Review of Ottawa Central Area Pedestrian Easement Policy

Draft November 9, 2012

Background

Pedestrian easements have been required by Ottawa's Official Plan in the Central Area for over 25 years.

The primary purpose of the pedestrian easement policy is to create additional space along the edges of narrow right-of-ways, specifically for the use of pedestrians. On applicable streets, the pedestrian easement is required along the full length of the property frontage. The policy is described in Annex 1 - Road Classification and Rights-of-Way in Section 7 of Volume 1 of the Official Plan.

The policy requires that the easement have a height of 3.7 metres from finished grade surface. The required width varies according to the building design: where the building cantilevers over the easement, a width of 1.5 metres is required; where columns are used to support the building over the easement, a width of 2.5 metres plus the width of the columns is required.

To address variances between the depth of the easement between cantilevered and colonnaded buildings located adjacent to each other, the policy requires a clear passage for pedestrians of 1.5 metres where the buildings meet.

The benefits of weather protection provided by cantilevers/overhangs and colonnades/arcades are secondary, and are not mentioned in the policy as a reason for its implementation.

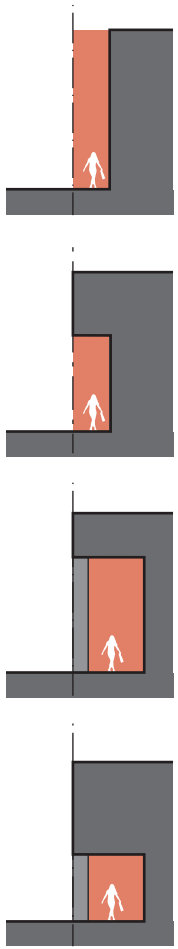
Most streets where the policy for pedestrian easements applies are also subject to ROW widening requirements. In combining ROW widening with the pedestrian easement, even more significant increases to the space available for the pedestrian realm becomes possible.

The streets to which the pedestrian easement policy applies are mapped in Figure 1 (opposite). The Transitway corridors through downtown were primary targets for the pedestrian easements.

As the map shows, the pedestrian easement policy has been relatively successful in terms of the total linear distance of easement created. However because of discontinuities and the variations of styles and typologies used, the overall effect as viewed from the street is not as clearly successful.

Existing Typology Used to Create Pedestrian Easements

The pedestrian easements that have been created in Downtown Ottawa can be divided into four different types: setback, cantilever/overhang, 2+ storey colonnade/arcade, and 1 storey colonnade/arcade. The distribution of the different types of pedestrian easement has been mapped in Figure 1 (opposite). As the map shows, a setback (Type 1) appears to be the most common approach to addressing the pedestrian easement requirement.



Type 1

Setback (Including Canopy)

