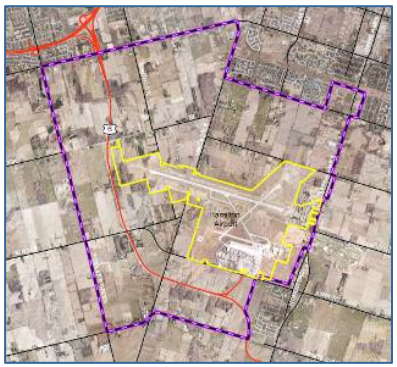
# City of Hamilton
# Airport Employment Growth District



## *Urban Design Guidelines*

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# 1.0 Introduction

### *1.1 Purpose of Urban Design Guidelines (UDG)*

The Urban Design Guidelines are an integral component to the Hamilton Airport Employment Growth District (AEGD) Secondary Plan. They should be read in conjunction with the Secondary Plan and Zoning by Law and used as a framework to fulfill its development goals and design principles. The guidelines describe the expectations and requirements for future development applications and are written to convey the potential for flexible and innovative development.

The objectives of the study are expressed in the Hamilton Airport Employment Growth District Secondary Plan, which calls for specific urban design guidance for development in accordance with the policies of the Secondary Plan (Section 8.13).

The Airport Employment Growth District is envisioned to be a place of employment which is developed with a high degree of urban design. The elements of urban design are intended to work together to create development that reduces its negative impact and optimizes its positive impact, in the physical context of an urban form and built form that can be characterized as a high quality place and space.

### *1.2 Structure of the Guidelines*

The guidelines are structured under the following major sections:

1 Introduction
2 Site Planning Guidelines
3 Built Form Guidelines
4 Open Space Guidelines
5 Design Guidelines for Specific Designations

### *1.3 Who Should Use these Guidelines*

The guidelines will be utilized by municipal staff and in conjunction with other planning policy documents as a tool to evaluate individual developments. Applicants will be required to demonstrate that the design principles of these guidelines and other components of this study have been fulfilled.

### *1.4 Implementation of the Guidelines*

The Urban Design Guidelines are intended to be used in combination with the Hamilton Airport Employment Growth District Eco-Industrial Design Guidelines. Both Guidelines have been prepared following the Eco-Industrial and Urban Design Principles outlined in the Hamilton Airport Employment Growth District Secondary Plan, Section 8.13. Section 8.13.1 states the basis of the EIG:

> *Eco-Industrial Design Guidelines and Urban Design Guidelines for the Airport Employment Growth District shall be prepared and adopted by Council that*

*provide specific guidance for development in accordance with the eco-industrial and urban design policies of this Secondary Plan.*

**Development Review and Approvals Process**

The Hamilton Airport Employment Growth District Secondary Plan is intended to provide guidance for development applications, to ensure that the lands are developed in a comprehensive and integrated manner over time.

Development in the AEGD is guided by the AEGD Secondary Plan and Zoning by-Law, the Transportation, Storm Water and Water/Wastewater Master Plans, the Eco-Industrial Design Guidelines and these Urban Design Guidelines. According to Sections 8.14.1 8.14.2 and 8.15.5 of the Secondary Plan, the Urban Design Guidelines will be part of the Plan of Subdivision or Site Plan approval process for the Airport Employment Growth District, as follows:

*8.14 Energy and Environmental Assessment Report*

*8.14.1 Notwithstanding Section F.3.2.9 of Volume 1, the sustainability of development shall be evaluated at the time of development approval for a Plan of Subdivision or Site Plan and an Energy and Environmental Assessment Report demonstrating how the development meets or exceeds the sustainability provisions of the Eco-industrial Design Guidelines and Urban Design Guidelines shall be required prior to development approval.*

*8.14.2 The degree to which a development meets or exceeds the sustainability provisions of the Eco-industrial Design Guidelines and Urban Design Guidelines as described by the Energy and Environmental Assessment Report may be used as a basis by the City to prioritize development applications, including the assignment of servicing allocation and the issuance of draft plan approval under the Planning Act.*

*Complete Application Requirements*

*8.15.3 Notwithstanding the complete application requirements of Section F.1.19 of the Urban Hamilton Official Plan, an Energy and Environmental Assessment Report shall be required as other information and materials required to deem Planning Act applications for draft plan of subdivision and site plan complete.*

A new zoning by-law is being written to reflect ensuing Secondary Plan and the proposed urban design policies of these guidelines. The customary approval process of submission for Draft Plan of Subdivision, Site Plan Approval and Building Permit that must conform to that new by-law will apply.

