HOW THESE GUIDELINES WORK

The purpose of the Orleans Design Guidelines is to support and guide Orleans Architectural Review and Site Plan Review [Town Code Sections 164-33 and 164-33.1] during consideration of development proposals and applications. The Guidelines are also intended to help applicants understand the desired vision for Orleans and how to design buildings and sites that meet the goals and intent of the town's regulations.

The Design Guidelines apply to all new commercial development and redevelopment, as well as to multi-family residential development in Orleans' commercial zones. Section 1 - Overall Design Principles - provides the core design elements and overarching vision of this document. Section 2 provides specific design guidelines that contribute to and advance the vision. The sections are intended to function together as a system. Therefore, development should strive to incorporate design guidelines into the design of projects to make a site function well and support community goals.

The degree to which any particular standard applies to a development/redevelopment project should be evaluated on a case-by-case basis, with the goal of achieving an overall design that meets the purpose and intent of the Town's Design Guidelines, as well as the other Planning efforts published and adopted by the Town, including the Orleans Comprehensive Plan and the Village Center Streetscape Plan.

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OVERALL DESIGN PRINCIPLES

The Design Principles form the purpose of this document and set the tone for the Design Guidelines to follow.
MAINTAIN THE FEELING OF A NEW ENGLAND MARITIME VILLAGE

Most of Orleans’ growth and development was guided by its incredible waterfront amenities of Cape Cod Bay, Town Cove, and the Atlantic Ocean. The town’s center hosts a history of residential, commercial and maritime industrial uses that define the town’s character with a modest scale. A mix of architectural styles that represent successful maritime pursuits and more recent interpretations of those styles, open views to the water from public ways and between buildings, and a dense core of pedestrian-friendly development focused around the Main Street and Route 6A intersection all support this principle.

RESPOND TO BUILDING AND SITE CONTEXT

New development should respond to Orleans’ context, respecting the established patterns and centers of activity that have developed over centuries. By the mid-1800s, Orleans’ commercial center was located along Main Street between the railroad crossing and what is now Route 6A. Individual commercial buildings were typically 2 to 2 ½ stories tall (though some notable exceptions were 3 ½ stories) and sited close together at the street edge. Outside this small area, most buildings were residential and set farther apart and behind front lawns. While the earliest homes were modest and only 1 ½ stories tall, most later homes were 2 to 2 ½ stories with visible architectural detailing. Many of these early homes were converted to commercial or mixed use, creating the comfortable building scale and lawn areas that characterize parts of Route 6A and Route 28.
SECTION 1  OVERALL DESIGN PRINCIPLES

PROTECT SIGNIFICANT HISTORIC STRUCTURES

The character of Orleans is largely defined by the form, scale and design, construction materials, and level of craftsmanship of the unique historic structures that line its roadways. In addition, the way these buildings relate to each other and to the public way are essential qualities that define how these settlements, evolved over the past 350 years, are perceived and experienced. To preserve the town’s uniqueness, these structures must be preserved and incorporated into any new development scheme. When developing adjacent to historic or architecturally significant structures, new buildings should not overwhelm them in height or scale, or introduce forms that break with historic setback patterns. The goal is to encourage future designs that express the best of the historic, or re-interpret and modernize their forms and elements. Successful contemporary interpretations of the design principles will combine traditional patterns with modern forms and not simply “supersize” an historic form.

IMPROVE FIT, FUNCTION AND QUALITY

New development should introduce buildings that are consistent with the town’s traditional character or should rehabilitate existing buildings and sites to increase the vibrancy and attractiveness of the town’s commercial areas. Maintaining an active pedestrian-oriented facade along the street, using high quality and traditional building materials, and enhancing landscaping and natural amenities are important to creating vibrant commercial areas. Siting large scale buildings behind frontage buildings and providing appropriate street linkages and access through large lots will help preserve the town’s desirable features and support its economy. Design decisions should be based on specific locational context of the development. Maintaining or creating a “street wall” in the Village Center is important, and larger buildings may be appropriate to enhance the visual and pedestrian experience in a defined area. Appropriateness of scale must be evaluated independently for each location.
The Design Guidelines are divided into three sections: Site Layout - which addresses building placement, parking, and circulation; Building Design - which focuses on the size, shape, and features of individual buildings; and Site Essentials - which describes landscaping, stormwater, signage, and lighting elements of design.
BUILDING SETBACKS

