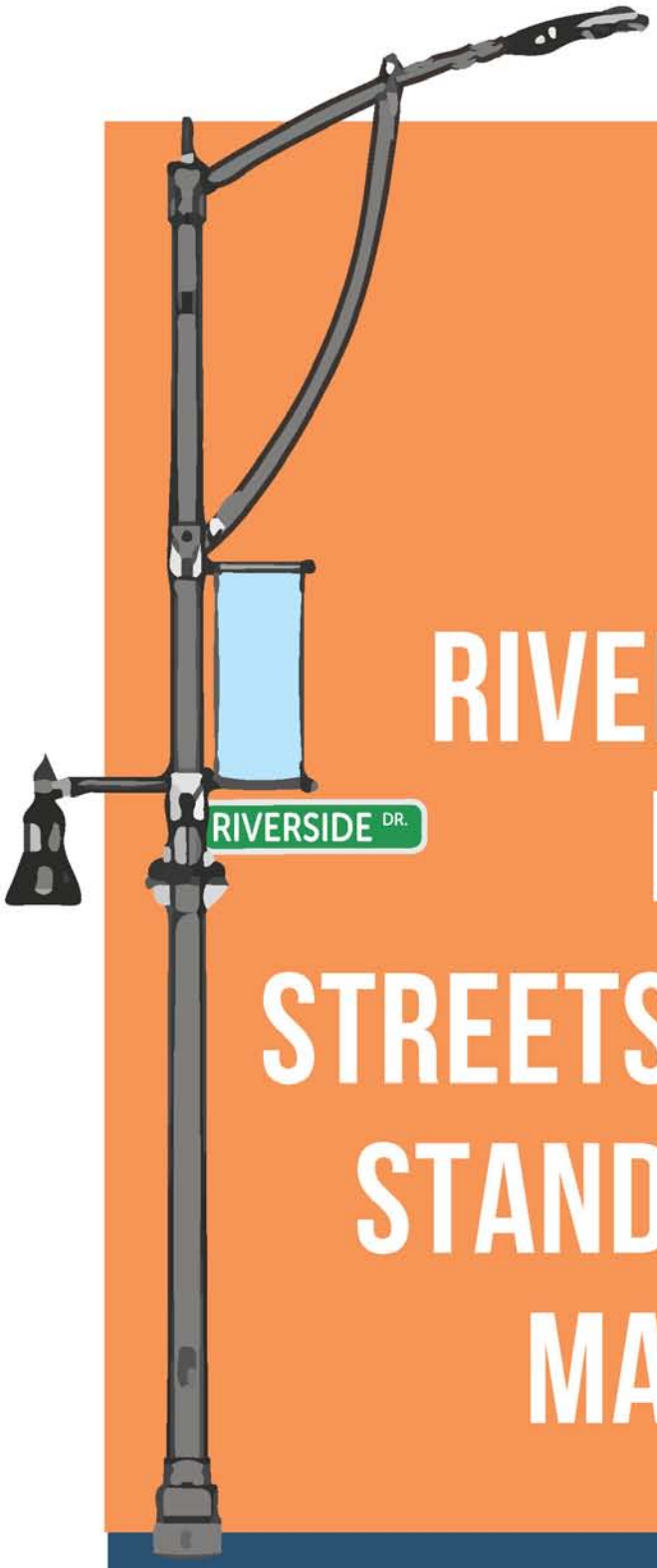
Appendix ‘A’



RIVERSIDE DRIVE STREETSCAPE STANDARDS MANUAL

THE CITY OF WINDSOR

City of Windsor
RIVERSIDE DRIVE VISTA IMPROVEMENT PROJECT
Class Environmental Assessment

Table of Contents

1.0 Purpose of Riverside Drive Streetscape Improvements

1.0 Purpose of Riverside Drive Streetscape Improvements

Historically known as the St. Clair Trail by early settlers to this region, Riverside Drive spans east to west and connects with the Town of Tecumseh and LaSalle. Within the City it links with Windsor's City Centre and former Border City towns such as Sandwich, Walkerville, and Riverside. There are also several important parks including Windsor's Central Riverfront and several residential properties along Riverside Drive where north to south running streets intersect linking neighbourhoods to the south.

Windsor City Council recognized Riverside Drive's importance by designating Riverside Drive a Scenic Drive and Civic Way in Windsor's Official Plan. Special polices aimed at enhancing the public right-of-way and creating a highly attractive and distinctive image by using unifying elements such as landscaping, fixtures, boulevard and median treatment, and protecting and enhancing views and vistas, public spaces and heritage resources along Riverside Drive are also identified in the Official Plan.

In December 2006 Windsor City Council approved the Riverside Drive Vista Improvement Project E.A. Through extensive public consultation the following objectives were identified:

1. Reduce Traffic Speed
2. Reduce Traffic Volume
3. Make Riverside Drive Safer for all users; and
4. Make Riverside Drive look like a Scenic Drive

What is a Scenic Drive?

Merriam-Websters dictionary identifies "scenic drive" with "scenic route" and as " a way that is not the fastest way but that has beautiful scenery". Other sources such as Collins dictionary provide adjectives such as having to do with natural and beautiful scenery or affording beautiful or pleasing views. A scenic route is often described as a road or path designed to take one past a pleasant view or nice scenery, the long way round; and a deliberately slow path (source: Wikipedia). Scenic Drives in Ontario often pass through wild life corridors with views of lakes, rivers, and streams and connect with historic towns and places. Riverside Drive is no different and provides views of the Detroit River and skyline, parks and also connects with historic neighbourhoods such as Sandwich Town, Walkerville and Riverside.

An important element of the E.A. was the development of Streetscape Guidelines, which provide a general guide to the types of streetscape elements that can be used along Riverside Drive and within the five Special Streetscape Improvement Areas (SSIA), to “Make Riverside Drive look like a Scenic Drive”. However, the document also provides guidelines for the many different nodes identified through the E.A. process aimed at reducing traffic speeds and volumes and to “Make Riverside Drive safer for all users.” Realizing that the Streetscape Guidelines only provided a guide to what the streetscape elements should look like along Riverside Drive, in 2009 Windsor City Council passed the following resolution (CR364/2009):

“.....That Administration BE DIRECTED to report back on developing the Standards Manual required to consistently implement the Riverside Drive Vista Improvement Streetscape Guidelines”

For this purpose, the Riverside Drive Standards Manual was developed to provide a consistent approach to the selection of materials and streetscape elements such as decorative street lights, crosswalks, benches, trash receptacles, etc., that will be consistently applied along Riverside as each Phase of the E.A. is implemented.

1.1 Defining the Scope of Streetscape Improvements

1.1 - Defining the Scope of the Streetscape Improvements

Streetscaping improvements will include:

- Roadway crosswalks;
- Corners of intersections;
- Sidewalks and curbs- pedestrian access and driveway curb cuts;
- Pedestrian paths;
- Decorative roadway and pedestrian lighting;
- Pathway lighting;
- Landscape standards for streets trees, standards for trees in subsurface pits, trees in grates, trees in fixed planter beds;
- Landscape standards for vegetation in moveable planters and seasonal decorations and hanging baskets;
- Street furniture, such as benches, trash and recycling receptacles, bicycle parking, bollards, transit shelters, telephone booths, newspaper vending racks, mail collection and storage boxes, banner poles and decorative banners, kiosks, and screening devices;
- Signage standards for trailblazing, way finding, parking, orientation, street names, gateway markers, and heritage interpretation;
- Special streetscaping features such as monuments, sculptures, fountains, parks, plazas, and water related features;
- Fence/screening and low wall standards;
- Street Nodes and Special Streetscape Improvement Areas (SSIA);
- Building side standards;
- Parking and loading standards for on-street personal and commercial vehicles; and
- Parking and loading standards for on-street passengers and bus passengers.

Standards for these streetscape elements will help to satisfy the objectives of the E.A. and define the Streetscape Guidelines by creating an attractive and consistent approach when implementing these improvements throughout each phase in consideration of the different contexts identified along Riverside Drive.

1.2 Recommendations for Streetscape Improvements

Section 8.3 of the E.A. identifies these streetscape improvements as an integral part of the improvement program for Riverside Drive. The E.A. describes these improvements as having both a functional transportation and visual quality in helping to improve Riverside Drive as a Scenic Drive and Civic Way. The EA identifies the 38 nodes along the corridor as providing an opportunity for urban design enhancements in the form of visual treatments, streetscaping with vegetation, signage, public art, vista enhancements, and through the built form of development and redevelopment projects along the Drive. Section 7 of the Riverside Drive Vista Improvement Project Class EA includes a list of node locations along Riverside Drive. However some of the locations can change based on detailed design of Riverside Drive when considering the implementation of each phase. See Schedule B for Nodes identified along Riverside Drive. Council Resolution 364/2009 also directs Administration to report back on developing the Standards Manual required to consistently implement the Riverside Drive Vista Improvement Streetscape Guidelines.

1.3 Where Streetscape Improvements Will Occur

The streetscape improvements will occur generally within the Riverside Drive right-of-way from the City limits, bordering the Town of Tecumseh just past Lakeview Drive on the east to the intersection of Rosedale Avenue and Sandwich Street on the west. However, improvements may also take place at the entrances of parks and plaza areas as well as on private property. Along the Riverside Drive right-of-way both functional and urban design improvements will occur within each node and at the five SSIA's where a higher level of design detail and standards will be implemented. Additional information regarding the location of these improvements can be found in Section 2.0.

1.4 Need for Streetscape Improvements

The Streetscape Improvements identified in the E.A. are an integral part of the functional and visual elements required to implement the E.A. objectives. These improvements include the necessary design elements required to meet the following identified E.A. objectives:

1. Reduce Traffic Speed;
2. Reduce traffic Volume;
3. Make Riverside Drive safer for all users; and
4. Make Riverside Drive look like a Scenic Drive.

1.5 How The Streetscape Standards Manual Will Be Used

This manual establishes the minimum expectations and design performances for all development and streetscape improvement initiatives proposed within the Riverside Drive right-of-way and adjacent lands.

In some cases, due to the fact that privately owned land may be within (what appears to be) the public right-of-way or within a publicly owned park, the privately owned land within these areas will also be required to conform to the standards of this manual.

The Riverside Drive Streetscaping Standards Manual will be used by:

- The City of Windsor and their contractors;
- developers;
- designers;
- business owners;
- property owners; and
- Others involved in the rehabilitation and reconstruction of Riverside Drive as a Scenic Way as identified in The City of Windsor Official Plan.

Before any reconstruction activity can be undertaken on the public rights-of-way of Riverside Drive all work must be reviewed and approved by City of Windsor Administration to ensure consistency with the Council approved Riverside Drive Vista Improvement Project E.A., Streetscape Guidelines and this Streetscape Standards Manual. The following Departments are responsible for reviewing and recommending to Council Capital Works and plans of redevelopment regarding Riverside Drive:

- Public Works Department (Infrastructure Services);
- Transportation Planning;
- Traffic Operations ;
- Planning and Building Department (Urban Design Section and Policy Section);
- Parks Department (Parks Development, Parks and Facilities);
- Recreation and Culture (Cultural and Events);
- Transit Windsor; and
- Utility Companies

All works and redevelopment will be reviewed by City Administration through Capital Works proposals on and adjacent to Riverside Drive, such as for the direct implementation of the Riverside Drive Vista Improvement E.A. or any Parks redevelopment or master plans, and through the development review process (Zoning, Site Plan Control, plans of subdivision, plans of condominium, Committee of Adjustment, etc.).

The Manual outlines the following:

- Function and Application of Streetscaping Standards for the City Centre;
- Identification of Individual Streetscape Elements for Installation on Theme Streets;
- Standards for Individual Streetscape Elements;
    - Design Criteria – “How it Functions”
    - Placement – “Where it Goes”
- Specifications and Details for selected Streetscape Elements; and
- Installation and Maintenance for each Streetscape Element.

1.6 Criteria Used in the Selection of Streetscape Elements

The following criteria were considered when selecting and designing the various streetscaping elements to be implemented as public improvements on Theme Streets in the City Centre:

Appearance:

- What does the element look like?
- Does the design of the element have an enduring appeal?
- Does the overall character of the element reinforce the district's image?
- Is the element in scale with its surroundings?

Function and Placement:

- Will the element be located in the right place?
- Can this element do its job?
- Are trash containers large enough, easily emptied and conveniently placed?
- Are benches comfortable for sitting or will the material be too hot in the summer or too cold in the winter?
- Is the lighting adequate to give a sense of security at night without creating excessive glare or light pollution?
- Is the element compatible with the function of the facility for all intended users and modes, including drivers, pedestrians, cyclists, and transit?
- Does the element allow safety-related requirements (e.g. visibility, clear zone) to be met?

Durability and Maintenance:

- Is the element designed to last a long time?
- Will the materials of the element withstand changing seasons in this climate?
- What are the maintenance needs of the element?

Cost:

- What will the improvements cost be?
- Is the improvement worth the price?
- Is it better to select a less expensive element?
- How much will it cost to maintain the element?

Although it may be tempting to select an item or material because of its low initial cost, often this is a false economy as elements of a lesser quality are more prone to show signs of wear and tear, be vulnerable to vandalism or in need of constant repair. It is generally better to purchase a few elements of good quality rather than a large number of lesser quality elements.

Maintenance:

Given the need to maintain upgraded surface treatments, landscaping, and maintain and supply amenities (e.g. decorative light standards, benches, planters) identified in this Standards Manual there will be the need for an ongoing maintenance budget that should be identified through each phase of the Riverside Drive Vista Improvement Project.

2.0 Locations for Streetscaping on Riverside Drive

The Riverside Drive Vista Improvement Project (Class Environmental Assessment) identified Special Streetscape Implementation Areas (SSIAs) and Nodes at key intersections to prioritize important design areas and to help articulate the Riverside Corridor as a Scenic Drive. The figures below identify these SSIAs and Nodes from Rosedale Avenue on the west to the boundary of the City of Windsor on the east side.

2.1 Special Streetscape Improvement Areas (SSIA)

Riverside Dr. looking West- SSIA.1

Ouellette & Riverside - SSIA.2

Walker & Riverside - SSIA.3

Riverdale & Riverside - SSIA.4

East Boundary of Riverside - SSIA.5

Within the Riverside Drive Corridor, five Special Streetscape Improvement Areas have emerged, each with its own unique characteristics based on existing conditions, building styles, land uses, and relationship to surrounding context.
By identifying areas of interest within the Riverside Drive corridor, it provides opportunities to incorporate and celebrate local character and create variety within the streetscape treatment while still creating a rhythm and distinct aesthetic that is identifiable as Riverside Drive.

The five Special Streetscape Improvement Areas (SSIA) include:

SSIA.1 West End – The Western gateway to both Riverside Drive and downtown that includes the Canada / US Ambassador Bridge with an established open space network and formal parks with views and access to the Detroit River.

SSIA.2 Downtown - An established high profile shopping and tourist area that contains the Casino and two specific areas of interest. The first, Ouellette Avenue, has a north/south visual access from the Detroit River to the Chrysler Building and second, the Civic Esplanade that has a north/south visual access from the Detroit River to City Hall.

SSIA.3 Walker Road – Also forms part of the area designated through CR 330/2022 as the Walkerville Theming and Districting Plan.

SSIA.4 Lakeview Park Marina - An established marina and residential area with existing multi-use recreational trails and views, but limited access to the Detroit River.

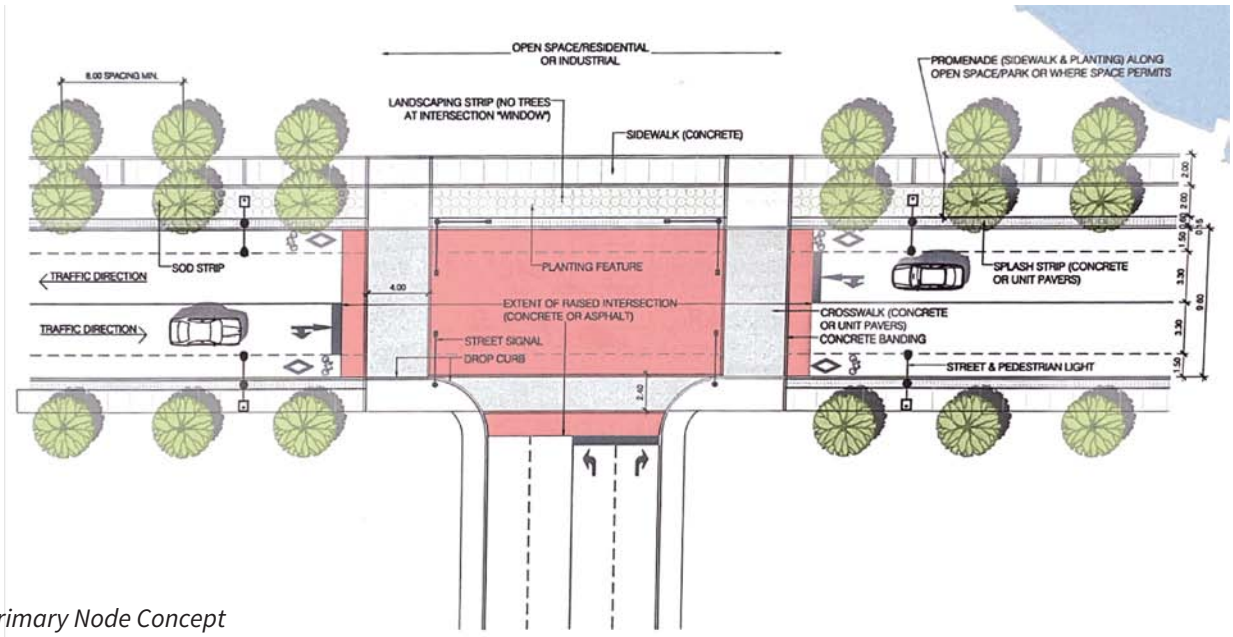
SSIA.5 East End – The Eastern gateway to Riverside Drive and established residential district adjacent to the neighbouring Town of Tecumseh.

(See Schedule B where SSIAs have been identified)

2.2 Nodes (Primary/Secondary/Tertiary)

A node is identified as a point along Riverside Drive where there is a significant opportunity for activity and some form of special design treatment. These have been categorized as being primary, secondary, or tertiary as outlined in the Riverside Drive Vista Improvement Project-Streetscape Improvement Guidelines.

N1 Primary Node: Are located at major signalized intersections or mid-block connections that have direct waterfront access and no physical or visual barriers separating Riverside Drive from the water's edge. Pedestrian crossings are defined with a combination of raised surfaces where traffic calming is required and improved material selections such as impressed colour concrete or unit pavers.

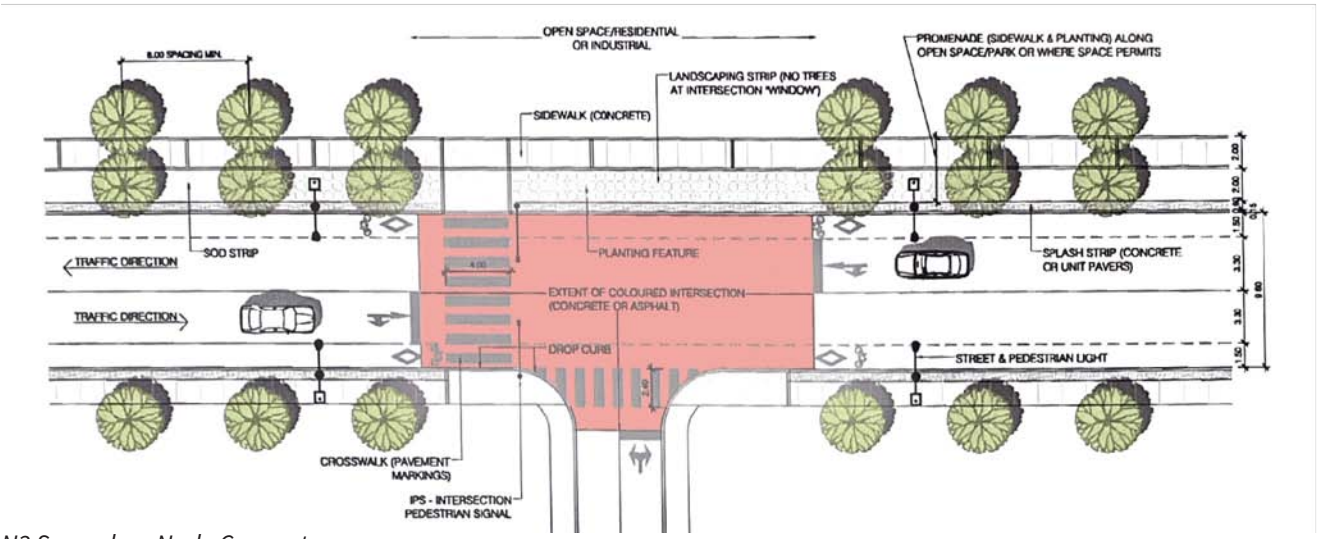


N1 Primary Node Concept

Note: Node design to comply with current OTM and AODA standards.