**Draft Plan of Subdivision**

Applications for Draft Plans of Subdivision within the Secondary Plan may put forward alternative configurations, provided that the overall intent of the Secondary Plan and guidelines is fulfilled. Applicants requesting approval for Draft Plan of Subdivision will be

evaluated in this context and will be required to demonstrate how the Draft Plan of Subdivision meets the zoning by-law, implements the Urban Design Guidelines and Eco-Industrial Design Guidelines and targets, applicable at the Draft Plan of Subdivision scale.

**Site Plan Review**

Applicants for Site Plan Approval will be subject to review of these guidelines and sustainable design measures, in addition to meeting the City of Hamilton's municipal planning, construction and engineering requirements. To assist staff and expedite the review process, applicants will be required to provide a description of how the site development implements the objectives of the Urban Design Guidelines and targets at the various levels of site planning, building and landscaping measures.

**Building Permit**

In addition to building permit application requirements by the City of Hamilton and the Ontario Building Code, applications will be reviewed for confirmation that built form, sustainable design and landscaping will be executed in conformance with the Site Plan Approval.

# Urban Design Guidelines

## 2.0 Site Planning Guidelines

### *2.1 Relationship to Natural Edges*

**Guideline 01: Building Setbacks**
Building setbacks shall be included for development adjacent to the natural edges under the jurisdiction of the Niagara Peninsula Conservation Authority, Hamilton Conservation Authority, and/or Grand River Conservation Authority: setbacks may vary, depending on the type and stability of the adjacent area or slope.

**Guideline 02: Location of Outdoor Uses**
The location of outdoor uses and facilities, as well as employee recreation facilities, is encouraged to be in proximity to the visual and physical amenity of natural areas.

**Guideline 03: Natural Features**
Protect and improve existing natural features while improving connectivity between those features and new development through the use of green roof and walls, street trees and greenway connections at the ground level.

**Guideline 04: Planting**
Planting, such as trees, woody shrubs, ground covers, grasses, and perennials, should be of a native species, suitable for the habitat, and where appropriate drought resistant plant materials can be used. Plantings should be placed in a relatively dense arrangement to reduce maintenance requirements, and the need for fertilizer and irrigation.

**Guideline 05: Native Species**
A diverse selection of native trees and shrubs with seasonal changes of colours in foliage should be used to stimulate the senses and heighten the awareness

Figure 1: Toyota Castle College Training Centre. Nottingham

Figure 2: IBM Rouge River

Figure 3: IBM service road screening

of the environment.

Guideline 06: Built Form/Open Space Relationship
Outdoor landscaped spaces should freely mix with the built environment to support the quality of the environment for staff and wildlife. Effective landscaping should be used to shield buildings and open spaces from seasonal weather, and provide increased habitat for wildlife.

Guideline 07: Consistent Materials
Whenever appropriate, connections between the exterior and interior spaces shall be strengthened through the use of common materials and plantings. Landscape treatments in the public realm should be complimented with similar treatment in private developments.

Figure 4: Pedestrian amenity microclimate

Guideline 08: Trail System
Development should be integrated and/or connected to the train system, which should accommodate a wide range of functions including providing a continuous and safe pedestrian and cycle route. Trail development standards shall comply with the City of Hamilton's Recreational Master Plan.

Guideline 09: Sustainable Stormwater Management
Development shall implement stormwater management and filtration techniques such as bio-swales, retention gardens, green roofs and pervious paving, as are edge condition strategies for release of water near existing watersheds, according to the Airport Employment Growth District Stormwater Master Plan.

Figure 5: Green Roof on a Factory, Glarus Valley Switzerland

stacked or be visible above the enclosure height.

**Guideline 07: Size of Waste Enclosures**
Waste enclosures should enclose an area designed to accommodate the peak needs of varied potential industrial users of the building.

**Guideline 08: Screening of Utility Equipment**
Utility equipment, hydro transformers, and switching boxes should not be visible from the public street and shall be incorporated into the design of the building and site landscape.

