed by users of the streetspace, to learn about observations from the consultant team during various periods of time spent in key areas of the city, and to learn what the youth from Innovation Central are looking for as they use and experience the streetspace. Results of the survey are presented in charts and graphs, and support the guiding principles included in the Introduction to this document.

This chapter also provides source material that informed the preparation of the Guidelines and that is supplementary information for users of the document.

Photo credits are also included, many of which can be inspiration and additional source material for reference.


- >> POTENTIAL USERS
Anyone

CHAPTER 4 APPENDICES
4.1 COMMUNITY ENGAGEMENT SUMMARY


FIELD SURVEY ANALYSIS

A SUMMARY REPORT generated from feedback of the Grand Rapids street space users, gathered in December 2017 and January 2018. There were 458 respondents.


How often do you visit downtown?




How do you usually get Downtown?




What typically brings you to Downtown?




What would you like to do in the public spaces of Downtown that you can't do now?



What public space in Downtown is most welcoming or inviting to relax and linger?



What street features would you like to see more of?



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CHAPTER 1 REBALANCING THE STREETSPACE

FLEX ZONE OVERVIEW



The Flex Zone (referred to as the Static Zone and Travel Zone in the Vital Streets Plan and Design Guidelines) includes elements directly adjacent to the curb on the street side, such as parking spaces, loading zones, parklets, and curb extensions. Sometimes this zone may even include extra travel lanes, travel lanes that are overly wide, as well as left-turn or right-turn lanes. This zone represents potentially contested streetspace that can be converted into more pedestrian-centric uses by re-balancing the right-of-way.

As referenced in the City of Grand Rapids Vital Streets Plan and Design Guidelines, the Flex Zone is composed of both the Static Zone and the Travel Zone.

FLEX ZONE

STATIC ZONE

The space along the curb that is used for parking, loading zones, bulb-outs, parklets, food trucks, and other primarily stationary uses. This zone is a seam between the pedestrian zone and travel zones. Importantly it protects those on the sidewalk from automobile traffic, helps to dictate the flow of foot traffic, and provides a myriad of opportunities to rebalance the streetspace to a more multi-modal environment.

TRAVEL ZONE

The Travel Zone is the area devoted to vehicular movements, and sometimes shared space for bicycles, skateboards, transit and vehicles. In Downtown, the ideal travel zone would include one travel lane in each direction, with a width not greater than 11', consistent with the Vital Streets Plan and Vital Streets Design Guidelines, and the GR Forward Plan.

THE FLEX ZONE

The Flex Zone (referred to as the Static Zone and Travel Zone in the Vital Streets Plan and Design Guidelines) includes the space directly adjacent to the curb on the street-side, such as parking spaces and loading zones. The flex zone also sometimes includes extra travel lanes, overly wide travel lanes, and left and right turn lanes. This zone represents potentially contested space that can be converted or restored to pedestrian, bike, or transit uses through a rebalancing of the public right-of-way.

The aptly named Flex Zone represents the portion of the street that is most readily available to be renegotiated to optimize its use. The technique of reallocating space and redefining use is hereafter referred to as Rebalancing.

REBALANCING: THE FLEX ZONE

Rebalancing is also a technique to support and implement the City's adopted Vision Zero policy which is a goal to eliminate pedestrian and vehicle deaths. Rebalancing ensures that the pedestrian is considered the "design vehicle" for all projects as envisioned by Chapter 3 of the GR Forward Plan (page 188).

When a street is balanced, it adequately facilitates the needs of pedestrians, transit, bike riders, and motorists by increasing efficiency of travel with a more intuitive streetspace designed for all modes through the downtown. The Flex Zone is the ideal opportunity to increase mobility options within our downtown streets and to embed equity within the built environment.

OUR STREETS ARE BUSY...FOR A REASON

Moving vehicles from origin to destination is one of the many responsibilities of our largest community asset, the street. Streets are also responsible for:

- Enhancing livability (places for trees)
- Biking
- Transit
- Commerce
- Underground utilities (water and wastewater)
- Communication channels
- Conduits for electricity
- Delivery of goods (trucking)
- Locations for public seating
- Locations for public trash receptacles
- Locations for exchanging information
- Festivals and celebrations

And most of all, streets almost always contain sidewalks enabling humans to safely move from place to place or to linger while enjoying the potential for chance encounters with friends, neighbors, and the community.

It is because of this complexity, as well as the many and often competing needs of our streetspaces, that optimizing their function, appearance and sense of safety becomes a priority. The Flex Zone is where Downtown Grand Rapids has the opportunity to transition to a balanced streetspace for all users.

CURRENT STREET USE

MODES AND STREETSPACE

While not exact, and recognizing that each street segment has different conditions based on adjacent use, this collage provides a quick reference to quickly discern which modes take priority based on the physical allocation of space within four street segments. The blue overlay is the area devoted to the applicable mode.



REBALANCING: WHY IS IT IMPORTANT?

Rebalancing happens for many reasons. First, it is done to enhance the feeling of safety and comfort of pedestrians and bike riders by equitably allocating and optimizing space (from a typical 80:20 vehicle-to-pedestrian space ratio to a more balanced network). The following existing downtown streetspaces indicate the lack of equitable space allocated for all modes.



BRIDGE STREET



(not dedicated lanes)

BRIDGE STREET



FULTON STREET



FULTON STREET



MONROE CENTER



MONROE CENTER



MONROE STREET



MONROE STREET



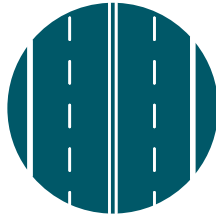
OPPORTUNITIES TO OPTIMIZE

Our opportunity to rebalance our streets is found within the Flex Zone.

FOUR CONDITIONS IN THE FLEX ZONE TO REBALANCE THE RIGHT-OF-WAY

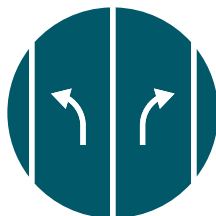
#1

When we have a 4 lane street section

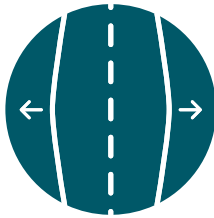


#2

When we have turn lanes (right or center/left)



#3 When travel lanes are too wide



#4 When we have on-street parking in locations not near or adjacent to retail or entertainment uses



REBALANCING THE STREETSPACE

The questions we have been asking have not led to the rebalancing necessary to create a people-first streetspace. It's time to ask new questions.

Walkability, safety and access are the outcomes when we reframe our design process and pivot from a vehicle-centric paradigm to one that favors all modes. For the last 60 years, our decision-making has prioritized an auto-dominated downtown. We now know that to be sustainable, equitable and resilient we must provide choices for how to move about our city, because not everyone has or desires access to an automobile. GR Forward's Goal 3, Creating a 21st Century Mobility Strategy, speaks to the importance of prioritizing safety by using the pedestrian as the "design vehicle" for all projects, which is echoed in the Vital Streets, pages 1-17. When the human is the design vehicle, we recognize they are the most vulnerable and therefore, our design decisions and priorities shift. As we rebalance our streets, we must ask new questions during the design process.

**QUESTIONS WE
HAVE BEEN ASKING**

AND

**QUESTIONS WE
NEED TO ASK**

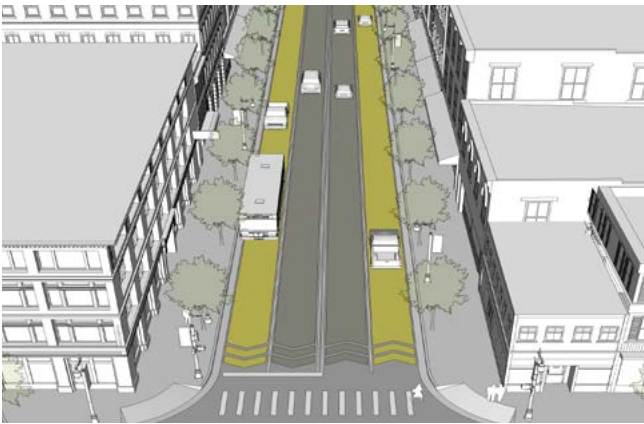
What about delays for the motorist	→	Who is the most vulnerable
What is the Average Daily Trip count	→	What is the crash data
Where will the cars go	→	How much space can be added to the pedestrian zone
Have you performed a Traffic Impact Study	→	Have you performed a Pedestrian and Bike Impact Study
How much longer will it take someone to leave the City	→	How will this become more inviting for our community
How do we prevent vehicle tires from jumping the curb	→	How do we use pavement patterns and materials to delineate space
How do we prevent loitering	→	Where can we add seating that is comfortable and inviting
How do we retro-fit a design to prevent skateboarding or loitering	→	Is this architecture inviting and intuitive
Where can we move the transit stops to avoid adjacent owners complaining	→	How can we place a transit stop so more people will use it and the transit will move more efficiently
What will happen to the loading and unloading of trucks immediately in front of my building	→	How do we accommodate loading and unloading via hours of operation, hand trucks, or alleys

There are 11 techniques we can use in the Flex Zone to rebalance our streets:

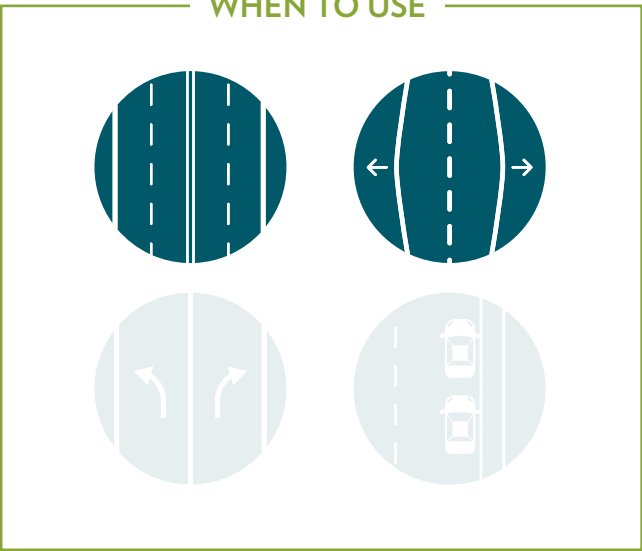
	Potential Condition	Considerations
Shared Street/ Flush Street		<ul style="list-style-type: none"> • Pedestrian and bike counts • Adjacent uses (planned and existing) • Crash data • Actual operating speeds vs. posted speed • ADA compliance
Curb Extension		<ul style="list-style-type: none"> • Crash data • Crosswalk spacing and block length • Presence of on-street parking • Pedestrian and bike counts
Transit Bulb		<ul style="list-style-type: none"> • Transit emphasis per Vital Streets • Align Plan recommendations • Boarding/alighting data and on-time performance
Tighten Curb Radii		<ul style="list-style-type: none"> • Crosswalk width • Adjacent uses • Temporary/pilot project with paint and cones
Add On-street Parking		<ul style="list-style-type: none"> • Presence of mixed use building/storefronts • Active commercial or retail corridor designation per GR Forward
3-lane "road diet"		<ul style="list-style-type: none"> • Apply technique for min. 2 blocks • Actual operating speeds versus posted speeds • Potential for boulevard section • Temporary/pilot project with paint and cones • Consider taper lengths, vehicle transitions, and traffic volumes
Bike Parking/ Bike Share		<ul style="list-style-type: none"> • Defer to Bike Action Plan • Co-locate at transit bulb locations, especially bike share • Adequate spacing of facilities based on use and proximity to other facilities • Potential locations for on-street bike parking, especially with a parkway present
Cafe Seating		<ul style="list-style-type: none"> • Can be paired with parklet and bulb-outs or used to replace on-street parking • Paired with public seating, landscaping, and street trees
Parklet		<ul style="list-style-type: none"> • Can be paired with cafe seating and bulb-outs or used to replace on-street parking • Paired with public seating, landscaping, street trees and bike parking
Add Bike Lane		<ul style="list-style-type: none"> • Connect to other bike lanes • Consider future bulb-out placements • Consider placement and use of on-street vehicle parking • Presence of transit
Valet Loading Zone		<ul style="list-style-type: none"> • Use alleys if available • Should be avoided on gateway streets • Manage through time-of-day signage • Where on-street vehicle parking is not feasible

REBALANCING PROTOTYPE #1

FLEX ZONE DIAGRAM (EXISTING 4 TRAVEL LANES OR TOO WIDE TRAVEL LANES)



WHEN TO USE



HOW TO INCREMENTALLY REBALANCE FLEX ZONE FOR BIKE LANE

PILOT



PAINTED BIKE LANES

Painted bike lanes provide an option that is relatively inexpensive and highly flexible.

A buffer zone is especially important in instances in which on-street parking is positioned on the street side of the bike lane.

INTERMEDIATE



TEMPORARY FIXTURES

Temporary fixtures or buffers such as removable planters, bollards, and tire stops provide a flexible means of physically separating bike traffic with vertical elements.

Use of such features avoids the cost of adding a curb while providing a condition that can be considered a stable component in the streetspace.

PREFERRED



PERMANENT FIXTURES

Permanent fixtures such as bollards, raised linear planters (or medians) preferably containing street trees, or curbed bike lanes increase safety by physically separating the dedicated bike lane while restricting the encroachment of adjacent vehicles.

REPURPOSE TRAVEL LANE FOR BIKE LANE

BIKE LANES

Bike lanes can take many forms including separated single direction lanes, joined two direction lanes, and grade separated (raised) lanes. Whatever the appropriate configuration, bike lanes serve to delineate space for cars and bicycles, and are important features on high-stress streets. Through modifications of the flex zone, the goal is to transition high stress street spaces to low stress spaces by reallocating vehicle lanes for people, bikes, and transit. Adding bike lanes also has a residual effect of calming traffic, which helps improve the walking environment.

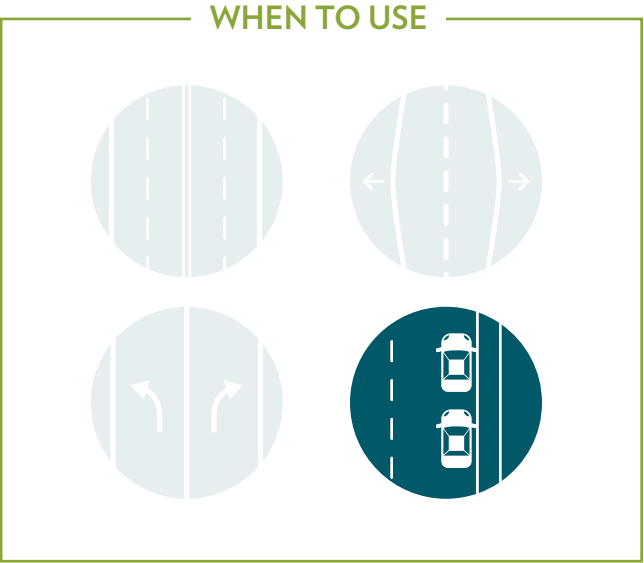
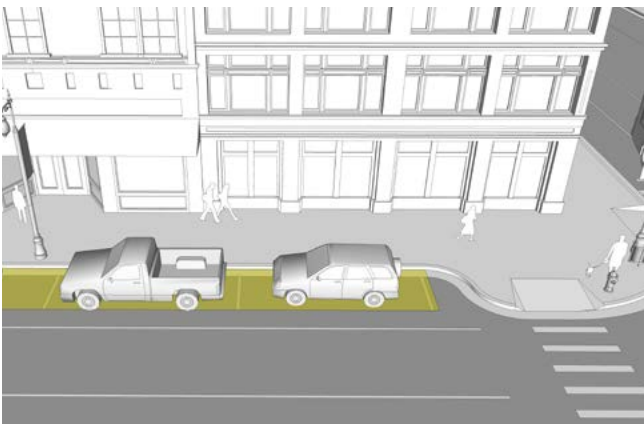


FLEX ZONE DIAGRAM

(EXISTING 4 TRAVEL LANES OR TOO WIDE TRAVEL LANES REBALANCED TO ACCOMMODATE A DEDICATED BIKE LANE)

REBALANCING PROTOTYPE #2

FLEX ZONE DIAGRAM (EXISTING ON-STREET PARKING)



HOW TO INCREMENTALLY REBALANCE FLEX ZONE TO REPURPOSE PARKING

PILOT



TEMPORARY TRANSIT-ONLY LANE

Select on-street parking in strategic locations not within targeted retail or active commercial corridors may be transformed into transit-only lanes or transit bulb-outs. Safety cones, temporary flexible lane markers, and/or temporary signage provide a flexible, low-cost, and effective method to demarcate the transit-only lane. This technique may be applied to strategic intersections where there is heavy traffic congestion.

INTERMEDIATE



TEMPORARY TRANSIT-BULB

Rather than traditional concrete and curbs, snap-able plastic panels functionally extend the grade of the sidewalk into the street while delineating and extending pedestrian and transit space.

These temporary measures help to slow traffic and also physically define on-street parking lanes within the streetspace, while testing the feasibility of more permanent transit facilities.

PREFERRED



PERMANENT TRANSIT BULB

Transit bulbs are curb extensions that align the transit stop with the parking lane, allowing buses to stop and board passengers without ever leaving the travel lane. Transit bulbs help buses move faster and more reliably by decreasing the amount of time lost when merging in and out of traffic.

Transit bulbs may be combined with amenities such as wayfinding maps, plantings, and trees to enhance the overall transit user experience.

REPURPOSE ON-STREET PARKING FOR TRANSIT BULB

BIKE RACKS
 Bike racks should be placed near transit stops to support a functional, multimodal transportation system.

TACTILE STRIP
COVERED TRANSIT STOP

Covered transit stops provide relief from the elements as well as a sense of enclosure and security.



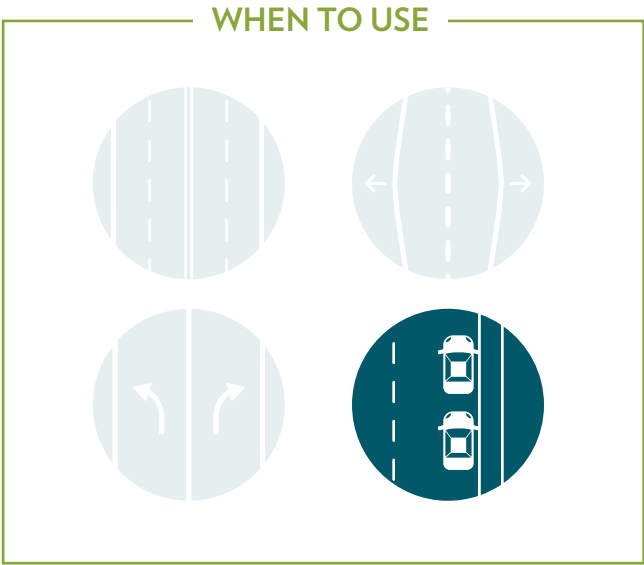
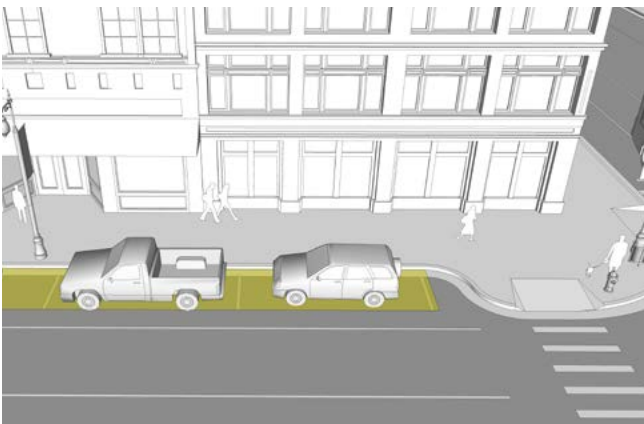
FLEX ZONE DIAGRAM
 (EXISTING ON-STREET PARKING REPURPOSED TO TRANSIT BULB WITH PEDESTRIAN COMFORT AND TRANSIT EFFICIENCY AS A PRIORITY)

STORMWATER PLANTER
 Low-impact design techniques should be implemented to manage stormwater runoff from streets and sidewalks.

RAISED PLANTERS
 Raised planters can be used to soften the streetspace, create a comforting sense of enclosure, provide extra seating, and act as a protective barrier from moving vehicles.

REBALANCING PROTOTYPE #3

FLEX ZONE DIAGRAM (EXISTING ON-STREET PARKING)



HOW TO INCREMENTALLY REBALANCE FLEX ZONE TO REPURPOSE PARKING

PILOT



TEMPORARY TRANSIT ISLAND WITH BIKE LANE

Outfitting a temporary transit bulb platform with ramps allows for safe and continuous bicycle access combined with a curbside bicycle lane.

Rather than traditional concrete and curbs, snap-able plastic panels functionally extend the grade of the sidewalk into the street while delineating pedestrian, transit users and automobile space.

These temporary measures help to slow traffic and also physically define on-street parking lanes within the streetspace, while testing the feasibility of more permanent transit and bike facilities.

PREFERRED



PERMANENT TRANSIT ISLAND WITH BIKE LANE

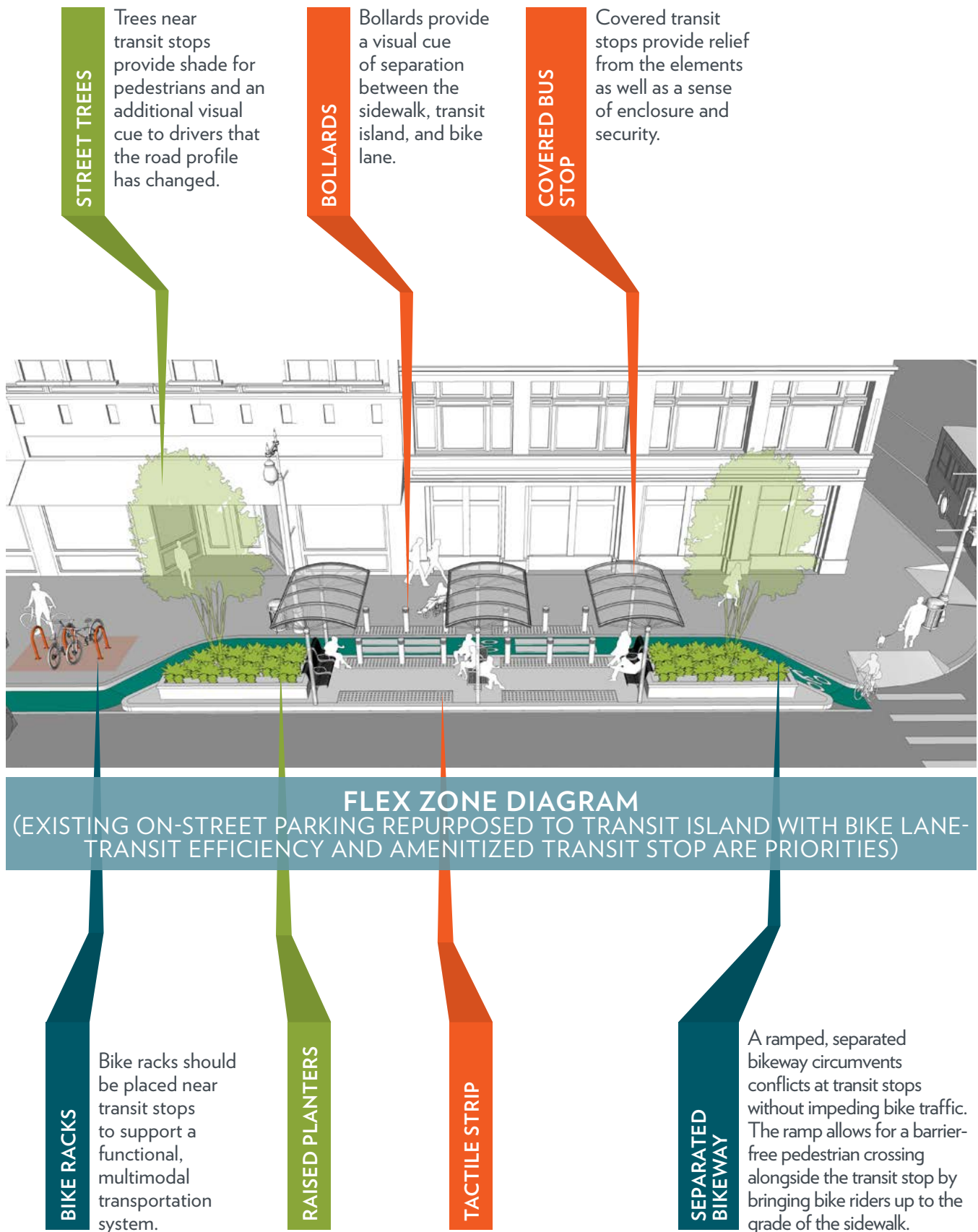
Permanent transit-bulbs that float from the curb (commonly referred to as transit islands) permit a dedicated and protected bike lane in between the island and curb.

A barrier-free pedestrian crossing with a ramp within the bike lane allows transit users the ability to reach the transit island.

The transit island can also include amenities like shelters and seating, as well as wayfinding maps, plantings, and trees to enhance the transit user experience.

Transit-islands align the transit stop with the parking lane, allowing buses to stop and board passengers without ever leaving the travel lane.

REPURPOSE ON-STREET PARKING FOR TRANSIT ISLANDS AND BIKE LANES

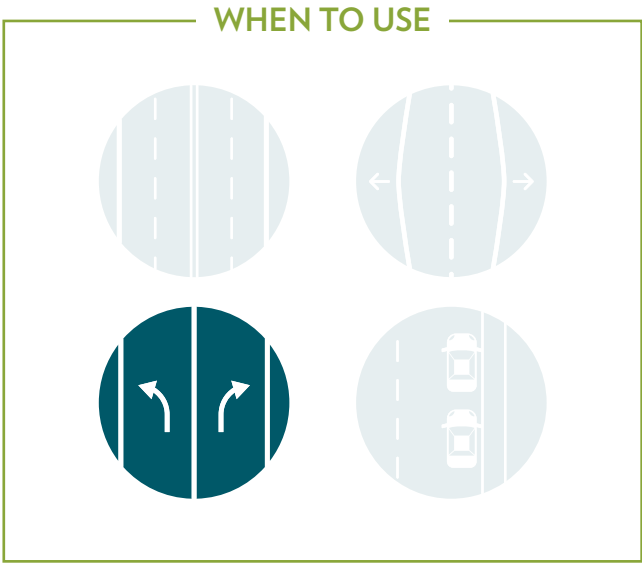


FLEX ZONE DIAGRAM

(EXISTING ON-STREET PARKING REPURPOSED TO TRANSIT ISLAND WITH BIKE LANE-TRANSIT EFFICIENCY AND AMENITIZED TRANSIT STOP ARE PRIORITIES)

REBALANCING PROTOTYPE #4

FLEX ZONE DIAGRAM (EXISTING RIGHT TURN LANE)



HOW TO INCREMENTALLY REBALANCE FLEX ZONE TO REPURPOSE RIGHT TURN LANE

PILOT



PAINTED CURB EXTENSION

Temporary painted curb extensions incorporate interim materials like paint, non-skid pavement colorization, and reflective flexible bollards.

This helps to increase the visibility of pedestrians, provides a safer crossing, and decreases crossing distances for people using the streetspace.

PILOT / INTERMEDIATE



TEMPORARY CURB EXTENSION

Use of safety cones and pavement paint, combined with temporary installations that are similar to parklets allow turn lanes to be reclaimed as optimized pedestrian space that can provide safer and shorter pedestrian crossings, attractive and functional seating areas, and increased space for urban businesses to provide outdoor dining options.

PREFERRED



FULLY RECLAIMED TURN LANE

Permanent infrastructure, including curb extensions and reconfigured gutters, provides additional people space, outdoor seating opportunities, shortens the crosswalk distance, narrows the street (resulting in slower traffic speeds), and potentially adds amenities for many modes of travel.

This reclaimed space effectively widens the sidewalk to incorporate outdoor seating while maintaining an appropriately wide through zone.

REPURPOSE RIGHT TURN LANE TO INCREASE SIDEWALK SPACE

PUBLIC SEATING

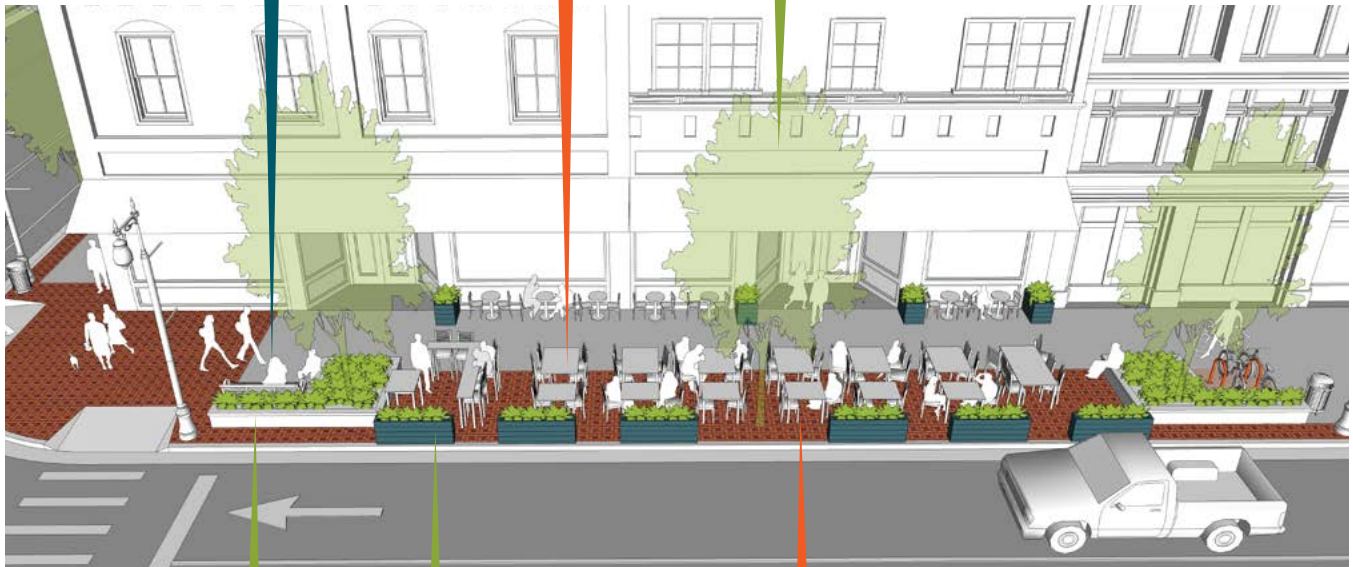
Public seating options, including benches and seatwalls, should be placed at high activity areas such as intersections or shopping districts.

OUTDOOR SEATING

Outdoor seating activates public spaces, provides comfort and encourages people to linger - this benefits local economies and provides a critical element to successful place-strengthening.

STREET TREES

Outdoor dining should be situated to take advantage of the shade provided by adjacent street trees. Permeable pavers near tree trunks can be used to maximize the available seating area in these spaces.



FLEX ZONE DIAGRAM

(EXISTING RIGHT TURN LANE REPURPOSED WITH CURB EXTENSION TO INCREASE SIDEWALK SPACE AND PROVIDE ADDITIONAL PEOPLE SPACE)

RAISED PLANTERS

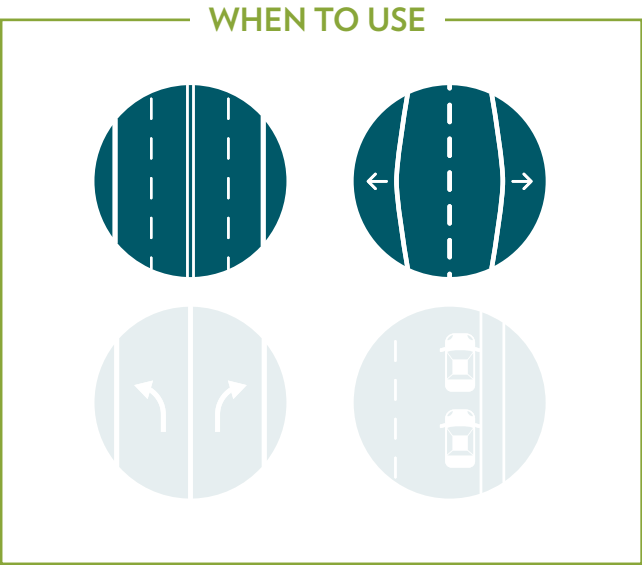
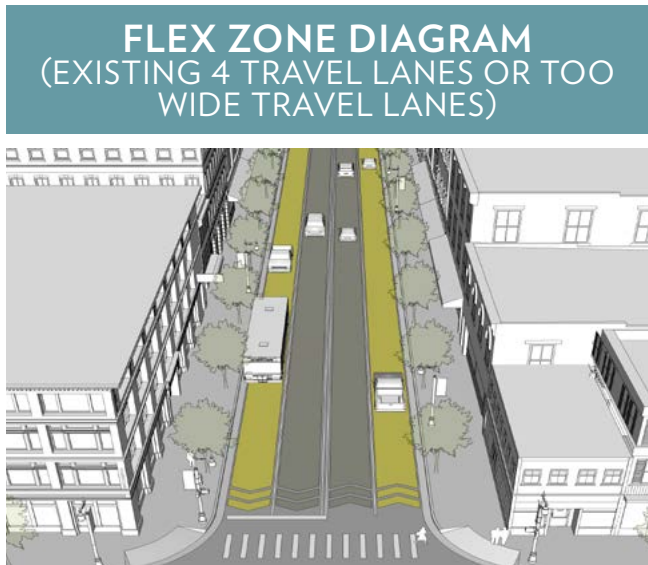
CONTAINER BUFFER

Separating the pedestrian from the vehicle can be achieved by using solid or intermittent barriers such as landscaping containers or railings.

PAVING

Paving can be used to delineate usage areas within the streetspace, allowing users to easily differentiate areas for travel (Through Zone) from other uses (Shy and Amenity Zones). Permeable paving systems over planting soil creates additional rooting area that is crucial for healthy and mature street trees.

REBALANCING PROTOTYPE #5



HOW TO INCREMENTALLY REBALANCE FLEX ZONE TO ADD ON-STREET PARKING AND BULB-OUTS (CURB EXTENSIONS) AT PEDESTRIAN CROSSINGS

PILOT



PAINTED CURB EXTENSION

Painted curb extensions incorporate interim materials including paint, non-skid pavement colorization, and reflective flexible bollards.

Curb extensions increase the visibility of pedestrians attempting to cross the street and decrease the crossing distance of the street, providing safer streetspaces for pedestrians.

INTERMEDIATE



TEMPORARY CURB EXTENSION

The original curb line remains in place and a temporary curb extension is added to define the pedestrian crossing.

This temporary installation can be accomplished using a variety of material assemblages including straw bale guards (as indicated in the photo above).

Temporary landscape and pavement markings can also be added to test their impacts on traffic and safety.

PREFERRED



PERMANENT INSTALLATION

Permanent curb extensions or bulb-outs at the intersection can be accomplished by modifying the existing curb and gutter to ensure that stormwater can still flow to catch basins.

Where application of a curb extension adversely impacts drainage, curb extensions may be designed as edge islands with a 1–2-foot gap from the curb or a trench drain.

REPURPOSE TRAVEL LANE FOR ON-STREET PARKING AND BULB-OUTS AT PEDESTRIAN CROSSINGS

MID-BLOCK CROSSINGS

Mid-block crossings should be installed in instances where there is a high-traffic pedestrian desire line.

INTERMITTENT BULB-OUTS

Bulb-outs can be used to delineate parking zones and expand pedestrian zones. They also provide opportunities to add vegetation, outdoor seating, and safe transit stops to the streetspace.



FLEX ZONE DIAGRAM

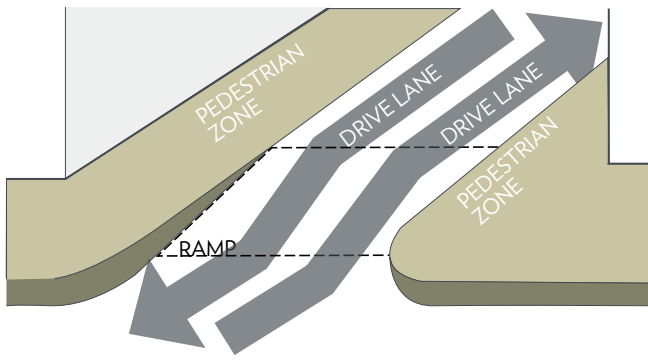
(EXISTING 4 TRAVEL LANES REPURPOSED WITH CURB EXTENSION TO CREATE ON-STREET PARKING AND PROVIDE A SAFER PEDESTRIAN CROSSING AT INTERSECTIONS)

CURB EXTENSIONS

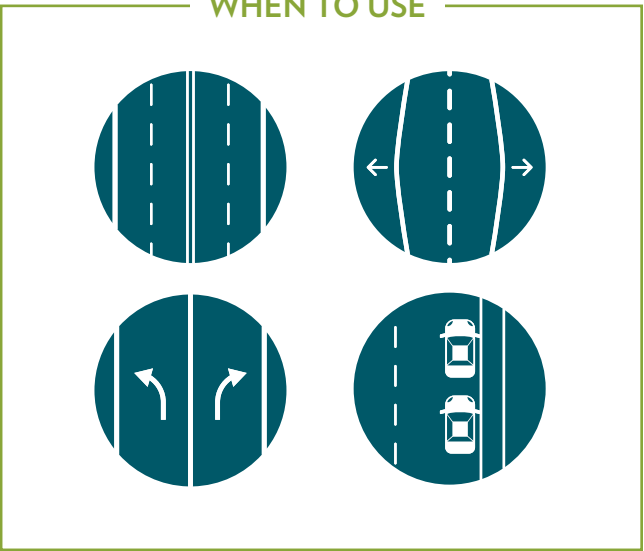
Curb extensions at intersections reduce the distance pedestrians must walk to cross the street - thus increasing safety. They also define the parking zones within the streetspace.

REBALANCING PROTOTYPE #6

FLEX ZONE DIAGRAM (EXISTING 4 TRAVEL LANES, TOO WIDE TRAVEL LANES, TURN LANES, OR EXISTING ON STREET PARKING)



WHEN TO USE



HOW TO INCREMENTALLY REBALANCE FLEX ZONE TO CREATE A CURBLESS SHARED STREETSPACE (also known as a Woonerf)

PILOT



PAINTED FEATURES

Gradual rebalancing of the street and flex zone into a truly shared streetspace can begin by blurring the lines between street and curb edge.

Paint or applied multi-colored graphics and shapes can help to expand the pedestrian space and to transform the spatial hierarchy of the streetspace. In the above example, the path of travel is slightly modified to test various streetspace configurations in the real world.

INTERMEDIATE



TEMPORARY FURNISHINGS

Movable seating, tables, shade structures, and planters can be arranged to rebalance and reclaim space within the streetspace.

These temporary & flexible insertions will allow in-the-field observations to be made so that decisions regarding permanent infrastructure can be better informed.

This flexibility will allow furnishings to be placed based on user behaviors and preferences.

PREFERRED



RECONSTRUCTION

Installation of a shared street requires re-engineering stormwater facilities, removing curbs, and modifying grades to bring all modes flush with the sidewalk.

Various zones of the streetspace may be delineated with different pavement types or patterns to help users intuitively navigate the street.

Chicago's Argyle Street (above photo) is an example of a recent shared street conversion.

SHARED STREET

RAMPED STREET ENTRANCE

A ramped street entrance brings vehicles up to the elevation of the public sidewalk at the curbless shared street. This means cars are invited into the pedestrian space, rather than pedestrians asking permission to enter the car space.

CHICANE

Offsetting the travel lane (chicane) slows traffic and increases public safety. Adjacent uses should be considered when selecting a location for a chicane as it will allocate more space to one side of the street at certain points. A cost-effective alternative to modifying curbs is to alternate on-street parking.

ACCESSIBILITY

While shared streets typically provide enhanced accessibility, ADA compliance and accessibility should be maintained throughout shared street. This includes special consideration of grade changes (entrance ramp, valley gutters, etc.), bollard spacing, and tactile cues.



FLEX ZONE DIAGRAM
(EXISTING AUTO-CENTRIC STREET REBALANCED AND REPURPOSED TO CREATE A CURBLESS SHARED STREET)

PEDESTRIAN STREET CROSSINGS

Maximizing pedestrian movement should be prioritized on shared streets. Use of decorative paving at pedestrian crossings clearly delineates the pedestrian path and provides an inviting human-scaled detail to the streetspace. Use of bollards adds protection to the pedestrian zone.

STORMWATER MANAGEMENT

Directing stormwater to open planters reduces the amount of stormwater entering the municipal system.

PUBLIC SEATING

Public seating options, including benches and seatwalls, should be placed at high activity areas to encourage streetspace users and potential customers to linger.

PROJECT EVALUATION

>> CHECKLIST FOR EVALUATION OF PROJECTS: REBALANCING GUIDELINES

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The evaluation content intended for this page will be created by Downtown Grand Rapids Inc. Goal 3 Alliance members as part of their final document review.

