

VILLAGE OF BROOKFIELD, IL

SUBAREA DESIGN MANUAL



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Introduction



PURPOSE

Urban places result from the desire to live in close proximity to services, commerce, and community. Urban places are a physical manifestation of locally shared values no matter the scale; from a quaint historic village to a large bustling city. The Village of Brookfield has a history of urban design goals and policies containing recommendations to distinguish the character and pattern of development in its subareas from the development that surrounds it.

The Design Manual builds on the recommendations of the Comprehensive Plan.

This document contains policies which further the Village's vision to maintain the unique character of the subareas and provide property owners, developers, and builders with a better understanding of the Village's expectations for creating a vibrant community.

This Design Manual allows for flexibility and innovation by encouraging projects in the Village to go above and beyond the minimum design requirements. The overall objective is to ensure that the following main principles of the Design Manual are followed. These objectives are:

- Maintain the integrity of those areas with special significance;
- Foster attractive and functional design solutions;
- Protect and encourage public/private investment in the subareas;
- Encourage compatible new development and redevelopment; and

- Provide design direction to property owners, developers, and decision makers.

APPLICABILITY

The guidelines in the Design Manual are intended to encourage quality development for new primary and accessory structure construction and significant expansion of existing development in areas that are not covered by the Village's Zoning Modernization ordinance (Ordinance 2017-09). In areas that are covered by the Village's Zoning Modernization ordinance, such as Downtown Brookfield, these guidelines supplement the Village's Zoning Modernization ordinance. These guidelines may also be applied to additions, expansions, surface parking areas, signs, and fences. The recommendations would not be applicable to single-family residential developments and structures undergoing interior renovation only.



USING THE MANUAL

Recommended vs. Required

This Design Manual contains recommended design and development standards that include wording such as “should,” “may,” “preferred,” and “encouraged.” These guidelines are not required nor enforceable but strongly recommended to further the vision and goals of the Comprehensive Plan. This promotes better communication between developers and the Village.

District Application

This manual includes recommendations for four subareas. These recommendations would be applicable to new or existing developments undergoing significant change or expansion.

There are four subareas in the Village, as shown in the graphic on the right. The recommendations could be applicable to only one, or a combination, or all four subareas. Icons representing each applicable subarea are shown below:



31st
Street



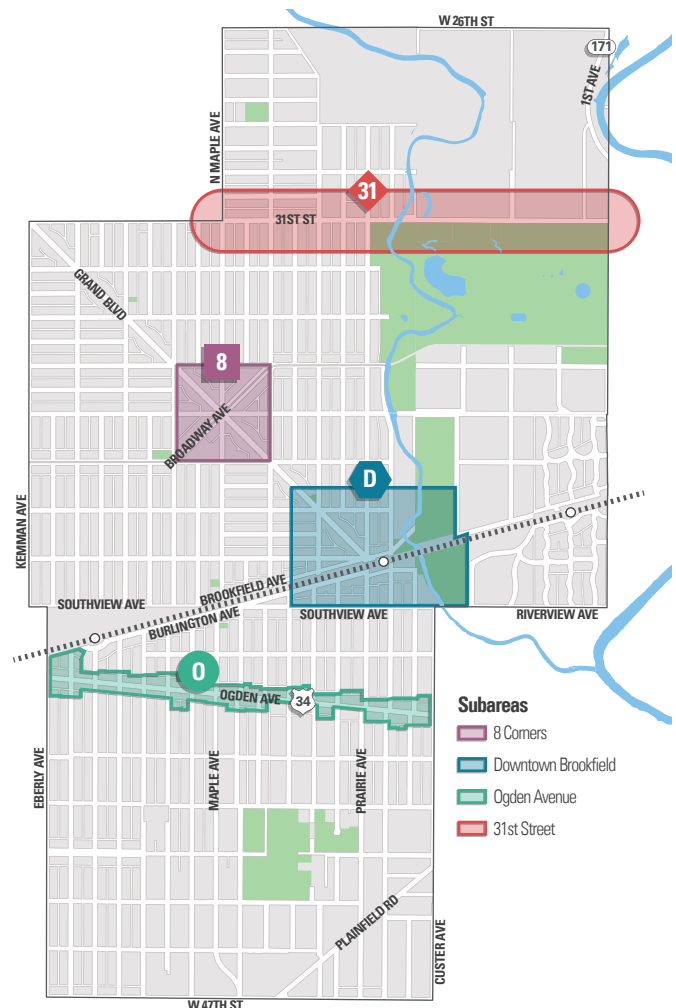
Ogden
Avenue



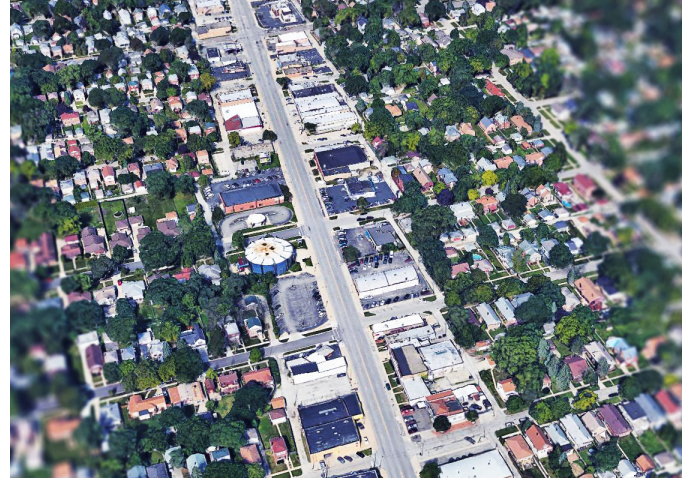
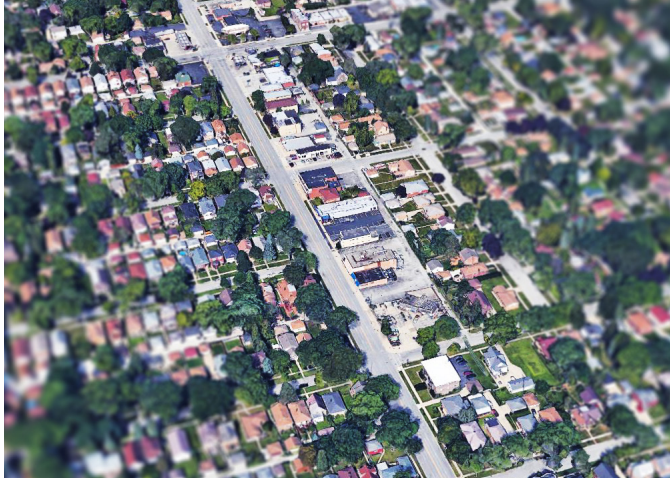
8
Corners



Downtown
Brookfield



For example, if a recommendation has four icons shown, then this means that the recommendation is encouraged or can be applied to all four subareas.



DESIGN DIRECTION

31st Street

The 31st Street corridor extends from Grand Boulevard to Forest Avenue, and incorporates all the parcels fronting 31st Street within the Village of Brookfield. The 31st Street corridor plan accommodates the existing residential character of the area and allows for neighborhood-serving commercial redevelopment at select locations along 31st Street.

Ogden Avenue

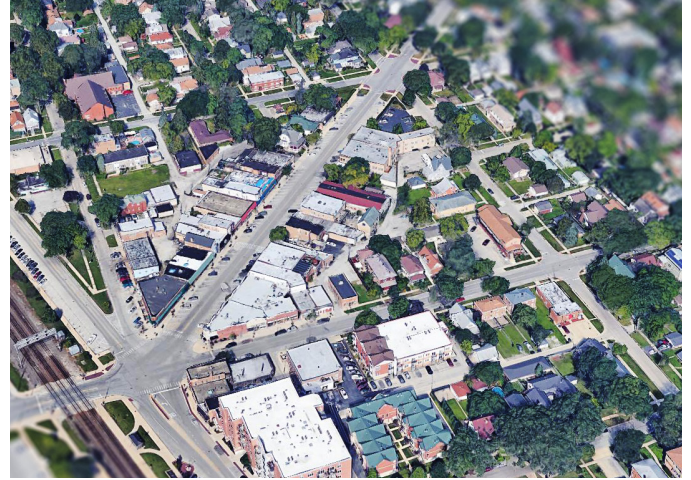
The Ogden Avenue corridor extends from Custer Avenue to East Avenue and incorporates all parcels fronting Ogden Avenue. In the 2020 Master Plan, some residential areas adjacent to commercial uses along Ogden Avenue were identified for potential commercial and parking area expansion or transition areas.

Consideration should be given to coordinating a balance of land uses as identified in the future land use map in the Comprehensive Plan. Long-term redevelopment opportunities along Ogden Avenue should be considered where conversion of existing land uses would enhance the corridor's identity and character. Parcels along Ogden Avenue should be analyzed for their highest and best use and to ensure adjacent neighborhoods are preserved.



8 8 Corners

The 8 Corners intersection is comprised of Grand Boulevard, Maple Avenue, Broadway Avenue, and Washington Avenue, which meet at a unique intersection organized around a landscaped traffic circle. A variety of land-uses are located on each street section range from single-family residences to commercial uses. 8 Corners is an active and popular shopping area surrounded by stable neighborhoods and the S.E. Gross Middle School.



D Downtown Brookfield

The Brookfield Station is the primary Metra station for the Village along the Burlington Northern Santa-Fe (BNSF) railroad line. The station and platforms are in the center of the study area, which extends as far north as Grant Avenue, south to Southview Avenue, with east-west boundaries of Arden and Sunnyside Avenues.



Example of an incompatible infill development. The building does not conform to the contextual elements, such as rooflines, height, setback, and style.



Example of a compatible infill development (center). It is proportionate and compatible with the older structure in terms of window opening, entrance, and roof details. Architectural style is less important.



Example of an infill mixed-use development that anchors a corner.

Historic Development Patterns

A review of existing conditions shows that commercial buildings along 31st Street and Ogden Avenue have consistently been built away from the sidewalk with parking located between the buildings and the sidewalk. They resemble typical auto-oriented developments along many major roadways. As a contrast, buildings in 8 Corners and Downtown are built to the sidewalk and generally occupy the full width of the lot. This characteristic provides a consistent building wall along the street and serves to clearly identify the commercial center. Residential uses around the four subareas typically have shallow front yards and observed side or rear yard setbacks for private or service space.

Infill Design Compatibility

Infill refers to development that fills a “hole” often between one or more existing adjacent structures. The design objectives of compatible infill are to:

- Respect the existing character and employ creative and unique solutions that do not imitate or duplicate historic buildings, but allow for the creation of new, modern buildings that are compatible with their context.
- Utilize or adapt character-defining features from the building’s context, such as forms, materials, entrance treatments, facade divisions, and fenestration.
- Use facade components not defined by a particular architectural style, such as large glazed storefronts, pedestrian-scaled signage, and awnings.
- Reflect the scale and massing of the adjacent structures and achieve proportions that give a sense of human scale.

DESIGN REVIEW PROCESS

The Planning and Zoning Commission (PZC) would establish an optional Design Review Committee (DRC) as a subcommittee of the PZC. The DRC is advisory to the Village Staff, and the PZC and should meet as needed.

