

Memorandum

To: Wally Dubyk (City of Ottawa)
From: Basel Ansari, P.Eng.
Cc: Austin Shih, MSc, P.Eng.
Subject: **129 Main Street Residential Building – Transportation Memorandum**

Date: March 27, 2025
Parsons No.: 479173-01000

1.0 Background

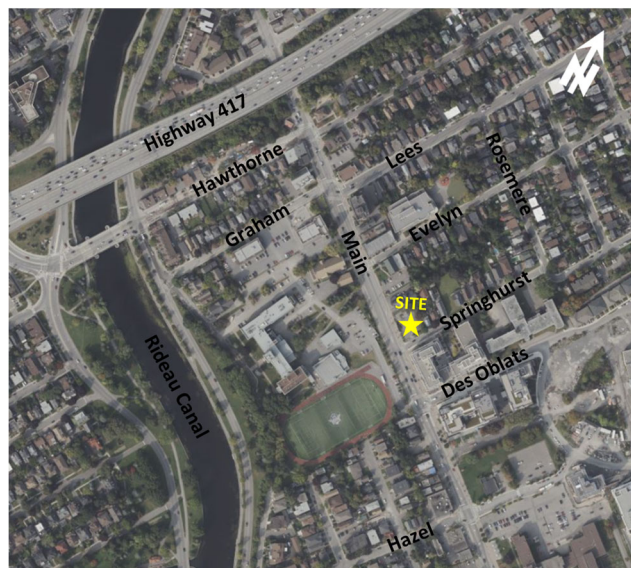
Parsons was retained by the Properties Group Management to prepare a Transportation Memorandum for a proposed mid-rise residential development at 129 Main Street in Ottawa, Ontario. The subject site had previously initiated a site plan control application at this location prior to COVID-19, but was stalled during the pandemic. The applicant recently restarted the site plan control application. Based on the Screening Form provided in **Appendix A**, only the location trigger was met due to Main Street's classification by the Official Plan as a Mainstreet Corridor within a Design Priority Area. Since the trip generation and location triggers are not met, a full Transportation Impact Assessment Report was deemed unnecessary by City staff and it was agreed a traffic memo was appropriate to support the application. Response to comments provided by City staff on the first submission of this memo are provided in a separate document to the City.

2.0 Proposed Development

The development site is located on a vacant lot at the northeast corner of the Main/Springhurst intersection, where it is bounded by Main Street to the west, Springhurst Avenue to the south and existing single and low-rise residential dwellings to the east and north. The area is within the Inner Urban Transect as per City of Ottawa Official Plan and zoned as Traditional Mainstreet Zone (TM7[1839]). Based on the Official Plan Schedule C7A, Main Street is designated as a Mainstreet Corridor within a Design Priority Area. The local site context is illustrated in Figure 1.

The proposed development consists of a 6-storey residential building with 74 apartment units and 361 m² (3,882 ft²) commercial space. A two-level underground parking is proposed with 43 car parking spaces, while 60 bicycle parking spaces on the ground floor and 4 exterior bicycle spaces (64 total). Vehicle access to the underground parking garage is proposed via Springhurst Avenue, approximately 25 m east of Main Street. Development buildout is assumed by horizon year 2027. The proposed Site Plan is provided in **Appendix A**.

Figure 1: Site Context



3.0 Existing and Planned Conditions

3.1 Road Network

Main Street is a north-south arterial road extending from Colonel By Drive in the north to Riverside Drive in the south, where it continues as Smyth Road. Main Street provides a two-way two-lane cross-section and speed limit of 40 km/h at site frontage, with on-street parking bays on the east side north and south of the frontage.

Springhurst Avenue is an east-west local road extending from Main Street in the west to Brunswick Street in the east. The road operates as one-way eastbound from Main Street to Rosemere Avenue (150 m east of the site). Springhurst Avenue provides a wide single lane that permits time-restricted on-street parking on the north side.

The development is located at the northeast corner of the Main/Springhurst intersection, which is an unsignalized 'T'-legged intersection with no westbound movements permitted. There are no major road projects anticipated in the study area at the time of the report.