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The evaluation content intended for this page will be created by Downtown Grand Rapids Inc. Goal 3 Alliance members as part of their final document review.

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BREAD





CHAPTER 2
PEDESTRIAN
ZONE
ELEMENTS

PEDESTRIAN ZONE OVERVIEW



PEDESTRIAN ZONE

AMENITY ZONE

The Amenity Zone is a transitional space that buffers pedestrian activity from the Flex Zone (vehicle-centric areas) of the street. This zone provides the space for essential pedestrian amenities (*referred to as elements in these guidelines*) within the streetspace, including street trees, public seating, bicycle racks, street lighting, and cafe seating. This zone is oftentimes too narrow to accommodate these essential elements and therefore expansion into the Flex Zone should be considered when possible.

THROUGH ZONE

The Through Zone is part of the sidewalk that is reserved for pedestrian movement. This zone provides adequate movement for pedestrians to travel within the streetspace. It is recommended that a 6 foot width be maintained for this zone.

SHY ZONE

The Shy Zone is part of the sidewalk that transitions from the private development space to the public realm. This zone is typically not considered part of the Through Zone, but because of sometimes too narrow sidewalks, it becomes part of the Through Zone by necessity. This zone can accommodate cafe seating, public seating, and planters.

THE PEDESTRIAN ZONE

[AMENITY ZONE + THROUGH ZONE + SHY ZONE]

The Pedestrian Zone is the portion of the streetspace from the edge of building to the face of curb. The Pedestrian Zone is a cumulative term used to describe the aggregation of the Amenity Zone, Through Zone, and Shy Zone into a single zone best characterized by its pedestrian uses.

Within this zone, the treatment of the streetspace should aim to enrich the experience of people who are walking within the downtown by encouraging interactions, inviting lingering, promoting commerce, and enhancing safety.

This portion of the streetspace has the greatest potential to foster interactions among people. Creating dynamic and comfortable spaces that allow people to feel welcome in the outdoor room lets people use the streetspace as a civic arena as opposed to merely utilizing it as a corridor for moving from place to place.

In this way, the streetspace becomes another urban destination, rather than merely a pass through. With this in mind the Pedestrian Zone should be designed as a comfortable outdoor room.

Chapter 2 provides guidelines for the design and placement of various elements that can foster comfortable and inviting human-scaled outdoor rooms within the Pedestrian Zone.

This chapter is divided into two distinct sections, Section 2.2 establishes various Streetspace Types within downtown and Section 2.3 identifies elements that are commonly used within the Pedestrian Zone.

STREETSPACE TYPES (Section 2.2)

Downtown Grand Rapids has been divided into five Streetspace Types related to the context of the various downtown districts. These Streetspace Types balance existing and future land uses with existing physical context and future aspirations to promote inviting and enduring spaces and places that put people first.

Each Streetspace Type provides design guidelines for specific paving, benches, bike racks, and litter receptacles that enhance the public realm, furnish the outdoor room, and create unique identity within the specific context.

Additionally, Streetspace Type 5 acts as a river gateway and connector that extends key elements of the Grand River Corridor River Trail Design Guidelines (River for All Plan) into the downtown fabric to help connect the

Grand River with the downtown, and to provide better wayfinding cues.

Section 2.2 begins with an overall map depicting the location of these Streetspace Types and an overview of each Type. The overview also includes the Pedestrian Zone paving that is appropriate to place along the curb edge for each Streetspace Type.

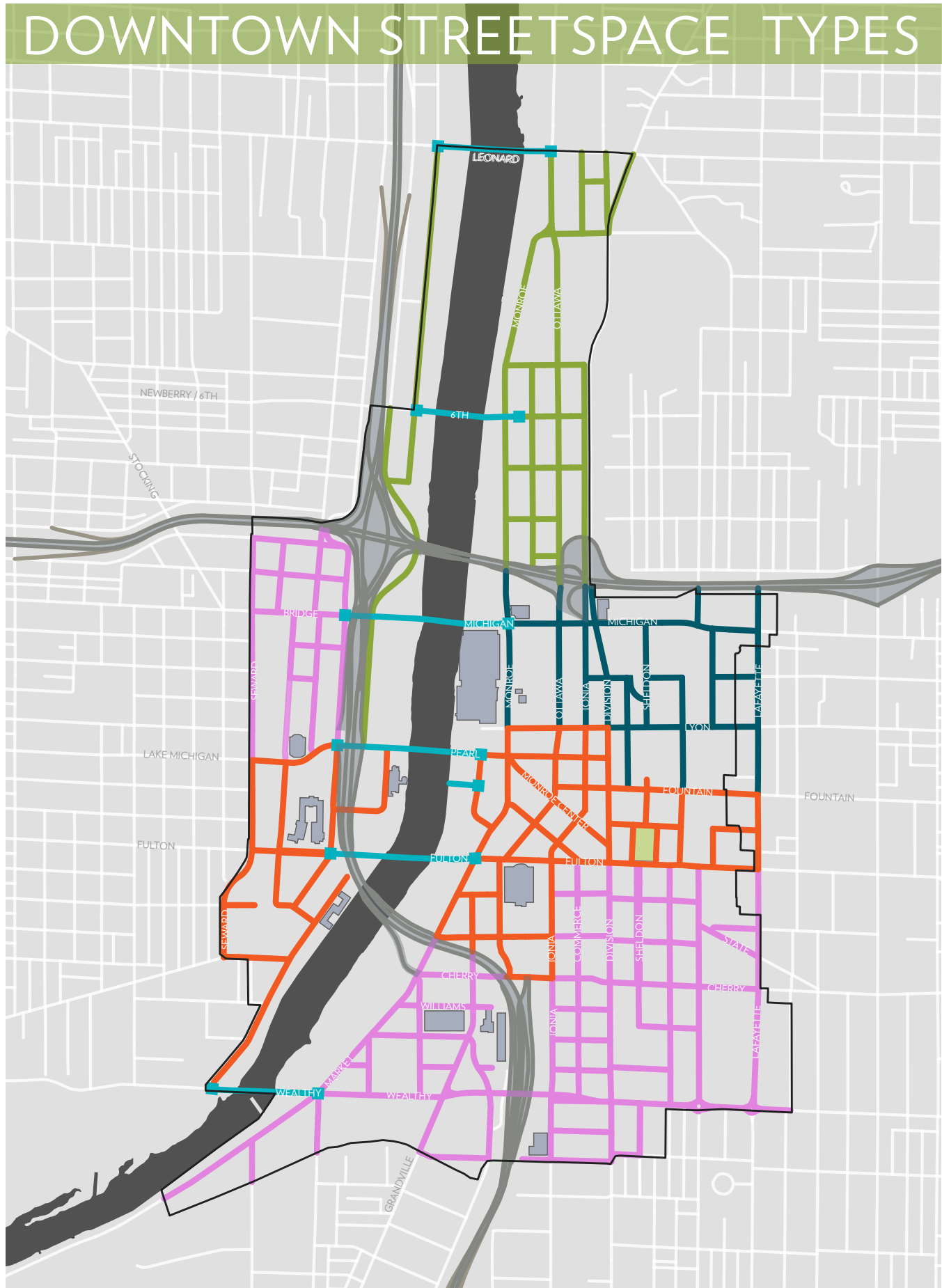
This two-page introduction is followed by detailed guidelines for each Streetspace Type. These guidelines include the specific bench, bike rack, and litter receptacle that is recommended for the specific Streetspace Type. In some cases, other elements are also recommended for specific Streetspace Types.

PEDESTRIAN ZONE ELEMENTS (Section 2.3)

The remaining pages of Chapter 2 contain various Pedestrian Zone elements that are commonly used within the streetspace.

Each element sub-section includes an overview, relevant City of Grand Rapids requirements and City collaboration that may be required for the element.

Additionally, each sub-section includes guidance for the specifications for these elements, including type, size, material, and placement. Some of these elements include “enhancements” which may be funded by DGRI through its enhancement program.



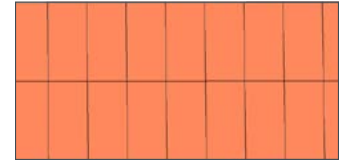
STREETSPACE TYPE 1

Mixed-use environments in the core downtown that favor storefronts along the ground floor, with activity and entertainment functions spilling onto the sidewalk.

Streetspace Type accommodates all travel modes, with an emphasis on the pedestrian. The existing one-way pairs of Ionia & Ottawa and Lyon & Fountain should be considered for restoration to their former two-way condition to promote easier navigation, slower vehicular speeds, and safer pedestrian environments.

Flex Zone rebalancing should be considered to increase multi-modal opportunities (and on-street parking at targeted retail & entertainment corridors and active commercial corridors).

Pedestrian Zone Paving
(refer to page 56)



Double soldier course pattern at curb (approximately 16" wide)

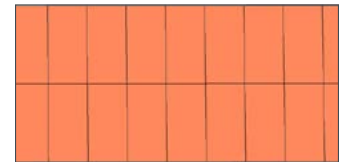
STREETSPACE TYPE 2

North of the downtown core, these streetspaces include many government and institutional uses that produce less sidewalk activity than in the core.

Streetspace Type accommodates all travel modes, with an emphasis on the pedestrian. The existing one-way pairs of Ionia & Ottawa and Lyon & Fountain should be considered for restoration to their former two-way condition to promote easier navigation, slower vehicular speeds, and safer pedestrian environments.

Flex Zone rebalancing should be considered to increase multi-modal opportunities (and on-street parking at targeted retail & entertainment corridors and active commercial corridors).

Pedestrian Zone Paving
(refer to page 56)



Double soldier course pattern at curb (approximately 16" wide)

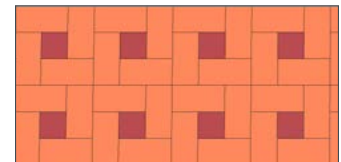
STREETSPACE TYPE 3

Neighborhood streetspaces in Heartside and the upper west side that include primarily mixed-use environments with a diverse mix of ground floor uses and moderate pedestrian activity.

Acting as connectors between the near neighborhoods and the downtown, these streets tend to have on-street parking, two-way traffic flow, and slow speeds - allowing for all modes of travel. **Some streets have landscaped parkways, which should be maintained as streets are redesigned and redevelopment occurs.**

Flex Zone rebalancing should be considered to increase multi-modal opportunities (and on-street parking at targeted retail & entertainment corridors and active commercial corridors).

Pedestrian Zone Paving
(refer to page 56)



Double Spanish Bond pattern at curb (approximately 24" wide) or parkway when existing.

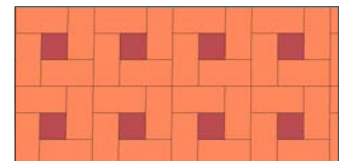
STREETSPACE TYPE 4

Knitting together the diverse Monroe North neighborhood and connecting it to the downtown core, this environment is shaped by various ground floor uses and many former and current industrial buildings.

Some streets have landscaped parkways, which should be maintained as the streets are redesigned and redevelopment occurs.

Flex Zone rebalancing should be considered to increase multi-modal opportunities (and on-street parking at targeted retail & entertainment corridors and active commercial corridors).

Pedestrian Zone Paving
(refer to page 56)



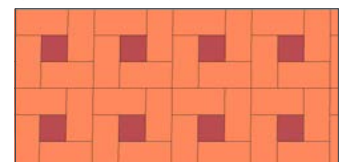
Double Spanish Bond pattern at curb (approximately 24" wide) or parkway when existing.

STREETSPACE TYPE 5

Iconic and unique, these streetspaces act as essential river gateways that provide linkage and wayfinding to the Grand River by extending many key elements of the Grand River Corridor River Trail Design Guidelines (River for All Plan) into the city fabric.

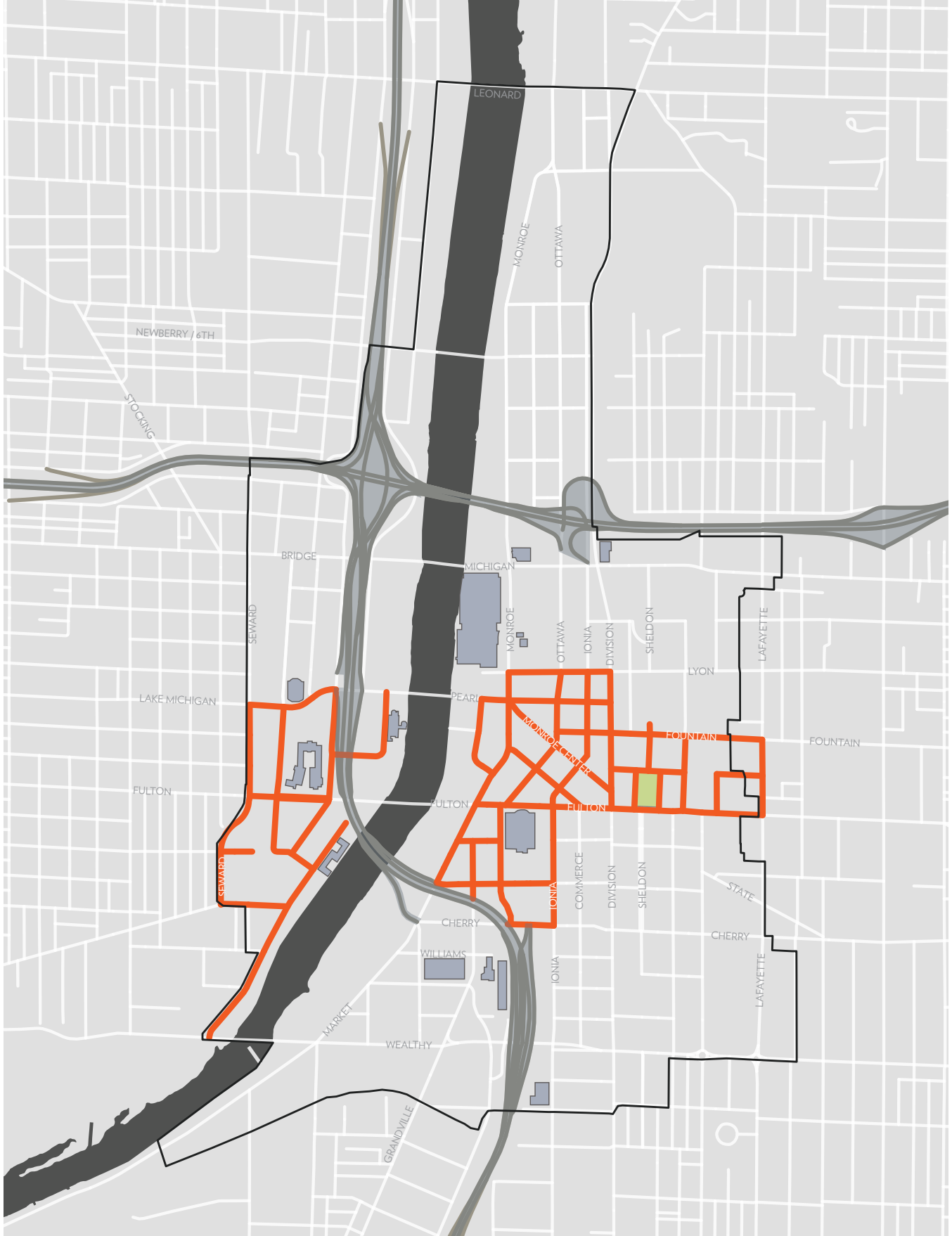
Established river elements such as lighting, seating, and wayfinding should "turn the corner" from the river corridor on to these gateway spaces, helping to identify the river's presence in order to aid visitors and locals on their journey to downtown's greatest natural asset.

Pedestrian Zone Paving
(refer to page 56)



Double Spanish Bond pattern at curb (approximately 24" wide)

DOWNTOWN STREETSPACE TYPE 1



BENCH

TYPE: CityBench as manufactured by Landscape Forms, or equal. Grand Rapids inspired seat perforation pattern coordinated and provided through Landscape Forms and DGRI.

MATERIAL AND FINISH: Powdercoated metal support frame and armrests. Powdercoated seat and back.

SIZE AND CONFIGURATION: Backed 3-seat bench with end armrests. Middle armrests (as depicted in photos) are optional. 2-seat bench may be used when warranted by amenity zone space constraints. Backless configurations are optional depending on context.

STANDARD COLOR: Mercury powdercoat for support and armrests. Titanium powdercoat for seat and back.



BIKE RACK

TYPE: Classic U/2 rack with crossbar as manufactured by Cycle Safe, or equal.

MATERIAL AND FINISH: Schedule 40 Type 304 stainless steel pipe.

MOUNTING: Surface mounting to sidewalk concrete with 3/8 inch x 2-1/2 inch x 6-1/2 inch welded base plates. Rack should not be mounted to brick pavers, ground mounted, or track mounted.

STANDARD COLOR: Stainless steel.



LITTER/RECYCLING RECEPTACLE

TYPE: Poe receptacle as manufactured by Landscape Forms, or equal.

>> Litter part #: PO999-06015-01-2SIGN14-CLWT.

>> Recycling part #: PO999-06015-01-2SIGN10-CLWT.

MATERIAL AND FINISH: Powdercoated metal.

SIZE: 34 gallon.

STANDARD COLOR: Mercury powdercoat for receptacle.

>> Litter signage: Flambe Orange with white lettering.

>> Recycling signage: Buttercup with black lettering.

STYLE: Side opening (as depicted in images) with lockable hinged side door.

MOUNTING: Surface mounting to sidewalk concrete, receptacle should not be mounted to brick pavers.



LITTER

RECYCLE

CONTAINER

TYPE: Rosa planter (pictured left) as manufactured by Landscape Forms, or equal; Sorella planter (pictured right) as manufactured by Landscape Forms, or equal.

MATERIAL AND FINISH:

>> Rosa: Polyethylene.

>> Sorella: Powdercoated metal.

SIZE: All sizes available are valid options depending on use.

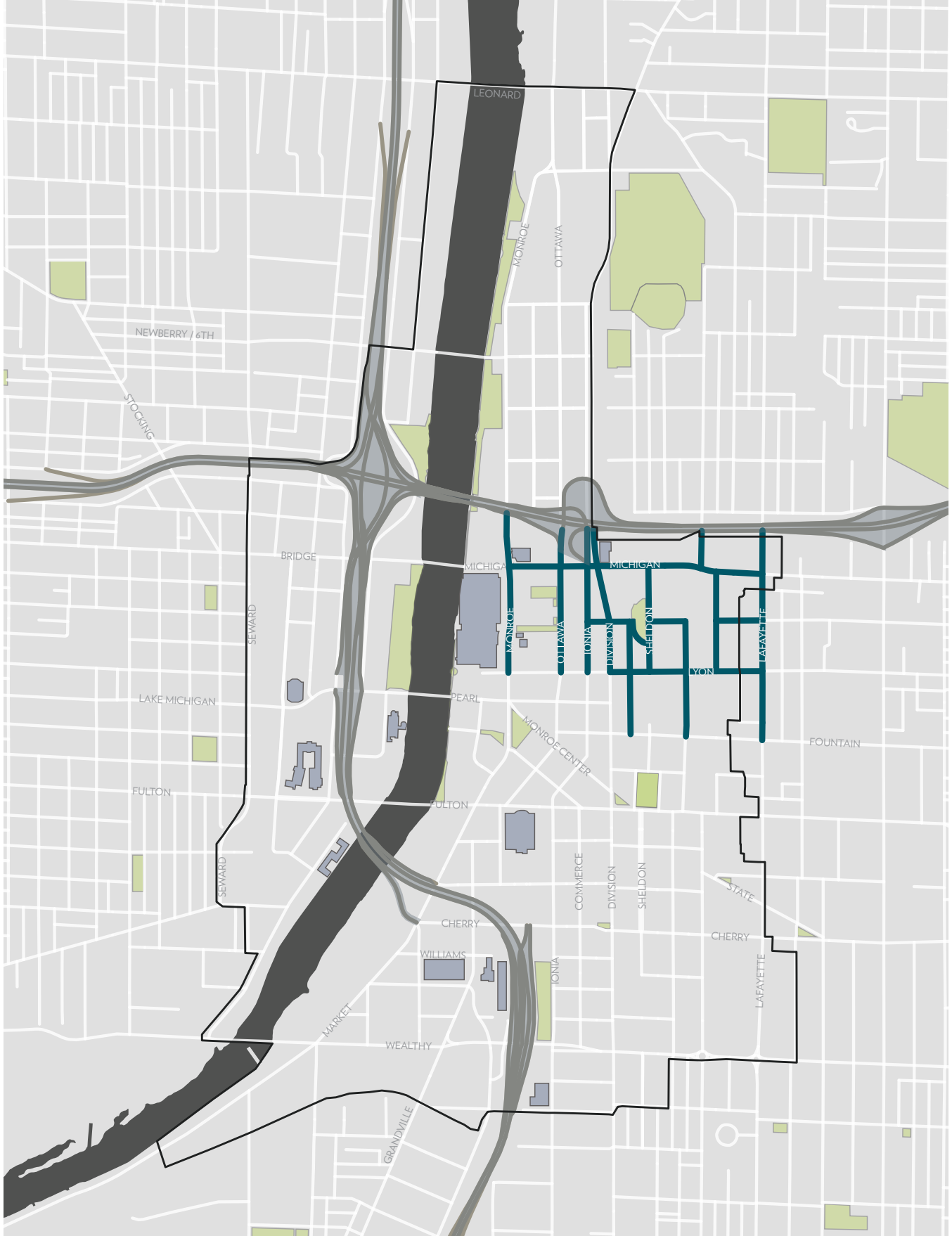
STANDARD COLOR:

>> Rosa: Fog or Millstone. (Consider other colors to enliven sidewalk.)

>> Sorella: Mercury. (Consider other colors to enliven sidewalk.)



DOWNTOWN STREETSPACE TYPE 2



BENCH

TYPE: Rest bench as manufactured by Landscape Forms, or equal.

MATERIAL AND FINISH: Jarrah seat and back. Powdercoated metal support frame and armrests (as depicted in photo).

SIZE AND CONFIGURATION: Backed 80-inch long bench with end armrests. End armrests are required.

STANDARD COLOR: Mercury powdercoat for support and armrests. Natural jarrah wood slats.



BIKE RACK

TYPE: Classic U/2 rack with crossbar as manufactured by Cycle Safe, or equal.

MATERIAL AND FINISH: Schedule 40 Type 304 stainless steel pipe.

MOUNTING: Surface mounting to sidewalk concrete with 3/8 inch x 2-1/2 inch x 6-1/2 inch welded base plates. Rack should not be mounted to brick pavers, ground mounted, or track mounted.

STANDARD COLOR: Stainless steel.



LITTER/RECYCLING RECEPTACLE

TYPE: Poe receptacle as manufactured by Landscape Forms, or equal.

- >> Litter part #: PO999-06015-01-2SIGN14-CLWT.
- >> Recycling part #: PO999-06015-01-2SIGN10-CLWT.

MATERIAL AND FINISH: Powdercoated metal.

SIZE: 34 gallon.

STANDARD COLOR: Mercury powdercoat for receptacle.

- >> Litter signage: Flambe Orange with white lettering.
- >> Recycling signage: Buttercup with black lettering.

STYLE: Side opening (as depicted in images) with lockable hinged side door.

MOUNTING: Surface mounting to sidewalk concrete, receptacle should not be mounted to brick pavers.



LITTER

RECYCLE

CONTAINER

TYPE: Rosa planter (pictured left) as manufactured by Landscape Forms, or equal; Sorella planter (pictured right) as manufactured by Landscape Forms, or equal.

MATERIAL AND FINISH:

- >> Rosa: Polyethylene.
- >> Sorella: Powdercoated metal.

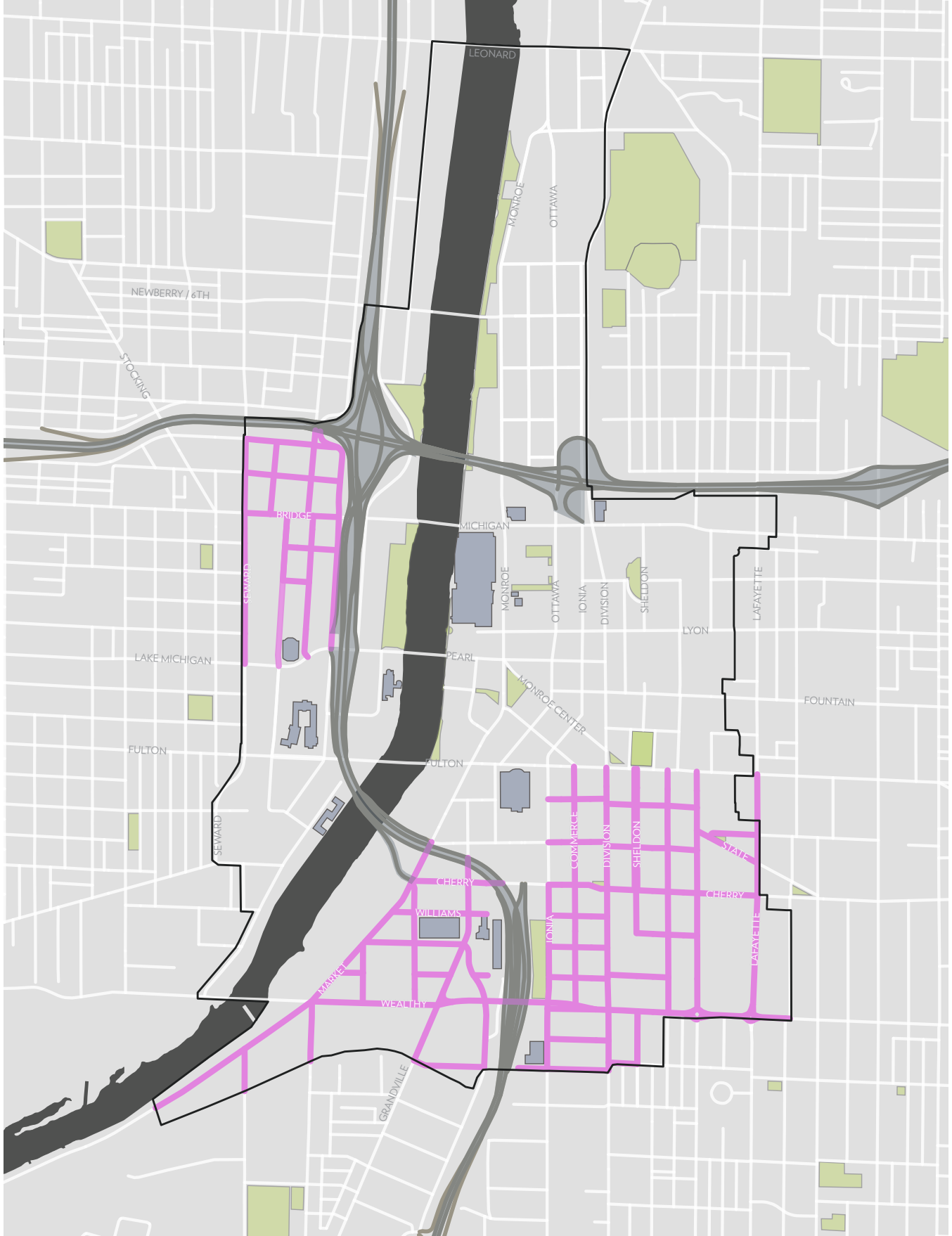
SIZE: All sizes available are valid options depending on use.

STANDARD COLOR:

- >> Rosa: Fog or Millstone. (Consider other colors to enliven sidewalk.)
- >> Sorella: Mercury. (Consider other colors to enliven sidewalk.)



DOWNTOWN STREETSPACE TYPE 3



BENCH

TYPE: Plainwell bench as manufactured by Landscape Forms, or equal.

MATERIAL AND FINISH: Jarrah seat and back. Powdercoated metal support frame and armrests (as depicted in photo).

SIZE AND CONFIGURATION: Backed 72-inch long bench with end armrests. Backed 96-inch long bench may be used when warranted by ample amenity zone space. Middle armrests (as depicted in photo) are optional.

STANDARD COLOR: Black powdercoat for support and armrests. Natural jarrah wood slats.



BIKE RACK

TYPE: Classic U/2 rack with crossbar as manufactured by Cycle Safe, or equal.

MATERIAL AND FINISH: Heavy-gauge schedule 40 steel pipe coated with 1/8" thick plasticol for scratch resistance and rust protection.

MOUNTING: Surface mounting to sidewalk concrete with 3/8 inch x 2-1/2 inch x 6-1/2 inch welded base plates. Rack should not be mounted to brick pavers, ground mounted, or track mounted.

STANDARD COLOR: Plasticol, black



LITTER/RECYCLING RECEPTACLE

TYPE: Poe receptacle as manufactured by Landscape Forms, or equal.

- >> Litter part #: PO999-06015-01-2SIGN14-CLWT.
- >> Recycling part #: PO999-06015-01-2SIGN10-CLWT.

MATERIAL AND FINISH: Powdercoated metal.

SIZE: 34 gallon.

STANDARD COLOR: Black powdercoat for receptacle.

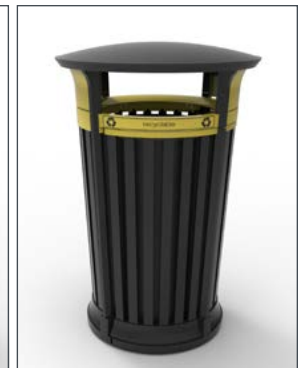
- >> Litter signage: Flambe Orange with white lettering.
- >> Recycling signage: Buttercup with black lettering.

STYLE: Side opening (as depicted in images) with lockable hinged side door.

MOUNTING: Surface mounting to sidewalk concrete, receptacle should not be mounted to brick pavers.



LITTER



RECYCLE

CONTAINER

TYPE: Rosa planter (pictured left) as manufactured by Landscape Forms, or equal; Sorella planter (pictured right) as manufactured by Landscape Forms, or equal.

MATERIAL AND FINISH:

- >> Rosa: Polyethylene.
- >> Sorella: Powdercoated metal.

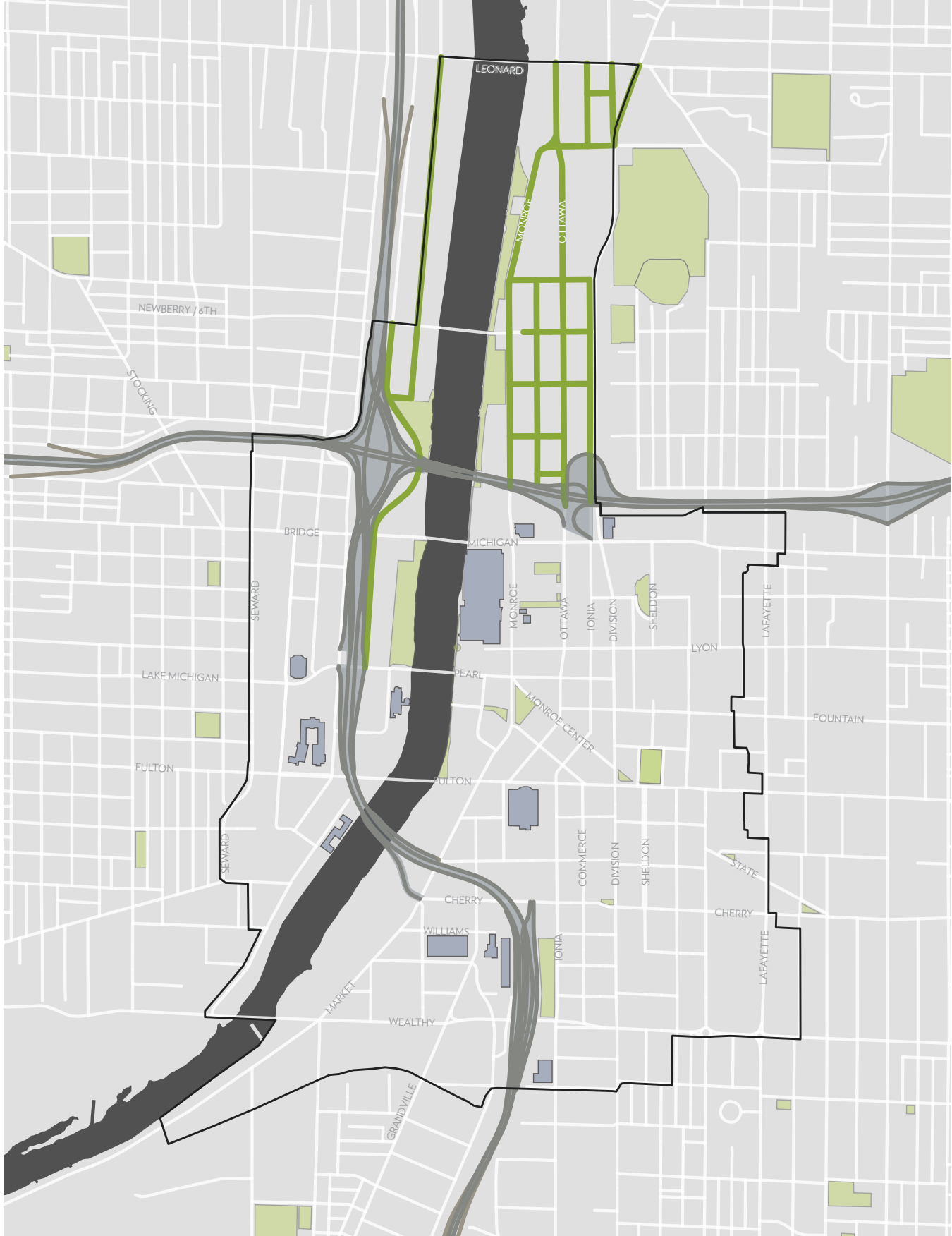
SIZE: All sizes available are valid options depending on use.

STANDARD COLOR:

- >> Rosa: Black or Millstone. (Consider other colors to enliven sidewalk.)
- >> Sorella: Black. (Consider other colors to enliven sidewalk.)



DOWNTOWN STREETSPACE TYPE 4



BENCH

TYPE: Melville bench as manufactured by Landscape Forms, or equal.

MATERIAL AND FINISH: Jarrah seat. Powdercoated metal support frame, armrests, and back (as depicted in photo).

SIZE AND CONFIGURATION: Backed 76-inch long bench with end armrests. One or two dividers at seat are optional.

STANDARD COLOR: Black powdercoat for support, armrests, and back. Natural jarrah wood slats.



BIKE RACK

TYPE: Classic U/2 rack with crossbar as manufactured by Cycle Safe, or equal.

MATERIAL AND FINISH: Heavy-gauge schedule 40 steel pipe coated with 1/8" thick plasticol for scratch resistance and rust protection.

MOUNTING: Surface mounting to sidewalk concrete with 3/8 inch x 2-1/2 inch x 6-1/2 inch welded base plates. Rack should not be mounted to brick pavers, ground mounted, or track mounted.

STANDARD COLOR: Plasticol, black



LITTER/RECYCLING RECEPTACLE

TYPE: Poe receptacle as manufactured by Landscape Forms, or equal.

- >> Litter part #: PO999-06015-01-2SIGN14-CLWT.
- >> Recycling part #: PO999-06015-01-2SIGN10-CLWT.

MATERIAL AND FINISH: Powdercoated metal.

SIZE: 34 gallon.

STANDARD COLOR: Black powdercoat for receptacle.

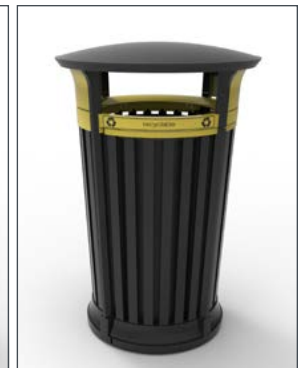
- >> Litter signage: Flambe Orange with white lettering.
- >> Recycling signage: Buttercup with black lettering.

STYLE: Side opening (as depicted in images) with lockable hinged side door.

MOUNTING: Surface mounting to sidewalk concrete, receptacle should not be mounted to brick pavers.



LITTER



RECYCLE

CONTAINER

TYPE: Rosa planter (pictured left) as manufactured by Landscape Forms, or equal; Sorella planter (pictured right) as manufactured by Landscape Forms, or equal.

MATERIAL AND FINISH:

- >> Rosa: Polyethylene.
- >> Sorella: Powdercoated metal.

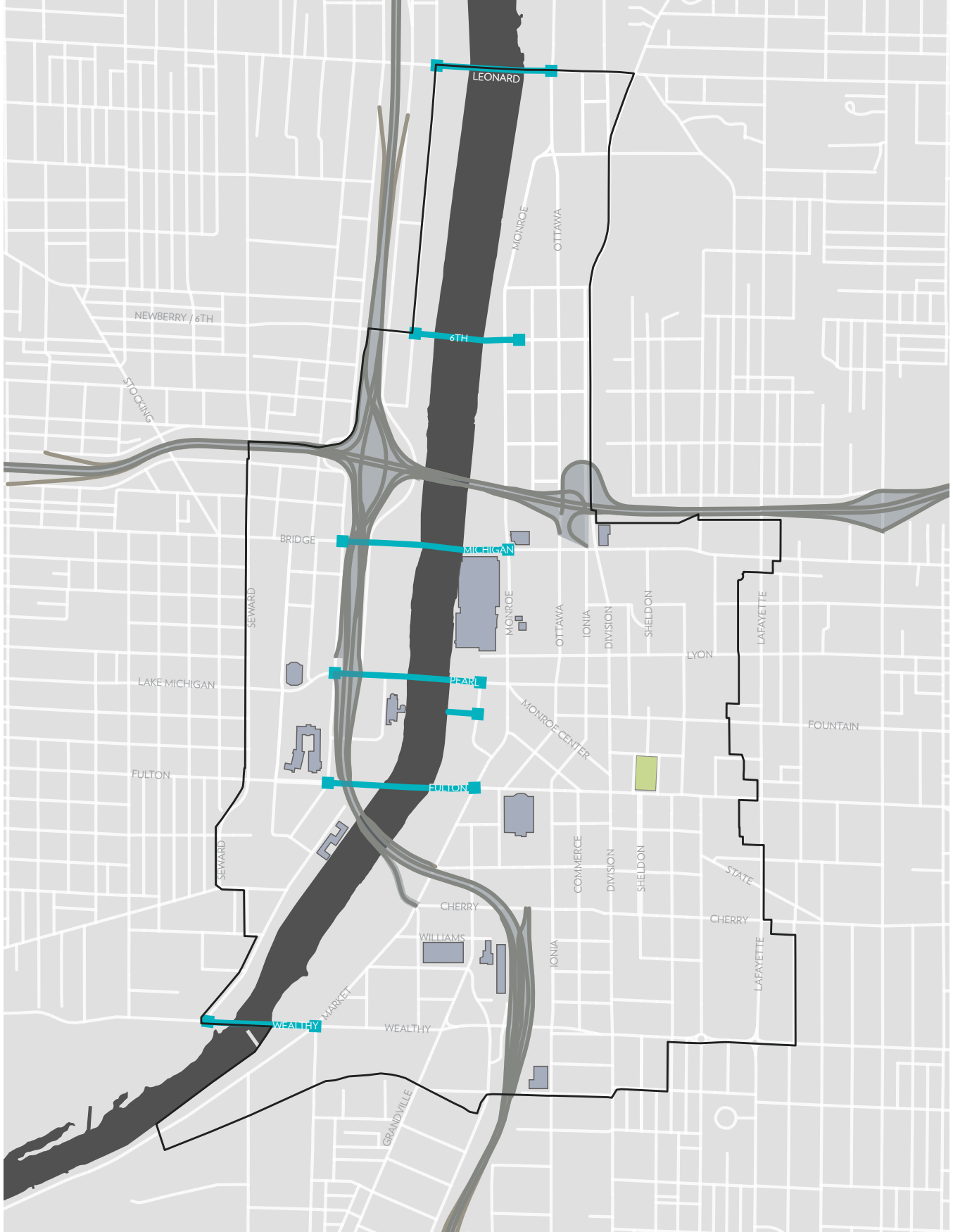
SIZE: All sizes available are valid options depending on use.

STANDARD COLOR:

- >> Rosa: Black or Millstone. (Consider other colors to enliven sidewalk.)
- >> Sorella: Black. (Consider other colors to enliven sidewalk.)



DOWNTOWN STREETSPACE TYPE 5



BENCH

TYPE: FGP bench as manufactured by Landscape Forms, or equal.

MATERIAL AND FINISH: Ipe seat and back. Anodized aluminum support frame and armrests (as depicted in photo).

SIZE AND CONFIGURATION: Backed 70-inch long bench with end armrests. Backed 120-inch long bench may be used when warranted by ample amenity zone space. End armrests are required for both lengths, middle armrests are required on 120-inch length.

STANDARD COLOR: Anodized aluminum for support and armrests. Natural ipe wood slats.



BIKE RACK

TYPE: Classic U/2 rack with crossbar as manufactured by Cycle Safe, or equal.

MATERIAL AND FINISH: Schedule 40 Type 304 stainless steel pipe.

MOUNTING: Surface mounting to sidewalk concrete with 3/8 inch x 2-1/2 inch x 6-1/2 inch welded base plates. Rack should not be mounted to brick pavers, ground mounted, or track mounted.