DRC Membership Composition

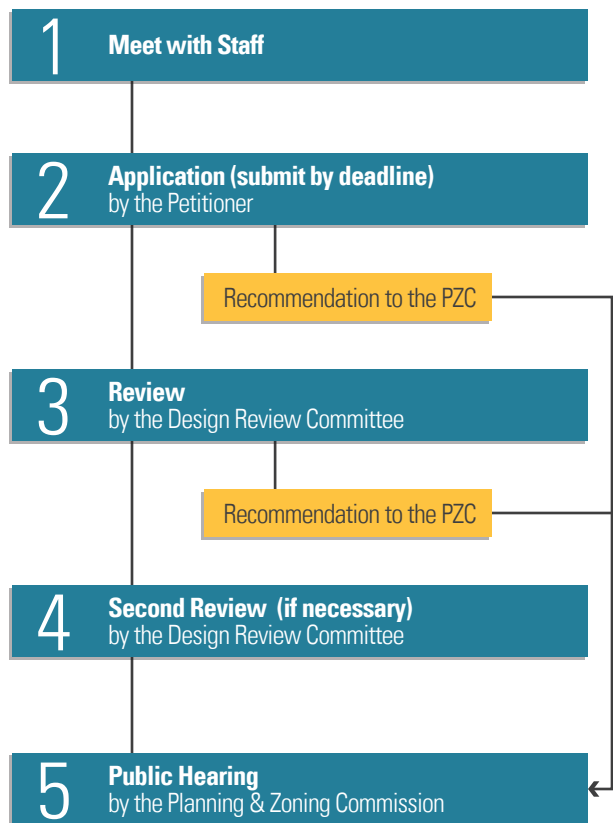
Should the Village elect to create the DRC, it is recommended that the DRC should be comprised of the following:

- Two (2) Architects registered in the State of Illinois, as recommended by the American Institute of Architects.
- One (1) Landscape Architect registered in the State of Illinois.
- One (1) member with historic preservation and design background.
- One (1) downtown building owner as recommended by the Village
- One (1) PZC member to chair the committee.

Review Procedure for All Development Plans

- Conduct an initial informal meeting with staff to discuss the proposed project.
- Determine if a Development Plan is required.
- Submit application and plans by monthly deadline.
- Project reviewed by DRC as needed.
- Planning Staff and DRC submit recommendation to the PZC.
- PZC holds public hearing on a Primary Development Plan.

Primary & Secondary Development Plan (DP) Review Process



2

New & Infill Development

INTRODUCTION

The relationship between new construction and existing buildings is of prime importance to maintain the quality and character of the Village's subareas. The goal is create structures that are compatible within the context of the area. This section addresses the form, massing and scale, as well as the architectural details of new or expanded non-residential, mixed-use, and multifamily (greater than three stories) buildings. Creative and innovative concepts and solutions that allow new construction to blend into the urban fabric are encouraged.

A. BUILDING FORM

A.1. Height

Building height can affect the shape of the skyline, the accessibility of sunlight, and the visual cues that signify the center of the subareas. Therefore, the following standards and recommendations should be considered.

A.1.1



The maximum height for new structures should be forty feet (40'). The minimum height for new structures should be twenty feet (20').

A.1.2



The maximum height for new structures should be seventy-eight feet (78'). The minimum height for new structures should be twenty feet (20').

A.1.3



The Planning and Zoning Commission may consider allowing structures to exceed the maximum height limitations based on:

- Scale and character of surrounding buildings
- Architectural compatibility
- Access to sunlight
- Zoning Modernization

A.2. Front Yard (setback)

Common front yard depths can define a street wall. The following requirements and recommendations are applicable to new structures and additions to existing structures on all public street frontages.

A.2.1



The front yard should have no minimum and a maximum of ten feet (10') in depth.

A.2.2



The front yard should have no minimum and a maximum of twenty feet (20') in depth.

A.2.3



Existing primary structures which are nonconforming with regard to setbacks or use may be added to or enlarged. Any addition to or expansion of a nonconforming structure should comply with all front, side, and rear setbacks in effect for the applicable zoning district at the time the application for approval is filed.

A.2.4



The design of buildings should reinforce the street wall by maintaining a common setback with adjacent buildings.



The design of buildings should reinforce the street wall by maintaining a common setback with adjacent buildings.

A.2.5



Infill development buildings should occupy the entire lot frontage.

A.2.6



As part of its approval of a primary development plan, the PZC may determine a greater front yard setback in consideration of the provision of public open space, private courtyards, or similar spaces provided that at least fifty percent (50%) of the building meets the front yard setback requirements.



Infill development should have no side yard setbacks in order to fill the entire gap between existing buildings, unless separated by right-of-way.

A.3. Side Yard (Setback)

A.3.1

8 D

The side yard should be a minimum of 0 feet and a maximum of 10 feet (10') in depth.

A.3.2

31 0 8

The side yard should be a minimum of 5 feet (5') in depth for all situations, and a maximum of 20 feet (20') in depth where adjacent to a public street.

A.3.3

31 0 8 D

As part of its approval of a primary development plan, the Plan Commission may determine a side yard setback greater or less than the established standard in consideration of the existence and placement of windows or doors on the proposed or adjacent structure(s).

A.3.4

8 D

In infill situations, if an adjacent building has no side yard setback and no existing windows or doors, it is intended that a new structure connect to the existing adjacent structure.



An enhanced corner facade design that addresses both street frontages and emphasizes the corner location.

A.4. Rear Yard (Setback)

A.4.1

8 D

The rear yard should be a minimum depth of 0 feet.

A.4.2

31 0

The rear yard should have a minimum depth of 25 feet (25').

A.5. Corner Treatment

Buildings located at street corners should serve as distinguishable gateways designed to address the corner by engaging the interest of drivers, pedestrians and bicyclists at the intersection.

A.5.1

0 8 D

Corner buildings should provide additional building mass or distinctive architectural elements to emphasize the corner location.

A.5.2

0 8 D

Buildings on corner lots should use windows, doors or architectural detail to address facade design on both street frontages.

A.5.3

31 0 8 D

A prominent corner entrance may be used in lieu of separate entrances on street frontages.



New buildings should maintain the massing and general proportions established by older or existing buildings.

A.6. Scale and Proportion

When considering building form and scale, the character of existing buildings in the area should be taken into consideration according to the following.

A.6.1



Whenever possible, and excluding floodplain areas, match the grade of abutting properties. If there is a significant grade difference, create an attractive transition using creative grading, landscaping or a retaining wall.

A.6.2



The mass of non-residential and multi-family buildings should be subdivided horizontally and vertically to break down the scale of the building.

A.6.3



First-floor commercial spaces should feature large storefront display windows. Residential-scale windows and doors should not be used in storefronts. Storefront transparency should reach a 80-90% target.

A.7. Building Additions & Expansions

A.7.1



Additions to the front or side of an existing structure that are visible from a public street should be oriented toward the street frontage.

A.7.2



Additions to existing buildings that are visible from a public street should be compatible with the original structure's character in terms of shape, form, scale, and setback.

Profile: General Facade Components

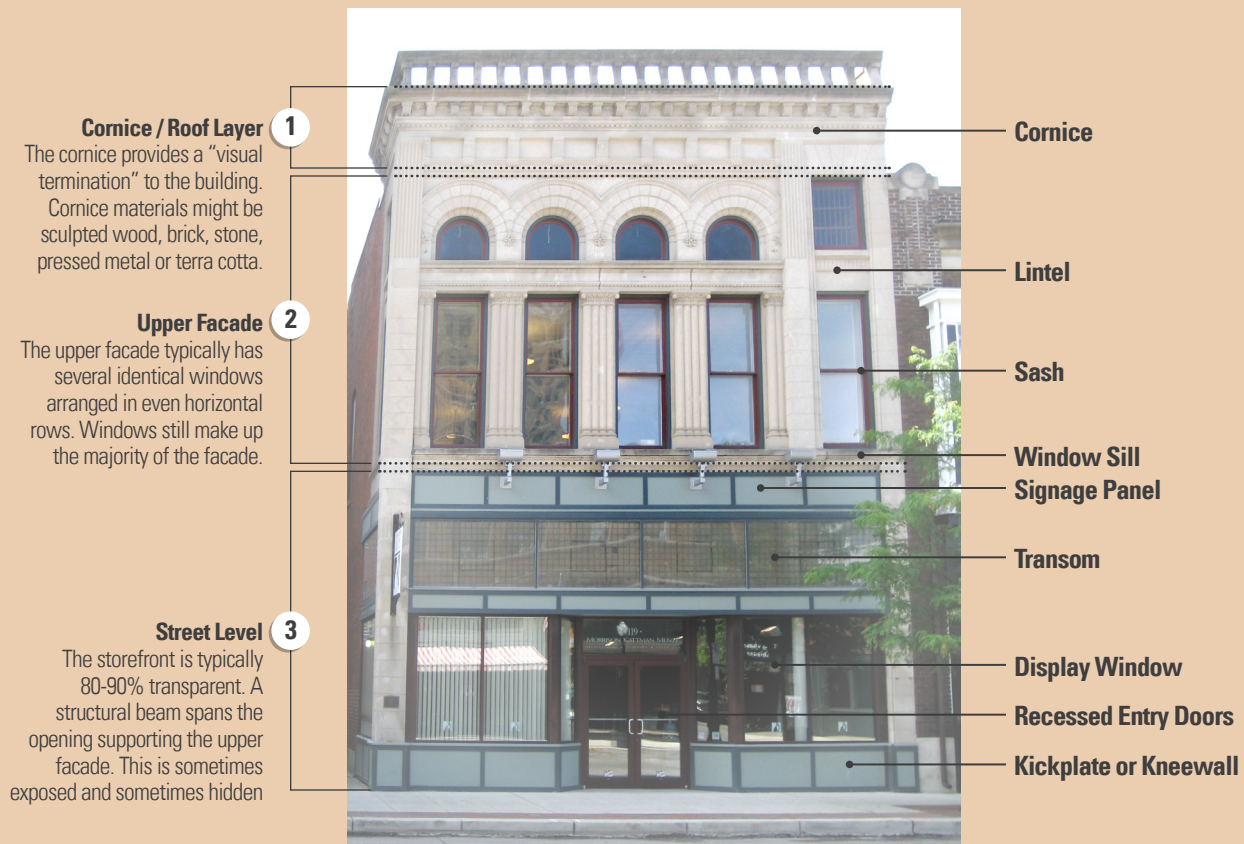
The following graphic is provided as a general guide to the typical components of a building facade. Not all components shown here appear on every building in the subareas. However, this graphic can be used as a starting point for formulating concepts for new facades.

Facade - Defined

A facade is a particular face of a building.

Primary facade are those that have frontage or public street. Buildings on corner lots would have two or more primary facades according to the number of public streets fronted.

Secondary facades are considered to be the side and rear facades of a structure. Secondary facades would have no frontage or public streets, but may have frontage to public alleys.



B. FACADE DESIGN

B.1. Primary Facade Materials

The combination of materials used on the exterior of new structures has a significant impact on how that building relates to the existing context of downtown. This section provides guidance on the selection of appropriate materials with an emphasis on encouraging materials that are compatible with the building's context and durable, do not diminish the existing character of the area, enhance visibility at street level, and do not present ongoing maintenance issues.