3.2 Pedestrian/Cyclist

Unit paver sidewalks are provided on both sides of Main Street (2.3 to 4.5 m wide), while concrete sidewalks are provided on the north (1.5m wide) and south (2.0 m wide) sides of Springhurst Avenue.

There are 1.5 m to 1.8 m wide cycle tracks provided on both sides of Main Street, extending from the Lees Avenue/Graham Avenue in the north to Toronto Street in the south. Painted eastbound bike lanes are also provided along the south sides of Hawthorne Avenue (east of Main Street) and Lees Avenue/Graham Avenue. Bike crossing signals, north-south crossrides and bike boxes are provided at intersections along Main Street.

Based on the City of Ottawa 2023 Transportation Master Plan update, Hawthorne Avenue and part of Lees Avenue are classified as cross-town bikeways. Planned future cycling network projects include:

- Adding southbound cycling facilities on Main St from the Hwy 417 bridge to Lees Ave to address the missing link.
- Westbound bike lane on Hawthorne Ave and connection from Lees Ave.

3.3 Transit

Bus routes currently operate along Main Street, which includes routes #5, #16, #55 and #56. All bus routes are classified as local routes, which operate with a custom routing to local destinations. The nearest bus stops to the site are located at the intersection of Main/Des Oblats, approximately 50 m south of Springhurst Avenue.

Based on OC Transpo's "New Ways to Bus" network, which is expected to launch in April 2025, bus route #55 is expected to be removed and will be replaced by route #5 along Main Street and route #85 along Hawthorne Avenue and Lees Avenue.

There are no planned rapid transit corridors or major transit stations in close proximity of the development site.

3.4 Planned Conditions

The development site is located within the *Old Ottawa East Secondary Plan* area, which establishes policies to manage redevelopment of properties along Main Street and enhance the neighbourhoods' land uses, landscape design, transportation, etc. The development is located in Policy Area #2 of the Secondary Plan, which covers areas fronting Main Street south of Highway 417 to both Springhurst Avenue (for east side) and Clegg Street (for west side). No major transportation related recommendations are noted in the Secondary Plan, though some measures such as improving the public realm may have already been implemented in recent years considering the use of unit pavers on Main Street and other landscaping features.

Based on the City of Ottawa development applications, one future development is proposed in close proximity to the 129 Main Street site. This development is located on the south side of Springhurst Avenue just west of the Rosemere Avenue intersection, with a municipal address of 15-17 Des Oblats Avenue. The development is expected to add 284 rental apartment units to an existing site. Based on the TIA Report prepared by CGH in March 2023, the development extension is expected to generate approximately 114 person trips and 28 vehicle trips during morning and afternoon peak hours. This development is part of the ongoing construction of the Greystone Village subdivision development, where several properties are currently being constructed or planned in the near future.

4.0 Trip Generation

The proposed development will consist of 74 apartment units within a 6-storey residential building. A small commercial space with 361 m² area will be provided on the first floor. The commercial space is not expected to result in any new vehicle trips. Based on the City of Ottawa's 2020 TRANS Trip Generation Manual, the residential building is located in the "Ottawa Inner Area" district and is considered by the TRANS Manual a "high-rise multi-unit building". Following the appropriate trip rate from the TRANS Manual and conversion factors from morning and afternoon peak periods to peak hour, the trips generated by the development for each travel mode is calculated as shown in Table 1.

The development is expected to generate a total of 32 person trips during peak hours, which includes 7 vehicle trips, 2 passenger trips, up to 9 transit trips and up to 16 active transport (walking and biking) trips. From an intersection operations perspective, the number of two-way vehicle trips generated is minimal during peak hours (7 trips) and will not result in any notable impact to the surrounding transportation network.

