

Background

Angular planes have historically been used by planners, architects and urban designers as one of the tools to address the interface between existing low-rise neighbourhoods and proposed mid to high-rise development proposals. Significant building heights and massing can create overlook conditions, shadow impacts and elevated wind conditions on the abutting low-rise properties.

With only a few site exceptions, angular planes were removed from City's Zoning By-law in 2007 and were replaced with step back provisions in the **RA1** to **RA5** (Apartment) zones.

Angular planes were also expanded to more urban contexts in the early 2000s as a recognized planning tool within the GTA. They were incorporated into the Official Plan, Local Area Plan policies and Zoning By-law regulations (in some cases) in addition to guidelines along corridors and high-density sites in low rise residential neighbourhoods to minimize impacts.

Buildings that fit within the specified angular planes make the contrast of heights less impactful between different heights and building sizes by providing transition, and mitigating overlook, shadow and wind conditions.

Angular planes, like any planning tool, are not without implications. They often create challenges for the mid to high-rise developments in terms of floor plan efficiency, added construction complexity mechanical and waterproofing systems. Since floor sizes are different on each level, this also creates unnecessarily large amounts of different unit interior layouts that are more costly and challenging to market.

Issue Identified	Image of issue	Background
Podiums -Developers have indicated a concern with the City always requiring podiums for tall buildings. They would like to ensure there is flexibility in designing towers and how they fit along the street frontageThere was also an expressed concern with onerous podium to tower setbacks.		Mississauga is a windy city due to its location in the GTA near the escarpment and Lake Ontario. Podiums help create a barrier for wind washing down tall buildings. Mississauga City Hall is a good example of a building creating an uncomfortable pedestrian environment. On the east side of the building that doesn't have a podium, the wind generated by the built environment is uncomfortable for pedestrians on windy days. Podiums can help create a more human-scaled, pedestrian-friendly base for buildings while reducing the visual impact of tall towers. They can also be a tool for improving the street-level experience, making the building's footprint more appealing and accessible to the community. As well, podiums fill the voids between buildings. If an applicant were to propose three towers on a block without a connecting podium, it will likely create a more detached and isolated living condition. Podiums also provide opportunities for retail and commercial uses along street frontages, which help activate the street.

Issue Identified	Image of issue	Background
Floor plate size -Some developers have expressed concerns that floor plate sizes specified in the City's Zoning By- law are too restrictive and that larger floor plates make better and more flexible units.	<image/>	Towers with larger floor plate sizes tend to create "wall" effects on the ground and make pedestrians feel "boxed in". The City already has added permission in the proposed RA6 and RA7 (Urban Apartment Zones) for floor plates to be 1000 sq m when under 12 storeys. These zones are currently under appeal. The increase in floor plate size for taller buildings over approximately 40 storeys is to accommodate a larger number of elevator banks within the floor plate and to address the proportionality of buildings. Slender towers maintain appropriate densities while allowing sky views between buildings.