B.1.1



The use of high quality, durable materials that enhance the building and convey a sense of permanence is encouraged.

B.1.2



Materials should be compatible with the character of adjacent buildings and the surrounding area.

B.1.3 Recommended Materials



The following materials are recommended for primary and/or accent uses on structures:

- Clay brick
- Precast concrete
- Glass with reflectance of thirty percent (30%) or less
- Granite
- Limestone
- Marble
- Cast stone
- Sandstone
- Stucco
- Terra cotta
- Cement fiberboard (such as Hardi-plank or similar)
- Metal insulated panel (as integrated storefront member)

B.1.4



Recommended materials for sloped roofs visible from the public rights-of-way:

- Architectural shingles (for residential structures)
- Copper or other metal shingles
- Slate
- Standing-seam or flat-seam metal (or other similar material)
- Tile

B.1.5



The use of a single building material visible from public streets - especially concrete, stucco or stone - without definition or accent is discouraged. Changes in material and surface can create a play of light and shadow across a facade, creating depth and visual interest.

B.1.6



Building material color schemes should tie the building elements together and be used to enhance the architectural form of a building.

B.1.7



Tinted glass with a reflectance greater than thirty percent (30%) is not recommended at the pedestrian level of a facade or the bottom two stories of a building.

B.1.8 Not Recommended Materials



B.1.8.1 The following material is not recommended on the entire structure:

- Mirrored glass (high reflectance value)

B.1.8.2 The following materials are not recommended for the first two stories of the structure:

- Aluminum and/or vinyl horizontal residential style lap siding.

B.1.8.3 The following materials are not recommended for the bottom three feet of the primary facade of the structure:

- Thin-set brick
- Wood shake, shingle, or other wood lap siding



This building has a clear delineation between stories with a pronounced cornice at the top. Rows of windows correlate interior space.



This contemporary building has a clear delineation between its horizontal and vertical divisions.

B.2. Primary Facade - Horizontal Divisions

Facade divisions provide architectural interest and help large buildings relate to human scale.

B.2.1



There should be a clear delineation between the three main horizontal divisions of a structure: street level, upper facade, and cornice. Refer to the **General Facade Components Profile** in page 18.

B.2.1.1 Between the street level and upper facade at least one (1) of the following elements should be included:

- Awnings
- Variegation in window pattern, such as large storefront windows at street-level and smaller, separated windows on the upper facade level.
- A flush or projecting horizontal band of a different materials, color, or pattern.

B.2.1.2 On the cornice layer, at least one (1) of the following elements should be included:

- A cornice or other three-dimensional element.
- A flush or projecting horizontal band of a different material, color, or pattern.

B.2.3



Horizontal divisions can be reinforced with kneewalls, recessed entries (where appropriate), and transom windows. Contemporary and creative design solutions are encouraged as long as pedestrian-oriented storefront proportions are maintained.



Facade recesses and projections add detail to the primary facade of these townhouses.



B.3. Primary Facade - Vertical Divisions

Vertical facade divisions, known as building bays, reinforce the pedestrian scale.

B.3.1



Blank, unarticulated walls should be avoided on the upper floors of primary facades.

B.3.2



Multiple facade bays within the same building or adjacent buildings should be visually compatible in terms of scale and materials.

B.4. Secondary Facade Design

The sides and rear of all buildings should be compatible with architecture and materials to the primary facade.

B.4.1



Building walls that are visible to public streets, public gathering areas, connecting walkways, or adjacent development should be subdivided and proportioned using features described in **Part 2.C.2 and 3** on at least fifty percent (50%) of the facades.

B.4.2



Blank, unarticulated walls should be avoided on secondary facades. They should only be used on side or rear facades if essential to the function of the building.

B.5. Cornice / Roof Layer

The cornice, the uppermost horizontal element, is one of the most important architectural components of the facade for structures from most architectural periods, including contemporary designs,

B.5.1



A flush or projecting horizontal band of a different material, color, or pattern should be provided at the top of buildings to provide a visual termination to the top of the building.

B.5.2



Mechanical equipment such as roof vents, metal chimneys, solar panels, television antennae/satellite dishes, or air conditioning units should be screened so as to not be visible from any adjacent sidewalk or street.

B.5.3



On corner sites, the roof design should emphasize the corner location.

B.5.4



The form of the roof and building cornice should be similar or compatible to those on adjacent structures.

B.5.5



The following types of roofs should be avoided on buildings:

- Gable-end roofs
- False mansard roofs



Cornices and parapet walls can be used to provide a visual termination at the top of a building.



Example of a gable-end roof - not recommended.

B.6. Entrances

It is important to highlight a clearly defined pedestrian entrances.

B.6.1



There should be at least one (1) unobstructed pedestrian walkway at least three feet (3') wide connecting the primary facade entrance to an adjacent public sidewalk.

B.6.2



There should be a minimum of one (1) direct pedestrian entrance accessed directly from the primary street frontage of a building. If an entrance is at the corner, it satisfies the intent of a primary entrance for the building.

B.6.3



Secondary entries should be lit for safety and function. See also **Part 5.A.8: Site Lighting (p.63)** and **Part 7.A.4: Street Lighting (p.84)** for additional lighting standards.

B.6.4



Architectural features should be provided at primary entrances and should include at least one (1) of the following:

- Recessed entry
- Awning or canopy
- Cornice and/or parapet over the door
- Arches
- Architectural design elements, projecting from the vertical plane of the main exterior wall and raised above the adjoining parapet wall/roof
- Pilasters projecting from the plane of the wall by a minimum of eight inches (8") and/or architectural or decorative columns that create visual breaks and interest in the facade walls
- Enhanced exterior lighting such as wall sconces, building mounted accent lights, or decorative pedestal lights
- Architectural details such as tile work and moldings that are integrated into the building design



This building entrance has many features recommended for primary entrances including: lighting that enhances safety, canopies that provide protection from the weather, and architectural details, such as glazed brick in varying colors, and the change in material on the kneewall.

B.6.5



Integrally designed canopies, overhangs, arcades and recessed entries should not typically exceed ten feet (10') in depth; recessed entries should not exceed fifty percent (50%) of the width of the storefront.

B.7. Windows (for all subareas)

Windows should provide visual definition and reduce the visual mass of larger buildings. Window shape and placement are important to the facade, but the characteristics of the glass are also important. Transparent windows promote more interaction with pedestrian traffic. The selection of glass should strike a balance between light and heat transmission and transparency.

B.7.1



Windows should be transparent with an exterior reflectance of less than thirty percent (30%). Opaque or reflective glass should not be used on street level facades.

B.7.2



The use of low emissivity (low-E) glass is encouraged to maintain transparency and promote energy efficiency. Low-E glass is defined as glass that has a visible light transmission (the amount of light that passes from the outside to the interior) rating of at least seventy percent (70%), and an outdoor visible light reflectance – a mirror would be one hundred (100%) reflective – rating of no greater than thirty percent (30%).

B.7.3



The size and proportion of window openings should be similar to those on surrounding primary facades.



The rhythm of windows, entries and building bays should be maintained in new construction of a primary facade.

B.8. Awnings (for all subareas)

Awnings are architectural design elements that serve both aesthetic and practical functions. The Village requires certain awnings and canopies to adhere to Village Ordinance Section 46-84 regarding right of way encroachment. The following standards and recommendations are also applicable to these elements:

B.8.1



The following materials should not be used for awnings:

- Fiberglass
- Plastic

B.8.2



Awnings should not be internally lit.

B.8.3



Awnings should be a minimum of eight feet (8') above sidewalk grade at their lowest point.

B.8.4



The size and proportion of awnings should reflect the openings and proportions on the building facade.

B.8.5



Awnings should be constructed of durable canvas or acrylic fabric over a metal frame, although similar materials and/or metal may also be approved.

B.8.6



Awnings should be designed to be consistent with the architectural style and character of the building and area.

B.8.7



Awnings that project over the right-of-way require approval from the Village of Brookfield.

B.8.8



Integrally designed awnings should not typically exceed ten feet



This entrance is highlighted by a series of awnings extending over the pedestrian sidewalk.

(10') in depth.

Awning

A cover that projects from a wall of a building over a window or entrance to provide weather protection and architectural spatial definition. The top surface of an awning is typically sloped. An awning may be fixed in place or retractable. An awning is completely supported by the building.

B.9. Balconies

B.9.1



Balconies that project over the right-of-way require approval from the PZC.

B.9.2



Balconies should be designed so that they do not encroach into a public right-of-way more than four feet (4') and do not require support systems to be anchored within sidewalk clearance zones. This should be coordinated with the Village's building code since there are ADA and fire-code issues with encroachment.



Balconies of these residences are recessed into the facade.

B.10. Building Lighting (for all subareas)

Lighting is addressed throughout this design manual in response to its varying functions. Lighting is used to increase the safety of downtown streets, enhance architecture and public spaces, and illuminate signage.

B.10.1



Building-mounted light fixtures should be shielded or full cut-off (no light emitted above the horizontal plane of the lowest edge of the fixture).

B.10.2



Building-mounted light fixtures in pedestrian areas such as sidewalks, pathways, and plazas should not be mounted higher than twelve feet (12') as measured from the adjacent grade.

B.10.3



Wall-mounted lighting fixtures should be integrated into the overall design of the building facade and placed so that they do not cover up or interfere with architectural or historic features.

B.10.4



Facade illumination is encouraged to enhance historic or architecturally significant buildings.

B.10.5



Lighting fixtures should be located, aimed and shielded so that light is directed only onto the building facade. Lighting fixtures should not be directed toward the sky or toward adjacent streets or roads, in order to prevent glare. Downlighting is preferred.

B.10.6



Energy efficient light sources which produce a true color rendition such as is available with LED (light emitting diodes), metal halide, induction, and halogen fixtures are encouraged.



Facade, interior, and street lighting can enhance safety and drama.



Building mounted fixture casts up- and downlight to highlight architectural detail.

Lighting

See also Part 5.A.8: Site Lighting (p.63) and Part 7.A.4: Street Lighting (p.84) for additional lighting standards.

Mounting Height Measurement

For the purposes of this section, the mounting height of a light fixture should be defined as the vertical distance between the adjacent grade and the top of the lighting fixture (luminaire).

B.11. Drive-Through Facilities

Drive-through facilities provide convenient access to goods and services; however, they are also predominantly automobile-oriented uses which can create significant traffic access and safety issues as well as negative impacts on pedestrian circulation. These facilities are currently allowed in commercial use zoning districts. If traffic safety and other related site issues can be adequately addressed, drive-through facilities may be permitted with an approved special permit in the SA-1 and SA-3 Districts subject to the following standards:

B.11.1



The following requirements should apply to all drive-through facilities:

B.11.1.1 There should be a direct pedestrian access between the primary entrance and the adjacent public sidewalk.

B.11.1.2 The drive-through facility should not have more than two (2) service lanes.

B.11.2



The following requirements should apply to drive-through facilities proposed as part of a new primary structure:

B.11.2.1 The structure should be located at the minimum front setback line as established in the Zoning Modernization ordinance for the associated zoning district. Structures located on a corner should be considered to have two (2) front setback lines.

B.11.2.2 Drive-through service windows and ordering stations should be located on the interior side or rear of a structure.

B.11.2.3 If the drive-through service window is located on the interior side of the structure, canopies for the drive-through windows should be attached to the structure and recessed from the front of the structure by a minimum of ten feet (10').

