Mid-Rise Buildings
INTRODUCTION

KITCHENER’S MID-RISE BUILDINGS

Great mid-rise buildings are a vital component of any well-designed city. They are the bonding agent that links together downtowns with central neighbourhoods and intensification areas with low-rise communities. They create and reinforce the urban fabric in ways that make a city feel seamless, contiguous, and crafted to the scale of the human experience.

Mid-rise buildings frame and reinforce urban streetscapes, trails, lanes and other pedestrian and cycling networks. They can provide a consistent, attractive environment to live, work and play between major destinations, landmarks and civic institutions.

A carefully designed mid-rise fabric makes a city safer, more walkable, more transit supportive, more human scaled and more complete.

What Is A Mid-Rise Building?

A mid-rise building is defined in the Zoning By-Law as any building that is between four (4) and eight (8) storeys. In some cases, a 4-storey building may be considered low-rise. Please see the Low-Rise Multi Residential and Low-Rise Commercial and Mixed-Use sections for details.

A Vision For Mid-Rise

While a mid-rise building can be a landmark, a prominent destination, or a focal point of a community, mid-rise in Kitchener is generally seen as the connective tissue of city building; the spaces between landmarks, bridging transit stations with parks and civic spaces, cultural institutions with high-order retail streets, mixed-use towers with community areas.

They make it not only possible, but desirable to walk between destinations, and they provide density at a human-scale that can filter into central spaces and help create the type of critical mass that leads to higher functioning urban spaces.
DYK? Mid-rise buildings are critical for transitioning from tall buildings to surrounding low-rise neighbourhoods, a situation which is frequent in Kitchener’s Major Transit Station Areas.

**Built Form**

**Compatibility**

Place, mass and orient buildings to address streets, intersections and public realm elements, such as parks, open spaces, trails and multi-use paths.

Provide massing that responds to the existing and planned context of the area, including concentrating height and mass toward more intensive adjacent areas, and responding to the character and rhythms of low rise adjacent areas.

Complement adjacent built form through compatible height, scale, building length, massing, and materials.

Sensitively transition to surrounding urban contexts, accounting for both the existing context and the planned vision for an area.

Implement design cues (materials, architectural features, colours, rhythms) from good surrounding built form.

Implement **Setbacks** (from property lines) and **Stepbacks** (from the edge of the base to upper-level storeys) to help achieve good transitions.

Mid-rise buildings are to be contemporary and not replicate existing or historical architectural styles.

Mid-rise buildings are to have a human-scaled relationship to the public realm.

In areas with existing or planned tall and/or mid-rise buildings, **Relative Height, Separation, Overlook** and **Orientation** should all be considered as factors contributing to good compatible design, not just on an individual site but throughout an area.
Mid-Rise Components

A mid-rise building's built form design can be broken down into three nested elements; the ground floor, the base, and the building. The 'base' includes the 'ground floor', and the 'building' includes both the 'ground floor' and the 'base'.

The 'ground floor' is the first storey of a mid-rise building, but also includes elements within a building's first 4.5 metres-- the human-scaled zone that activates and animates the streetscape.

The 'base' is the first few storeys of a mid-rise building, including the ground floor and any additional floors directly related to the streetscape and public realm. Generally, this would include the storeys forming the streetline facade and not those stepped back.

Ground Floor Design

For mid-rise buildings with retail or other active uses at grade, provide a minimum ground floor height of 4.5m to permit a variety of retail types and activities.

Where a shorter ground floor height is proposed, the lower 4.5m (min.) of the building is still to be considered critical to the public realm even if it includes part or all of the second storey.

Where retail or office at grade is not required and residential uses are permitted, the design of the ground floor is to provide adequate public/private transition and allow for future conversion to retail uses where appropriate.

Design the ground floor to be comprehensively integrated with the surrounding streetscape and landscape to achieve a high quality pedestrian environment.

Base Design

Prioritize pedestrian utility, comfort and safety and fully integrate the base into the public realm.

Design bases with a high degree of permeability. Maximize connectivity at ground level, creating and reinforcing pedestrian & cycling connections.