Type 2

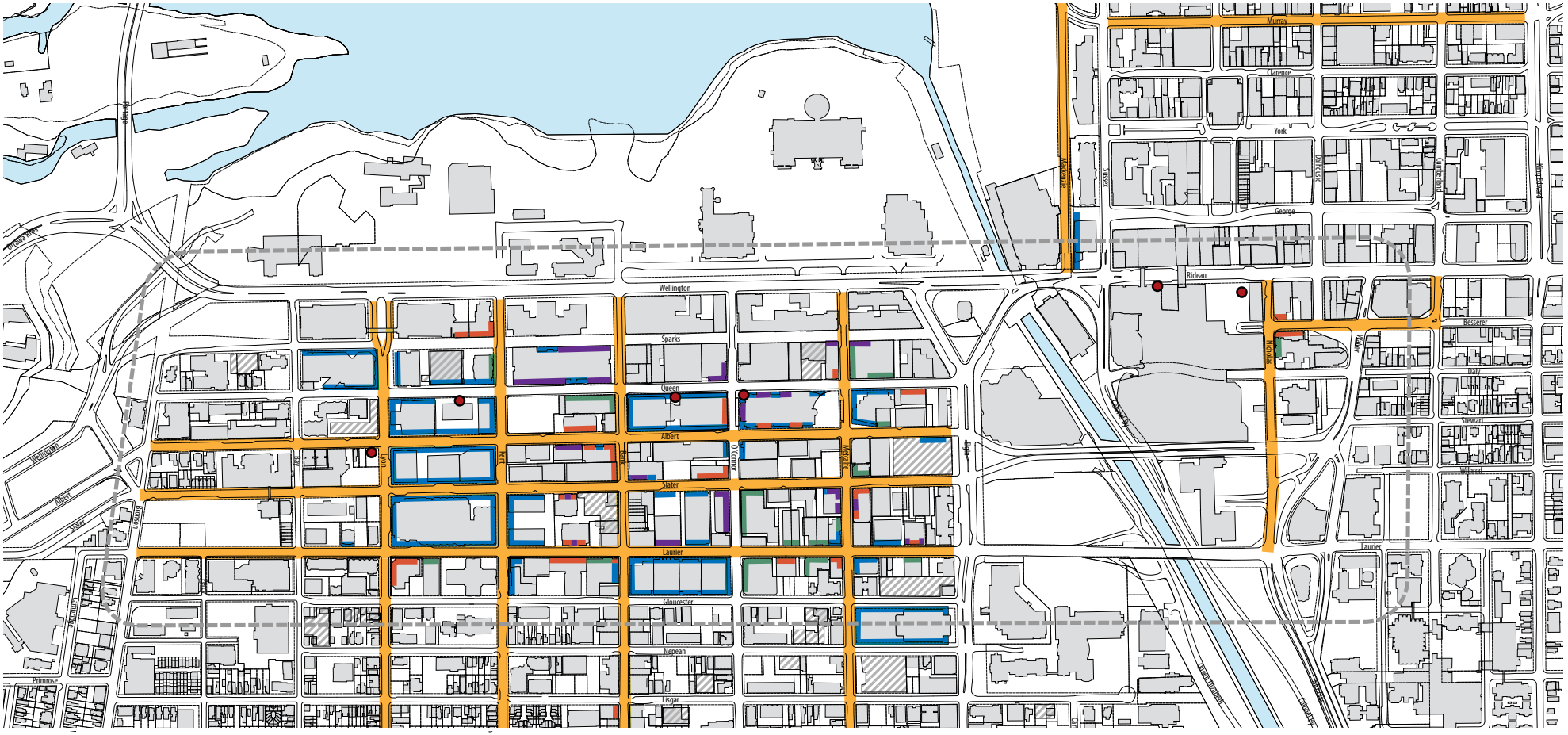
Cantilever/Overhang

Type 3

2+ Storey Colonnade/Arcade

Type 4

1 Storey Colonnade/Arcade



- Widening/Easement Policy Applies
- Setback (Including Canopy) - **Type 1**
- Cantilever/Overhang - **Type 2**
- 2+ Storey Colonnade/Arcade - **Type 3**
- 1 Storey Colonnade/Arcade - **Type 4**
- OLRT Station Entrance

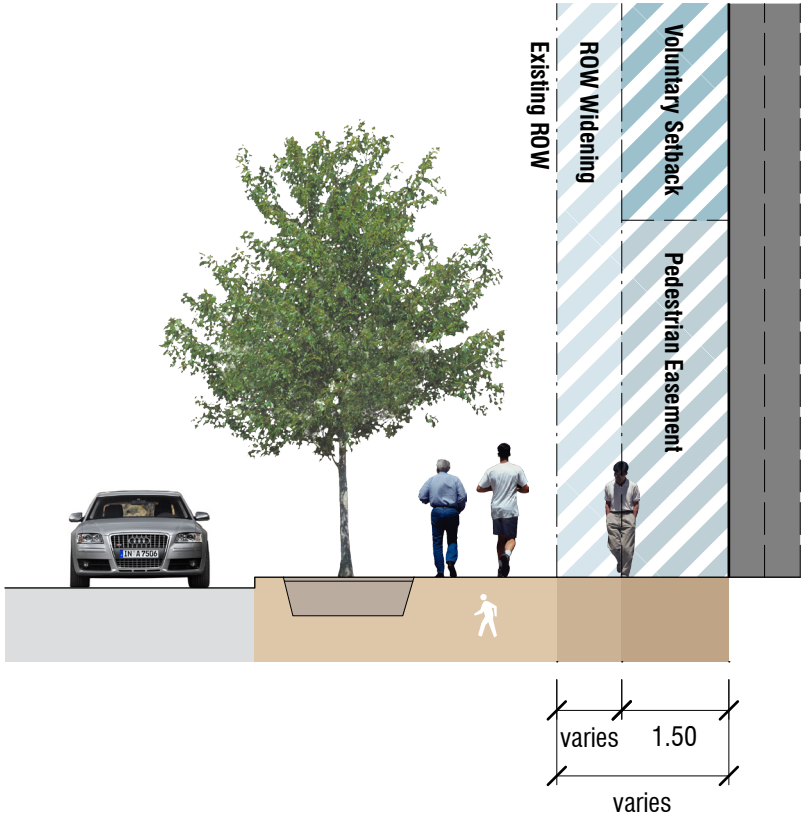
Figure 1: Pedestrian Easement Typology

Type 1

Setback (Including Canopy)

Overview

In this type, the entire building is set back from the property line/edge of ROW typically by 1.5 metres to achieve the required pedestrian easement without encroaching above the easement.



