

Urban Design Guidelines for Drive-Through Facilities

May 2006

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A drive-through facility is an establishment that provides or dispenses products or services, through an attendant or an automated machine, to persons remaining in vehicles that are in designated stacking aisles. A drive-through facility may be in combination with other uses, such as a financial institution, personal service shop, retail store, eating establishment or gas stations. In these guidelines, a drive-through facility does not include a car wash or gas bar pump islands.

Purpose and Application

The purpose of these guidelines is to provide urban design guidance at the planning application stage in order to assess, promote and achieve appropriate development of drive-through facilities. Specific site context and conditions will be reviewed, in conjunction with these guidelines.

These guidelines are to be applied throughout the city for all drive-through facilities. When drive-through facilities are located in areas identified as Mainstreets, the guidelines for Mainstreets also apply. Where a Community Design Plan or relevant planning study exists, these guidelines will augment those documents. They will also be used to help inform the preparation of new Community Design Plans.

Objectives

- To promote compatible development that fits well with, and improves, its existing or planned context;
- To protect and enhance the character and quality of the districts and neighbourhoods where drive-through facilities are located;
- To enhance public streets and contribute to a high quality public space;
- To create efficient stacking movements on site;
- To create a safe and comfortable pedestrian environment on site; and
- To minimize impacts on adjacent land uses that could be caused by on-site activities.

Official Plan and By-law Direction

The Official Plan identifies compatibility as a key design objective for the built environment over the next 20 years. As per sections 2.5.1 and 4.11 of the Official Plan, achieving the compatibility of new development, such as a drive-through facility, will involve not only considerations of built form, but also of operational characteristics and the development context.

Annex 1 of the Official Plan identifies the protected rights-of-way sufficient to provide enough area for the streetscape elements and meet the needs of pedestrians and cyclists.

Annex 3 of the Official Plan contains a number of design considerations that provide suggestions for how to meet the Design Objectives and Principles in section 2.5.1 of the Official Plan. All other policies of the Official Plan and applicable regulations, such as the Private Approach By-law, the Signs By-law and the Zoning By-law must be met.

Context and Challenges

Drive-through facilities have proven to be very successful as they target the mobile and car-oriented market. They often operate 24 hours a day and provide convenience for the traveling public and offer a sense of security for users at night. Drive-through service has been widely adopted by fast food businesses, and new types of drive-through facilities include banks, dry cleaning, pharmacies, and beer stores. Meanwhile, walk-in service is still an important component for many businesses with drive-through facilities for customers who arrive on foot, bicycles and by vehicles but do not use the drive-through services.

While successful and popular, drive-through facilities present many urban design challenges, including respecting the urban context while designing prototypical drive-through facility sites and buildings; supporting a pedestrian friendly environment along public streets; using landscape areas effectively to improve the overall environmental and visual quality of the area; and designing efficient stacking movements on site.

Other Available Guidelines

- Urban Design Guidelines for Large-Format Retail (2006);
- Urban Design Guidelines for Development along Traditional Mainstreets (2006);
- Urban Design Guidelines for Development along Arterial Mainstreets (2006);
- Urban Design Guidelines for Gas Stations (2006);
- Urban Design Guidelines for Outdoor Patios (2006);
- Infill Housing Design Guidelines - Low-Medium Density (2005) and
- Regional Road Corridor Design Guidelines (2000).

Urban Design Guidelines

The urban design guidelines for drive-through facilities are organized into the following six sections:

1. Streetscape and Built Form
2. Pedestrians and Cyclists
3. Vehicles and Parking
4. Landscape and Environment
5. Signs
6. Servicing and Utilities

1. Streetscape and Built Form

Guideline 1: Respond to the positive elements of the context through such means as building height, setbacks, building orientation and architectural styles (Figures 1 and 2).



*Figure 1:
This two storey drive-through restaurant responds to an arterial road context using an appropriate setback and building height.*



*Figure 2:
The drive-through development responds to its traditional village context using an appropriate building style.*

Guideline 2: Locate buildings close to the street to help define the street edge.