Bases should not exceed 70 metres in overall building length. Buildings longer than 70m must demonstrate enhanced streetscaping, materials and building articulation.

Place the building and arrange site functions to take advantage of changes in grade and other contextual conditions to limit visibility to servicing and back of house areas.

Provide visual variety through well-articulated massing and carefully detailed materials.

Mid-rise buildings are to maintain a consistent scale of materials, projections and rhythms with neighbouring buildings regardless of site size or overall building footprint.

Provide protection from harsh weather where appropriate.

Provide balconies for residential units along streetline facades. Consider outdoor amenity spaces for other uses along street facing elevations.

Integrate above ground structured parking into the base design and place it behind active uses along street edges. Refer to the Design for Structured Parking section of this manual.

Where it is not feasible to integrate service/utility/parking activities underground or within the building mass, use high-quality architectural elements and landscape design to screen these activities from public view and limit unwanted activity.

Maintain established or planned setbacks to create continuous street walls.
Part A
Mid-Rise Buildings

Inclusive Design

Physical Separation

On long narrow sites, where units face interior lot lines, calculate and evaluate the Physical Separation distance as established in the Design for Tall Buildings section of this manual.

Physical Separation is calculated by multiplying the building’s Height by its Length and dividing by 200.

Mitigate the actual and perceived massing impacts of a mid-rise building by breaking up the mass horizontally and vertically, through the creative incorporation of changes in materials, balcony and floor plate design, architectural features and unit/amenity locations.

Provide stepbacks for upper storeys where a mid-rise building is taller than the existing or planned streetline height for that area.

Provide rear and side stepbacks for upper storeys to provide contextually appropriate transitions from mid-rise buildings to lower-rise surrounding neighbourhoods.

Provide side stepbacks for upper storeys where appropriate to create space between neighbouring mid-rise buildings, increasing skyview and sunlight access.

Integrate mechanical penthouses with the overall architectural expression of the building. Where visible, screen with high-quality materials and consider surrounding with a green roof and/or rooftop amenity space.

Avoid placing telecommunication equipment on mid-rise buildings.

Provide consistent, clean, contemporary massing and materials. Mid-rise buildings do not necessarily benefit from extensive decorative elements or frequent changes in colour, material or forms. Smaller mid-rise buildings in particular can quickly become too ‘busy’ visually.

It is understood that requiring stepbacks on multiple or all sides of a building can be impractical. In some cases, the intent of a stepback may be met through greater setbacks instead. It can also be demonstrated through shadow and contextual analysis where a stepback may not effectively mitigate certain impacts and may not be needed.

Materials & Details

Build mid-rise buildings with high-quality, resilient and sustainable materials. A building’s material palette is to contain a variety of complementary materials, carefully detailed and articulated for proportional and visual harmony while being consistent in their architectural intent. Avoid materials which appear monolithic, flat, or unresolved. Where a palette contains such materials, it is expected that options for colour, texture, patterns, finish and details (including reveals, how the material frames openings, etc) will be explored through a collaborative design process.

A good mid-rise building is one that finds a balance between being too monotonous (one material or detail repeated over and over) and being too busy (too many conflicting materials and design elements).

Focal Points & Gateways

Depending on the context, mid-rise buildings can become neighbourhood focal points and/or provide an important gateway function. Where appropriate, use creative, vibrant, well-designed built form and landscaping to create and reinforce these relationships.

Photo: These mid-rise buildings employ a consistent palette of brick, glass and metal, articulated and detailed in a way that is neither too ‘busy’ nor too ‘plain’.
### Site Design