B.11.2.4 The drive-through exit lane should be located a minimum of ten feet (10') from the structure at the location where the exit lane meets the public sidewalk.



A downtown drive-through facility located on the interior side of the structure which is compatible in material and architecture with the primary structure.

B.13. Accessory Structures

B.13.1 Placement



B.13.1.1 Accessory structures are recommended to have the same minimum setbacks as primary structures.

B.13.1.2 Accessory structures should be located to the side or rear of the principal structure and should be constructed and/or placed in the location of least visibility from the public right-of-way.

B.13.1.3 Accessory structures should not exceed twenty-five percent (25%) of the ground floor area of the primary structure.

B.13.2 Materials



B.13.2.1 Accessory structures should be constructed of materials that are compatible with the primary structure materials, in terms of type, pattern, and durability.

Additions and Expansions

Accessory structure standards apply to parcels with new development as well as to accessory structures on existing parcels undergoing expansion or renovation.

3

Site Elements

INTRODUCTION

The architectural design of buildings and structures in a downtown is only one part of the equation of good urban design. The site elements addressed in this section contribute to the sustainability, comfort, and aesthetic appeal of places and spaces. One aspect of sustainability is solar charging stations for vehicles. Although this is part of a regulatory relief for developments that have excess off-street parking, this is encouraged in any new developments within the Village.

Intent

This section provides standards and recommendations for the site components and amenities that are not part of a structure. The intent is to encourage site elements that enhance the quality of the subareas' urban fabric and create a "sense of place."

A. SITE ELEMENTS

A.1. Surface Parking

The Village encourages and promotes a pedestrian-friendly downtown and supports diverse building and housing types. In light of this, and in consideration of several existing public parking areas, it may not be necessary for every development or use to have off-street parking. This consideration should be a part of the review process for development of new surface parking areas or expansion of existing parking lots.

A.1.1



If parking is provided, parking minimums should be one-half (1/2) of the number of spaces required by the zoning ordinance outside of the SA zoning districts.

A.1.2



If the proposed number of off-street parking spaces exceeds the number of spaces required by the zoning ordinance outside of the SA districts for new buildings by more than five percent (5%), the minimum amount of required interior landscaping should be increased by ten percent (10%) or pervious pavement should be provided in an area equal to the additional amount. Solar charging stations and bike parking are recommended to receive regulatory relief for this condition.

A.1.3



Parking areas should maintain a minimum setback of seven feet (7') from all property lines in order to provide adequate area for required parking area buffering.

A.1.4



Parking areas should be hard surfaced and internally drained. Stone or gravel should not be permitted as a parking surface. Pervious pavement and individual pavers are permitted and encouraged.

A.1.5



Off-street parking should not be located in the front or side yard of any new structure. Refer to the **Preferred Parking Configurations Profile on page 56.**

A.1.6



Pedestrian pathways should be provided from public sidewalks to surface parking areas.

A.1.7



Parking areas available to the general public should be clearly identified.

A.1.8



Parking area design should incorporate Crime Prevention Through Environmental Design (CPTED) principles such as the provision of evenly distributed lighting.

A.1.9



Shared parking is strongly encouraged between adjacent or vertically mixed uses whose peak demand is offset.

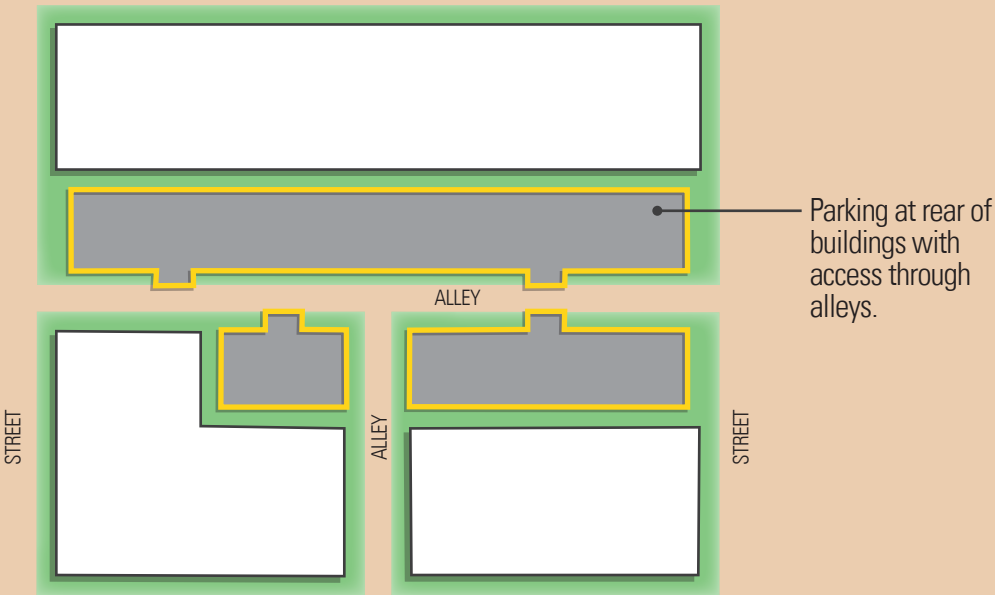
A.1.10



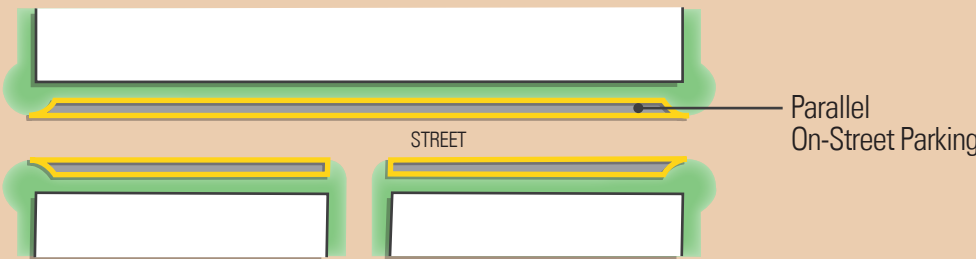
New parking areas should be designed to blend into the surrounding area. Emphasize the importance of pedestrian circulation by minimizing parking fields and locating them to the rear of buildings.

Profile: **Preferred Parking Configuration**

PARKING TO THE REAR



ON-STREET PARKING



A.2. Vehicle Access Locations

The purpose of these vehicle access standards is to provide for a safe and efficient vehicular, bike, and pedestrian transportation system.

A.2.1



Vehicle access points should be located along alleys and along secondary street frontages where possible.

A.2.2



Where feasible, vehicular links should be provided to adjacent properties.

Bike Racks: When selecting new bike racks, racks that provide frame support are preferred.

A.3. Bicycle Facilities

In an effort to foster increased use of alternative forms of transportation, standards for the provision of bicycle parking are included in this section.

A.3.1



Non-residential development over 50,000 square feet should provide a designated bicycle parking area with a minimum provision for the parking of at least four (4) bicycles. This requirement may be waived if bicycle parking exists within the public right-of-way within twenty five feet (25') of the primary entrance.

A.3.2



The location of bicycle parking facilities should be within twenty five feet (25') of the primary entrance of the structure they are associated with. Alternatively, facilities to secure bicycles may be located in adjacent parking lots or structures, or designated interior space.

A.3.3



Multi-family complexes in all SA zoning districts and townhouse complexes in SA-4a, SA-4b, and SA-5 should provide bicycle parking consisting of facilities to secure at least four (4) bicycles. It is recommended that bike parking be provided in all commercial zoning districts.

A.3.4



The design of bike facilities should be visually appealing and enhance the streetscape.

A.3.5



Designated bike parking facilities may be located within the public right-of-way upon approval by the Village.

A.4. Pedestrian Circulation

In the subareas, the street grid and adjacent sidewalks form the framework of the urban fabric. It is important to preserve this network for new public and private development.

A.4.1



There should be at least one (1) unobstructed pedestrian walkway at least five feet (5') wide connecting the primary facade entrance to an adjacent public sidewalk.

A.4.2



Primary pedestrian connections between commercial, office, and entertainment venues should be created or maintained to enhance pedestrian routes.

A.4.3



Secondary connections through parking lots, alleys, and plazas should be provided. Through-site links (interior or exterior) are encouraged in large projects, particularly multi-block or large block developments.

A.4.4



Street level pedestrian circulation is preferred.

A.4.5



Pedestrian pathways should allow for safe, direct, and convenient access to building entrances and parking.

A.4.6



Pedestrian links should be provided to adjacent properties (in addition to the public sidewalk). They should be visible and conveniently located.

A.4.7



Public entrances should face public right-of-way and should be designed to provide visual signals to pedestrians that they are for public, not private, use.

A.4.8



Special paving or other features should be used at building entries and on the street to highlight the pedestrian area.

A.5. Fences & Walls

Fences or walls may be used for screening parking, service, storage or delivery areas and as boundaries between open spaces and pedestrian areas. At times they may function as seating. The following standards and recommendations should apply to new fences and walls.

A.5.1



Fences and walls located in the required front yard should not exceed three feet (3') in height.

A.5.2



Fences and walls located in the side and rear yard should not exceed eight feet (8') in height.

A.5.3



No fence, wall, retaining wall, hedge, or other planting should be erected, placed, planted or allowed to grow, on that part of a corner lot or bounded by the lines of intersecting streets or alleys to impair visibility at a height between three and eight feet (3'-8').

A.5.4



On a corner lot, no solid wood or other opaque fence above three feet (3') in height should be located less than three feet (3') from the side property line which abuts the street.

A.5.5



Walls should consist of:

- Brick
- Stone
- Similar masonry material.

A.5.6



Fences should consist of:

- Wood slat or picket style
- Wrought iron or similar metal
- Dark vinyl coat only if supplemented with shrub plant material a minimum of three feet (3') in height
- Polyvinylchloride (PVC) slat or picket style

A.5.7



Fences or walls used to screen service, storage or delivery areas should be opaque, should be a minimum of six feet (6') in height.

A.5.8



Chain link fencing should not be permitted.

A.5.9



All slat style / panel fences should present the non-structural face outward to the public street or sidewalk.



Street trees add to the urban canopy of this street.

A.6. Landscaping

Plant material can be one of the most important components in creating comfortable, functional, and aesthetically pleasing spaces. Landscape materials screen and buffer structures and uses, delineate separations between uses and structures, conserve energy, moderate the effects of sun and wind, and improve the appearance of individual developments and the overall downtown. Tree canopies provide a vertical element that softens the urban edge, accents streets and structures, and mitigates the urban heat island effect generated by hard surfaces. Native planting is encouraged to be an integral part of landscaping.

A.6.1



Any project that requires a Development Plan should submit a landscape plan as part of the review process. The plan should be prepared by an individual knowledgeable of plant materials, landscape and site design, construction processes, and growing conditions in this region (USDA Zone 5).