Benefits

Overall, the use of a setback creates the most seamless pedestrian realm. The effect is essentially the same as a ROW widening, appearing to widen the entire street.

Weather protection over the easement can easily be provided in the form of a canopy.

No structural complexity or modification to the building structure or design is required.

Issues

Changes in grade between the public ROW and the easement including steps, ramps, etc.

Examples

Albert St west of O'Connor St

Laurier Ave east of Kent St

Metcalfe St south of Gloucester St

Type 2

Cantilever/Overhang

Overview

In this type, the upper floors of the building cantilever out over the pedestrian easement to meet the property line/edge of ROW, achieving the required pedestrian easement without any supporting columns interfering with pedestrian movement.

Benefits

At grade, a seamless pedestrian realm can be created.

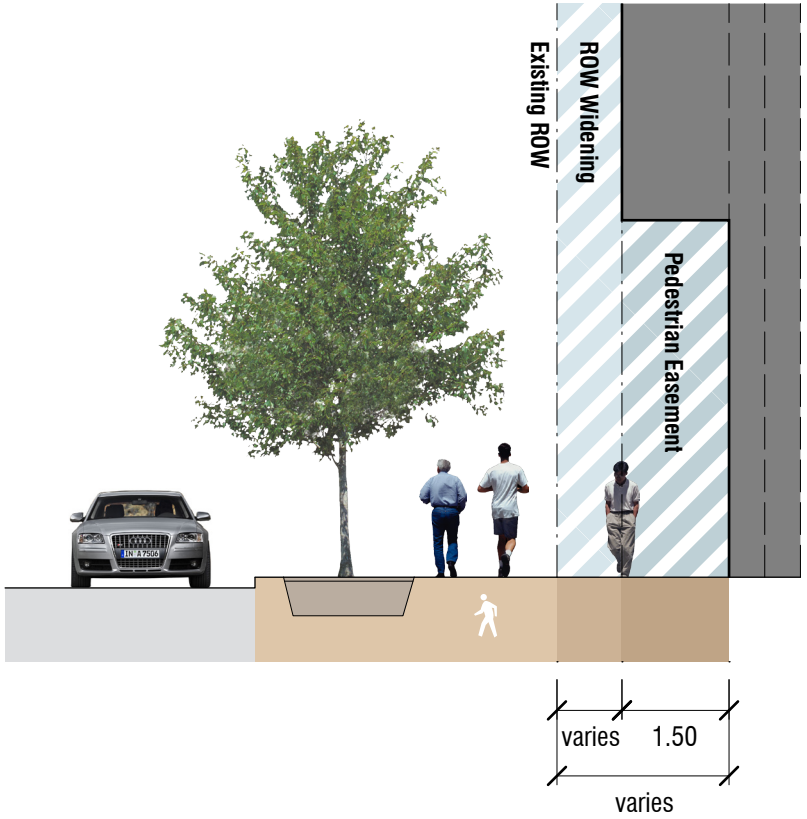
Weather protection over the easement is provided.

Visual enclosure of the street occurs at the ROW/property line, providing continuity with the heritage and uniqueness of Ottawa's narrow downtown streets.

Issues

Reduces light penetration to the pedestrian realm and visibility/brightness of retail frontages.

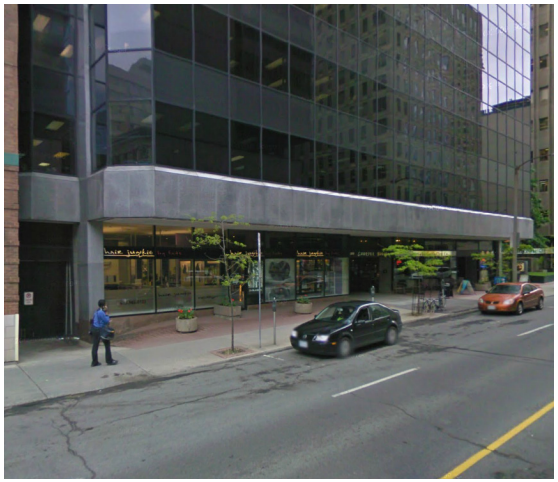
Changes in grade between the public ROW and the easement including steps, ramps, etc.