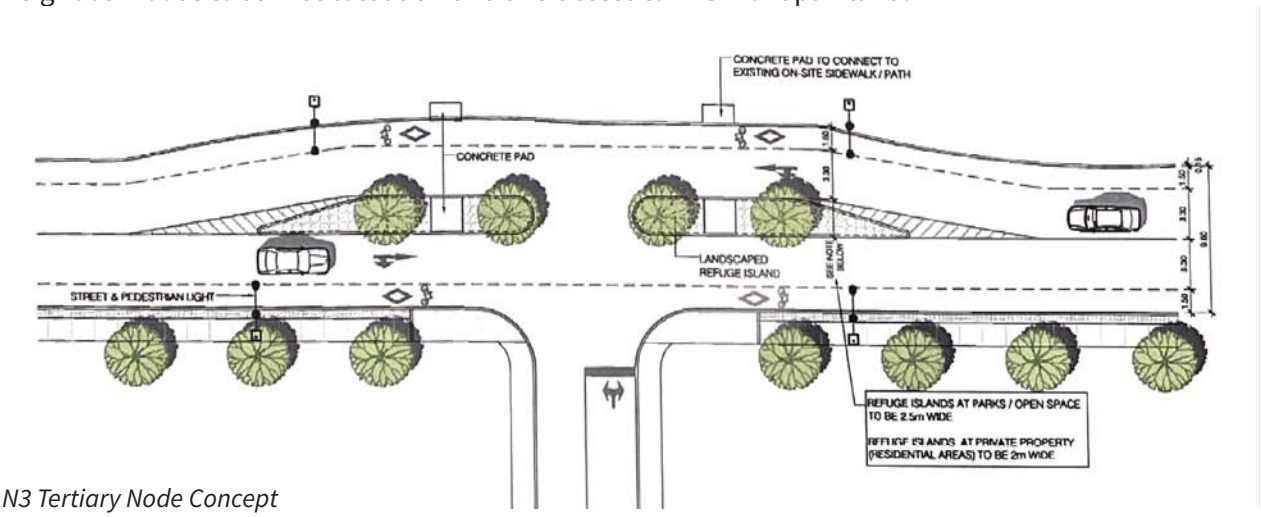
Source: Riverside Dr. Vista Improvement ESR- IBI Group

N2 Secondary Node: Provide pedestrian crossings at key locations along Riverside Drive, predominantly at locations associated with riverfront parkland or locations that mark the boundary or change from one character district to the next. These are sometimes referred to as edge conditions since there is a transition from one type of land use or character to another. The nodes are marked by a colour surface treatment and marked cross walk with an intersection pedestrian signal (IPS) that can be activated by the pedestrian. Planting along the north side of the node adjacent to the parkland are low in height to maintain the visual connection to the river.



N2 Secondary Node Concept

N3 Tertiary Node: Are designed to function as a visual and physical traffic-calming feature with a centre median refuge island and pavement markings to facilitate safer crossing and increase accessibility versus a typical stop control. Tertiary nodes are primarily located adjacent to residential neighbourhoods to service local demand and access to riverfront parkland.



N3 Tertiary Node Concept

Note: Node design to comply with current OTM and AODA standards.

3.0 Streetscaping Implementation Priorities

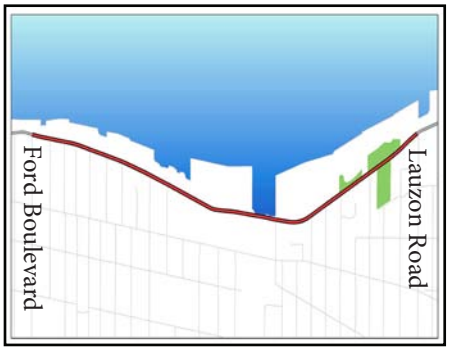
3.1 Implementation Priorities for Locations on Riverside Drive

Generally Streetscaping improvements will coincide with the approved Improvement Program Staging identified in Section 7.0 of the Riverside Drive Vista Improvement Project E.A. and the Streetscape Guidelines. The E.A. identifies the following stages:

Stage 1: Riverdale Avenue to Lauzon Road

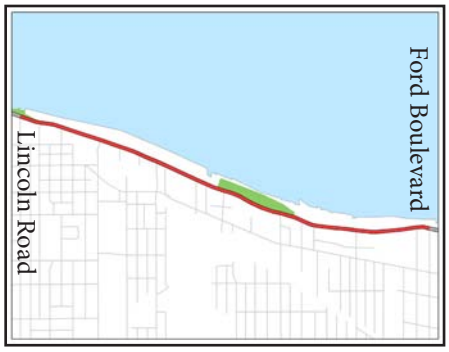
Streetscape improvements will coincide with improving poor roadway surface conditions, reducing high collision incidents, and making the roadway safer for pedestrians. Pedestrian safety will be improved with pedestrian crossings and the enhancement of nodes via the implementation of the Lakeview Park Marina SSIA. New bike lanes will make the roadway safer for cyclists and will also link with the existing Ganachio Trail, extending the bikeway to Lauzon Road.

Stage 2: Lauzon Road to Coventry Gardens at Ford Boulevard

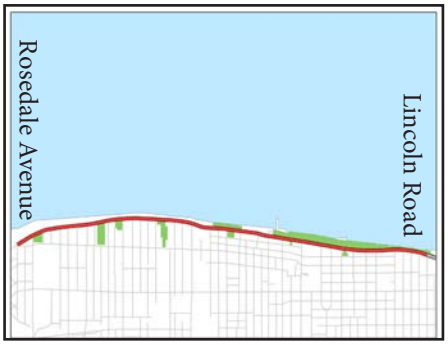


Streetscape improvements will coincide with improving roadway surface conditions, improve pedestrian crossing safety through the development of nodes and crosswalks, and the introduction of north side sidewalks and extend the Riverside bikeway further west to the attractions along the riverfront.

Stage 3: Ford Boulevard to Lincoln Road



Streetscape improvements will coincide with improving roadway surface conditions and intersection improvements to encourage traffic diversion off of Riverside Drive to Wyandotte Street. Pedestrian safety will be improved through the development of nodes and the Walker Road SSIA. Cyclist safety will be improved by extending bicycle lanes to link with the Central Riverfront parkland recreationway.

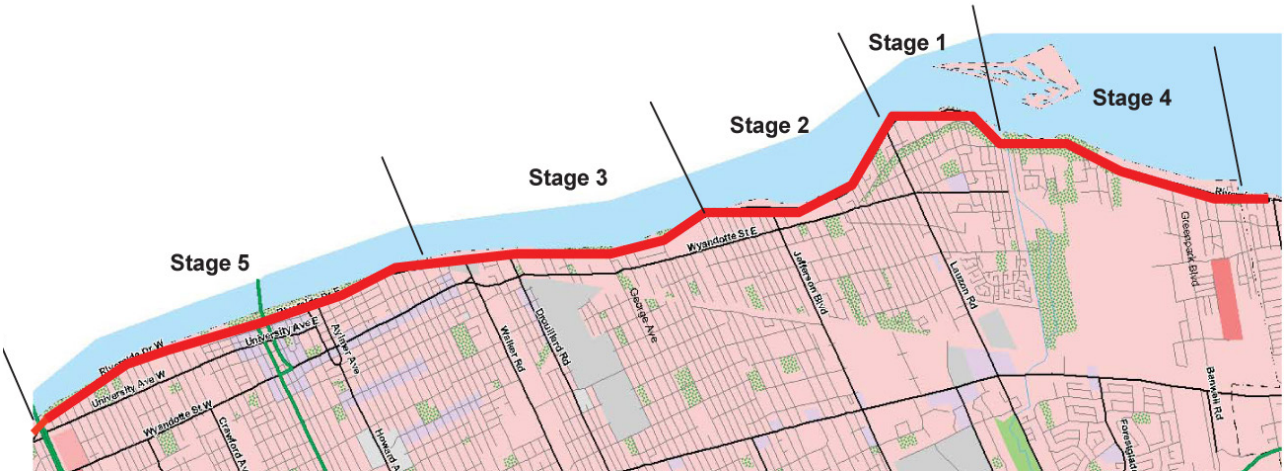


Stage 4: Riverdale Avenue to the eastern City limit

Streetscape improvements will coincide with improving roadway surface conditions and intersection improvements through the development of nodes which will also promote pedestrian safety. Cyclist safety will be improved with the introduction of bike lanes.

Stage 5: Lincoln Road to Rosedale Avenue

Streetscape improvements will coincide with improving roadway surface conditions and intersection improvements through the development of nodes and a new pedestrian promenade adjacent the north side of Riverside Drive along the Central Riverfront Parkland which will also promote pedestrian safety. Pedestrian safety will also be improved with the introduction of three SSIAs spanning along the roadway. Cyclist safety will be enhanced with the establishment of bike lanes leading into Sandwich Town.



3.2 Implementation Priorities for Individual Streetscape Elements

The following primary elements will be prioritized within each stage of implementation as identified in Section 3.1 of the Riverside Drive Streetscape Standards Manual.

1. PRIMARY ELEMENTS – Streetscape Infrastructure

a) Hardscaping

- All Pavement Elements for raised Nodes, crosswalks, sidewalks pathways and splash strips;
- All Parking and Loading Elements;
- All conduits for Roadway, Pedestrian, Bollard and Pathway Lighting; and
- Light Standards.
  - All Combined Roadway and Pedestrian Lighting
  - Supplemental Pedestrian-only Lighting
  - Special Area Lighting

b) Landscaping

- Street Trees; and
- Fixed Planter Beds.

2. SECONDARY ELEMENTS – Amenities

a) Furnishings

- Benches;
- Waste Receptacles;
- Bicycle Parking;
- Other furnishings as needed and as resources allow; and
- Elements placed by others.

b) Landscaping

- Moveable Planters.

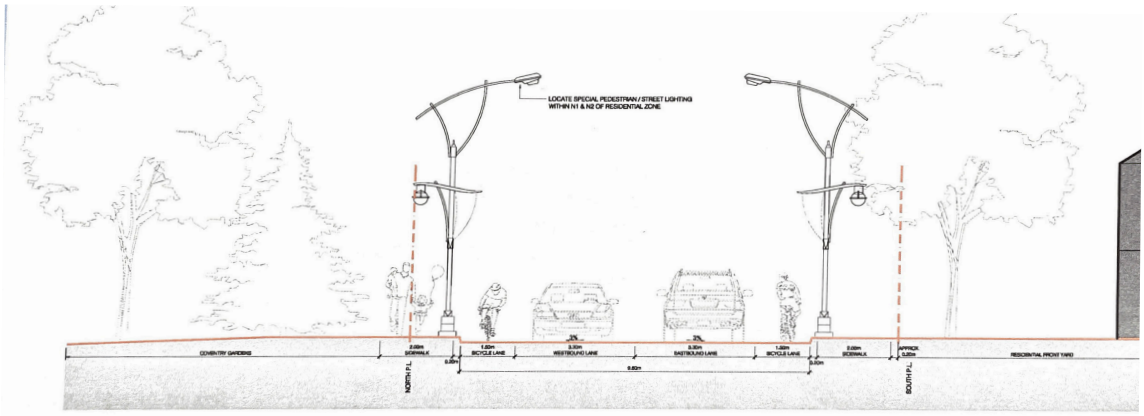
c) Orientation Signage

- Street Name Signs;
- Decorative Banners;
- Gateway Markers;
- Heritage Interpretive Signs; and
- Other Orientation Signage as needed.

Note: An ongoing maintenance budget will need to be established through each new phase of the Riverside Drive Vista Improvement Project for the ongoing maintenance of upgraded surface treatments, landscaping, and to maintain and supply the new amenities (e.g. decorative light standards benches, and planters).

4.0 Pavement Standards

Paving is a significant unifying element in streetscape design. The materials, textures, colours, and patterns that are utilized should unify Riverside Drive as a continuous and well thought out "Scenic Drive." Aside from helping to create a unified appearance, the paving elements can also help reinforce: Public Safety, Accessibility Standards, Sustainable Design Practices and Planning Objectives.



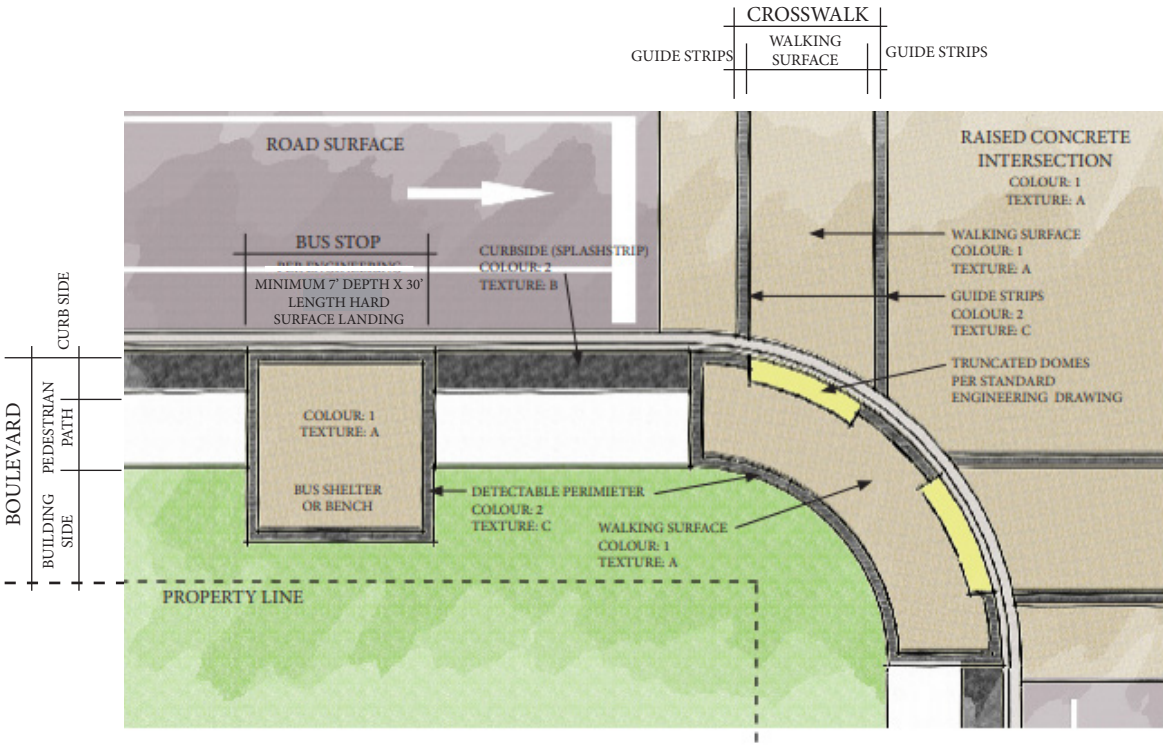
The objectives that are to be achieved include:

- Paving patterns, colours and textures should create a "rhythm and distinct aesthetic that are identifiable as Riverside Drive";
- In the "Special Streetscape Improvement Areas" continue this "rhythm and distinct aesthetic" while "incorporating and celebrating local characteristics";
- Establish consistency in pavement materials and treatments so an obvious and unobstructed pedestrian route is clearly distinguished;
- Establish paving patterns that provide the organizational framework for the placement of fixtures, furnishings, decorations and vegetation within the streetscape design;
- Establish and clearly differentiate between the three zones that form the "Boulevard". Consisting of the: Curb Side, Pedestrian Path and the Building Side; and
- All work will meet Accessibility for Ontarians with Disabilities Act (AODA) Standards.

References
Riverside Drive Vista Improvement Project – Environmental Study Report
Riverside Drive Vista Improvement Project – Streetscape Guidelines
"FADS" – Facility Accessible Design Standards - City of Windsor
City of Windsor – Development Manual

These standards are to be applied in conjunction with the Riverside Drive Vista Improvement Project – Streetscape Guidelines Section 4.1.1 – Surface Materials.

Pavement Design Framework - N1 Node (Figure 4.0-A)



LEGEND

Colour 1: "Adobe" (61078)
Colour 2: "Dark Grey" (860)

Texture A: Broom Finish
Texture B: "Riverstone" Seamless
Texture C: "Cobblestone Running Bond"

Note:
The concrete colours that have been selected are from "Davis Colors" Inc. (1.800.356.4848, www.daviscolors.com) Davis Colors was only selected as a guide. Colours from other manufacturers may be used and are subject to approval.

The stamping patterns have been selected from "Scofield Inc." (1.800.800.9900, www.scofield.com) These patterns have been selected as a guide and similar patterns from other manufacturers may be used and are subject to approval.

N2 Nodes

- At N2 intersections painted markings delineate the crosswalk in lieu of coloured concrete walking surface and guide strips.

N3 Nodes

- At N3 intersections there is no coloured or textured concrete within the traffic lanes; and
- Traffic islands will be treated the same as the corner of the intersection

Downtown Riverside Drive SSIA - Downtown

- Refer to City Centre Design Manual (located at the planning department) for the Downtown Special Streetscape Improvement Area.

4.1 Crosswalks

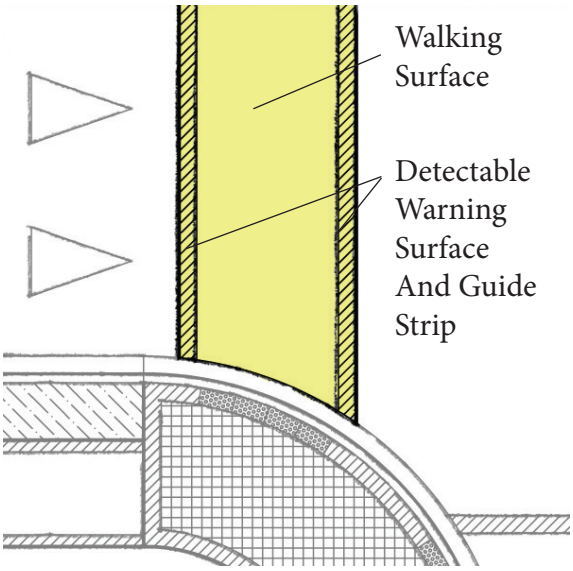
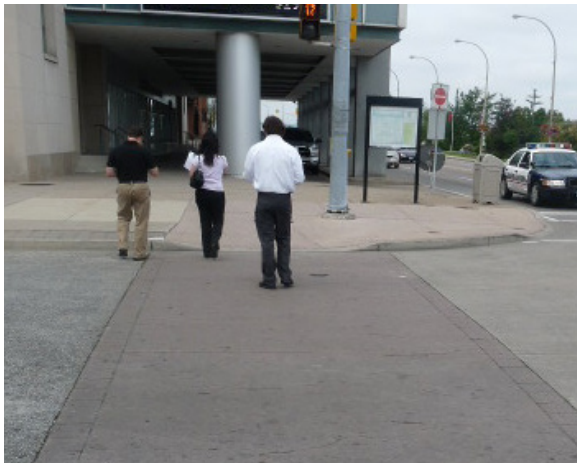


Figure 4.1-A, Crosswalk



A Crosswalk that Continues the Pedestrian Route

Placement

- The concrete crosswalk stretches across the roadway portion of the public right-of-way and is in alignment between the pedestrian access curb cuts of the corners of intersections.

Crosswalks are considered a continuation of the pedestrian route. A crosswalk provides for the safe movement and integration of pedestrians within the traveled right-of-way.

Design Criteria

- The crosswalk pavement must contrast with the adjacent surface to indicate where the pedestrians can cross safely;
- The material shall be concrete or asphalt depending on the type of "Node" the intersection is classified as. Refer to Section 2.0 "Locations for Streetscaping on Riverside Drive" ;
- The "N1 Node" crosswalk is made up of two distinct parts;

  (See Figure 4.1-A, Crosswalk)
  - Part 1 – The "Walking Surface"
  - Part 2 – The "Detectable Warning Surface and Guide Strip"
  - The "Walking Surface" of the crosswalk will be a slip-resistant surface with a broom finish and not constructed with large paving joints, corrugated textures, or loose gravel.
  - The "Detectable Warning Surface and Guide Strip" within the crosswalk will reinforce the separation of vehicle and pedestrian paths of travel through the use of coloured and textured concrete.
- Coloured and textured concrete will act as visual and tactile cues for motorist and pedestrians;
- The "N2 Node" crosswalk consists of painted markings that delineate the crosswalk in lieu of the coloured concrete "Walking Surface" and "Guide Strips"; and
- The "N3 Node" does not have delineated crosswalks.
- All work will meet Accessibility for Ontarians with Disabilities Act (AODA) Standards.