Table 1: Residential Peak Hour Trips Generated

Travel Modes	AM peak			PM peak			AM peak Mode Share	PM peak Mode Share
	In 31%	Out 69%	Total	In 58%	Out 42%	Total		
Auto Driver	2	5	7	4	3	7	26%	25%
Auto Passenger	1	1	2	1	1	2	6%	8%
Transit	3	6	9	4	3	7	28%	21%
Cycling	1	1	2	1	1	2	5%	6%
Pedestrian	4	8	12	8	6	14	34%	39%
Total Person Trips	11	21	32	18	14	32	100%	100%

5.0 Site Circulation and Access Design

The single site access that leads to the underground parking garage will be located along Springhurst Avenue, approximately 25 m east of Main Street. The garage will be accessed by passenger cars only. Garbage pickup is expected to occur along Springhurst Avenue along with fire truck access to the main building entrance. Cyclists travelling on the existing cycle track along Main Street can access the bike parking spaces on the ground floor using the main entrance on Springhurst Avenue and can access the commercial units on Main Street. Pedestrian access is facilitated along Main Street with the wide existing unit paver walkway and along Springhurst Avenue, where the existing 1.5m sidewalk will be widened to at least 1.8 m at its narrowest point and up to approximately 3.5 m at its widest point.

There are no anticipated sightline obstructions for vehicles exiting the parking garage onto Springhurst Avenue. As per City of Ottawa standards, the sidewalk is depressed and continuous through the access. The site access meets the requirements of the City of Ottawa's Private Approach By-Law as follows:

- With the number of vehicle parking spaces provided, the minimum distance needed to the nearest intersection is 18 m. This requirement is met since the site access is located at a distance of 25 m from Main Street.
- Site access width does not exceed a maximum of 9 m.
- Site access is located an estimated minimum distance of 3.0 m from the property line measured at the curb.
- The ramp grade does not exceed 2% within the private property for a distance of 6 m from the property line.

6.0 Parking

Based on the Zoning By-law Parking Provisions, the proposed development is considered to be within “Area Y”, where vehicle and bicycle parking spaces are required to be provided at the rates listed below:

- For the residential units, vehicle parking is required at a rate of 0.5 space per dwelling unit, excluding the first 12 units. This equates to 31 required spaces.
- For visitor vehicle parking spaces, a rate of 0.1 space per dwelling unit is required, excluding the first 12 units. This equates to approximately 6 required visitor spaces.
- For ground-floor commercial spaces, vehicle parking is required for units larger than 350 m² (in case of restaurant) and 500 m² (for general retail). Since all commercial units proposed are smaller than 350 m², no non-residential parking spaces are required.
- Bike parking is required at a rate of 0.5 space per dwelling unit and 1 per 250 m² of commercial space. This equates to approximately 37 residential and 2 commercial (39 total) bike parking spaces required.

The proposed development is expected to provide 37 residential and 6 visitor vehicle parking spaces, along with 64 bike parking spaces. Therefore, the minimum requirements of the Zoning By-Law are met.

7.0 Transportation Demand Management

The proposed development is located along a Mainstreet Corridor within a Design Priority Area, where it will be owned and managed by the Properties Group Management. Unit breakdown consists of 21 studio units, 37 one-bedroom units and 16 two-bedroom units, for a total of 74 units.

Considering the proposed land-use of the development consists of residential units, it is expected the peak hour trips will be generated mainly by residents leaving the site to their workplace in the morning and returning to the site from their workplace during the afternoon peak hour. Trip generation was detailed in Section 4.0 of this memo.

The proposed development is expected to generate minimal traffic volumes that will have low impact on the study area intersections and roadways. Therefore, rigorous TDM measures are not considered required in this context. Nonetheless, TDM measures are expected to be provided as detailed below and shown in the two checklists provided in **Appendix B**.

TDM Supportive Development Design and Infrastructure Checklist

- All ten (10) required measures related to Walking and Cycling (facilities and bicycle parking) and Vehicle Parking have been satisfied.
- Eight (8) of the fourteen (14) basic measures related to Walking and Cycling and Parking have been satisfied, namely:
 - Locating building close to street with no parking areas between entrance and street.
 - Locating building entrances to minimize walk distance to sidewalks and transit.
 - Locating building doors and windows to ensure visibility of pedestrians.
 - Providing safe, direct, and attractive walking routes to transit.
 - Ensuring walking routes are secure, visible, and lighted.
 - Providing lighting, landscaping and benches along walking and cycling routes.
 - Provide parking for long-term and short-term users that is consistent with mode share targets.
 - Where a site features more than one use, provide shared parking and reduce the cumulative number of parking spaces accordingly.