**Guideline 09: Service Area Paving**
Service and refuse areas should be paved with an impervious surface of asphalt or concrete.

Figure 20: Chilexpress - Santiago Chile

### *2.7 Site Lighting and Safety*

**Guideline 01: Illumination Levels**
The appropriate illumination of all pedestrian and parking areas to promote safety, security and comfort without over-illumination is encouraged

**Guideline 02: Spill-over**
Architectural lighting to emphasize built form and landscape elements is encouraged especially along highway frontages, but should not create spill-over of light to adjoining properties.

**Guideline 03: Energy Efficient**
Energy efficient street lights and pedestrian lights are encouraged. Design provisions and devices to prevent spill over of light to adjoining properties are required, particularly where development areas abut residential uses or natural areas.

**Guideline 04: Pedestrian Level Lighting**
Light standards shall include pedestrian level pole heights adjacent to walkways, in parking areas and other pedestrian zones.

**Guideline 06: Defensible Space**
Landscaping shall not impede eye-level views across the parking lot or toward the building entrance.

**Guideline 07: Noise Attenuation**
Noise attenuation measures should be incorporated where necessary to ensure that adjacent properties, especially residential properties and natural areas, are not disrupted by activity on site.

Figure21: Pedestrian lighting built into benches.

Figure 22: Pedestrian level luminares.

Figure 23: Luminaires should prevent light pollution

### *2.8 Pedestrian and Cyclist Movement*

**Guideline 01: Site Planning**
Site planning should provide for ease and continuity of pedestrian movement and a high-quality, barrier-free pedestrian environment.

**Guideline 02: Route Hierarchy**
A hierarchy of sidewalks, multi-use paths, and in road cycle lanes should be provided to offer an alternative mode of travel for commuters and recreational users. The design of cycling bikeways shall be guided by the City of Hamilton Design Guidelines for Bikeways.

**Guideline 03: Encourage Cycling**
Street design should facilitate cyclist movement by reducing barriers to the ease, comfort, and safety of cycling. Curb cuts should be provided at bicycle route connections to the street.

**Guideline 04: Distinct Routes**
Distinctive paving patterns and materials are required at highly visible areas, entrance areas and major routes between parking, transit stop and building entrance to promote pedestrian safety and assist in site orientation.

**Guideline 05: Differentiated Routes**
Differentiated path surfaces and pavement markings (lane markings, lines, etc.) should distinguish areas for cyclists and pedestrians on multi-use paths.

**Guideline 06: Differentiated Crossings**
Pedestrian connections at all major intersections shall be defined with differentiated paving materials and appropriate curb cuts. These surfaces should be permeable wherever possible to improve groundwater filtration.

**Guideline 07: Bicycle Parking**
Bicycle racks and/or secure bicycle storage areas should be provided at

Figure 24: Cambourne Business Park, Cambridge UK

Figure 25: No.1 Nottingham Science Park

Figure 26: Sheltered bicycle storage.

building entrances. Bicycle parking/racks should be connected to primary bicycle trail routes with surfaces appropriate for cycling.

**Guideline 08: Connected Routes**
Multi-use paths should connect the site to the residential areas outside the employment district as well as any natural areas, parks, and general open spaces.

**Guideline 09: Covered Walkways**
Any parking facilities that are more than 400 metres (5-minute walk) away from the destination building need to have a covered walkway connecting the parking facility to the building.

**Guideline 10: Walkways to Parking**
Walkways need to be provided between all buildings and their associated parking lots with a minimum width of 1.5 metres.

**Guideline 11: Pedestrian Lighting**
Pedestrian level lighting needs to be provided along all walkways and sidewalks for safe pedestrian circulation at night.

**Guideline 12: Street Furniture**
Street furniture such as benches and lighting should be present along pedestrian routes.

**Guideline 13: Waiting Areas**
Waiting areas, such as at building entrances, should provide shade, be wind protected and have street furniture.

**Guideline 14: Landscape Design**
Landscape design should give form, visual structure to street edges and pathways to humanize the scale and sightlines of development.