**Inclusive Design**

| Safety | Provide **Natural Surveillance** with high percentages of glazing, active uses at ground level, and windows and balconies with views onto the public realm and private shared spaces. Avoid physical/visual barriers and potential entrapment areas (dead-ends, hidden and/or fenced in areas without multiple means of egress). Provide evenly-lit, human scaled lighting for shared spaces and service areas. Provide landscaping which maximizes both real and perceived safety and comfort for users. |
| Universal Design | Promote accessibility and visitability through enhanced barrier-free access to on site pedestrian circulation paths and shared spaces, common elements, amenities and units where possible. |
| Age & Family Friendly Design | Provide an appropriate mix of units that includes options for growing families and downsizing older persons. This includes unit sizes, types and tenures as well as options for storage, parking, bicycle parking and shared spaces which cater to a broad and inclusive set of users. |
| Arts & Culture | Integrate public art, artistic or sculptural architectural elements and community cultural spaces into the design of mid-rise buildings where appropriate. Prioritize community-based public art initiatives on mid-rise sites where adjacent to lower-rise surrounding neighbourhoods. |

### Design for Sustainability

**Health & Well Being**

Provide the greatest possible connectivity from and through the site to the open space network. Mid-rise building occupants should have direct, continuous access to pedestrian friendly streets, parks, open spaces and trails.

**Design for Climate Change**

Design for flexibility in anticipation of future change through unit type variety, size and adaptability to new uses. Employ high quality design, materials and construction practices that can withstand changing climate conditions and which encourage building longevity.

Provide either a green roof or a high-albedo roof surface on all flat roof surfaces.

Provide low impact stormwater management techniques where possible, including porous paving materials, landscaped areas, and vegetative swales.

Provide water efficient and drought resistant landscaping by using native planting materials and low impact development practices. Explore opportunities for water collection and reuse.

Use natural and passive techniques for lighting, ventilation, summer cooling and winter heating.

Utilize building envelope design and materials that limit thermal bridging and heat loss.

On-site energy generation, such as district heating and cooling systems, combined heat and power, and geothermal can be feasible and cost-effective in high-density, mixed use developments.

Minimize light pollution through the use of dark sky/nighttime friendly compliant practices. Incorporate high efficiency lighting (LED).

Provide on-site facilities for handling, storing and separating recyclable and solid waste. Consider facilities for the separation and collection of organic waste. Consider providing ongoing waste monitoring and auditing to maintain high standards for waste diversion.
DESIGN FOR OUTDOOR COMFORT

Microclimates
Provide both a sun/shadow analysis and a wind study to demonstrate how a proposed development is designed to mitigate unwanted microclimatic impacts.

Design a built form that provides sunlight access to the public realm during the winter, shaded areas in the summer, and comfortable, safe wind conditions year round.

Maintain daily access to at least 5 hours of cumulative direct sunlight to nearby public areas and open spaces under equinox conditions, beginning with sidewalks located on the opposite site of adjacent ROWs. Demonstrate through the shadow study how this is achieved. Evaluate shadow impacts onto adjacent low-rise properties as well, targeting the same performance.

SHAREDED SPACES

Outdoor Amenity
Mid-rise buildings are to provide a mixture of both private and public shared spaces.

The location, type, size and intended use of shared spaces should vary to address and accommodate community needs, building uses and site characteristics.

Publicly accessible shared spaces can be large or small, and should be flexible in their design to adapt to various programming opportunities and seasonal conditions.

Provide shared spaces with weather protection while preserving access to sunlight and air flow.

Connect new shared spaces to existing parks, pedestrian connections and natural areas.

Create mid-block connections where appropriate to facilitate pedestrian movement.

Include amenity spaces for occupants. These are communal spaces for activity such as rooftop terraces, courtyards, or urban green spaces.

Where non-commercial ground floor uses are present, locate indoor amenity spaces such as lobbies, party rooms, gyms, etc. at ground level and oriented toward the street, to provide active uses and natural surveillance onto the public realm.

Where residential ground floor units are present, define the threshold between private residential uses at grade and the public realm through measures such as streetscaping, landscaping and elevation changes.

A well designed mid-rise building provides an on-site hierarchy of complementary public and private amenity spaces functioning in tandem.

Landscaping
All sites are to be comprehensively landscaped including substantial tree planting, generous landscape buffers, and planting beds which provide screening between pedestrian pathways and drive aisles, parking areas and site function and servicing elements.

Use landscaping to accentuate, unify and complement different areas of the site.