TDM Measures Checklist

Four (4) of the seven (7) basic measures related to the Walking and Cycling, Transit, Parking and TDM Marketing & Communications have been proposed as noted below. An asterisk (*) indicates the measure is one of the most dependably effective tools to encourage the use of sustainable modes.

- Display local area maps with walking/cycling access routes.
- Display relevant transit schedules and route maps at entrances.
- *Unbundle parking cost from monthly rent.
- *Provide a multimodal travel option information package to new residents.

8.0 Summary

Parsons was retained by the Properties Group Management to prepare a Transportation Memorandum in support of a site plan control application for a proposed development at 129 Main Street in Ottawa. The proposed development consisting of 74 apartment units and 361 m² commercial space within a 6-storey residential building is not expected to result in any notable impacts to the transportation network. The development is anticipated to generate 32 total person trips during morning and afternoon peak hours, including a minimal 7 vehicle trips.

The site access and design adhere to the requirements of the City of Ottawa's Private Approach By-Law. The access is used to enter and exit the proposed two-level underground parking lot with 43 vehicle parking spaces. Bicycle parking will be provided on the ground floor (60 spaces), with 4 exterior spaces as well, for a total of 64 spaces. The number of vehicle and bicycle parking spaces adhere to the requirements of the City of Ottawa Parking Provisions.

Some TDM measures are anticipated to be provided to encourage sustainable travel modes such as transit, walking and cycling that will leverage existing facilities and services along Main Street. Some of these notable measures include unbundling parking costs from monthly rent and providing multimodal travel option information to new residents.

Based on the foregoing, the development will result in minimal transportation impacts to the study area and is recommended to proceed from a transportation perspective.

Prepared By:



Basel Ansari, P. Eng.
Transportation Engineer

Reviewed By:



Austin Shih, M.A.Sc., P.Eng.
Senior Transportation Engineer



TIA Plan Reports

On 14 June 2017, the Council of the City of Ottawa adopted new Transportation Impact Assessment (TIA) Guidelines. In adopting the guidelines, Council established a requirement for those preparing and delivering transportation impact assessments and reports to sign a letter of certification.

Individuals submitting TIA reports will be responsible for all aspects of development-related transportation assessment and reporting, and undertaking such work, in accordance and compliance with the City of Ottawa's Official Plan, the Transportation Master Plan and the Transportation Impact Assessment (2017) Guidelines.

By submitting the attached TIA report (and any associated documents) and signing this document, the individual acknowledges that s/he meets the four criteria listed below.

CERTIFICATION

1. I have reviewed and have a sound understanding of the objectives, needs and requirements of the City of Ottawa's Official Plan, Transportation Master Plan and the Transportation Impact Assessment (2017) Guidelines;
2. I have a sound knowledge of industry standard practice with respect to the preparation of transportation impact assessment reports, including multi modal level of service review;
3. I have substantial experience (more than 5 years) in undertaking and delivering transportation impact studies (analysis, reporting and geometric design) with strong background knowledge in transportation planning, engineering or traffic operations; and
4. I am either a licensed¹ or registered² professional in good standing, whose field of expertise [check ☒ appropriate field(s)] is either transportation engineering ☒ or transportation planning ☐.

1,2 License of registration body that oversees the profession is required to have a code of conduct and ethics guidelines that will ensure appropriate conduct and representation for transportation planning and/or transportation engineering works.

City Of Ottawa
Infrastructure Services and Community
Sustainability
Planning and Growth Management
110 Laurier Avenue West, 4th fl.
Ottawa, ON K1P 1J1
Tel. : 613-580-2424
Fax: 613-560-6006

Ville d'Ottawa
Services d'infrastructure et Viabilité des
collectivités
Urbanisme et Gestion de la croissance
110, avenue Laurier Ouest
Ottawa (Ontario) K1P 1J1
Tél. : 613-580-2424
Télécopieur: 613-560-6006

Dated at Ottawa this 27 day of March, 2025
(City)

Name: Austin Shih, P.Eng.
(Please Print)