4.2 Corners of Intersections

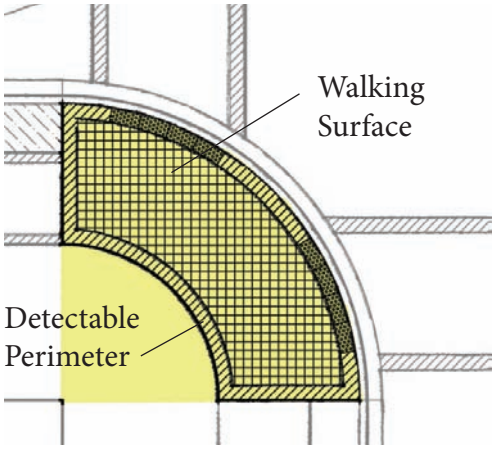


Figure 4.2-A, Corners of Intersections

Intersection Corner

The corners of intersections are an integral part of the pedestrian route. They should reinforce a unified appearance along Riverside Drive. In the "Special Streetscape Improvement Areas" the corners of intersections should continue this "rhythm and distinct aesthetic" while "incorporating and celebrating local characteristics." The corners of intersections define the area of transition for the pedestrian between the sidewalk and the crosswalk.

Design Criteria

- The corners of intersections will be defined by two distinct Parts:
  - Part 1 – The "Walking Surface"
  - Part 2 – The "Detectable Perimeter"
- The "Walking Surface" at the corners of intersections will not be constructed with large paving joints, corrugated textures, or loose gravel;
- The "Walking Surface" shall be coloured concrete (or Unit Pavers at N1 nodes);
- The "Detectable Perimeter" will be coloured concrete with a stamped pattern. This will act as a visual and tactile cue to inform pedestrians;
- The width, colour and texture of the "Detectable Perimeter" will be consistent within a "Special Streetscape Implementation Area"; and
- The corners of intersections may contain a blend of grade transitions; the "Walking Surface" and the "Detectable Perimeter" will slope together as to not create a tripping hazard.
- All work will meet Accessibility for Ontarians with Disabilities Act (AODA) Standards.

Placement

- The shape of corners of intersections represent a ¼ circle with the radius in alignment with a line projecting out from the property line between public and private properties, with the arc of the circle following the curb between the two streets. The width of the "radius" should be consistent with the width of the pedestrian path and the curb side areas combined.

4.3 Curb Side

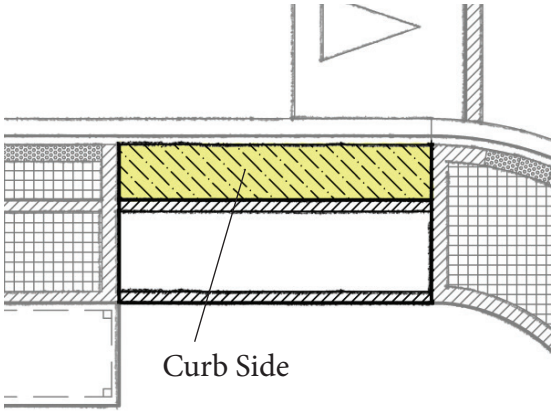


Figure 4.3-A, Curb Side

Curb Side Splash Strip

The curb side zone is the area of pavement or vegetation located directly along the back of the curb and serves as a location for the installation of lighting fixtures, utilities, furnishings, parking meters, trash receptacles and street trees.

Design Criteria

- The curb side width in residential areas should be a minimum of 1.0m from the back of curb to the pedestrian path. per (City of Windsor – Development Manual - Section 7.1.1);
- Some areas along Riverside Drive have a limited R.O.W width. Where space is limited, the width of the curbside zone may be reduced;
- The curb side width in commercial areas should be a minimum of 1.5m from the back of curb to the pedestrian path. per (City of Windsor – Development Manual - Section 7.1.1); and
- The curb side zone may consist of vegetation, textured and coloured concrete, or unit pavers depending where it is located along Riverside Drive.
- The curb side will have a considerable contrast, through colour and texture compared with the adjacent pedestrian path and roadway curbing.
- If unit pavers are utilized in a SSIA, then they will compliment the concrete colour and texture.
- In non-SSIA, the curbside zone shall have a consistent design.
- Vegetation & tree plans to be consistent with Section 6.0 of this document
- All work will meet Accessibility for Ontarians with Disabilities Act (AODA) Standards.

Placement

- The curb side paving pattern is ‘paused’ where the curb is cut by mid-block pedestrian access points, at corners of intersections, driveway access cuts, and bus stop loading areas.

4.4 Pedestrian Path

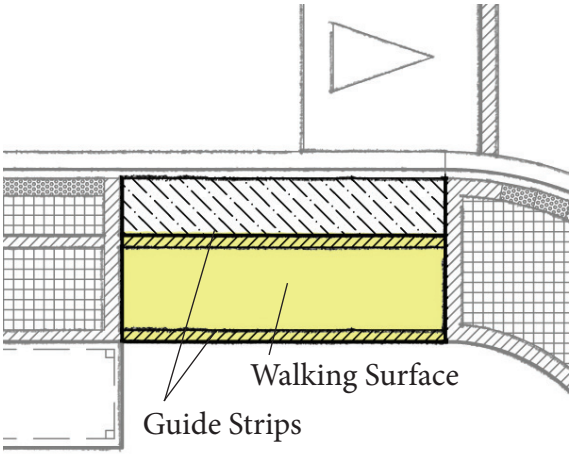


Figure 4.4-A, Pedestrian Path

Pedestrian Path

The pedestrian path zone is the pavement area located between the curb side and the building side zones and is the clear route designated for pedestrian circulation. (See Figure 4.0-A, Pavement Design Framework)

Design Criteria

- The Pedestrian Path should be designed to reflect the amount of pedestrian traffic that is expected;
    - The minimum width of the Pedestrian Path is 1.5m.
    - The preferred minimum width is 1.83m
- It is important to ensure that the Pedestrian Path is not reduced by obstacles, such as garbage receptacles, mail boxes, planters, lighting standards, grates and other street furniture;
    - This includes a minimum vertical clearance of 2.1m from the ground to any overhanging objects.
- The "Walking Surface" of the pedestrian path will be a slip-resistant concrete surfaces should have broom finish or an integral abrasive grain;
- When applicable, "Sidewalks should have linear detectable strips that define the edges of the walkway as a warning and orientation system." (FADS – 6.6.1); and
- Sidewalks will be constructed per City of Windsor Standards:
    - Residential Concrete Sidewalks AS-401
    - Commercial Concrete Sidewalks AS-403

Placement

- The pedestrian path is the pavement located between the Curb Side zone and the Building Side zone on the Boulevard.

4.5 Building Side

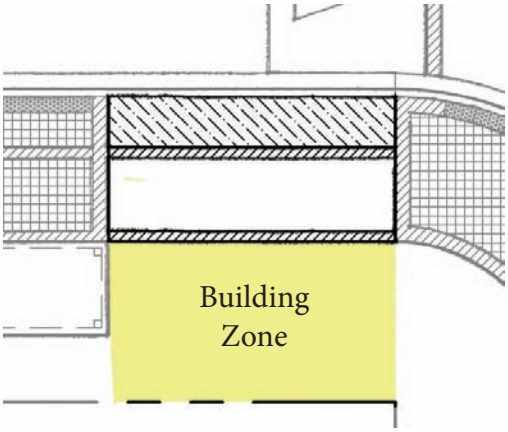


Figure 4.5-A, Building Side

Pedestrian Path and Building Zone

The Building Side zone is the area located between the Pedestrian Path and the property line. In commercial areas this is the "encroachment zone" on the boulevard for sidewalk cafes, merchandise displays, public art, public open space and sidewalk signs in order to keep the pedestrian path unobstructed.

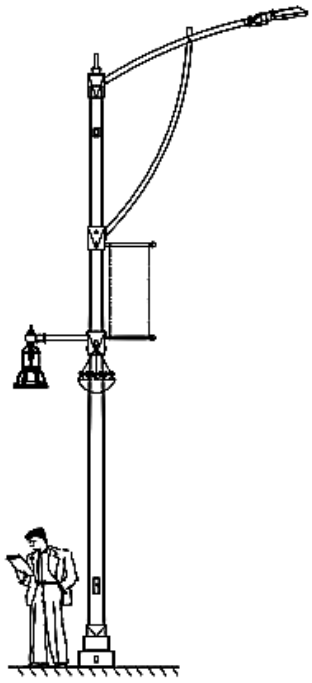
Design Criteria

- The width of the building side zone will vary as it is comprised of the remaining space of the boulevard after the curb side and pedestrian path have been established. The width may vary from no space available to several metres – dependent on the setback of the private property line;
- The Building Side zone along Riverside Drive will largely consist of landscaping and vegetation opportunities; and
- In commercial areas along Riverside Drive, where buildings are at the property line, the Building Side zone may be comprised of hard scape
- The Building Side zone is the appropriate location for individual businesses to accommodate limited outdoor uses (sidewalk cafes and merchandise displays/outdoor plazas with public art)

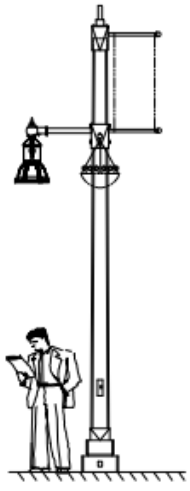
Placement

- The building side zone is the area located between the pedestrian path and the property line.

5.0 Lighting Standards



Street and Pedestrian Combined Lighting Standard



Pedestrian Lighting Standard

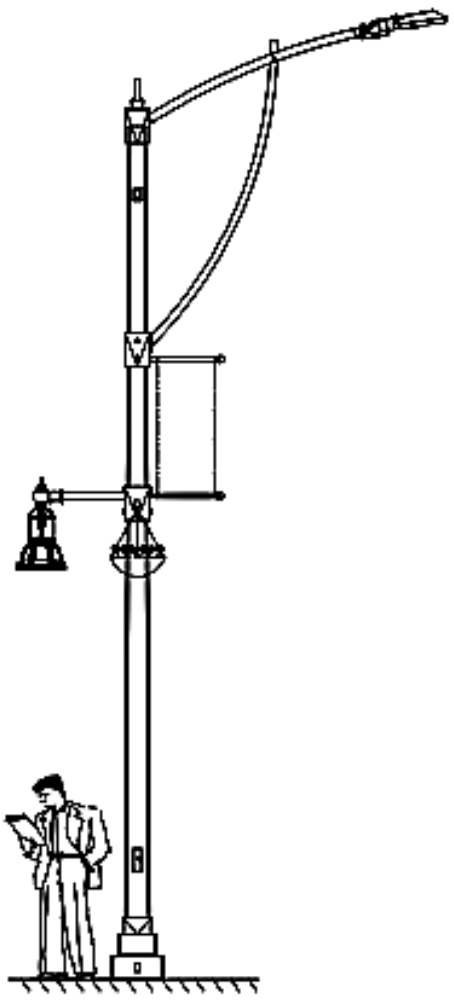
One of the purposes of the Riverside Drive Vista Improvement E.A. was to showcase the importance of the scenic drive to both the residents who live in Windsor and people who visit the area. Street lighting plays an important role in establishing Riverside Drive's significance as a Scenic Drive. It also helps to establish the character, function, quality and security of a streetscape, especially at night. The scale, style, lighting effect, existing infrastructure and contexts, cost and maintenance of lighting standards are criteria that have influenced the selection of the standard posts, armatures and luminaires.

To be consistent with the "Windsor Style" light standard which will remain the standard for the stretch of the Downtown along Riverside Drive, the City worked with King Luminaire to design the new "Windsor Vista" family of street light standards based on the "Windsor Style". Ensure all light standards are full-cut off as per CR 228/2005. The following section identifies the type of standard that will be used when considering the different contexts along the drive.

Lighting Standards

5.1 "Windsor Vista"--Street and Pedestrian Combined Lighting Standards
5.2 "Windsor Vista"--Pedestrian Lighting standards
5.3 Street Lights for Utility Poles
5.4 City Centre-"Windsor Style"

5.1 "Windsor Vista" - Street and Pedestrian Combined Lighting Standards



Street and Pedestrian Lighting Standard

The Street and Pedestrian Combined Lighting Standard provides direct and adequate illumination to the roadway for enhanced vehicular circulation and to the sidewalk for pedestrian activities. The street light standard selected for this area is the King Luminaire in black concrete with an acrylic finish (see appendix for details).
Ensure all light standards are full-cut off as per CR 228/2005.

DESIGN CRITERIA
The lighting standard is designed with:

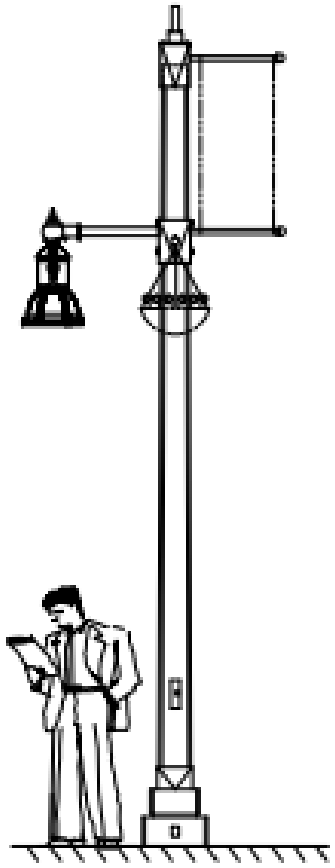
- Two luminaires:
- 'cobra-head' (high-pressure sodium-vapour) fixture suspended over the roadway.
- pendent (metal halide) fixture suspended over the boulevard.
- the luminaires and components will be an aluminum metal in a textured black finish
- Two mounting arms:
- roadway-oriented arm suspending a luminaire over the roadway and attached to the decorative concrete pole mounted approximately 7.62m (17.6') above grade.
- sidewalk-oriented arm suspending a pendent luminaire over the pedestrian path and suspending a banner over the curb side, and attached to the decorative concrete pole approximately 4.27m (14') above grade.

PLACEMENT

The street/pedestrian combined lighting standards are installed within the curb side service zone which conforms to the overall streetscape organizational system.

- The spacing of street/pedestrian combined lighting standards along the streetscape is dependent on: the physical attributes of the corridor (width of overall public right-of-way from building wall to building wall, the width of the boulevard and the adjacent land uses);
- to meet the requirements as per the City of Windsor Street Lighting Design and Installation Guidelines
- The street/pedestrian combined lighting standards are typically spaced at 15m (49') apart.
- Ensure all light standards are full-cut off as per CR 228/2005.

5.2 "Windsor Vista" - Pedestrian Lighting Standards



Pedestrian Lighting Standard

The Pedestrian Lighting Standards provides direct illumination to enhance sidewalk and walkway areas for pedestrian activities.

DESIGN CRITERIA

The lighting standard is designed with one mounting arm containing a decorative pendant luminaire (LED) suspended over the sidewalk and attached to a decorative concrete pole approximately 4.27m (14') above grade. The lighting standard will be full cut-off to comply with CR 228/2005.

The pedestrian light standard selected for this area will be black concrete with an acrylic finish.

The luminaire and components, banner arms, capping and base are aluminum with a textured black finish.

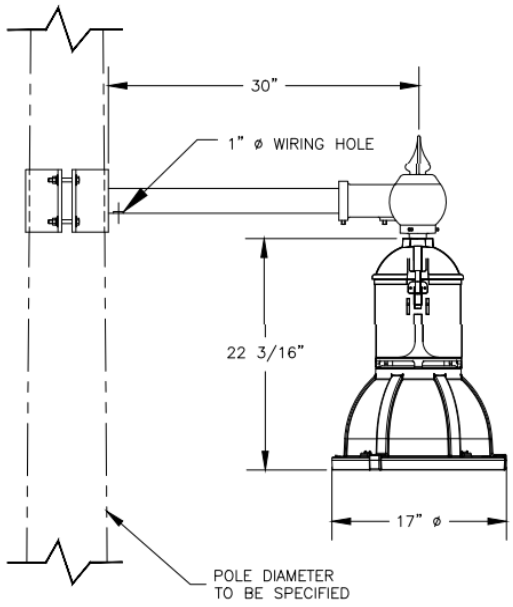
PLACEMENT

The pedestrian lighting standards are installed within the curb side service zone which conforms to the overall streetscape organizational system as the location for fixed and moveable fixtures.

The placement and spacing of pedestrian lighting standards along the streetscape is dependent on:

- Increasing or supplementing illumination levels greater than the illumination output from the street/pedestrian combined lighting standard;
- providing greater illuminations levels in areas of intense pedestrian traffic;
- providing illumination in areas where the combined lighting standard is not deemed to be appropriate;
- providing a greater sense of security at night through enhanced illumination; and
- enhancing the unique pedestrian-oriented character of the downtown.

5.3 Street Lights for Utility Poles



Pedestrian Light

There are several utility lines than span along Riverside Drive that provide hydro, telephone, cable, and other important services. These lines are supplied through a standard concrete utility pole that often includes a cobra light arm and has the dual function of acting as a street light. The preferred solution is to bury these services to reduce their negative visual impact and improve safety and maintenance associated with servicing these lines. However, often, because of cost, they cannot be buried. Where these hydro lines still exist, the existing cobra arm will be replaced, in textured black. The elliptical arm is available in 4', 6' or 8' lengths. See Schedule A specifications for details.

If utility poles cannot be buried and they are being replaced, the "black" composite poles supplied through ENWIN should be used.

5.4 City Centre - “Windsor Style”

Street and Pedestrian Lighting Standard

Pedestrian Lighting Standard

Riverside Drive spans through a number of different contexts including Downtown Windsor. In 2005 Windsor City Council adopted the City Centre Planning District City Centre Streetscape Standards Manual (CR48/2005). However by 1996, prior to City Centre Planning District City Centre Streetscape Standards Manual adoption the exiting “shoe box” light standards were being decommissioned in favour of a new “Windsor Style” light standard specially designed for Windsor’s Downtown through King Luminaire.

The “Windsor Style” light standard will remain the standard for the stretch of the Downtown along Riverside Drive between Salter Avenue on the West (As if Salter Avenue continued north to intersect with Riverside Drive) and Marentette Avenue on the East. The “Windsor Style” includes a combined street and pedestrian light standard and a pole designed just for pedestrian lighting . Refer to the City Centre Planning District: City Centre Streetscape Standards Manual for specifications. Ensure all light standards are full-cut off as per CR 228/2005.

5.5 Traffic Signal Lights

For the purpose of being consistent with other streetscape elements such as the new street lights selected for Riverside Drive (see Section 5.1) all traffic signal light poles, traffic signal light arms and standard elliptical arms and cobra heads will be textured black.

5.5 Signal Light Boxes

All traffic signal boxes and utility boxes should be wrapped with print designs that further illustrate the cities history and brings some colour and art to Riverside Drive.

6.0 Landscape Standards

Plantings will consist of boulevard trees in either subsurface pits or in elevated planters, as well as moveable planters and hanging baskets for seasonal display, planted with a colourful range of plant materials. Permanent plantings along Riverside Drive to give priority to indigenous plant material where appropriate natural settings are desired. Plant material should also be chosen for its ability to withstand urban conditions and the climate of Windsor, for its visual interest throughout the year, and for ease of maintenance.

A continuous tree canopy of diverse, drought resistant and climate appropriate trees is integral to the redevelopment along the Riverside Drive Scenic Vista, and is fundamental to the image of a quality liveable city. While trees provide positive modification to our climate, help to diminish water and air pollution, calm traffic and to some extent mitigate sound, it is fundamental that the tree canopy should be high-branching in order maintain vistas from the street level to the Detroit Skyline while fundamentally establishing a friendlier and healthier environment desirable for a pedestrian streetscape.

The following standards are to be read in conjunction with section 4.1.4 Street Trees and Horticultural Plantings of the Class Environmental Assessment for Riverside Drive Vista Improvement Project of the City of Windsor.