ALL AREAS

- Follow setback line or range established by historic development pattern.
- Provide only landscaping and pedestrian and visitor amenities (including restaurant/ patio seating) between the building facade and the street.
- Parking or entrance drives should never be located between the building and the road frontage, but should be to the side or rear of buildings.
BUILDING SETBACKS

MAIN STREET

- Site buildings close to road/sidewalk edge and close to sidelines.
- Front setback range should be 15-25 feet or less to match historic setback patterns. Setbacks may be greater if a park or other public amenity is provided in the area in front of the building.
- Parking or entrance drives should never be located between the building and the road frontage.

Above, the entrance drive is located to the side of the building and only landscaping and pedestrian amenities are between the building and road frontage.
BUILDING SETBACKS

REGIONAL ROADS (ROUTE 6A AND ROUTE 28)

- Site buildings behind a modest front lawn or landscaped area, generally 25-40 feet from the road frontage.
- Reinforce the scale and feel of residential buildings along the street edge.

Buildings along these roads may be located farther back on the site, but only landscaping and pedestrian amenities should be located between the building and the street rather than parking.
BUILDING SETBACKS

OTHER LOCAL ROADS

- Most local roads will have a narrow layout which is appropriate for modest building setbacks.

- In some cases, local roads may serve as an extension of the Main Street area. Along these roadways, the front setback should range from 0-10 feet.

- In others, where a more landscaped character is desired, larger setbacks are appropriate.

- If a setback pattern has already been established by historic building patterns, new structures should maintain that setback.

Structures should reflect established historic building patterns. This may result in moving some buildings closer to the road, as shown in the graphic above.
Site Layout

Parking Location

- Locate new parking lots behind or to the side of buildings to effectively screen them and maintain the character of the streetscape. Parking lots should be at least 10 feet behind the front building wall.

- No parking or driveways should be allowed in the front yard area between the building and the street.

- Any improvement or redevelopment should include relocating any front yard parking or driveways to the side or behind new frontage buildings.

- Keep parking access points narrow to maintain street vitality.

- Where frontage buildings do not screen wide parking areas, low landscape walls or fences, wide landscape buffers, and pedestrian amenities should be added to shield paved areas from view and continue the streetscape.

- Where parking faces a sidewalk or building, consider attractive bollards to protect pedestrians and buildings from vehicles.

- Consider site aesthetics and context when designing emergency access.

Parking located to the side of a building should be located at least 10 feet further back from the street than the front edge of any adjacent buildings (top). In some areas, it may be desirable to have the parking located within the building (bottom). Low landscape walls or fences can help shield paved areas from view (bottom left; image credit: Google Maps).
PEDESTRIAN WALKWAYS

- All projects should provide safe, visible, and easily accessible pedestrian walkways through the site and connect to other walkways/paths.

- Walkways should provide safe access from parking areas to the primary entrance.

- Ensure long-term stability and durability of sidewalks through quality materials and construction.

Pedestrian walkways should provide safe access within the site, as well as to other nearby sites and attractions. Left, walkway connecting developments in Chatham; below, walkway through a parking lot in Orleans.
ACCESS FOR BICYCLISTS

- Where appropriate, projects should provide safe, visible and easily accessible sidewalks and bikeway connections to adjacent sites and amenities, following Complete Street principles.
- Sites should include ample bicycle racks in highly visible locations.
- Bike racks should be attractive, well-designed, potentially artistic, secure and made of durable chip resistant materials.

Sites should connect to nearby bike paths and amenities, where appropriate (yellow box). Additionally, ample, well-designed bike racks should be provided in visible locations (yellow pentagons).
INTERCONNECTIONS & STREET LINKAGES

- Create safe interconnections within a site for motorists, pedestrians and bicyclists to reduce conflicts on the main roadways and improve safety for all users.

- On large lots, encourage the creation of new street linkages as a part of redevelopment of a site to provide an opportunity for interior lot development to follow patterns that mimic traditional pedestrian-oriented streets.