Pedestrians & Cyclists
Mid-rise buildings are to be designed comprehensively to meet the safety, comfort and convenience needs of pedestrians, cyclists and transit users first and foremost. While vehicular parking, servicing and loading are an important part of site functionality, those functions are not to impact the quality, useability or generosity of pedestrian spaces.

Public Art
Pursue opportunities to Integrate public art into mid-rise building design in thoughtful, creative ways, and associate public art with the public realm and outdoor shared spaces.

Lighting
Consider a variety of human scaled lighting options, including bollard lighting, accent lighting around important features (seating areas, walkways, etc.), embedded lighting in seat walls, retaining walls, site surface materials and others. Consider using coloured lighting, programmable lighting and other emerging lighting technologies to enhance and reinforce the quality of the urban environment.
Many of Kitchener’s most highly valued cultural heritage resources are mid-rise in form. Many others are low-rise, but feature additions which create new hybrid mid-rise forms. New mid-rise buildings and additions to existing heritage resources are to be respectful and complementary to Kitchener’s established cultural heritage assets and landscapes. This consideration should extend to existing buildings without cultural heritage designations that may nevertheless have architectural or historical value, including the appropriate conservation of styles and eras that may not currently be in favour (such as brutalist, mid-century or late modernist, international-style, post-modernist, etc.).

DYK?_ There was a time when early industrial buildings were considered expendable (at best) or a blight standing in the way of progress (at worst). Many assets were lost but those that remain are now among the most desired spaces in the city. It is important that we learn from our past when evaluating existing buildings, regardless of what popular opinion might be in the moment.

DYK?_ Kitchener has been fortunate in that many of its cultural heritage assets have been preserved. This has contributed enormously to Kitchener’s eclectic, vibrant identity. The ongoing conservation of all building types, styles, and eras will be tremendously important in perpetuating this identity as development accelerates.

SITE FUNCTION

Locate parking at the rear of buildings or underground, wherever possible. Some surface parking may be provided to the side of buildings where necessary to meet minimum parking requirements, but that parking must be set back further than the related buildings, be visually screened from the public realm and shared spaces, and not cause conflicts of any kind with pedestrian or cyclist movement.

Locate structured parking entrances to the rear or side of buildings. Where garage access is provided along a street frontage, ensure that it does not pose a pedestrian safety risk and that it is attractively and positively integrated into the architectural design of the building.

Screen parking areas from the public realm and shared spaces with landscaping, low screening walls, berms, and other well designed site features.

Provide secure, indoor bicycle parking, located for the convenience and safety of cyclists.

Design all site circulation for cyclists and pedestrians as well as motorists, including alternate materials and colours for pedestrian crossings and sharrow markings where cyclists need to use drive aisles to property access and move through a site. Cyclist and motorist circulation routes should be separated wherever possible, favouring the safety and convenience of cyclists.

Sites should be limited to one vehicular access driveway wherever possible.

Incorporate all private, on-site servicing, meters and utility elements into the design of the building and show on building elevation drawings as part of the site plan approvals process. Where possible, locate these elements away from public view. Otherwise, screen these elements visually with landscaping and architectural features that are integrated into the building design as a whole.

Provide adequate space for waste vehicles and containers. Locations of waste containers should not block fire routes, parking or sidewalks.

Waste and recycling storage areas are to be fully enclosed and placed where they are not visible from the public realm.

Provide safe, weather protected areas for the sorting of recyclables. Include options for organic materials wherever possible.

Where facilities are located outside, provide safe, continuous pedestrian access such that the use of these is not frustrated by motorists (parking or driving) or snow storage locations, and that they can be accessed without requiring passage through shared amenity spaces.
This conceptual rendering demonstrates many of the design objectives for mid-rise buildings and shows how critical they can be in creating a human-scaled public realm. A mid-rise built form is a critical part of transitioning between low rise areas and tower forms, and can help provide a consistent, attractive, safe and comfortable user experience around transit, parks, trails and other urban features. Creative, dynamic built forms create opportunities for public and private outdoor shared spaces, public art, enhanced landscaping, recreation and leisure activities.