STANDARD COLOR: Stainless steel.



LITTER/RECYCLING RECEPTACLE

TYPE: Poe receptacle as manufactured by Landscape Forms, or equal.

- >> Litter part #: PO999-06015-01-2SIGN14-CLWT.
- >> Recycling part #: PO999-06015-01-2SIGN10-CLWT.

MATERIAL AND FINISH: Powdercoated metal.

SIZE: 34 gallon.

STANDARD COLOR: Mercury powdercoat for receptacle.

- >> Litter signage: Flambe Orange with white lettering.
- >> Recycling signage: Buttercup with black lettering.

STYLE: Side opening (as depicted in images) with lockable hinged side door.

MOUNTING: Surface mounting to sidewalk concrete, receptacle should not be mounted to brick pavers.



LITTER



RECYCLE

INTEGRATED RIVER TRAIL SIGNAGE

The intent of this signage is to support the wayfinding network directing people toward the River Trail (see the City of Grand Rapids Grand River Corridor Implementation Plan and River Trail Design Guidelines for further information). Final design and placement considerations for River Trail signage are as follows:

- >> Signage should be located at intersections of Streetspace Type 5 and where river trail crosses Streetspace Type 5.
- >> Final design of signage may include additional wayfinding to significant landmarks and destinations throughout the Grand Rapids (Calder Plaza, Van Andel Arena, etc.).
- >> Lighted components are encouraged.





BICYCLE PARKING

OVERVIEW

Bicycle racks are essential to making bicycle parking more accessible and to promoting bicycling as a viable form of transportation. Good bicycle parking racks are permanently fixed to the ground, optimize capacity, maintain an orderly appearance, provide secure parking, are simple to use, and are durable.

CITY REQUIREMENTS

The City of Grand Rapids encourages the installation of bicycle racks in the Amenity Zone as part of street reconstruction and development projects on non-residential streets.

Refer to the City of Grand Rapids **Vital Streets Design Guidelines** and **Bike Action Plan** for additional requirements and guidelines regarding bicycle racks.

The City of Grand Rapids may require an encroachment permit for the installation of certain bike racks within the public right-of-way.

Encroachment permits are facilitated by the City Engineer's office.

CITY COLLABORATION

Selection, installation, and maintenance of bicycle racks shall be coordinated with the following City departments:

PRIMARY COORDINATION

- »» Mobile GR and Parking Services

POTENTIAL SECONDARY COORDINATION

- »» Grand Rapids Planning Department
- »» Grand Rapids Engineering Department
- »» Downtown Grand Rapids Inc (DGRI)

ELEMENT DESIGN

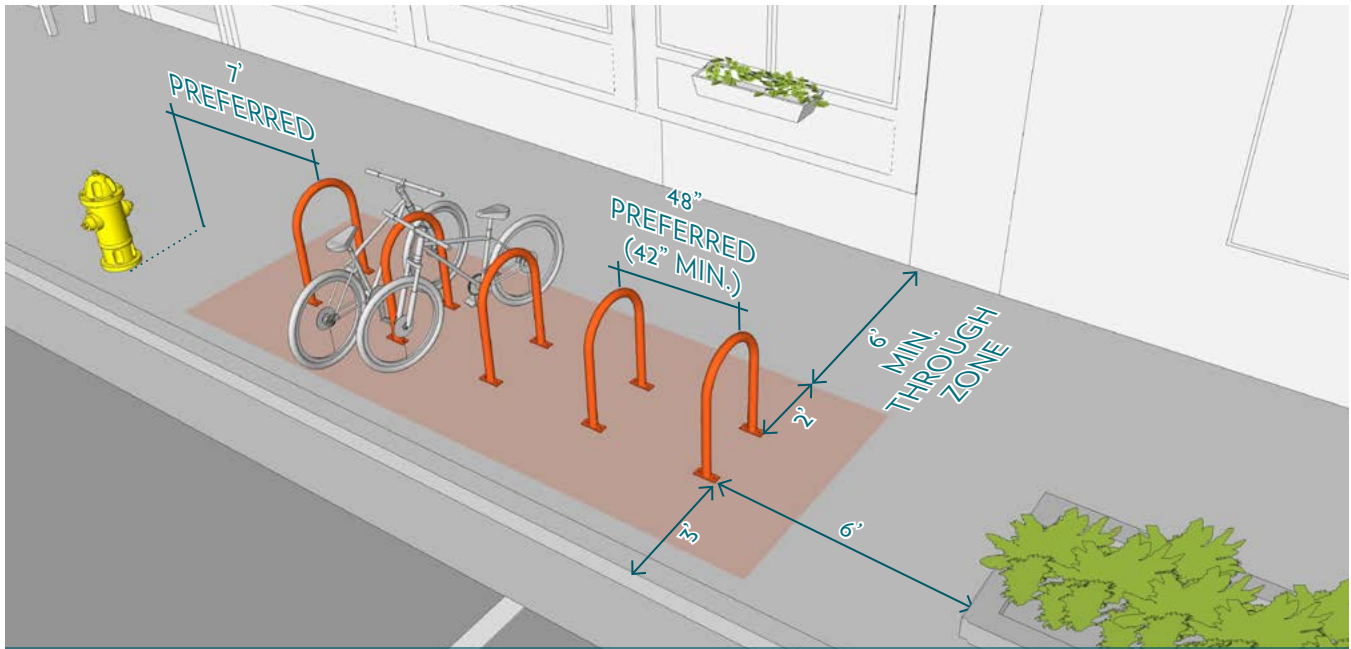
Bicycle racks should:

- »» Support the bicycle frame at two locations above the bicycle's center of gravity.
- »» Enable user to easily lock the frame and at least one, but preferably both wheels.
- »» Support bicycles of all frame types, styles, and sizes.
- »» Allow front-in and back-in parking.
- »» Be affixed firmly into the sidewalk concrete or street surface when placed in the Flex Zone.
- »» Be easily accessible while meeting all minimum setback and placement requirements outlined in these guidelines.

ELEMENT PLACEMENT

Placement of bicycle racks should meet the dimensional requirements depicted on the graphic on the facing page, and the subsequent pages of this sub-section.

Departures from this preferred placement due to site conditions shall be approved by the Mobile GR and Parking Services Department. Site conditions that may impact bike rack placement may also include considerations of adjacent land use where extra space for bike trailers may be required, such as near the Children's Museum, community resource centers, or outside of grocery stores.



BIKE RACK: PERPENDICULAR PLACEMENT (note that orange sidewalk hatch area is depicted for graphic purposes, and should not be construed as promoting brick pavers or other decorative paving as racks should be installed on concrete)

ELEMENT INSTALLATION

Bicycle racks should be bolted to concrete surfaces with exposed flanges so that they can be easily repaired, replaced, removed, or relocated. Racks should NOT be embedded in concrete so that they can be easily removed or replaced without damaging the rack or surrounding

surfaces. Bicycle racks should also not be installed through pavers and bolted to concrete sub-surfaces. (note that these guidelines discourage pavers extending into the Furnishing Zone as depicted in the two lower photos - refer to paving subsection of chapter 2).



INSTALLATION ON CONCRETE SURFACE WITH EXPOSED FLANGES IS RECOMMENDED



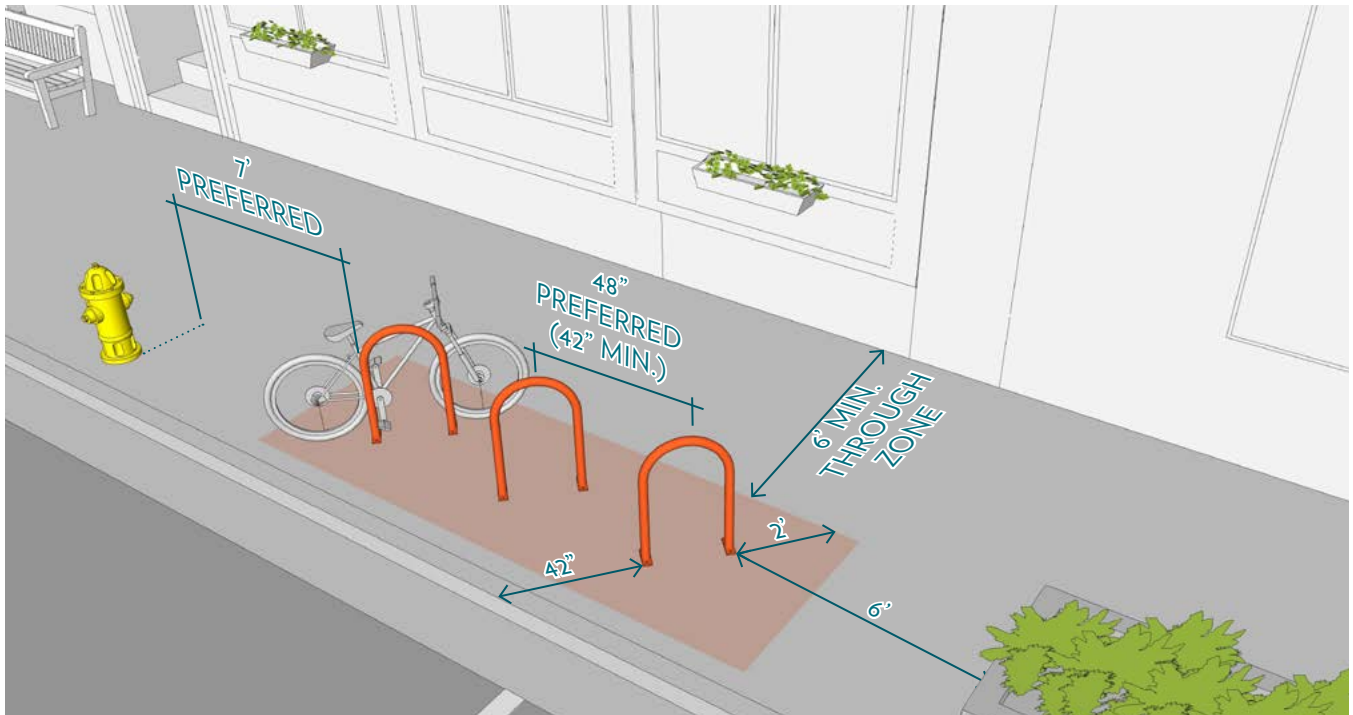
INSTALLATION THROUGH BRICK PAVERS TO CONCRETE SUB-SURFACE IS DISCOURAGED

WHY MOUNTING BICYCLE RACKS (OR OTHER AMENITIES) ON CONCRETE SURFACE IS IMPORTANT

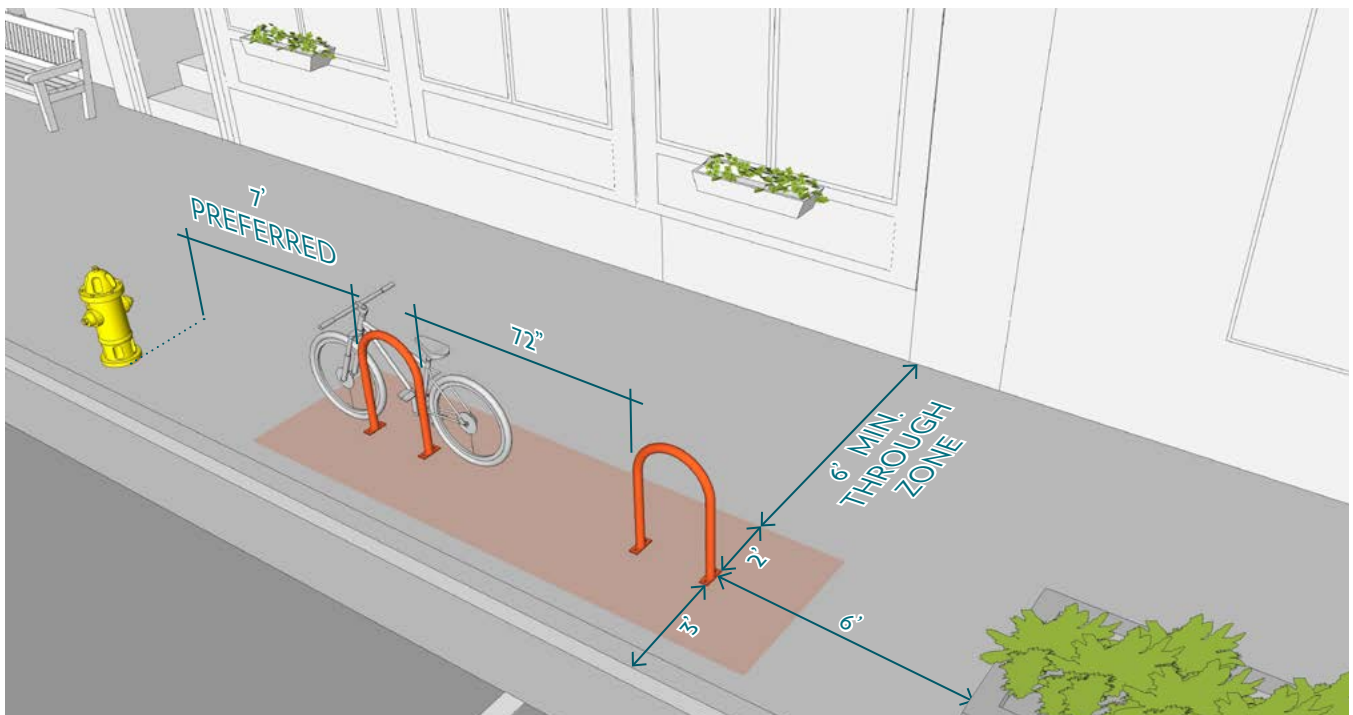
Installing streetspace elements and furnishings on a concrete surface with exposed flanges and fasteners, as opposed to on or within concrete sub-surfaces below pavers (or into the pavers themselves), provides a durable base that minimizes costs associated with installation, maintenance and repair of both the furnishing and the surrounding pavement.

Pavers cut to allow for the installation of streetspace elements are likely to crack or heave due to their irregular shape. Pavers are also difficult to replace as elements are removed due to damage or evolving uses of the streetspace.

BICYCLE PARKING [continued]



BIKE RACK: ANGLED PLACEMENT (note that orange sidewalk hatch area is depicted for graphic purposes, and should not be construed as promoting brick pavers or other decorative paving as racks should be installed on concrete)



BIKE RACK: PARALLEL PLACEMENT (note that orange sidewalk hatch area is depicted for graphic purposes, and should not be construed as promoting brick pavers or other decorative paving as racks should be installed on concrete)

ENHANCEMENT: VISUAL INTEREST

Custom, artistic or branded bicycle racks may be allowed as replacements for the standard bike rack to place-strengthen certain areas or streetspaces.

Enhanced bicycle racks may be approved by the Mobile GR and Parking Services Department, City Planning, and DGRI based on the following considerations:

- Racks should meet design criteria as outlined in these guidelines, the Vital Streets Design Guidelines, and City of Grand Rapids Zoning Ordinance.
- Racks should meet the installation and placement requirements of these guidelines.
- Racks complement existing artistic or branded enhancements within the streetspace amenity zone.
- An encroachment agreement that includes delineation of ownership and a plan to maintain the enhanced bike racks is completed between the property owner and City of Grand Rapids.



ARTISTIC BIKE RACK



BRANDED BIKE RACK

WHY THIS IS IMPORTANT

Artistic bicycle racks are an opportunity to add bright and cheerful colors or whimsical, functional sculpture to the amenity zone in order to increase visual interest for people using the streetspace.

ENHANCEMENT: MULTI-PURPOSE ELEMENT

Bike parking facilities that are incorporated into (or paired with) other Amenity Zone elements to provide efficient use of limited space may be considered as replacements for the standard bike rack.

Multi-purpose amenities may be approved by the Mobile GR and Parking Services Department, City Planning, and DGRI based on the following considerations:

- The accessibility, usability, and function are not compromised for each individual element.
- Streetspace function and pedestrian movement is not compromised by the amenity combination.
- Amenities meet the design criteria as outlined in these guidelines, the Vital Streets Design Guidelines, and City of Grand Rapids Zoning Ordinance.
- An encroachment agreement that includes delineation of ownership and a plan to maintain the enhanced bike racks is completed between the property owner and City of Grand Rapids.



BIKE RACK PAIRED WITH PARKING METER



BIKE RACK PAIRED WITH PLANTER

WHY THIS IS IMPORTANT

Combining bike racks with other necessary elements (like parking meters), optimizes the limited space available in the amenity zone and can mean that more elements can be included in the space to make it more pedestrian-friendly and inviting.



BOLLARDS

OVERVIEW

A bollard is a short vertical post or similar structure that can define and delineate areas within the streetspace, provide additional design features like lighting, and separate pedestrians from vehicular traffic. By arranging them in a linear pattern, bollards can be effectively used to prevent motor vehicles from encroaching into pedestrian space such as sidewalks or plazas and to deter vehicular access to high security risk sites such as arenas, stadiums, and government buildings. If security is not of major concern to the site, more flexible options, such as planters, should be considered to restrict vehicular encroachment.

CITY REQUIREMENTS

The City of Grand Rapids will require an encroachment permit for the installation of bollards within the public right-of-way. Any ongoing use of a public street, sidewalk, or dedicated public easement will require an Encroachment Permit.

Encroachment permits are facilitated by the City Engineer's office.

CITY COLLABORATION

Selection, installation, and maintenance of bollards shall be coordinated with the following City departments:

PRIMARY COORDINATION

- » Grand Rapids Engineering Department

POTENTIAL SECONDARY COORDINATION

- » Mobile GR and Parking Services
- » Grand Rapids Public Services Department
- » Grand Rapids Fire Department

ELEMENT DESIGN

The design of bollards should adhere to the following recommendations:

- » Bollards typically range in size from 4 to 10 inches in diameter; decorative bollards can be larger and vary in form.
- » Height of bollards is typically 3 feet with a maximum of 4 feet.
- » Bollards should have articulated sides and tops to provide design detail.
- » Bollards should be painted in colors other than gray to be easily seen by the visually impaired, and in colors that complement other Amenity Zone elements. Standard color for bollards in Downtown Grand Rapids streetspaces is black.
- » Bollards should be designed within a 'family' of Amenity Zone elements.
- » In circumstances where bollards are used to temporarily close a streetspace, removable bollards should be designed with long sturdy pipe projections from the bottom that fit into a hole in the ground. Removable or retractable bollards should be designed and installed such that, when in place, they are sturdy, secured, and look permanent.
- » Bollard may include lighting to illuminate walkways and emphasize important site features.

ELEMENT PLACEMENT

The placement of bollards should adhere to the following recommendations:

- Bollards should be used at sidewalk locations where vehicles attempting to park are damaging trees or plantings, furnishings, or adjacent private property, especially on narrow streets.
- Bollards should be used at narrow pedestrian zones (sidewalks) where there is no on-street parking and there is a risk to pedestrians due to proximity of travel lanes.
- Bollards should be considered for installation on median islands, curb extensions (except transit bulb-outs), and mid-block curb extensions, where there is a risk of danger to pedestrians due to proximity of travel lanes.
- Bollards can also be used in special locations, including pedestrian-oriented spaces such as shared public ways or pedestrian-only streets, to designate unique spaces. Lighted bollards can accentuate a pedestrian environment, and may be particularly useful to provide additional pedestrian lighting in median refuges.
- Removable or retractable bollards should be placed at entrances to streets that are temporarily closed to vehicles for pedestrian use to alert drivers to the changed nature of the street. Similarly, removable bollards can define the outside edge of parklets where the space has been converted to pedestrian use.
- Bollards should be placed 18 inches from the back of the curb in concrete paving. Bollards should not be installed within brick pavers or near the curb edge.
- Standard bollard spacing is approximately 3-5 feet apart.
- An encroachment agreement that includes delineation of ownership and a plan to maintain the bollards (both standard or enhanced) should be completed between the property owner and City of Grand Rapids.

- A 3 foot minimum spacing is required in instances where pedestrian traffic is to be maintained to comply with ADA standards. However, it is common to provide extra space to allow for greater ease of passage. It is also important to keep in mind any part of the bollard that extends past its base during planning and installation so as to maintain a minimum 3 foot clearance.
- A minimum of 5 foot spacing should be used in instances where vehicle traffic is intended to be restricted. Tighter spacing may be required depending on security needs.
- Underground utility locations and snow melt should be confirmed before installation to prevent conflicts.

ENHANCEMENT: VISUAL INTEREST

Custom artistic and/or brightly colored bollards are encouraged as replacements for the standard bollard to place-strengthen certain areas or streetspaces.

Enhanced bollards may be approved by the City Engineering Department, City Planning, and DGRI based on the following considerations:

- Bollards should meet design criteria as outlined in these guidelines and the Vital Streets Design Guidelines.
- Bollards should meet the placement requirements of these guidelines.
- Bollards complement existing artistic or branded enhancements within the Amenity Zone.
- An encroachment agreement as outlined to the left in the element placement section is completed.



ENHANCED AND PAINTED BOLLARDS

WHY “VISUAL INTEREST” IS IMPORTANT

Taking utilitarian objects and infusing them with color, or transforming them into pieces of street art can enliven a streetspace and provide textural and visual interest for people of all ages, especially small children. Introduction of art into the downtown streetspaces can also provide the opportunity to invite many hands into the shaping of the public realm in both a temporary and long-term fashion.



CAFÉ SEATING

OVERVIEW

Café seating is a centuries old tradition that infuses culture directly into the public realm. Locals and visitors alike are brought together into communal spaces to share food, beverages, and ideas - creating a vibrant and dynamic streetspace. Café seating areas are not merely ideal means for restaurants, bars, coffee shops, book stores, and other establishments to expand their seating capacities, but serve as a genuine opportunity to foster culture in our city. In addition to benefits to civic life, café seating areas have been found to increase sales and productivity.

CITY REQUIREMENTS

Café seating requirements are outlined in the City of Grand Rapids Zoning Ordinance. A Sidewalk Seating Area Temporary Use Permit is required for the approval of a café seating area.

Additional requirements and applications are required if electrical or gas appliances are used, or if alcohol is served within the seating area.

Refer to the City of Grand Rapids **Vital Streets Design Guidelines** for additional requirements and guidelines regarding café seating.

CITY COLLABORATION

Approval of café seating areas shall be coordinated with the following City departments:

PRIMARY COORDINATION

- >> Grand Rapids Planning Department
- >> Grand Rapids Engineering Department

POTENTIAL SECONDARY COORDINATION

- >> Downtown Grand Rapids Inc (DGRI)

LAYOUT CONSIDERATIONS

- >> Minimum preferred width of café seating area is 6 feet. Widths may vary depending on availability of space and selected furnishings.
- >> Café seating may not encroach into frontages of adjacent storefronts, unless agreed upon by both owners.
- >> When possible, maintain a straight, unobstructed Through Zone with a minimum width of 6 feet for pedestrian traffic along an entire block.
- >> Café seating should be consistently located in relation to the through zone along an entire block (building-side, street-side, or combined) to maintain a straight, 6 foot wide path.
- >> Maintain a direct 4 foot clearance to all building entries.
- >> Where on-street parking is present, a minimum distance of 2 feet is required between the face of curb and the seating area.
- >> Café seating may extend into the Flex Zone as a temporary or permanent installation. Please refer to the parklet seating exhibit in this sub-section.
- >> Areas can be defined by explicit means, such as enclosures, or implicit means, such as changes in paving materials or temporary pavement markings. Whether explicitly or implicitly defined, effectively delineating seating areas from the through zone helps to avoid “cafe creep” (the encroachment of furniture into pedestrian traffic areas).

CAFÉ SEATING ENCLOSURE

Seating enclosure can take the form of planters, railings, cabling, seatwalls, or other appropriate interventions that buffer or delineate seating space. Enclosures can be used to define a usage area, direct the flow of traffic in and out of the café seating space, or to provide a solid separation between the café area and Flex Zone.

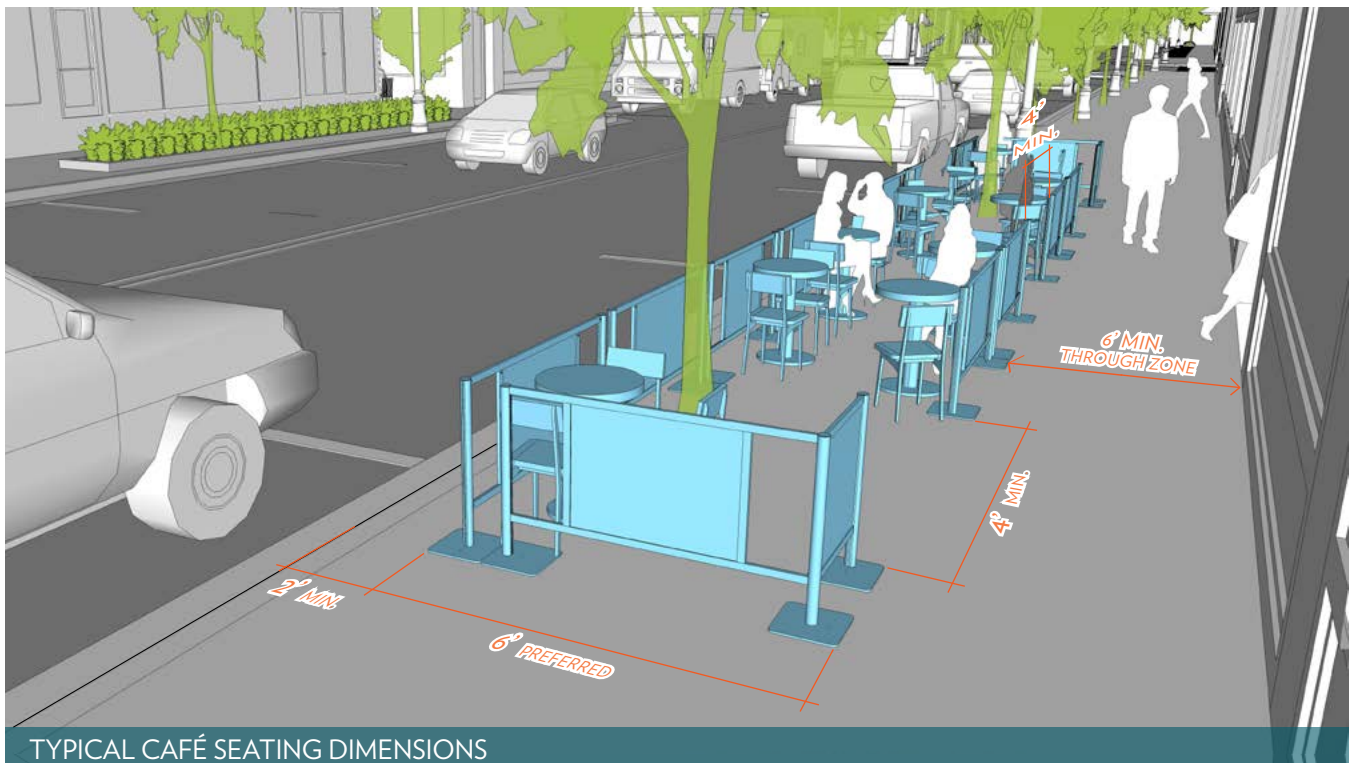
- » Enclosures should be carefully considered and are not always needed with café seating. In fact, oftentimes they are counter to providing the benefits of civic life and fostering culture.
- » Openings to the café seating space should be a minimum of 4 feet wide.
- » In the absence of on-street parking, enclosures at a height of 36-42 inches are encouraged to separate the seating area from the Flex Zone or Travel Zone of the street.
- » Enclosures must maintain a clear visual connection from the street to building frontages. Continuous opaque walls above 42 inches are prohibited.
- » Permanent flush-mounted enclosure anchors may be installed in pavement if anchors meet ADA requirements and an encroachment agreement that includes delineation of ownership and a maintenance plan has been completed between the property owner and City of Grand Rapids.

CAFÉ SEATING FURNISHINGS

- » Outdoor furniture may vary in style, material, and finish.
- » Outdoor furniture should be able to endure commercial use and be properly maintained.
- » Chaining outdoor furniture to other streetscape elements (streetlights, signs, etc.) is prohibited.
- » Outdoor heaters and cooking equipment are allowed with approval by the City of Grand Rapids. Coordination with the Grand Rapids Fire Department may also be required.
- » The use of outdoor heaters is strongly encouraged to promote outdoor seating during the colder seasons and to foster a 4-season city.



HEATED OUTDOOR SEATING



TYPICAL CAFÉ SEATING DIMENSIONS

CAFÉ SEATING [continued]

ALLOWABLE CONFIGURATIONS

The City of Grand Rapids has formulated four allowable café seating configurations, illustrated in the graphics below and on the facing page. These typologies demonstrate ways in which outdoor seating can be arranged to be integrated into, and compliment, the streetspace without compromising pedestrian traffic flow.

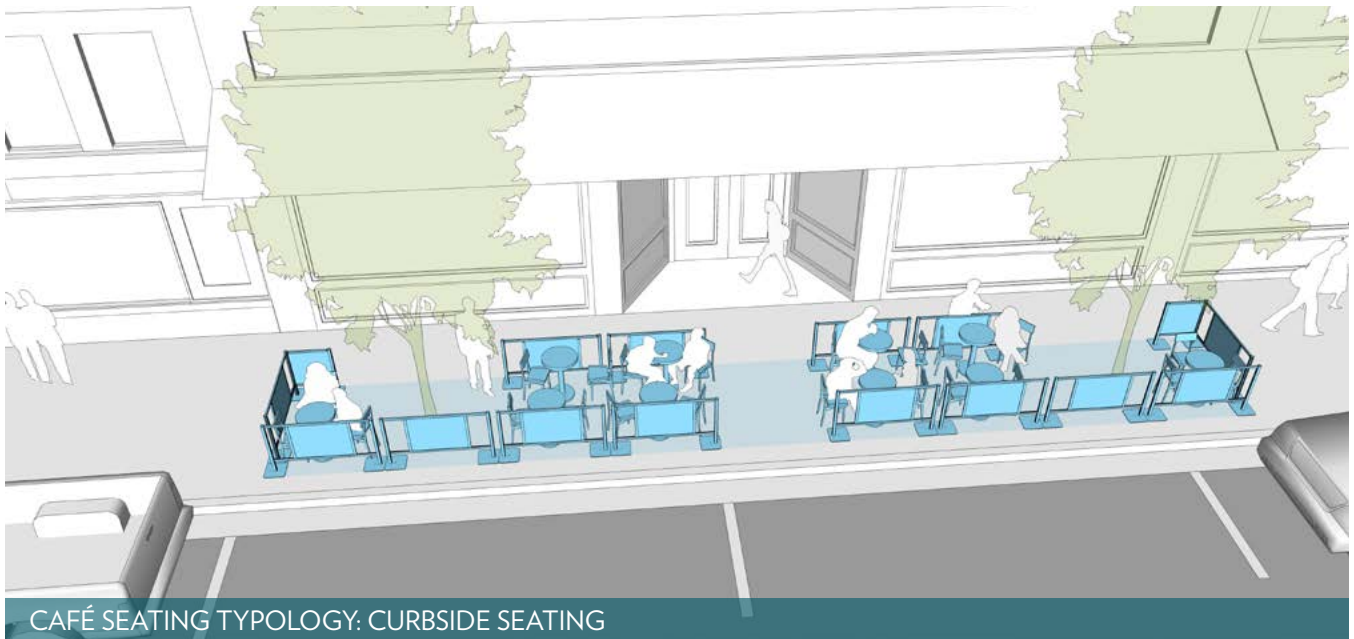
Selecting the appropriate typology should be based on several factors including available space, proximity to on-street parking, adjacent uses, and existing elements within the Amenity Zone.

CURBSIDE SEATING

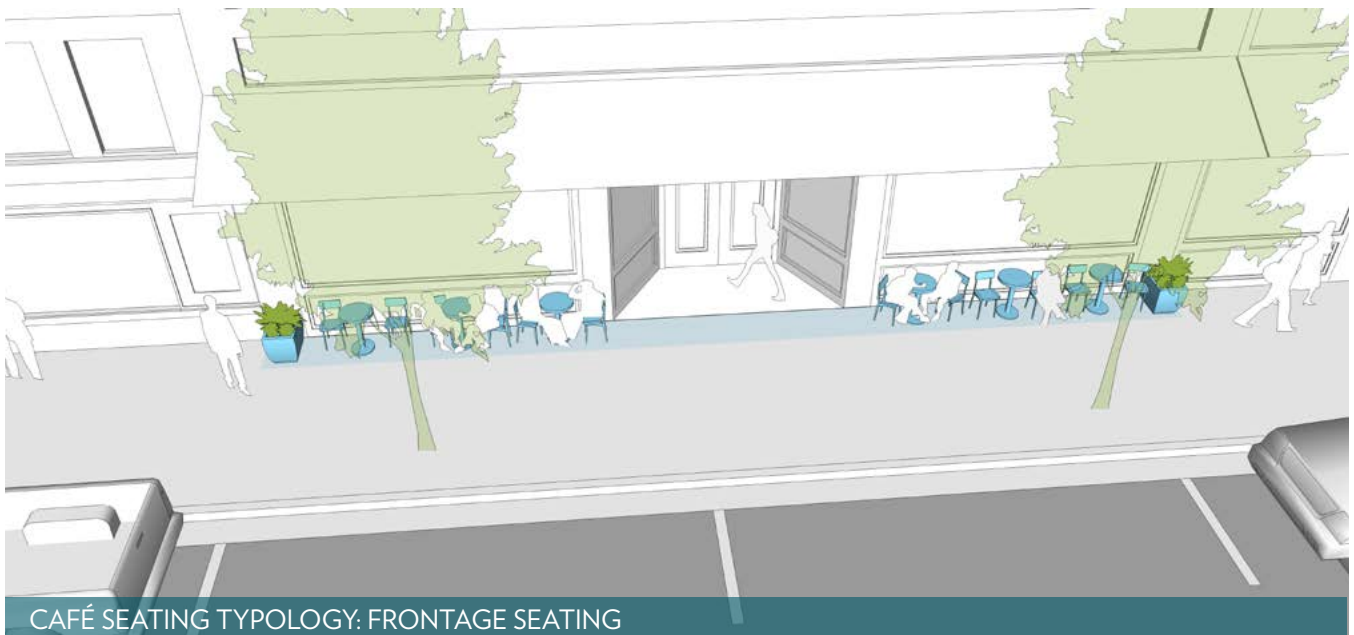
Café seating adjacent to the curb allows for a business to provide additional seating without impeding visual access to street level windows.

As previously mentioned, a physical barrier between the Flex Zone or the Travel Zone of the street and the seating area is highly recommended as a safety measure when on-street parking is not present.

Where on-street parking is present, a minimum distance of 2 feet is required between the face of curb and the seating area.



CAFÉ SEATING TYPOLOGY: CURBSIDE SEATING



CAFÉ SEATING TYPOLOGY: FRONTAGE SEATING

FRONTAGE SEATING

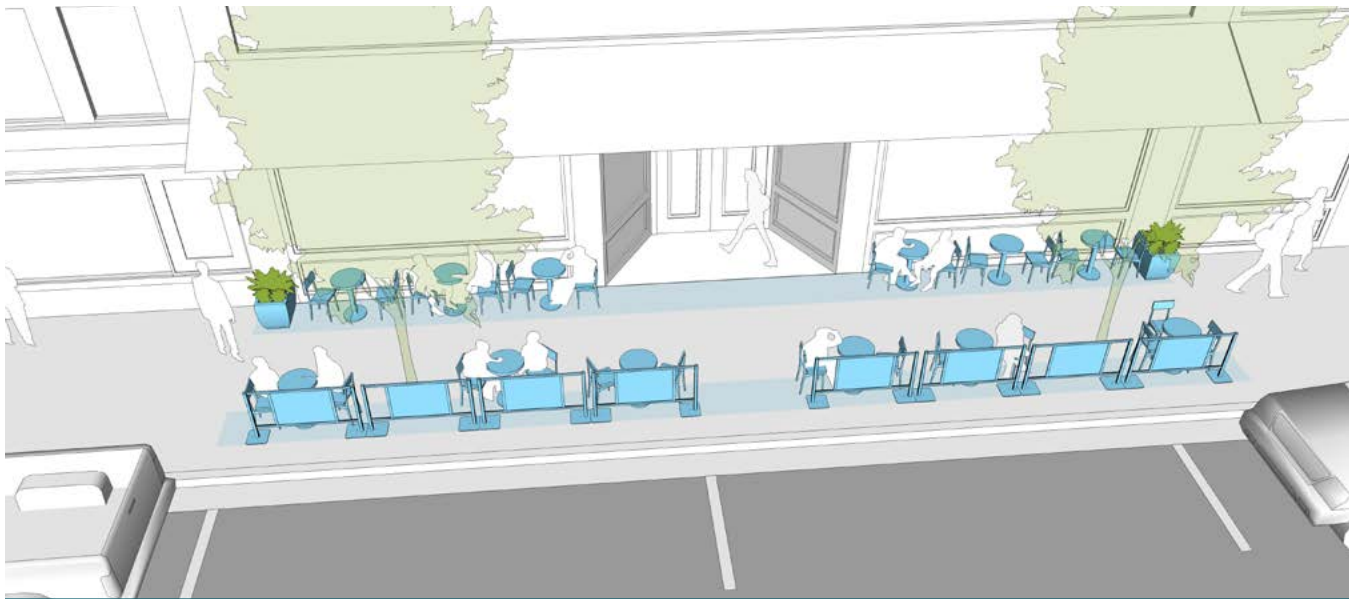
This configuration is ideal for instances where the sidewalk space is limited or when the business desires only a small amount of outdoor seating.

Additionally, orienting café seating toward the street engages patrons with the streetspace and allows them an opportunity to people watch. This configuration is a tried and true method to invite people to linger, which activates the street and business frontage.

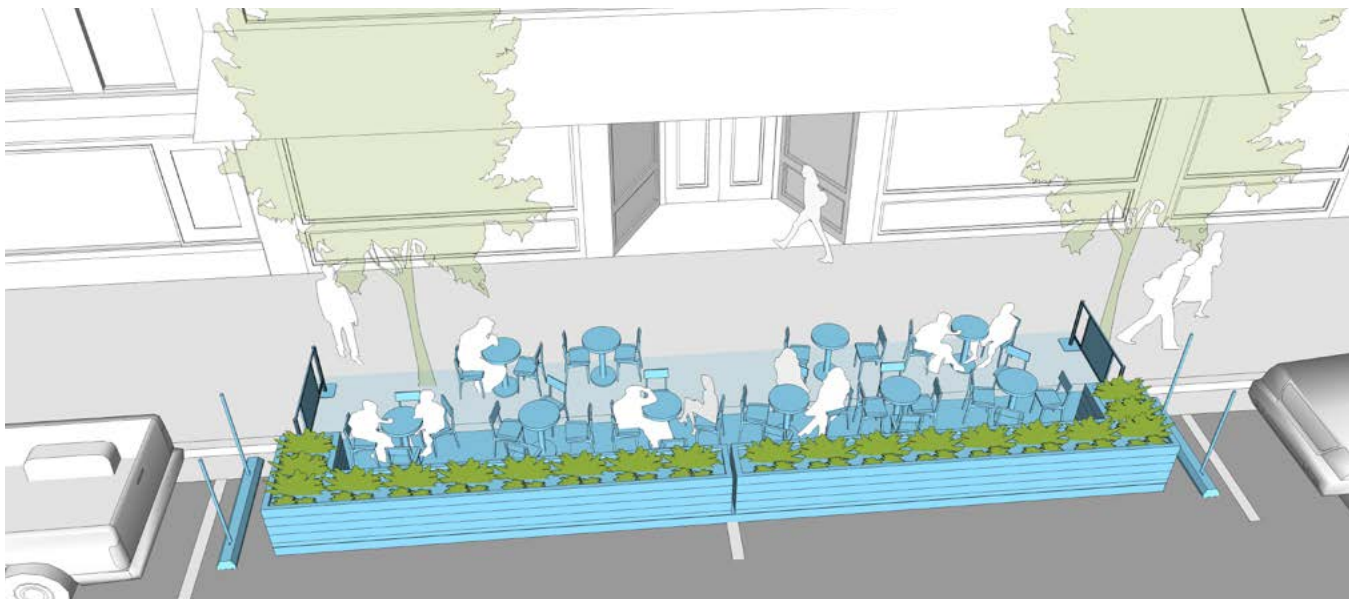
PARKLET SEATING

A parklet temporarily re-purposes part of the street (the Flex Zone) into a public space for people. Parklets provide amenities like seating, planting, bike parking and art, while testing the potential for permanent Flex Zone rebalancing (refer to Chapter 1).

Design standards and requirements for parklets are outlined in the Grand Rapids Parklet Manual. An encroachment permit and coordination with Mobile GR and Parking Services, as well as DGRI, is required.