Professional Title: Senior Project Manager



Signature of Individual certifier that s/he meets the above four criteria

Office Contact Information (Please Print)
Address: 1223 Michael Street North, Suite 100
City / Postal Code: Ottawa, Ontario, K1J 7T2
Telephone / Extension: 613-738-4160
E-Mail Address: austin.shih@parsons.com

Document Control Page

CLIENT:	The Properties Group Management			
PROJECT NAME:	129 Main Street Residential Building			
REPORT TITLE:	Transportation Memorandum			
PARSONS PROJECT NO:	479173 - 01000			
DIGITAL MASTER:	https://parsons365can.sharepoint.com/sites/OttawaHub/Projects/Projects/479173 - 129 Main Street (Properties Group Management)/4.01000 - WBS NAME/Documents/Traffic Memorandum/129 Main Street Traffic Memo - March 2025.docx			
HISTORY:	Version	Originator	Reviewer	Back Checker
	Original October 08, 2024	Basel Ansari, P.Eng.	Austin Shih, P.Eng.	Basel Ansari, P.Eng.
	Update October 29, 2024	Basel Ansari, P.Eng.	Austin Shih, P.Eng.	Basel Ansari, P.Eng.
	Update #2 March 27, 2025	Basel Ansari, P.Eng.	Austin Shih, P.Eng.	Basel Ansari, P.Eng.

Appendix A

Screening Form and Site Plan

City of Ottawa 2017 Transportation Impact Assessment (TIA) Guidelines Screening Form

1. Description of Proposed Development

Municipal Address	129 Main St, Ottawa, ON K1S 5P4, Canada
Description of Location	Northeast corner of Main/Springhurst intersection
Land Use Classification	Residential - Traditional Mainstreet TM7[1839] Zone
Development Size (units)	74 apartment units, 361 sq.m commercial space
Development Size (m ²)	4167 sq.m above ground
Number of Accesses and Locations	One access via Springhurst Avenue
Phase of Development	One phase
Buildout Year	Assumed 2027

If available, please attach a sketch of the development or site plan to this form.

2. Trip Generation Trigger

Considering the Development's Land Use type and Size (as filled out in the previous section), please refer to the Trip Generation Trigger checks below.

Table notes:

1. Table 2, Table 3 & Table 4 TRANS Trip Generation Manual
2. Institute of Transportation Engineers (ITE) Trip Generation Manual 11.1 Ed.

Land Use Type	Minimum Development Size
Single-family homes	60 units
Multi-Use Family (Low-Rise) ¹	90 units
Multi-Use Family (High-Rise) ¹	150 units
Office ²	1,400 m ²
Industrial ²	7,000 m ²
Fast-food restaurant or coffee shop ²	110 m ²
Destination retail ²	1,800 m ²
Gas station or convenience market ²	90 m ²

If the proposed development size is greater than the sizes identified above, the Trip Generation Trigger is satisfied.

¹ Hubs are identified in Schedules B1 to B8 of the City of Ottawa Official Plan. PMTSAs are identified in Schedule C1 of the Official Plan. DPAs are identified in Schedule C7A and C7B of the Official. See Chapter 4 for a list of City of Ottawa Planning and Engineering documents that support the completion of TIA.

3. Location Triggers

	Yes	No
Does the development propose a new driveway to a boundary street that is designated as part of the City's Transit Priority Network, Rapid Transit network or Cross-Town Bikeways?		X
Is the development in a Hub, a Protected Major Transit Station Area (PMTSA), or a Design Priority Area (DPA)? ¹	X	

If any of the above questions were answered with 'Yes,' the Location Trigger is satisfied.

4. Safety Triggers

	Yes	No
Are posted speed limits on a boundary street 80 km/hr or greater?		X
Are there any horizontal/vertical curvatures on a boundary street limits sight lines at a proposed driveway?		X
Is the proposed driveway within the area of influence of an adjacent traffic signal or roundabout (i.e. within 300 m of intersection in rural conditions, or within 150 m of intersection in urban/ suburban conditions)?		X
Is the proposed driveway within auxiliary lanes of an intersection?		X
Does the proposed driveway make use of an existing median break that serves an existing site?		X
Is there is a documented history of traffic operations or safety concerns on the boundary streets within 500 m of the development?		X
Does the development include a drive-thru facility?		X

If any of the above questions were answered with 'Yes,' the Safety Trigger is satisfied.