DESIGN CRITERIA

- Existing mature trees and woodlots should be preserved and made features of the community/neighbourhood;
- Street trees should be planted throughout the roadway, especially along both edges of the Riverside Drive Scenic Vista to encourage pedestrian activity;
- Tree pits (where required) should be constructed using a connected trench method to provide optimal growing conditions, ensuring regulation of moisture levels, and maximum room for root growth;
- Only non-invasive and preferably native species that are tolerant of urban conditions, salt, poor soil, vehicle pollutants and uneven irrigation, with high branching characteristics should be planted (See recommended Tree Species List);
- Riparian area along the Detroit River is to be planted with native species only;
- It is highly encouraged that “no mow” areas are installed with native plants and grasses within the Riparian areas along the rivers edge.
- To ensure that trees do not suffer from soil compaction that restricts water and air around their roots, the bases of trees should be planted with groundcover or shrubs and mulch. Metal tree grates should only be used in intensely used areas such as pedestrian plazas and combined vehicle/pedestrian accesses;
- Consider the proximity to hydro lines and the height of tree growth when selecting trees in open areas. Refer to recommended street tree list for small trees or height restrictions under Section 6.3.

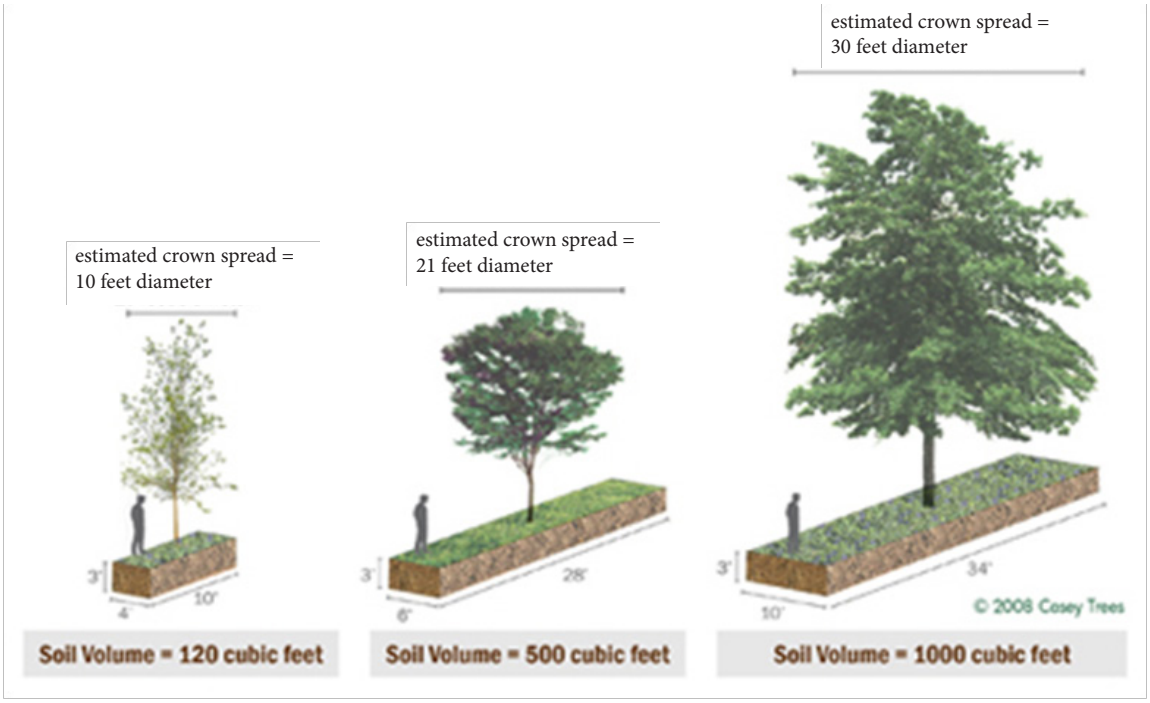
- Where medians are proposed, raised planted areas with trees are encouraged, but with a simplified planting pattern that eliminates the need for constant maintenance; and
- It is desirable to use local native species to provide the most benefit to local wildlife, and climate change adaptation, and reduce the spread by local wildlife of aggressive species, which may cause harm to natural heritage.

6.1 Soil Volumes for Trees

Planting trees with proper soil volumes is imperative to the longevity of the planting. Using correct soil volumes ensures that a tree is more than an amenity but a vibrant component in the urban environment to assist in; air filtration, storm water run-off, heat island effect reduction, and cooling.

DESIGN CRITERIA

- Recommendations ranges for soil volume are:
  - 11.3 cm (400 cu.ft.) min. for a tree with a crown of 6m (20ft) wide; to
  - 28cm (1000 cu.ft.) for a tree with a crown spread of 9m (30 ft) wide.



6.2 Trees in Subsurface Pits

Subsurface pits are only to be used where there is a need or desire for trees when there is no place but to incorporate tree planting with paved areas. Often these areas may experience high pedestrian volumes which require modest landscape engineering.

DESIGN CRITERIA

- The installation method consists of a large subsurface pit for the establishment of good roots systems;
- A support, consisting of either a prefabricated metal grate (i.e. DURA-Plate) or a Modular Suspended Pavement System (i.e. Strata Cell or Silva Cell) designed for planting trees in suspended pavement with a minimum 90% soil capacity;
- Size of trees in subsurface pits to be a minimum of 70mm (3in) caliper ABH to provide immediate impact and more resistance to vandalism; and
- Surfaces over the planting pit may consist of solid or permeable paving that allows water to penetrate in to the roots.

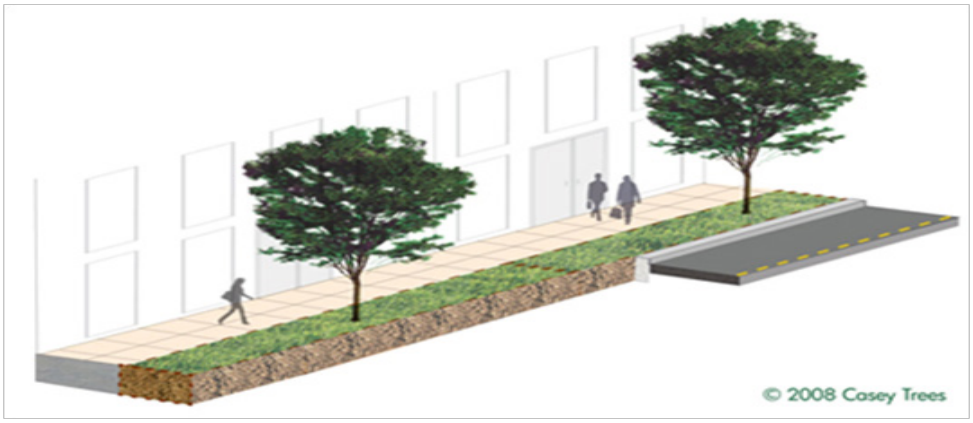
PLACEMENT

- Trees planted in subsurface pits to be between 8 m to 12 m (26 to 40ft) apart, depending on the species to achieve proper root volumes;
- Where placement of trees are closer than what an appropriate root volume would dictate for a particular tree species, then continuous interconnection of subsurface pits, such as vaults, will be utilized;

- Where prefabricated metal grates are necessary, they should only cover the soil not immediately adjacent to tree stem; and
- Adjustable tree grates that allow for growth of the tree should be used. Gravel should be filled under the tree grate to prevent debris from accumulating between it and the finished planted grade.

6.3 Trees in Open Areas or Fixed Planters

Trees planted in open areas or provide the most ideal condition for growing when proper soil volumes are respected. Areas of open tree planting provide a park-like setting and offer greater pedestrian aesthetics.



DESIGN CRITERIA

- The installation method consists of a large subsurface pit for the establishment of good roots systems but open to allow for a vegetative porous surface treatment at grade level;
- Turf grass may be used where modest pedestrian activity may be encountered over the root zone;
- Vegetative plantings of low shrubs and herbaceous perennial plants or low profile ornamental fencing not exceeding 70mm (27in) may used to restrict pedestrian
- access over root zones;
- Walls of planter beds should be raised to a height between 40cm and 50cm (16in and 20in) so that enclosure does not create a trip hazard, while offering an opportunity for pedestrians to sit; and
- Selected plant material to be tolerant of salt sprays and snow loading.

PLACEMENT

- Predominantly to be located along residential properties and passive park settings along Riverside Drive where traffic volumes are low and speed is below 50km/hr;
- These types of planting areas are not suitable for high pedestrian areas unless there is a desire to control the pedestrian flow to areas (i.e. mid-block street crossings or unprotected grade changes);
- Raised planters may be desired where salt spray might become an issue to the health of the plantings or pedestrian control is required;Where existing trees have already been established and require maintaining the current growing conditions;
- These types of planting areas are not suitable for high pedestrian areas unless there is a desire to control the pedestrian flow to areas (i.e. mid-block street crossings or unprotected grade changes);

- Raised planters may be desired where salt spray might become an issue to the health of the plantings or pedestrian control is required; and
- Where existing trees have already been established and require maintaining the current growing conditions.
- The full list of trees and more details can be found on the City of Windsor Parks Department for the Common Tree Species Planting List: [https://www.citywindsor.ca/residents/parksandforestry/Urban-Forest/Pages/Tree-Guide.aspx}

The following are recommended street trees:

Acceptable Native Trees of Windsor/Essex	
NAME	COMMON NAME
Acer x freemanii	Autumn Blaze Maple
Acer saccharinum	Silver Maple
Acer saccharum	Sugar Maple
Acer rubrum	Red Maple
Amelanchier spp.	Serviceberry (Downy, Canadian, Smooth)
Betula nigra	River Birch
Celtis occidentalis	Hackberry
Gleditsia triacanthos	Honey locust (thorn-less varieties only)
Gymnocladus dioicus	Kentucky Coffee Tree
Liriodendron tulipifera	Tulip Tree (Liriodendron tulipifera)
Liquidambar styraciflua	Sweetgum (Liquidambar styraciflua)
Platanus occidentalis	Sycamore – Spring only
Quercus alba	White Oak – Spring only
Quercus rubra	Red Oak – Spring only
Quercus macrocarpa	Burr Oak – Spring only
Quercus bicolor	Swamp White Oak – Spring only
Quercus palustris	Pin Oak – Spring only
Tilia americana	American Basswood
Ulmus americana	American Elm (DED Resistant varieties)
Acceptable Non-Native Trees for Windsor	
Tillia cordata	Little Leaf Linden
Platanus acerifolia	London Plane Tree 1 – Spring only
Syringa reticulata	Japanese Tree Lilac
Ginkgo biloba	Ginkgo (Maidenhair) Tree (Male Plants Only)
Cercidiphyllum japonicum	Katsura Tree^ 1
Small Trees for Height Restricted Areas or Confined Spaces. (Acceptable as Small trees & Tree-form Shrubs)	
Serviceberry	Serviceberry
Japanese Lilac Tree *	Japanese Lilac Tree *
Flowering Pear	Flowering Pear
Ironwood	Ironwood
Redbud +	Redbud +
Mountain Ash +	Mountain Ash +
Mimosa Silk Tree *1	Mimosa Silk Tree *1
Blue Beech	Blue Beech
Magnolia*^ 1	Magnolia*^ 1
Columnar English Oak 1	Columnar English Oak 1

Recommended street trees continued:

SMALL CANOPY TREES (Under 7.6m (25ft) high) (Ideal for raised planters)	
NAME	COMMON NAME
Large	
Abies concolor Chamaecyparis nootkatensis Metasequoia glyptostroboides Picea gloucu Picea pcengens Tsuya canadensis	Columnar Fir False Cypress Dawn Redwood White Spruce Columnar Spruce Easton Hemlock
Small/Narrow	
Juniperus virginiana Thuja occidentalis	Easton Red Cedar Easton White Cedar

NOTES:
* Non-native
+ Both Native & non-native species/varieties are available
^ Special soil considerations required
1 Limited to small numbers and use for special projects

1. Acceptable 'varieties' or 'cultivars' of the above listed trees may be available from local nurseries. i.e. Honey Locust "Bloodgood". Availability of specific varieties may change from year to year.
2. Other suitable species or varieties may be available. Please contact City of Windsor, Forestry, to confirm acceptable selections and for possible special requirements or planting conditions.
3. In general, we wish to limit the use of exotic species in street tree plantings across Windsor and focus on locally native and North American native species with a select few naturalized or commonly used exotics. Anything with the potential to become invasive should be avoided. Anything with disease, insect pest or structural issues should be avoided or in limited use only.

6.4 Shrub, Perennials and Ornamental Grass Plantings

The preferred method is simplicity. Massed plantings with a diversity of colours will create a unified composition, appropriately scaled to the width and proposed character of the street.

DESIGN CRITERIA

- All plant material should be chosen for its ability to withstand Windsor's climate and the vehicular environment along Riverside Drive;
- Simple planting patterns should be employed for ease of maintenance and visual impact. Strong consideration for the use of blue flowering or blue foliage plant material to connect the plantings with the river side location is recommended;
- Plant material used should be chosen for its low maintenance requirements, year round durability, and seasonal colours;
- Irrigation of planting areas should be used where necessary to ensure plant health and attractiveness; and
- Irrigation of any median plantings including trees is required.

PLACEMENT

- Use masses of low-maintenance plants placed at key locations to direct pedestrian traffic, screen parking lots and provide visual interest;
- Low maintenance planters and planting areas should be used at the street edge to soften hard surfaces, i.e. parking lots. Plantings should be used to announce entrances, accent open space areas and define walkways; and
- These elements should not cause vehicular or pedestrian siteline issues.

6.5 Vegetation in Moveable Planters

Vegetation in moveable planters provides an added dimension and additional colour to the overall landscaping scheme for the streetscape. Planters should contain ornamental grasses, evergreen shrubs, seasonal plant materials, annual flowers and various groundcover plants.

DESIGN CRITERIA

- All plant material for moveable planters should be chosen for its ability to withstand indsor's climate especially during the summer months;
- Simple planting patterns should be employed for ease of maintenance and visual impact;
- Plant material used should be chosen for its low maintenance requirements, and seasonal colours including fall colour. Alternately, vegetation should be replaced in September for a seasonal effect lasting through the autumn months;
- Moveable planters are to be of a high quality, light weight materials (i.e. Metal (with polyvinyl liner), Fibreglass or Glass Fibre Reinforced Concrete) easy to be relocated when required;
- Good planter design incorporates the following:
    - The container size and design reflects the type of greenery to be planted (root growth and spread) and weighted to prevent easy movement;
    - The materials are coordinated with other elements of street furniture and/or adjacent buildings;
    - Provides adequate watering and drainage, with consideration for reducing instances of staining on the nearby paving surface from planter drains.
- Colour ranges of moveable planters material will be black, to maintain a complementary and unified character with other street furnishings along Riverside Drive, however other colour ranges may be selected for SSIA, and important nodes based on administration's approval;
- Depth of planters to be adequate enough to accommodate the root systems of plant material being supported for that growing season;
- Moveable planters should occupy a surface area of at least 0.37m2 (4 square feet); and
- Where planters are to be used as additional seating areas, they should be between 0.4m and 0.5m (16 in. and 20 in.) in height with a rim of at least 0.4m (16 in.) in width.

PLACEMENT

- Moveable planters should be restricted to areas of higher importance along Riverside Drive (i.e. Primary Nodes) where larger numbers of public may be found;
- Moveable planters can be located to direct pedestrian traffic, create focal points and provide resting areas; and
- Moveable planters must not block other streetscaping elements and pedestrian mobility. Moveable planters are restricted to the curb side zone and or building side zone – not within the pedestrian path and corners of intersections.

6.6 Seasonal/Festival Displays and Hanging Baskets

Vegetation for seasonal displays such as hanging baskets and holiday/festival decoration, can provide a sense of place as well vibrancy to the experience of travelling along the drive or by attending functions at the various nodes. Such displays should contain non-permanent plant material such as ornamental grasses, seasonal plant materials, annual flowers and cuttings (i.e twigs and fresh cut holiday evergreens).

DESIGN CRITERIA

- Simple planting patterns should be employed for ease of maintenance and visual impact;
- Plant material used should be chosen for its low maintenance requirements, and coordinated with seasonal colours themes for lights and special events;
- Vegetation in hanging baskets should last into the cooler autumn months, or alternately replaced in September for a seasonal effect lasting through the season; and
- Hanging basket design incorporates the following:
  - The container size and design reflects the character of the space in which it is being installed;
  - The materials are coordinated with the of other elements of street furniture and/or adjacent buildings;
  - Provides adequate watering and drainage, with consideration for reducing instances of staining on the nearby paving surface from planter drains;
  - Seasonal/Festival Displays should be complementary to Riverside Drive Scenic Vista and not overpower the views to the Detroit Skyline; and
  - Illumination of/within seasonal displays to add to the positive character of Riverside Drive. Use of LED lights is highly recommended (Required).

PLACEMENT

- Hanging baskets can be associated with any street lamp or specifically designated pole for such installations; and
- Seasonal display such as holiday decoration or temporary festival plantings should be associated with areas where larger public gatherings may occur during the time that they are installed. Such displays may not be appropriate along the areas of Riverside Drive where the primary use is residential.

7.0 Street Furnishing Standards

Bench

Waste Receptacle

Café Enclosure

Street furnishings such as benches, bicycle parking, and trash receptacles are important functional amenities along the streetscape that create a liveable pedestrian environment.

All furnishings placed within the boulevard should be of high quality, designed for outdoor use and require minimum maintenance. To be consistent with the street furnishings in the downtown, refer to the *City Centre Streetscape Standards Manual* (CR 48/2005) for street furnishings standards for the stretch of the downtown along Riverside Drive between Salter Avenue on the west and Marentette Avenue on the east. To be consistent with design elements within the Central Riverfront Parkland area, street furnishings will be those selected as the standard for the Central Riverfront Parkland area.

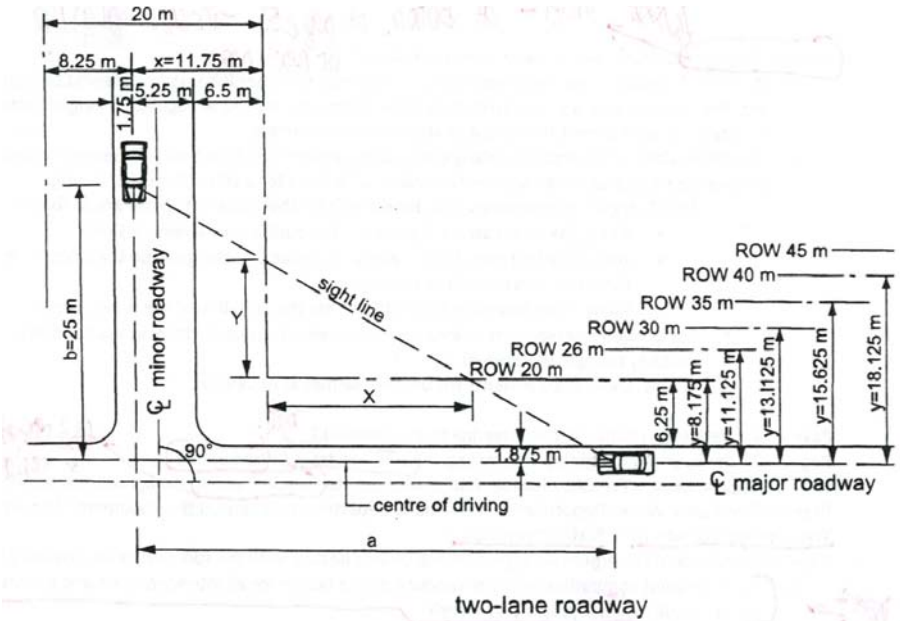
- Comfort: Furnishings are designed for ease of use and are easily accessible from the pedestrian path;
- Safety: The consistency of the placement of street furniture adjacent to the pedestrian path establishes a sense of predictability. Consider any moving parts on the furniture that can make the streetscaping element unsafe or hazardous
- Maintenance: Street furniture should be designed to be durable, easy to maintain with standardized parts and easy to remove for maintenance or replacement; and
- Crime Prevention: Street furniture should be constructed with materials and finishes that resist and discourage vandalism and do not attract excessive loitering.

Street Furnishings

Visibility Triangles

- Within the visibility triangle at intersections, all street furniture, pedestrian orientation signs, plantings, etc. that could create a view obstruction (other than official signs at regulation height) should be avoided in a zone rom 1.0 m to 2.4 m above the road surface;

- The dimensions of the visibility triangle should be determined based on TAC Geometric Design Guide requirements (see attached scan - dimension “a” is 50 m for a 60 km/h design speed:
    - For 90 degree intersections, the dimensions for the visibility triangle are as follows:
        - Along the minor street: 23 m from the curb line of Riverside Drive
        - Left along Riverside Drive (relative to an approaching car on the minor street): 45 m from the curb line of the minor street
        - Right along Riverside Drive: 48 m from the curb line of the minor street
    - For skewed intersections or locations on curves, a site-specific review is needed to determine visibility triangle requirements
    - Ideally, these requirements should be met at driveways



7.1 Benches

Regular Bench with Back
Maglin MBE-0870-00025 in Black/Onyx Colour

Backless Bench
MBE-09700008 in Black/Onyx Colour

Backless Legless Bench
MBE-0720-0005 in Black/Onyx Colour

Table Set with Chess Board
Maglin MTB-1100-00002 in Black/Onyx Colour

BENCHES provide opportunities for seating along the streetscape. The bench selected for the area of Riverside Drive outside of the Downtown and Central Riverfont Parkland is the Maglin MLB870W (bench with back) and the MLB970W (backless bench) in the Black/ Onyx Colour.