Issue Identified	Image of issue	Background
Pedestrian Wind		Pedestrian Wind Comfort and Safety Studies are conducted to predict,
Comfort and	When wind hits the windward face of a tall building, the	assess and, where necessary, mitigate the impact of wind conditions
Safety Study	building tends to deflect the wind downwards, causing accelerated wind speeds at	by modifying site and building designs. Section 19.4.5 of Mississauga
	pedestrian level and around the windward corners of the building.	Official Plan identifies Wind Studies as a requirement for a complete
-Developers have	Tail and wide building facades that face the prevailing winds, without	application.
expressed	mitigation measures, are generally undesirable.	
concerns with		Pedestrian Wind Comfort and Safety Studies are conducted by
current Terms of		professional engineers who specialize in and can demonstrate
Reference for		extensive experience in dealing with wind and microclimate issues in
Pedestrian wind		the built environment. These studies predict anticipated WINd
Studies.	A building base or podium	conditions resulting from new developments as well as recommend mitigative measures to reduce the amount of wind in cross that would
Secondary	with a sufficient stepback from the tower (6m minimum) deflects downward wind	miligative measures to reduce the amount of who in areas that would subject pedestrians to uncomfortable or depercus conditions.
-Secondary	(downwashing) resulting in a more comfortable	subject pedestrians to unconnortable of dangerous conditions.
respect to not	streetscape.	The City's standard Terms of Reference requires that the wind
being able to use	Sm minimum*. "Where a 6m stepback	condition of a site meet the requirements for the intended use. For
vegetation to	combination of a tower stepback of am and an	example: if an applicant is proposing a patio then the wind condition
mitigate wind	at grade canopy of 3m can be utilized to deflect	should be conducive to sitting. If the predicted condition is for
conditions.	streetscape.	standing, then the applicant can use vegetation as a mitigative
	3m canopy.	measure. Where extreme wind conditions create unsafe situations
	Implementing a wind	and/or uncomfortable wind conditions are predicted, soft landscaping
	mitigation plan is essential to ensure that podium roofs with	(e.g. trees, shrubs, etc.) will not be considered as acceptable wind
	are comfortable and safe for their intended uses.	mitigation. The strongest winds mostly happen during the winter
	Horizontal canopies.	seasons when deciduous trees and shrub have already lost their
	Tower stepback from podium.	leaves and cannot act as screens to slow down wind. Most trees
	Podium level trellises and pergolas. Wind screens.	cannot mitigate wind efficiently without fully developed foliage, which
	Podium level parapet	even with low wind and good soil will take years, even decades, to
	wind screens.	develop. Hard landscaping (e.g. architectural features, screens, etc.)
		are required in these situations.
		The Terms of Defension of few Deductrics Mind Occurrents (10.5.5.5
		The Term of Reference for Pedestrian Wind Comfort and Safety
		Studies was completed by a consultant (RWDI) that was
		approved on September 10, 2014 via Council Resolution 0107-2014
		conditions to properly milligate wind.

Issue Identified	Image of issue	Background
Issue Identified Standards for Shadow Studies -Developers have expressed a concern with the Standards for Shadow Studies Terms of Reference. -Shadow studies	Image of issue	Background Section 19.4.5, of Mississauga Official Plan identifies a Shadow Study as a study that staff may request as one of the requirements for a complete application. The studies must demonstrate that the location and height of a proposed building, if greater than 10.7 m, will not cause undue shade on the subject lands, nor on surrounding properties, including building facades, private and public outdoor amenity and open spaces, public parkland, sidewalks or other components of the public realm. Shadow studies are intended to show the impact on the existing and
are too restrictive and favour the rear yards of detached and other low-rise dwellings and sidewalks		The Standards for Shadow Studies Terms of Reference was completed by R. Bouwmeester and Associates, Sun & Shadow Position Specialists in 2014 and approved by Council Resolution 0167-2014

Issue Identified	Image of issue	Background
40% Landscape Area -The development industry has expressed concern that the minimum landscape requirement of 40% of a site for high-rise developments is excessive, especially on smaller sites	C C C C C C C C C C C C C C C C C C C	Zoning By-law 0225-2007 contains a requirement in the RA1 to RA5 (Apartment) zones which requires that all sites have a minimum 40% landscape area. The "tower in the park" developments, which were developed from the 1950's to 1980's, were intended to ensure adequate landscaped setbacks to adjoining lands, provide outdoor amenity, and reduce visual impact especially on adjoining low-rise neighbourhoods. However, as the city becomes more urban and sites denser, this requirement for landscape area on a site becomes counter intuitive to the goal. The new RA6 and RA7 (Urban Apartment Zones) that were recently introduced into the City's Zoning By-law (under appeal) better reflect a more urban environment and is more consistent with the form of apartments being built recently These new zones do not have a minimum landscape area requirement.

Roof top Amenity Space – securities -The Development Industry expressed concern that the securities for landscape works on rooftop amenity areas is explicition	Issue Identified	Image of issue	Background
	Roof top Amenity Space – securities -The Development Industry expressed concern that the securities for landscape works on rooftop amenity areas is cost prohibitive		The City takes securities for all amenities and landscape treatment on development sites to ensure they are completed as per the approved site plan drawings. Securities include all landscape treatments in addition to any wind and noise mitigation measures.