Guideline 3: Provide ample landscaping, in combination with building orientation, to enhance the streetscape and define the street edge when setting buildings back from the street is unavoidable (Figure 3).



*Figure 3:
Along this drive-through development, mature trees help define the street edge.*

Guideline 4: Locate public amenities close to the building entrances (Figure 4).



*Figure 4:
Outdoor patios, phone booths
and bike racks are amenities
close to the public street.*

Guideline 5: Make the majority of the pedestrian level façade facing the street highly transparent with clear glass windows and doors that animate public streets and maximize views in and out of the building.

Guideline 6: Locate interior uses such as seating areas, employee rooms, offices, waiting areas and lobbies, which have the potential for clear windows, along street-facing walls (Figure 5).



*Figure 5:
Employee rooms with glass
windows are located facing the
public areas in this drive-
through bank.*

Guideline 7: Landscape the area in front of blank walls that face public streets and use projections, recesses, arcades, awnings, colour and texture to reduce the visual size of any unglazed walls.

Guideline 8: Provide weather protection at the main building entrance, for areas close to public transit stops, bicycle parking, walkways, and in places with pedestrian amenities.

Guideline 9: Coordinate architectural detail and character within an overall design concept for all building sides and components (Figure 6).



*Figure 6:
At the back of this drive-through restaurant, architectural details are consistent with other sides of the building.*

2. Pedestrians and Cyclists

Guideline 10: Provide customer entrance doors clearly visible from public streets and directly accessible from the public sidewalk (Figure 7).

Guideline 11: Provide customer entrance doors that are close to parking areas (Figure 7)



*Figure 7:
This drive-through restaurant has a customer entrance directly accessible from both the public sidewalk and the parking area.*

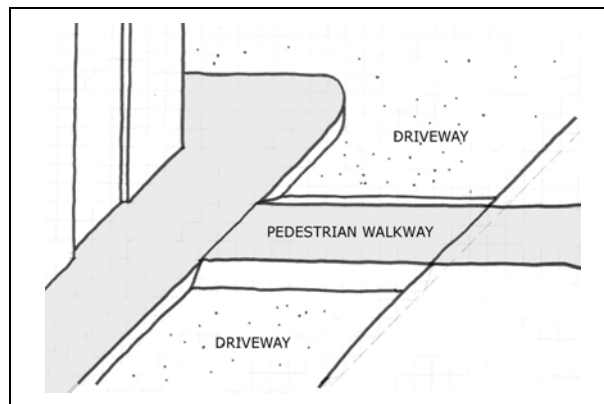
Guideline 12: Provide an unobstructed 2.0 metre wide pedestrian walkway between the public sidewalk (and/or parking areas) and building entrances.

Guideline 13: Provide an unobstructed 2.0 metre wide sidewalk in the public right-of-way, across private access driveways. Ensure little or no change in elevation (Figure 8).



*Figure 8:
The continuous public sidewalk
across driveways provides a
pedestrian zone.*

Guideline 14: Distinguish walkways from driving surfaces by using varied paving treatments and by raising walkways to curb level (Figure 9).



*Figure 9:
Raised pedestrian walkways
enhance safety for pedestrians
crossing driveways.*

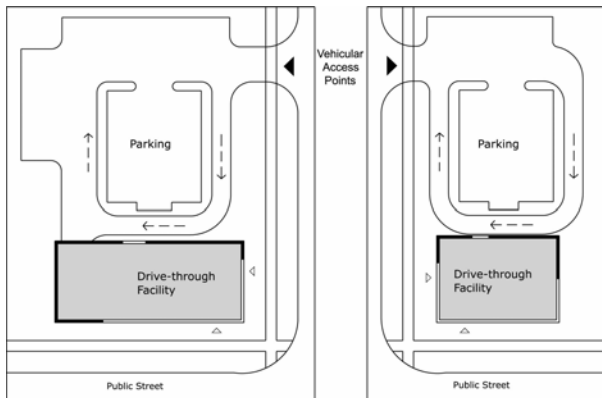
Guideline 15: Use landscaping or similar means to delineate pedestrian walkways and pedestrian access to the buildings.