DESIGN CRITERIA "How It Functions"

- The benches selected are:
  - Designed to be durable and comfortable;
  - Complementary to the style of the surroundings and other selected street furnishings; and
  - Permanently secured to the ground (paving) for stabilized sitting and to avoid theft and/or vandalism.

PLACEMENT "Where It Goes"

- Benches will be provided along the streetscape in the curb side zone and the building side zone where space allows and that the clear pedestrian path remains unobstructed by providing a separate area for seating.

7.2 Waste and Recycle Receptacles

Maglin Waste Receptacle With Bonnet
MTR-0200-00020 , in Black/Onyx

Maglin Waste Receptacle
MRR-0200-00005 , in Black/Onyx

Side-Open Recycle Unit
Maglin- MAR-0100-00001 Black/Onyx Colour

WASTE RECEPTACLES are designed and positioned so they are unobtrusive and easily accessible for use by pedestrians and for trash collection.

The waste receptacle to be used along Riverside Drive except in the Downtown or Central Riverfront Parkland area will be the Maglin side-open waste receptacle, product number MLW200S-32 with top-shield side mounted ash receptacle. Product number MLAU101. If recycling is required use the side-open unit from Maglin, product number MLAU101. All Receptacles will be black/onyx in colour.

DESIGN CRITERIA – "How It Functions"

- Waste receptacles are designed with the following features:
  - Two separate pieces – an inner container to contain the trash and ensure easy removal and an outer shell that blends aesthetically with other streetscape elements;
  - Covered tops and sealed bottom to keep the contents dry, contained and out of sight at all times; and
  - Firmly attached to the paving surface to avoid vandalism.

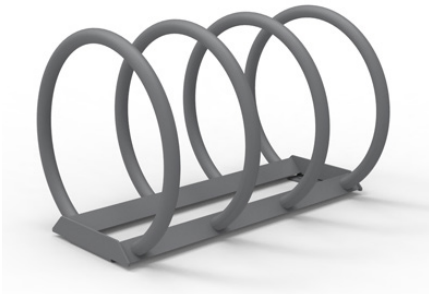
PLACEMENT – "Where It Goes"

- Waste receptacles will be positioned within the curb side zone of the boulevard where they are easily accessible for use and collection. Receptacles will be strategically arranged with other streetscape elements into functional clusters.

- Waste receptacles will be placed where trash originates or is likely to be deposited. Typical locations include bus stops, parking lots, major pedestrian street crossings, restaurants and places where people lunch outdoors.

7.3 Bicycle Parking

Single Bicycle Parking Maglin MBR-0200-00005 (double sided)



Multi Bicycle Parking Maglin MBR-0350-00001

Bicycle Parking are provided as on-street parking spaces for bicycles to encourage bicycle transportation use to and through the district. The installation of all bicycle parking must comply with the Policy for Bicycle Parking on Public Parking (CR724/2004). The standard bicycle rack to be used along Riverside Drive will be the Maglin MBR200 (double sided) with lettering that states "*City of Windsor Riverside Drive" in black/onyx colour and lock to the post*. In some locations, such as the entrances of parks, a multiple-use bicycle rack may be required. The selected model is the Maglin CMBR 91270 in black/onyx colour (see schedule A for details).

DESIGN CRITERIA – "How It Functions"

- The bicycle rack selected consists of a single post and ring design;
- Key features in the bicycle rack design include:
  - Simplicity in the style;
  - Slim design to prevent intrusions onto the pedestrian path; and
  - Ease of use in providing a temporary place to securely lock the frame and at lest one wheel of a bicycle.
- The bicycle rack can be 'personalized' for the district though raised lettering on the ring and various finish colours to complement the other streetscape elements and urban surroundings; and
- All bicycle parking will be black/onyx colour.

PLACEMENT – "Where It Goes"

- Bicycle parking will be placed in the curb side of the boulevard where they will not present a tripping hazard on the pedestrian path; and
- Bicycle parking will be distributed in small numbers widely throughout the City Centre district where parked bicycles will be visible and can be easily monitored, and in the following general locations:
  - Near public building entrances;
  - Near formal and informal gathering places;
  - Designated and protected spaces within a vehicle surface parking lot and/or adjacent to a parking garage.

7.4 Bollards

650 Bollard from Maglin (or similar) Fixed or Removable Black/Onyx

650 Bollard from Maglin (or similar)
Removable swing gate

BOLLARDS create low, semi-transparent barriers where it is desirable to separate vehicular and pedestrian traffic and to direct circulation patterns. The bollard to be used along Riverside Drive except in the downtown and Central Riverfront Parkland will be the Maglin Fixed or removeable 650 Bollard in black/onyx colour. Consideration may be given to other bollard types based on use and context.

DESIGN CRITERIA – "How It Functions"

- The bollard style selected is of the same material and finishes as the decorative pre-cast concrete lighting standards and complements the other streetscaping elements.

- Depending on the location and the desired effect, a bollard can contain a luminaire to provide low-level illumination to highlight or limit access to a special feature, such as a pathway or monument.

PLACEMENT – "Where It Goes"

- Bollards are permanently installed elements. Bollards will not be installed within the pedestrian path;

- Removable bollards will be used in locations where service and emergency vehicles require periodic access;

- Clearances between bollards, or between a bollard and any other structure or pole, must be 1.0m (39") at a minimum, but not wide enough to permit the passage of a motorized vehicle; and

- Clearances to permit pedestrians to pass between bollards or a bollard and a structure must be 1.5m (60") at a minimum.

7.5 Transit Shelters

Example of a proposed Daytech Avanti bus shelter

TRANSIT SHELTERS are provided for transit riders at major transfer points along Riverside Drive. Shelter structures may be provided at transit stops where extended waiting times are experienced or where the stop is not adequately shielded from prevailing weather conditions.

DESIGN CRITERIA "How It Functions"

- The size of the transit shelter installed should reflect the number of boarding passengers expected for that stop and the space available on the boulevard;
- Transit shelters are enclosed in a transparent material (usually glass) so transit riders can clearly see arriving busses and the sightlines of drivers are not obstructed;
- Transit shelters are oriented so that the doorways' are facing away from the roadway to prevent waiting patrons from being trapped;
- Must comply with Transit Windsor Standards;
- Transit shelters will be powder coated in black/ onyx to match other streetscape elements.

SIGNAGE

- Signage required for transit stops consists of:
  - "No Stopping" signs at "Bus Stop" clearly printed, which are visible to oncoming vehicular traffic.
  - Transit Route information displayed on or within the shelter structure detailing the bus departure times and contact information for schedules.

PLACEMENT "Where It Goes"

- Transit shelters are positioned between the sidewalk and abutting the property line;
- Transit shelters are positioned so they do not interfere with the surrounding pedestrian path; and
- Where possible, position transit shelters so access to underground utilities can be easily achieved.

7.6 EMERGENCY CALL STATIONS

Emergency Pylon

DESCRIPTION

Emergency voice communication call box or phone stations provide dedicated instant one-button, hands-free contact with a 911 operator to offer assistance in situations such as fire, accidents, criminal activity and injury or medical emergencies.

DESIGN CRITERIA

- Tower/Pylon/column styles are ideal as they are readily visible from a distance when necessary.
- Units are to be equipped with a blue emergency light as the wavelength is longer than any other colour in the visible spectrum, so as to be readily seen further even in inclement weather. The emergency light is to be able to flash/ pulse when in use to help attract and identify to emergency services the exact location of the caller.
- Single One-Button operation, or optional easy connection to a personal cellphone should the incident requiring assistance be out of arm's reach.
- Provision of video cameras for 911 operator to monitor situations when in use.
- Two-way, hands-free speaker phone to allow for user to offer emergency medical assistance to injured person under direction of the emergency professional on the other end of the call.
- Ideally, solar powered or hybrid electrical/solar powered especially in remote locations where electrical services cannot be provided.
- All housing and equipment to be weatherproof, capable of withstanding extreme weather condition experienced in Windsor including but limited to; precipitation, humidity, heat and cold.
- Ideally coloured blue and contain clear lettering indicating EMERGENCY visible from all directions and compliant with AODA standards.
- Tower to include the City of Windsor logo and an emergency call number as an alternate means of contact for users.
- Tower to be numbered or provide an address should the Blue Light malfunction so that the user can provide information to the 911 operator

PLACEMENT "Where they go"

- Primary locations in visible areas such as parking lots or plazas.
- At trail entrance or crossing points.
- Playgrounds.
- Near built structures where no telephone services are available.
- Unit to be visible from Riverside Drive to allow for emergency services to locate the flashing blue light of an active/in-use system.
- Placement to be non-intrusive of popular vistas and views of the Detroit skyline, or popular tourist views along the riverfront trails system.

7.7 Sidewalk Cafe Enclosure

Example of Sidewalk Café Enclosure

The extent of a **SIDEWALK CAFÉ ENCLOSURES** should be defined by enclosures that clearly distinguish the private use from the pedestrian path

DESIGN CRITERIA – "How It Functions"

- All sidewalk cafes must have perimeter enclosure, which should appear 'open' to give the impression that it is part of the streetscape and contributes to the overall image of the area.
- Sidewalk café enclosures must be consistent with the *Sidewalk Café Handbook (2004)*

- The width of any access opening in the enclosure shall be no less than 1.5m (5') and no greater than 2.0m (6.5')
- Enclosures are constructed a sturdy material and are easily removed during the off-season.
- Dark painted, ornamental iron or aluminum enclosures are preferred. Wood enclosures are not permitted.
- Enclosures shall not penetrate the surface of the sidewalk (footings), although bolt attachments are acceptable.

PLACEMENT "Where It Goes"

- Sidewalks are first and foremost the public's space and cafes cannot interfere with their use. Sidewalk cafes are located within the building side 'encroachment' zone of the boulevard and must not block or obstruct the free flow of pedestrian traffic.

- Additional sidewalk clearance width (greater than 2.4m or 8') may be required near intersections to allow ample space for pedestrians to congregate.

7.8 Sidewalk Signs

Example of Sidewalk Signs

SIDEWALK SIGNS are temporary signs placed directly in front of commercial premises to identify the business and advertise the goods and services available inside. Sidewalk signs are also commonly known as “A-Frame Signs” and “Sandwich Board Signs”.

DESIGN CRITERIA – “How It Functions”

- Sidewalk signs cannot be permanently anchored to the ground and must be constructed in a manner and of materials to permit easy repositioning and/or removal;
- The regulations to display sidewalk signs on private and public property are outlined in Section 7.2 and Section 8.3.3 of By-Law 250-2004; and
- Regulations for sidewalk signs on the public right-of-way include:
    - illumination, animation and rotation of the sign are not permitted;
    - 1 sign is permitted per occupancy with a maximum sign face area of 1.0m2 (10.7 square feet) and a maximum sign height of 1.2m (4.0’);
    - sign can only be displayed during hours of business operation and removed at all other times;
    - sign cannot be attached to any fence, tree or street furniture; and
    - sign must be displayed according to the provisions of the required Encroachment Agreement.

PLACEMENT “Where It Goes”

- Sidewalk signs will be permitted where there is adequate space within the building side encroachment zone of the boulevard to accommodate the sign and maintain a clear, unobstructed pedestrian path.
- The provisions for locating and placing each sidewalk sign on the public right-of-way will be outlined and enforced through the Encroachment Agreement for that sign.

7.9 Information Kiosks

Existing Information Kiosk with
Proposed Signage and Decoration

INFORMATION KIOSKS are intended to serve as collection and reference points for information on upcoming events, to direct and orient pedestrian traffic and to organize the outdoor space along the streetscape. They may only be used at key gateway areas, nodes and parks.

DESIGN CRITERIA – "How It Functions"

- The information kiosks are designed and positioned within the streetscape environment to meet the following criteria:
  - compatible with and complementary to the surrounding architecture and other streetscape furnishings;
  - become the focal point in an open area and may be combined with other streetscape elements;
  - facilitate the posting and easy removal of notices;
  - easily accessible from all sides; and
  - adequately illuminated.

PLACEMENT "Where It Goes"

- Information kiosks will be used sparingly where they are needed at specific locations to impart community information.

- Locating information kiosks is dependent on available spaces in the streetscape and at natural places of gathering.

7.10 Banner Poles

Example of existing Banner Poles

BANNER POLES are used as a mounting mechanism to display community and special event banner signs and other streetscape decorations that are suspended for a temporary period of time across the public right of way.

DESIGN CRITERIA "How It Functions"

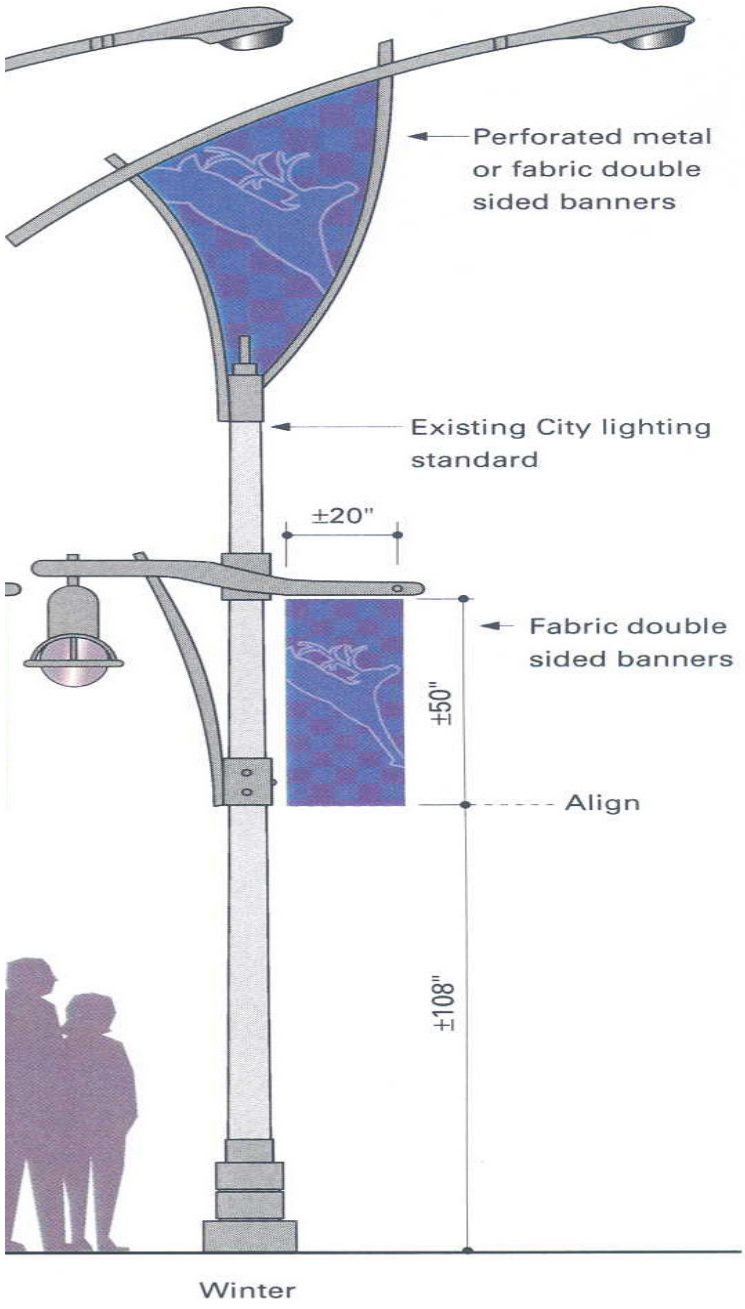
- Two existing banner poles within the district will be painted to match the other streetscaping elements until they are replaced;
- All new banner pole will be constructed of the same material and finishes as the decorative pre-cast concrete lighting standards and will complement the other streetscaping elements;
- Banner poles are engineered to support the live loading of the banner sign (and other attached decorative elements) at its maximum allowable size and through various environmental conditions;
- Banner poles are designed to be functional and attractive streetscape elements, which can also display various permanent and temporary decorative and artistic attachments to reflect the character of the district; and
- The new banner poles can contain electrical outlets to allow for the display of illuminated decorations.

PLACEMENT "Where It Goes"

- Banner poles are installed within the curb side zone of the boulevard in parallel positions to each other on opposite sides of the roadway and at the same setback from the curb as the lighting standards.

- Banner poles are typically placed at gateway areas into the City Centre to signify special areas or corridors within the larger district.

7.11 Decorative Banners



Example of Proposed Decorative Banners on Lighting Standards

DECORATIVE BANNERS provide colour, character and impact throughout the streetscape on a programmed or seasonal basis.

DESIGN CRITERIA "How It Functions"

- The installation of decorative banners can be used to:
  - Define the edges, roadways and pedestrian routes within the district;
  - Advertise or promote the district using the Business Association's colours and logos;
  - Illustrate themes for current or upcoming events and civic programs; and
  - Provide historical information or references through logos and images.
- Decorative banners should be positioned to prevent the reduction of illumination output from the lighting standard to which it is attached or cast an undue degree of shadow.
- Banners to adhere to current Banner Policy

PLACEMENT "Where It Goes"

- Decorative banners are attached to the lighting standards in two (2) possible locations:
  - Displayed on the pedestrian lighting fixture's mounting arm and suspended over the roadway;
  - Displayed within the open space created by the structure of the roadway lighting fixture's mounting arm.

7.12 Screening Devices

Example of Existing Screening Device

Example of Proposed Screening Device

SCREENING DEVICES are used to shield an undesirable view, such as a surface parking lot, and to create a continuous building edge along the sidewalk that defines and unifies the streetscape.

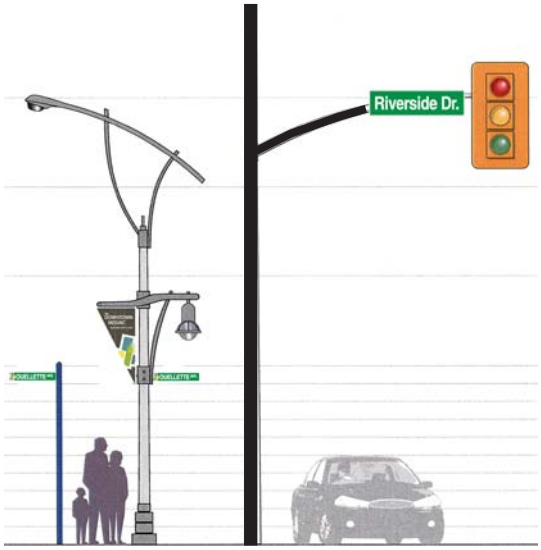
DESIGN CRITERIA "How It Functions"

- Screening devices can be low walls, fences and landscaping elements. The use of solid screening devices should be discouraged as they generally restrict visibility for security purposes.
- Screening devices are designed based on the following criteria:
    - Screening devices should have an ornamental character as well as utilitarian function.
    - The materials selected for screening devices must relate to the surrounding building architecture through the use of same or similar design details and reinforce the character of the overall district.
    - The height of screening devices should be 0.8m to 1.1m (2.7' to 3.5') to allow for viewing into the adjacent space as a security measure without creating an area of entrapment
    - Where necessary, the screening device should have openings measuring 1.5m to 2.0m (5.0' to 6.5') in width to provide for pedestrian access to the sidewalk and that is barrier free.

PLACEMENT "Where It Goes"

- Screening devices are located on the property line between the public right-of-way and the abutting private property containing a use that must be screened (typically a surface parking lot). Corner cuts-offs at intersections may be required to enhance driver and pedestrian visibility.

8.0 Orientation Signage Standards



Proposed Street Name Signs

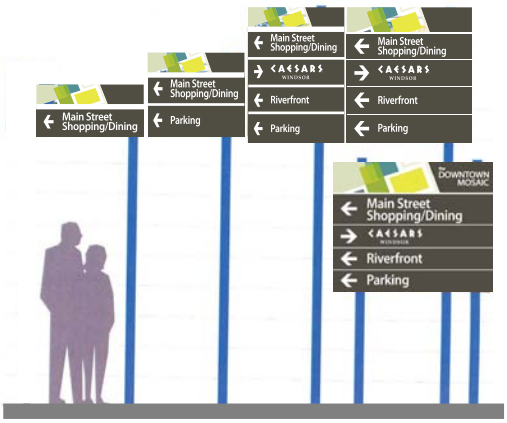
Orientation can be accomplished with an organized signage system that fits within the streetscape, minimizes visual clutter and provides understandable guidance that contributes to one's wayfinding ability. Signage shall conform to the Ontario Traffic manual(s) where applicable.