CAFÉ SEATING TYPOLOGY: COMBINATION OF CURBSIDE + FRONTAGE SEATING



CAFÉ SEATING TYPOLOGY: PARKLET SEATING



FOOD CARTS [MOBILE FOOD BUSINESS]

OVERVIEW

Mobile food carts differ from food trucks because they are smaller, more nimble, and have lower costs to start-up. Additionally, mobile food carts are located on sidewalks (in the Amenity Zone) or plaza spaces - not in the Flex Zone of the street. This placement allows them to be more responsive to changes in pedestrian patterns with less impact to on-street parking. The inclusion of mobile food carts in the streetspace increases vitality, entices people to linger and socialize, builds local entrepreneurship, and provides opportunities for business incubation.

CITY REQUIREMENTS

Mobile food carts are considered mobile food businesses. The City of Grand Rapids promotes and manages mobile food businesses through its Mobile Food Business Ordinance.

A license, proof of insurance, and fees are required to operate a mobile food business on publicly owned property.

CITY COLLABORATION

Location, placement, and operation of mobile food carts shall be coordinated with the following City departments:

PRIMARY COORDINATION

- >> City of Grand Rapids City Clerk (for license)
- >> Grand Rapids Fire Department (for license)

POTENTIAL SECONDARY COORDINATION

- >> Mobile GR and Parking Services
- >> Grand Rapids Engineering Department
- >> Grand Rapids Planning Department
- >> Grand Rapids Office of Special Events
- >> Downtown Grand Rapids Inc (DGRI)

ELEMENT DESIGN

Mobile food carts should be designed to:

- >> Meet the requirements of the Grand Rapids Mobile Food Business Ordinance.
- >> Fit within the Amenity Zone of the streetspace while not encroaching into the required 6 foot minimum Through Zone.
- >> Allow for their placement to be slightly and easily adjusted once they have been placed within the Amenity Zone or plaza space to promote flexible operations.
- >> Be easily transported using a vehicle with a minimum towing capacity of 3,500-5,000 pounds.
- >> Have a variety of options for internal, self-contained power including LP gas, lithium batteries, and/or solar panels. May also have the option for 220V external service, however no power cable shall be extended on or across any city street or sidewalk except in a safe, concealed manner designed to prevent tripping.

LOCATION CONSIDERATIONS

Mobile food carts should:

- >> Be located on publicly owned property only, as required by the Mobile Food Business Ordinance.
- >> When placed in the Amenity Zone, the 6 foot minimum Through Zone clearance shall be maintained.
- >> Not encroach past the curb into the Flex Zone of the street.
- >> Follow location policies established by the Mobile Food Business Ordinance.

MOBILE FOOD BUSINESS ZONES

Food carts are allowed to be placed on public property as designated by the Mobile Food Business Ordinance.

Potential new designated locations may be considered by the City of Grand Rapids with the intent of creating plentiful and strategically located mobile food business zones throughout downtown.

These potential new zones may be in places where food trucks and food carts can co-exist in order to build synergy and curate street food opportunities and destinations.



FOOD VEHICLE ZONE



FOOD CART IN FURNISHING ZONE



FOOD CART ON CALDER PLAZA (PILOT)



FOOD CART SYNERGY WITH OTHER VENDING WITHIN THE FURNISHING ZONE



FOOD CART ON ROSA PARKS CIRCLE (PILOT)

WHY FOOD CARTS ARE IMPORTANT

ECONOMIC: Mobile food vending generates approximately \$650 million in revenue annually and provides a low-cost incubation platform for local business. It also expands local dining options and spurs creativity, while creating positive economic impacts for (oft underrepresented) small business owners.

VIBRANCY: Mobile food vending has positive impacts on street vitality and downtown vibrancy by providing additional opportunities for active edges that invite people to linger and continue their journey in the streetspace.

SOCIAL: By acting as something of a temporary town hall, street food is a time-tested tool for fostering social interaction and strengthening the urban fabric of a community.

LANDSCAPE CONTAINERS



OVERVIEW

Containers provide an impactful, flexible means of adding greenery and decoration to the streetspace. Coming in a wide array of forms, materials, and finishes, containers provide property owners opportunities to create attractive, artistic enhancements to the streetspace without necessitating major structural interventions. As a streetspace element, containers also have the ability to physically and functionally influence our public spaces by controlling movement and providing safety buffers. Planting and decorative installations in containers can be rotated throughout the year to bring color, vibrancy, and a sense of identity to the public arena in any season.

CITY REQUIREMENTS

The City of Grand Rapids may require an encroachment permit for the placement of containers within the public right-of-way. Encroachment permits are facilitated by the City Engineer's office.

CITY COLLABORATION

Selection, installation, and maintenance of containers should be coordinated with the following City departments:

PRIMARY COORDINATION

- » City of Grand Rapids Planning Department

POTENTIAL SECONDARY COORDINATION

- » City of Grand Rapids Engineering Department
- » Downtown Grand Rapids Inc (DGRI)

ELEMENT SELECTION

Selection of the most appropriate container is dependent upon a combination of personal taste or functionality. Although container selection is highly personalized, the following are some guiding principles that can aid in the selection process:

- » Consider the architectural styles of buildings and surrounding elements when selecting a container. For instance, a classically styled building may support the selection of a container that is constructed of limestone or iron to maintain a consistent material or design motif.
- » Containers may be selected as a reflection of a business. As an example, an edgy fusion restaurant may install brightly colored modern containers to create high contrast and interest to their streetspace.
- » Container materials should be of high durability and able to endure the rigors of the streetspace. Material selection should take into consideration the wear and aging of the material under likely usage. Similarly, maintenance of particular container types should be considered and planned for when making a selection.
- » Select a container that can hold the soil volume required to support the desired plantings. This is especially important when using trees and shrubs.
- » Heavy containers with the ability to hinder the encroachment of adjacent traffic should be used when utilizing a container as a physical buffer.
- » Refer to the landscape plantings sub-section for planting guidelines for containers in the streetspace.

- Weight of a container can be a determining factor when the container is a temporary installation. Mobility should be balanced with stability to prevent injury and vandalism. To reduce the weight of a pot, the bottom of the pot can be filled with lightweight material such as lava rock, sphagnum moss, coconut fiber, or layers of foam board to a level that does not hinder plant growth. Additionally, there are many lightweight synthetic pots that have the appearance of heavier materials such as stone or concrete.
- Adequate drainage is a crucial component to a successful container planting. Use containers with drainage systems that will prevent over watering.
- An encroachment agreement that includes delineation of ownership and a plan to maintain the bollards (both standard or enhanced) should be completed (if required) between the property owner and City of Grand Rapids. Verify encroachment permits with City of Grand Rapids Planning Department.

USING CONTAINERS IN THE STREETSPACE

Containers are an extremely useful and dynamic tool to add plants to the urban environment. These installations provide a tremendous amount of artistic license for property owners while shaping the functionality of the streetspace. Some examples of functional uses of pots and planter boxes are as follows:

- Can be used to delineate or protect space when positioned adjacent to outdoor seating and parklets.
- Frame doorway to enhance building entrances.
- Create an attractive protective structure between pedestrians and other types of traffic (bike and vehicle).
- Enhance the visual interest of the streetspace by adding “good clutter”.
- Soften the edge between the building and the streetspace.
- Reduce the visual impact of unsightly streetspace elements such as utility poles or electric boxes. In no instance should containers influence the function or access to these elements. Placement of containers near these elements should be approved by the appropriate agencies.



PROTECT & DELINEATE SEATING



SOFTEN BUILDING EDGE



FRAME ENTRANCE



SEPARATE THE PEDESTRIANS & VEHICLE TRAFFIC



DELINEATE TRAFFIC TYPES



LANDSCAPE PLANTINGS

OVERVIEW

Greening Grand Rapids can be thought of in terms of the development and fostering of many verdant layers. Our trees form the upper layer and have the ability to dictate the scale of the streetspace, while the understory landscape has the ability to instill a sense of vibrancy, interest, color, and texture at the street level. Understory plantings are the collection of shrubs, perennials, and annuals that are arranged throughout the streetspace to provide various ecosystem services, direct pedestrian and vehicle uses, and help create a cool, inviting downtown.

This sub-section is intended to direct the design and implementation of understory landscape and plantings. Refer to the street tree section for more information on street tree guidelines.

CITY REQUIREMENTS

Understory planting requirements are outlined in the City of Grand Rapids Zoning Ordinance. Refer to the City of Grand Rapids **Vital Streets Design Guidelines** for additional requirements and guidelines regarding landscape and plantings related to sustainability and “green streets”.

CITY COLLABORATION

Selection, installation, and maintenance of understory landscaping shall be coordinated with the following City departments:

PRIMARY COORDINATION

- >> Grand Rapids Parks & Rec. Dept., Forestry Division
- >> Downtown Grand Rapids Inc (DGRI)*
- >> Grand Rapids Planning Department

POTENTIAL SECONDARY COORDINATION

- >> Friends of Grand Rapids Parks - Urban Forestry Project

*DGRI consultation is required for plant selection during the design phase when DGRI's Ambassadors are responsible for landscape and planting bed maintenance.

SPECIES SELECTION

- >> Planting of native plants should be prioritized whenever possible.
- >> Salt tolerance is an important plant selection consideration, especially in at-grade planters or those with stormwater inlets, due to the high salinity of urban runoff. Salt spray from snow removal operations can also lead to plant damage.
- >> Prioritize drought and flood tolerant plants. Urban soils can become dry due to lack of shade, high wind speeds, and relatively high temperatures. Conversely, high amounts of impervious surfaces lead to planters being inundated with large quantities of stormwater during rain events. Species that can tolerate a wide range of soil conditions and types, such as those associated with raingarden plantings (e.g. *Andropogon gerardii* or *Panicum virgatum*), should be considered.
- >> Select a planting scheme that emphasizes multi-seasonal interest to support a “365 days a year” streetspace. This includes selecting plants that will support seasonal lighting concepts, have varied bloom times, have interesting fall color, and have varied textures, as well as the use of spring bulbs.
- >> Level of required maintenance should be considered.
- >> Plantings in clear vision corners at intersections and mid-block crossings should reach a height of not greater than 30 inches.

WHY NATIVE PLANTS ARE IMPORTANT

Using native plants increases the amount of symbiotic interactions among plants and animals that have co-evolved within a particular region. This leads to a healthy and functional urban ecosystem by reducing the proliferation of invasive species, reducing water needs, and creating habitat.

PLACEMENT OF LANDSCAPING

Understory landscape may be placed in a variety of locations within the streetspace, including:

- Containers: Refer to landscape container sub-section of this chapter for information on containers. Containers provide the opportunity to place small bursts of color and texture within the Amenity Zone, Shy Zone, or Furnishing Zone.
- Planters: Refer to planters sub-section of this chapter for information on planters within the streetspace. Planters come in a variety of types including:
 - Raised planters
 - Raised planters with seating
 - At-grade planters
 - Bulb-out planters

Salt tolerance, and drought and flood tolerant plants, are particularly important to consider in at-grade planters and any raised planter with inlets that takes in stormwater.

- Parkway and medians: Placement of understory plantings are also encouraged in parkways and medians. Irrigation of parkways and medians should be included when planting is planned at those locations.
- An encroachment agreement that includes delineation of ownership and a plan to maintain the landscape and plantings should be completed between the property owner and City of Grand Rapids. Verify encroachment permits with City of Grand Rapids Planning Department.

ENHANCEMENT: VISUAL INTEREST

In addition to considering color and texture across all four seasons, other elements should be considered to incorporate as part of the landscape palette.

While sometimes thought of as specific holiday features (like the ornaments in the photos at the bottom of this page), consideration should be given to maintain these enhanced compositions in multiple seasons to help create visual interest within the streetspace.

A typical enhancement for downtown planters is a short decorative fence between 12" to 18" in height (also depicted in the photos at the bottom of this page).

These enhancements may require an encroachment agreement that includes a plan to maintain and a time frame for installation and removal between the property owner and the City of Grand Rapids.



BULB-OUT PLANTER WITH STORMWATER INLET



SEASONAL PLANTINGS PROVIDE COLOR AND TEXTURE DURING THE COLD WINTER SEASON



MEDIAN WITH LANDSCAPE PLANTINGS



OVERVIEW

The primary goals for paving selection should be to maximize accessibility, sustainability, durability, drainage, and aesthetic quality; and to define a predictable path of travel through the use of pedestrian-scaled details. Given that certain material uses are better suited for specific streetspace types, designs should always be context-sensitive and reflect localized character. Proper subgrade preparation is critical to prevent settling and deterioration over time and to maintain proper soil volumes and long-term tree health.

CITY REQUIREMENTS

Refer to the City of Grand Rapids **Vital Streets Design Guidelines** for additional requirements and guidelines regarding paving of sidewalks.

The City of Grand Rapids may require an encroachment permit for the placement of paving other than concrete within the public right-of-way. Encroachment permits are facilitated by the City Engineer's office.

CITY COLLABORATION

Selection of paving shall be coordinated with the following City departments:

PRIMARY COORDINATION

- >> Grand Rapids Engineering Department

POTENTIAL SECONDARY COORDINATION

- >> Grand Rapids Planning Department
- >> Downtown Grand Rapids Inc (DGRI)

ELEMENT DESIGN

Paving can significantly impact the feel and function of a streetspace. Aesthetic and functional paving should be used to support a larger downtown context, while providing place-based variations to add interest to specific streetspaces. Variations in paving schemes should be reflective of particular Streetspace Types (refer to the Downtown Streetspace Type maps at the beginning of this chapter) and to provide the predictable and accessible paths of travel based on available space within the Pedestrian Zone.

The three zones that comprise the Pedestrian Zone (Shy Zone, Through Zone, and Amenity Zone) all provide unique opportunities to implement variations in paving while maintaining a consistent aesthetic throughout a particular Streetspace Type.

The following are general considerations for all Streetspace Types:

SHY ZONE

- >> The Shy Zone is typically no more than 2 feet to 3 feet wide; however, Shy Zone pavement width is typically dependent on the width of the Through



Zone, which is required to be 6 feet minimum. If the Through Zone is too narrow to meet this 6 foot minimum width, the Shy Zone must be used as part of the Through Zone required width. In instances in which the Shy Zone is used as part of the Through Zone, pavement should be concrete in both zones to ensure that the pedestrian path is not compromised for those who are visually impaired.

- »» When the Shy Zone is not required to be included as part of Through Zone, the standard paving material should still be concrete. However, there may be instances where alternate pavement such as brick can be used within the Shy Zone depending on surrounding context. If alternate paving is used, the material and design should be consistent, at a minimum, along an entire building wall and preferably along an entire block.

THROUGH ZONE

- »» Through Zone paving material should be concrete to ensure that an accessible and easily deciphered path is maintained, especially for those who may be visually impaired. (*Varied pavements and accent bands create confusing navigation for pedestrians who have visual impairments*).
- »» Alternative materials used as accents may be used within the Through Zone upon approval by city staff and completion of an encroachment permit and maintenance agreement. However, such alternatives in the Through Zone should be limited to building entrance accents to maintain a visually accessible path. (*Refer to paving enhancements in this sub-section*).
- »» Alternate materials used over the entire Through Zone, or as accent bands crossing the Through Zone should be avoided because of the confusion that they create for those who are visually impaired.

WHY INSTALLATION OF STREETSPACE ELEMENTS ON CONCRETE IS IMPORTANT

Installing streetspace elements on concrete sidewalks, as opposed onto concrete bases below paver areas, provides a durable base that minimize costs associated with installation and maintenance of surrounding pavers. Pavers cut to allow for the installation of streetspace elements more often crack or heave due to their irregular shape. Pavers are also difficult to replace as elements are removed due to damage or evolving uses of the streetspace.

AMENITY ZONE

- »» Amenity Zone paving should be comprised of concrete and brick pavers. Specific paving schemes should be selected based on Streetspace Type (refer to the Downtown Streetspace Type maps at the beginning of this chapter) and are outlined in detail on the following pages of this sub-section.
- »» Pavers should be placed either 16” or 24” from the back of curb depending on the paving pattern specific to the Street Type. Pavers may also be placed around at-grade planters and tree wells as indicated in this sub-section.
- »» Limiting pavers to this band at the curb and around at-grade planters and tree wells allows streetspace elements such as benches, bike racks, and parking meters, to be installed in concrete paving, which is important for the long term maintenance, repair, and replacement of the elements.
- »» Porous paver systems should be utilized in the Amenity Zone whenever possible. This is particularly important for pavers over continuous planting trenches to allow for stormwater penetration (see the street tree sub-section of this chapter and the City Of Grand Rapids Green Book for further details).



WHY PERMEABLE PAVING IS IMPORTANT

Permeable paving systems serve as both a paved surface and a stormwater management system, providing a multi-purpose element within the streetspace. Permeable paving reduces the runoff from the rain that falls on it and can help filter out pollutants that contribute to water pollution. This aids in increasing the Grand River’s water quality and ensuring its ongoing vitality. Additionally, permeable paving may reduce the cost of a development project’s overall stormwater management system.

CHAPTER 2 PEDESTRIAN ZONE

2.3 PEDESTRIAN ZONE ELEMENTS

PAVING [continued]

ELEMENT DESIGN BY STREETScape TYPE

Paving schemes in the Amenity Zone should be consistent throughout each streetspace to maintain a consistent aesthetic and functionality in the downtown. Refer to the Downtown Streetspace Type maps at the beginning of this chapter for locations and paving schemes for each Streetspace Type.

There are two standard brick paving schemes for the Downtown Grand Rapids Amenity Zones. These are differentiated by the brick paver patterns that are placed along the back of the curb. These paver schemes and the Streetspace Types that they are applied to are as follows:

DOWNTOWN STREET TYPES 1 & 2

PAVING SCHEME A: 16" double soldier course paver banding along the back of curb.

DOWNTOWN STREET TYPES 3, 4, & 5

PAVING SCHEME B: 24" double Spanish bond paver banding along the back of curb.

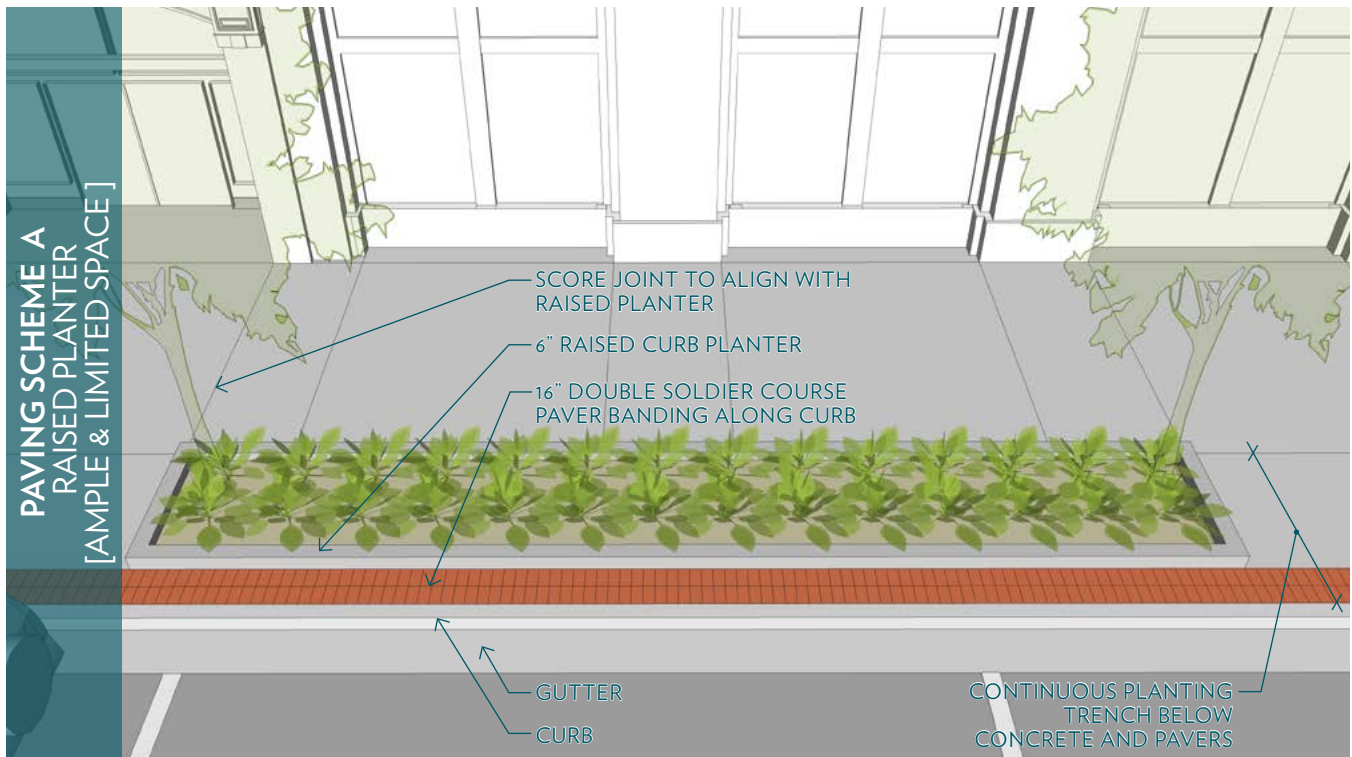
Use of specific paving configurations should be directed by the context of the project and most critically, the overall width of the Pedestrian Zone. In all streetspaces, a 6 feet minimum Through Zone must be maintained.

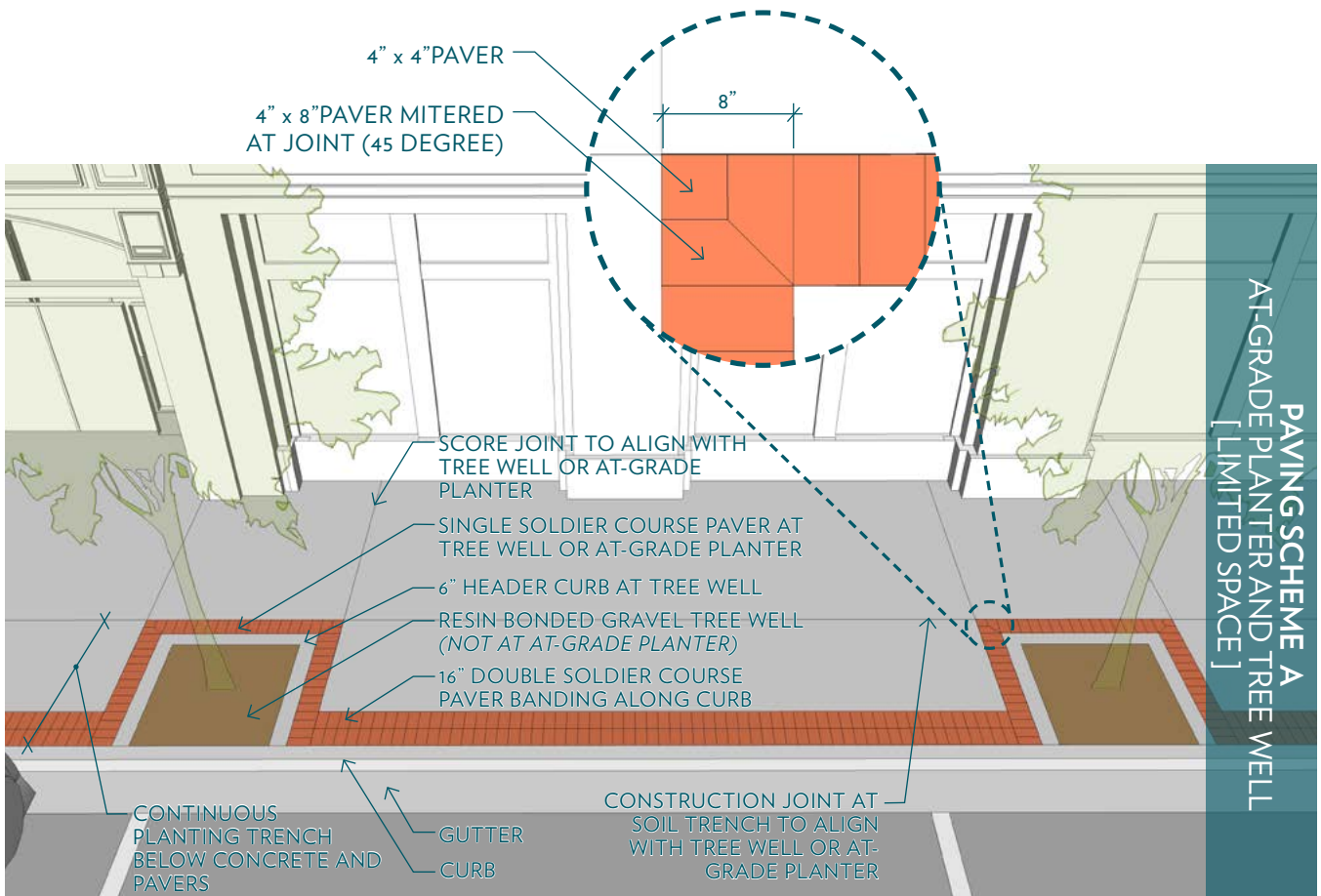
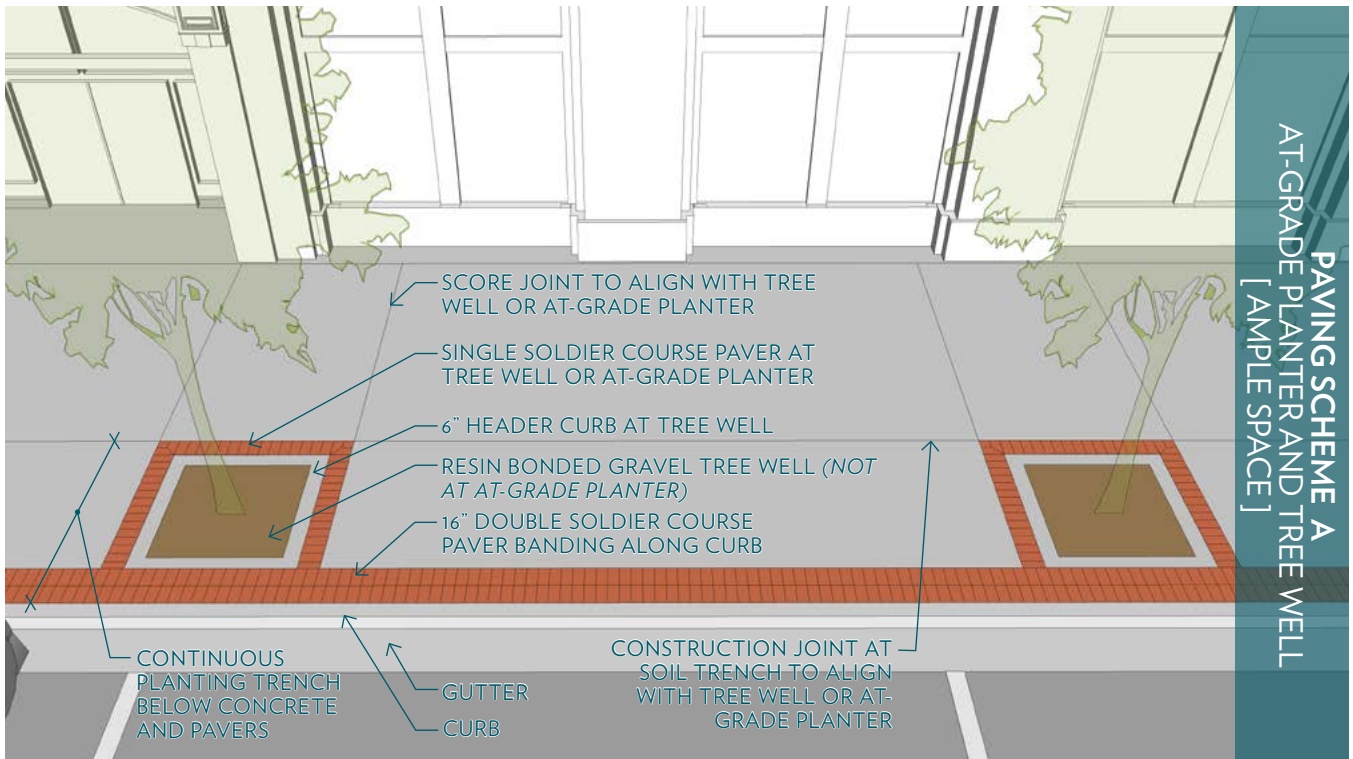
Raised tree planters are the preferred planter configuration in all downtown streetspaces that do not include parkways. However, their use may be limited by the availability of space within the Pedestrian Zone. If at-grade planters are determined to be most appropriate, the ability to maintain a 6 feet minimum Through Zone should determine the applicable configuration (limited space configuration or ample space configuration). Note that this 6' minimum width should be measured from the outer limits of the single soldier course paver tree surround, so as to keep the entire Through Zone a consistent concrete surface.

The following details illustrate the standard downtown paving schemes and configurations:

PAVING SCHEME A

The following three details should be applied to Downtown Streetscape Types 1 and 2.





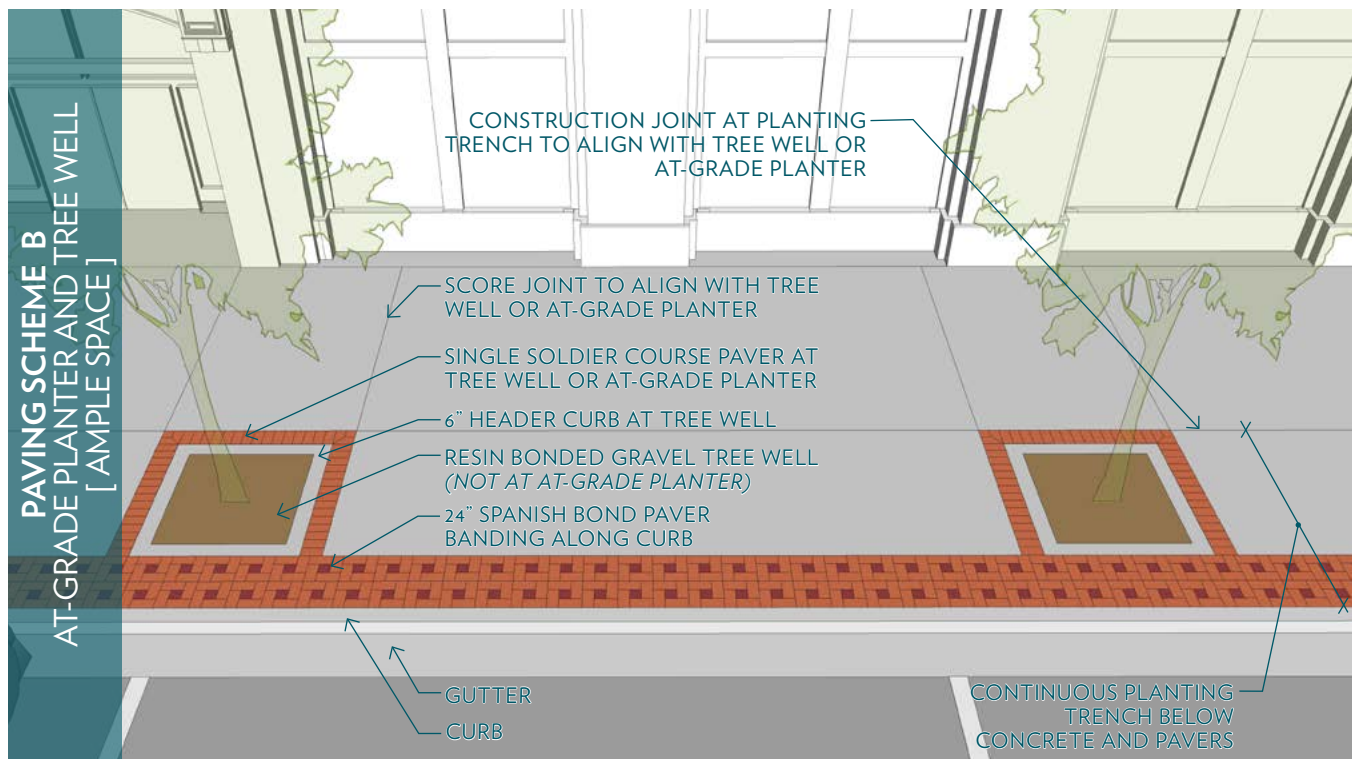
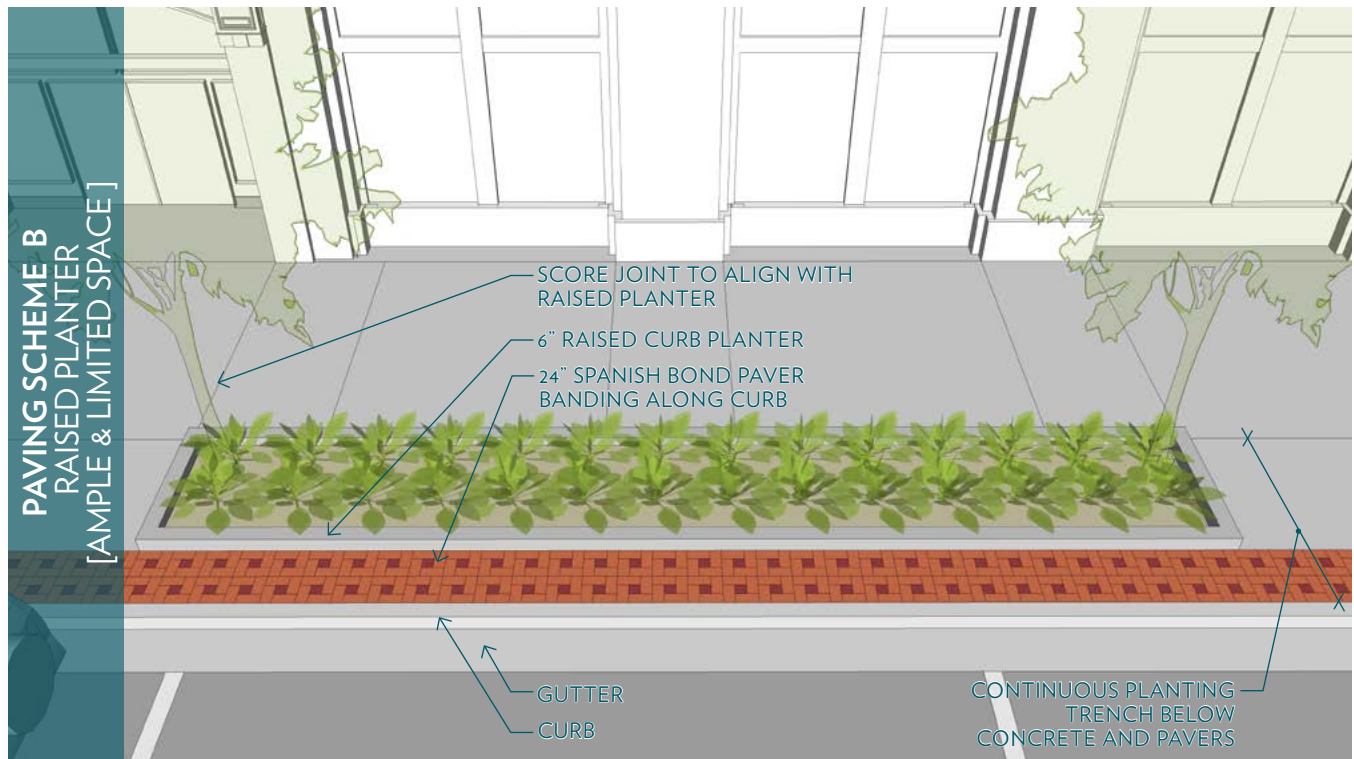
CHAPTER 2 PEDESTRIAN ZONE

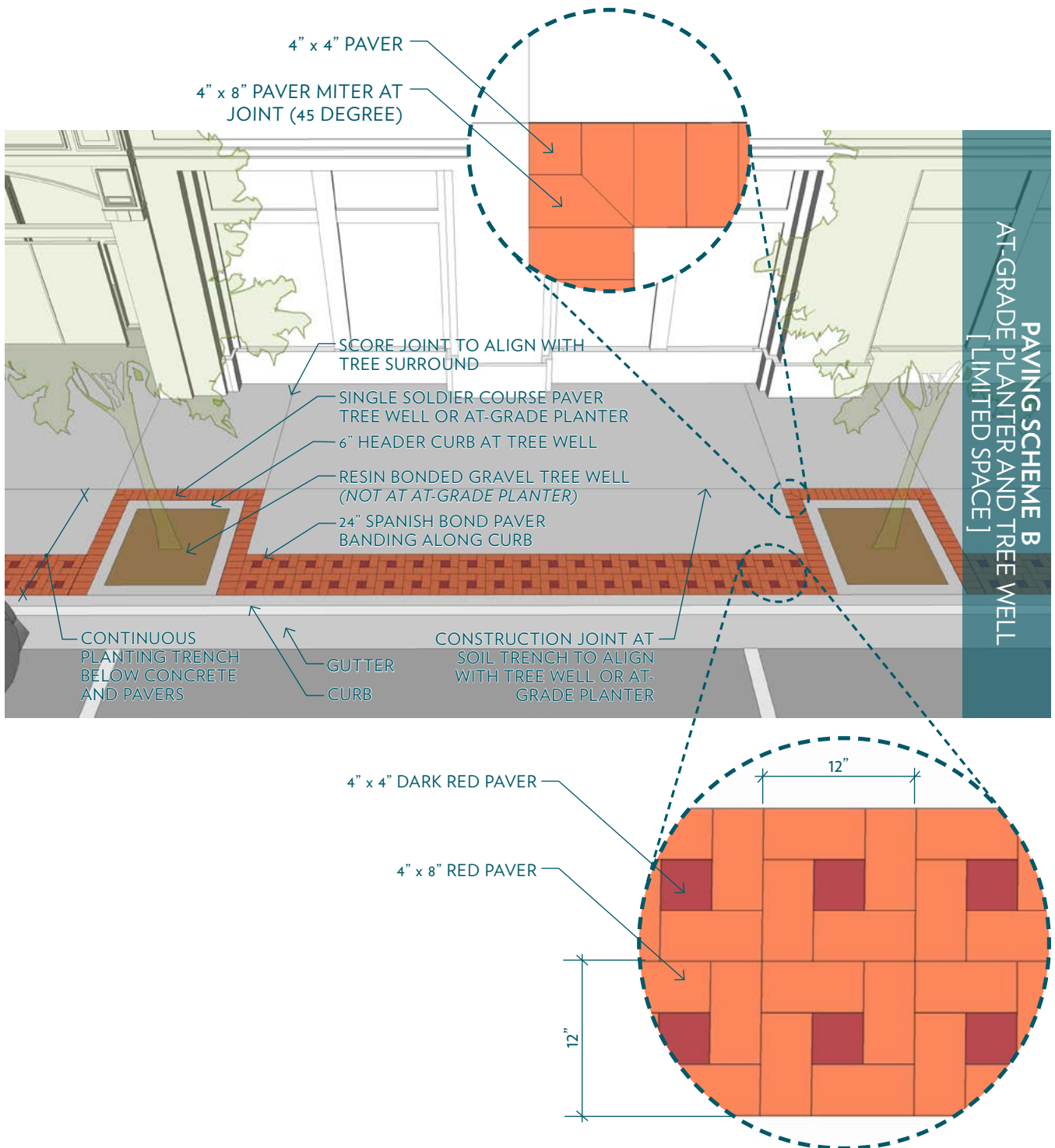
2.3 PEDESTRIAN ZONE ELEMENTS

PAVING [continued]

PAVING SCHEME B

The following three details should be applied to Downtown Streetscape Types 3, 4, and 5. Note that portions of Streetspace Type 4, such as North Monroe Avenue immediately north of the 196 overpass, may include areas of parkway. In these instances, paving within the parkway should only be used for connections to the sidewalk or to provide concrete pads for Amenity Zone elements such as bike racks, benches, and transit stops/shelters.





PARKWAYS

Although not the typical condition, parkways and planted medians can be found in Downtown Streetspace Types 3 and 4 (e.g. Monroe North TIF district). These areas are generally planted with grass and include intermittent street trees and plantings. Walkways should be provided linking the street to the sidewalk to align with crosswalks, building entrances, and activity centers. Additional cut-through walks may be provided on streets with on-street parking. When installing accessible ramps, bike racks, benches, transit stops and shelters, and other Amenity Zone elements in the parkway, a concrete pad should be provided to facilitate use. Temporary occupation or seasonal use of parking spaces for bikes, parklets, or seating should also be coordinated with parkway areas to facilitate temporary access.

CHAPTER 2 PEDESTRIAN ZONE

2.3 PEDESTRIAN ZONE ELEMENTS

PAVING [continued]

MATERIALS

All typical applications of both Paving Scheme A and B should use the following materials and finishes:

CONCRETE

Concrete should be used to pave all areas within the Shy Zone and Through Zone, as indicated in these guidelines. Concrete should also be used in the Amenity Zone to construct the 6" header curb and all surface paving outside of the tree surround and paver banding.

- **FINISH:** Medium broom finish with 2-inch tooled edge.
- **SCORING PATTERN:** Scoring should be consistent with the pattern established by the adjacent Through Zone and planters or tree wells.
- **COLOR:** Natural

WHY SIMPLE CONCRETE IS IMPORTANT

Concrete paving creates a simple material palette that does not detract from looking into storefronts and shopping, which is a central function of streets and sidewalks. Concrete paving is also an oftentimes more durable material that is designed for lasting investment. Finally, simple concrete paving in the Through Zone establishes a predictable and easy to navigate path for those who are visually impaired.