Examples

Laurier Ave at O'Connor St

Metcalfe St at Slater St



Laurier Ave west of Metcalfe St

Type 3

2+ Storey Colonnade/Arcade

Overview

In this type, columns support the upper floors of the building over the pedestrian easement, providing a more separated 2.5 metre pedestrian easement. The colonnade/arcade height is at least 2 full building storeys.

Benefits

Weather protection over the easement is provided.

Visual enclosure of the street occurs at the ROW/property line, providing continuity with the heritage and uniqueness of Ottawa's narrow downtown streets.

Colonnades/arcades can contribute to a sense of unique architectural character for the Downtown area.

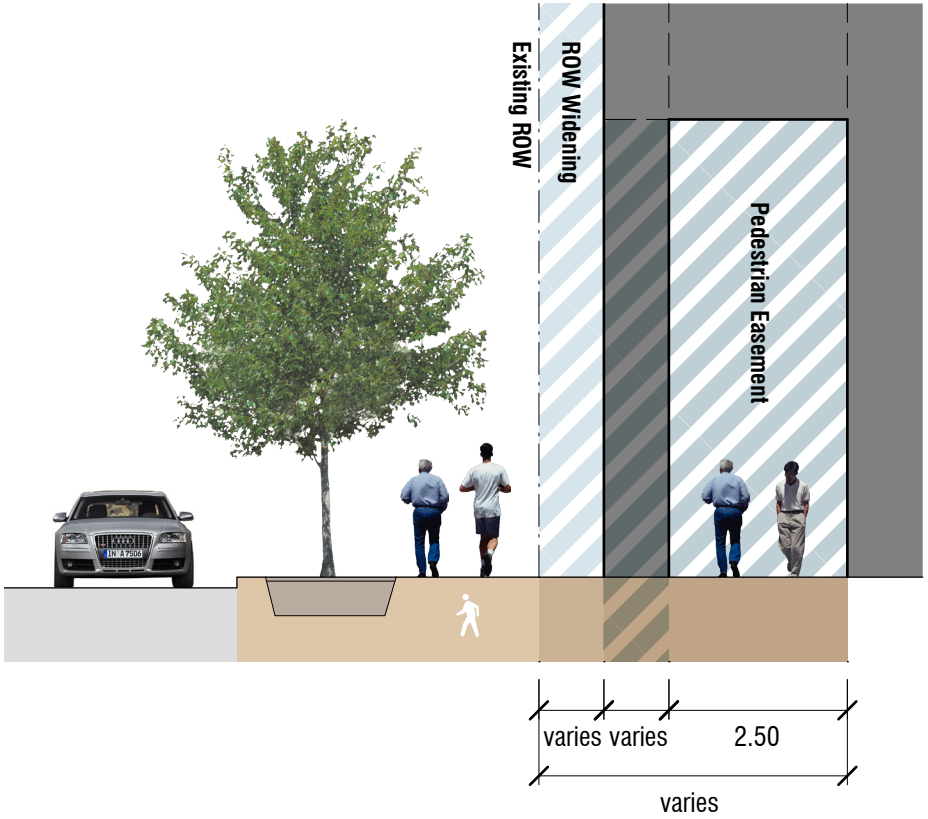
Issues

Reduces light penetration to the pedestrian realm and visibility/brightness of retail frontages.

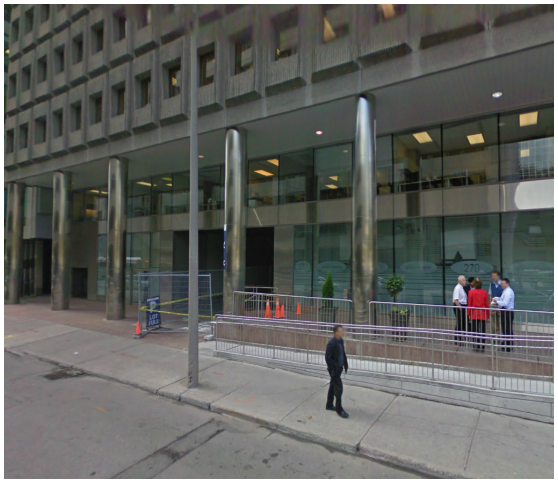
Columns on street corners can severely impact available space for pedestrians.

Changes in grade between the public ROW and the easement including steps, ramps, etc.

Space encumbered with retrofitted uses including ramps, waste bins, news boxes, etc.