Guideline 16: Locate required bicycle parking close to the building entrance in a manner that does not impede pedestrian movement.

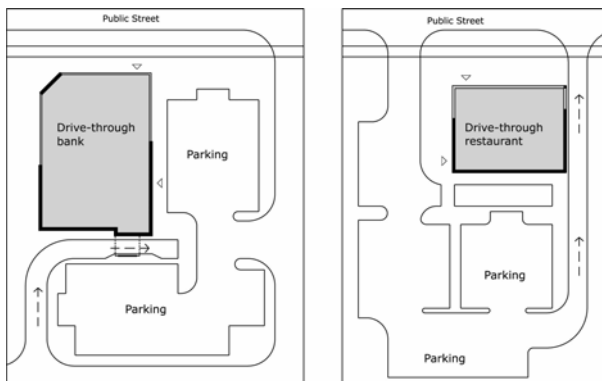
3. Vehicles and Parking

Guideline 17: Locate vehicular access points to the sites as far away as possible from street intersections. Locate vehicle access points to corner sites on the secondary street (Figure 10).

Guideline 18: Locate surface parking areas and stacking lanes at the side or rear of buildings. (Figures 10 and 11).



*Figure 10:
Locating vehicular access points far from the intersection helps reduce potential impacts on the traffic at the intersection.*



*Figure 11:
Locating parking and driveway areas at the rear of the site provides opportunities to frame the street edge with built structures.*

Guideline 19: Minimize the number and width of driveways from the public street while ensuring they meet the requirements of the Private Approach By-law (Figure 12).

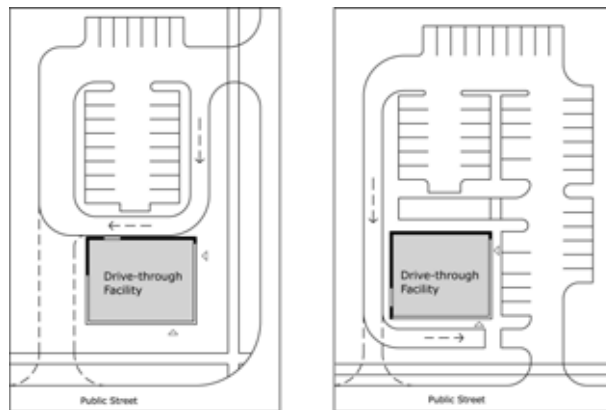


Figure 12:
Minimizing the number and width of driveways helps reduce interruptions to the public sidewalk.

Guideline 20: Locate the start point to the stacking lane at the rear of the site so that queued vehicles do not block traffic along the public streets or the movement of other vehicles on site (Figure 13).

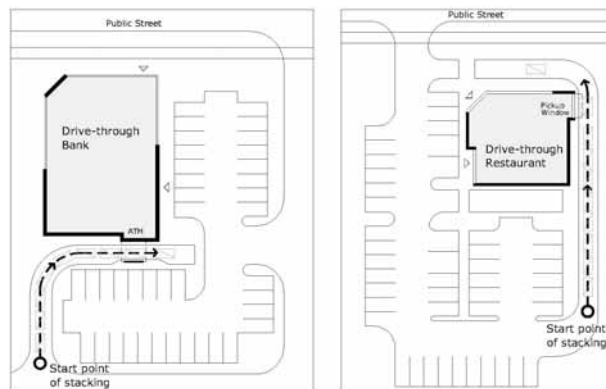


Figure 13:
In these two drive-through sites, start points are located at the rear of the site to minimize the potential impacts on other traffic that could be caused by stacking cars.

Guideline 21: Locate stacking lanes away from adjacent sensitive uses, such as residential and outdoor amenity areas, to reduce the impacts of noise and pollution that could be caused by stacking cars on such uses. Use landscaping and fencing to help buffer potential impacts.

Guideline 22: Avoid locating the stacking lane between the building and the public street.

Guideline 23: Provide escape lanes and the appropriate number of queuing spaces as required by the Zoning By-law to create efficient stacking lanes and to minimize on-site conflicts (Figures 13 and 14).