5. Summary

	Yes	No
Does the development satisfy the Trip Generation Trigger?		X
Does the development satisfy the Location Trigger?	X	
Does the development satisfy the Safety Trigger?		X

If none of the triggers are satisfied, the TIA Study is complete. If one or more of the triggers is satisfied, the TIA Study must continue into the next stage (Screening and Scoping).

Appendix B

TDM Checklists

TDM-Supportive Development Design and Infrastructure Checklist: *Residential Developments (multi-family or condominium)*

Legend	
REQUIRED	The Official Plan or Zoning By-law provides related guidance that must be followed
BASIC	The measure is generally feasible and effective, and in most cases would benefit the development and its users
BETTER	The measure could maximize support for users of sustainable modes, and optimize development performance

TDM-supportive design & infrastructure measures: <i>Residential developments</i>		Check if completed & add descriptions, explanations or plan/drawing references
1. WALKING & CYCLING: ROUTES		
1.1 Building location & access points		
BASIC	1.1.1 Locate building close to the street, and do not locate parking areas between the street and building entrances	<input checked="" type="checkbox"/>
BASIC	1.1.2 Locate building entrances in order to minimize walking distances to sidewalks and transit stops/stations	<input checked="" type="checkbox"/>
BASIC	1.1.3 Locate building doors and windows to ensure visibility of pedestrians from the building, for their security and comfort	<input checked="" type="checkbox"/>
1.2 Facilities for walking & cycling		
REQUIRED	1.2.1 Provide convenient, direct access to stations or major stops along rapid transit routes within 600 metres; minimize walking distances from buildings to rapid transit; provide pedestrian-friendly, weather-protected (where possible) environment between rapid transit accesses and building entrances; ensure quality linkages from sidewalks through building entrances to integrated stops/stations (<i>see Official Plan policy 4.3.3</i>)	<input checked="" type="checkbox"/>
REQUIRED	1.2.2 Provide safe, direct and attractive pedestrian access from public sidewalks to building entrances through such measures as: reducing distances between public sidewalks and major building entrances; providing walkways from public streets to major building entrances; within a site, providing walkways along the front of adjoining buildings, between adjacent buildings, and connecting areas where people may congregate, such as courtyards and transit stops; and providing weather protection through canopies, colonnades, and other design elements wherever possible (<i>see Official Plan policy 4.3.12</i>)	<input checked="" type="checkbox"/>

TDM-supportive design & infrastructure measures: <i>Residential developments</i>		Check if completed & add descriptions, explanations or plan/drawing references
REQUIRED	1.2.3 Provide sidewalks of smooth, well-drained walking surfaces of contrasting materials or treatments to differentiate pedestrian areas from vehicle areas, and provide marked pedestrian crosswalks at intersection sidewalks (<i>see Official Plan policy 4.3.10</i>)	<input checked="" type="checkbox"/>
REQUIRED	1.2.4 Make sidewalks and open space areas easily accessible through features such as gradual grade transition, depressed curbs at street corners and convenient access to extra-wide parking spaces and ramps (<i>see Official Plan policy 4.3.10</i>)	<input checked="" type="checkbox"/>
REQUIRED	1.2.5 Include adequately spaced inter-block/street cycling and pedestrian connections to facilitate travel by active transportation. Provide links to the existing or planned network of public sidewalks, multi-use pathways and on-road cycle routes. Where public sidewalks and multi-use pathways intersect with roads, consider providing traffic control devices to give priority to cyclists and pedestrians (<i>see Official Plan policy 4.3.11</i>)	<input checked="" type="checkbox"/>
BASIC	1.2.6 Provide safe, direct and attractive walking routes from building entrances to nearby transit stops	<input checked="" type="checkbox"/>
BASIC	1.2.7 Ensure that walking routes to transit stops are secure, visible, lighted, shaded and wind-protected wherever possible	<input checked="" type="checkbox"/>
BASIC	1.2.8 Design roads used for access or circulation by cyclists using a target operating speed of no more than 30 km/h, or provide a separated cycling facility	<input type="checkbox"/>
1.3 Amenities for walking & cycling		
BASIC	1.3.1 Provide lighting, landscaping and benches along walking and cycling routes between building entrances and streets, sidewalks and trails	<input checked="" type="checkbox"/>
BASIC	1.3.2 Provide wayfinding signage for site access (where required, e.g. when multiple buildings or entrances exist) and egress (where warranted, such as when directions to reach transit stops/stations, trails or other common destinations are not obvious)	<input type="checkbox"/>