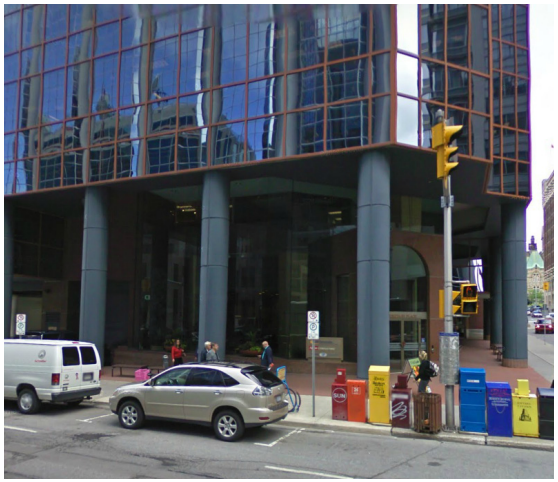


Examples



Albert St west of Bank St

Laurier Ave east of Bank St



Queen St at O'Connor St

Type 4

1 Storey Colonnade/Arcade

Overview

In this type, columns support the upper floors of the building over the pedestrian easement, providing a more separated 2.5 metre pedestrian easement. The colonnade/arcade height is only 1 building storey.

Benefits

Weather protection over the easement is provided.

Visual enclosure of the street occurs at the ROW/property line, providing continuity with the heritage and uniqueness of Ottawa's narrow downtown streets.

Colonnades/arcades can contribute to a sense of unique architectural character for the Downtown area.

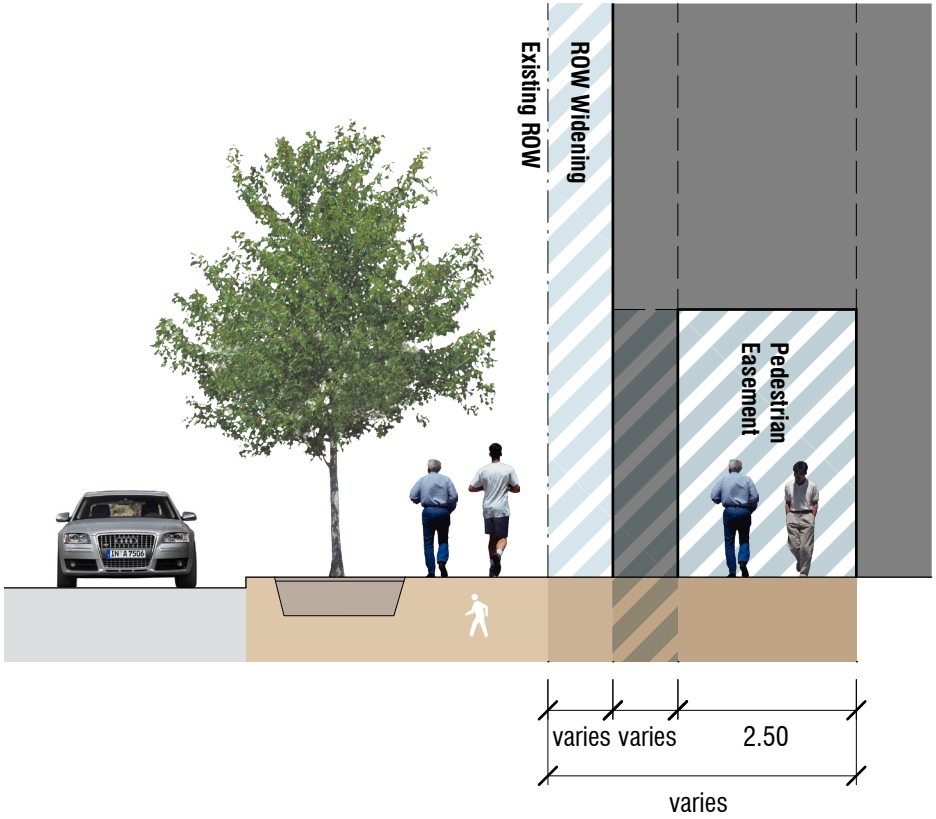
Issues

Significantly reduces light penetration to the pedestrian realm and visibility/brightness of retail frontages.

Columns on street corners can severely impact available space for pedestrians.

Changes in grade between the public ROW and the easement including steps, ramps, etc.

Space encumbered with retrofitted uses including ramps, waste bins, news boxes, etc.