- Create and/or maintain small blocks to encourage walkability.
SERVICE AREAS

- Loading areas should be sited outside of primary visual corridors or shielded from view by separate structures, projecting building wings, appropriate landscaping, or fencing.

- Trash collection and outdoor storage areas should be incorporated into the overall design of the building and screened from visual corridors.

- Design these areas in a recess in the building wall to help reduce their visibility and noise associated with trash removal.

- Site design and building design techniques should also be used to conceal compressors, generators, and other utility equipment from view.

- Plan the location of utilities during project design and illustrate them on the site plan to avoid unnecessary plan alterations during construction.

![Loading areas accessed by side alley driveway (left) and screened by fencing and vegetation.](image)

*Loading areas accessed by side alley driveway (left) and screened by fencing and vegetation.*
SECTION 2   DESIGN GUIDELINES

**SHARED FACILITIES**

- Share curb cut access, parking areas, service and utility areas with adjacent sites wherever possible to enhance safety and to limit impacts on the environment.

- Use on-street parking and shared parking areas to encourage pedestrian activity.

- Shared access and curb cut consolidation could provide space and opportunities for better landscaping, outdoor seating, plazas, and other pedestrian amenities.
BUILDING MASSING

- Break up large buildings into smaller components that approximate the scale of traditional building forms.

- Building components facing the street should be no longer than 50 feet unless they house multiple storefronts with significant changes in the façade (See Building Facades guidelines).

- Larger buildings should be located on the rear portions of a lot and shielded by smaller buildings and landscaping at the street frontage.
BUILDING HEIGHT

- New buildings and additions along the street frontage should be between 1 ½ and 2 ½ stories tall throughout the town’s commercial areas, not to exceed 30 feet in height.

- If new buildings are adjacent to historic or architecturally significant buildings, the new buildings should not be significantly taller than the height range established by the existing historic buildings.

- Buildings located behind frontage buildings or on secondary streets may be taller if varied roof forms are used to reduce the overall mass of the building.

- A full 3 stories may be appropriate for buildings placed further back on a lot.
ROOF FORMS

- Gable roofs are predominant in Orleans and are the preferred roof form, though hipped roofs and flat roofs with parapets may be acceptable if the building scale and level of detail is consistent with surrounding traditional forms.

- On larger buildings, varying the roof form with intersecting gables and multiple roof slopes is an effective way of breaking up the building mass.

- Attaching smaller building masses with lower roof forms can make the building more pedestrian-friendly.

- Contemporary interpretations of the typical pitched roof form may be acceptable if the scale of the building is consistent with traditional forms.
BUILDING FAÇADES

- Design street-facing building facades in the traditional range of 25 to 50 feet wide to ensure variety and pedestrian appeal along the street edge.
- For longer facades, incorporate multiple storefronts or setbacks and projections of at least 10 feet to create segments in the traditional range of building widths.
- Each segment should incorporate distinctive pedestrian-scale features such as display windows, porches, varying wall heights, fine architectural detailing, gardens or seating areas.
- Use highly articulated facades adjacent to public streets.
BUILDING MATERIALS

- Wood siding materials are most appropriate, especially in prominent locations with heavy pedestrian activity.

- Weathered shingle and clapboard siding both speak to the traditional maritime buildings of Orleans’ history.

- Brick and stone may be appropriate in some locations, primarily along Main Street.

- Incorporate different materials, textures and colors on larger building facades to add interest and break the building mass into smaller components.

- Some synthetic building materials are time–time tested and closely approximate traditional building materials of the region. Avoid those that are inauthentic or have little track record of success.
DOORS AND WINDOWS

- For buildings at street-front locations, locate front doors facing the primary street, clearly defining the entrance to pedestrians first.

- Secondary entrances can provide access from side or rear parking lots.

- Buildings located to the rear of a lot have more flexibility in the location of their primary entrance.

- All sides of a building that are adjacent to a public street or entrance drive should have articulated facades enhanced by windows and other architectural features.

- Office or retail buildings at street-front locations should have at least 30% visual transparency at the ground floor to provide pedestrian interest, though historic structures are not required to change historic window configurations.