Issue Identified	Image of issue	Background
Balconies		The City does not have zone regulations that require balconies nor is
-Developers would like the opportunity to decide if balconies are warranted. According to one developer, approximately 59% of purchasers would rather have a Juliet balcony and slightly larger suites rather than a balcony.		there any other legislation that requires them. Balconies are not always economical from a sustainability perspective. Balcony slabs are hard to insulate compared to wall assemblies. They become thermal bridges where heat can transfer in and out faster than in other parts of a building envelop. This can cause substantial heat loss in winter and add cooling load to air conditioning system in the summer. The City is seeing a trend where rental apartments proposals are eliminating balconies from their designs to reduce construction, maintenance and heating/cooling costs.

APPENDIX 2

Issue Identified	Image of issue	Background
Shafts and Vents -Underground air shafts and vents are required though the Ontario Building Code to vent underground and enclosed parking garages. -Developers have expressed an interest in staff not commenting on their location.		These vents are often placed along property lines where they are most economic and functional. Vents located next to the public realm can limit activity, intended uses and/or landscaping treatments along the property edge.

Issue Identified	Image of issue	Background
Region of Peel –		Waste collection falls under the jurisdiction of the Region of Peel. The
Garbage		Region has minimum design standards that they require to be
Collection		implemented in all new developments. Due to the size of the trucks
Sama aanaarna		and their associated turning radii, loading and garbage areas for both
-Some concerns		nigh-rise and low-rise developments become large and bulky.
the development	COMMERCIAL	
industry regarding		
loading and		
garbage		
collection areas		
being excessive		
difficult to achieve		
	and the second se	



Issue Identified	Image of issue	Background
Mississauga Fire Route By-law -A concern was raised that the Mississauga Fire Route By- law was too restrictive	Back in to the Back in the Bac	The previous Mississauga Fire Route By-law (1036-81) required that fire routes to be designed so that fire trucks did not have to back up more than 90 m. While this issue is not an urban design issue, urban design staff often assisted applicants to resolve noncompliance by suggesting site design modifications. Following the Fire Division's recommendation, By- law 1036-81 was repealed and replaced with By-law 0216-2023. The new By-law is consistent with the Ontario Building Code and other municipalities in the GTA. As such, this concern is no longer an issue.
Green Development Standards 2024 The new Green Development Standards are expensive and onerous	Green Development Standards are underway. Have your say.	The Green Development Standards were recently updated and received Council approval in April 2024. This update was an action item identified in the Climate Change Master Plan. The new GDS was completed by SSG (Sustainability Solutions Group) who was the consultant for a number of GTA municipalities. The City's new GDS is now consistent with these same municipalities. The new GDS Standards will come into effect March 31, 2025 and will be phased in as outlined in the May 2023 report to PDC. The Climate Action Group is currently developing a financial incentive program to encourage compliance.

Issue Identified	Image of issue	Background
Mississauga Urban Design Advisory Panel (MUDAP) -Some developers have expressed concerns with having to attend MUDAP as part of a complete application submission and the expense of the submission requirements	<image/>	The Urban Design Advisory Panel was established in 2007. Its purpose was to provide staff and applicants with independent and professional advice on development proposals. The Panel consists of professional architects, landscape architects, engineers, planners and urban designers. Panel comments are most beneficial in the earliest stages of the development design so that changes can be made, if required, as early in the design process as possible. Applicants are strongly encouraged to attend a MUDAP panel. Applications that are in intensification areas such as the downtown, Node and Corridors, or are significantly more intense than the context in which they are planned are required to go to the Mississauga Urban Design Advisory Panel