Examples

Laurier Ave at O'Connor St

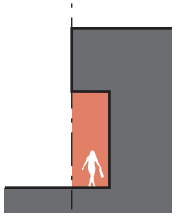
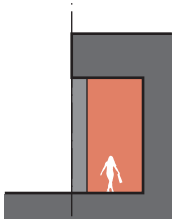
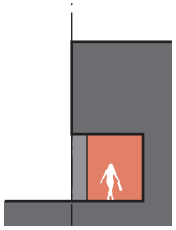
Laurier Ave at Metcalfe St

Queen St at O'Connor St

Performance Matrix

Ranked by Performance from

1 (Best) to **4** (Worst)

	Light Penetration	Continuity of Pedestrian Space	Weather Protection	Effect on Retail Uses	Ease of Implementation	Barriers to Movement	
 **Type 1** Setback (Including Canopy)	1	1	4	1	1	1	9
 **Type 2** Cantilever/Overhang	2	1	3	2	4	2	14
 **Type 3** 2+ Storey Colonnade/Arcade	3	3	2	3	3	4	18
 **Type 4** 1 Storey Colonnade/Arcade	4	4	1	4	2	4	19

6 Best Possible Score

24 Worst Possible Score

Specific Issues with Colonnades/Arcades in Ottawa

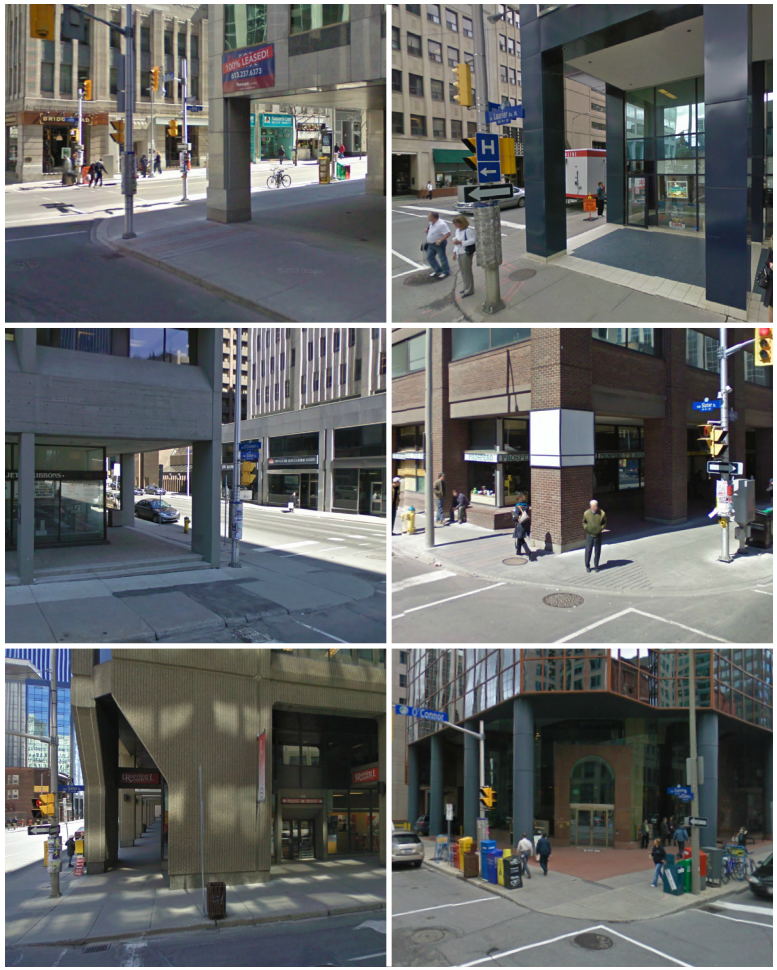
The primary historic purpose for arcades or colonnades along streets was to create shaded public space in cities subject to very hot weather. In these areas, a shaded place to walk and shop was essential for human comfort, and consequently, colonnades were well-used and lively, since everyone wanted to be out of the sun. Rain protection was a secondary benefit. In hot climates, too much light penetrating into a colonnade would be a negative quality, as brightness would likely be coupled with more intense heat, both directly from sunlight and indirectly from reflection and radiation.

When the colonnade is transplanted to a colder climate city such as Ottawa, it is more problematic because its primary function is no longer to provide shade, but weather protection. In cold climates, city dwellers tend to search out sunny spots, and brightness and visibility are highly valued qualities. Consequently, far fewer people willingly congregate or spend time in a colonnade, and retail in particular will have a far harder time attracting both window shoppers and casual foot traffic. Strict signage controls can further damage retail viability by relegating signage to under the colonnade, severely impairing visibility from the street.

Colonnades and arcades can feel distant and disengaged from the public space of the street. Depending on the building design the columns can be massive and block visibility into the space and the roof of the space can be quite low. As a result the spaces can feel, cold, dark, uninviting and less safe than the street space.