'Efficiency of information' is the ultimate goal in the establishment of the following design attributes for developing orientation signage:

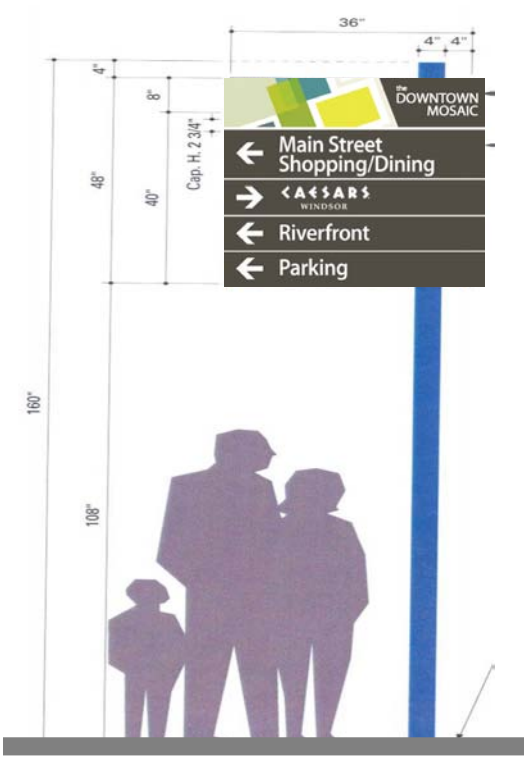
- Strength of Identity – consistency + uniformity [public space with a strong identity – know where you are]
- Consideration of Environment and Land Use [install signs only where necessary]
- Sign Hierarchy [distinction between signs geared to different users]
- Consistent Appearance [signs easy to find and reduces search time]
- Contrast with the Environment [signs stand out from their surroundings – yet unobtrusive]
- Consistent Placement Standards [reduce frustration in searching for sign and information]
- Differentiate between User Groups [geared to pedestrians versus drivers]
- Attain Maximum Legibility [a great amount of information easily understood]

Orientation Signage Standards

8.1 Trailblazing and Wayfinding Signs



Proposed Trailblazing and Wayfinding Signs



TRAILBLAZING SIGNS are intended to direct vehicular traffic towards major destinations inside and outside of the Windsor area.

WAYFINDING SIGNS are the basic type of orientation sign for directing users to significant visitor/tourist attractions, services and destinations within the core area.

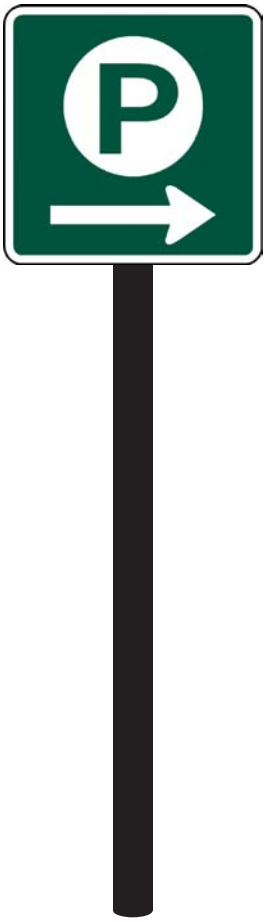
DESIGN CRITERIA "How It Functions"

- Trailblazing and Wayfinding Signs contain a highly readable font and are characterized by an attractive, distinctive and readily discerned colour palette based on the Riverside Drive District logo.
- All signs must meet Accessibility for Ontarians with Disabilities Act (AODA) Standards.
- A range of Wayfinding sign sizes will be utilized, determined by the number of messages required at each location to a maximum of four (4) destinations identified per sign.
- Must utilize a UV resistance colour palette
- Refer to Trailblazing Policy

PLACEMENT "Where It Goes"

- Trailblazing and Wayfinding signs will be located at significant decision-making points within the Riverside Drive corridor, where they will be mounted as stand-alone elements;
- Trailblazing and Wayfinding signs are not to be attached to light standards
- The highest visibility for the pedestrian and cyclists is essential in positioning Wayfinding signs;
- Wayfinding signs may be placed on building walls at certain locations with the owner's approval; and
- Should not block driver, pedestrian, or cyclist sightlines.
- Refer to Trailblazing Policy

8.2 Parking Area Identification Signs



Proposed Parking Area Identification Sign

PARKING AREA IDENTIFICATION SIGNS clearly identify and provide directions to parking lots and parking garages within the commercial district.

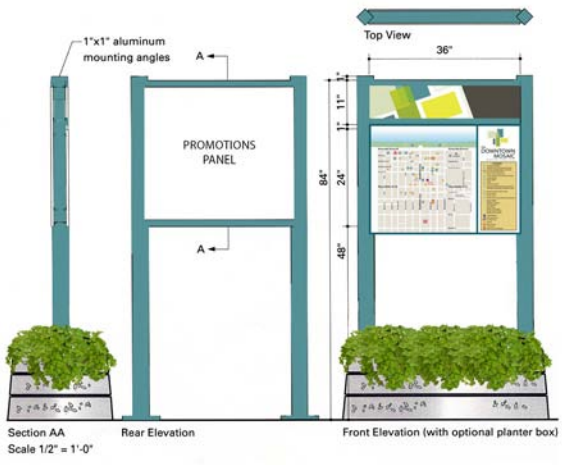
DESIGN CRITERIA "How It Functions"

- The circular-shape containing the "P" is a distinguishable and easily understood symbol. The sign must be distinctive and stand out in the urban environment with colours consistent with the orientation signage program.
- The sign is mounted on a black aluminium pole with white lettering spelling out "parking".

PLACEMENT "Where It Goes"

- To be positioned as stand-alone markers to attract the attention of oncoming vehicular traffic or to be placed at or near parking area entries to attract oncoming vehicles.

8.3 Active Transportation Facilities Orientation Signs



Proposed Active Transportation Facilities Orientation Sign

Example of Active Transportation Facilities Orientation Sign

ACTIVE TRANSPORTATION FACILITIES ORIENTATION SIGNS are designed to assist in directing pedestrian movement to major public and tourist-type destinations along the Riverside Drive district. These signs form a critical component in the comprehensive wayfinding system as they visually display the key pedestrian and bicycle routes.

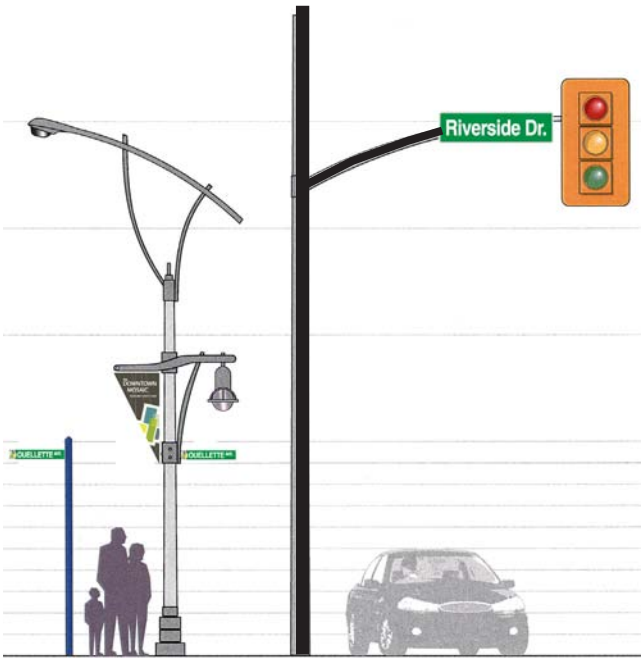
DESIGN CRITERIA "How It Functions"

- The primary face of the sign will display a map graphic that is designed to be user-friendly with highest visibility and visually appealing;
- The graphic panel must be easily edited, removed or replaced as new features and facilities are introduced in the district; and
- The secondary face of the sign could contain a directory of destinations (attractions, shopping, eating, entertainment facilities, etc.) or serve as promotional space for events within the district.

PLACEMENT "Where It Goes"

- Orientation signs should be placed along key pedestrian routes and in gathering places throughout the Riverside Drive area;
- Orientation signs can be placed on the back of wayfinding signs at appropriate locations (for example, the Festival Plaza on Riverside Drive).; and
- Pedestrian Orientation Signs can be incorporated into the leaning rail's panel.

8.4 Street Name Signs



Proposed Street Name Signs

Example of Themed Street Name Signs

STREET NAME SIGNS identify the streets and public right-of-way of the Riverside Drive district.

DESIGN CRITERIA – "How It Functions"

- Street Name Signs, incorporating the colours and logo of the City of Windsor or Riverside Drive, will assist in highlighting the unique character and reinforce the boundaries of the area.

PLACEMENT "Where It Goes"

- Street Name Signs will be mounted in locations that are visible to both drivers and pedestrians.
- Street Name Signs have three (3) mounting possibilities depending on the sign location and signage situation:
  - as a stand-alone element on matching specifically designed poles.
  - incorporated onto street and pedestrian combined lighting fixtures, which will also take advantage of the existing illumination levels for the signs.
  - on upgraded City traffic signalization standards at intersection within and along the boundary of the Riverside Drive district. (Note, the background colour used on these signs is green).

8.5 Gateway Markers

Proposed Gateway Markers

PLACEMENT "Where It Goes"

Type B: To be located in dense urban areas where limited space is available.

Type A: To be located at major/prominent nodes and prominent nodes where open space is available, along viewing distances and at significant areas of attraction or areas consisting of a theme.

GATEWAY MARKERS are landmark elements located at the entry points that introduce visitors to the Riverside Drive area. Markers must be attractive and interesting from both the street and the sidewalk to be effective at both the pedestrian and vehicular scales. Downtown Windsor already includes gateway markers letting people know that they are in the downtown. See the *City Centre Streetscape Standards Manual* for details of this gateway marker.

DESIGN CRITERIA "How It Functions"

- Gateway markers will be implemented on an individual basis where site conditions are deemed feasible or appropriate, and under the following design criteria:
  - the scale and proportion of the gateway markers should relate to the width of the street, nearby buildings, the significance of the location and any additional physical constraints or opportunities.
  - the materials and detailing of gateway markers should be coordinated with the other streetscape elements within the district and embody the characteristics that identify the area.
  - the site and surrounding elements of gateway markers should be carefully designed to reinforce the gateway and role in the wayfinding system, enhanced through the appropriate use of landscaping, lighting and signage.
  - there is great potential for creative illumination techniques to enhance the uniqueness, impact and visibility of gateway markers during the night.

8.6 Heritage Interpretation Features

Existing Heritage Interpretation Sign Structure

Existing Heritage Feature

HERITAGE INTERPRETATION SIGNS are installed adjacent to or on sites of historic and cultural value and contain information that provides interpretation by "telling the story" of the former and/or existing property and associated events, by emphasizing their contribution and role in the development of the City Centre.

DESIGN CRITERIA "How It Functions"

- The existing heritage interpretation signs are designed with the single-sided sign face contained in a plexi-glass frame supported by a two-post system.

PLACEMENT "Where It Goes"

- Heritage interpretative features (ie. interpretive signs, walls from demolished historic buildings, landscapes and land forms) will be installed adjacent to or on sites of historic and cultural value;
- Heritage interpretative signs will be placed in highly visible locations to discourage vandalism; and
- Locating heritage interpretative signs is dependent on the availability of space on the streetscape for gathering around the sign and visibility – but not located within the pedestrian path.

9.0 Streetscape Features

In order to emphasize the function and role of Riverside Drive as a Scenic Drive, the improvements can be viewed as a string of gateways (into SSIA and neighbourhoods) at key nodes along the waterfront as established in the Design Framework (Section 3.0) of the Class Environmental Assessment for Riverside Drive Vista Improvement Project. Streetscape elements and features are required to establish a unique sense of place that is desirable for pedestrians and vehicles travelling along the drive.

Elements of the streetscape at these various nodes may include Open Space, Public Art or Water related features, Gateway Markers, Riverfront Beacons, Landscape Elements (as described in Section 6 of this document) and should all connect with the multi-use recreational trails that run the full length of the riverfront, depending the on the land uses types surrounding that node.

DESIGN CRITERIA

- Each type of Node defined by the Design Framework has a particular character related to the importance of that node:
  - N1 Primary Nodes – Unique Civic/Ceremonial Node;
  - N2 Secondary Nodes – Transitional Use Nodes; and
  - N3 Tertiary Nodes – Residential Traffic Calming Nodes
- A variety of possible design themes may be adopted for right-of-way installations at the various nodes. Themes can be integral to the gateway, incorporating both fixed and changeable displays that welcome and celebrate entrance and arrival. The following design themes have been considered in the creation of the Master Plan:
  - Awareness of Environmental Sustainability
  - Canadian Identity/History and Culture
  - Public Art
  - Local Industry especially the cross-border trade relationship between Windsor & Detroit
  - Technology and Innovation including green energies
  - Tourism
  - Education

9.1 Open Spaces

With an abundance of open space areas and the already existing parks on the north side of Riverside Drive, the foundation to implement extraordinary and memorable landscapes and vistas already exists. Continuation of the greenway along with continuous multi-use recreational trails to connect these spaces is fundamental to creating a sustainable and liveable community. The enhancement of green open spaces at key nodes is especially important in residential areas to facilitate connections that are contextually related to urban residential life along Riverside Drive, while providing strategic vantage points from which to observe the Detroit Skyline and Belle Isle Park.

Open spaces in the downtown may take on a more urban plaza environment. An effort to provide greenery in these plazas is important to mitigate the extreme environmental and climatic conditions that result from hard surface paving and proximity to the river.

9.1.1 Urban Plaza Open Spaces

Urban open spaces such as plazas and large congregation areas including: amphitheatres, fountains, festival plazas and outdoor cafés, provide people places and generate vitality for the urban environment. Several spaces have been established in the downtown along the riverfront, especially near the casino, Dieppe Park and the Art Gallery. A variety of urban spaces is necessary along Riverside Drive to help generate the pedestrian activity that fosters popular urban places throughout the world. Primary and Secondary nodes identified in the Class Environmental Assessment for Riverside Drive Vista Improvement Project may provide the opportunity to develop such people generating places.

DESIGN CRITERIA

- Hard surfaces to be of high-quality materials with visually pleasing patterns, and colours that complement the surrounding built environment;
- Paved areas and primary nodes (N1) will be complementary to the paving patterns found along the sidewalks and intersection treatments on Riverside Drive, but different enough to convey the notion of a Unique Civic/Ceremonial Node;
- Provide shade through the use of tree canopies or landscape architectural elements such as pergolas, trellises, or high quality UV-resistant material shade structures;
- Preserve views from the street level by allowing visually permeable views to the Detroit Skyline. Any structure erected on the north side of Riverside Drive should be open enough to allow for views from the street level.

- Shade structures will provide a relationship to the riverfront and contribute to the character of the site as a focal point;
- Provide suitable site furnishings, seating, landscaping, lighting and gateway signage as detailed in other sections of this document;
- Site furnishings associated with public open spaces on the north side of Riverside Drive will be black in colour except in the downtown which has an established palette;
- Site furnishings associated with urban open spaces on the south side of Riverside Drive are to be dark coloured or metallic and complementary to the architectural details of the buildings with which the plaza is associated; and
- Transition from the surrounding areas to an Urban Plaza Open Space, should be easily identifiable with traditional procession of arrival as found in successful urban open spaces through-out the world (*example, pedestrian collection area -> transition-> rest area -> transition -> primary open space*).

PLACEMENT

- Though not intended to straddle the intersection, urban plazas along Riverside Drive may be on either side of the road with visual connections for pedestrians crossing Riverside Drive;
- Areas for congregation of larger groups of people can be built as part of other structures, such as: edifice office towers, higher density residential properties, larger collection of commercial properties, art gallery, hotels, casino, or historic building or spaces;
- Urban Plazas will be located at, but not limited to, all N1 Primary Nodes – Unique Civic/ Ceremonial Nodes as identified in Class Environmental Assessment for Riverside Drive Vista Improvement Project:
  - Church Street - Art Gallery/Aquatic Centre/Riverfront Hotels. This location has been redefined with the new aqautic centre and it may be effective to extend this node to include the Bruce Avenue intersection as this area may become more of an urban plaza for large gatherings.
  - Ouellette Avenue – Dieppe Gardens. A small urban plaza exists with #1 Riverside Drive on the southwest corner, as well as two plazas in Dieppe Gardens which includes the Peace Beacon on the northwest corner and Udine Fountain on the northeast corner.
  - Mid-block between Goyeau and McDougall – Civic Esplanade. A small plaza exists on the south side of the drive, however it has no formal visual or physical connection to the north side.

- Glengarry Avenue - Casino. Extensive work has been completed on both the north and south sides of this node; though it still operates as a vehicular crossing point. The recent addition of the civic stage has provided an urban plaza further into the northwest at the McDougall Avenue intersection, but no physical or visual connectivity to the south side of Riverside Drive. A small urban plaza with a pergola has also been established on the north side of Riverside Drive at Aylmer Avenue, but there is currently no continuity to the development on the south side of Riverside Drive. Should the lands on the south side of Riverside Drive be developed as proposed by the Glengarry Marentette C.I.P., then an urban plaza with a commercial connection is strongly recommended to connect the plazas on the north side.
- Walker Rd – Hiram Walker Distillery and Train Station. Predominantly historic built environment with the distillery building on both sides of the drive leaving little to no space for an urban plaza of any significance. The recent relocation of the train station further east to Montreuil Avenue and the potential for future development along the north and south sides of Riverside Drive at Droulliard Road, may provide better opportunity for establishing an Urban Plaza related to this historic district in that vicinity. The foot of Drouillard Road also offers the best vantage point of the James Scott Memorial Fountain on Belle Isle (Detroit) from Windsor.
- Pillette N1 – Reaume Park, Coventry Gardens and Riverside Drive Residential Towers. Both the north and south sides of this node primarily operate as a vehicular crossing point. The recent improvements around the Coventry Park Peace Fountain has improved the urban plaza in that area, but the N1 intersection is significantly removed from the plaza. It may be effective to re-evaluate the location with that of the proposed N2 node associated with the Fountain Plaza.
- Riverdale – Lakeview Marina and Riverside Drive Residential Towers. Currently under construction, but no designated plaza or festival space has been proposed.

- Urban Plazas may suitable for N2 Secondary Nodes – Transitional Use Nodes located in the Downtown between Crawford Avenue and Drouillard Road as identified in Class Environmental Assessment for Riverside Drive Vista Improvement Project:

    - Crawford Avenue – CBC and the eastern end of the Odette Sculpture Garden
    - Caron Avenue – Downtown Residential Towers
    - Ferry Street – St. Clair Centre for the Arts and Dieppe Park Pedestrian Entrance
    - Parent Avenue – Bert Weeks Memorial Fountain (north side only)
    - Pierre Avenue – Great Western Park (north side only)
    - Lincoln Road – Eastern limit of the downtown riverfront parkway system

- The intersections of Goyeau Avenue, McDougall Avenue, and Aylmer Avenue have the components of both N1 and N2 nodes including traffic signals and pedestrian crossings, established pedestrian generators are not yet identified as significant nodes in the Class Environmental Assessment for Riverside Drive Vista Improvement Project. Further

consideration should be given before development of these areas, as the potential for an urban plaza at these locations may be suitable.

9.1.2 Urban Green (passive) Open spaces

Passive green spaces along the north side of Riverside Drive are treasured resources of the City's green infrastructure. Such spaces enhance the City's sustainability as well as the health and well being of residents and visitors. Currently, the City boasts over 8 km of public open space along Riverside Drive including Ambassador Park, Centennial Park, Dieppe Gardens, Great Western Park, Alexander Park, Goose Bay, Coventry Gardens (Reaume Park), Bridges Bay Park, and Sandpoint Beach. These riverside green spaces are also complemented by community and neighbourhood oriented parks on the south side of Riverside Drive. Connectivity to and between these parks through a multi-use recreational trails provide passive recreation and informal places for people and urban oases from the traditional hardscaping found in the urban environment.

Studies also show that the establishment or preservation of Urban Green Open Spaces can provide for sustainable, healthier environments and contribute to traffic calming and lower vehicular accidents. Secondary and some Tertiary nodes identified in the *Class Environmental Assessment for Riverside Drive Vista Improvement Project* may provide opportunity to further develop such urban green oases along the waterfront.