- Use multi-pane windows and historic fenestration patterns and detailing, especially on historic structures. True divided lights are encouraged. Clip-in grills are not recommended.
AWNINGS AND PORCHES

- Porches, balconies, awnings and other architectural or landscape features that provide shelter for pedestrians create an effective transition from the public realm to private space and provide comfortable areas for people to linger and enjoy. These features also add detail and interest to building facades, but the size and placement of these features should not obstruct or interfere with pedestrian activity including ample opportunity for wheelchairs and pedestrians with strollers.

- Cupolas can be a defining architectural feature on a building, and may be effective in breaking up a large roof mass.
HISTORIC STRUCTURES

- Preserve and/or adaptively re-use the existing structures that tell the story of Orleans' historical development and embody the town's New England Maritime Village character.

- Renovations and/or expansion of historic structures should utilize construction materials, assembly details and level of craftsmanship consistent with original.

- Built elements on properties associated with historical buildings, such as fencing, barns or garages, should be preserved to maintain the visual relationship of the property with the public way.

- New exterior technology features, (e.g. solar panels) that are visible from adjacent properties or the public way, should be designed to minimize detrimental impacts on the historical character.

- Preserve the original form, building materials, door and window configuration, and architectural detailing of the historic building.

- Locate additions on secondary facades (side or rear) and stepped back from the original building to reduce their impact on original architectural details.

- Historic structures should not be required to meet building transparency requirements if it would require removal or alteration of original historic windows.

- Use Orleans Historic Property Survey forms as a reference to help identify key character-defining features of the building that should be preserved.
ENERGY EFFICIENT/GREEN BUILDING DESIGN

- Promote sustainable development by incorporating energy-saving features such as passive heating and cooling, and green technologies such as roof gardens, solar arrays in south-facing areas, and building materials from recycled or renewable sources.

- Contemporary designs can be effectively combined with traditional building forms to reinterpret and echo the forms that are characteristic of the maritime and historic character of Orleans.
STORMWATER MANAGEMENT

ALL AREAS

- Utilize low impact development practices. Low impact development practices manage rainfall at the source using smaller, more uniformly distributed and dispersed landscape features located on the site.

- Stormwater systems should both capture and infiltrate rainfall from roadways, parking lots, and rooftops on the project site.

- Redevelopment projects should seek to reduce impervious area coverage and improve site conditions to enhance stormwater retention, water quality treatment, and recharge over existing conditions to the extent feasible.
STORMWATER MANAGEMENT

LOCAL ROADS

The following low impact development practices may be appropriate for development along Local Roads:

- **Stormwater disconnection:** Disconnection helps ensure that runoff water from roofs, downspouts, driveways, patios, and other impervious surfaces does not have a direct route to a sanitary sewer, storm drain, or water body. Instead, runoff is directed to a rainwater harvesting system where it is temporarily stored for later use or to landscaped areas or porous pavement to promote infiltration and reduce stormwater volumes.

- **Bioswales:** Bioswales are channels that provide conveyance, water quality treatment, and flow attenuation of stormwater runoff. Bioswales can be wet or dry depending on soils topography and drainage characteristics.
STORMWATER MANAGEMENT

MAIN STREET

The following low impact development practices may be appropriate for development along Main Street:

- Flow-through planters and tree boxes: Planters and tree boxes enhance streetscapes and courtyards with attractive vegetation and shade and also provide pervious areas for rainfall interception and stormwater infiltration.

- Permeable pavement: Permeable pavements are alternatives to asphalt and concrete that consist of a porous surface overlaying a uniformly graded stone or sand drainage system. Permeable pavement contains pore spaces that store and infiltrate runoff. Permeable pavement can provide groundwater recharge benefits, can be used to prevent ponding or flooding on roadways or parking areas, and may help mitigate temperature increases. Pavement types include porous concrete, porous asphalt, and interlocking pavers.