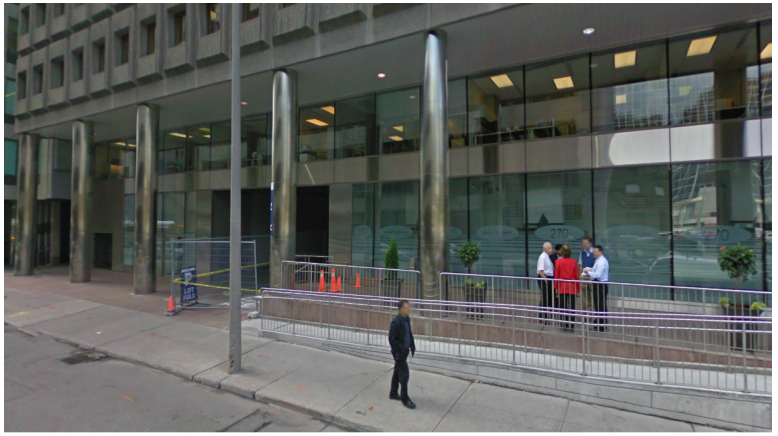
In the case of Ottawa, where the colonnade is a response to a policy intended to increase the width of the pedestrian realm, further issues are created by colonnades at street corners where the corner column can significantly restrict movement and flow of pedestrians at crossing points. Space for waiting can be impacted, forcing through pedestrian traffic to detour around the column and through the colonnade. Because the space available is divided into two separate parts, the total improvement of Level of Service of the section of sidewalk mayt be significantly lower than the improvements associated with a cantilever/overhang or a setback. Angling or cantilevering the corner can effectively solve this issue and has been used in several locations.

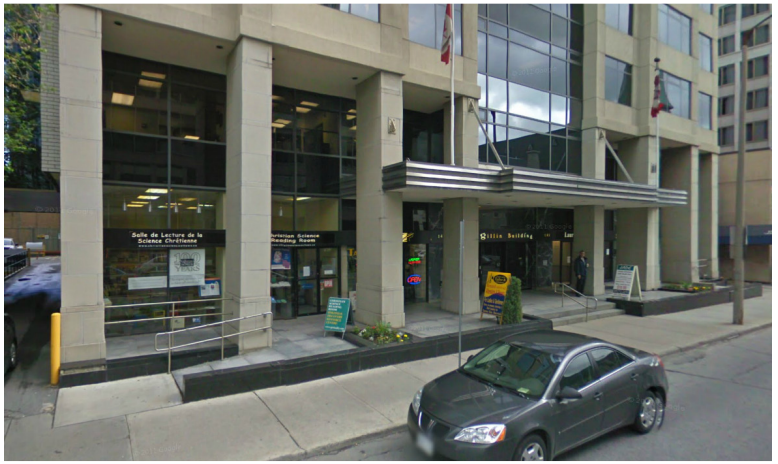
Another issue with colonnades/arcades is that their depth changes depending on the width of the columns. This means that the interface between 2 different colonnades or between a colonnade and a cantilever/overhang will always entail a variation of the ground floor setback and an adjustment of the pedestrian easement, creating a highly inconsistent experience.

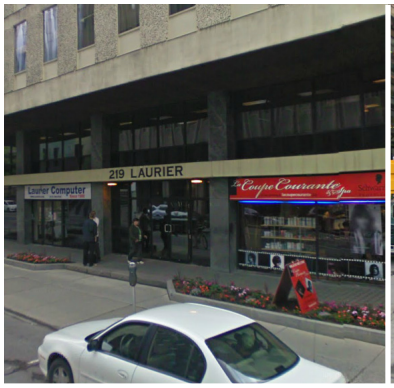


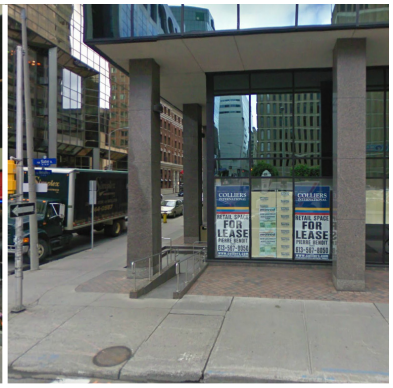
An Issue with Implementation and Operation of Pedestrian Easements

The most significant overall issue with the implementation of the pedestrian easements in Downtown Ottawa is the poor treatment of the extended pedestrian realm. Regardless of typology used to create the easement, changes of elevation, stairs, planters, ramps, curbs and other barriers are commonly introduced between the sidewalk and the easement. These serve to highly diminish the effectiveness of the easement as an extension of the pedestrian realm. In some cases, the easement, or the interface between the easement and the sidewalk, is used to create wheelchair ramps to access a higher finished floor elevation of the building. In other cases, access ramps for loading or parking cut across the easement, introducing grade changes that prevent walking from the easement onto the easement of an adjacent property or the sidewalk.