Figure 27: Husky Corporate Campus, Bolton

Figure 28: Illinois Technology Campus

# 3.0 Built Form Guidelines

### *3.1 Sustainable Building Design*

**Guideline 01: Sustainable Design Measures**
Building design is encouraged to incorporate sustainable design measures including but not limited to Leadership in Energy and Environmental Design (LEED™).

**Guideline 02: Visibule Articulation of Sustainable Design**
Buildings that incorporate sustainable design measures will be encouraged to have orientation, massing, material selection and landscaping as a visible articulation of their sustainable design.

**Guideline 03: Eco-Industrial Design**
Sustainable building design should conform to the Eco-Industrial Design Guidelines for the AEGD.

**Guideline 04: Energy Efficiency**
Buildings should be energy efficient. Minimize energy demand in designing buildings with passive and active solar harvesting techniques, day-lighting strategies.

**Guideline 05: Thermal Efficiency**
Buildings should be thermally efficient. The thermal efficiency of the building envelope and fenestration is a key consideration, as are properly sized and efficient HVAC systems.

**Guideline 06: Innnovative Technologies**
Innovation is encouraged through the design and implementation of alternative energy sources where appropriate; ground source heat pumps (geothermal), energy recovery ventilators, photovoltaic power generation,

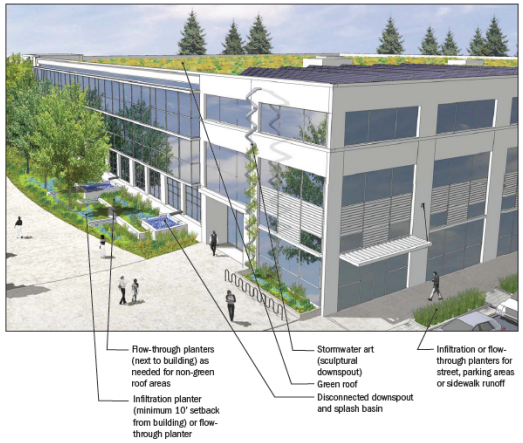


Figure 29: Sustainable Building Design

Figure 30: Lindholmen Science Park, Gothenburg, Sweden

solar hot water systems etc.

**Guideline 07: Vegitated Surfaces**
Building design should reduce the heat island effect. Facilities should implement green roofs, planted walls and terraces to reinforce the visual connection to the surrounding landscape, provide habitat for wildlife and encourage storm water run-off diversion and capture for irrigation.

**Guideline 08: Light Pollution**
Buildings should reduce exterior light pollution where appropriate (without deficiencies in safety provisions).

**Guideline 09: Reduce Waste**
Building design should reduce solid waste. Make access to recycling facilities for building inhabitants easy.

**Guideline 10: Water Management**
Building design should reduce potable water consumption. Buildings should be designed with water efficient fixtures and seek to implement strategies for metering, rainwater reuse (irrigation, sanitary flushing) where appropriate.

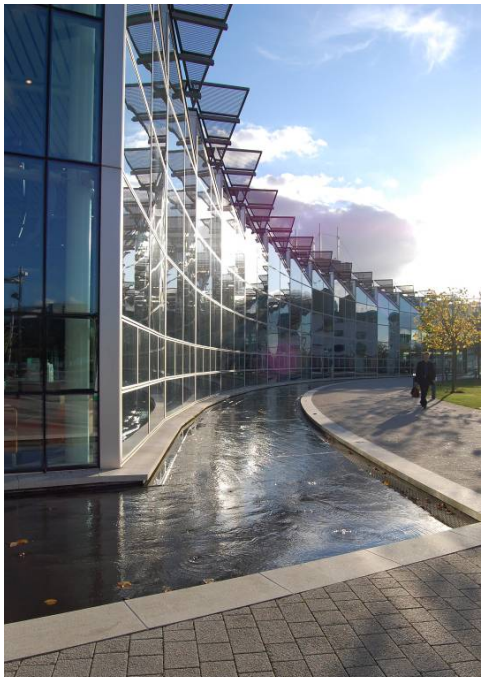

Figure 31: BP Business Park, Sunbury UK

### *3.2 Building Orientation*

**Guideline 01: Building Orientation**
Buildings are encouraged to have an orientation that provides street definition, pedestrian realm definition, and helps manage cooling and heating loads.

**Guideline 02: Street Frontage**
Buildings should primarily front on the street to create a consistent street wall and define the pedestrian realm. All elevations facing roadways shall be designed with sensitivity to the high level of visibility.