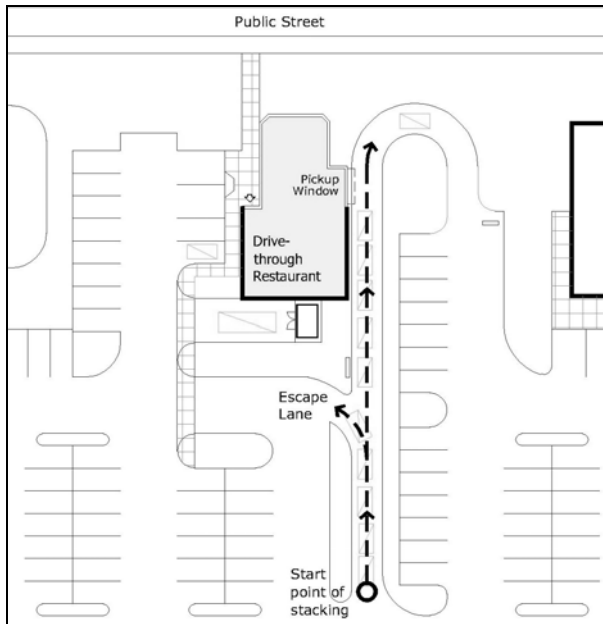


Figure 14:
In this drive-through site, sufficient queuing spaces are provided. The escape lane allows cars to exit from the stacking lane without having to drive by the pickup window.

Guideline 24: Separate stacking lanes from parking areas and driveways using landscaped islands, decorative pavement, pervious islands and painted lines (Figures 15 and Figure 16).



Figure 15:
A grassed curb separates the stacking lane from parking areas in this drive-through site.



*Figure 16:
Landscaping that separates
stacking lanes from parking
areas and driveways is
desirable.*

- Guideline 25: Design the on-site circulation to minimize the conflicts between pedestrians and vehicles.
- Guideline 26: Provide separate stacking lanes when two drive-through uses exist on the same site.
- Guideline 27: Provide only the minimum number of parking spaces required by the Zoning By-law.

4. Landscape and Environment

- Guideline 28: Plant street trees between 7.0 to 10.0 metres apart along public streets. Plant trees in permeable surface areas, with approximately 10.0 square metre of soil area per tree (Figure 17).
- Guideline 29: Select trees, shrubs and other vegetation considering their tolerance to urban conditions, such as road salt and heat. Give preference to native species of the region that are of equal suitability.



*Figure 17:
Along the frontage of this drive-
through restaurant, street trees
every 7 to 10 metres enhance
the streetscape.*

Guideline 30: Provide a minimum 3.0 metre wide landscape area along the edge of a site where parking areas, drive lanes or stacking lanes are adjacent to a public street. Use trees, shrubs and low walls to screen cars from view while allowing eye level visibility into the site (Figures 18 and 19).



Figure 18:
A landscaped setback screens the stacking lane from the street.



Figure 19:
The low wall along the edge of the site screens the driveway from view.

Guideline 31: Provide a minimum 2.5 metre wide landscape area along the site's side and rear yards in order to provide screening and enhance site environmental benefits (Figure 20).



Figure 20:
The landscape area provides screening and enhances environmental benefits.

- Guideline 32: Provide a minimum 3.0 metre wide landscape area, which may include a solid wall or fence in addition to planting, at the edges of sites that are adjacent to residential or institutional properties.
- Guideline 33: Protect and feature heritage, specimen and mature trees on the site by minimizing grade changes and preserving permeable surfaces.
- Guideline 34: Use sodded areas and shrub beds to collect, store and filter stormwater in order to improve groundwater recharge (Figure 20 and 21).



Figure 21:
The planting area collects and stores stormwater.

- Guideline 35: Divide large parking areas into smaller and well-defined sections using soft and hard landscaping in order minimize the amount of paved area (Figure 22).



Figure 22:
Landscaping and walkways divide large parking lots into small pieces.

- Guideline 36: Use green building technologies such as green roofs, drip irrigation, and other Leadership in Energy and Environmental Design (LEED) approaches.