BRICK PAVERS

Brick pavers should be used for all banding along the back of curb as well as for tree wells and at-grade planters.

Brick paving should be permeable at the curb and be set on a properly drained concrete sub-base (refer to street tree sub-section) per City of Grand Rapids Engineering Department specifications when planting trenches and street trees are present.

- **PAVER:** 4" x 8" clay paver manufactured by Belden Brick Company, Pine Hall Brick, Watsontown Brick Company, or approved equal.
- **PATTERN:** Pattern as indicated per Streetspace Type.
- **COLOR:** Dark red for the center 4" x 4" paver in the Spanish bond pattern. Red for all other brick pavers.

WHY BRICK PAVERS ARE IMPORTANT

Bricks are naturally colored by mixing various types of clays, so they retain color better than concrete pavers, particularly when exposed to UV rays. Equally important, is the timeless style of brick - an aged, worn brick sidewalk retains its charm while cracked, chipped, or faded concrete pavers merely look worn out.

PAVING AT INTERSECTIONS AND DRIVE ENTRANCES

Guidelines for paving at intersections and at drive entrances are as follows:

- At intersections, use of pavers should terminate into the edge of the flare of accessible curb ramps. Where two accessibility ramps are provided at the same corner (e.g. one leading from south to north, the other leading from west to east), pavers should not be used between the two ramps.
- Use of pavers should terminate into the edge of flares at drive entrances, as shown in the bottom right photo on this page.



PAVER BANDING AT ACCESSIBLE CURB RAMP



PAVER BANDING EXTENDING THROUGH ACCESSIBLE CURB RAMP



PAVER BANDING TERMINATING INTO DRIVE ENTRANCE FLARE

ENHANCEMENT: VISUAL INTEREST

Enhanced paving options in the Shy Zone or Amenity Zone that vary from the standard paving schemes may be considered to place-strengthen certain areas, provide visual interest in the streetspace, or to draw attention to key civic and public destinations. These enhancements should be carefully considered to balance the clarity of the Pedestrian Zones with the desire to create visual interest.

Enhanced paving may also be used in limited applications within the Through Zone to highlight building entrances only.

Enhanced paving may be approved by the City Engineering Department, City Planning Department, and/or DGRI based on the following considerations:

- Pavement should meet design criteria as outlined in these guidelines and the Vital Streets Design Guidelines.
- Enhanced paving should be arranged as banding or other context-sensitive patterns and designs. Paving enhancements should be used to accent building or streetspace design features.

- Enhanced paving in the Through Zone should be substantially limited so as to maintain an accessible and easily deciphered path.
- Enhanced paving may be used in the Shy Zone as an accent strip or to highlight building entrances or other significant architectural features of an adjacent building.
- Enhanced paving should be installed at a minimum along an entire building wall and preferably along an entire block in order to provide a cohesive streetspace and predictable public realm.
- The use of brick or natural stone pavers in lieu of concrete pavers is encouraged.
- An encroachment agreement that includes delineation of ownership and a plan to maintain the enhanced pavement should be completed between the property owner and City of Grand Rapids.



ENHANCED AMENITY ZONE PAVING EXTENDING INTO THROUGH ZONE



ENHANCED SHY ZONE PAVING ACCENT BANDING AT LOUIS STREET

WHY ENHANCED PAVING IS IMPORTANT

Interesting things to look at help to create high-quality people-centered places by welcoming streetspace users to linger within the space. More decorative pavement also provides a warmer material palette than plain concrete during the cold drab days of February. When considering increasing visual interest through pavement design, care should be taken to not let the pavement become the focal point and detract from looking into storefronts and shopping, which is a central function of streets and sidewalks.



PLANTERS

OVERVIEW

Landscape planters provide various opportunities for adding natural elements to the streetspace and promoting green infrastructure in the downtown. They provide critical space for street trees and understory landscape plantings that lead to increased environmental performance, additional color and texture within the public realm, and building human-scaled places through promoting sustained street tree growth.

Planters also define space within the Pedestrian Zone and provide additional seating opportunities when incorporating integrated seating.

CITY REQUIREMENTS

Planters help to meet soil volume requirements for street trees and green space as outlined in the City of Grand Rapids Zoning Ordinance. Additional requirements and guidelines regarding planters, especially as related to street trees, can be found in the City of Grand Rapids **Vital Streets Design Guidelines**.

The City of Grand Rapids may require an encroachment permit for the placement of planters within the public right-of-way. Encroachment permits are facilitated by the City Engineer's office.

CITY COLLABORATION

Selection, installation, and maintenance of planters shall be coordinated with the following City departments:

PRIMARY COORDINATION

- >> Grand Rapids Planning Department
- >> Grand Rapids Engineering Department

POTENTIAL SECONDARY COORDINATION

- >> GR Parks & Rec. Dept., Forestry Division
- >> Downtown Grand Rapids Inc (DGRI)
- >> Friends of GR Parks - Urban Forestry Project

RAISED PLANTERS

Raised planters (as shown in the above photo) are the preferred option in Downtown Grand Rapids. They can provide a large, protected planting zone which helps to decrease the likelihood of soil compaction due to foot-traffic. These generally take the form of a 6 inch concrete curb that surrounds the planter, although decorative options may be allowed when approved via an encroachment permit with maintenance agreement.

Irrigated open planters with understory landscape and vegetation or mulch provide an ideal condition for urban tree growth. Irrigation should always be considered for inclusion during planter design.

Due to limited sidewalk space, planter areas are often restricted in size. The minimum recommended planting zone width of an open tree planter is 4 feet, however 5 feet is a better minimum width to consider during design to accommodate required soil volumes.

The soil level within raised planters is also a significant consideration as it can greatly influence the ability of street trees to root into planting soils beneath adjacent paving. Raising soil levels in excess of 6 inches above sidewalk grade can negatively impact tree growth and health. The ideal condition is to have planting soils near the level of sidewalk grade. Recessed soils below the sidewalk grade can have an added benefit of providing the opportunity to allow for stormwater inlets through the curb wall.

Adding inlets to raised planters allow for sidewalk and street runoff to enter the planting bed. Soils provide a pervious surface to manage stormwater while certain plants are able to breakdown and store contaminants through phytoremediation. Refer to the City of Grand Rapids Green Infrastructure Standards for approved stormwater management details at planters.

AT-GRADE PLANTERS

Similar to the raised planter, but without a curb edge, at-grade planters can provide a viable option in situations of limited space and low pedestrian traffic. Providing full vegetative cover within at-grade planting beds should be used to deter foot-traffic through the planting areas.

Similarly, decorative metal fencing at a height of 12-18 inches around the planter can provide a barrier to pedestrian traffic in these areas, while also adding a unique aesthetic to the streetspace. Planting trenches, soil volumes, and irrigation should be considered during the design of at-grade planters.

BULB-OUT (CURB EXTENSION) PLANTERS

Bulb-out planters can provide critical planting space in instances where streetspace widths are limited, such as streets with narrow Pedestrian Zones. These narrow spaces greatly reduce areas that can accommodate the survival of large, mature trees. Bulb-out planters can help to optimize planting space in these narrow conditions by expanding the planting space into the Flex Zone.

Bulb-out tree planters can be created by converting on-street parking spaces or through other flex zone rebalancings to accommodate a 6 foot wide planting space. These interventions can greatly increase urban tree canopy (UTC) as trees will have more room to expand over the Pedestrian Zone as well as more easily create a complete canopy over the Travel Zone with trees on the opposite side of the street. Planting trenches, soil volumes, and irrigation should be considered during the design of bulb-out planters.

Bulb-out planters will sometimes be raised, but oftentimes are at-grade in order to incorporate stormwater management.



AT-GRADE PLANTER

RAISED PLANTERS WITH INTEGRATED SEATING

Planters may also be enhanced with seat walls that integrate public seating with the raised planter. In many cases, due to streetspace width constraints, integrating seating along the planter edge will optimize space while also providing an interesting seating option that allows for flexible conversations and varied seating arrangements.

As referenced in the raised planter section on the previous page; planting trenches, soil levels, soil volumes, and irrigation should be carefully considered to promote tree health and growth. In many cases integrated seating will need to be placed only on one side of the planter to maintain this soil height; however, if raised planters are wide enough, oftentimes the seat wall can be continuous around three sides of the planter. *Refer to the public seating sub-section for more information regarding seating integration with planters.*



BULB-OUT (CURB EXTENSION PLANTER)



PLANTER WITH INTEGRATED SEATING

PLANTERS [continued]

PLANTER PLACEMENT: AMENITY ZONE

Recommended placement considerations for landscape planters are as follows:

- Maintain a straight, unobstructed Through Zone with a minimum width of 6 feet for pedestrian traffic along an entire block.
- Landscape planters should be placed a between 16 to 24 inches from the back of curb. This distance will relate to the pedestrian zone paving pattern at the curb that is referenced in the Streetspace Types (Section 2.2) and in the paving sub-section of this section.
- When on-street parking is existing or planned, landscape planters should be broken up along the street to incorporate periodic connections between the Through Zone and the on-street parking. In these instances the connection should be a minimum of 4 feet wide and should be provided for every two parking spaces. The connection should match the sidewalk paving.
- Where on-street parking is not present, planters may extend at longer intervals without connection between Through Zone and street. Consideration should still be given to incorporate connections and intervals between planters, so that the planters do not become barriers to connectivity.
- Space for connection between Through Zone and on-street parking should be maintained at a minimum of 6 feet wide when installing planters adjacent to accessible barrier-free on-street parking spaces or designated loading zones.
- Planters should be coordinated with transit shelters and stops to ensure that accessible routes are maintained at transit stop.
- A minimum distance of 24 inches should be maintained between any planters and fire hydrants.
- An encroachment agreement that includes delineation of ownership and a plan to maintain the planter and associated landscape plantings should be completed between the property owner and City of Grand Rapids. Verify encroachment permits with City of Grand Rapids Planning Department.
- Planters that incorporate street trees will need to meet the soil volume requirements outlined in the street tree sub-section of this chapter.

PLANTER PLACEMENT: SHY/FRONTAGE ZONE

Placing planters within the Shy Zone can soften the hard edge between the building facade and sidewalk. This treatment is a viable option in instances only where the sidewalk widths provide adequate space for the Through Zone and Amenity Zone.

Green walls treatments (e.g. living walls or green facades) are ways to also create a significant amount of green surface in a very limited amount of, or no, ground level space. These systems come in many forms ranging from trellis systems supporting climbing vines rooted in ground level planters, to building mounted modular systems that hold planting substrate and vegetation.

- Maintain a straight, unobstructed Through Zone with a minimum width of 6 feet for pedestrian traffic along an entire block.
- Root barrier and shallow rooting species of annual, perennials, or shrubs are recommended to reduce the risk of root damage to the foundation of buildings. Trees should not be used in within the Shy Zone.
- Green wall plant selection should consider the amount of space hanging plants are likely to encroach into the streetspace.
- In some instances parking lot screening is required in what would be considered the Frontage Zone, where off-street parking occurs. To limit the impacts of parking on the character of the downtown, screening plantings should prioritize maximum, year-round screening. Refer to Article 11 of the Grand Rapids Zoning Ordinance for additional information on required screening.
- Where encroachment into the public realm occurs, an encroachment agreement that includes delineation of ownership and a plan to maintain the planter and associated landscape plantings should be completed between the property owner and City of Grand Rapids. Verify encroachment permits with City of Grand Rapids Planning Department.



PLANTER WITH SPACING FOR TRANSIT SHELTER

ENHANCEMENT OPPORTUNITIES

Raised planters are typically edge with a 6 inch rectilinear concrete curb. A variety of different design solutions can provide additional enhancement to the typical planter in order to establish or reinforce existing context or add integrated seating.

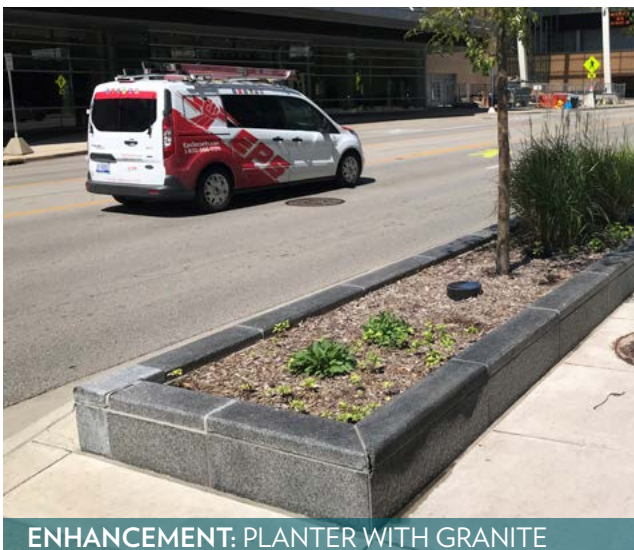
Planters that are enhanced (particularly planters that provide enhanced materials above and beyond standard concrete) will need to have an encroachment permit and maintenance agreement with the City of Grand Rapids.



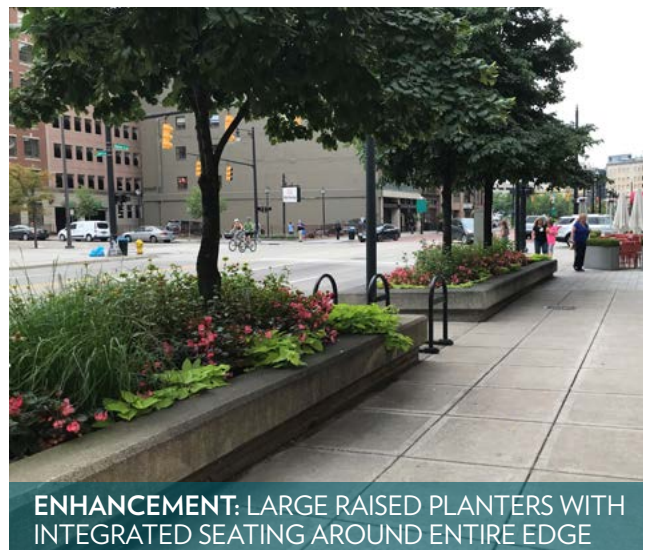
SHY ZONE PLANTER WITH ENHANCED MATERIAL



ENHANCEMENT: GRANITE PLANTER WITH CURVILINEAR DESIGN & INTEGRATED SEATING



ENHANCEMENT: PLANTER WITH GRANITE



ENHANCEMENT: LARGE RAISED PLANTERS WITH INTEGRATED SEATING AROUND ENTIRE EDGE

PUBLIC SEATING



OVERVIEW

Public seating creates a comfortable, usable, and active public environment where people can rest, socialize, read, or people-watch. It is a simple gesture that can go far to create an important sense of place. Seating creates places where people can see and be seen. This ability to entice people to linger is the hallmark of great and successful public spaces.

CITY REQUIREMENTS

The City of Grand Rapids encourages the installation of public seating in the Amenity Zone (and in the Shy Zone when space permits) where there are high concentrations of pedestrian activity and demonstrated need. This includes a majority of the downtown streetspaces.

Refer to the City of Grand Rapids **Vital Streets Design Guidelines** for additional requirements and guidelines regarding public seating.

The City of Grand Rapids may require an encroachment permit for the placement of public seating within the public right-of-way. Encroachment permits are facilitated by the City Engineer's office.

CITY COLLABORATION

Selection, installation, and maintenance of public seating shall be coordinated with the following City departments:

PRIMARY COORDINATION

- » Grand Rapids Planning Department Downtown
- » Grand Rapids Inc (DGRI)

POTENTIAL SECONDARY COORDINATION

- » Grand Rapids Engineering Department

ELEMENT DESIGN

- » Public seating should be made of durable, high-quality materials. Seating should complement and visually reinforce the design of other streetspace elements.
- » Public seating may take any number of forms, including the traditional bench-type seating, chair or stool type seating, or unique artistic seating. Seating can also be integrated into buildings, raised planters, and street walls. Cafe Seating is referenced in a separate sub-section of these guidelines.
- » Public seating should have a seating depth of at least 12 inches, with 18 inches being ideal.
- » Standard manufactured designs that are readily replaceable and repairable should be used unless there is an encroachment permit and maintenance agreement in place for unique fixtures.
- » Provide a mixture of seating types, where multiple street furnishings are used in close proximity, to accommodate different users' needs. Include both backed and backless bench seating as well as seating with and without center armrests.
- » Seatwalls may be used as formal or informal seating. For overall usability, seatwalls are recommended to have a height of 14-22". This form of seating can be paired with raised planters. Trees within raised planters require space for root growth. If seat walls are to be paired with raised planters, then soil depth should be considered. Refer to street tree and planter sub-sections of this chapter.
- » Seatwalls can be designed to be more inviting by adding additional seating features. These features are normally made of wood that can be attached to the top of the wall to encourage pedestrians to use the walls as seats.



PUBLIC SEATING PAIRED WITH PLANTER



PUBLIC SEATING PAIRED WITH PLANTER

ELEMENT PLACEMENT

Recommended placement considerations of public seating are as follows

- Public seating is generally located in the Amenity Zone of the streetspace but may also be located in the Shy Zone (next to the building frontage), if sidewalk space permits.
- Seating locations should be carefully evaluated to ensure that they will be visible and regularly used to enhance perceptions of safety.
- Seating should be placed in close proximity to street trees in order to provide shade.
- Seating should be provided for a minimum of two people whenever possible. Single seats may be considered but should be provided in groups of 2 or more.
- Seating must not impede or encroach upon the required 6 foot width of the Through Zone.
- Seating should be placed in such a way that use does not block pedestrian movements, building entries, loading zones, parked vehicles, access to fire hydrants, or other street functions.
- A 3 feet minimum clear zone should be provided to the sides and front of the seat to provide ADA accessibility and clearance for wheelchairs.
- Space adjacent to seating should be provided to allow for people to sit with (and adjacent to) their companions, who may be in wheelchairs or strollers.
- Seating should not be located within 7 feet of fire hydrants and should generally maintain 4 feet of clearance from other street fixtures.

WHY “SEATING WITHOUT CENTER ARMRESTS” IS IMPORTANT

Public seating should encourage people to linger in the streetspace. The invitation to linger is about creating places where a wide-range of users feel comfortable “hanging-out”. This can include many postures, ranging from sitting upright, to casually reclining, to even putting your feet up in a position of repose. While standard practice is to provide center arm rests on public seating to discourage sleeping, this is not always the best way to invite people to linger in the streetspace. Public seating should seek a balance to ensure that comfort and relaxation can be achieved, which may include seating options with no arm rests or other barriers to comfort.

PUBLIC SEATING [continued]



SEATING PERPENDICULAR TO CURB



SEATING PARALLEL TO THE CURB



CLUSTERED SEATING TO INVITE INTERACTION

»» Where sidewalk widths permit, public seating is preferred to be placed perpendicular to the curb in the Amenity Zone. When public seating is installed perpendicular to the curb, it is recommended that at least two seats be provided facing one another. This face-to-face arrangement of seating aids in the invitation for personal conversation and interaction.

»» Seating oriented parallel to the curb, when located in the Amenity Zone, should face toward buildings and the sidewalk (not street) *Exception: seating provided at transit stops should orient toward the street and transit service, refer to transit stops in these guidelines.*

»» Seating oriented parallel to the curb, when located in the Shy Zone, should face away from buildings and toward the sidewalk.

»» Public seating should be surface mounted to concrete with exposed fasteners and plates to aid in maintenance, repair and replacement. Seating should not be attached to brick pavers, sleeved into concrete, or attached to sub-base concrete below pavers.

WHY “CLUSTERING SEATING” IS IMPORTANT

Seating that is arranged so people can face each other promotes conversations and interactions between both friends and strangers. Clustering of seating also creates comfortable nooks that provide a sense of refuge and safety. These comfortable spaces and casual interactions oftentimes compel people to “linger longer” in the streetspace.

ENHANCEMENT: MULTI-PURPOSE ELEMENT

Public seating that is incorporated into other Amenity Zone elements to provide efficient use of limited space is encouraged as an option for standard public seating.

Additionally, public seating incorporated into building walls or frontages in the Shy Zone to provide visual interest and seating nooks is encouraged when space and design permits.

Enhanced public seating may be approved by City Planning and/or DGRI based on the following considerations:

- Seating should meet design criteria as outlined in these guidelines and the Vital Streets Design Guidelines.
- Seating should meet the placement requirements of these guidelines.
- Enhanced seating should provide increased comfort, improved sense of refuge, and/or increased potential for interactions between users.
- An encroachment agreement that includes delineation of ownership and a plan to maintain the enhanced public seating should be completed between the property owner and City of Grand Rapids.



SHY ZONE SEATING FACING SIDEWALK



PUBLIC SEATING PAIRED WITH BUILDING WALL

WHY “AT BUILDING WALL” IS IMPORTANT

Seating that provides a sense of refuge invites people to sit. This is a concept known as “prospect and refuge” where the opportunity to see and be seen (prospect) is paired with a feeling of protection and safety (refuge). Seating at the building wall provides this refuge because your back feels protected against the building wall.



STREET LIGHTING

OVERVIEW

Street lights extend city life past dusk, helping to make downtown a 16 hour/7 day destination. Street lighting sets the scene, provides ambiance, and reinforces a sense of safety for late night walks with the dog, sharing dessert in front of a favorite bistro, or helping to create a lively late night event. Street lights create nighttime vibrancy and reinforce cadence and vertical enclosure of the streetspace during the day. Paying close attention to the design and scale of street lighting promotes an active and energized streetspace that improves safety and security for all users.

CITY REQUIREMENTS

The City of Grand Rapids encourages the installation of purposeful and creative lighting elements to promote a safe and functional downtown streetspace.

Refer to the City of Grand Rapids Street Lighting Master Plan and the City of Grand Rapids **Vital Streets Design Guidelines** for additional requirements and guidelines regarding street lighting.

CITY COLLABORATION

Selection, installation, operations, and maintenance of street lights shall be coordinated with the following City departments:

PRIMARY COORDINATION

- » City of Grand Rapids Energy, Lighting and Communications Department

POTENTIAL SECONDARY COORDINATION

- » City of Grand Rapids Planning Department
- » City of Grand Rapids Engineering Department
- » Downtown Grand Rapids Inc (DGRI)
- » Grand Rapids Historical Preservation Commission

ELEMENT DESIGN

The design of street lighting should consider all users of the streetspace. Pedestrians, vehicles, pets, and even trees all interact with lighting elements to create a successful nighttime city experience. Design of selected street lighting should adhere to the following recommendations:

- » Light pole types should be in compliance with the Grand Rapids Street Lighting Master Plan and be approved by the Energy, Lighting and Communications Department.
- » The preferred fixture in Downtown is the 23' or 30' ornamental "Heritage Hill" anchor base pole with teardrop luminarie as detailed in the Grand Rapids Street Lighting Master Plan.
- » Pedestrian scaled lighting commonly ranges from 12'-18' above sidewalk grade and should be prioritized on Targeted Retail & Entertainment Corridors and Targeted Active Commercial Corridors (refer to GR Forward). Consideration should be given for addition of pedestrian scaled lighting arms that face the Pedestrian Zone for future lighting installations on these streets.
- » Travel Zone lighting is commonly 22 feet or more above sidewalk grade. This is consistent with most fixtures currently found within the downtown.
- » High-efficiency lighting elements (e.g. LED) and those powered by renewable energy are strongly recommended.
- » Full cutoff or shielded lights should be used to support International Dark-Sky Association goals, as required by the City's Zoning Ordinance.

- Intensity of light shall not exceed ten (10) footcandles at any point on a site, one (1) footcandle at any lot line with adjacent non-residential use, or 0.5 footcandles at any lot line with adjacent residential use or mixed-use property.
- Use of microcells, security cameras, and other necessary pole-mountable amenities should be colocated on light poles to minimize clutter.

ELEMENT PLACEMENT

Placement of selected street lighting should adhere to the following recommendations:

- Light poles are typically located 18" to 24" from back of curb or centered within the Amenity Zone and arranged in a straight line along the street. Coordinate placement of street lights with the curb paving patterns outlined in this chapter so that street lights are placed in concrete and not pavers.
- Street lights should be spaced as uniformly as possible to provide even light coverage of the Pedestrian and Travel Zones.
- Lighting that reinforces pedestrian-scale should be spaced 20'-40' apart. Although spacing is dependent on the specific fixture and luminaire selected.
- Pedestrian scaled lighting may be considered on streets with right-of-ways 66' or narrower as it is generally able to provide adequate light for the Travel Zone and the Pedestrian Zone. Special consideration for placement should be used on Targeted Retail & Entertainment Corridors and Targeted Active Commercial Corridors (refer to GR Forward).
- Street lighting that is more automobile-scaled is typically spaced 60'-120' apart. The influence of street light spacing as a traffic calming device should be considered when determining spacing. *Tighter spacing will give the street the perception of more enclosure and will thus slow down traffic.*
- Street lights may be arranged in an opposite or alternating pattern. Opposite configurations are generally associated with higher order streets or to reinforce the formality of a streetscape.
- Street lights should not interfere with street tree canopies, if possible. Minimum distances from trees should be determined according to specific species.
- Lighting may be increased to emphasize certain uses such as bike share stations, crosswalks, mid-block crossings, transit stops, and other locations with high levels of nighttime pedestrian traffic.
- Avoid light trespass. Light trespass occurs when light enters an unintended or unwanted area, such as on an adjacent residential property.
- Undergrounding utilities is strongly recommended on all streetspaces and should be prioritized during street and pedestrian zone construction projects.



TYPICAL ORNAMENTAL DOWNTOWN STREET LIGHT

STREET LIGHTING [continued]

ACCENT & PATH LIGHTING

Accent and path lighting provide important opportunities to enhance the streetspace by illuminating walkways and grade changes, enhancing building entrances, highlighting focal features, or brightening up public spaces where people gather.

Accent lighting can take many forms including pedestal lights, lit bollards, uplighting on landscaping, facade lighting, wall mounted lights, embedded lighting, and festoon lighting.

WHY “ACCENT LIGHTING” IS IMPORTANT

Accent lighting is an effective means of adding vibrancy and enhancing perceived safety into the nightlife of Downtown Grand Rapids. Appropriately-scaled and strategically-placed accent lighting can be used to direct pedestrian traffic into civic spaces of all sizes, proportion public spaces so that they have a more human-scale, add a “ceiling” of light to the outdoor room (festoon lighting), accent or enliven building facades, or simply provide a warm ambient light to the streetspace and adjacent areas.



UPLIGHTING ON LANDSCAPING



BOLLARD / PEDESTAL LIGHTING

FESTOON LIGHTING

Festoon lighting refers to strands of lighting that are hung over streets, alleys, and walkways. These lights can create a comforting sense of enclosure and unique identity for pedestrian-scale streetspaces.

Festoon lighting provides a “ceiling” to the outdoor room that helps to bring the scale down to a more human-scaled environment.

- Minimum height of festoon lighting over streets is 18’ at the lowest point.
- Minimum height of festoon lighting over pedestrian ways and walkways is 10’ at the lowest point.
- Lighting may be anchored on building facades, free-standing columns in the streetspace, or other suitable supports.
- Mounting festoon lighting systems to masonry walls should be done so as to avoid disturbing the brick or stone of the building. Fasteners should be fixed into mortar joints when possible, or as required by the Historic Preservation Commission.
- Considerations for potential ice and wind loads should be accounted for when selecting lighting and during design of the anchoring systems.
- An encroachment agreement that includes delineation of ownership and a plan to maintain festoon lighting in the right-of-way should be completed between the property owner and City of Grand Rapids.

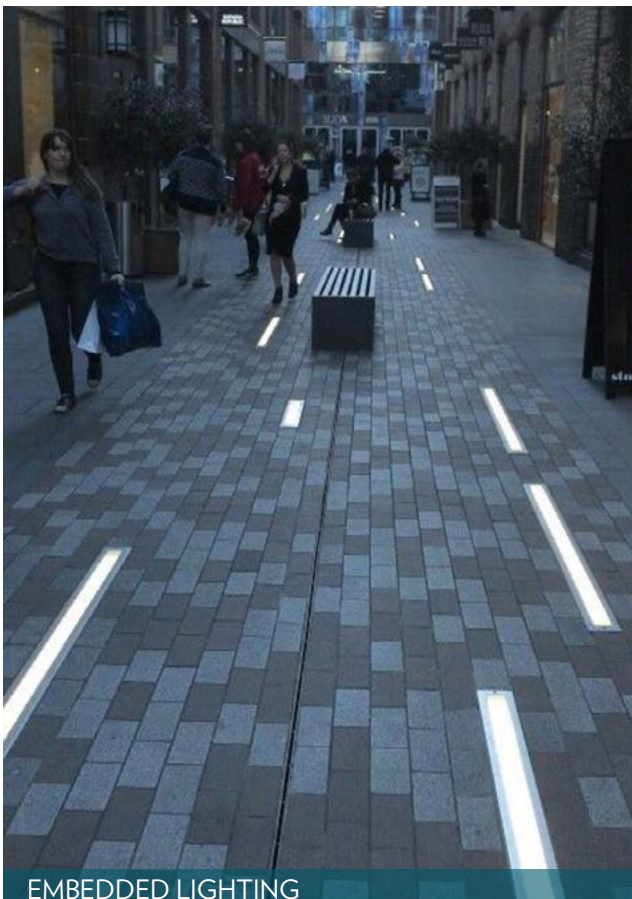


FESTOON LIGHTING

EMBEDDED LIGHTING IN PAVEMENT

Lighting embedded in pavement should adhere to the following recommendations:

- Fixtures should be winter hardy, including being durable enough to withstand snow removable operations (plowing and salting).
- All fixtures should be water-resistant and rated for outdoor use.
- Maintenance of embedded lights including how bulbs are replaced should be considered during fixture selection and installation.
- Lighting embedded in the pavement can accent landscaping or building facades. When using to accent a building facade, care should be taken to strategically place the lighting to optimize building accents and features.
- An encroachment agreement that includes delineation of ownership and a plan to maintain pavement lighting in the right-of-way should be completed between the property owner and City of Grand Rapids.



EMBEDDED LIGHTING

ACCESSORIES ON LIGHT POLES

Accessories may be added to light poles to create visual interest or reinforce district identity.

- Banners are an opportunity to reinforce district identity, promote local events, and provide an infusion of art. To hang a banner from a public light pole all pole and banner requirements must be met. Specifications and banner applications should be coordinated with the City of Grand Rapids and the Energy, Lighting, and Communications Department.
- Hanging baskets may be allowed on light poles with approval by Energy, Lighting, and Communications Department.
- Regulatory signage and traffic signals should be combined with light poles when possible to reduce street clutter.
- An encroachment agreement that includes delineation of ownership and a plan to maintain street light accessories in the right-of-way should be completed between the property owner and City of Grand Rapids.



HANGING BASKET ON STREET LIGHT POLE



STREET TREES

OVERVIEW

Healthy street trees are a critical and defining component to our streetspaces. Whether walking, biking, or driving, street trees have the ability to set a temperament for the urban environment. Tree lined streets can establish a calming sense of enclosure for those on our sidewalks, influence traffic speeds to increase safety, or provide a unique character for a downtown shopping district. Whatever the intended goal for a specific streetspace, street trees are proven to provide an array of environmental, economic, and social benefits to a city.

The urban tree canopy (UTC) goal set for Downtown Grand Rapids is 10%. Due to limited open space in this urbanized environment, trees within the right-of-way are the largest and most important opportunity to reach this goal. Therefore it is imperative that we utilize sustainable design practices which maximize healthy growth and longevity of street trees.

CITY REQUIREMENTS

Street tree and other landscape requirements are outlined in the City of Grand Rapids Zoning Ordinance. Refer to the City of Grand Rapids **Vital Streets Design Guidelines** for additional requirements and guidelines regarding street trees.

CITY COLLABORATION

Selection, installation, and maintenance of street trees shall be coordinated with the following City departments:

PRIMARY COORDINATION

- Grand Rapids Parks and Rec. Dept., Forestry Division
- Grand Rapids Planning Department

POTENTIAL SECONDARY COORDINATION

- Downtown Grand Rapids Inc (DGRI)
- Friends of Grand Rapids Parks - Urban Forestry Project

TREE SELECTION

- Planting large canopied trees should be prioritized whenever possible.
- Select tree species that are proven to be tolerant of urban conditions (salt, drought, heat etc.).
- If a uniform look is desired along a street, use trees with similar form and growth rates as opposed to planting the same species.
- Shade tolerant species should be considered in areas of heavy shade due to building heights, adjacent mature trees, and other factors.
- Tree species with a wider array of sun tolerance should be considered on east-west oriented streets to minimize decreased growth rates on the shaded, south side of the street. Providing additional soil volumes in shaded areas can offset differences in growth rates.
- Low stature trees should be selected when planting beneath overhead utilities.
- Be cognizant of required maintenance and tree litter (fallen branches, leaf litter, fruits, nuts, etc.)
- Refer to the City of Grand Rapids Approved Street Tree Species List for selection options.

WHY LARGE TREES ARE IMPORTANT

Using large trees optimizes the urban tree canopy and provides an estimated 5 times the amount of associated benefits compared to planting many small trees. Large trees also have the greatest potential to provide shade in the public right-of-way by forming a complete canopy over the street.

The following tree planting options provide guidance for tree installations within downtown streetspaces based on context and optimizing the health of the tree. Tree planting and installation should consider the tree as a user of the streetspace and ensure that required soil volumes are achieved.

SOIL VOLUME AND TREE TRENCHES

Restricted planting areas and lack of downtown sidewalk space require that special design considerations be explored to provide adequate soil volumes to ensure sustained and healthy tree growth (refer to the soil volume discussion later in this sub-section).

This is most effectively achieved by providing a continuous planting trench that extends below ALL the tree planting options outlined in this sub-section. This trench will, in most cases, connect these planting locations to each other below grade and extend under portions of adjacent paved surfaces in order to build healthy environments for the street trees to thrive.

PREFERRED OPTION: RAISED PLANTER

Raised planters are the preferred option in Downtown Grand Rapids. They can provide a large, protected planting zone which helps to decrease the likelihood of soil compaction due to foot-traffic. These generally take the form of a 6 inch concrete curb that surrounds the planter, although decorative options may be allowed when approved via an encroachment permit with maintenance agreement.

Refer to the planter sub-section in this chapter for additional guidelines for raised planters. Critical items from that section are reiterated below because of their importance to street tree health.

When street trees are planted in raised planters it is imperative that the minimum recommended width of 4 feet is adhered to so that proper soil volumes can be achieved - 5 feet is a better minimum width to consider during design to accommodate these required soil volumes.



RAISED PLANTER - MONROE CENTER



RAISED PLANTER WITH STORMWATER INLET

The soil level within raised planters is also a significant consideration as it can greatly influence the ability of street trees to root into planting soils beneath adjacent paving. Raising soil levels in excess of 6 inches above sidewalk grade can negatively impact tree growth and health. The ideal condition is to have planting soils near the level of sidewalk grade.

PREFERRED OPTION FOR LIMITED THROUGH ZONES: TREE WELL + RESIN BONDED PAVING

Where sidewalk widths do not permit the installation of raised planters, at-grade tree wells with resin bonded paving should be used for street tree planting. Like the raised planters, these tree wells will likely need to be connected to a planting trench to achieve appropriate soil volumes. It is not appropriate to have an isolated tree well in the streetspace, as these “tree coffins” do not support healthy street trees.

Resin bonded paving is a pervious paving material that allows the infiltration of stormwater while maintaining a walkable surface near the trunk of a tree. Currently the use of a porous paving aggregate mix that contains high levels of rubber is widely used throughout downtown. Although this material is cost-effective and increases walkable area of the streetspace, many installations have shown signs of slumping and cracking.



RESIN BONDED PAVING

CHAPTER 2 PEDESTRIAN ZONE

2.3 PEDESTRIAN ZONE ELEMENTS

STREET TREES [continued]

An alternative such as a resin bonded gravel should be explored as a more durable standard option for the City. Resin bonded gravel products have been found to be more stable option compared to rubber mixes. Non-bonded, matching gravel should be installed within 6 inch radius of the trunk to allow for trunk development.

Both of the aforementioned paving treatments require regular cleaning to retain permeability. Therefore installation of either type of product may require a maintenance agreement with the City.

ALTERNATIVE DESIGN OPTIONS

Although raised planters and tree wells with resin bonded paving can be applied to many, if not most, conditions in downtown, it is well understood that leaving room for design alternatives is important to achieve dynamic and functional streetspaces. The following alternative design solutions present options that may be explored depending on context and streetspace constraints.

An encroachment agreement that includes delineation of ownership and a plan to maintain these alternative planters may need to be completed between the property owner and City of Grand Rapids.

ALTERNATE: AT-GRADE PLANTERS

At-grade planters can provide a viable option in situations of limited space and low pedestrian traffic. Similar to raised planters, at-grade planters should consider planting trenches, soil volumes, and irrigation during planter design.

Refer to the planter sub-section in this chapter for additional guidelines for at-grade planters.

ALTERNATE: PAVERS AT TREE WELL & TRUNK

Installing permeable pavers at street tree trunks and tree wells can give a unique aesthetic and increase usable sidewalk surface. This may be desired at building entrances, near loading zones, or where cafe seating is provided. Pavers within the root zone should be permeable systems set on sand beds and non-compacted soils within a planting trench. Pavers should be maintained to create a 6" minimum space around the tree trunk. This treatment requires periodic maintenance as developing trunk flares can heave pavers which will have to be removed or repaired.

ALTERNATE: BULB-OUT (CURB EXTENSION) PLANTERS

Bulb-out tree planters can be created by converting on-street parking spaces or through other flex zone rebalancings to accommodate a 6 foot wide planting space. Similar to raised planters, bulb-out planters should consider planting trenches, soil volumes, and irrigation during planter design.

Refer to the planter sub-section in this chapter for additional guidelines for bulb-out planters.

ALTERNATE: RAISED PLANTERS + INTEGRATED SEATING

Planters may also be enhanced with seat walls that integrate public seating with the raised planter. Similar to raised planters, these planters should consider planting trenches, soil volumes, and irrigation during planter design.

Refer to the planter sub-section in this chapter for additional guidelines for raised planters with integrated seating.

NOT APPROVED: TREE GRATES

Tree grates are not an approved tree planting choice within the City of Grand Rapids and should not be used within the public right-of-way.



AT-GRADE PLANTER



PAVERS AT TREE WELL AND TRUNK



BULB-OUT TREE PLANTERS

TREE PLACEMENT

Tree spacing is a key consideration when designing a successful streetscape. Spacing can be manipulated as a traffic calming device (tighter spacing = slower traffic), to provide shade along sidewalks and for outdoor seating, to allow for more light to penetrate into desired locations, or to provide visibility to storefronts along retail corridors.

In addition to these considerations, when determining appropriate tree spacing it is also important to allow for growth of mature tree canopies.

Although canopy spacing of specific species vary greatly, general recommended tree spacings are as follows:

- Large Trees: 25-40 feet on center
- Medium Trees: 20-30 feet on center
- Small Trees: 15-20 feet on center

Trees should be placed (at minimum):

- 15 feet from street lights as well as stop or yield signs.
- 10 feet from driveways, fire hydrants, and above ground utility boxes.

- 10 feet from transit boarding/landing zones.
- 30 inches from back of curb, at non-intersections.
- 20 feet from back of curb at intersection. Note that trees within the clear vision corner must be limbed up to a minimum height of 7 feet.
- Avoid conflicts with above ground utilities by using short stature trees.
- Use less aggressively rooting species and root barrier when planting near below-ground utilities.
- Avoid blocking business signage and display areas whenever possible. Trunks should aim to be aligned with pilasters and other breaks in transparent frontage to reduce such conflicts. In these instances it is still important to prioritize the use of large canopy trees. Although narrow trees allow for increased visibility of the building, they provide less urban tree canopy (UTC) and shade.

Trees should be limbed up a minimum of 14 feet when along retail corridors to promote visibility of storefront and business signage.



RECOMMENDED TREE PLACEMENT AND SPACING

WHY STREET TREES ARE GOOD FOR BUSINESS

In most instances, business owners and developers are the driving parties behind development and construction in Downtown Grand Rapids and are therefore a critical component in the conversation about how our streets are developed. Budgetary limitations often lead to restrictive funding for streetspace improvements as they are difficult to relate to direct return on investment. However, research has shown that mature street trees provide significant economic benefits by increasing rental rates of retail and commercial business, increase amounts consumers are willing to spend on goods and services by an estimated 9%, and increase the distance consumers are willing to travel to a shopping district. Establishing a healthy urban forest is therefore a way to support economic development in the downtown.