PLACEMENT

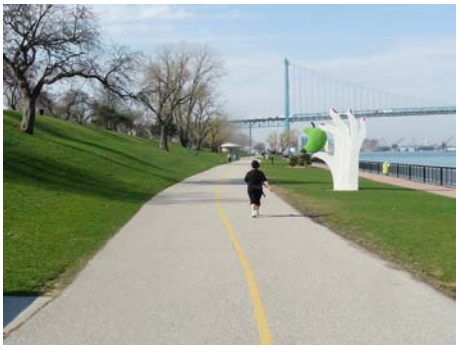
- Development of additional Urban Green Open Spaces may be suitable at N2 Secondary Nodes
- Transitional Use Nodes that do not offer a suitable location for an Urban Plaza Open Space;
- Development of additional Urban Green Open Spaces may be suitable at some N3; and
- Tertiary Nodes – Residential Traffic Calming Nodes, as identified in *Class Environmental Assessment for Riverside Drive Vista Improvement Project*, which have yet to be developed other than at a pedestrian crossing point to provide a central focus for the residential neighbourhood or community around that pedestrian crossing point.

DESIGN CRITERIA

- Each urban green open space is to have its own individual character to establish a strong "sense of place";
- All new landscaping is encouraged to utilize the planting palette or suggest equivalent to maintain consistency with the streetscape design, especially at the interface of the open space and the right-of-way;
- Separation of the park from the right-of-way should be in the form of soft landscaping with vertical elements to act as an implied wall to deter pedestrian crossings at inappropriate locations;
- Street furnishings should be included as part of any outdoor hardscape area to provide rest areas for users especially those with limited mobility and where children's playspaces may be located;
- Re-naturalized landscapes along the north side of Riverside drive are encouraged but should be of a low to medium grassed prairie or riparian environment to avoid disruption of views to the Detroit Skyline;
- With the exception of benches, and trash receptacles, green open spaces established on the south side of Riverside Drive should provide passive park amenities for the neighbourhood or community which are not already provided within an 800m distance;
- N3 Tertiary nodes might provide simple pocket park-type settings with minimal maintenance to establish a focal point for that crossing point; and
- Provision of suitable site furnishings, seating, landscaping, lighting and gateway signage as detailed in other sections of this document are required as appropriate.

9.2 Multi-Use Recreational Trails

Urban Green Open spaces may also exist simply as part of a linear Multi-use Recreational Trails. Pedestrian friendly areas with pathways lined with trees are integral to the success of establishing a walkable urban environment. In these situations, effort must be taken to ensure that the experience of travelling either by foot, cycle, skate or other (non-motorized) recreational means of travel, is enjoyable and physically separated and protected from the vehicular traffic along Riverside Drive to the greatest distance possible.



A continuous multi-use recreational trail is proposed for the entire length of Riverside Drive, connecting McKee Park in Sandwich Town, west of the Ambassador Bridge to the existing Ganatcho Trail, located on the east end of Riverside Drive. There are multi-use recreational trails along the central riverfront parks however, connection to the eastern and western limits of the City along Riverside require a better connection, especially in primarily residential areas.

DESIGN CRITERIA

- Continuous multi-use recreational trails to be constructed of smooth asphalt with appropriate markings;
- Where sidewalks adjacent to buildings (i.e. commercial, institutional, and medium to high density residential, etc.) are used as multi-use recreational trails an increased width to 2m minimum (plus any splash strip) should be considered, except in the downtown area where development is a more urban cross section and development will be implemented through the City Centre Streetscape Standards manual;
- Trail markers and trail heads to be consistent with those erected along the Roy A. Battagello River Walk Bike Trail;
- Pathways are to be buffered from vehicular lanes by a 3m soft landscape separation where possible;
- Pathways and sidewalks should be continuous across driveways. Where crossings over driveways and intersections occur, sidewalks should be marked through a material other than the driveway or roadbed paving;

- Any separation should be in the form of soft landscaping with vertical elements in the landscape to act as implied walls as well as to deter pedestrian crossings at inappropriate locations. Planting of trees between pedestrian paths and vehicular traffic provides pedestrians with an added sense of security without the use of fencing;
- Provide rest areas at approximately 100m apart for person with reduced mobility along the length of the multi-use recreational trails. Rest areas should be situated to not create conflicts with residential properties; and
- Rest areas to be clearly defined with visually appealing and textured hardscaping, bench/ benches and trash/recycle receptacle.

PLACEMENT

- Multi-use recreational trails are proposed for the entire length of Riverside Drive with priority to be given to open spaces on the north side of the right-of-way; and
- Where space is not provided, the multi-use recreational trails shall incorporate with the municipal sidewalk with a minimum 0.6m splash strip from the edge of the curb as per section 4.0 (Pavement Standards); and
- Trailhead markers to be established at key locations, especially where the multi-use recreational trail intersects Primary (N1) and Secondary (N2) Nodes.

9.3 Public Art

Pedestrian improvements create a unique opportunity where people can interact with and be positively impacted by public art as part of their everyday activities; they also help create more walkable communities. Public art enhances the quality and ambiance of the municipality's built environment. Public art not only invests a space with "place making" qualities and culture, it has the capacity to interpret the historic, social, cultural and narrative nuances that distinguish our neighbourhoods. Successful public art programs help communities develop and express their unique sense of place and character, which in turn, draws tourism and investment activity to the region.

Public art refers to original works of art in any medium for temporary or permanent placement in outdoor or indoor settings that are accessible to the public for their enjoyment. Public art can take a variety of forms including traditional permanent installations such as statues, murals on building facades, ornamental parks, pathway and plaza treatments at special locations and special site furnishing, as well as temporary art installations such annual art pieces, performances and festivals. Encouraging the use of streets for festivals, parades, and other cultural events that promote pride helps to further reinforce a sense of place at given areas along the Riverfront and Riverside Drive. When appropriate, consideration should be given to commissioning artists to create art pieces at specific locations along Riverside Drive, if considered appropriate.

Public art has the ability to unify the special areas with a theme, and at a pedestrian/street level it can provide visual interest for the passerby. Public art is an effective means of creating a sense of place through presence of a monumental icon in the public realm and ideally should reflect the character and/or history of the space in which it is installed.

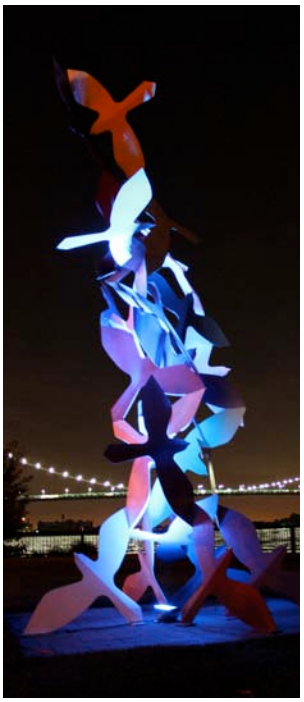
DESIGN CRITERIA

All Public Art installations, including temporary installations must go to the Public Art Advisory Committee (PAAC), then to the Standing Committee, and finally to Council for approval if the piece is to be installed on public property.

- **Artistic Excellence:** Public Art of the highest standards, that is deemed relevant to the City/ neighbourhood, and that allows the public to be inspired, make connections and understand relationships among the works in the collection and the community. All permanent and temporary Public art must meet the following artistic criteria:
    - The work of art shall merit placement in a City public place.
    - The artist demonstrates the ability and potential to execute the proposed piece, based on previous artistic achievement and experience.
    - In the case of a donation of an existing work of art, the quality of the work(s) must be supported by documentation from an independent professional evaluator.

- The artwork must enhance the City's public art collection.
- Each art installation is to be unique to reflect a wide variety of creative expression, art practice and art work.
- Intention of all public art installations is to reflect a community's diversity, values, and history so as to foster a sense of belonging, identity, and place.
- Presents a positive image to visitors and potential investors.
- Increases public understanding, awareness and enjoyment of the arts in everyday life.

- **Theme:** A stated theme of the artwork, which is consistent with the goals, objectives and mandate of the City and/or Riverside Drive, must be identified.
- **Relevance:** Works of art must be appropriate for the proposed site and its surroundings by complementing nearby architecture, topography, history and the social dynamic of the particular community in which the art will be placed. Public art responds to and enhances the natural, social and built environment of Windsor and/or Riverside Drive and/or the neighbourhood in which it is being installed.
- **Physical Durability:** Consideration of the artwork's long-term durability against theft, vandalism, and weather must be addressed.
- **Public Safety:** All proposals must address public safety concerns.
- **Environmental Sustainability:** Consideration will be given to the environmental impact and sustainability of the proposed artwork.



- **Costs:** A work of art must have a sponsor or co-sponsors, who will present the proposal and, when necessary, be responsible for raising or providing the necessary funds in accordance with the budget that they present to the City.
- The City will consider the following types of proposals for works of art intended for placement along Riverside drive in the public realm:
  - A sponsor's offer of an already completed work of art.
  - A sponsor's offer to commission an artwork by a specific artist or artists.
  - A sponsor's offer to commission an artwork by means of a public competition as described in the Public Art Program.
- The City will consider gifts of works of art for placement at City owned sites along Riverside Drive with the understanding that no City funds will be required for production, siting, installation or ongoing maintenance of the work without prior approval of City Council.
- The City will accept no gift of an artwork until all funds for its development and siting have been secured.

PLACEMENT

- Permanent public art installations and potential water elements (such as fountains or decorative irrigation) shall be interspersed along the pathway creating visual points of interests and destination. Public Art sites that can be viewed by both pedestrians and vehicles should be strategically situated along the roadway;

- Artwork must be located in areas offering the public a free and unobstructed experience of the work, with preference given to areas providing the greatest opportunities for interaction and accessibility;
- Locations designated for the installation (current or future) of public art projects should meet the following criteria:
    - Visibility for pedestrians and/or motorists (including public transit);
    - Proximity to recognized pedestrian routes and high pedestrian activity areas (e.g. active retail areas), transit stops (especially those serving high ridership routes), places of public gathering, public open spaces;
    - Opportunities to expand on existing or future public artworks as part of an existing or proposed multi-artwork concept; and
    - Public art should be located so as to be a pedestrian amenity without compromising safety.
- Places of special heritage, community or environmental significance may be considered for locating public art;
- The designation of public art siting locations (as required for current and/or future installations) should be indicated on the appropriate document (e.g., Development Permit and Building Permit drawings) to the satisfaction of City staff, with regard to urban design and technical considerations (e.g., utilities, pedestrian and vehicle safety, maintenance access);
- Temporary public art locations are recommended in the Downtown along the Riverside Drive Promenade to provide an ever-changing, original, and engaging landscape of interest for local residents and visitors; and
- Public Art on municipal property shall be chosen and sited in conjunction with the Windsor Public Art Advisory Committee.

9.4 Water Related Features

Water related features are a form of public art that can express the special association and natural connection between Windsor's Riverfront and Riverside Drive. Incorporation of water in any public feature presents an opportunity to highlight riverfront heritage including Aboriginal culture, natural ecosystems, early European settlement, international trade, and Windsor's close relationship with Detroit.

DESIGN CRITERIA

- Water related features may be used in place of permanent public art installations and would be subject to the same conditions of design criteria.
- The use of water as a feature in public art or as a landscape element requires serious consideration and for site location, visibility, and long-term maintenance.

10.0 Utilities

10.0 Utilities along Riverside Drive

Given the importance of Riverside Drive as a “Scenic Drive” in the City’s Official Plan it is important to reduce visual clutter. Although the many overhead utilities and transformer boxes on both the north and south sides of Riverside Drive provide important services to businesses and residents, they have also become a sources of visual clutter. In Windsor’s Downtown utilities are buried or often hidden within alleys behind development and transformers are often located within developments or screened to reduce their visual impact. Section 20 (1) 3 of Zoning By-law 8600 already includes a provision limiting the height of buildings, structures, and utilities on the north side of Riverside Drive to not exceed the crown of the pavement.

Although costly, given Riverside Drive’s designation as a “Scenic Drive”, it is important to reduce visual clutter created by overhead utilities whenever possible. Therefore any new utilities or those being replaced will be located underground on both the north and south side of the entire length of Riverside Drive, when it is feasible.

11.0 Low Impact Development

11.0 Low Impact Development Considerations

Low Impact Development (LID) is an approach to development that works with nature to manage stormwater as close to the source as possible. LID uses stormwater as a resource rather than a waste product through recreated natural landscape features and reduced impervious surfaces to form site drainage features that are functional and aesthetically pleasing[1]. Examples of LID features include, but are not limited to:

- Bioretention facilities;
- Bioswales;
- Perforated stormwater pipes;
- Prefabricated modules; and
- Permeable pavers[2].

Incorporation of Low Impact Development features into Riverside Drive's streetscape, plantings, and plazas should be considered as a way to mitigate stormwater flooding and improve the Detroit River's water quality while also providing attractive elements that can be used to educate the public about hydrology and the ecological integrity of the River and the larger Great Lakes basin.

Consideration of implementing LID must take into account the costs and staff time required for regular maintenance associated with some LID facilities. Without proper maintenance, benefits from LID facilities can decrease substantially[2].

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[1] Environmental Protection Agency. "Low Impact Development (LID)." October 3, 2014. Web.
[2] Credit Valley Conservation. "Grey to Green Road Retrofits: Optomizing your Infrastructure Assets through Low Impact Development." 2013. Web.

12.0 Streetscape Element Maintenance Standards

With the following and not exclusive to these streetscape elements there must be maintaince for and associated budget funding established for:

12.1 Street Furniture (Benched, Bollards, Trash Recptacles, etc)

- Paint peeling and welding issues
- Replacement
- Tamperproof fasteners
- Commercial grade metal
- UV-proof colour selection
- Powder coating thickness and warranty
- Graffiti proof material and/or cleaners

12.2 Concrete Issues

- Upheaval and spalling
- UV-proof colour selection
- Colour matching for replacement

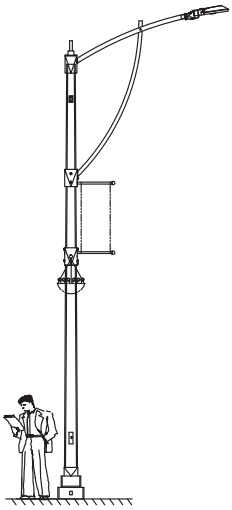
12.3 Street Light Pole

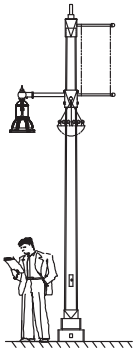
- Paint deterioration issues and replacement
- Banner fasteners

12.4 Tree Replacement

- Appropriate species for soil volumes and location with respect to use
- Size to be large enough to not be damaged through vandalism

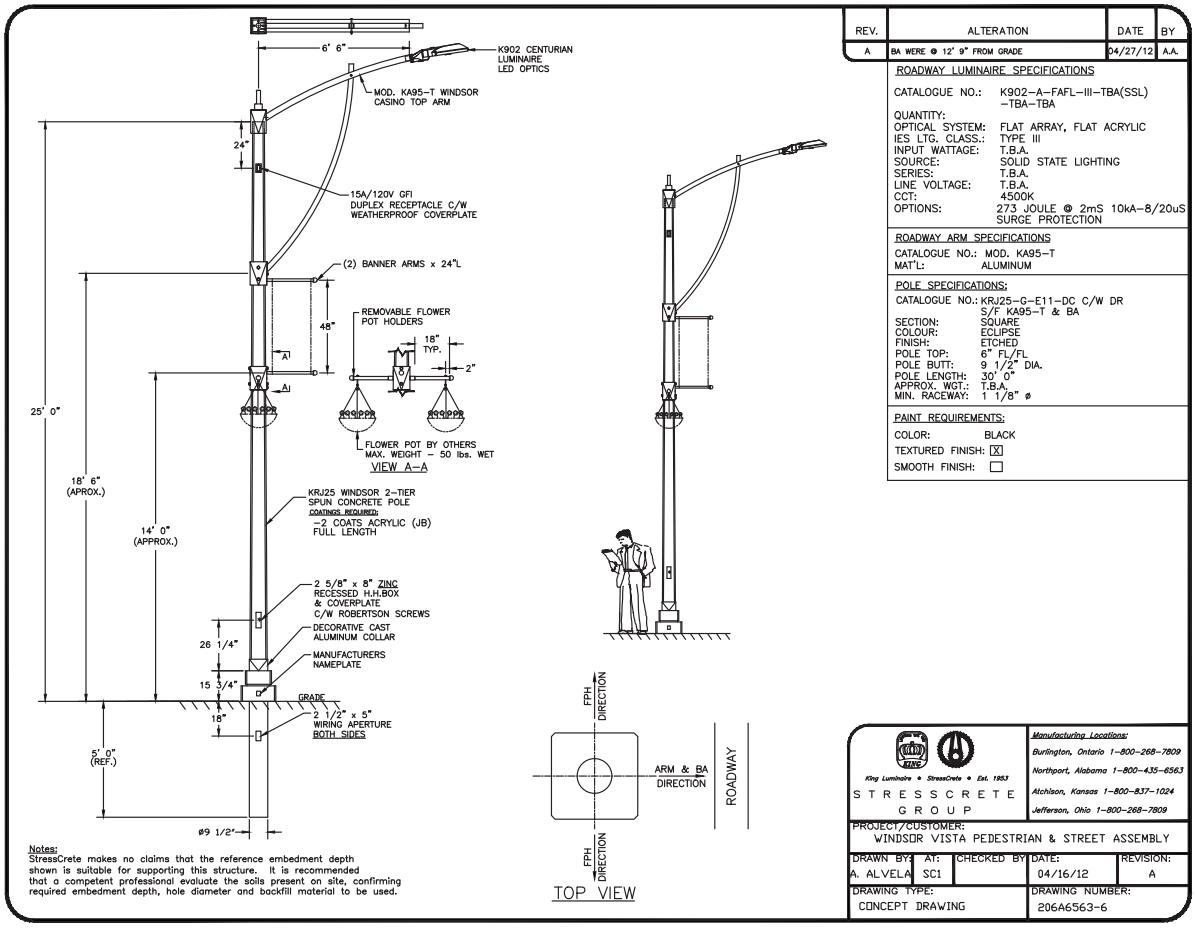
13.0 Recommended Streetscape Design and Specifications



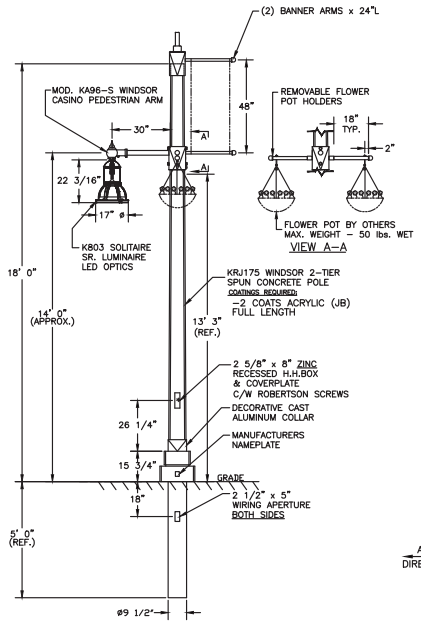


A Schedule A: Specifications

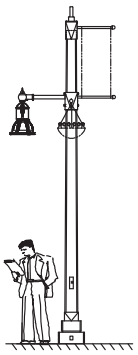
Note: The following specifications are examples of streetscape elements for the Riverside Drive Vista Improvement Project. The selection of these elements will adhere to the City's Purchasing By-Law Number 93-2012

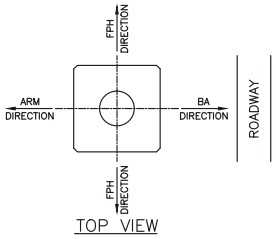


REV.	ALTERATION	DATE	BY
A	BA WERE @ 12' 9" FROM GRADE; POLE WAS KRJ175	04/27/12	A.A.



Notes:
StressCrete makes no claims that the reference embedment depth shown is suitable for supporting this structure. It is recommended that a competent professional evaluate the soils present on site, confirming required embedment depth, hole diameter and backfill material to be used.