Issue Identified	Image of issue	Background
PUCC – Public		The Public Utility Co-ordinating Committee (PUCC) is the group of
Utility		utilities operating within Mississauga that collectively address utility
Coordinating Committee		Installation requirements and streamline the provision of "Municipal Consent"
-PUCC was identified as overly complex and extended processing		"Municipal Consent" is the legislative authority that the City uses to control <u>all</u> works within the City ROW. It gives Utility companies permission to install or move utilities. It is also needed whenever a road needs to be excavated.
timelines		Meeting the Legal Requirements of the City:
		-The impact on the surrounding neighborhood is controlled through pedestrian and vehicular traffic restrictions outlined in a Construction Management Plan
		 PUCC / ROP permits set out the timing and physical extent of the work, and the strict enforcement of the City's Noise and relevant by- laws
		- Protection of the surface infrastructure is achieved through the pavement cut repair standards established by the City.
		- Protection of the underground infrastructure is achieved through drawing and construction standards established by
		the City, circulation of drawings for planned construction to all affected stakeholders and adherence to minimum clearances and depths.
		Benefits to the Developer:
		Ensures Compliance with Regulations : PUCC approval ensures that municipal laws and regulatory standards are met, avoiding legal issues, penalties, or project shutdowns.
		Early Conflict Resolution : Developers can identify and address potential conflicts before construction begins. This proactive approach helps prevent costly redesigns and/or construction delays.

Issue Identified	Image of issue	Background -
PUCC -		How the City uses the PUCC Process to coordinate large,
Continued		complex infill developments:
		Through the Engineering Submission Process, consultants working on large developments are required to coordinate all the proposed servicing alignments (wet and dry) supplied by the third-party utilities and to place the information in one drawing set. These drawings are then circulated by PUCC to confirm that all requirements are coordinated for the project (rather than each utility responding separately in an uncoordinated fashion).
lesue Identified	Cross Section through a Typical City Street (25.0m ROW) - Prefered Condition	Background
Postrict site		Section (1/e) (site plan approval) of the <i>Planning Act</i> specifically
works to		allows municipalities to review and approve:
 property being developed Some developers have expressed the concern that Urban Design matters should be restricted to the property being developed. 	Development within subject property Off-site works	 "(e) the sustainable design elements on any adjoining highway under a municipality's jurisdiction, including without limitation trees, shrubs, hedges, plantings or other ground cover, permeable paving materials, street furniture, curb ramps, waste and recycling containers and bicycle parking facilities, if an official plan and a by-law passed under subsection (2) that both contain provisions relating to such matters are in effect in the municipality;" In most cases, large developments do have an impact on the adjoining public realm to a greater or lesser degree. Those impacts need to be assessed and mitigated by the proponent responsible for the impact. City staff have and will continue to work with applicants to identify and resolve any identified issues with the goal of improving the interface between new developments and the public realm.

 Site Works Securities -Some developers have suggested concern with the City requirement to post securities to ensure that developers or property owners: Complete Required Works: Developers are required to complete construction or installation of roads, utilities, landscaping, or other infrastructure (e.g., sidewalks, lighting, stormwater management) accordance with approved plans or agreements. The securities if the developer fails to complete the required works or there's damage to municipality is further to evolve the costs of fixing these issues. Address Future Maintenance: Sometimes, securities are used to cover the cost of any required maintenance or repair of new infrastructure until it is formally transferred to the municipality. Address Future Maintenance: Sometimes, securities are used to cover the cost of any required maintenance or repair of new infrastructure until it is formally transferred to the municipality. Provide a Financial Backstop: If the developer goes bankrupt or is otherwise unable to complete the there work is completed to the project, the securities act as a financial protection for municipality censure at a sufficiencies and that any issues or shortcomings are addressed before the developer fully hands over control.

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Landscape Plan Implementation -Developers have a concern that City staff should not dictate specific plants and material.		Landscape Plan approval is a part of the Site Plan application process to ensure that an acceptable level of site works are provided by the proponent as part of their proposed development. Staff review landscape plans to ensure they are in compliance with the City requirements for replacement planting and enhancements to sites from the public realm. Applicants do not always follow the plan requirements. When this is done, the Landscape Architects reviews the plans to ensure they meet City objectives and meet sustainability features and makes suggested changes.