STREET TREES [continued]

SOIL VOLUMES

Establishment of a sustainable urban forest is dependent upon limiting tree mortality rates. Studies have found that the average lifespan of an urban tree is approximately 7 years. Providing adequate soil volumes has been directly linked to the ability of a tree to grow into maturity and is arguably the most important factor in increasing the longevity of street trees in Downtown Grand Rapids. It is recommended that 2 cubic feet of planting soil be provided per square foot of tree canopy. Preferred soil volumes for trees are as follows:

- >> Small Tree: 600 cubic feet
- >> Medium Tree: 1,000 cubic feet
- >> Large Tree: 1,500 cubic feet

In most urban contexts, open tree planters cannot achieve these volumes without a supplemental root zone beneath adjacent paved surfaces. The best way to achieve this for multiple trees along a contiguous length of street is to provide a continuous planting trench that is 8 feet wide (minimum of 5 feet), while also providing 3 feet of soil beneath the walking surface profile (including base material). Continuous trenches allow multiple trees to share a large, common soil volume and increase growth potential.

Planting trenches should be implemented for at-grade planters, raised planters, or tree wells (that have resin bonded paving or permeable pavers). Tree pits that are not connected with planting trenches should be avoided. When implementing any of the tree planting options outlined in this sub-section, the goal should be to maximize available soil volumes.

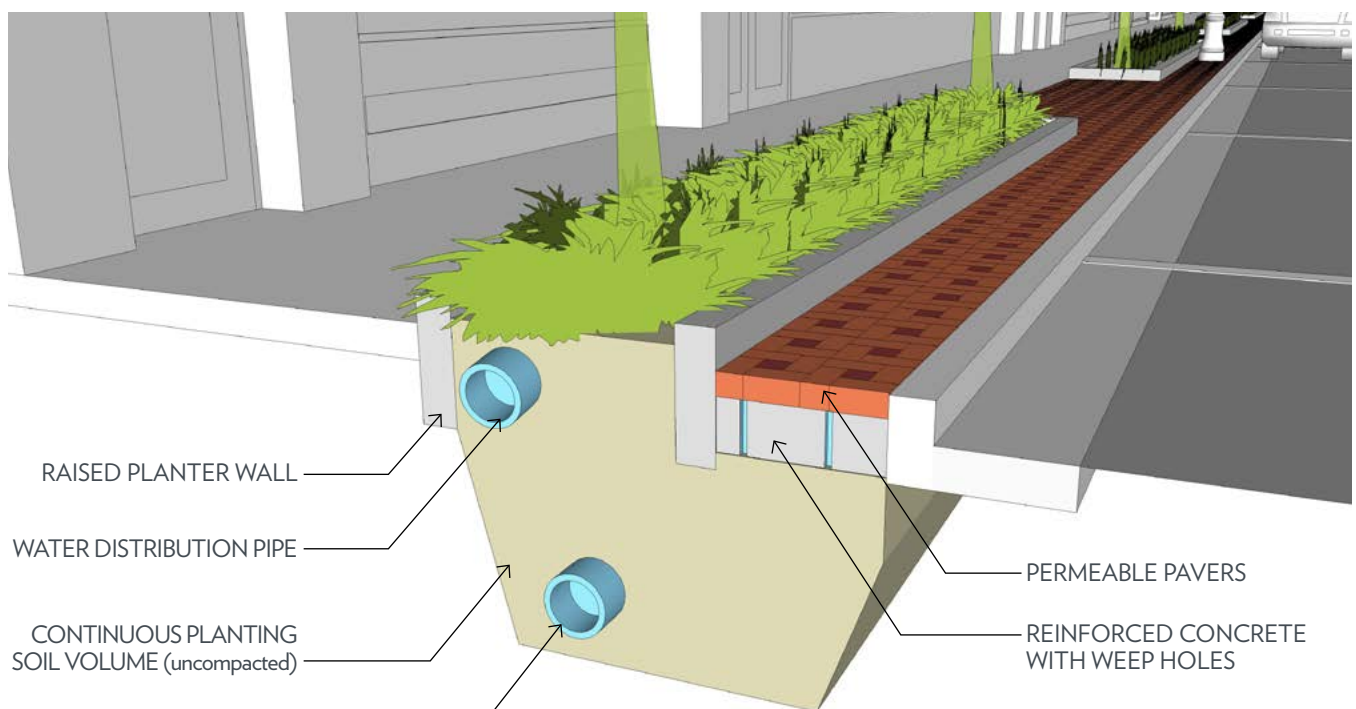
In instances where planting soil volumes are to extend beneath the paving in the planting trench, common solutions include installing soil cells (see products by companies such as GreenBlue and DeepRoot), spanning reinforced concrete over planting soil, and structural soil. However, it is strongly recommended that structural soils are *not* used because they have been found to greatly decrease growth rates and canopy density.

It is also important to remember that planting soil should not be compacted within these planting trenches.

Refer to the City of Grand Rapids Green Infrastructure Standards for approved details of various techniques to provide required soil volumes.

For information on planting soils, refer to the following specification:

http://www.urbantree.org/pdf_pds/UTF_Planting_Soil_Final_Version.pdf

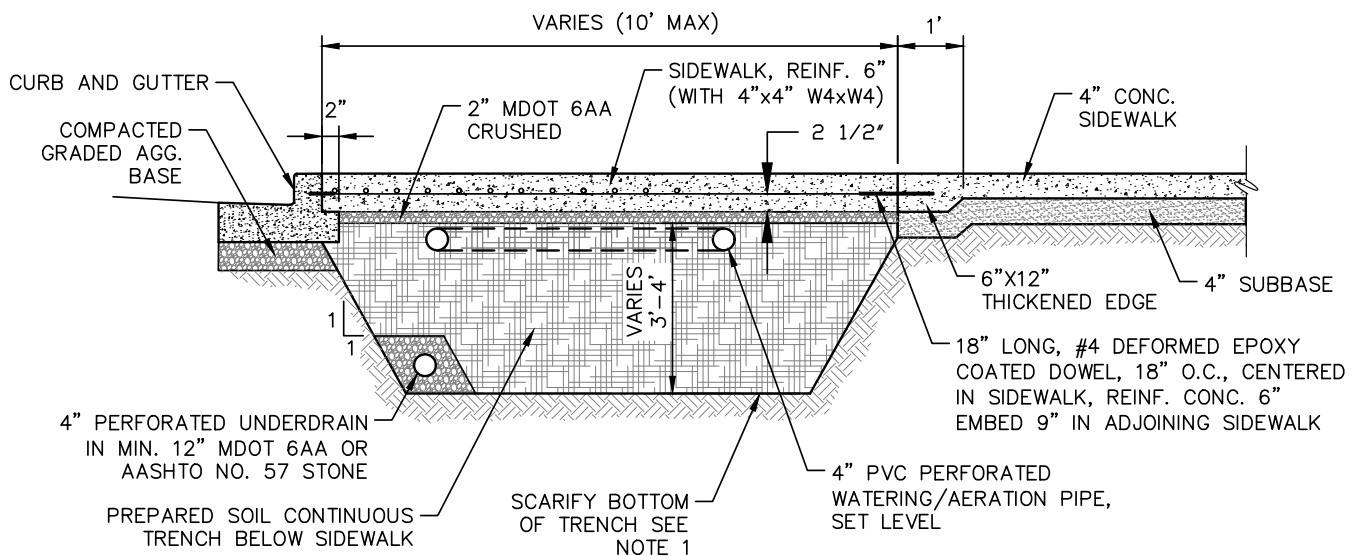


*Not for construction. Refer to the City of Grand Rapids Green Infrastructure Standards for approved details

CONTINUOUS PLANTING TRENCH WITH PERMEABLE PAVERS



SOIL CELLS BENEATH PERMEABLE PAVERS WITH A CONTINUOUS PLANTING TRENCH



*Not for construction. Refer to the City of Grand Rapids Green Infrastructure Standards for approved details

EXAMPLE DETAIL: REINFORCED CONCRETE WALK OVER PLANTING TRENCH WITH PREPARED SOIL

TRANSIT STOPS



OVERVIEW

As Grand Rapids expands its network of multimodal transportation options, enhancing the existing transit system will entice new riders as well as increase frequency and comfort for current riders to reduce traffic congestion and create a more navigable downtown. Through the inclusion of visible signage, comfortable shelters, lighting, and a realistic expectation of stop times, the system can support a more sustainable and economic solution for both residents and visitors alike.

CITY REQUIREMENTS

Transit access and amenity requirements are outlined in the Transportation & Mobility chapter of the City of Grand Rapids Zoning Ordinance.

CITY COLLABORATION

Selection, installation, operations, and maintenance of transit amenities shall be coordinated with the following City departments:

PRIMARY COORDINATION

- The Rapid (fixed-route corridors)
- Mobile GR/Parking Services Dept.(DASH routes)

POTENTIAL SECONDARY COORDINATION

- City of Grand Rapids Planning Department
- City of Grand Rapids Engineering Department
- City of Grand Rapids Water Department
- Downtown Grand Rapids Inc (DGRI)
- Local CIDs, BIDs, & Neighborhood Associations

TRANSIT STOP PLACEMENT

Transit stop placement should be assessed based on contextual circumstances such as lane configurations, intersection function and operation, and operational requirements for other modes of transportation. The following guidelines may apply to stop placement:

- **Far-Side Stops** are the preferred placement option and are highly recommended on blocks in which buses do not leave the travel lane to make stops, or when the stop is at a signalized intersection.
- **Near-Side Stops** are generally preferred at “stop-controlled locations”. These are recommended when the near-side stop location aligns better with pedestrian destinations, is adjacent to uses with high ridership, or is near schools or other highly utilized adjacent uses when compared to far-side alternatives.
- **Mid-Block Stops** are used on long blocks with important mid-block destinations or at major stops that require space to accommodate multiple bus queuing.

Other placement considerations include the following:

- Transit stops should be set a minimum of 45 feet past crosswalks when located on the far side of an intersection. However, final location is dependent upon transit vehicle length and desired vehicle stacking configuration.
- Transit stops are recommended to be set back 10 feet from crosswalks at the near side of an intersection, but may be as close as 5 feet.
- Place stops near crosswalks, intersections, or mid-block crossings when possible. When located at mid-block crossings, stops should be located behind the departing transit vehicle.

TRANSIT STOP AMENITIES

Transit stops vary from a simple signpost to a raised sheltered platform with seating, ticket vending, trash receptacles, emergency beacons, and real time informational signage.

Selecting the appropriate amenities to provide at a transit stop depends on various factors including the type of transit line it serves, the transit emphasis of the street, and the volume of expected users. The following amenities should be considered when installing a transit stop:

- **Signage:** At a minimum, all transit stops should include a clearly visible sign that communicates the type of transit provided both graphically and textually. Informational signage can also include route maps or real-time transit arrival times. *Bilingual signage is strongly encouraged on all transit stops.*
- **Seating:** Transit stop seating should be prioritized whenever possible. This is especially important to people with disabilities and people with children.
- **Shelters:** Transit stop shelters should be prioritized at locations that are heavily used or likely to serve high volumes of transit customers, such as outside of a hospital or school. Sizes and styles of shelters may vary based on intended use and capacity.
- **Lighting:** All transit stops should be well lit at all times to promote safety and comfort, either by adjacent street lights or internally.
- **Real Time Arrival Information:** To aid in the transit customers' commutes, real time arrival information can be added to the transit stop. This real time information can be in the form of a kiosk, map or digital banner that provides transit timing and routes.



REAL TIME TRANSIT BANNER AT THE SILVER LINE

TRANSIT SHELTER DESIGN

The design and placement of transit shelters should consider the following factors:

Grand Rapids is a temperate climate and experiences a wide range of weather events. The design of the transit shelter should take into account exposure to sun, rain, snow, and wind, along with splash concerns from the roadway.

ADA requirements must be met. ADA clearance must be kept at a minimum width of 48 inches for all passable pedestrian paths leading to the boarding and alighting area. The boarding and alighting area should maintain a clear space of 60 inches (parallel to curb) by 96 inches (perpendicular to curb). A 30 inch by 48 inch clear space should be provided entirely within the shelter to accommodate wheelchair users. These, and other ADA requirements, may influence final stop configurations due to availability of space within the Pedestrian Zone.

Visibility for both waiting transit customers and transit operators should be considered. Fully transparent glass is the ideal material for shelter walls. The glass provides weather protection while also allowing for high visibility for both transit customers and transit operators.

TRANSIT SHELTER TYPES

Transit shelters in Downtown Grand Rapids should follow one of the following configurations:

- **Opening Facing Toward Street:** This style of shelter places a bench along the glass wall parallel to the roadway, facing traffic. It allows for clear visibility, and an accessible route with a preferred width of 48 inches between back of curb and shelter. The bench is placed so as to minimize splashing that may occur from passing traffic, but may not protect transit customers fully.
- **Opening Facing Away From Street:** This style of shelter is useful in instances where Pedestrian Zone width is limited. By placing the shelter 2 feet from the back of the curb and opening toward the public walk, this configuration utilizes the sidewalk as the accessible route to the boarding and alighting area. In this scenario, benches are oftentimes placed with their back facing the street.
- **Building Mounted Shelters:** Building mounted shelters may be allowed with approval by the City and an easement from the property owner. Clear delineation between the building's operations and function of the transit stop should be provided when using building mounted shelters.

Transit shelters in downtown should be approximately 5 feet deep x 9 feet long (for areas with ample sidewalk space), or 2 feet deep x 9 feet long (for areas with narrow sidewalk space).



WASTE & RECYCLING

OVERVIEW

Cleanliness is one of the most influential factors in determining how one perceives a city and the duration that they are willing to spend in a place. Providing convenient, recognizable, and easily maintained waste and recycling receptacles is imperative to the cleanliness of Downtown Grand Rapids.

Users should be able to easily identify the correct receptacle into which to dispose either waste or recyclables. Additionally, those maintaining these receptacles should be able to efficiently empty, clean, and maintain them when necessary.

Although viewed by some as purely utilitarian, proper selection and placement of these fixtures can greatly impact the success of a public space while adding to the aesthetics of it.

CITY REQUIREMENTS

Waste and recycling containers should maintain clear vision and required pedestrian clearance. These regulations are outlined in the City of Grand Rapids Zoning Ordinance.

CITY COLLABORATION

Selection, placement, and maintenance of waste and recycling receptacles shall be coordinated with the following City departments:

PRIMARY COORDINATION

- »» City of Grand Rapids Public Services Dept.
- »» City of Grand Rapids Engineering Dept.
- »» Downtown Grand Rapids Inc (DGRI)

ELEMENT DESIGN

Public litter/waste and recycling containers should be made of durable, high-quality materials, and utilize receptacles which coordinate with other streetspace elements. The design of selected waste and recycling containers should adhere to the following standards:

- »» Litter and recycling containers should have a minimum capacity of 30 gallons.
- »» To keep water and debris from filling the receptacle, covered lids with disposal openings located on the bin sides are desired.
- »» Receptacles may have detachable lid or a side door that allows for ease of access, emptying, and maintenance
- »» Depending on location and level of permanence, receptacles should be either bolted or unbolted to concrete sidewalk pavement. Containers should not be bolted to brick, or concrete sub-bases that have brick over the sub-base.
- »» The use of color to identify waste and recycling should be consistent throughout the City, with selected powder coating that aligns with Kent County's Separate Organic Recycling and Trash (S.O.R.T) program: red denoting trash, yellow denoting recycling, and green denoting organic/compost.

ELEMENT PLACEMENT

Properly locating waste and recycling receptacles is a key factor in keeping Downtown Grand Rapids clean and inviting. Placement of these elements should prioritize convenience of use in order to minimize littering.

Unfortunately, it has been found that people are more likely to litter when they see existing litter, so preventing initial misuse is crucial. The following are guidelines for waste and recycling receptacle placement:

- It is recommended that each downtown block includes 2-3 waste receptacles. This includes placement of receptacles at the ends of the block, (near cross walks), with additional receptacles at key mid-block locations.
- Additional receptacles should be placed in high-traffic locations such as transit stops, outside food vendors and convenience stores, shopping districts, outside event centers, and near seating areas.
- Place receptacles within clear sight and oriented so that container symbols or text can be easily identified.
- Receptacles should be placed near, not at, seating areas with a preferred distance of 5 to 10 feet of separation.
- Recycle containers should always be placed directly adjacent to waste receptacles. When placed separately, users tend to use the bins interchangeably, further leading to cross contamination of recycled materials. Additionally, placing these elements together reinforces the behavior of recycling and the expectation that both of these amenities will be present.



RECEPTACLES WITH CLEAR AND SIMPLE VISUAL CUES LIKE VARIED COLORS, SYMBOLS, TEXT AND DISPOSAL OPENING SHAPES

PUBLIC SPACE RECYCLING

Through the integration of a public space recycling system, Grand Rapids will take one more step in becoming a sustainable city. Although many are familiar with the concepts of recycling, cross contamination is the leading challenge regarding public waste separation. The majority of users will only take a few seconds to determine which bin to discard waste, so it is imperative to provide convenient and easily interpreted waste and recycling receptacles which aid in the decision-making process.

The following recommendations have been crafted to enhance the effectiveness of a public recycling system:

- Each receptacle should be identified with markings that provide simple instruction at the moment of discard. Clear and simple labels using colors, symbols and signage are key to helping users easily interpret the disposal system.
- Receptacles which have lids with openings similar to the shape and size of commonly recycled materials help provide visual cues to guide the correct placement of waste. These restrictive lids may be used for recycling, while wider opening lids may be used for litter containers. By utilizing restrictive lids for recycling, the rates of contamination may be reduced.
- In the summer of 2018 Downtown Grand Rapids Inc (DGRI) initiated a pilot recycling program on Monroe Center. This program co-located recycling containers with existing litter receptacles in order to test and measure results and determine feasibility of operations.

This pilot should be followed by regular audits surveying the contents and rates of contamination, along with the operational feasibility of the program. Based on the habits of users over a period of several months, the City and DGRI should either pursue a recycling education program as needed, or expand the recycling system if the pilot program yields successful results.

WHY “NEAR, NOT AT SEATING” IS IMPORTANT

A common design mistake is to locate litter receptacles next to public seating for convenience. This option literally stinks. The smell or uncleanness (actual or perceived) of waste receptacles is antithetical to the goal of getting people to linger in the downtown. Placing receptacles 5 to 10 feet from (but within clear view of) any public seating areas leads to a more inviting sitting experience while minimizing littering.

WAYFINDING



OVERVIEW

Wayfinding is the art of urban navigation and the creation of a legible urban fabric. Through the organization of signage, streetspace elements, materials, directional indicators, and web-based applications; a city can be more intuitively navigated and explored with greater confidence and understanding by both locals and visitors.

CITY REQUIREMENTS

Signage requirements are outlined in Article 15, Signs in the City of Grand Rapids Zoning Ordinance.

All wayfinding signage should consider following the adopted graphic convention of the downtown wayfinding system. It is suggested that the wayfinding system be updated to broaden its interpretation of wayfinding elements and incorporate principles outlined within this chapter.

CITY COLLABORATION

The creation and implementation of the City's existing wayfinding elements found throughout downtown today have been implemented by the DDA and DGRI. Future expansion, design and implementation of wayfinding elements should be coordinated with the following City departments:

PRIMARY COORDINATION

>> Downtown Grand Rapids Inc (DGRI)

POTENTIAL SECONDARY COORDINATION

>> City of Grand Rapids Planning Department

>> City of Grand Rapids Engineering Department

READING A CITY

To explore a city is to understand a city by gaining knowledge and seeking destinations that expand ones mental model of physical space. Cognitive mapping, where individuals begin to develop a mental picture of a place, relies on a user's ability to recall and decode visual cues.

Because visual cues play a significant role in how we interpret a space, wayfinding systems should be simple, easy to read, and follow a recognizable pattern that is consistent throughout the boundaries of the downtown. These systems should be integrated into the streetspace as cohesive but identifiable amenities.

Modern techniques of wayfinding, like cell phones and global position systems (GPS), are at the fingertips of many urban travelers. These technologies create an ease of navigation throughout the urban environment, but at the detriment of an individual's cognitive mapping abilities.

By providing an integrated and engaging system of wayfinding and visual cues outside the realm of personal GPS, users can more easily decode a place and build their own mental model.



TYPES OF WAYFINDING

Wayfinding can include explicit components such as signage and maps, as well as implicit components such as sounds, smells, or tactile cues. Using visual, tactile and verbal cues, wayfinding elements direct users and convey knowledge about a place. There are four primary types of wayfinding markers.

>> Identification

A device that denotes a specific location. For example, a sign to the entrance of a park or an auditory recording denoting arrival at a transit stop.

>> Directional

An element that provides cues to guide a user to a specified destination. For example, street signs or the use of repeating streetspace elements along the street.

>> Informational

A feature that displays a user's location and provides details about their surrounding environment. For example, a directory or city map, with a "you are here" notation.

>> Regulatory

A device that conveys laws or requirements of the area. For example, speed limits or no parking signs.

ENGAGING WAYFINDING CUES

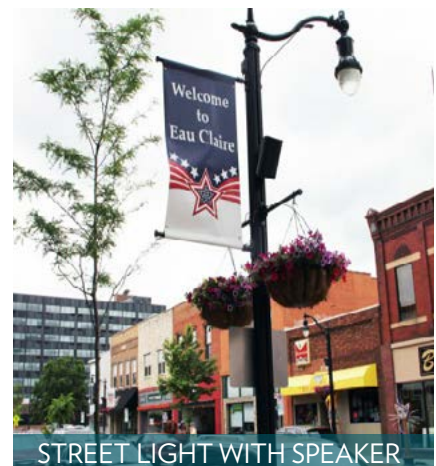
Creating a wayfinding system that catches the attention of the intended user group can be a somewhat delicate balance. Form, scale, and placement of wayfinding elements are key to guide intended groups, while other features such as tactile paving and signage, targeted illumination, and street music can offer alternative cues that engage specific users at differing levels.



TACTILE SIGN



TARGETED LIGHTING



STREET LIGHT WITH SPEAKER

WAYFINDING [continued]

THINKING BEYOND THE SIGN

Wayfinding is typically presented in the form of a collective signage system, but can manifest in many differing forms. Although signage is critical when creating a wayfinding system, it is important to recognize that signage is only one piece of the navigational process. When possible, alternative forms of wayfinding should be incorporated as part of a system that will contribute to the development of an engaging and universally accessible city - these forms may include:

>> Projected Wayfinding

Using a graphic projector or an interactive visual display projector is an innovative option for creating versatile digital wayfinding. This wayfinding element offers the ability to quickly update content and placement, and has lower long term maintenance costs and increased durability.

>> Mobile Device Wayfinding

Providing wayfinding apps can expand on the capabilities of personal mobile devices. These features can not only build upon the basic functions of navigation, but also allow users who may be visually impaired to receive vocal direction, or translate text for those who speak another language. Although many urban users have mobile devices, it is important to recognize that this is not a feature all people have access to and therefore it should only be used to supplement wayfinding efforts.

>> Audio Wayfinding

The use of sound for wayfinding can provide verbal cues for direction and create a sense of arrival through music. Speakers used for this audio wayfinding can be discrete (built into the landscape or other amenities) or stand out (auditory instruction for the visually impaired) based on the intended use. Like both the mobile device and the projected wayfinding techniques, audio wayfinding is easy to customize and adapt for changing needs.

>> Tactile Wayfinding

Tactile features can be incorporated into both traditional and alternative wayfinding elements. Adding raised or textural elements on a wayfinding sign can help those who cannot see better understand a place and create an engaging experience for users to build their cognitive map. Tactile wayfinding on the ground plane can be used as a warning device, denote a change in context, or direct users to key nodes or places.

Other types of alternative and implied wayfinding elements include, but are not limited to, illumination, pavement markings, murals, and reinforced view lines.



DESIGNING FOR THE USER

Appropriately scaled, positioned, and oriented wayfinding elements should be applied to pedestrians, persons riding bicycles, and motorists as separate user groups. It is important that wayfinding elements are oriented to the appropriate user while remaining inconspicuous to another. By visually separating wayfinding elements between these groups, there is a reduced conflict and simplification of the wayfinding experience. This design for the user can impact scale and placement of the various wayfinding elements.

PLACEMENT & ORIENTATION

Wayfinding placement should consider the following:

- Vertical wayfinding elements should be located in the Amenity Zone when implemented within the streetspace (e.g. signs, speakers, projectors, kiosks). However, areas outside of the public right-of-way, such as plazas, trails, or commercial/institutional facilities may also host wayfinding installations.
- Wayfinding elements located on the ground plane should only be placed within the direct line of travel for the intended users (e.g. pedestrians, persons riding bicycles, and motorists).
- Wayfinding signage should be consolidated or combined with other streetspace furnishings whenever possible to reduce visual clutter.
- Prioritize wayfinding element placement, particularly informational features, at high-traffic nodes and along higher order streets.
- Place wayfinding at consistent and predictable locations to help visitors more easily seek its location. For instance, consider placing wayfinding maps at transit shelters.
- All map-based features should be oriented so that the user is facing North when looking at that feature. Informational elements displaying any maps should always be oriented with North facing up or forward for consistency and legibility.



GROUND PLANE WAYFINDING

SIZE, DIMENSIONALITY, AND SCALE

Wayfinding size, dimensionality, and scale should consider the following:

- Wayfinding should be properly sized so as to be easily read by the intended user type (e.g. human-scaled features for pedestrians) while remaining inconspicuous to unintended viewers.
- Directional and regulatory wayfinding features should be sized so that they are evident to those seeking them, but generally should recede into the overall streetspace. In contrast, identification and informational wayfinding elements should be sized so that they are highly visible.
- Map and navigational scale is an important feature on wayfinding maps. Consider illustrating scale in an easily digestible graphic such as in the form of estimated travel distances (e.g. circles showing 5 minute walking distances).
- Wayfinding installations should be sized and placed to preserve viewlines within the streetspace and to distinct features or popular destinations.



INFORMATIONAL SIGN SCALED FOR VISIBILITY

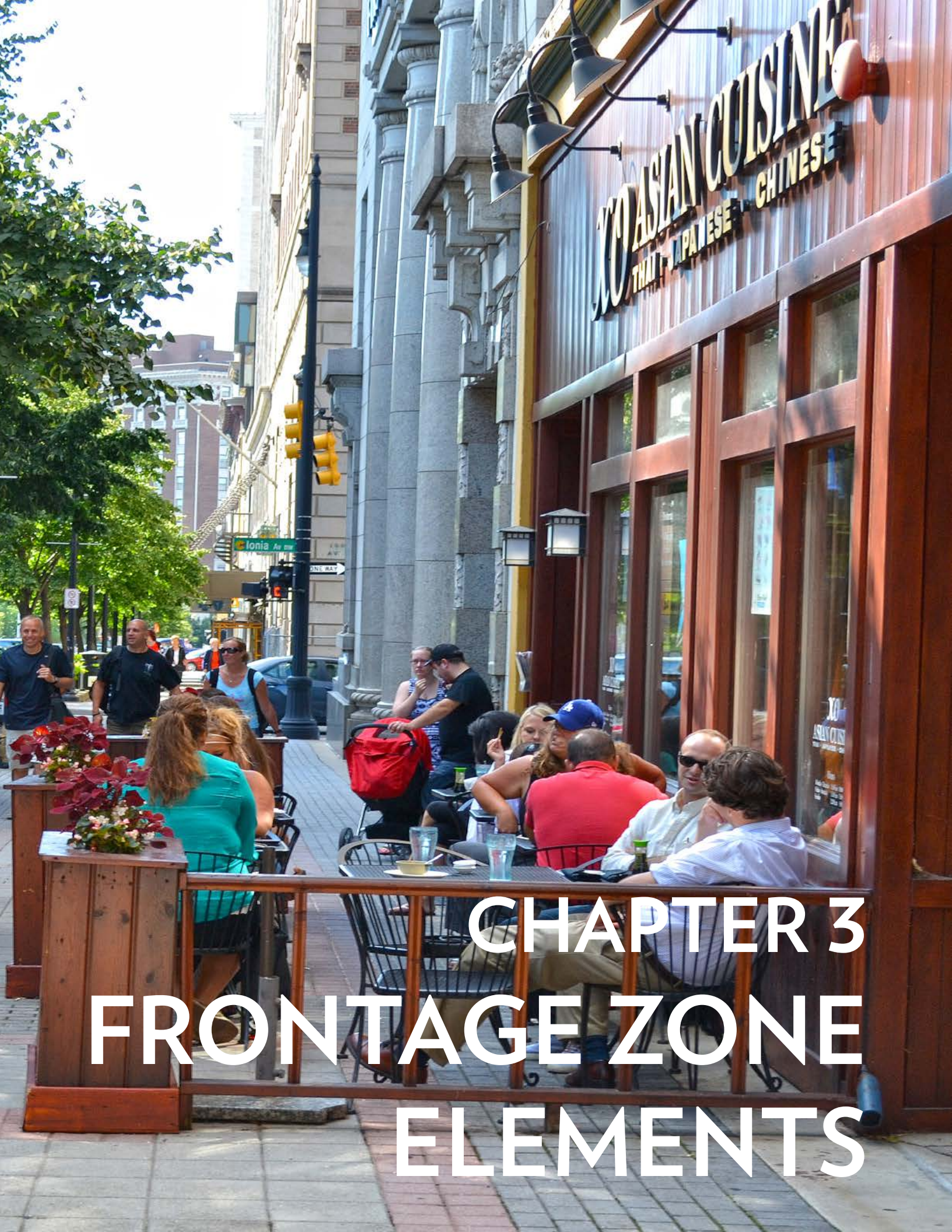
PROJECT EVALUATION

>> CHECKLIST FOR EVALUATION OF PROJECTS: PEDESTRIAN ZONE GUIDELINES

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CHAPTER 3 FRONTAGE ZONE ELEMENTS

FRONTAGE ZONE OVERVIEW



FRONTAGE ZONE

[chapter 3.0]

The Frontage Zone is considered part of the streetspace because it provides the edge or wall that defines the outdoor room. This zone is part of the development space in the form of the exterior building wall. It also represents an edge that provides doors, windows, lighting, and articulation that accentuate visual interest, activity, and commerce.

Pedestrians are apt to prefer streetspaces high in complexity since these spaces provide interesting things to look at: building details, signs, surfaces, changing light patterns, shadows and highlights, and of course, other people. Low complexity within the streetspace will be boring. However, if this complexity is not balanced with some sense of visual order, the streetspace may likely be viewed as “messy” and incoherent.

Therefore a goal is to create places that have both high complexity and just enough visual order to ensure that the place is dynamic enough to support and enhance street life within the urban context. The building wall, especially at the ground level, should be “rich and organized” while contributing to a busy and dynamic streetspace. This ground level provides legibility of elements when one is very close to the building - the **human scale** (or sometimes referred to as the pedestrian scale).

In addition to this human scale, **overall scale** is also important because it provides building legibility from a distance, some level of visual order within the larger urban framework, and links the ground plane with the rest of the building.

These frontage zone guidelines address both the human scale and the overall scale of the building wall to provide various opportunities to invite people to linger within the streetspace and to continue their journey along the sidewalk. This frontage zone chapter provides:

>> **Building composition** guidelines to inform the overall scale.

>> **Active wall** guidelines to inform the human scale of the ground plane. To support this human scale, ground floor building walls should aspire to the higher end of the A, B, C scale to the right.



ACTIVE GROUND FLOOR FRONTAGE

Small units and many doors (approximately one door every 20 feet)
 Clear glass and high transparency ratios (above 60% of wall surface)
 Large variation in ground floor use
 No blank walls and few passive frontages
 Lots of character in facade relief
 Primarily vertical facade articulation
 Pedestrian-scale (“high touch”) materials and details



FRIENDLY GROUND FLOOR FRONTAGE

Relatively small units & many doors (approx. one door every 25 to 30 feet)
 Clear glass and high transparency ratios (above 60% of wall surface)
 Some variation in ground floor use
 No blank walls and few passive frontages
 Facade relief with some vertical articulation
 Many pedestrian-scale details



MIXED GROUND FLOOR FRONTAGE

Large and small units with varied doors (approx. one door every 35 feet)
 Some clear glass and varied transparency ratios
 Modest variation in ground floor use or function
 Some blank walls and passive frontages
 Modest facade relief with limited vertical articulation
 Few pedestrian-scale details

**FRONTAGE ZONE CHARACTERISTICS ABOVE THIS LINE
 INVITE PEOPLE TO LINGER AND USE STREETSPACES**

**FRONTAGE ZONE CHARACTERISTICS BELOW THIS LINE
 DISCOURAGE PEOPLE TO LINGER OR USE STREETSPACES**



BORING GROUND FLOOR FRONTAGE

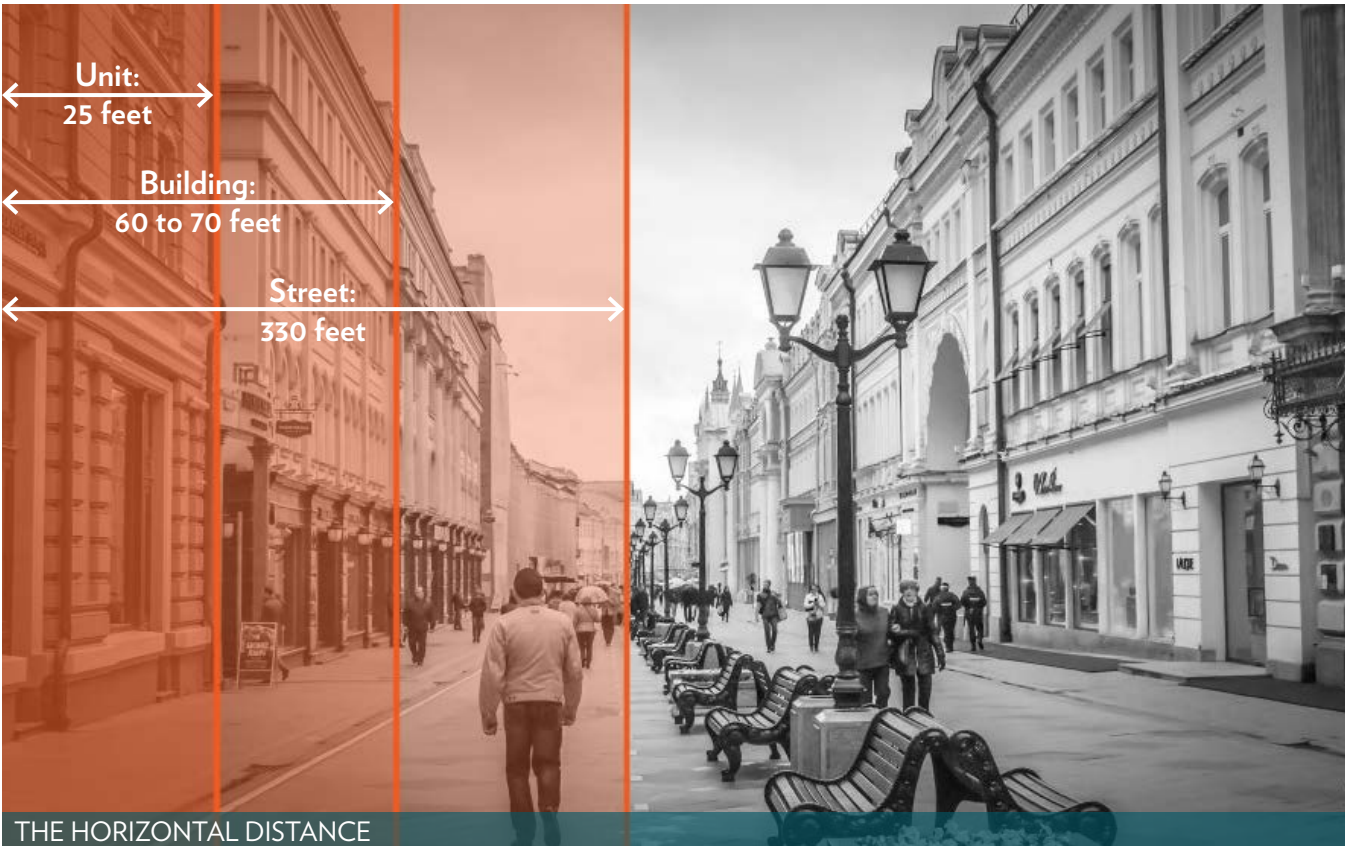
Large units with few doors (approximately one door every 65 to 100 feet)
 Some clear glass and low transparency ratios
 Almost no variation in ground floor use or function
 Many blank walls and uninteresting frontages
 Almost no facade relief
 Few or no pedestrian-scale details



INACTIVE GROUND FLOOR FRONTAGE

Large units with few or no doors (approx. one door every 150 feet or more)
 Very little transparency
 No variation in ground floor use or function
 Mostly blank walls and uninteresting frontages
 Uniform facades, no details, nothing to look at

HUMAN SCALE



The Downtown Grand Rapids Streetspace Guidelines, and specifically this frontage zone chapter, references and highlights human scale (or pedestrian scale) as a critical factor when building the elements, details, and interfaces of the streetspace. As such, having a general understanding of what human scale means is important.

HUMAN SCALE (PEDESTRIAN SCALE)

Understanding how the human body perceives space is a first step in designing streetspaces at scales that improve human comfort. This requires conscious decisions that enhance multi-sensory characteristics and recognize that streetspaces are three-dimensional environments and not just static planes.

The characteristics and scales critical for an enhanced pedestrian environment are based on building wall planes that act as variable edges along the path of travel. These edges create complex partial enclosures and make each streetspace unique depending upon composition.

Building walls (or frontage zones) that provide enhanced pedestrian environments require increased attention to, and complexity within, two critical linear dimensions. These are the **vertical dimension** of the building ground floor - which passes immediately beside pedestrians as they are walking, and the **horizontal distance**, or the distance down the street that is visible to the pedestrian.

Vertical Dimension: The pedestrian's experience is strongly influenced by the vertical height of the building wall or frontage. The human eye typically perceives the space within the angles of 50–55 degrees above and 70–80 degrees below a direct horizontal line.

The image on the adjacent page indicates the eye height (horizontal line) and the perceived vertical height most intensely experienced by the pedestrian. This is the lower one to two floors of a building.

This lower portion of the building wall plane is most successful when it contains a sufficient level of detail and articulation, where it is more closely readable to the human eye, and renders the sidewalk experience interesting and engaging for the walker.

This vertical dimension is most directly addressed by the Active Wall Guidelines of this chapter.

Secondarily, the Building Composition Guidelines address additional elements that impact the vertical dimension (most directly, the section on materials).

Horizontal Distance: The image on the adjacent page indicates the three sub-scales of horizontal distance, as outlined below:

- The Scale of the Establishment/Unit: The smallest scale of pedestrian experience occurs within the closest 25 feet of the viewer. This is the scale at which the senses are most engaged with the complexities of facade articulation, active entries, transparency, textures, awnings, signage, and architectural details.
- The Scale of the Building: 60 to 70 feet is the distance at which the human eye can begin to read facial expressions. It is the mid-scale of rhythm often demonstrated when there are a series of different buildings, and therefore vertical distinctions between them, on the same block. When a single building extends the full length of a block, it can quickly become monotonous and repetitive for the person walking next to it. In these cases, variety is encouraged through the use of different materials, window patterns, cornice lines, and other architectural articulations.
- The Scale of the Street: 330 feet is often considered the farthest distance that the human eye can see people or objects in motion. At this scale, people see landmarks in the distance, constructed view corridors, or vanishing points. This guideline uses this distance as the total length of the sidewalk room.

This horizontal distance balances both the Active Wall Guidelines and the Building Composition Guidelines because both human scale and overall scale impact the perception of horizontal distance.

WHY HUMAN SCALE IS IMPORTANT

Credible and legible horizontal distance is needed to beckon people to continue their journey along the sidewalk.

Properly articulated, detailed, and legible vertical distance is needed to both invite people to linger within the streetspace and to continue their journey along the sidewalk.

These two scales, and the various elements that reinforce and articulate them in the streetspace frontage, are outlined in the following pages of this chapter.

COMPOSITION: 3-PART BUILDING



3-PART BUILDING COMPOSITION

THE 3-PART BUILDING (BASE + BODY + TOP)

Technically referred to as the tripartite division, the building facade should be organized into three distinct sections including a base, body, and top.

- A TOP:** The building should have a defined top edge represented by a cornice, an expression line, or similar architectural treatment that clearly provides an upper terminus to the building mass and facade. This top articulation may incorporate the uppermost floor on taller buildings.
- B BODY:** The building should have a primary facade that represents the floors above the base. This facade should have a consistent architectural pattern that may include windows within a wall, glass curtain walls, or other similar architectural treatments that express the floor divisions of the building and convey the overall scale of the building.
- C BASE:** The building should have a clearly defined base, wherein the ground floor is articulated differently from the rest of the building by a change of material, a slight setback of the floors above the base, an expression line, or other significant element. This base articulation may include 2 - 3 additional floors on taller buildings to accentuate the building base and define the streetspace edge.

CITY REQUIREMENTS

Downtown Grand Rapids consists of the CC and TCC Zoning Districts.

Article 6.08 of the City of Grand Rapids Zoning Ordinance requires that structures in the CC and TCC Zoning Districts incorporate Building Elements that include expression lines at the building base. These expression lines are consistent with these “3-part” building guidelines.

CITY COLLABORATION

Building design is required to conform to the City of Grand Rapids Zoning Ordinance.