**Guideline 03: Maximize East-West Frontage**
Buildings should be designed to maximize east–west frontage to take advantage of passive solar heat and daylight.

**Guideline 04: Office and Entrance Components**
Office and entrance elements should be oriented towards municipal roadways and intersections.

Figure 32: Frito-Lay Offices, Henrietta, New York

Figure 33: Sonoma Mountain Village

### *3.3 Building Height & Massing*

**Guideline 01: Building Mass and Transition**
Buildings are encouraged to have a height and massing that supports the efficient use of land and appropriate transitions to adjacent land uses outside the Airport Employment Growth District. Building heights shall comply with the Hamilton Airport Zoning (Height) Regulations established by Transport Canada.

**Guideline 02: Street Frontage**
Consistent building heights along street frontages are preferred to create a streetscape with a sense of enclosure and urban edge.

**Guideline 03: Office Components**
Office components of buildings are encouraged to be at least two storeys along street frontages, when possible.

**Guideline 04: Views toward Natural Heritage Areas**
Building orientation and heights should preserve views into the Natural Heritage Areas, where possible.

**Guideline 05: Building Heights along Highways**
Building heights along highways are encouraged to be higher to ensure a strong visible presence of development. Building heights shall comply with the Hamilton Airport Zoning (Height) Regulations established by Transport Canada.

Figure 34: BP Business Park, Sunbury UK

Figure 35: Vacheron Constantin corporate headquarters and factory - Geneva, Switzerland

## *3.4 Building Design*

### Architectural Articulation

**Guideline 01: Building Entrances**
Buildings are encouraged to have the entrance or office space appropriately oriented towards municipal streets and intersections. Building entrances should be oriented toward transit stations and bus stops for convenient access to the buildings by public transit passengers.

**Guideline 02: Architectural Features**
Buildings are encouraged to have façades with significant architectural features.

**Guideline 03: Architectural Articulation**
Buildings are encouraged to have architectural articulation in form and materials. Large blank wall surfaces along street frontages are discouraged.

**Guideline 04: Accessibility**
Building entrance(s) is located and designed to be accessible to all people.

**Guideline 05: Pedestrian Interest**
Adjacent to major areas of pedestrian activity, the building design and materials should create attractive and comfortable environments. The use of higher quality and attractive materials, visual connections to the ground floor through glazing, arcades or canopies is encouraged.

Figure 36: Bus Center RATP in Thiais, France

Figure 37: Alder Business Centre Langley BC

Figure 38: Chilexpress - Santiago Chile

**Guideline 06: Emphasize Entrances**
Architectural design should emphasize entrance areas through a change in building form, increased height, and / or a change in materials from the main building component. Entrances of appropriate size which are easily identifiable should be provided at each main building access point. Building entrances should be defined by entrance canopies, awnings and other architectural elements. Separate building access points for different uses are encouraged.

**Guideline 07: Visibly Sustainable**
Where possible, sustainable design strategies that affect the architectural expression of the building should be employed on façades visible from municipal streets such as operable windows or a solar panel wall.

**Guideline 08: Diversity of Massing**
Buildings elevations and composition should promote a balance between solid walls, windows, and wall glazing to support green building design strategies, future flexibility and function.

**Guideline 09: Vertical Programming**
Building programming should consider the vertical stacking of industrial functions.

**Guideline 10: Roof Shape**
A variety of roof shapes should be considered to avoid the monotony of flat roofs.

**Guideline 11: Vegitated Surfaces**
Green roofs and green walls should be encouraged to assist with energy savings, stormwater management and natural habitat enhancement.

Figure39: Cambourne Business

Figure 40: Newmarket Operations Centre, Newmarket

Figure 41: Green Roofs

**Fenestration**

**Guideline 12: Fenestration**
Buildings are encouraged to have an appropriate location and amount of fenestration, with operable windows also encouraged.

**Guideline 13: Street Frontage**
The amount of glazing should be maximized at street frontages and intersections.

**Guideline 14: Minimum Fenestration: Arterial Roads**
Office components of buildings with façades fronting on arterial roads shall be fenestrated for a minimum of 25% of the area of that façade, where appropriate.