A.6.2

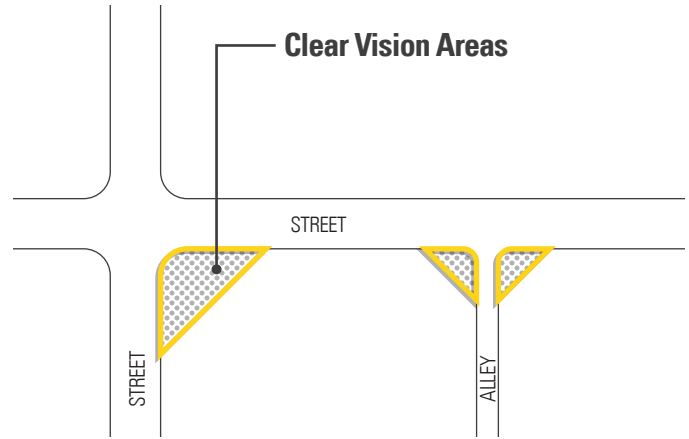


Plant material that obstructs views between three feet and eight feet (3'-8') high with the exception of tree trunks, should not be placed in the clear vision areas in such a way as to impair drivers' views.

A.6.3



Where opportunities exist, elements of public and private landscapes should be coordinated to create a cohesive streetscape character.



The hatched triangles represent a zone that should be kept clear of trees and other vegetation between the heights of three and eight feet (3-8'). This allows clear sight lines for automobiles.

A.6.4



Landscaping should consist of multiple plant species.

A.6.5



Trees should be selected that are appropriate in urban environments and hardy in USDA Zone 5. Refer to the list of recommended street trees in the **Appendix** for examples of trees that are appropriate for the subareas.

A.6.6



Where possible maintain a minimum distance of eight feet (8') between the tree trunk and the building facade for the tree to develop.

A.6.7



Window boxes, urns and pots are encouraged for seasonal plantings on downtown facades and the streetscape.

A.6.8



Street trees within the right-of-way are owned and maintained by the Village. See also **Part 7.A.2: Sidewalks and Street Trees (p.75)** for additional information.

Profile: Urban Heat Island Effect

On hot summer days, the air in urban areas can be up to 10 degrees hotter than in surrounding areas. This change is described as the “urban heat island effect.”

Urban heat islands form as vegetation is replaced by asphalt and concrete for roads, buildings, and other structures necessary to accommodate growing populations. These surfaces absorb – rather than reflect – the sun’s heat, causing surface temperatures and overall ambient temperatures to rise.

The displacement of trees and shrubs eliminates the natural cooling effects of shading and evapotranspiration (a natural cooling process in which water transpires from a leaf’s surface and evaporates into the atmosphere, reducing ambient temperature).

Options for reversing the urban heat island effect include installing reflective and emissive roofing materials, increasing the reflectivity of roads, driveways, and other paved surfaces, and planting shade trees.

Source: United States Environmental Protection Agency



Street trees add charm while cooling the streets and sidewalks.



Parking lot screening can be accomplished with either landscaping, a combination of landscaping and masonry wall, or a wall alone.

A.7. Parking Area Landscaping

A.7.1



Landscape planting areas for off-street parking should be calculated based on the gross square footage of the parking areas (not including driveways to and from the overall parking area).

A.7.2



Landscape planting areas which equal at least ten percent (10%) of the parking area square footage should be provided for all off-street parking areas.

A.7.3



Surface parking lots should be screened from public streets by a continuous buffer that:

- Consists of living plant material alone or in combination with masonry walls, metal, or wrought iron decorative fencing;
- Is a minimum of three feet (3') in height;
- Is a minimum of five feet (5') in width; and
- Contains one (1) deciduous shade tree per forty feet (40') of the perimeter (if shade trees already exist in the right-of-way adjacent to the parking area, such trees may be counted to satisfy this requirement.)

A.7.4



Interior landscaping is required for parking lots with more than twenty-five (25) spaces or exceeding thirty thousand (30,000) square feet.

- One (1) deciduous canopy tree should be provided per five thousand (5,000) square feet; and
- The minimum planting area should be one hundred eighty (180) square feet.

A.7.5



Plant material used to buffer parking areas should contain a combination of deciduous and/or evergreen plant material to ensure winter buffering.

A.7.6



Stone, lava rock, and colored mulch are strongly discouraged for use in off-street parking planting areas.

A.8. Site Lighting

Lighting extends the energy of the daytime street life into the evening, contributes to the perception of safety and enhances the appearance of the subareas. Existing light fixtures being repaired or replaced by the Village or those already approved or existing in private developments are exempt from the requirements of this section.

A.8.1



Site lighting should be required to illuminate pedestrian areas outside of the public right-of-way including parking areas, service areas, sidewalks and pathways, and plazas.

A.8.2



Lighting intended for pedestrian pathway illumination should have a maximum height of fifteen feet (15').

A.8.3



All parking lot lighting requirements should also apply to interior drives and other areas on the property used by vehicles.

A.8.4



The maximum height for all parking lot illuminating light fixtures, including both the pole and the base, should be twenty-five feet (25') above grade.

A.8.5



The maximum average maintained illumination level of parking areas, service areas, pathways, and plazas should be no more than one-point-six (1.6) horizontal footcandles at grade.

A.8.6



Cut-off fixtures should be used for parking lots or building-mounted lighting. Lighting fixtures should be fully shielded (no direct light emitted past a specified point or property line) or full cut-off (no light emitted above the horizontal plan of the lowest edge of the fixture) in accordance with dark sky principles.

A.8.7



The use of spotlights, floodlights, and searchlights should be prohibited except for short-term events of up to seven (7) days.

A.8.8



Holiday lighting is encouraged, and therefore should be exempt from the provisions of this section. This type of lighting should be on a schedule coordinated with the Village.

International Dark-Sky Association

Established in 1988, the IDA seeks to improve the nighttime environment by reducing light pollution through better lighting practices. This can provide energy savings resulting in economic benefits; improved nighttime ambiance and quality of life; conservation of nocturnal wildlife and ecosystems; safeguarding of scientific and educational opportunities, such as astronomy; preservation of cultural heritage and inspiration for the arts; increased visibility, safety, and security at night by reducing glare; and protection of human health.

Light pollution is any adverse effect of artificial light, including sky glow (the yellow-orange glow above cities), glare, light trespass into unwanted areas, light clutter, decreased visibility at night due to deep shadows and the disruption of night-vision, and energy waste. Light pollution wastes energy, affects astronomers and scientists, disrupts global wildlife and ecological balance, and has been linked to negative consequences in human health. But dark sky friendly lighting does not mean dark ground. Outdoor light at night should be used only when and where it is needed and at appropriate lighting levels. The use of fully shielded, light efficient fixtures aimed directly at the ground and the incorporation of timers and sensors to shut off lights when not needed can also reduce light pollution.

Profile: Light Pollution Solutions

Cut-Off Fixtures

What's a cut-off fixture? These are lamp housings that reduce or completely eliminate the glare produced by staring directly at a light bulb. The projection of the light is "cut-off" at the edge of the housing and creates a defined pool of light below. Some fixtures do this by placing the bulb high enough into the housing that you would have to stand directly below the fixture and look straight up to see the lamp. Other fixtures are available with glare shields that cast the light downward.

LED Lights

LEDs (light emitting diodes) are energy efficient and have an extremely long life which makes them more economical to operate over their span of operation because they need to be changed so infrequently.



High pressure sodium lamp.



Metal halide lamp.



Mercury vapor lamp.

A.8.9



Lighting of Outdoor Display or Open Sales Areas

A.8.9.1 Light fixtures serving areas designated as exterior display or open sales areas should be full cutoff and/or fully shielded fixtures.

A.8.9.2 Areas designated as exterior display or open sales areas should be illuminated so that the average maintained horizontal illumination at grade level does not exceed four (4) foot-candles.

A.8.9.3 Light fixtures located on the perimeter of display or sales areas and within twenty feet (20') of a property line should utilize "house-side" shielding to minimize light spillage beyond that property line.

A.8.10



Energy efficient light sources which produce a true color rendition such as is available with LED (light emitting diodes), metal halide, induction, and halogen fixtures are encouraged.

A.8.11



A substantial amount of lighting for pedestrians should be provided from building fronts using either indirect illumination from within the building, down-lighting of building facades and trees, and/or direct illumination under canopies or awnings.

A.8.12



Building-mounted light fixtures should be an architectural accent to the building.

A.8.13



The application of Dark Sky principles, as introduced in the **Light Pollution Solutions Profile (p.64)**, is encouraged.

A.8.14



Whenever practicable, exterior lighting should include timers, dimmers, and/or sensors to reduce overall energy consumption and eliminate unneeded lighting.

A.8.15



The electrical service to all outdoor lighting should be underground.

A.8.16



The design and height of the street light poles should be at the pedestrian-scale.

A.8.17



Street light poles should consists of lighting fixtures at two heights. One at the vehicular scale and the other at the pedestrian scale.

A.8.18



Lighting fixtures should not be directed toward the sky or toward adjacent streets or roads, in order to prevent glare. Downlighting is preferred.



Public open spaces should be visually and physically accessible from adjacent buildings and pathways.

A.9. Public Open Space

Recommendations for public open space should also refer to the Village's Open Space Plan for additional guidelines, recommendations and requirements.

A.9.1



Open spaces should be located in highly visible places that are easily accessible from public areas such as streets, building entrances, and sidewalks. They should be open along the adjacent sidewalks and allow for multiple points of entry. They should also be visible from the sidewalk, allowing passersby to see directly into the space.

A.9.2



Open spaces should be designed as places for circulation, informal gathering, resting, or similar activities. Facilities that support these activities should be provided such as decorative pavement, lighting, seating, sun and wind protection, flowers, shrubs and trees, water features, and art or cultural displays. Adjacent uses such as retail, cafes, restaurants, and higher-density residential uses are encouraged.



Burying utility lines underground protects them from severe weather and reduces visual clutter.

A.10. External Utilities

A.10.1



All new utility services within the public right of way are encouraged to be placed underground unless services are being added to existing overhead facilities. Consultation with the Village's Public Works Department is required.

A.10.2



As areas are redeveloped, existing overhead utilities should be examined for the possibility of relocation underground.

4

Other Urban Design Considerations

INTRODUCTION

This section addresses other elements of urban design that may be considerations for certain projects. These include vistas, safety and security, sustainability, maintenance, and demolition.

Profile: Crime Prevention Through Environmental Design (CPTED)

CPTED recognizes that environmental design can affect the safety of public spaces. Designing safe spaces should consider the following principles:

Natural Surveillance - A person is less likely to commit a crime if he/she perceive someone would see him/her do it

Natural Access Control - Using and designing pathways, fences, lighting, signage, and landscaping to clearly direct traffic to and from the appropriate entrances. Having a proper flow of people can decrease opportunities for crime.

Territorial Reinforcement - Physical designs, such as signage, pavement treatment, and landscaping enable users to develop a sense of ownership of the space. Clearly distinguishing public and private areas would discourage potential trespassers.

Maintenance / “Broken Window Theory” - Neglected or poorly maintained properties are breeding ground for criminal activities.

Activity Support - Design the space so it enhances or creates new form of activities in the space. Diverse land uses around the space brings activity throughout the day.

Image - Appearance that an area is not conducive to crime.

Motivation Reinforcement - Utilizing physical design to improve the community's social cohesion and sense of territory.

Site Lighting

See also **Part 5.A.8: Site Lighting (p.63)** and **Part 7.A.4: Street Lighting (p.84)** for site and street lighting standards.

Fences and Walls

See also **Part 5.A.6: Fences and Walls (p.59)** for standards for fences and walls.