- Ecoroofs: Also known as green roofs, ecoroofs consist of a layer of soil and plants installed on a roof surface. Ecoroofs provide stormwater retention, reducing stormwater volumes and promoting evaporation and transpiration. Ecoroofs have been shown to have energy-saving benefits and help to reduce the heat-island effect in urban areas.
STORMWATER MANAGEMENT

REGIONAL ROADS (ROUTE 6A AND ROUTE 28)

The following low impact development practices may be appropriate for development along Regional Roads:

- **Bioretention**: Also known as rain gardens, biofilters, bioswales, and bioinfiltration practices, these are landscaped depressions underlain by a sandy engineered soil media, through which most of the runoff passes. Bioretention can easily be incorporated into a landscape plan for a site including landscaped areas within parking lots.

- **Biofiltration strips**: Biofiltration strips, or vegetated buffer strips, are densely vegetated areas of land that accept runoff as sheet flow and facilitate sediment attenuation and pollutant removal. Biofiltration strips are often used to treat runoff from roads, parking lots, rooftops, and other impervious surfaces or are used as pretreatment.

- **Gravel wetland**: Depending on whether space is available on a site, gravel wetlands can be designed to provide consistent nutrient removal and to attenuate peak flows during high intensity rainfall events.
LANDSCAPING

- Integrate low impact development practices for stormwater with landscaping to provide year-round color and interest throughout the site.
- Integrate landscaped bioswales or bioretention areas into the design of parking areas.
- Use plant materials to integrate buildings with the site.
- Landscaping can be used to screen parts of development and to enhance its relationship to the site.
- Create visual depth in plant massings by layering plants of various textures, sizes, and colors. Include flowering species for color and interest. Layered plantings soften edges and corners and reduce the scale of buildings in the landscape. Masses of trees and vegetation near buildings reduce the perceived scale of buildings and set them into the landscape.
- Use plant materials that are predominantly native species and suitable to the site.
- Provide diversity in plant material selection and select species that minimize use of irrigation, pesticides, and fertilizer.
- Provide alternatives to lawn area including native grasses and forbs to reduce mowing and fertilizer application. Where lawn is necessary, favor fescues and other drought tolerant species.
STREET TREES

- Provide street trees to define the street edge, provide shade, and contribute to a comforting sense of enclosure along the roadway.

- Plant street trees between the sidewalk and curb to provide a refuge for pedestrians.

- Species selected for roadside planting should be tolerant of difficult growing conditions such as road salt spray and runoff, drought, poor soil and wind in order to have the best potential for success.

- Trees should generally be a minimum of 3 inches in diameter at the time of planting.

- Where overhead utilities are present, trees with a mature height of less than 30 feet should be selected or set back from the roadway to avoid conflicts with overhead utilities.

- Street trees should not restrict the width of sidewalks, which must be ADA compliant.
PARKING AREAS

- Break up parking areas with landscaping, stormwater management and pedestrian pathways.

- Design smaller parking lots separated by landscaping rather than constructing a single large lot.

- Use large landscaped islands, at least 10-12 feet wide with trees planted 25-40 feet apart, depending on the tree species selected.

- Landscaped islands should comprise 20% of the parking field.

- Landscaped islands can be appropriate locations for rain gardens bioswales, or other low impact development techniques.

- Pedestrian walkways should be provided within parking areas to allow for safe pedestrian travel, with crosswalk pavement highlighted either by a change in the pavement texture or color so that pedestrian circulation is clearly defined.

- Utilize permeable materials for lightly used or seasonal parking areas (see low impact development under stormwater management above).

- Provide clean lines of sight and travel and include simple instructive signage as necessary.
GATHERING SPACES

- Provide gathering spaces to integrate the public and private realm, particularly in the Main Street area.

- Add sidewalks and pathways that bring pedestrians along the front facades of buildings.

- Add shade trees, seating areas and other pedestrian amenities along the road frontage of new development.

- Use courtyard areas or setback areas in front and between buildings to accommodate a pocket park, pedestrian plaza, or alleyway to parking behind buildings if appropriate.

- These areas provide relief, soften the street edge, and provide an opportunity for gathering and interaction.

- Use plantings and public art to enhance these outdoor spaces.