**Guideline 15: Minimum Fenestration: Local Roads**
Along other municipal street frontages, a minimum of 20% of the frontage façade of the office component of the building shall be fenestrated, where appropriate.

**Guideline 16: Fenestration of Active Uses**
Buildings or building components with an active, street-related use, such as an entrance or accessory retail area should have a minimum of 60% glazing, to create an attractive public realm at street-related façades.

**Guideline 17: Operable Windows**
To reduce dependency on air conditioned spaces and to promote healthy working environments, inclusion of operable windows at areas with a high employee activity is strongly encouraged.

**Building Materials**

**Guideline 18: Building Materials**

Figure 42: Aberdeen Business Park, Scotland

Figure 43: Cambridge Science Park - Cambridge, England

Buildings are encouraged to incorporate materials that have a high life cycle and aesthetic quality that optimize technical performance while enriching the aesthetic of the building exterior.

**Guideline 19: Non-reflective Surfaces**
Building design should avoid the use of dark, non-reflective surfaces for roofs, parking areas and walkways as they contribute to heat island effect. Building materials should be light-coloured, with reflective surfaces or emissive materials that can reduce heat island effect.

**Guideline 20: Modern and Sustainable Building Materials**
The use of building materials that express modern and sustainable building technology is encouraged. Artificial application of historical building styles to modern construction methods and building uses is discouraged. The appearance of building materials should be true to their nature and should not mimic other materials. The use of building materials that convey their sustainable design attributes is encouraged, particularly at the most visible locations.

**Guideline 21: Limited Material Pallette**
A limited range of building materials is encouraged in favour of achieving a unified building image.

**Guideline 22: Wrap Front Façade Materials**
Materials used for the front façade should be carried around the building or at a minimum to the side building façades.

**Structured Parking**
**Guideline 23: Structured Parking**
Where applicable, above grade built parking solutions are to be screened yet allow enough free air movement around all sides of the parking levels to avoid the need for mechanical ventilation. At the same time, the screen will help to reduce the visibility of lighting and cars.

Figure 44: Cambourne Business Park, Cambridge UK

Figure 45: Transferium Barneveld Noord, Netherlands

### *3.5 Integration with Built Heritage*

**Guideline 01: Set Back with Built Heritage**
The façades of new buildings are encouraged to be set back to match existing heritage buildings to ensure they are visible from the public realm.

**Guideline 02: Sensitive to Context**
New buildings are encouraged to be sensitive to adjacent and nearby heritage buildings; however, the application of historical building styles to modern development is discouraged.

### *3.6 Rooftop and Mechanical Requirements*

**Guideline 01: Screen Rooftop Mechanical Systems**
Buildings are encouraged to screen rooftop and mechanical systems with the building's architecture.

**Guideline 02: Screening Material**
Screening should be durable and designed as an integral component to the building façade design.

**Guideline 03: Integrate Exposed Mechanical Systems**
Where mechanical systems, such as ducting and pipes are required to be located on the building exterior, their appearance should be complementary to and integrated with the building's architecture.

**Guideline 04: Sustainable Rooftop Materials**
Selection of rooftop materials are required to meet the minimum sustainable design guidelines for reduction of heat islands, water flow control and other criteria. Planted roofs are encouraged for both their environmental and aesthetic value.

Figure 46: FAI research and development center - Krems, Austria

### *3.7 Architectural Lighting and Light Pollution Management*

**Guideline 01: Accent Lighting**
Buildings are encouraged to incorporate exterior accent lighting with external luminaries that are compatible with the building design.

Figure 47: Birchwood Park Business Park, Warrington UK

**Guideline 02: Accentuated Building Entrances**
Building entrances should be accentuated through exterior lighting to provide a safe and attractive pedestrian environment and create a distinctive image from the streetscape. Flashing or neon lighting will not be permitted.

Figure 48: Office Building Maastricht Airport, Netherlands

**Guideline 03: Architectural Integration**
Where luminaries are attached to building façades, their method of fastening and appearance should be compatible with the building design.

**Guideline 04: Avoid Light Spillover**
Accent illumination, whether attached to the building or projected, must be designed to prevent uplight and glare and avoid light spillover onto adjacent properties.