Recommendations

The pedestrian easement policy creates a linear pedestrian space parallel to the public right-of-way that complements and enhances the sidewalk area. While incremental application may not result in uninterrupted lengths of walkway, it provides a wide range of other benefits, including: transition and arrival space at building entrances from the public street to the main doors; extra pedestrian waiting space at street corners; social spaces that support street life including outdoor cafés and seating areas; accommodation of higher pedestrian volumes as a result of the OLRT line; and, contribution to weather protection in the case of cantilevers or colonnades/arcades.

Due to Downtown Ottawa's heritage of narrow street rights-of-way, it is still relevant and effective to continue with the pedestrian easement policy as a means of increasing the space available in street rights-of-way for the pedestrian realm.

Establishing a Hierarchy Among Typology

Recommendation: that the City establish a hierarchy among solutions that requires the use of setbacks and cantilevers as the typology for pedestrian easements rather than colonnades/arcades.

The setback and cantilever/overhang types perform better than colonnades/arcades and there is an apparent willingness on the part of landowners/developers to use the setback typology. The space created by setbacks can be seamlessly integrated into the adjacent public space of the street. The cantilever/overhang type will continue to give landowners/developers an option to maximize their GFA, above and below ground level, with the potential trade-off of increased cost or structural complexity.

Expand Application Area

Recommendation: modify the Official Plan to apply the widening easement policy to Queen Street (Lyon to Elgin) and O'Connor Street (Wellington to Nepean).

The new LRT Stations located on Queen Street will significantly alter the volume and flow of pedestrian between the LRT and the major office buildings and other destinations in the downtown. Both Queen and O'Connor have benefitted from significant implementation of colonnades, cantilevers and setbacks despite not being included in the pedestrian easement policy, and it is logical to enforce this trend by making it a requirement.

Increase Easement Height

Recommendation: for the cantilever/overhang type, increase the minimum height of the pedestrian easement to 4.5 metres, which is still within the range of typical retail/commercial ground floor heights.

Even when using the cantilever/overhang type, 3.7 metres is too dark and oppressive. Consider requiring ground floor heights of a minimum of 4.5 metres for all commercial buildings along downtown streets, as this height allows far greater flexibility for future variations in at-grade uses.

Recommendation: for new colonnade/arcade types, increase the minimum height of the pedestrian easement to the equivalent of 2 storeys in height.

In Ottawa, light penetration and visibility are far more important factors than other performance standards, and the 2 storey colonnades/arcades perform significantly better in this key indicator.

Additional Guidelines

Guideline: Where setbacks and cantilevers cannot be implemented due to structural or other design issues, ensure that colonnades/arcades contribute to the augmentation of the public space of the street. The size, shape and frequency of columns and the height of the space created are important factors in determining the perception of continuity, accessibility, visibility personal security and usefulness of the colonnade/arcade space.

Guideline: Ensure pedestrian easements form an accessible extension of the sidewalk, and are a clearway allowing through movement with no permanent obstructions except for locations where a patio or market zone has been permitted due to adequate sidewalk width.

Guideline: Ensure pedestrian easements surfaces are at the same level as the adjacent sidewalk, with no steps, curbs, ramps, or other obstructions that would not be permitted on a sidewalk.

Guideline: Ensure that transitions in grade, including steps, ramps, retaining walls, and the provision of site furnishings, including seating, bike racks, displays, planters, etc. are beyond the clear pedestrian zone required in the easement policy.

Guideline: Design pedestrian easement surfaces to be contiguous and materially complementary with the adjacent sidewalk since pedestrians are meant to see and use the entire pedestrian realm without distinction. If definition is desired to indicate the boundary between public right-of-way and private property, consider a paving band, joint or saw cut line rather than completely different materials on public and private property. Consider coordinating a material palette with the local BIAs.

Guideline: Extend the contiguous surface of the pedestrian easement across the full property width without interrupting surface material or grade when crossing a driveway, loading bay or access ramp.

Guideline: Depending on the micro-climate conditions including sun, rain and wind, include canopies on buildings that use the setback typology to moderate impacts on the pedestrian environment.