5. Signs

- Guideline 37: Use pavement markings and directional signs to enhance clarity of movement patterns on site.
- Guideline 38: Design buildings to include defined spaces to accommodate signs that respect building scale, architectural features, signage uniformity and established streetscape design objectives.
- Guideline 39: Locate and design ground-mounted and wall-mounted signs to complement the character and scale of the area and promote an active, pedestrian friendly environment. Integrate landscape features with ground-mounted signs (Figure 23).



*Figure 23:
Design wall-mounted signs and
ground signs that are in
proportion with the buildings.*

- Guideline 40: Restrict temporary and portable signs. Prohibit billboards, revolving signs and roof signs on private property.
- Guideline 41: Design sign illumination to be task-oriented and avoid glare/light spillover toward adjacent land uses.

6. Servicing and Utilities

- Guideline 42: Locate noise-generating areas, including ordering board speakers, outdoor loading areas and garbage storage, away from sensitive uses such as residential areas and schools.
- Guideline 43: Buffer potential noise impacts with solid attenuations. These could be building structures, landscaped berms or attenuation fencing (minimum 1.8 metre in height) complemented with landscaping.
- Guideline 44: Enclose all utility equipment within buildings or screen them from both public streets and private properties to the rear. These include utility boxes, garbage and recycling container storage, loading docks and ramps, and air conditioner compressors.

Guideline 45: Design garbage enclosures that are external to the building with the same materials as the building and ensure that the wall height is sufficient to completely conceal garbage dumpsters (Figure 24).



*Figure 24:
At this drive-through development, the garbage enclosure structure is visually harmonized with the main building through similar material colour and texture.*

Guideline 46: Design lighting so that there is no light spillage, glare or light cast over adjacent uses. Direct and/or shield lighting sources away from adjacent residential properties and provide screening as necessary.

Guideline 47: Use efficient white light sources to reduce energy costs and to create a natural colour balance for safety and security.

Guideline 48: Provide views and clear sightlines between the site and surrounding uses to ensure sufficient safety and comfort levels (Figure 25).

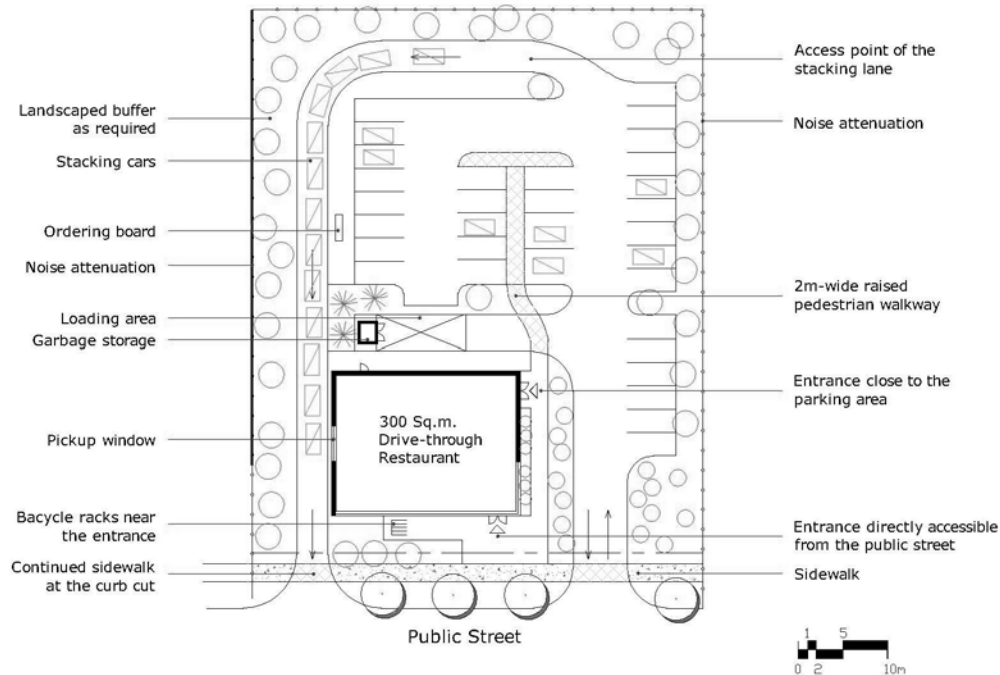


*Figure 25:
The ATM of this drive-through bank is directly visible from the surrounding areas, providing a sense of security for users, especially at night.*

Guideline 49: Plan the site to include areas for temporary snow storage without conflicting with site circulation, landscaping and utility boxes.