A. SAFE BY DESIGN

Incorporate safety and security measures into the design of new and renovated buildings and spaces, including parking areas and the street, in an effort to reduce levels of crime, fear of crime and disorder, and encourage a sense of ownership and responsibility. Provide quality environments and ensure that they are properly managed and maintained.

A.1



Places should have well-defined routes, spaces, and entrances that provide for convenient movement without compromising security. The goal is to create places that are well connected, welcoming, and secure.

A.2



Footpaths should allow wide fields of view to avoid possible hiding places, should be visible to surrounding buildings or activities, and should not be hidden by vegetation or landscape features. Screening should be low to the ground.

A.3



Windows and entries facing onto the street provide greater security as this implies that others are watching street activity.

A.4



Reduce the number of potential hiding places increase environmental awareness designing open, bright spaces.

A.5



Well-lit spaces and consistency of illumination reduces fear of crime and makes people feel more secure, but lighting should be sensitive to the needs of residents and should provide security without resulting in glare and compromising privacy.

A.6



Consider the height and transparency of gates, fences, walls, and hedges in the creation of both safe and attractive places.

A.7



In some places, fences should be visually porous so as not to hinder natural surveillance or provide places for offenders to hide. Lower barriers, hedges, and shrubs may be used to signify the public/private divide.

A.8



Design places with management and maintenance in mind. Proper maintenance after construction (including landscaping, lighting, public areas, parking, fencing, roads, sidewalks, ensuring proper public services such as garbage collection, and tenant management in rental areas) prevents decline and disorder from taking root in the area. Lighting and other property maintenance deficiencies should be enforced.



The rain garden collects and filters stormwater runoff reducing the burden on stormwater infrastructure systems.



Individual pavers allow percolation of stormwater into the ground.

B. SUSTAINABILITY

The standards and recommendations contained in this Design Manual are intended to enhance the image of the subareas and to foster continued investment to support a healthy economy. It is equally important to promote an ecologically healthy environment which can, in turn, contribute to economic health by reducing long-term energy costs and demands on utilities and infrastructure. The rehabilitation, renovation, and reuse of existing structures is a significant act of sustainability. Higher density uses also contribute to sustainability principles and support transit-oriented development. Increased density also lowers municipal servicing costs. Sustainable solutions suggested below are divided into those appropriate for buildings and those more relevant to the site or streetscape.

B.1 Sustainable Streetscapes

B.1.1



Innovative drainage techniques and alternative or stormwater best management practices (BMPs) are recommended. These can include rain gardens, which are typically installed to reduce a portion of stormwater through natural filtration, thereby reducing overall stormwater load while freeing up space in the system for new development with minimal improvements to an existing stormwater system.

B.1.2



Using native plants is encouraged to decrease the amount of maintenance and watering needed. Plants used in the subarea landscape design should be hardy, drought-resistant, and tolerant of winter conditions including cold and snow-melting substances such as salt.

B.1.3



Street trees and other vegetation can help to combat the Urban Heat Island Effect, provide shelter from rain, and provide shade for pedestrians and buildings helping to reduce cooling costs. See the **Appendix** for a list recommended urban street trees.



Rainwater harvesting cisterns, like the one shown above, can collect rainwater from the roof to use for landscape watering or other non-potable water needs.



Awnings incorporated into the structure help with interior light, heating and cooling control.

B.2 Sustainable Buildings

B.2.1



Both public and private buildings are encouraged to incorporate green design principles, Energy Start, or LEED (Leadership in Energy and Environmental Design) certification as an expression of their commitment to sustainable construction, energy efficiency, and a healthy environment.

B.2.2



Rainwater harvesting is encouraged (in appropriate quantities) to be used for watering adjacent landscapes as opposed to using chlorinated, potable water.

B.2.3



Solar access, both for energy generation and access to natural lighting, is encouraged as a form of alternative energy. Buildings that utilize solar generation equipment have lower energy costs. Buildings with a high amount of natural “daylighting” have lower lighting costs and may have lower heating costs during colder seasons.

B.2.4



Where possible, natural ventilation is encouraged as an alternative or supplement to fan-forced ventilation. Natural ventilation uses the natural forces of wind and buoyancy to deliver fresh air into buildings that can alleviate odors, provide oxygen for respiration, and cool a warm environment. The use of natural ventilation can have an effect on building design.

B.2.5



Redeveloping vacant or underutilized sites is encouraged. This allows for a higher density of development downtown and efficient use of land. By redeveloping downtown sites, land located at the fringe of communities can continue as natural or agricultural land.

B.2.6



New construction and existing buildings are encouraged to incorporate sunshades into building design. Aside from the aesthetic benefits, sunshades can provide shade for interior spaces contributing to lower cooling costs. They can be designed to be adjustable to respond to sun angles during different times of day or year. Electronic sensing systems are preferred.

B.2.7



The use of roofing materials with a high amount of reflectivity is encouraged. This can contribute to lower cooling costs during months of extreme sun exposure. It can also help to combat the Urban Heat Island effect.

B.2.8



In order to foster the desire for multiple modes of transportation:

- Bicycle parking should be provided for all new commercial development, multi-family residential development, and all public facilities including parks. Bicycling becomes more attractive if safe, visible, secure parking facilities are provided. See also **Part 5.B.3: Bicycle Facilities (p.57)**.
- Bicycle facilities should be provided in the subareas according to the within the Active Transportation Alliance’s **Brookfield Active Transportation Plan**.

B.3 Other Sustainable Design

B.3.1



Recycling containers should be provided in addition to trash containers.

B.3.2



Green roofs are encouraged for non-residential buildings. Green roofs can provide building insulation, combat the Urban Heat Island Effect, reduce the load on the stormwater infrastructure system, and help to filter air pollution.

B.3.3



Windows at street level should be transparent. Transparency comes in many different levels based on factors such as percentages of transmittance and reflectance. These varying levels affect the amount of interior lighting, interior heat gain, as well as the amount of light transmitted to the outside at night. The use of glass that gives a mirrored effect or has a reflectance greater than thirty percent (30%) is not desired. The use of insulated glass units with a Low-E coating for energy conservation which reduces the infrared portion of daylight, is encouraged.

Note: As the glass is modified (color treatments and reflective coatings), the amount of visible light is generally reduced and the reflectivity is generally increased.

B.3.4



The use of pervious pavement is encouraged to allow infiltration of some stormwater runoff, decreasing the load on the stormwater infrastructure system. These materials can also reduce the need for sand and salt to melt winter snow because the warmer ground temperatures (compared to colder air temperatures) are able to radiate through the paving material and can expedite snow-melt.

C. FOSTERING NEIGHBORHOOD-SCALE SIGNAGE

Ensuring signs are designed at the pedestrian scale assists with the area's ability to attract pedestrians and greater levels of activities. A pedestrian-scale signage means that the signage would be smaller in scale than an auto-oriented pole sign, but the pedestrian can easily identify the sign as he/she walks towards it. Although 31st Street and Ogden Avenue possess wider roadways than 8 Corners and Downtown do, it is still important to maintain signage at the pedestrian scale to maintain a consistent design theme of signage throughout the Village. Furthermore, this distinguishes the 31st Street and Ogden Avenue from neighboring municipalities. Additionally, future signage development should conform to the Village's sign regulations under the Village's Zoning Ordinance and the Zoning Modernization ordinance.

C.1 Signage Modernization Program

The Village is currently administering a pilot Signage Modernization Program. The program is voluntary, and eligible participants receive a subsidy from the Village in the form of a zero-interest loan to conduct improvements to their signage. This program covers the Ogden Avenue, Congress Park, and 8 Corners TIF Districts. The program has a set of general guidelines that address the signage design, scale, and placement. The Village should continue to monitor the progress of signage improvements derived from this program. If the Village deem this program to be a success, then the Village may consider expanding this program throughout the Village.



Example photos of projecting signs



An example of a wall sign with individual letters.



An awning with identification signage.

5

Public Streetscape



Example photos of vibrant and appealing streetscapes.



INTRODUCTION

The street is an important element in the Village. It is the thread of the urban fabric. The street connects the buildings and spaces in which we reside, work, shop and play. The majority of streets are public. For Village residents and visitors, much time is spent walking, browsing and visiting, on the streets.

Intent

This chapter is intended to create an awareness of streetscape design issues and to encourage thoughtful consideration of the quality of the elements that make the streetscape richer and increase the comfort of the users. These elements provide shade, places to wait for a bus or to sit, lighting for safety, and art for enjoyment.

A. PUBLIC STREETSCAPE ELEMENTS

A.1. General Selection Criteria

Site furnishings that populate the streetscape have a significant impact on the character and function of the street. The Village should establish a palette of site elements which include lighting, special paving and landscaping, among others. The selection may vary by subarea or neighborhood. It is not necessary that all site elements match, but more important that they complement each other and the architecture of the area.

There are three potential templates for use on streets within the subareas. These templates represent minimum expectations for design along with standards for paving materials and patterns, street tree, and street light placement, and other details for construction.

Variations from the templates are encouraged for creative and innovative designs that respects the spirit and intent of the palette by incorporating similar materials and colors.



An example photo of a street configuration reflecting A.2.1. Template 1.

A.2. Streetscape Templates

While there are established templates that set forth design expectations for streetscapes in the downtown, variations from the templates are encouraged for creative expression and innovative design. Variations are recommended to be presented to the Village for approval.

A.2.1 Template 1: Curb / Parkway / Walk



A.2.1.1 Space street trees between thirty feet (30') on center, depending on mature crown width, on both sides of the public street when placed in a vegetated parkway. The strip may be vegetated with low growing groundcover or turf. Mulch or gravel alone should not be permitted.

A.2.1.2 Provide five feet (5') wide parkway, though six to eight feet (6'-8') wide is preferred.

A.2.1.3 Provide minimum two inch (2") caliper trees.

A.2.1.4 Space trees a minimum of fifteen feet (15') from light poles.

A.2.1.5 Provide sidewalks of at least five feet (5') in width.

A.2.1.6 Maintain a minimum clear zone between 3'-6", free of site furnishings and other streetscape elements, to maintain an accessible path.

A.2.1.7 Place light fixtures fifty to one hundred feet (50'-100') apart.

A.2.1.8 Place "shoebox" fixtures on thirty-five foot (35') bronze anodized aluminum poles, ninety to one hundred ten feet (90'-110') apart.

A.2.1.9 Coordinate conduit/wire placements to avoid tree grates and to leave clearance for tree installation and removal.



An example photo of a street configuration reflecting A.3.2. Template 2.

A.2.2 Template 2: Standard Integral Curb / Walk

8

A.2.2.1 Space street trees between thirty feet (30') on center, depending on mature crown width, in the right-of-way with integral curbs.

A.2.2.2 Provide street trees a minimum of 3-1/2" caliper.

A.2.2.3 Space trees a minimum of ten feet (10') from light poles.

A.2.2.4 Place street trees in tree grates a minimum of sixty (60) inches square.

A.2.2.5 Limb up trees to a height of six feet (6') at the time of planting and up to twelve feet (12') at maturity.

A.2.2.6 Provide sidewalks of at least five feet (5') in width.

A.2.2.7 Maintain a minimum clear zone of 3'-6", free of site furnishings and other streetscape elements, to maintain accessibility.