TOP VIEW

PEDESTRIAN LUMINAIRE SPECIFICATIONS

CATALOGUE NO.:	K803-FAFL-III-TBA(SSL) -TBA-TBA S/F KPL-20
QUANTITY:	
OPTICAL SYSTEM:	FLAT ARRAY
IES LTG. CLASS.:	TYPE III
INPUT WATTAGE:	T.B.A.
SOURCE:	SOLID STATE LIGHTING
SERIES:	T.B.A.
CCT:	4500K
LINE VOLTAGE:	T.B.A.
OPTIONS:	273 JOULE @ 2mS 10kA-8/20uS SURGE PROTECTION

PEDESTRIAN ARM SPECIFICATIONS

CATALOGUE NO.:	MOD. KA96-S-KPL-20
MAT'L:	ALUMINUM
OPTIONS:	KPL-20 LEVELING DEVICE

POLE SPECIFICATIONS:

CATALOGUE NO.:	KRJ18-G-E11-DC S/F KA96-S & KA96-S & BA
SECTION:	SQUARE
COLOUR:	ECLIPSE
FINISH:	ETCHED
POLE TOP:	6 7/8" FL/FL
POLE BUTT:	9 1/2" DIA.
POLE LENGTH:	23' 0"
APPROX. WGT.:	T.B.A.
MIN. RACEWAY:	1 1/8" ø

PAINT REQUIREMENTS:

COLOR:	BLACK
TEXTURED FINISH:	[X]
SMOOTH FINISH:	[ ]

King Luminaire • StressCrete • Est. 1953
STRESSCRETE GROUP

Manufacturing Locations:
Burlington, Ontario 1-800-268-7809
Northport, Alabama 1-800-435-6563
Atchison, Kansas 1-800-837-1024
Jefferson, Ohio 1-800-268-7809

PROJECT/CUSTOMER: WINDSOR VISTA PEDESTRIAN & STREET ASSEMBLY

DRAWN BY:	AT:	CHECKED BY	DATE:	REVISION:
A. ALVELA	SC1		04/16/12	A

DRAWING TYPE: CONCEPT DRAWING
DRAWING NUMBER: 206A6563-7

720 SERIES

MBE-0720-00005

Legacy # MLB720BL-W

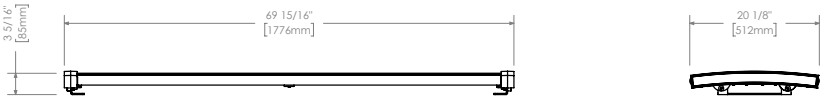
MATERIALS: The legs are aluminum castings. The boards are made from Ipe wood. All brackets are made of steel.

FINISH: All aluminum castings are powder coated. The wood boards are treated with penetrating sealers. The steel brackets are e-coated and powder coated.

INSTALLATION: The bench comes pre-assembled. The legs have 1/2" holes for anchoring.

TO SPECIFY: Select MBE-0720-00005
Choose: Powdercoat Color

HEIGHT: 3 5/16" (85mm) LENGTH: 69 15/16" (1776mm) DEPTH: 20 1/8" (512mm) WEIGHT: 66.81lbs (30.31kg)



MAGLIN Site Furniture
T 800-716-5506
F 877-260-9393
WWW.MAGLIN.COM
SALES@MAGLIN.COM

REV-01

SCALE (A) 1:20

MBE-0870-00025

Legacy # MLB870-W

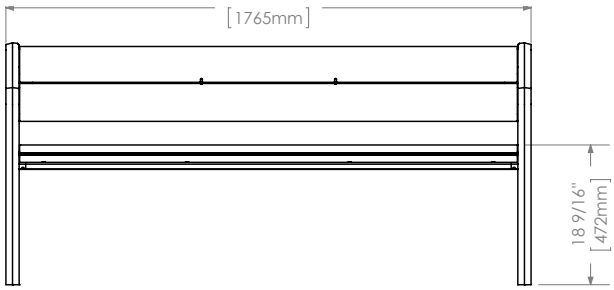
MATERIALS: Bench ends are made from solid cast aluminum. The seat employs Ipe wood slats.

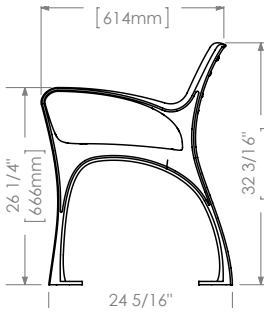
FINISH: All steel components are protected with E-Coat rust proofing.
The Maglin Powdercoat System provides a durable finish on all metal surfaces.

INSTALLATION: The bench is delivered pre-assembled. Holes (0.5") are provided in each foot for securing to base.

TO SPECIFY: Select MBE-0870-00025
Choose:
- Powdercoat Color

HEIGHT: 32.2" (81.7cm) LENGTH: 69.5" (176.5cm) DEPTH: 24.2" (61.4cm) WEIGHT: 121.62lbs (55.1kg)





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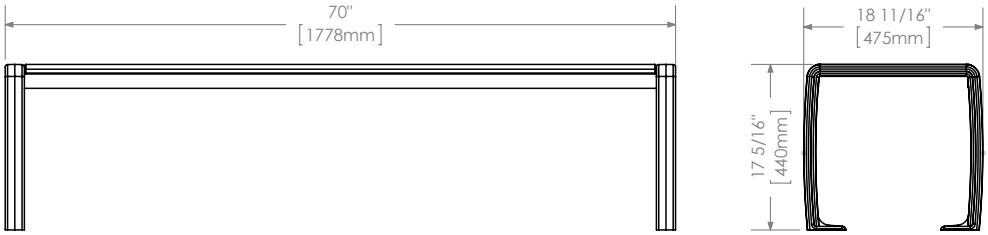
sales@maglin.com

MBE-0970-00008

Legacy # MLB970B-W

MATERIALS:	Bench ends are made from solid cast aluminum. The seat employs 5.5" x 1" (actual) Ipe slats.
FINISH:	The Maglin Powdercoat System provides a durable finish on all metal surfaces. Wood slats are treated with penetrating sealers.
INSTALLATION:	The bench is delivered pre-assembled. Holes (0.5") are provided in each foot for securing to base.
TO SPECIFY:	Select MBE-0970-00008 Choose: - Powdercoat Color

HEIGHT: 17.31" (44.0cm) LENGTH: 70" (177.8cm) DEPTH: 18.69" (47.5cm) WEIGHT: 72.1lbs (32.7kg)



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Site Furniture

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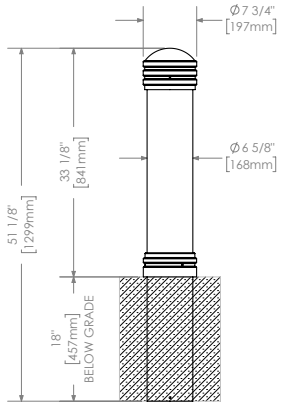
F 877 260 9393
www.maglin.com
sales@maglin.com

MBO-0650-00001

Legacy # MTB650-B1

MATERIALS:	The bollard post is constructed of H.S. steel tube. The top and bottom are capped with cast aluminum parts.
FINISH:	All steel components are protected with E-Coat rust proofing. The Maglin Powdercoat System provides a durable finish on all metal surfaces.
INSTALLATION:	Base Type - B1 bollard is supplied with additional 18" of tubing to be set in concrete. Bollard is permanently fixed in place.
TO SPECIFY:	Select MBO-0650-00001 Choose: - Powdercoat Color

HEIGHT: 33.13" (84.1cm) DIAMETER: 6.625" (16.8cm) WEIGHT: 85lbs (38.6kg)



MAGLIN™
Site Furniture

T 800 716 5506
F 877 260 9393
www.maglin.com
sales@maglin.com

MBR-0200-00005

Legacy # MBR200-S

Sustainability Facts

Unit Size **One (1) 200 Bike Rack**

	MIN.	MAX.	
Carbon footprint (GWP)	113	147	Kg CO2-Eq
Measured in kilograms of carbon dioxide equivalent			
Total energy use (TPE)	1900	2470	Mj-Eq
Measured in megajoules of energy equivalent			
Water use (WDP)	1.27	1.52	m3 water
Measured in cubic metres of water			
Material recyclability	100%		

LEED v4.1 Credits

- Type III Environmental Product Declaration ☑
- Material Inventory ☑
- Low VOC finishes ☑
- Free of Red List substances ☑

**Full EPD can be referenced for more information: https://www.epdregistration.com/maglin/*

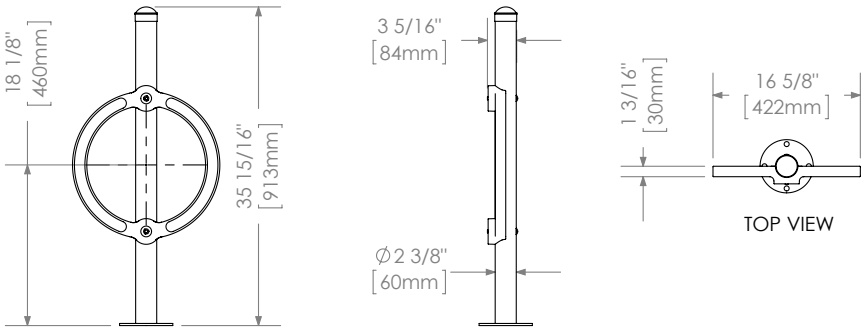
DESCRIPTION: 200 Series - 200 Bike Rack: H.S. Steel Tube, Aluminum Top Casting, Surface Mount, 2 Bike Configuration

FINISH: All steel components are protected with E-Coat Rust Proofing. The Maglin Powdercoat System provides a durable finish on all metal surfaces.

INSTALLATION: The bike rack is delivered pre-assembled.

TO SPECIFY: Select MBE-0200-00005
Choose:
- Powdercoat Color

HEIGHT: 35.94" (91.3cm) DIAMETER: 16.63" (42.2cm) WEIGHT: 18.45lbs (8.37kg)



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MBR-0350-00001

Legacy # MBR350-4-S

Sustainability Facts

Unit Size	**One (1) MBR-0350-00001 Bike Rack**
Carbon footprint (GWP) *Measured in kilograms of carbon dioxide equivalent*	178 kg CO2-Eq
Total energy use (TPE) *Measured in megajoules of energy equivalent*	3050 Mj-Eq
Water use (WDP) *Measured in cubic metres of water*	1.4 m3 water
Material recyclability	100%

LEED v4.1 Credits

Type III Environmental Product Declaration	☑
Material Inventory	☑
Low VOC finishes	☑
Free of Red List substances	☑

**Full EPD can be referenced for more information: https://www.epdregistration.com/maglin/*

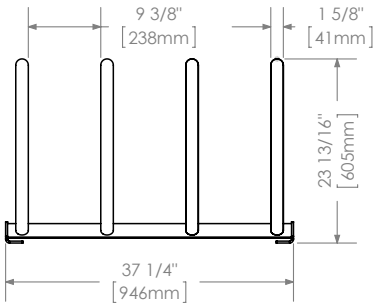
DESCRIPTION: 300 Series - 350 Bike Rack: H.S. Steel Tube, Formed Steel and Solid Steel Angle, Surface Mount, 4 Loops, 3 Bike Configuration

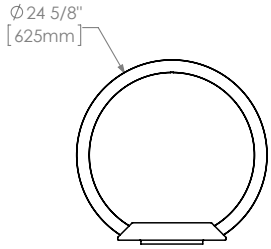
FINISH: All steel components are protected with E-Coat rust proofing.
The Maglin Powdercoat System provides a durable finish on all metal surfaces.

INSTALLATION: The bike rack is delivered pre-assembled. It is available with a surface mount installation.

TO SPECIFY: Select MBR-0350-00001
Choose:
- Powdercoat Color

HEIGHT: 23.81" (60.48cm) LENGTH: 37.25" (94.62cm) DIAMETER: 24.63" (62.56cm) WEIGHT: 79.4 lbs (36kg)





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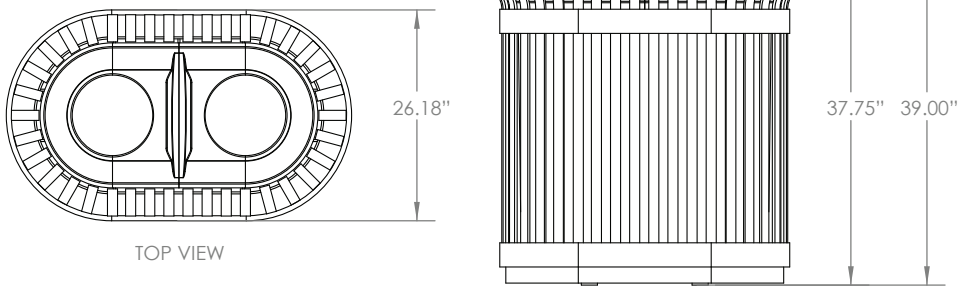
MRR-0200-00005

Legacy # MRC202-ST

DESCRIPTION:	200 Series - 200 Recycle Receptacle: Heavy Duty Steel Flat Bar Frame, Black ABS Plastic Lid, 2 Stream, 2 x 20 Gallon Polyethylene Liners, Lamacoid Labels
FINISH:	All steel components are protected with E-Coat rust proofing. The Maglin Powdercoat System provides a durable finish on all metal surfaces.
INSTALLATION:	The recycling station is delivered pre-assembled. Holes (0.5") are provided in each mounting foot for securing to base.
TO SPECIFY:	Select MRR-0200-00005 Choose: - Powdercoat Color - Lamacoid Labels

HEIGHT: 37.75" (96cm) WIDTH: 42.88" (109cm) DEPTH: 26.18" (66.5cm) WEIGHT: 250lbs (113kg)



TOP VIEW

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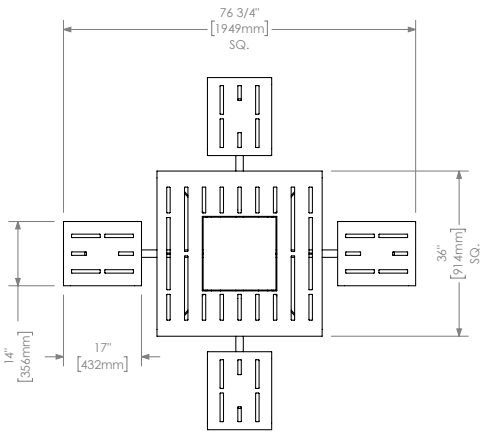
1100 SERIES

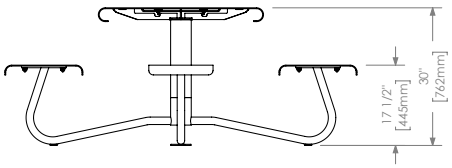
MTB-1100-00002

Legacy # MLPT1100B-M-GB

MATERIALS:	Table top and Seats are manufactured using lasered steel panels. The frame is HSS steel tube and is available as surface mount only.
FINISH:	The Maglin Powdercoat System provides a durable finish on all metal surfaces.
INSTALLATION:	The table is delivered pre-assembled. The legs have 1/2" holes for anchoring.
TO SPECIFY:	Select MTB-1100-00002 Choose: Powdercoat Color

HEIGHT: 30" (762.0mm) LENGTH: 76 3/4" (1949.4mm) DEPTH: 76 3/4" (1949.4mm) WEIGHT: 199.81lbs (90.63kg)





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REV-01

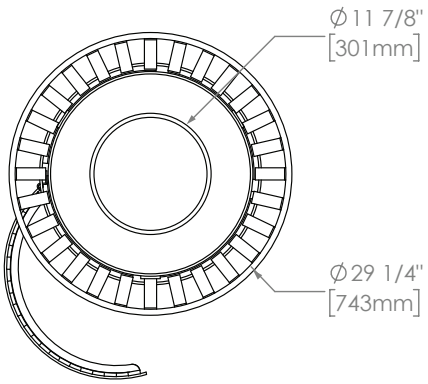
SCALE (A) 1:32

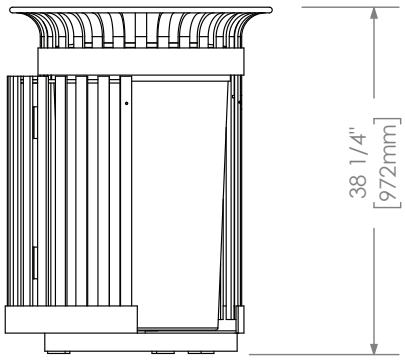
MTR-0200-00020

Legacy # MLWR200S-32-ST

DESCRIPTION:	200 Series - 200 Trash Receptacle: Heavy Duty Steel Flat Bar Frame, Metal Lid, Side Opening, 1 x 32 Gallon Polyethylene Liner
FINISH:	All steel components are protected with E-Coat rust proofing. The Maglin Powdercoat System provides a durable finish on all metal surfaces.
INSTALLATION:	The trash container is delivered pre-assembled. Holes (0.5") are provided in each foot for securing to base.
TO SPECIFY:	Select MTR-0200-00020 Choose: - Powdercoat Color

HEIGHT: 38 1/4" (97.2cm) DIAMETER: 29 1/4" (74.3cm) WEIGHT: 201lbs (91.2kg)





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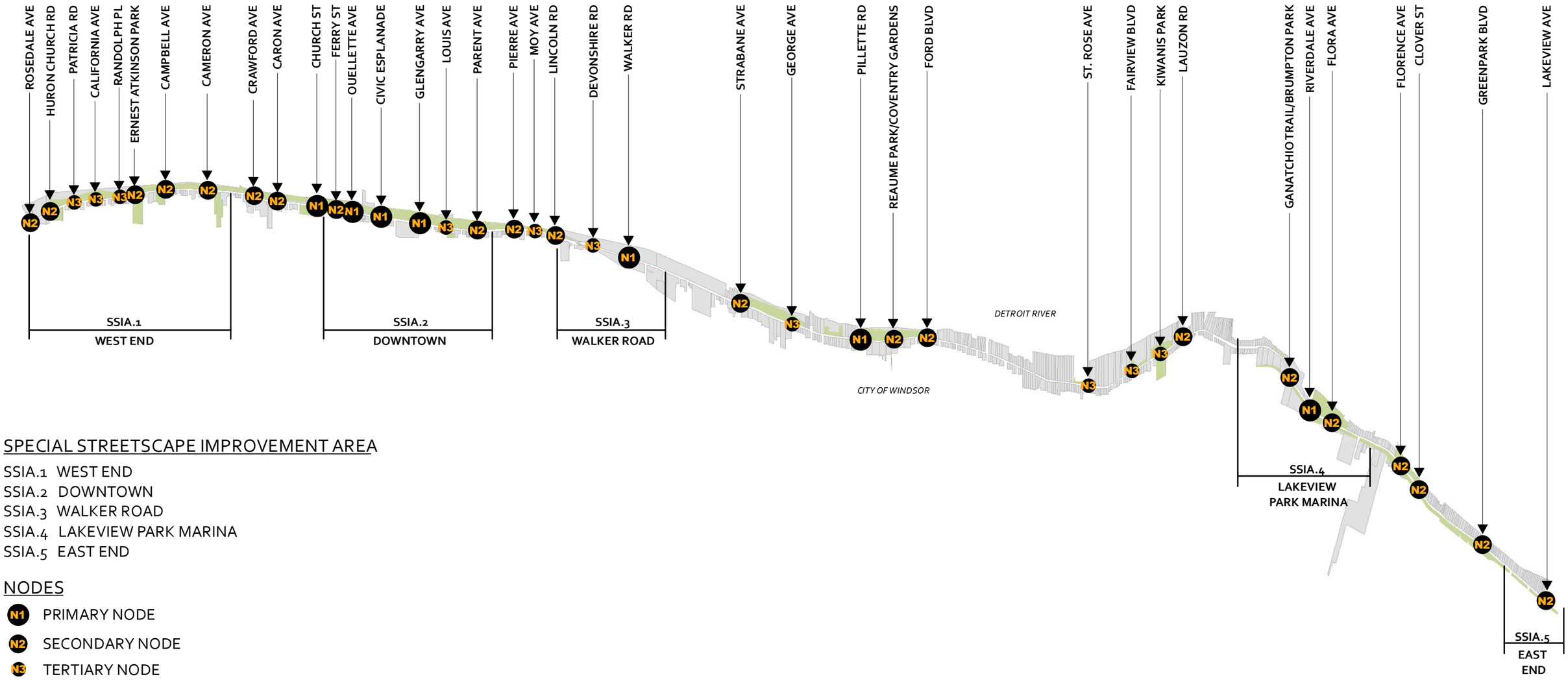
SCHEDULE B: SPECIAL STREETSCAPE IMPROVEMENT AREAS AND NODES

The Riverside Drive Vista Improvement Project (Class Environmental Assessment) identified Special Streetscape Implementation Areas (S.S.I.A) and Nodes at key intersections to prioritize important design and to help articulate the Riverside Drive Corridor as a Scenic Drive. The figure below identifies these S.S.I.A and Nodes from Rosedale Avenue (in the west) to the east boundary of the City of Windsor.



SPECIAL STREETSCAPE IMPROVEMENT AREA

SSIA.1 WEST END
SSIA.2 DOWNTOWN
SSIA.3 WALKER ROAD
SSIA.4 LAKEVIEW PARK MARINA
SSIA.5 EAST END

NODES

N1 PRIMARY NODE
N2 SECONDARY NODE
N3 TERTIARY NODE