TDM-supportive design & infrastructure measures: <i>Residential developments</i>		Check if completed & add descriptions, explanations or plan/drawing references
2. WALKING & CYCLING: END-OF-TRIP FACILITIES		
2.1 Bicycle parking		
REQUIRED	2.1.1 Provide bicycle parking in highly visible and lighted areas, sheltered from the weather wherever possible (see <i>Official Plan policy 4.3.6</i>)	<input checked="" type="checkbox"/>
REQUIRED	2.1.2 Provide the number of bicycle parking spaces specified for various land uses in different parts of Ottawa; provide convenient access to main entrances or well-used areas (see <i>Zoning By-law Section 111</i>)	<input checked="" type="checkbox"/>
REQUIRED	2.1.3 Ensure that bicycle parking spaces and access aisles meet minimum dimensions; that no more than 50% of spaces are vertical spaces; and that parking racks are securely anchored (see <i>Zoning By-law Section 111</i>)	<input checked="" type="checkbox"/>
BASIC	2.1.4 Provide bicycle parking spaces equivalent to the expected number of resident-owned bicycles, plus the expected peak number of visitor cyclists	<input type="checkbox"/>
2.2 Secure bicycle parking		
REQUIRED	2.2.1 Where more than 50 bicycle parking spaces are provided for a single residential building, locate at least 25% of spaces within a building/structure, a secure area (e.g. supervised parking lot or enclosure) or bicycle lockers (see <i>Zoning By-law Section 111</i>)	<input checked="" type="checkbox"/>
BETTER	2.2.2 Provide secure bicycle parking spaces equivalent to at least the number of units at condominiums or multi-family residential developments	<input type="checkbox"/>
2.3 Bicycle repair station		
BETTER	2.3.1 Provide a permanent bike repair station, with commonly used tools and an air pump, adjacent to the main bicycle parking area (or secure bicycle parking area, if provided)	<input type="checkbox"/>
3. TRANSIT		
3.1 Customer amenities		
BASIC	3.1.1 Provide shelters, lighting and benches at any on-site transit stops	<input type="checkbox"/>
BASIC	3.1.2 Where the site abuts an off-site transit stop and insufficient space exists for a transit shelter in the public right-of-way, protect land for a shelter and/or install a shelter	<input type="checkbox"/>
BETTER	3.1.3 Provide a secure and comfortable interior waiting area by integrating any on-site transit stops into the building	<input type="checkbox"/>

TDM-supportive design & infrastructure measures: <i>Residential developments</i>		Check if completed & add descriptions, explanations or plan/drawing references
4. RIDESHARING		
4.1 Pick-up & drop-off facilities		
BASIC	4.1.1 Provide a designated area for carpool drivers (plus taxis and ride-hailing services) to drop off or pick up passengers without using fire lanes or other no-stopping zones	<input type="checkbox"/>
5. CARSHARING & BIKESHARING		
5.1 Carshare parking spaces		
BETTER	5.1.1 Provide up to three carshare parking spaces in an R3, R4 or R5 Zone for specified residential uses (see <i>Zoning By-law Section 94</i>)	<input type="checkbox"/>
5.2 Bikeshare station location		
BETTER	5.2.1 Provide a designated bikeshare station area near a major building entrance, preferably lighted and sheltered with a direct walkway connection	<input type="checkbox"/>
6. PARKING		
6.1 Number of parking spaces		
REQUIRED	6.1.1 Do not provide more parking than permitted by zoning, nor less than required by zoning, unless a variance is being applied for	<input checked="" type="checkbox"/>
BASIC	6.1.2 Provide parking for long-term and short-term users that is consistent with mode share targets, considering the potential for visitors to use off-site public parking	<input checked="" type="checkbox"/>
BASIC	6.1.3 Where a site features more than one use, provide shared parking and reduce the cumulative number of parking spaces accordingly (see <i>Zoning By-law Section 104</i>)	<input checked="" type="checkbox"/>
BETTER	6.1.4 Reduce the minimum number of parking spaces required by zoning by one space for each 13 square metres of gross floor area provided as shower rooms, change rooms, locker rooms and other facilities for cyclists in conjunction with bicycle parking (see <i>Zoning By-law Section 111</i>)	<input type="checkbox"/>
6.2 Separate long-term & short-term parking areas		
BETTER	6.2.1 Provide separate areas for short-term and long-term parking (using signage or physical barriers) to permit access controls and simplify enforcement (i.e. to discourage residents from parking in visitor spaces, and vice versa)	<input type="checkbox"/>