A.2.2.8 See A.3.1.7.

A.2.2.9 See A.4.1.2.

A.2.2.10 Coordinate conduit/wire placements to avoid tree grates and to leave clearance for tree installation and removal.



An example photo of a street configuration reflecting A.3.3. Template 3.

A.2.3 Template 3: Enhanced Integral Curb / Walk



A.2.3.1 Space street trees between thirty feet (30') on center, depending on mature crown width, in the right-of-way with enhanced integral curbs.

A.2.3.2 Provide street trees a minimum of 3-1/2" caliper.

A.2.3.3 Space trees a minimum of ten feet (10') from the light poles.

A.2.3.4 Place street trees in tree grates that are a minimum of sixty (60) inches square.

A.2.3.5 Limb up trees to a height of six feet (6') at the time of planting and up to twelve feet (12') at maturity.

A.2.3.6 Use structural soils or other specific planting medium beneath paved areas for urban tree installation to provide improved chances for long term health and survival.

A.2.3.7 Provide sidewalks of at least five feet (5') in width.

A.2.3.8 Maintain a minimum clear zone of 3'-6", free of site furnishings and other streetscape elements, to maintain accessibility.

A.2.3.9 Provide a 24" wide running bond brick inlay between the curb and concrete sidewalk. Tool the joints in the concrete walk to create a 30" square pattern.

A.2.3.10 See A.3.1.7.

A.2.3.11 Coordinate conduit/wire placements to avoid tree grates and to leave clearance for tree installation and removal.



Most of Brookfield's street has plenty of street trees, which makes the streets more visually appealing.

A.3. Sidewalks and Street Trees

Streets and sidewalks form the greatest amount of public space in the Village. The sidewalk connects the street to the buildings as well as other destinations. The predominant sidewalk material is concrete. Carriage walks in Downtown are brick.

Trees are visually significant elements of the streetscape which reinforce the linear axis and enclose the pedestrian space. Street tree species should be chosen to serve a particular function. Trees on the same block should be of the same species for visual continuity and unified aesthetic appearance. Plantings that combine different species on various blocks of the Downtown would avoid the creation of a tree "monoculture" (an over-use of a single tree species). Identifying characteristics of the trees include leaf shape, flowers, seasonal color, or character of the bark. Because the sizes of the canopies vary by species, the spacing of the tree plantings should be considered on an individual basis so as to achieve the desired canopy affect. Maintenance of the urban canopy furthers sustainability goals. Tree species that are tolerant of urban conditions, including road salt, are encouraged.

A.3.1



Street tree locations, species, and planting specifications require approval from the Public Works Department. Refer to the recommended list of urban street trees in the **Appendix**.

A.3.2



In areas of high pedestrian use, trees should be planted in tree grates flush with the adjacent grade. Adequate planting areas and acceptable soil materials should be provided to encourage tree development and longevity.

A.3.3



The coordination of public and private landscape elements, including tree species and placement, is encouraged.



Street trees planted in coordination with rain gardens between the sidewalk and the parking lane.

A.3.4



Regularly spaced street trees are recommended with maximum spacing based on mature tree crown width. The layout of street tree locations should also consider the location of building elements (entrances, walls, and windows), property lines, access curb cuts, street furnishings, street light, and traffic control signals and poles.

A.3.6



The planting of large shade trees under overhead power lines is discouraged.

A.3.7



Trees should not be planted in clear vision areas.

A.3.8



Trees with open canopies and high branching patterns should be selected to provide light penetration to the street and to minimize conflict with signage.

A.4. Street Lighting

Street lighting has many functions. It increases the safety of the travelway and pedestrian spaces and permits people to feel comfortable in a 24-hour environment. It is the presence of people living, working, and being entertained, that is critical to the success of the subareas. While there is an established palette of fixtures, as indicated on the three potential (3) templates, there is room to expand the palette within guidelines that are compatible with the Village's ultimate goal. Some factors to be considered in selecting and placing light fixtures are detailed in **Part 5.A.8: Site Lighting (p.63)**, and include:

- Height of the pole (street vs. pedestrian)
- Color quality of the lamp
- Lamp placement (to avoid glare)
- Light trespass

4.1 Curb / Parkway



4.1.1 See A.3.1.7.

4.1.2 Place “shoebox” fixtures per 35’ bronze anodized aluminum poles. The style and design should be coordinated with all streetscape elements.

4.1.3 Coordinate conduit/wire placements with trees to allow tree root ball installation and stump removal.

4.2 Standard Integral Curb/Walk

8

4.2.1 See A.3.1.7.

4.2.2 See A.4.1.2.

4.2.3 Coordinate lighting conduits to avoid tree grates and to leave clearance for tree installation and removal.

4.3 Lighting



4.3.3 Coordinate lights with trees to maintain a minimum separation of ten feet (10’) between lights and tree trunks.

A.5. Bicycle Parking

A.5.1



Bicycle facilities placed in the right-of-way by a private property owner require approval by the Village. These facilities to secure bicycles should not at any time reduce the width of sidewalk available to pedestrians to less than 3'-6".

A.5.2



Consider providing bicycle facilities that can be both functional and public art.



Example photos of bicycle parking facilities that can serve as public arts.

A.6. Street Furnishings

Street furnishings are the accessories of the streetscape. They convey the style and image that the Village wishes to portray of its subareas. These guidelines can be used by the Village as they select furnishings that complement the streetscape. Attention should be paid to materials, placement and comfort.

A.6.1



Benches with backs and armrests are encouraged. Durable materials should be used but stone or concrete are less comfortable than contoured metal or wood. Wood may be more susceptible to vandalism. Benches should be secured to the ground and placed so that users can extend their legs and not impede the flow of pedestrian traffic. All benches do not need to match, but if the style varies, then the material and color should be consistent.



A.6.2



Trash receptacles should be of a similar style as the seating. Metal is the preferred material in keeping with the downtown character. Coordinating bins for recycling should also be included.



Coordinating bench and trash receptacle.

A.6.3



Planters are encouraged for streetscape projects. They provide plant material that is seasonal, colorful and at street level. They should be constructed of durable materials appropriate in style and scale to the downtown environment. The containers should be maintained (watered, fertilized, pruned, and plantings changed out with the seasons).

A.6.4



Tables and chairs that are movable provide seating that encourages public interaction. The preferred materials are painted aluminum or plastic which are both lightweight and resistant to the elements.

A.6.5



Bollards may be used to provide traffic control by preventing vehicular traffic while allowing pedestrians and bicycles to pass. Bollards with lighting can be incorporated into alley spaces, public plazas, or open space.

A.6.6



News racks that contain and organize several publications and that are constructed of materials that are complementary to the other street furnishings are encouraged.

A.6.7



Street furnishings placed within the right-of-way should require approval by the Public Works Department.



Movable planters provide opportunity for seasonal plantings.



Transit shelter provides shelter and seating for bus patrons.



A.7. Transit Shelters

Transit shelters are important features for public transportation users. They provide shade, rain protection, and a well-lit place to wait for a bus.

A.7.1



Transit shelters should be designed to allow clear views in and out.

A.7.2



Benches should be provided for patrons.

A.7.3



Shelters, signage, trash receptacles, and benches should be located outside of a clearance area a minimum of 3'-6" wide, to allow pedestrians to easily pass in front of the stop without significantly altering their path of travel.

G

Glossary

For the purposes of this Manual the following terms should have the meanings set forth herein.

A

Adaptive Re-use

The redevelopment of existing structures to accommodate new uses and tenants.

Addition

Any construction that increases the size of a building or structure in terms of site coverage, height, length, width, or gross floor area.

Appropriate

A pre-approved idea, object, material, or practice that contributes to the goals of the design guidelines. Submission of projects utilizing appropriate practices would be viewed favorably by the Design Review Committee and the Plan Commission.

Awning

A cover that projects from a wall of a building over a window or entrance to provide weather protection and architectural spatial definition. The top surface of an awning is typically sloped. An awning may be fixed in place or retractable. An awning is completely supported by the building.

B

Blank Wall

A building wall with no windows or doors.

Bay

A structural division of a building.

C

Caliper

The diameter of a tree trunk.

Canopy

A fixed cover that projects from a wall of a building over a window or entrance to provide weather protection and architectural spatial definition. A canopy typically projects at a 90-degree (perpendicular) or similar angle. A canopy may be completely supported by the building, or completely or partially supported by columns, poles, posts, or similar supports.

Cement Fiber Board

Cement fiber board is made from Portland cement mixed with ground sand, cellulose fiber, and other additives; can be textured to resemble stucco, wood clapboard, or cedar shingle; is more durable than wood or stucco; and is fire resistant. HardiPlank is one brand name for cement fiber board.

Character

A combination of both the visual (physical design/materials/location) and functional (accessibility/level of activity) qualities of a structure or an area that set it apart from its surroundings and contribute to its individuality.

Clear Vision Area

The area adjacent to the intersection of two public rights-of-way that should be kept clear of structures and vegetation to allow drivers a clear view for a safe distance down the intersecting street. May also apply to the intersection of a driveway and street, if it is determined that a traffic safety hazard exists or would be created.

Compatibility

The characteristics or features of different buildings or site development which allow them to be located adjacent to or near each other in harmonious and congruent relationships. Compatible does not mean “the same as.” Rather, for the purposes of this Manual, compatibility refers to the ability of development proposals to recognize and adapt to the character or context of existing development by successfully coordinating with the characteristics of adjacent buildings or nearby development. Elements that may affect a determination of compatibility include: building height, scale, and mass; building materials; façade design, including building divisions, façade rhythms, and window size and arrangement; access and parking locations; landscaping; and building/site lighting. The size, scale, location, and/or use of a proposed development may also affect determinations of compatibility. It may be appropriate for larger buildings or development proposals, or for certain uses, to establish a unique character for a given area.

Contemporary

Items or design elements that are not specifically tied to a past time period. Contemporary designs tend to rely, at least in part, on recent material and design innovations.

Context

The characteristics and elements (including building height, scale, and mass; building materials; façade design, including building divisions, façade rhythms, and window size and arrangement; access and parking locations; landscaping; and building/site lighting) of the existing buildings adjacent to or directly across the street from the block containing the proposed new building, or a building undergoing a major façade renovation. For proposed buildings or major façade renovations which would or currently occupy a corner location, the characteristics and elements of the buildings across the “side” street may also be considered. Where buildings are located adjacent to or across from parks or other open spaces, those spaces may also be considered as part of the context of those buildings.

Cornice

The sculpted projecting horizontal architectural element that crowns a building.

D

Development Parcel

A parcel, tract or area of land. It may be a single parcel separately described in a deed or plat which is recorded in the office of the County Recorder; it may be a part of a single parcel described in a deed or plat which is recorded in the office of the County Recorder, provided the part to be used is adequate in size to meet all yard requirements of this chapter; or it may include parts of a combination of such parcels when adjacent to one another and used as one.

Discouraged

An object, design, material, or practice that is believed to be detrimental to the function of, or would negatively impact the visual quality of the downtown.

E

Eave

The projecting lower edges of a roof overhanging the wall of a building.

Encouraged

An object, design, material, or practice that would enhance the functions of or contribute to the visual quality of the downtown.