Glossary

This figure illustrates many of the elements discussed in the guidelines and defined in the glossary. It is for illustrative purposes only since the specific site context and characteristics will determine the relationships among these elements for an actual site.



Amenity: something that contributes to an area's needs, whether social, environmental or cultural

Built form: buildings and structures

Character: the unique identity of a place

Compatible / Compatibility: when the density, form, bulk, height, setbacks, and/or materials of buildings are able to co-exist with their surrounding

Driveway: a private way across land used for vehicular access from a public street - includes a private right-of-way

Façade: the principal face of a building (also referred to as the front wall)

Front yard: the space between the property line and the building facing the public street

Hard landscape: landscape features other than plant materials (e.g. decorative pavers, planter boxes, walks, fences, retaining walls, etc.)

Landscape buffer: a landscape area located along the perimeter of a lot intended to screen or separate land uses either from one another or from a public street

Lane: a narrow street at the back of buildings, generally used for service and parking

Parking lot: a lot or other place used for the temporary parking of four or more passenger vehicles

Pedestrian scale: a size of building, space that a pedestrian perceives as not dominating or overpowering

Pedestrian walkway: sidewalk on private property

Permeable surface: a surface formed of material that allows infiltration of water to the sub-base

Property line: the legal boundary of a property

Public realm: the streets, lanes, parks and open spaces that are free and available to anyone to use

Right-of-way: a public or private area that allows for passage of people or goods, including, but not limited to, freeways, streets, bicycle paths, alleys, trails and walkways

Scale: the size of a building or an architectural feature in relation to its surroundings and to the size of a person

Screening: vegetation, landforms or structures that serve to reduce the impact of development on nearby properties

Setback: the required distance from a road, property line, or another structure, within which no building can be located

Sidewalk: unobstructed paved area for pedestrian travel in the public right-of-way

Stacking lane: an on-site queuing lane for motorized vehicles, which is separated from other vehicular traffic and pedestrian circulation by barriers, markings or signs

Streetscape: the overall character and appearance of a street formed by buildings and landscape features that frame the public street. Includes facades of buildings, street trees and plants, lighting, street furniture, paving, etc

Street frontage: the length of the front of the property facing the street

Urban design: the analysis and design of the city's physical form

Urban form: the pattern of development in an urban area

Figure Credits

Figure 1: Gatineau, Quebec. City of Ottawa

Figure 2: Stittsville, Ontario. City of Ottawa

Figure 3: Ottawa, Ontario. City of Ottawa

Figure 4: Stittsville, Ontario. City of Ottawa

Figure 5: Ottawa, Ontario. City of Ottawa

Figure 6: Gatineau, Quebec. City of Ottawa

Figure 7: Ottawa, Ontario. City of Ottawa

Figure 8: N/A. City of Ottawa

Figure 9: Gatineau, Quebec. City of Ottawa

Figure 10: N/A. City of Ottawa

Figure 11: N/A. City of Ottawa

Figure 12: N/A. City of Ottawa

Figure 13: N/A. City of Ottawa

Figure 14: N/A. City of Ottawa

Figure 15: Ottawa, Ontario. City of Ottawa

Figure 16: Gatineau, Quebec. City of Ottawa

Figure 17: Ottawa, Ontario. City of Ottawa

Figure 18: Ottawa, Ontario. City of Ottawa

Figure 19: Ottawa, Ontario. City of Ottawa

Figure 20: Ottawa, Ontario. City of Ottawa

Figure 21: Unknown. US Environmental Protection Agency.

Figure 22: Ottawa, Ontario. City of Ottawa

Figure 23: Ottawa, Ontario. City of Ottawa

Figure 25: Ottawa, Ontario. City of Ottawa