- Incorporate benches, bike racks, and trash receptacles within the development site as appropriate to the use and scale of the project.
SIGNAGE

- Integrate signage with the proposed development.
- Signs should enhance and define the architecture of the building.
- Building signs should be located either flush or perpendicular to the building wall.
- Place wall signs within a sign band that is accentuated by a change in building material just above the first-floor windows or on the existing lintel (horizontal beam) above the doorway.
- A sign mounted on the building or individual letters projected away from the building are preferable.
- Lettering may also be provided on awnings. If site signs are used, they should be grouped at the site entry and kept as low as possible without impacting safe sight distance at vehicle entrances.
- Sign materials, style and shape should be compatible with surrounding building materials, colors and textures.
- Carved or painted signs using traditional materials such as wood or metal are preferred. Signs should be lit from above and shielded to avoid glare for pedestrians or motorists.
LIGHTING

- Use ‘dark sky’ lighting with full cut-off fixtures to direct light to the ground.
- Provide a uniform distribution of light without compromising safety and security.
- Areas of high pedestrian and vehicle use should maintain a minimum footcandle of 1.0, measured four feet above the ground surface at the point of least illumination, and a maximum footcandle of 7.0 measured four feet above the ground surface directly beneath the light source.
- For pedestrian walkways and plazas, consider using lights in bollards (3 to 4-foot high posts) where appropriate.
LIGHTING

- Select lower mounting heights, below the canopy of trees, rather than high mounted fixtures which may create shadows or dark spots.

- Spacing of light poles in parking areas should be staggered rather than aligned, to maintain a uniform distribution of light.

- In all cases, light poles should be located within landscaped islands for safety and aesthetic reasons.

- Light should not spill from a development onto adjacent properties.

- Parking areas should have light fixtures that have a total cutoff of all light at less than 90 degrees and a beam cutoff of less than 75 degrees.

- Attached building or wall pack lighting should be screened by the building's architectural features or contain a 45-degree cutoff shield.
OVERALL DESIGN PRINCIPLES

- Maintains the feeling of a New England Maritime Village
- Responds to the building and site context
- Protects significant historic structures
- Improves fit, function, and quality of the area

BUILDING DESIGN

- Larger buildings are broken into smaller components
- New buildings and additions along the street frontage are between 1 ½ and 2 ½ stories tall
- Roof forms respond to the context and are varied on larger buildings
- Street-facing building facades are in the traditional range of 25 to 50 feet wide
- Appropriate building materials used
- Front doors face the street and facades include windows and architectural features for street-front buildings
- Porches, balconies, and/or awnings incorporated
- Historic structures preserved and reused
- Energy-saving features incorporated into design

SITE LAYOUT

- Building setbacks follow historic development patterns
- Parking lot is located to the side or rear of buildings
- Safe pedestrian walkways provide connections within the site and to adjacent areas
- Provides safe, visible and easily accessible sidewalks and bikeway connections to adjacent sites and amenities where appropriate
- Site loading and service areas are located outside primary visual corridors
- Curb cut access, parking areas, service and utility areas are shared with adjacent sites if possible

SITE ESSENTIALS

- Utilizes low-impact development for stormwater management
- Integrates stormwater design with landscaping
- Uses plant materials to integrate buildings with the site
- Provides street trees to define street edge
- Parking areas broken up with landscaping, stormwater management and pedestrian pathways
- Provides gathering spaces to integrate public and private realm, particularly in the Main Street area
- Integrates signage with architectural design
- Uses ‘dark sky’ lighting with full cut-off fixtures to direct light to the ground
- Shows all utilities on site plan for safety and to avoid unsightly plan unnecessary alterations redesign
RESOURCES

- United States Environmental Protection Agency Low Impact Development Factsheets

- EPA Low Impact Development Website
  www.epa.gov/owow/nps/lid
  A compilation of a number of resources, with links to Web sites, a literature review, fact sheets, and technical guidance.

- Low Impact Development Center Website
  www.lowimpactdevelopment.org
  A nonprofit organization that promotes environmental protection through site design techniques that replicate preexisting hydrologic conditions.

- Metropolitan Area Planning Council Low Impact Development Toolkit

- Nitrogen-reducing Green Infrastructure in Environmental Justice Communities
  Cape Cod Commission, 2013.