PRIMARY COORDINATION

- >> Grand Rapids Planning Department
- >> GR Historic Preservation Commission, as required

WHY 3-PART DESIGN IS IMPORTANT

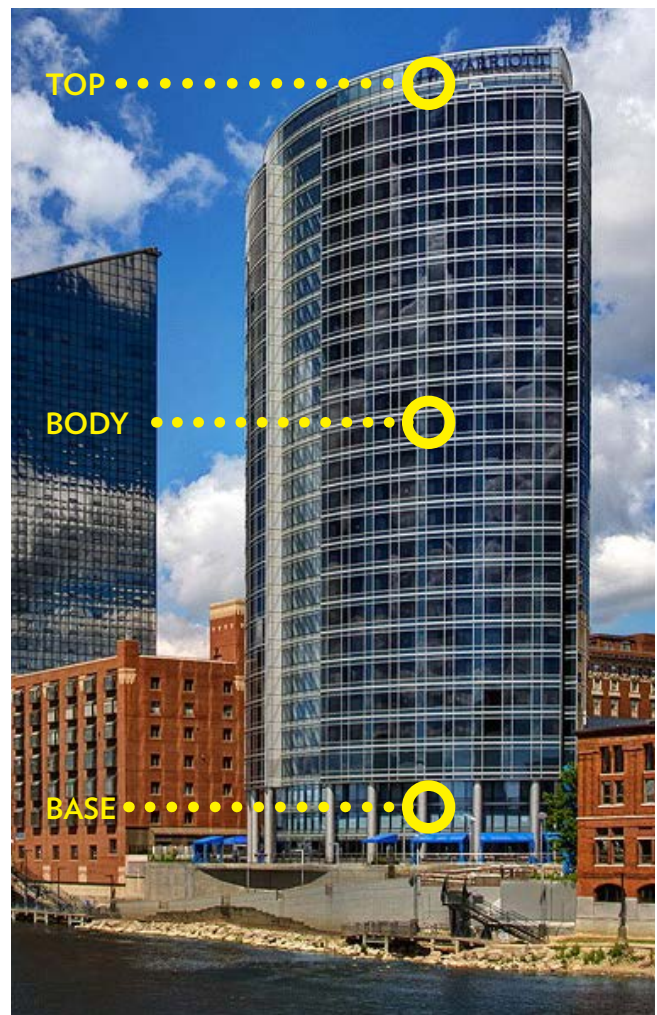
Buildings that incorporate a “3-part” design establish a scale and mass that is consistent with urban form and human-scaled outdoor rooms. These buildings reinforce the sense of scale at the street level, provide visual cues about the building’s relationship to its context, and provide the walls of a visually interesting streetspace.

A NOTE ON STYLE

The “3-part” design is not a mandate on architectural style, but rather a guideline to establish visually coherent urban buildings that are consistent with their context.

While the building to the left is traditional in its style, the “3-part” design is also exhibited in contemporary buildings within the Downtown Grand Rapids context.

An example of a 3-part contemporary building is below.



COMPOSITION: VERTICAL PATTERN



VERTICAL COMPOSITION PATTERN

VERTICAL PATTERN

Buildings should have a clear vertical emphasis that promotes a sense of human scale and visual interest by dividing the mass and scale of long horizontal facades into smaller parts.

These vertical patterns, typically composed of pilasters or other architectural elements that extend from the ground floor to the building top (cornice), help to divide the building into smaller proportions that are consistent with existing lot widths and facade dimensions in Downtown Grand Rapids.

This facade division and modulation is typically accomplished through variations of projection within the facade (for example, pilasters would typically project from the main portion of the wall). It is recommended that the typical pilaster projection range from between 8 inches and 16 inches from the building wall. This is because too small projections lose their vertical pattern and too deep projections oftentimes compromise the appearance and effectiveness of the storefront wall by shrouding it in shadow and obscuring its view from the sidewalk.

Oftentimes these vertical patterns are interrupted by the horizontal expression lines of the building but are still perceived as vertical elements.

Creation of vertical patterns and the accentuation of facade depth is important. However, over emphasis of this articulation - by trying to make a larger building look like a series of significantly different small buildings, the use of too many materials or colors, or extreme variations in the surface plane - should be avoided.

CITY REQUIREMENTS

Downtown Grand Rapids consists of the CC and TCC Zoning Districts.

Article 6.08 of the City of Grand Rapids Zoning Ordinance requires that structures in the CC and TCC Zoning Districts incorporate Building Elements that include facade variation, articulation, and vertical lines. These zoning requirements are consistent with these vertical pattern guidelines.

CITY COLLABORATION

Building design is required to conform to the City of Grand Rapids Zoning Ordinance.

PRIMARY COORDINATION

- >> Grand Rapids Planning Department
- >> GR Historic Preservation Commission, as required

WHY VERTICAL PATTERN IS IMPORTANT

Buildings that incorporate a vertical pattern create a sense of texture, an enhanced three-dimensional quality, a sense of facade depth, and shadow lines within the wall of the outdoor room.

This articulation, particularly at the street level, enhances the pedestrian experience by providing something interesting to look at through the variation of materials, forms, and surfaces along the building frontage. This variation is important to encourage pedestrians to continue their journey within a streetspace.

Additionally, the placement of vertical elements provide visual cues to break-up the storefront module into recognizable human-scale walls. These regularized breaks help to focus attention on the individual storefront as potential customers walk by.

A NOTE ON STYLE

The vertical pattern is not a mandate for a specific architectural style, but rather an architectural detail that helps to establish human-scale, texture, and interesting variations within the walls of the outdoor room.

While the building to the left is traditional in its style, the vertical pattern is also exhibited in contemporary buildings within the Downtown Grand Rapids context.

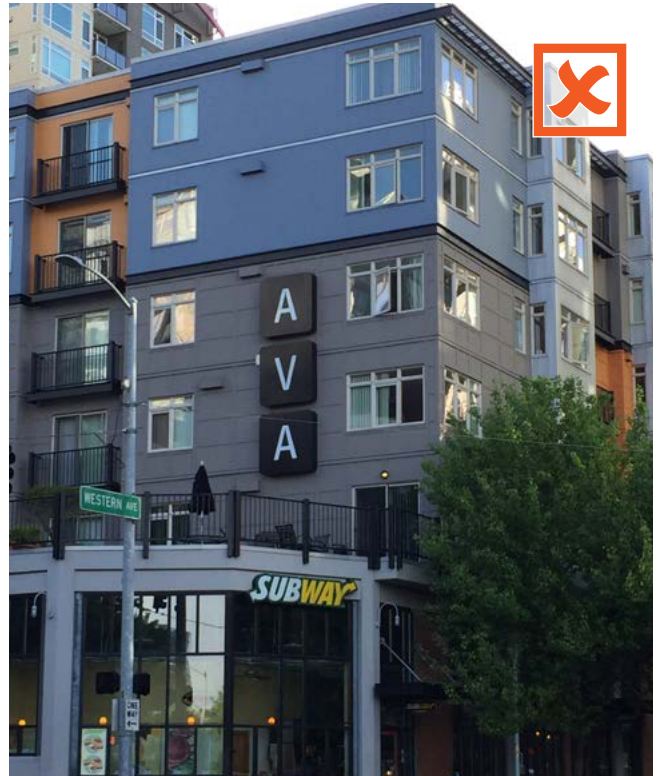
An example of a vertical pattern on a contemporary building is included below.



COMPOSITION: MATERIALS



ONLY TWO DIFFERENT MATERIALS ARE USED TO MAKE THIS HIGH-QUALITY FACADE CONTRIBUTE VISUAL CONTINUITY AND VISUAL INTEREST



TOO MANY MATERIALS & COLORS COMPROMISE THE VISUAL CONTINUITY OF THE FACADE



JUMBO, OUT OF SCALE BRICK



STANDARD HEIGHT BRICK (BRICK IS LONGER THAN STANDARD, BUT STILL MAINTAINS HUMAN-SCALE)



SIMPLE MATERIAL PALETTE



DURABLE MATERIALS THAT PATINA OVER TIME

MATERIALS

Building facades should use high-quality, durable materials that contribute to the visual continuity of the context, provide a sense of scale and texture, and convey a high level of detail that accentuates visual interest.

Building materials, especially at the ground level, should adhere to the following guidelines:

- >> Pedestrian-scaled:** Material sizes and proportions should follow historic material scale which was typically smaller and more detailed. This smaller material scale provides visual interest at the 3 mph speed of the pedestrian. Many contemporary materials are intended to be viewed at higher automobile speeds.

For instance, brick sizes should follow standard size (3-5/8" x 2-1/4" x 7-5/8"), particularly in their height. Jumbo bricks distort the pedestrian sense of scale and introduce an auto-oriented scale to the streetspace.

Human-scaled details also provide a finer-grain building wall that adds to the complexity of the streetspace and breaks down the rhythm of the overall horizontal distance, making street and block lengths appear shorter and thus more inviting to continue the journey.

- >> Keep material palettes simple:** Limit the number of materials and colors on the primary street-facing facade and avoid mixing several materials in a way that results in an overly busy design. Simple material palettes with only slight variations provide a more coherent building design while maintaining a sense of scale. The use of several different materials and colors is not an effective way to provide building articulation.

- >> Durability:** Choose materials that are likely to maintain an intended finish over time or timeless materials which wear in, patina, or embrace evolution over time.

Incorporate materials at the ground level that will withstand on-going contact with people on the street - sustaining impacts without compromising appearance.

- >> High Quality:** Avoid using imitation or highly-reflective materials that may detract from the overall human experience and perception of continuity of place.

WHY MATERIALS MATTER

High-quality and human-scaled materials are the building blocks of good buildings, great streetspaces, and meaningful human experience in the public realm. The message of quality and durability inherent in long-lasting materials promotes the human perception of timelessness and continuity of place.

High quality materials provide an expression of importance for the quality of the pedestrian experience. For instance, brick elements provide a particularly strong connection between human scale and the built environment. The size of a brick is directly related to the ability of a mason to lay it comfortably by hand. Therefore, we perceive buildings that have been assembled with human-scaled materials as the result of tangible human activities rather than as abstract or synthetic.

Materials also contribute to the perception of a building's overall scale and texture. Individual elements of a known size, such as a brick, allow the observer to understand the total size and scale of the structure. The texture of the surface, together with its color, will affect its visual weight, scale, and light-reflective qualities.

Materials make a difference and their selection should be carefully considered through the lens of size, scale, durability, and human perception.

CITY REQUIREMENTS

Downtown Grand Rapids consists of the CC and TCC Zoning Districts.

Article 6.08 of the City of Grand Rapids Zoning Ordinance requires that structures in the CC and TCC Zoning Districts incorporate Building Elements that include specific material requirements. These zoning requirements are consistent with these material guidelines.

CITY COLLABORATION

Building design is required to conform to the City of Grand Rapids Zoning Ordinance.

PRIMARY COORDINATION

- >> Grand Rapids Planning Department**
- >> GR Historic Preservation Commission, as required**

COMPOSITION: WINDOWS



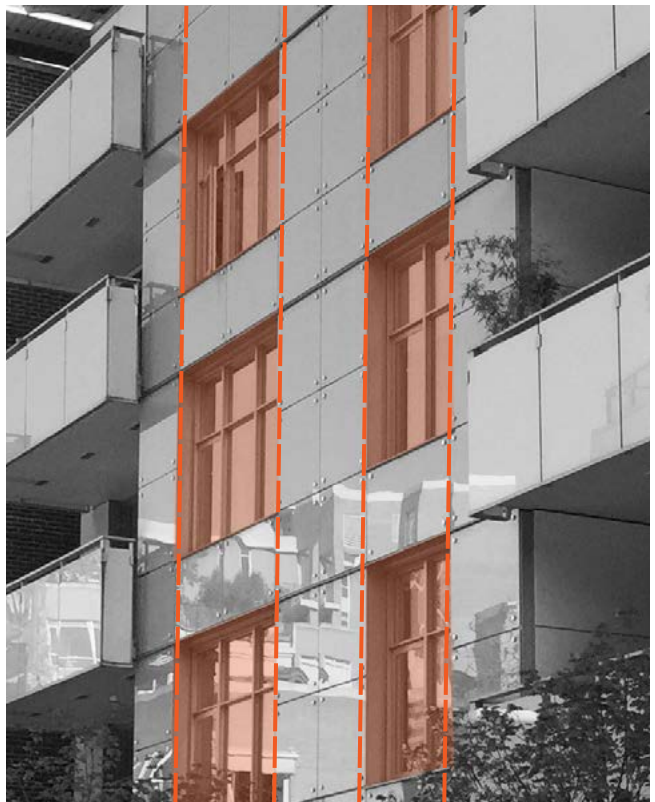
RECESSED WINDOWS IN TRADITIONAL STYLE



RECESSED WINDOWS IN CONTEMPORARY STYLE



HORIZONTAL PATTERN IN TRADITIONAL STYLE



VERTICAL PATTERN IN CONTEMPORARY STYLE

WINDOW RELIEF AND PATTERN

While windows contribute many valuable functions to buildings, their ability to provide relief and organization to the building facade is perhaps their most valuable compositional property.

FACADE RELIEF: Windows should be recessed within the wall plane, rather than flush with it, to break up the mass of the building wall, accentuate facade materiality, and highlight facade division and modulation. When paired with pilasters, recessed window openings also help to accomplish and reinforce the vertical pattern and articulation referenced on pages 100 and 101 of these guidelines.

Window recesses should be composed and balanced relative to the facade size, mass, and design in order to avoid recesses that are too deep or overly exaggerated.

WINDOW PATTERN: Windows arrayed in a regularized framework within the building wall are the easiest way to create easily understood and recognizable facades that are scaled to people.

Patterns that reinforce the cadence and horizontality of building floors are encouraged.

Patterns that respect the vertical articulation referenced on pages 100 and 101 are encouraged.

Vertical (rather than horizontal) oriented window openings are also encouraged to reinforce the vertical articulation of the facade composition.

CITY REQUIREMENTS

Downtown Grand Rapids consists of the CC and TCC Zoning Districts.

Article 6.08 of the City of Grand Rapids Zoning Ordinance requires that structures in the CC and TCC Zoning Districts incorporate Building Elements that include facade variation, articulation, and transparency. These zoning requirements are consistent with these window relief and pattern guidelines.

CITY COLLABORATION

Building design is required to conform to the City of Grand Rapids Zoning Ordinance.

PRIMARY COORDINATION

- >> Grand Rapids Planning Department
- >> GR Historic Preservation Commission, as required

WHY RECESSED WINDOWS ARE IMPORTANT

The shadow lines created by recessed windows establish an interplay between shadows and highlights within the building facade. This interplay, which can change throughout the day, makes the facade more dynamic and more visually interesting by introducing variety to the wall surface. This variation makes the facade more interesting to look at and helps to encourage users of the streetspace to linger in the space.

Windows that are flush with the building wall create monolithic, oftentimes visually uninteresting facades that read as thin “wall paper” applied uniformly over a building mass. These monolithic expressions provide little opportunity to create dynamic and visually interesting “walls of the outdoor room”.

WHY WINDOW PATTERNS ARE IMPORTANT

Windows arrayed in a regularized horizontal pattern establish the outward appearance of building floors, which in turn gives the casual observer an understanding of building height and scale.

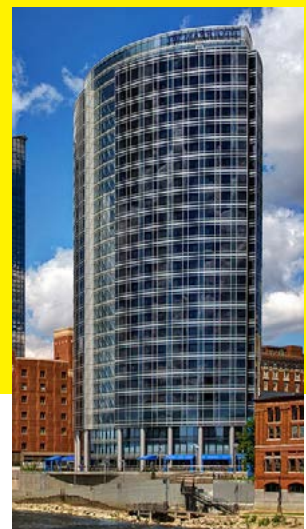
Windows arrayed in a vertical pattern emphasize the vertical divisions of the building and provide recognizable human-scale walls that are divided into smaller parts.

Window patterns that introduce competing vertical or horizontal elements to the facade can distort both the vertical dimension and horizontal distance that enhance pedestrian environments.

A NOTE ABOUT CURTAIN WALLS

These window guidelines are associated with buildings that have “punched window openings” intermixed with solid walls. Many buildings are rendered with curtain wall “skins” that are made up of glass (or glass-like) panels that blur the lines between window and wall.

These window guidelines do not intend to discourage curtain wall buildings and obviously do not need to be applied to them.



COMPOSITION: FACADE LIGHTING



FACADE LIGHTING

Facade lighting is encouraged as a method to highlight and accentuate interesting features in a building's structural and architectural form as seen from various vantage points.

Architectural features that can be subtly highlighted include columns, piers, cornices, window openings, or decorative features.

Lighting of facades is typically rendered in a soft white or light yellow hue, although color lights can also provide dramatic or seasonal highlights that make the downtown even more dynamic (refer to lower left photo on facing page).

The source for facade lighting should have limited or no visual impact on the facade. Lighting should be from concealed lighting fixtures; luminaires and electrical conduit should not be directly visible from view of the sidewalk or street.

ABOVE & BEYOND: PROJECTION MAPPING

In addition to facade lighting, the use of projection mapping for either special events or as a longer-term theme should be considered for buildings and locations within the downtown.

Projection mapping is a projection technology used to turn objects, like buildings, into a display surface for video projection to add extra dimensions, optical illusions, and notions of movement onto previously static objects. The video is sometimes combined with, or triggered by, audio to create an audio-visual narrative.

While not all locations are appropriate, some basic guidelines for selecting appropriate buildings include:

- >> White, off-white, or light gray in color
- >> Non-reflective, or matte, finishes
- >> Lightly-textured surfaces
- >> Some architectural features
- >> Limited surrounding light sources
- >> Reasonably sized (3-4 stories in size)

Projection mapping should not be used as advertising. Changing or movable images must not interfere with traffic safety. All projection mapping must be approved by the City of Grand Rapids Planning Department and the Mobile GR and Traffic Safety Department.

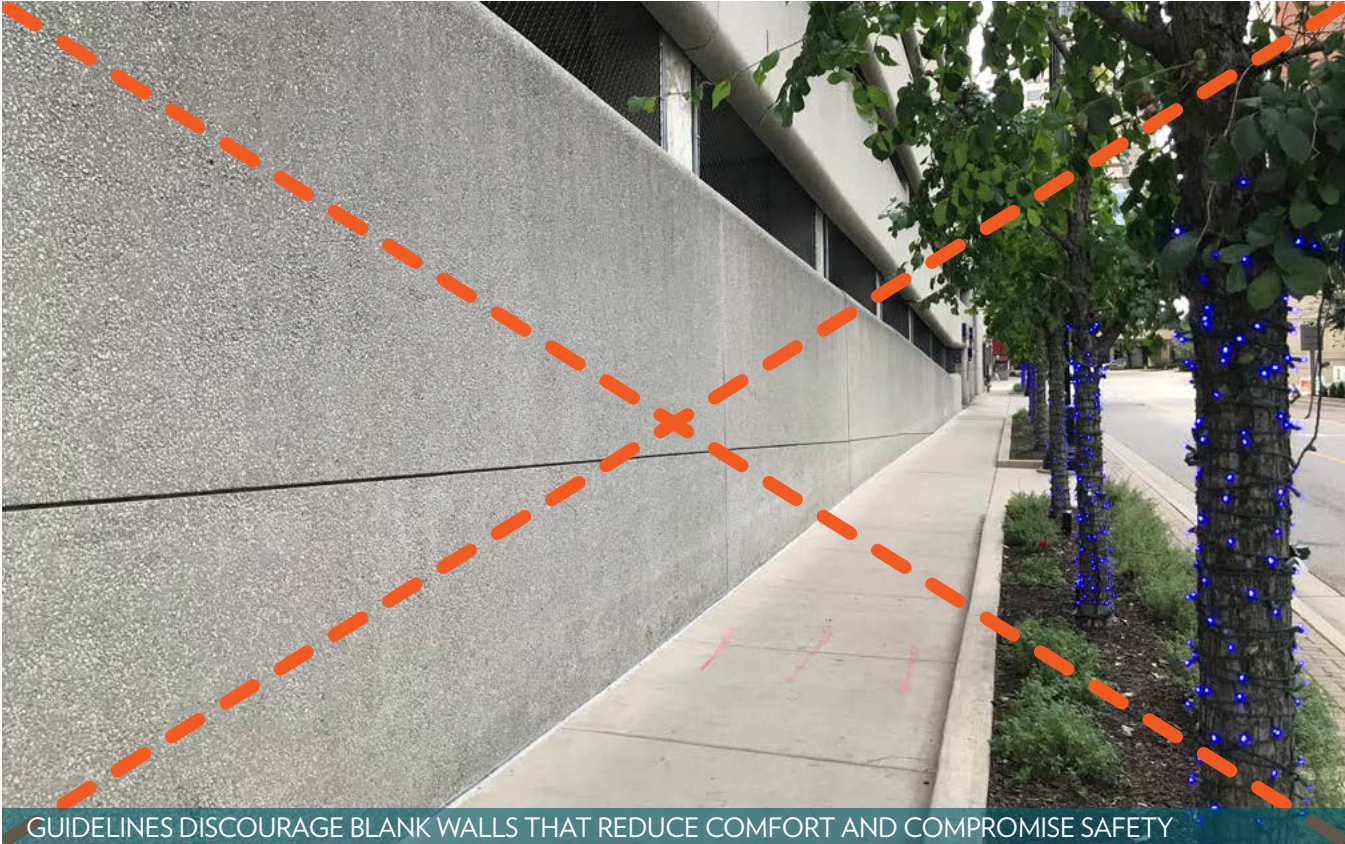
WHY FACADE LIGHTING IS IMPORTANT

The strategic lighting of building facades helps to extend the active hours of the streetspace by providing visual interest at night and oftentimes helping to make streetspaces feel more safe.

Facade lighting is an effective tool to extend our downtown's perceived hours of operation and make it a true 16/7 (16 hours a day/7 days per week) active place that is safe and enjoyable for all.



GROUND FLOOR ACTIVE WALLS



ACTIVE WALLS (OR AVOID BLANK WALLS)

Building facades that face streetspaces or other public space should be activated with windows, entrances and an adequate level of articulation and detail to support a visually engaging experience.

Active walls should not include (or greatly limit the amount of) blank and unprogrammed walls. This applies primarily to the ground level portion of the facade, but should also be considered on upper floors, side walls, and rear walls.

Active walls should provide ample opportunities to invite interactions with pedestrians by seeking to optimize the visual and physical permeability of the wall through the use of windows and, equally important, doors.

➤➤ **WINDOWS:** To support active walls through the use of windows, building walls should meet the minimum amount of transparency (percent of wall surface represented by windows and glass) that is required by the City of Grand Rapids Zoning Ordinance.

➤➤ **DOORS:** To support active walls through the use of doors, building walls should include clearly identifiable and usable building entrances at a minimum of every 60 feet as required by the City of Grand Rapids Zoning Ordinance.

Clear and identifiable building entrances are intended for entry into the building during business hours. Locked doors, emergency egress only doors, and stairwells do not support the creation of active walls.

CITY REQUIREMENTS

Downtown Grand Rapids consists of the CC and TCC Zoning Districts.

Article 6.08 of the City of Grand Rapids Zoning Ordinance requires that structures in the CC and TCC Zoning Districts incorporate Building Elements that include minimum transparency requirements and entrances. These zoning requirements are consistent with these active wall guidelines.

CITY COLLABORATION

Building design is required to conform to the City of Grand Rapids Zoning Ordinance.

PRIMARY COORDINATION

- Grand Rapids Planning Department
- GR Historic Preservation Commission, as required

WHY ACTIVE WALLS ARE IMPORTANT

Buildings that have large wall spans that are blank or unprogrammed create psychological “dead space” in the same way that vacant lots and vacant buildings do.

Active walls reduce this dead space, leading to pedestrian comfort and visual stimulation, while also increasing the perceptions of safe streetspaces.

A NOTE ON BLANK WALLS

While many blank walls are easily identifiable as “dead space” along the streetspace, there are some walls that even though they do not have solid blank voids (like the upper image on the facing page) still reduce pedestrian comfort and visual stimulation along the sidewalk. These unprogrammed wall surfaces may meet the minimum transparency requirements, but still fall a bit short in activating a streetspace.

For example, the wall in the image below, while having transparent glass, represents a long, relatively blank surface of glass overlooking an interior space that is partially used for internal circulation and also sunken well below the sidewalk.

While sometimes this situation is unavoidable, minimizing or mitigating these unprogrammed walls should be carefully considered during building design. This example uses planting beds adjacent to the building to help soften the negative impact of this wall on the pedestrian experience.



STOREFRONTS AS ACTIVE WALLS



A WELCOMING PLACE TO LINGER



INVITATION TO ENTER + DISTINCTIVE COLOR



EXTENSION OF BRANDING + IMAGE + PRODUCTS



INVITATION TO LOOK AND SHOP



COLOR USED TO ENLIVEN THE STREETSPACE



TRANSPARENCY PROMOTES "EYES ON THE STREET"



EXPRESSIVE CONTEMPORARY DESIGN + DETAIL



ATTENTION TO THE PEDESTRIAN SCALE

STOREFRONTS

One way to create active walls in the downtown is to have a storefront at the ground floor. Storefronts have historically been the expression of commerce in cities, while also optimizing the pedestrian experience by creating interesting things to look at for people of all ages as they stroll down the sidewalk.

While storefronts should be considered for the ground level portion of all downtown building facades that face streetspaces and other public spaces, the following locations have been identified as priority locations by GR Forward:

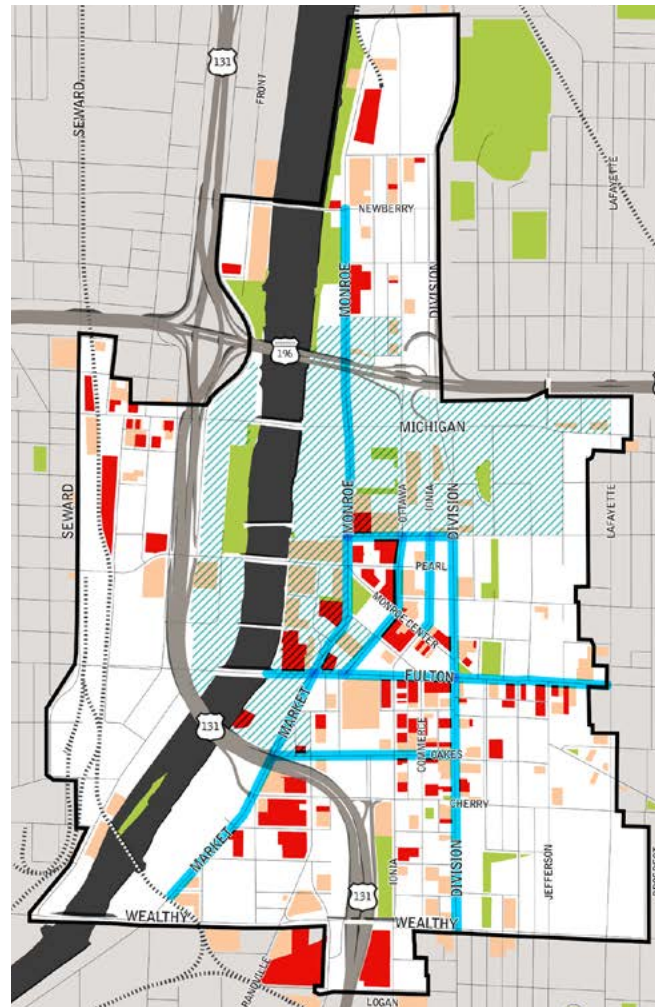
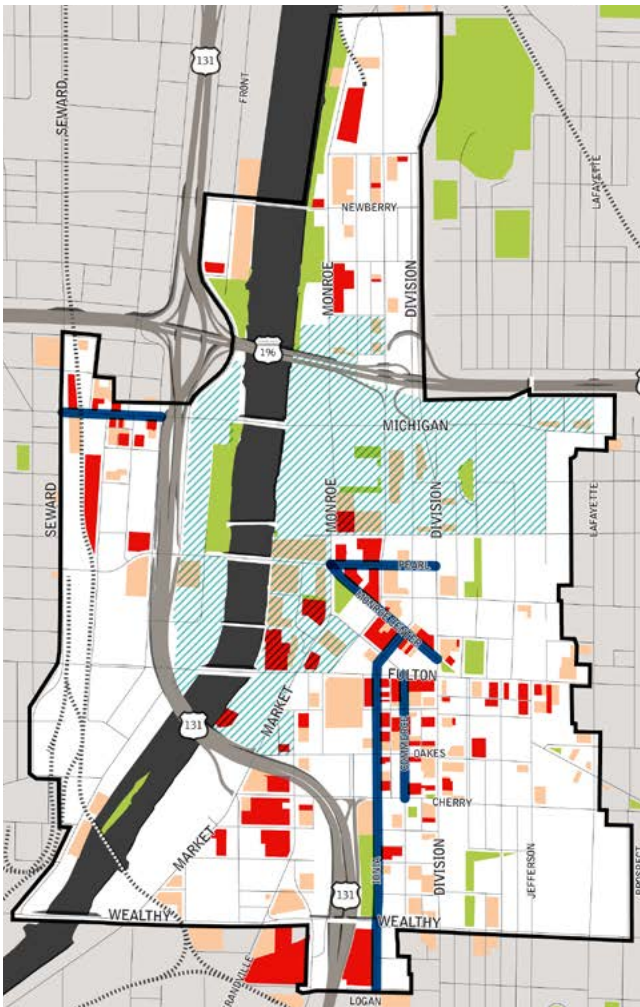
Targeted Retail and Entertainment Corridors: Locations where there is greatest potential to create a critical mass of downtown retail per the GR Forward Plan. DGRI strongly encourages ground floor retail or entertainment uses in these corridors; however, the City of Grand Rapids Zoning Ordinance governs uses and should be consulted for permitted uses. Buildings in these locations should have a storefront, regardless of use.

WHY STOREFRONTS ARE IMPORTANT

Storefronts provide a permeable and active edge (physical and visual connection to the sidewalk and street) that promotes and supports an attractive, visually interesting, engaging, and convenient shopping experience.

Properly designed storefronts extend the business's image, brand, and products to beyond the building wall. Through windows, doors, and details, the storefront invites people to look, and walk, into a business while enhancing street safety through "eyes on the street".

Targeted Active Commercial Corridors: Locations where a range of ground floor uses are encouraged, including retail, restaurants, small offices, and services per the GR Forward Plan. DGRI encourages active ground floor uses in these locations (with a priority on retail and restaurants); however, the City of Grand Rapids Zoning Ordinance governs uses and should be consulted for permitted uses. Buildings in these locations should have a storefront, regardless of use.



STOREFRONT DESIGN ELEMENTS

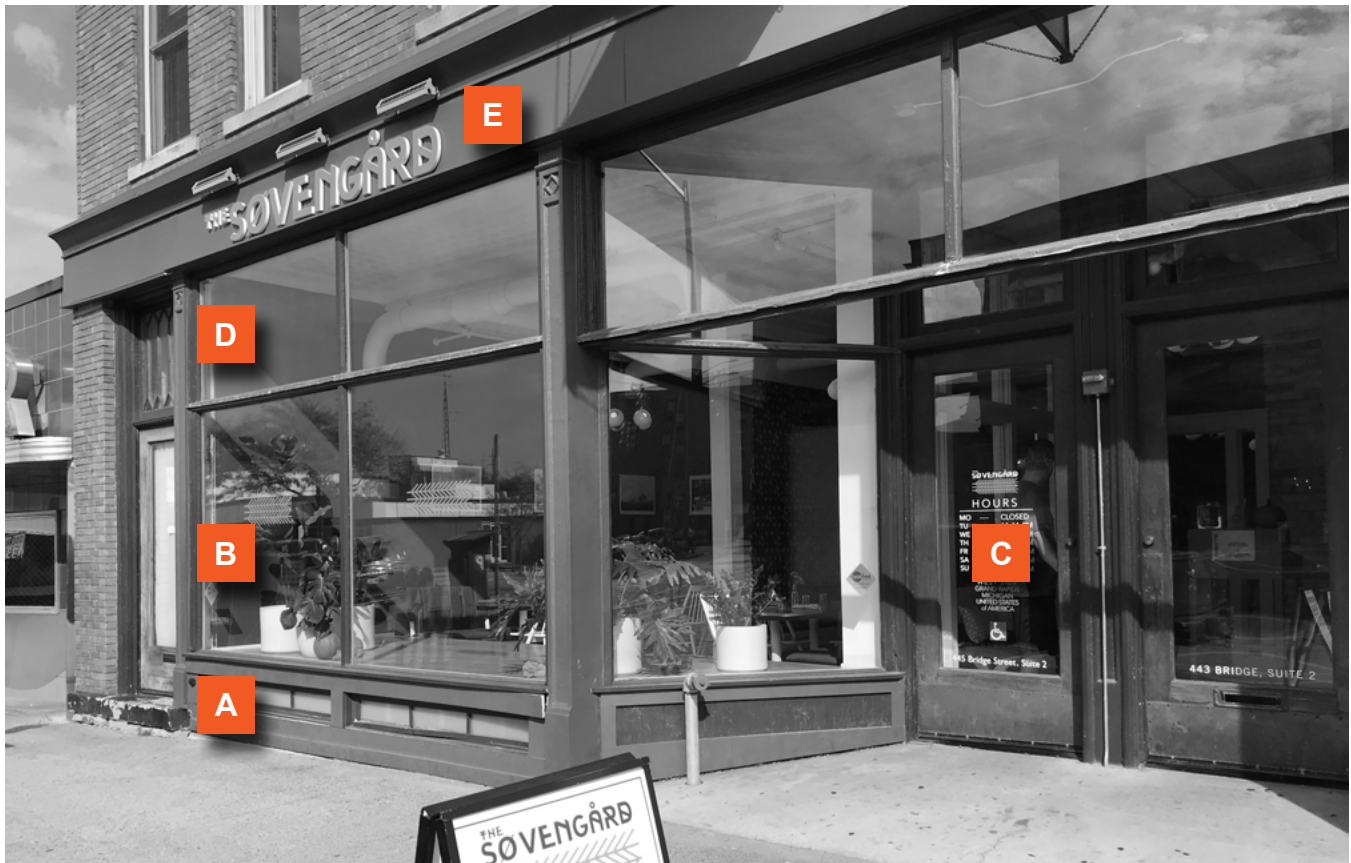
Storefronts that successfully promote and support engaging, visually interesting, and convenient shopping experiences nearly always exhibit similar design attributes throughout the United States and abroad. From small town to big city, these activated walls optimize the pedestrian experience through the use of time-tested elements that work together to invite people to look, and walk, into the store.

The most typical storefront configuration consists of a low wall at the sidewalk, known as a bulkhead, upon which large panes of glass are set. These panes of glass, or display windows, provide the visual connection between the inside and outside of the building and include the main entrance facing the street.

Above the display windows there is often a band of smaller windows known as transoms. These transoms are usually divided into small panes of decorative or colored glass, and in many cases will have an awning projecting from them. A horizontal expression band or storefront beam caps the storefront composition and extends the entire length of the glass that it is above. This beam is oftentimes used to advertise the business by accommodating signs.

ELEMENTS OF A STOREFRONT

- A Bulkhead:** A short wall that is typically between 18 to 24 inches above the adjacent sidewalk, to maximize the amount of display window, while still giving the glass some buffer from the sidewalk. Bulkheads that are too high will limit the amount of display window, which will limit transparency, permeability and opportunities for the merchant to display goods. Another important reason to have a bulkhead in our climate is to ensure that snow does not pile up against the glass of the window.
- B Display window:** Large panes of transparent glass that sit on the bulkhead, typically between 7 and 10 feet tall. The display window is the essential component of the storefront and should provide transparent (clear) glass for at least 60 percent of the building frontage - this means that there is the possibility of vertical breaks between glass as long as they are small. Display windows should always be directly accessible and visual from the adjacent sidewalk.



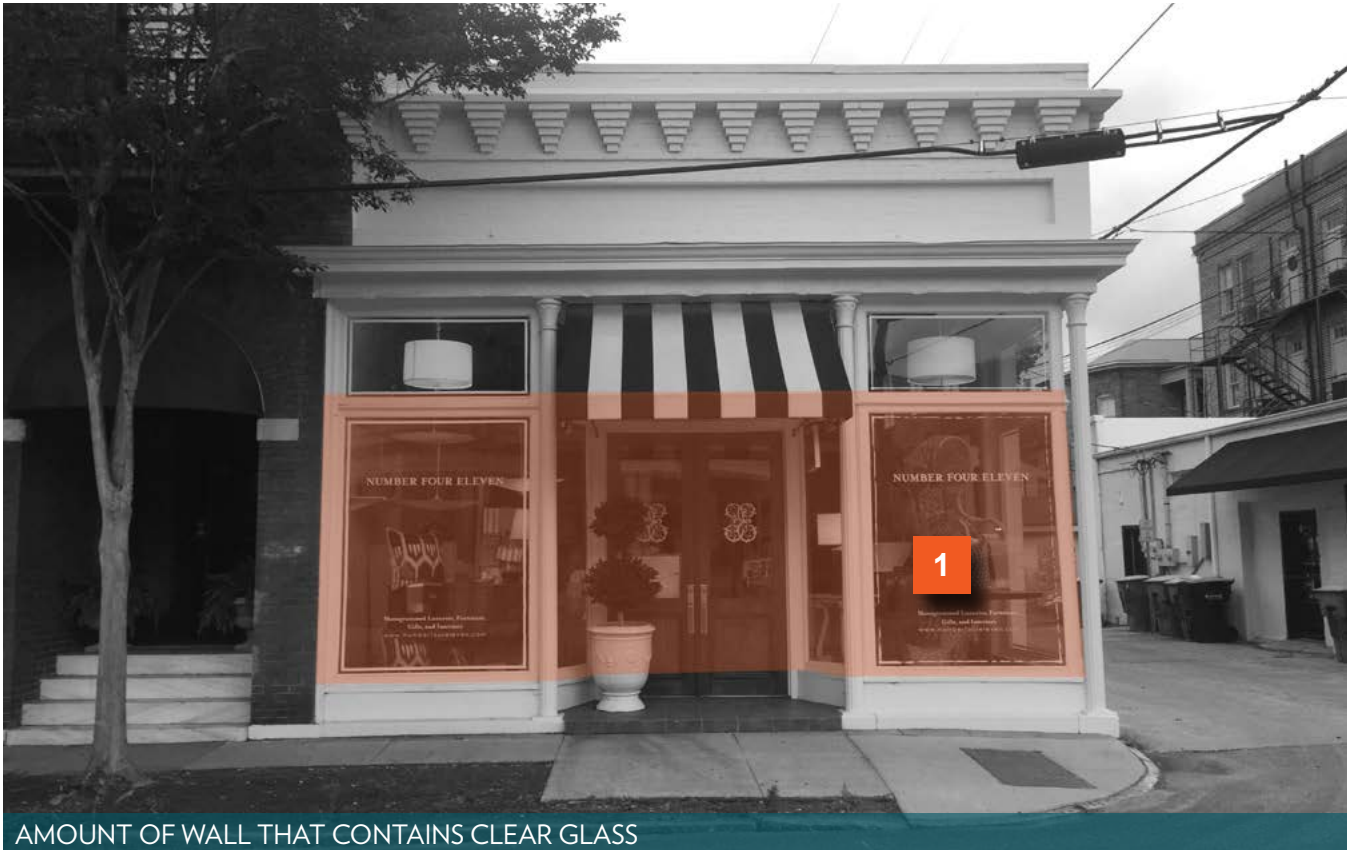
C Storefront entrance: The main entrance to the business from the sidewalk. In almost all cases this entrance is recessed and flanked by angled display windows that transition from the front building wall to the recessed entry. The importance of having a recessed entry is to allow for protection from the weather, to offer a transition between the sidewalk and the inside of the business, and so that the door does not swing into the sidewalk. The depth of this entry is typically between 3 and 8 feet from the front of the building and should be proportional to the overall building composition.

D Transom: The horizontal band of windows located above the display window, typically 24 to 36 inches high. These windows help to provide a human scale to the storefront while also providing additional light into the building (especially for inside spaces that are long and narrow). Transoms are not always present - when they are not provided, the display window should be taller.

E Beam: Horizontal expression band that is sometimes capped with a decorative cornice. This band effectively separates the storefront from the upper stories of the building and provides an excellent place for business signs and exterior lighting. The beam is typically 24 to 40 inches high and should be proportional to the building mass and scale. This band is also sometimes part of the 3-part building design that distinguishes the base from the body of the building (*refer to the 3-part building composition*).



STOREFRONT TRANSPARENCY



TRANSPARENCY

Transparency is critical to achieve active walls that promote visually engaging experiences, vibrant and safe streetspaces, and commerce at the sidewalk.