Emissivity

The relative power of a surface to emit heat by radiation; the ratio of the radiant energy emitted by a surface to that emitted by a blackbody at the same temperature.

Expansion

Increasing the area or volume occupied by or devoted to a use; increasing the living space or occupant capacity of a structure; or adding uses or structures accessory to a nonresidential use or structure. Excludes the addition of unenclosed porches, patio covers and the like and the addition of detached accessory structures not for human habitation as accessory to a dwelling.

Exterior Insulation Finishing Systems (EIFS)

A non-load bearing exterior wall covering which combines materials that have insulating qualities with materials that provide weather protection and completed finish. Behind the EIFS wall components are the typical wall frame/support materials used in construction.

F

Facade

A particular face of a building. Building facades are generally oriented to face public streets or public areas.

Facade, Primary

Any face of a building that has frontage on a public street. Buildings on corner lots would have two or more primary facades according to the number of public streets fronted.

Facade, Secondary

The side and rear facades of a structure. Secondary facades would have no frontage on public streets, but may have frontage on public alleys.

Full-Cutoff

A light fixture which prevents distribution of light above a horizontal line through the lowest point of the bulb or lens, diffuser, reflective passing enclosure, or other parts intended to distribute light.

G

Gable

The vertical triangular end wall of a building from cornice or eaves to ridge.

Gateway

A point along a roadway at which a motorist or pedestrian gains a sense of having entered the city or a particular part of the city. This impression can be imparted through such things as signs, monuments, landscaping, a change in development character, or a natural feature.

Groundcover

Living plant material, interpreted to exclude mulch, gravel, stone, or any other non-living material.

Ground-Mounted Signs

A freestanding sign supported primarily by an internal structural framework or integrated into landscaping or other solid structural features other than support poles with no clearance between the bottom of the sign and the ground below.

H

Human-Scale

The perceived size of a building relative to a human being. A building is considered to have good human scale if there is an expression of human activity or use that indicates the building's size. For example, traditionally sized doors, windows, and balconies are elements that respond to the size of the human body, so these elements in a building indicate a building's overall size.

I

Infill Construction

The development of vacant lots and structures that are located within urban/developed areas.

K

Kneewall

A short wall or portion of a wall usually under three feet in height.

L

LEED

Leadership in Energy and Environmental Design. LEED criteria are a voluntary, consensus-based national standard for developing high-performance, sustainable buildings.

Limb Up

The practice of trimming limbs from a tree to increase the clear zone between the limbs and ground.

Lintel

A lintel is the horizontal support that sits atop two vertical supports generally referred to as posts or wall segments. A building structural element that is generally used as a wall support above windows, doors, and other openings.

Local Historic District (LHD)

A local historic district is a district designated by a local ordinance, which falls under the jurisdiction of an appointed citizen-board called a historic preservation commission. It provides communities with the means to make sure that growth, development, and change take place in ways that respect the important architectural, historical, and environmental characteristics within a district.

Low-Emissivity (Low-E) Glass

A surface that radiates, or emits, low levels of radiant energy.

Lumen

A unit of luminous flux. One footcandle is one lumen per square foot. For the purposes of these regulations, the lumen-output values should be the initial lumen output ratings of a lamp.

M

Major Facade Renovation

Replacement of existing features with new features that are different in terms of material, type, size, or color, excluding painting of typically painted or previously painted materials or surfaces.

Mansard

A roof having two (2) slopes on all sides, with the lower slope being more steep than the upper.

Marquee

A fixed cover that projects from a wall of a building over an entrance to provide weather protection, architectural spatial definition, and lighting. A marquee typically projects at a 90-degree (perpendicular) or similar angle, and is typically deeper than a canopy. A marquee is completely supported by the building and is typically used in association with a theater or similar use.

Minor Facade Renovation

Replacement of existing features in kind or maintenance of features including painting of typically painted or previously painted materials or surfaces.

Mixed-Use Development

The practice of allowing more than one type of use in a building or set of buildings.

Mixed-Use Structure

A building containing more than one type of use.

Monoculture

The growing of a single type of plant within an area.

Mounting Height Measurement

For the purposes of this section, the mounting height of a light fixture should be defined as the vertical distance between the adjacent grade and the top of the lighting fixture (luminaire).

P

Parapet

The portion of a wall which extends above the roof line.

Pedestrian Friendly

Areas that accommodate pedestrians in a manner that is safe, functional, and aesthetically pleasing. Pedestrian friendly areas generally separate pedestrian and auto traffic, as well as offer designs that are human scaled.

Pedestrian Oriented

Areas that cater specifically to pedestrians, as opposed to motorized modes of traffic. The terms "Pedestrian Oriented" and "Pedestrian Friendly" are often used interchangeably.

Pilaster

An upright architectural member that is rectangular in plan and is structurally a pier but architecturally treated as a column and that usually projects a third of its width or less from the building wall.

Planters

Items that hold live plantings, including trees. Planters can be an array of sizes and materials.

Preservation

The act or process of applying measures to sustain the existing form, integrity, and materials of a historic structure. Work, including preliminary measures to protect and stabilize the structure, generally focuses upon the ongoing maintenance and repair of historic materials and features rather than extensive replacement and new construction. New exterior additions are not within the scope of this treatment; however, the limited upgrading of mechanical, electrical, and plumbing systems and other code-required work to make structures functional is appropriate within a preservation project.

Proportionate

Building or site development characteristics or elements which are corresponding, in terms of size and scale.

Q

Quoin

Corner stones that visually anchor the edge of the building wall.

R

Reconstruction

The rebuilding of a structure in such a manner and to such an extent as to substantially replace the existing structure.

Reflectance

The ratio of the total amount of radiation, as of light, reflected by a surface to the total amount of radiation incident on the surface.

Rehabilitation / Renovation

The act or process of improving a structure's condition through repair and alterations while respecting those features significant to its architectural, historic or cultural value.

See also: **Major Facade Renovation; Minor Facade Renovation**

Restoration

The act or process of accurately depicting the form, features, and character of a property as it appeared at a particular period of time by means of the removal of features from other periods in its history and reconstruction of missing features from the restoration period. The limited upgrading of mechanical, electrical, and plumbing systems and other code-required work to make properties functional is appropriate within a restoration project.

Rhythm

The repeated use of a design element, shape, or form, such that the repeating item can be visually recognized.

Roof, False Mansard

A false mansard roof refers to the awning or canopy-like structure added above the street-level facade of a building to display signage. This appendage is sloped on each of three sides and is frequently shingled.

Roof, Gable-End

A roof with a triangular wall segment at the end of a pitched roof typical of residential style architecture.

S

Scale

The relationship between two objects or conditions, in terms of physical size.

Secretary of the Interior

The overseer of the United States Department of the Interior. The Department of the Interior's role is to protect and provide access to the Nation's natural and cultural heritage as well as trust responsibilities to tribes. Among other items, it is responsible for wildlife conservation and historic preservation.

Setback

The distance on a lot measured from the edge of a right-of-way that should remain open, unoccupied and unobstructed by structures, except as otherwise provided or permitted in the Zoning Ordinance.

Sidewalk Cafe

An outdoor area adjacent to, or on a public sidewalk, that has seating for patrons of nearby food and drink establishments.

Sign, Awning

A sign affixed flat to or painted upon the surface of an awning.

Sign, Blade

A sign affixed to a building wall which projects from the building face, generally at right angles to the building. Blade signs are: primarily oriented toward vehicular traffic; typically taller than they are wide; and located in higher traffic volume areas. Blade signs should only be permitted on buildings which are over 60 feet in height.

Sign, Canopy

A sign affixed to a canopy.

Sign, Directional

A small auxiliary sign typically used to provide information such as: directions on or to a property, parking locations and limitations, traffic information, address identification, and other similar information. Direction signs may include logos or other proprietary symbols.

Sign, Ground-Mounted

A freestanding sign designed to include a continuous central base that is at least seventy five percent (75%) as wide as the sign face.

Sign, Marquee

A sign affixed to a marquee.

Sign, Projecting

A sign affixed to a building wall which projects more than twelve inches (12") from the building face, generally at right angles to the building.

Sign, Wall

A sign attached to the face of a building or mansard roof which does not project more than twelve inches (12") from the façade of the building. Signs parallel to and attached to sloping walls or mansard or similar style roofs which project more than twelve inches (12") from the wall surface to allow the sign display surface to remain perpendicular to the ground should also be considered wall signs. Wall signs should not project above the wall, cornice line, or top roof line of a building.

Sign, Window

Any sign painted or otherwise affixed onto a glass area or installed behind a window for viewing from outside the building.

Skywalk

A walkway in an elevated structure used exclusively for pedestrian traffic that passes over a right-of-way. This skyway should not be used for any occupancy.

Street Wall

A perceived wall that is created by an aligned row of buildings and structural elements along a streetway.

Stucco

A material made of an aggregate, a binder, and water. Stucco is applied wet and hardens to a very dense solid. It is used as a coating for walls and ceilings and for decoration.

Sustainable

Relating to, or being a method of development that does not deplete or permanently damage the resources it requires.

T

Terra cotta

A clay-based unglazed ceramic. The term is also used to refer to items made out of this material and to its natural, brownish orange color, which varies considerably.

Townhouse

A one-family dwelling unit, located or capable of being located on a separate lot, with a private entrance and direct ground level access to the outdoors, which is part of a structure whose dwelling units are attached in a horizontal linear arrangement with no other dwelling or portion of other dwelling directly above or below, but separated from adjoining dwelling unit(s) by a wall extending from the foundation through the roof and structurally independent of the corresponding wall of the adjoining unit, and having a totally exposed front and rear wall to be used for access, light, and ventilation.

Transom

The horizontal lintel or beam across a window, dividing it into stages or heights; a fixed window over a door or another window.

Trim Board

A material used to finish an edge at a corner or around windows and doors.

U

Urban Heat Island Effect

The existence of higher overall temperatures within urban areas, due to heat absorption by asphalt, concrete, buildings, and other structures, as compared to surrounding areas where plant material, and therefore reflectivity, shading, and evapotranspiration, is more abundant.

V

Viewshed

The viewable area into, or out of, a specific place.

Vista

A range of sight in which visually sensitive areas are visible.

W

Wayfinding

A sign or system of signs used to direct pedestrians and/or drivers to specific destinations along designated routes.

Window

An opening constructed in a building wall that functions to admit light or air, typically framed and spanned in glass.

Y

Yard

A space on the same lot with a main building open, unoccupied and unobstructed by structures, except as otherwise provided or permitted in this chapter.

Yard, Front

A yard extending across the full width of the lot, the depth of which is the least distance between the street right-of-way line and the building line.

Yard, Rear

A yard extending across the full width of the lot between the rear of the primary building or structure and the rear lot line, the depth of which is the least distance between the rear lot line and the rear of the primary building or structure. If the rear lot line is less than ten (10) feet long, or the lot comes to a point at the rear, the required rear yard should be measured from a line where the rear of the lot is ten (10) feet wide and parallel or tangent to the front street line.

Yard, Side

A yard between the primary building or structure and the side lot line, extending from the front yard or front lot line where no front yard is required, to the rear yard. The width of the required side yard is measured horizontally, at 90° with the side lot line, from the nearest point of the side lot line to the nearest part of the primary building or structure.

Yard, Internal Side

On a corner lot, the side yard which does not abut a street right-of-way.