Figure 49: Derco Centre, Chile

### *3.8 Signage*

**Guideline 01 : Sign By-Law**
Signage shall be implemented following the City of Hamilton's Sign By-Law. Where a provision of this Guidelines conflicts with a provision of the City's Sign by-law the provision in the Sign By-Law shall prevail.

**Guideline 02: Energy Efficient Signage**
Signage for sites and buildings is encouraged to incorporate energy-reduction technology such as block letters that do not require daytime illumination and the use of photocells and timers.

**Guideline 03: Clear and Legible Signage**
Well-designed and legible signage that is compatible with the building and site furniture is encouraged.

**Guideline 04: Integrated Signage**
Signage for multiple occupant buildings is encouraged to be an integral component of the building façade.

**Guideline 05: Free Standing Signage**
Well-designed monument or free-standing signage, where deemed to be appropriate, is encouraged.

**Guideline 06: Typface and Colour**
Signage with clear, well-sized typefaces, distinctive colour, and proper lighting to ensure easy way-finding for visitors and staff, is encouraged.

**Guideline 07: Visibility**
Signage identifying each building clearly visible from a distance is encouraged.

Figure 50: Maag Recycling - Winterthur - Switzerland

Figure 51: Biotechnology Campus - Thousand Oaks, CA

Figure 52: Commercial Building, Westland Netherlands

**Guideline 08: Materials**
Signage designed and fabricated to be durable and with appropriate specifications for exterior and interior use, for example resist colour fade, de-lamination as a result of proximity to heat or UV light sources, is encouraged.

**Guideline 09: Architectural Style**
All signs pertaining to the same building or development shall be of the same style or of complimentary styles.

**Guideline 10: Rooftop Signage**
Rooftop signs are not permitted; however, signage mounted on building façades is. Maximum signage area is recommended at 15% of the building façade.

**Guideline 11: Service Entrance Signage**
Service entrances are encouraged to be identified with signs to discourage the use of main entrances for deliveries.

Figure 53: Milton Park - Abingdon UK

# 4.0 Open Space Guidelines

## *4.1 Landscape Requirements at Road Frontages, Gateways and Transit Hubs*

**Guideline 01: Landscape Requirements at Road Frontages**
High standards for high quality, continuous landscaping at road frontages throughout the main road network are encouraged. Refer to Section 2.1 - Guidelines 04 & 05; and Section 2.2 – Guidelines 07 & 08. In addition, refer to the AEGD Transportation Master Plan for information on the proposed cross sections (Figures 57 to 60 below). The stormwater facilities shown in the roadway cross-sections are for conceptual reference only. Refer to the AEGD Stormwater Mater Plan for the recommendations.

**Guideline 02: Landscaped Boulevard**
Municipal roadways shall include a landscaped strip of 3.0m. wide on each side.

**Guideline 03: Gateway Location**
Gateways should be provided at entrances and exits to and throughout the development, with a clear hierarchy distinguishing major gateways from minor gateways.

**Guideline 04: Gateway Themes**
Gateways throughout the industrial park should have common themes or design elements.

**Guideline 05: Gateway Elements**
Design elements for gateways may include but are not limited to: signage, native planting (drought/salt tolerant), and other decorative elements (sculpture, fountains, decorative walls etc.) that are reflective of the character of the City of Hamilton. Elements will vary depending on the classification of

Figure 54: Meadowvale Business Park, Mississauga

Figure 55: Gateway – Groves Business Park, Michigan

Figure 56: Entrance Gateway, Burlington

the gateway.

NOTE: ROW conveyance portion may include such LID features as grass swales, dry-swales or bio-swales, subsurface Exfiltration pipes or combinations thereof. Additional storage can be included through subsurface gravel or pre-manufactured storage areas, infiltration through amended or engineered soils or other such techniques as outlined in the SWMP.

Figure 57: Proposed Conceptual 4-Lane Collector Roadway

NOTE: ROW conveyance portion may include such LID features as grass swales, dry-swales or bio-swales, subsurface Exfiltration pipes or combinations thereof. Additional storage can be included through subsurface gravel or pre-manufactured storage areas, infiltration through amended or engineered soils or other such techniques as outlined in the SWMP.

Figure 58: Proposed Conceptual 2-Lane Collector Roadway

Figure 59: Proposed Conceptual 6-Lane Arterial Roadway