Transparency is measured in two ways:

- 1 The amount of wall (between 2 feet and 8 feet above the sidewalk) that contains clear glass and is not blank. For storefronts, this should be 60% minimum clear glass.
- 2 The quality and performance of the clear glass:
 - >> Clear glass should have a **minimum 70%** Visible Light Transmission (VLT). This is the percentage of visible light that is transmitted through the glass. The higher the percentage, the more clear and transparent the glass is.
 - >> Clear glass should have a **maximum 12%** Visible Light Reflectance (VLR). This is the percentage of visible light that is reflected by the glass surface. VLR can be given as the reflection from the external surface and/or internal surfaces of the various glass panes (refer to next bullet item). The lower the percentage, the more clear and transparent the glass is. *[Note that the City of Grand Rapids Zoning Ordinance does not require a VLR rating, however DGRI encourages achieving this performance rating for projects that seek funding].*
 - >> A typical display window assembly will include two panes of glass that are separated by an air gap. These two panes of glass have 4 surfaces (*1 facing the outside + 2 inner + 1 facing the interior of the building*). Reflective glass and tinting on any of these 4 glass pane surfaces of the assembly can decrease VLT and increase VLR. These treatments should be avoided on downtown storefronts.

These two measures should be combined in building design, specifically in storefronts on the ground floor, to create high-quality pedestrian environments that promote retail and commercial activities in the downtown.

The benefits of transparency and clear glass can be compromised if excessive signage, window appliqué, frosted glass treatments, or blinds are placed on the display window or over the display window. The use of internal walls or shelving that is placed too close to the display window will also negate any real positive effects of transparent windows. Care should be taken to avoid these treatments and installations.

WHY TRANSPARENCY IS IMPORTANT

The storefront is arguably the most valuable space in a store and should be used to full advantage. A transparent storefront welcomes customers inside with products and services on display, discourages crime with more “eyes on the street,” reduces energy consumption by letting in natural light, and enhances the curb appeal and value of the store and the entire streetspace.

Transparent display windows are the greatest marketing opportunity for a competitive business to attract the attention of those passing by and to generate new sales.

CITY REQUIREMENTS

Downtown Grand Rapids consists of the CC and TCC Zoning Districts.

Article 6.08 of the City of Grand Rapids Zoning Ordinance requires that structures in the CC and TCC Zoning Districts incorporate minimum transparency requirements on their facades.

Article 2.14 of the City of Grand Rapids Zoning Ordinance establishes minimum requirements for clear glass and building transparency.

While these minimum requirements are consistent with these guidelines, it is recommended that increased measures be used to enhance transparency:

- >> Interior displays should be set back a minimum of 5 feet from the display window, rather than the zoning requirement of 1 foot.
- >> Window coverings or screenings should not cover more than 10% of the display window, rather than the zoning requirement of 25%.
- >> In addition to the minimum 70% VLT requirement for clear glass, a maximum 12% VLR should also be used when selecting display window glass.

CITY COLLABORATION

Building design is required to conform to the City of Grand Rapids Zoning Ordinance.

PRIMARY COORDINATION

- >> Grand Rapids Planning Department
- >> GR Historic Preservation Commission, as required

STOREFRONT SIGNAGE



STOREFRONT WITH PROJECTING SIGN, WALL SIGN (AT EXPRESSION LINE), AND WINDOW SIGN



WALL SIGN AT EXPRESSION LINE



WALL SIGN AT EXPRESSION LINE



WALL SIGN AND BLADE SIGN



PROJECTING SIGN AND WINDOW SIGNS

SIGNAGE

Signs attract patrons and contribute to the vitality of streetspaces through the use of color, form, and illumination.

Signage is both a decorative and functional element that can advertise a business, add color or pattern to the streetspace, and provide visual interest and wayfinding for all users.

Storefront signage comes in three primary types and can add human-scale elements to building facades.

A **Wall signs:** Typically surface-mounted on the beam (horizontal expression band) of the storefront (refer to pages 112 and 113). Wall signs should be scaled so that they are compatible to the building's architecture.

B **Projecting signs:** Mounted to the building wall and projecting from the building facade over the sidewalk. Projecting signs are typically the most appropriate for human-scaled streetspaces because they are the most visible to pedestrians walking along the street. Projecting signs should be scaled to fit within the streetspace context, and sized to fit into a human-scaled environment, rather than oversized for automobile-centric environments.

C **Window signs:** Applied or painted on the display window surface. Window signs should be strategically sized and placed so that they do not compromise window transparency. Too many window signs lead to sign clutter that obscures the display area, confuses potential customers, and diminishes the perceived appearance of the storefront.

Wall signs and projecting signs are sometimes externally illuminated. Internally illuminated wall signs are discouraged because they tend to be more consistent with auto-oriented environments.

DGRI does not typically fund signage - these guidelines are to support decision-making during sign design and placement, and during discussions with the City of Grand Rapids Planning Department. The Planning Department is responsible for the regulation and approval of signs through the zoning ordinance.

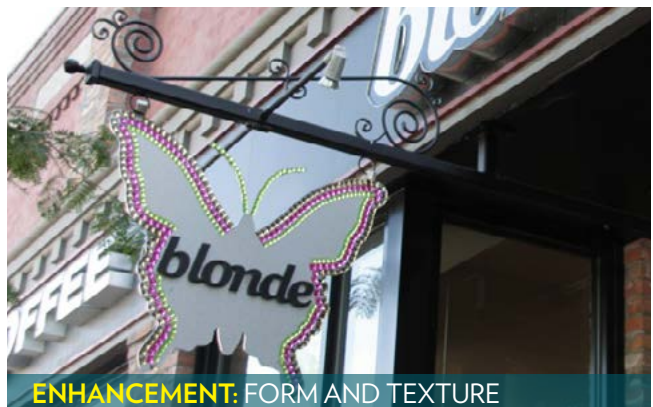
A NOTE ON PROJECTING SIGNS

It is important to consider how projecting signs can activate the streetspace by increasing visual interest while also drawing interest to the business.

Creativity in color, form, and texture of the projecting sign is encouraged to enhance visual interest in the streetspace. This can be accomplished in a variety of ways by thinking “outside of the box” of the traditional rectangular sign.



ENHANCEMENT: FORM, DEPTH, AND TEXTURE



ENHANCEMENT: FORM AND TEXTURE

CITY REQUIREMENTS

Downtown Grand Rapids consists of the CC and TCC Zoning Districts.

Article 15 of the City of Grand Rapids Zoning Ordinance includes requirements for sizes, placement, installation, and quantity of signs for buildings and properties in the CC and TCC Zoning Districts.

CITY COLLABORATION

Signs are required to conform to the City of Grand Rapids Zoning Ordinance.

PRIMARY COORDINATION

- >> Grand Rapids Planning Department
- >> GR Historic Preservation Commission, as required

STOREFRONT VARIATION + COLOR

VARIATION ON A THEME

High quality human-scaled environments provide variety within the streetspace by creating visual interest for people walking on the sidewalk. While the storefront elements recommended in this chapter are “tried and true” design features that provide a baseline for high quality active street walls, occasional slight variations can sometimes accentuate visual interest when properly employed.

Variations to the storefront are encouraged when they still support active street walls and high quality pedestrian environments. It is important that these variations be thought of as exceptions to the pattern, rather than as the pattern of storefronts for an entire street.

The following examples provide variations to the storefront that still support an active street wall.



VARIATION: LESS LITERAL EXPRESSION BAND (BEAM) THAT STILL ESTABLISHES CLEAR BUILDING BASE



VARIATION: MAXIMIZED AND MONOLITHIC DISPLAY WINDOW WITH NO TRANSOM WINDOW, MINIMIZED BULKHEAD, AND NON-RECESSED ENTRY DOOR



VARIATION: LIMITED BULKHEAD, NON-ANGLED WALL EXTENDING TO RECESSED DOORWAY, EXPRESSION BAND IS INTEGRATED WITH PILASTERS



VARIATION: NO BULKHEAD - DISPLAY WINDOW EXTENDS TO SIDEWALK, LESS LITERAL EXPRESSION BAND (BEAM), NON-RECESSED ENTRY DOOR

COLOR: A BOLDER STREET PRESENCE

An important function of a storefront is to extend the business's image, brand, products, and services to beyond the building wall. The storefront is a functional business sign that beckons potential customers to stop in.

Adding color and wall art to the storefront can help to distinguish the business and the storefront. This extra enhancement will also help enliven the streetspace by providing bright colors, texture, and something to charm passersby as they stroll along the sidewalk.

The use of both color and wall art is especially important to make the gray days of winter more bright and cheerful for pedestrians and other users of the downtown streets. It is important that some color enhancements (particularly those with many colors) be thought of as exceptions to a pattern, rather than as the pattern of storefronts for an entire street.



STOREFRONT ENHANCEMENTS

ABOVE & BEYOND: ENHANCING THE STOREFRONT

Besides color and wall art, there are other enhancements that can make the storefront more inviting and distinguishable. These enhancements also promote active walls along the sidewalk during different seasons and for extended periods during the day and night.

Efforts should be made to build active walls and vibrant streetspaces for 16 hours per day, 7 days per week, and 12 months per year - these enhancements support that goal.

Operable display windows, awnings over the storefront, planter boxes and adjacent landscaping, internally illuminated storefronts (keeping the lights on, even when the business is closed), and creative window displays all help to make the streetspace more inviting and interesting, even during the gray days of winter.



OPERABLE DISPLAY WINDOWS ACCENTUATE THE INVITATION TO ENTER FOR CUSTOMERS



OPERABLE DISPLAY WINDOWS HELP TO EXTEND THE BUSINESS TO THE STREETSPACE



THIS **OPERABLE DISPLAY WINDOW** INCLUDES AN INTEGRATED BENCH TO INVITE LINGERING



AWNINGS PROVIDE COLOR, PATTERN, TEXTURE AND ACCENTUATE THE STOREFRONT & ENTRY



AWNINGS PROVIDE OPPORTUNITY FOR SIGNAGE AND PROTECTION FROM THE ELEMENTS

Traditional triangular or convex shaped awnings that are either fixed or retractable are recommended.

Awnings should be made of canvas or a canvas-like material that is non-reflective and not back lit.



AWNINGS ARE A SIMPLE SOLUTION TO PROMOTE SUSTAINABILITY BY REDUCING SOLAR HEAT GAIN



PLANTERS CAN PROVIDE A BURST OF COLOR WHILE FRAMING STOREFRONTS & ENTRY DOORS



PLANTERS CREATE LAYERS OF COLOR & TEXTURES TO VISUALLY STIMULATE PASSERSBY



STRATEGICALLY-PLACED **ADJACENT LANDSCAPING** PROVIDES COLOR AND TEXTURE TO PROMOTE VISUAL INTEREST IN THE STREETSPACE



INTERNALLY-LIGHTED DISPLAY WINDOWS PROVIDE AMBIENT LIGHTING AND WELCOMING STREET WALLS IN THE EARLY EVENING



INTERNALLY-LIGHTED DISPLAY WINDOWS INCREASE PERCEPTIONS OF SAFETY & PROVIDE VISUAL INTEREST LATE AT NIGHT EVEN WHEN THE STORE IS CLOSED



FREQUENTLY CHANGING **WINDOW DISPLAYS** AND VISUAL MERCHANDISING ADVERTISE THE BUSINESS AND PROVIDE VISUAL INTEREST



WINDOW DISPLAYS CAN BE PLACED IN THE DISPLAY SPACE TO HELP ACTIVATE STOREFRONTS WITH NON-ACTIVE USES (LIKE OFFICES)

ACTIVE WALL USE + FUNCTION



ARTIST-DRIVEN DISPLAY IN VACANT STOREFRONT



ARTIST-DRIVEN DISPLAY IN VACANT STOREFRONT



MURAL IN VACANT STOREFRONT



POST-IT NOTES AND INTERACTIVE ART ON A VACANT STOREFRONT



COLOR AND TEXTURE IN A VACANT STOREFRONT



DISPLAY IN A VACANT STOREFRONT



ARTIST-DRIVEN DISPLAY IN VACANT STOREFRONT

USE AND FUNCTION

These guidelines do not regulate nor mandate building uses. Regulation of uses is through the City of Grand Rapids Zoning Ordinance and Planning Department.

The guidelines do encourage active uses on the ground floor, specifically in the Targeted Retail and Entertainment Corridors and in the Targeted Active Commercial Corridors recommended in GR Forward and on page 111 of these guidelines. This recommendation is consistent with the use requirements of the City of Grand Rapids Zoning Ordinance, particularly for those parcels located in the CC Zoning District.

The guidelines are also cognizant that market forces, particularly for true active retail (ie - neighborhood goods and services, food and beverage, and general merchandise, apparel, and furnishings), oftentimes do not follow master plans or zoning ordinances, leading to vacant storefronts or less active uses within the storefront.

In instances where a storefront cannot be filled with a real use and is vacant, or has a less active use filling it; other measures should be taken to alleviate the negative impacts of the vacancy or less active use. Specifically, vacant storefronts are similar to the blank walls addressed earlier in this chapter and should be mitigated with temporary activation.

TEMPORARY ACTIVATION

Temporary installations should be considered for vacant storefronts in order to promote activation of the building wall and frontage.

The following **temporary** installations are examples of activation for vacant storefronts:

- Paint a mural or add artwork to begin reclaiming the display space.
- Invite artists to “do whatever they want” with the display space. *If you are unsure what to do with your space, why not invite some creative individuals in to size it up and come up with something completely unique?*
- Install a creative scene or display that brings color, light, or movement to the display area.
- Host an instrument petting zoo. *Invite a local music store to set up instruments that children and those young-at-heart can touch and experiment with. They might be excited enough to sign up for music lessons or purchase that guitar they’ve always been thinking about.*

WHY ACTIVE USES ARE IMPORTANT

In high quality urban streetspaces, the ground floors of the buildings work symbiotically with the surrounding sidewalks and public spaces. Together they provide a continuous network of pathways and experiences that are active, safe, comfortable and engaging.

The best way to create this active, safe, comfortable and engaging streetspace is to have a retail or entertainment function at the ground floor. This active use creates reasons for visiting the downtown, provides a street wall that engages people to look into and enter (and maybe buy something), and provides the pedestrian with interesting things to look at and to participate in.

People are attracted to interesting and active places and we want (and need people) in our downtown. Lots of people. We also know that the street and sidewalk are highly valuable places that we should not waste with vacant spaces or “back of house” uses.

CITY REQUIREMENTS

Downtown Grand Rapids consists of the CC and TCC Zoning Districts.

Article 6 of the City of Grand Rapids Zoning Ordinance specifies use requirements for properties in the CC and TCC Zoning Districts.

Article 9 of the City of Grand Rapids Zoning Ordinance provides use regulations for specific uses.

CITY COLLABORATION

Uses are required to conform to the City of Grand Rapids Zoning Ordinance.

PRIMARY COORDINATION

- Grand Rapids Planning Department
- GR Historic Preservation Commission, as required

PUTTING IT ALL TOGETHER

APPLYING THE FRONTAGE ZONE GUIDELINES

The following are examples of the frontage zone guidelines applied to building walls and streetspaces in Downtown Grand Rapids.



STOREFRONT WITH SIMPLE, HIGH-QUALITY MATERIALS AND DETAIL THAT EXPRESS THE IMPORTANCE OF THE PEDESTRIAN EXPERIENCE. STOREFRONT ALSO USES ADJACENT PLANTERS TO PROVIDE COLOR & TEXTURE



NEW CONSTRUCTION THAT HAS A VERTICAL PATTERN, 3-PART COMPOSITION, SIMPLIFIED MATERIAL PALETTE, HORIZONTAL EXPRESSION LINE AT STOREFRONT, AND A VERTICAL WINDOW PATTERN



FACADE RETROFIT PARTIALLY TRANSFORMS SCALELESS BUILDING WITH A 3-PART BUILDING COMPOSITION AND A STOREFRONT WITH MAXIMIZED CLEAR GLASS



STOREFRONT THAT INCLUDES THE FIVE STOREFRONT DESIGN ELEMENTS (BULKHEAD, DISPLAY WINDOW, ENTRANCE, TRANSOM, & BEAM) + HUMAN SCALED MATERIALS AND DETAILS + ADDED COLOR ACCENTS

FRONTAGE ZONE GUIDELINES

These frontage zone guidelines provide a framework to help guide decision-making related to investments at the building wall or facade within the Downtown Grand Rapids' streetspaces.

Their intent is to provide guidance for projects that seek either Downtown Enhancement Grants (DEG) or Development Support Reimbursement from DGRI. This guidance is for the following entities:

- The development community, private property owners, and tenants during design and implementation of both new construction and rehabilitation of existing buildings within the DDA boundary.
- DGRI's Citizen Alliances during evaluation of projects requesting DEG or Development Support Reimbursement.
- Downtown Development Authority (DDA) during evaluation of projects requesting DEG or Development Support Reimbursement.

It is important to keep in mind that all projects are required to comply with the City of Grand Rapids Zoning Ordinance and the Land Use Development Services (LUDS) review and permitting program, as well as any other pertinent City regulating agencies (i.e., Historic Preservation).

These guidelines do not supersede these various City regulations, rather they should be considered as a road map to help direct decisions for those projects that are requesting funding through DGRI.

EVALUATION OF FRONTAGE ZONE ELEMENTS

While not all of the elements listed in this chapter, or on the following pages, can be funded through DGRI's Downtown Enhancement Grants (DEG) or Development Support Reimbursement programs, they are all important factors in the creation of streetspaces that are **inviting, enduring,** and for **people first.**

These elements, as part of **building composition (the overall scale)** and **active walls (the human scale)**, should be considered when evaluating a project for DGRI funding support.

These elements include some possible questions that should be asked during evaluation.

Examples of possible funding opportunities that may be considered for DGRI are called out. These call outs are intended to provide potential examples that may qualify for funding, but are not exhaustive. Some elements may not qualify as funding opportunities, but will still be used in the evaluation of projects seeking funding support.

PROJECT EVALUATION

>> CHECKLIST FOR EVALUATION OF PROJECTS: BUILDING COMPOSITION GUIDELINES [Overall scale]

3-Part Building

- *Does the proposed building have a coherent top, body and base?*

Vertical Pattern

- *Does the proposed building wall have clear vertical emphasis in the form of pilasters or other architectural elements?*

Materials

- *Are proposed material palettes simple?*
- *How many materials are on the facade (fewer are usually better)?*
- *Are proposed materials durable?*
- *Are proposed materials human-scaled?*

Windows

- *Do proposed windows provide facade relief?*
- *Are proposed windows recessed within the wall plane, rather than flush with it?*
- *Do window patterns reinforce the horizontality of building floors in order to help convey scale?*
- *Do window patterns reinforce vertical articulation of the building?*

Facade Lighting

- *Does proposed facade lighting highlight interesting building features?*
- *Will the proposed lighting perceptually extend the streetspace's active hours at night?*
- *Does the proposed lighting source have limited or no visual impact on the facade?*

Example Funding Opportunity: Facade lighting and/or projection mapping may be considered for DEG funding as a facade enhancement.

>> CHECKLIST FOR EVALUATION OF PROJECTS: ACTIVE WALL GUIDELINES [Human scale]

Ground Floor Active Walls

- *Have the City's minimum transparency requirements been met?*
- *Are clearly identifiable and usable entry doors provided at a minimum of every 60 feet along the building wall?*
- *Are blank walls or long spans of unprogrammed walls present?*
- *If blank or unprogrammed walls are present, how have they been activated or mitigated?*

Example Funding Opportunity: Windows that provide an amount of transparency that is more than the minimum zoning ordinance requirement may be considered for DEG funding as a facade enhancement.

Storefronts As Active Walls

- *Is the proposed ground floor building wall that faces the sidewalk a storefront?*
- *Is a storefront proposed for corridors targeted for retail, entertainment, or active commercial?*

Storefront Design Elements

- *Does the storefront contain the four design elements (bulkhead, display window, entrance, beam) that are typical of storefront configurations?*
- *Does the storefront contain a transom (sometimes the fifth element of storefront design)?*

Example Funding Opportunity: Storefront restoration or new storefronts on existing buildings may be considered for DEG funding as a facade enhancement.

Storefront Transparency

- *Does the quality and the performance of the clear glass meet City requirements?*
- *Has a sample of the clear glass been provided?*

Example Funding Opportunity: Clear glass performance that exceeds the City's minimum requirements, including limiting VLR to 12% or less, may be considered for DEG funding as a facade enhancement.

Storefront Signage

- *Do the building signs meet City requirements?*
- *Do projecting signs activate the streetspace and provide visual interest through color, form and texture?*

Storefront Variation & Color

- *Does the proposed storefront meet City requirements?*
- *Do proposed storefront variations still support active street walls and high quality pedestrian environments?*
- *Are proposed storefront variations exceptions to the pattern of existing storefronts on the block in order to create variety within the streetspace?*
- *Has storefront color or artwork been applied effectively to enhance the vibrancy of the streetspace?*

Example Funding Opportunity: Storefront color enhancements that provide artwork or murals may be considered for DEG funding as a facade enhancement.

Storefront Enhancements

- *Does the proposed storefront meet City requirements?*
- *Do proposed operable windows provide increased connection between the inside and the outside, and extend the business into the streetspace?*
- *Do proposed awnings provide color, pattern, and/or texture to the streetspace and building wall?*
- *Are proposed planters integrated into the building design without compromising the pedestrian through zone?*
- *Do window displays create streetspace vibrancy?*
- *Is the storefront proposed to be lit at night to increase safety and provide visual interest into the evening?*

Example Funding Opportunity: Operable display windows that extend the business into the streetspace and provide a better connection to the streetspace for lingering may be considered for DEG funding as a facade enhancement.

Active Wall Use & Function

- *Does proposed temporary storefront activation create an interesting pedestrian experience that promotes continuing the journey along the sidewalk?*

Example Funding Opportunity: Operable display windows that extend the business into the streetspace and provide a better connection to the streetspace for lingering may be considered for DEG funding as a facade enhancement.



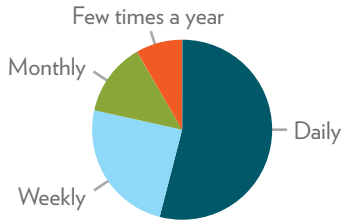


APPENDICES

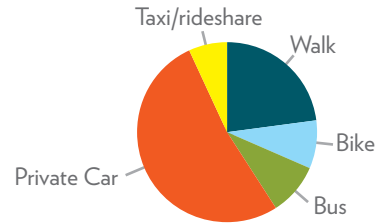
FIELD SURVEY ANALYSIS

A **SUMMARY REPORT** generated from feedback of the Grand Rapids street space users, gathered in December 2017 and January 2018. There were 458 respondents.

How often do you visit downtown?



How do you usually get Downtown?



What typically brings you to Downtown?



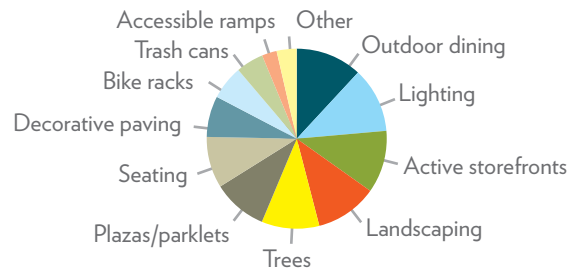
What would you like to do in the public spaces of Downtown that you can't do now?



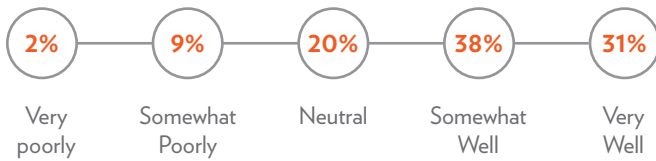
What public space in Downtown is most welcoming or inviting to relax and linger?



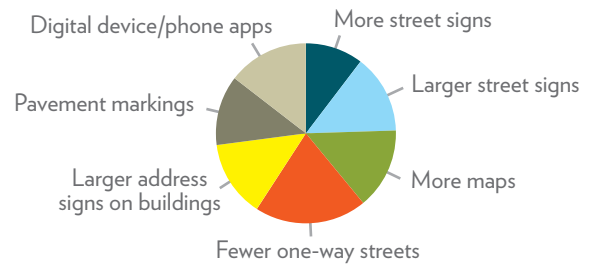
What street features would you like to see more of?



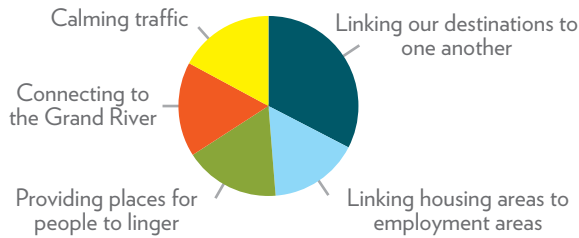
How easy do you find navigating downtown?



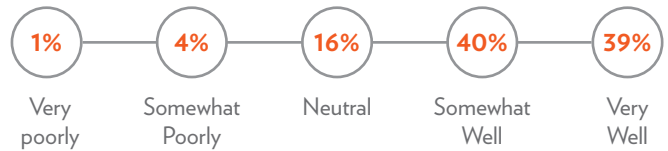
What would help you better navigate Downtown?



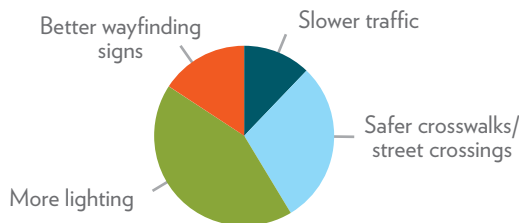
What should be the primary function of the streets in Downtown?



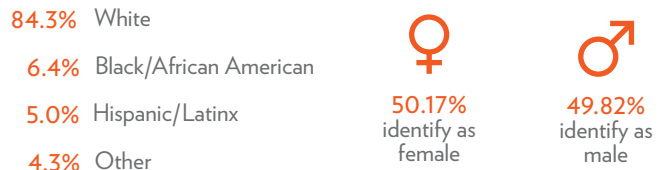
How would you rate your feeling of personal safety while Downtown?



What would make you feel more safe Downtown?

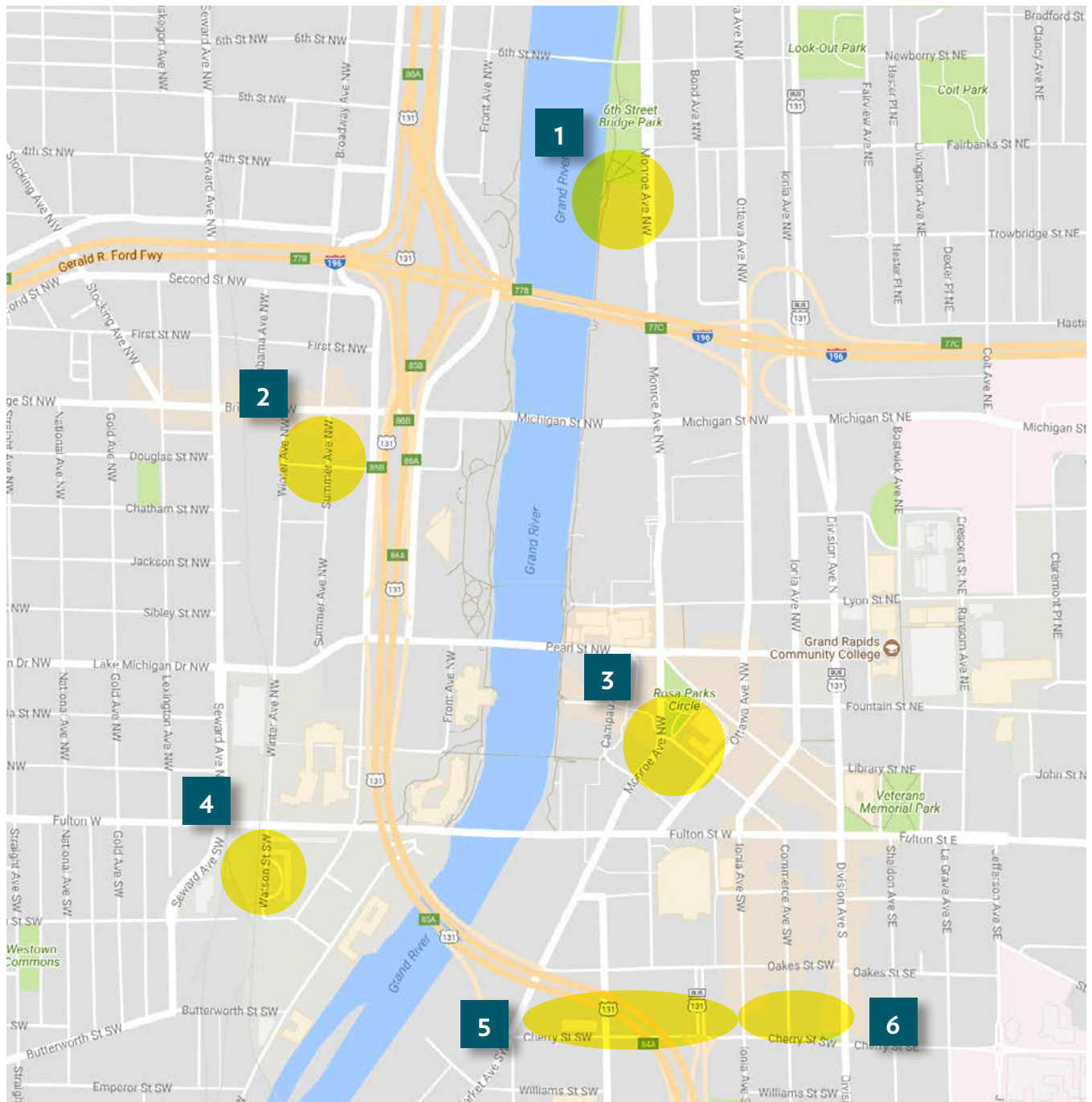


How do you identify?



OBSERVER FORM ANALYSIS

DECEMBER 1ST AND 2ND, 2017 – 40° - 45° F



1 6TH ST. PARK / BRASS WORKS / CITY BUILT

- The space had most visitors in the afternoon and evening, but remained mostly desolate.
- Some traveled by bicycle but most commuted by car.
- Sidewalks are poorly lit. River trail is not lit.
- Street signs difficult to read.
- Landscaping is well taken care of.
- Nearby sidewalks are closed due to construction.
- Trash cans and public art are both present in the park.

2 BRIDGE & BROADWAY

- The space was very active in the afternoon including an even mixture of men and women of varying ages.
- New development has maintained uniform landscaping and lighting.
- Traffic speed is moderate with slow turns around tight curve radii.
- Off-limit areas include a parking lot on the south side of Bridge.
- No public art, but a bronze statue to honor history.
- There is a variety of active ground floor use in which persons riding bicycles and groups of pedestrians seek in the afternoon.

3 ROSA PARKS CENTER

- Most people visited in the evening; more women than men and few people over 50. One gentleman in a wheelchair commented that access was good along Monroe Center; however entering the ellipse was difficult.
- The space includes brick accents showing pedestrian crossings.
- Well-lit streets are lined with 25' trees, planters, and parallel parking.
- Trash cans and cigarette bins are present. However, quantity of trash bins ineffective for larger groups. No recycling cans present.
- Public restrooms are available.
- Lunchtime groups sitting on public, movable chairs and tables.
- Traffic picks up during lunch hours, but remains calm throughout the day.
- Most visitors seem to commute by foot.

4 FULTON & WINTER

- Although a consistent lack of visitors, most people who appeared in this space were mostly men in the afternoon.
- Although the space includes lighting, street signs are small and hard to find. Street trees are uniform and maintained.
- Retaining wall creates a sense of entry to campus. There is public art on GVSU lawn with no pedestrian access.
- Building uses include housing and GVSU buildings.
- Both cars and pedestrians travel along Fulton.
- Observation was taken on the weekend, less students were commuting by bus.

5 OAKS - IONIA/DOWNTOWN MARKET

- Observed in the morning with more men than women; few people overall.
- The space includes old time style with small radii. There are no wayfinding signs but the addresses are moderately easy to find.
- There are no trash cans from Cherry to Downtown Market.
- There are small and uniform trees.

6 IONIA - DIVISION

- The space was observed in the morning
- More women than men and almost half were over 50
- No wayfinding signs, landscaping or trash cans.
- Trees are small and dwarfed by buildings.
- Alleys near Division and Oakes have gates and appears off-limits.
- No public art or public restrooms.
- Limited variety of grand floor business.
- Movable furniture remained unused. Curb radii are small at Commerce.
- There were no people waiting for the bus and no persons riding bicycles were present.
- Traffic speeds were high along Louis especially south of Cherry.

CHAPTER 4 APPENDICES

4.1 COMMUNITY ENGAGEMENT SUMMARY

INNOVATION CENTRAL

A SUMMARY of the work and results of a 3-week streetspace immersion with students from the Grand Rapids Public School's Innovation Central High School design studio.

READING LIST

- Where We Live, AARP, Mayor Bliss' Book of the Year (copy for each student)
- Public Places and Outdoor Spaces, Pages 58-75
- GR Forward (PDF)
- Goal 3: Implement a 21st Century Mobility Strategy, Pages 181-211
- Vital Streets (PDF)
 - Chapter 1, Design Controls
 - Chapter 2, Design Elements
- Cities for People, Jan Gehl

IN-CLASS SESSION

The design team facilitated a conversation with the students about the elements within a street, provided an overview about urban design best practices, introduced the concept of street types, and taught the students basic drawing skills for documenting the public realm in section and plan views.

TEACHER-LED AND SELF-GUIDED STREET TYPE ANALYSIS

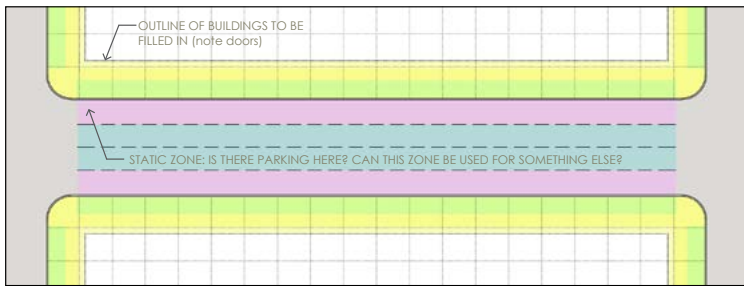
Groups of students were given a packet of information to document street segments in the Downtown which included aerial images, sketching templates, and a questionnaire to document observations. Students were asked to utilize the "activation score card" from Jan Gehl's Cities for People reading to evaluate the streetspace. They selected one block from the street segment to redesign.

1. River Gateway | Pearl Street from Division to the Grand River
2. Downtown Gateway | Division Ave. from Michigan to Fulton
3. Shared Pedestrian Way | Sheldon from Fulton to Cherry
4. Downtown Mixed Use | Commerce from Fulton to Cherry
5. Downtown Neighborhood Connector | Fountain from Ottawa to Division

WALKING TOUR EVALUATION KIT

DOWNTOWN GATEWAY
Division Avenue, from Michigan to Fulton

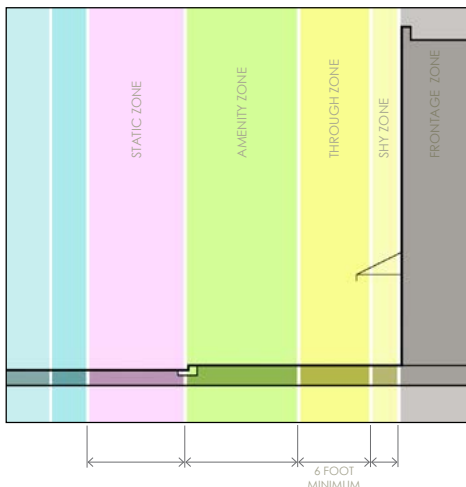
As a team, select the block number you will redesign: _____ (block number) From _____ (street) to _____ (street)



OUTLINE OF BUILDINGS TO BE FILLED IN (note doors)

STATIC ZONE: IS THERE PARKING HERE? CAN THIS ZONE BE USED FOR SOMETHING ELSE?

DRAW RECOMMENDED PLAN VIEW



STATIC ZONE

AMENITY ZONE

THROUGH ZONE

SHY ZONE

FRONTAGE ZONE

6 FOOT MINIMUM

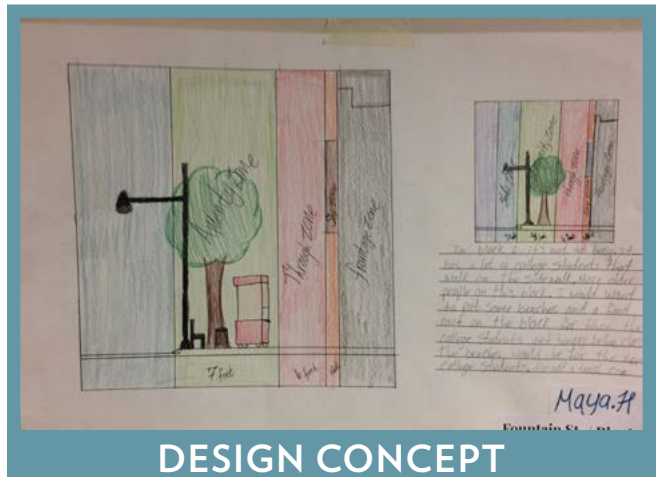
DRAW and DIMENSION RECOMMENDED CROSS SECTION

STUDENT OBSERVATIONS

- If you want young people to linger, you need to have locations to charge a device
- Seating is important so we have a place to wait, chat, and be inconspicuous
- Ramps are necessary for loading, should be more frequently placed (or have more streets without curbs)
- Lighting should be place away from street trees, otherwise the canopy will prevent light from filtering to the street-level
- Streetspace should be allocated to all modes, not dominated by the automobile
- Wider sidewalks make it easier to walk with a group of friends
- Storefronts make for an attractive ground floor, there is more to look at



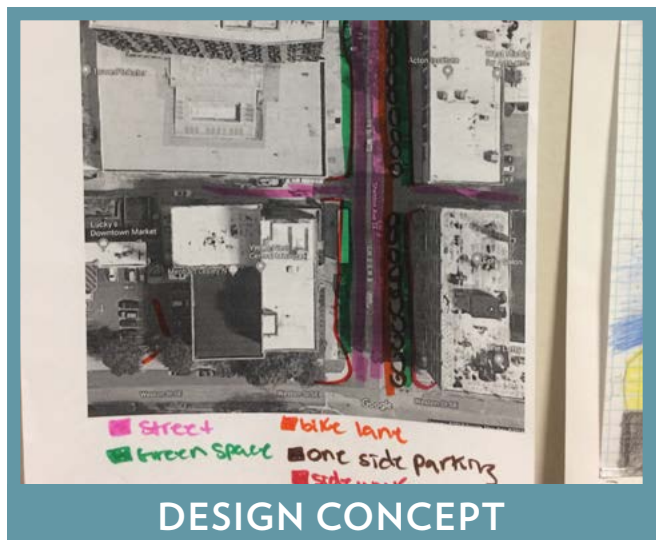
PRESENTATION



DESIGN CONCEPT



PIN UP



DESIGN CONCEPT



MONUMENT

SOLDIERS AND SEAFIGHTERS

OSTERIA ROSSA

RE
Sport

The following sources were consulted in the preparation of the Downtown Grand Rapids Streetspace Guidelines and may also serve as supplementary information for users of this document.

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CHAPTER 4 APPENDICES

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[END OF BIBLIOGRAPHY]

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COVER & TABLE OF CONTENTS

Front Cover: Monroe Center+Monroe, Grand Rapids, MI
Michigan Municipal League/mml.org (via flickr photo)

Left page facing Table of Contents: Rosa Parks Circle, Grand Rapids, MI
Michigan Municipal League/mml.org (via flickr photo)

INTRODUCTION

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Michigan Municipal League/mml.org (via flickr photo)

Page ix, middle: Main Street, Greenville, SC
Visit Greenville SC (via www.visitgreenvillesc.com)

Page ix, lower: European allee
Philip Ackermann (via https://www.pexels.com/photo/green-leaf-trees-at-daytime-878000/)

Page x: Rosa Parks Circle, Grand Rapids, MI
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Page xi, left: Main + Washington St., Greenville, SC
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Neil Pasricha (via www.visitgreenvillesc.com)

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Philip Ackermann (via https://www.pexels.com/photo/green-leaf-trees-at-daytime-878000/)

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Page xv, upper right: Goodrich St., Grand Rapids, MI
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Page xvi, right: Pearl St., Grand Rapids, MI
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Facing page to page xvi: Monroe Center, Grand Rapids, MI
Michigan Municipal League/mml.org (via flickr photo)

CHAPTER 1: REBALANCING THE STREETSPACE

Chapter Cover: Movies on Monroe, Grand Rapids, MI
Lynée Wells, Williams & Works

Pages 4 & 5: Various streets, Grand Rapids, MI
Lynée Wells, Williams & Works (via Google Map)

Pages 6 & 7: Aerial view of various streets, Grand Rapids, MI
Lynée Wells, Williams & Works (via Google Map)

Page 10, left: Buffered bike lane, Portland, OR
Bike Portland (via https://bikeportland.org/2016/08/11/first-look-portlands-new-protected-bike-lane-on-2nd-avenue-189223)

Page 10, middle: Simcoe Street, Toronto, Ontario
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STREETSPACE GRAPHICS

All perspective illustrations and diagrams created by
Dustin Corr, Nederveld.

Streetspace hand-sketches that begin each chapter and
depict the zones of the outdoor room created by Kim
Nguyen, Williams & Works.

[END OF IMAGE & PHOTO CREDITS]





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