TDM Measures Checklist:
Residential Developments (multi-family, condominium or subdivision)

Legend	
BASIC	The measure is generally feasible and effective, and in most cases would benefit the development and its users
BETTER	The measure could maximize support for users of sustainable modes, and optimize development performance
★	The measure is one of the most dependably effective tools to encourage the use of sustainable modes

TDM measures: <i>Residential developments</i>		Check if proposed & add descriptions
1. TDM PROGRAM MANAGEMENT		
1.1 Program coordinator		
BASIC	★ 1.1.1 Designate an internal coordinator, or contract with an external coordinator	<input type="checkbox"/>
1.2 Travel surveys		
BETTER	1.2.1 Conduct periodic surveys to identify travel-related behaviours, attitudes, challenges and solutions, and to track progress	<input type="checkbox"/>
2. WALKING AND CYCLING		
2.1 Information on walking/cycling routes & destinations		
BASIC	2.1.1 Display local area maps with walking/cycling access routes and key destinations at major entrances (<i>multi-family, condominium</i>)	<input checked="" type="checkbox"/>
2.2 Bicycle skills training		
BETTER	2.2.1 Offer on-site cycling courses for residents, or subsidize off-site courses	<input type="checkbox"/>

TDM measures: <i>Residential developments</i>		Check if proposed & add descriptions
3. TRANSIT		
3.1 Transit information		
BASIC	3.1.1 Display relevant transit schedules and route maps at entrances (<i>multi-family, condominium</i>)	<input checked="" type="checkbox"/>
BETTER	3.1.2 Provide real-time arrival information display at entrances (<i>multi-family, condominium</i>)	<input type="checkbox"/>
3.2 Transit fare incentives		
BASIC ★	3.2.1 Offer PRESTO cards preloaded with one monthly transit pass on residence purchase/move-in, to encourage residents to use transit	<input type="checkbox"/>
BETTER	3.2.2 Offer at least one year of free monthly transit passes on residence purchase/move-in	<input type="checkbox"/>
3.3 Enhanced public transit service		
BETTER ★	3.3.1 Contract with OC Transpo to provide early transit services until regular services are warranted by occupancy levels (<i>subdivision</i>)	<input type="checkbox"/>
3.4 Private transit service		
BETTER	3.4.1 Provide shuttle service for seniors homes or lifestyle communities (e.g. scheduled mall or supermarket runs)	<input type="checkbox"/>
4. CARSHARING & BIKESHARING		
4.1 Bikeshare stations & memberships		
BETTER	4.1.1 Contract with provider to install on-site bikeshare station (<i>multi-family</i>)	<input type="checkbox"/>
BETTER	4.1.2 Provide residents with bikeshare memberships, either free or subsidized (<i>multi-family</i>)	<input type="checkbox"/>
4.2 Carshare vehicles & memberships		
BETTER	4.2.1 Contract with provider to install on-site carshare vehicles and promote their use by residents	<input type="checkbox"/>
BETTER	4.2.2 Provide residents with carshare memberships, either free or subsidized	<input type="checkbox"/>
5. PARKING		
5.1 Priced parking		
BASIC ★	5.1.1 Unbundle parking cost from purchase price (<i>condominium</i>)	<input type="checkbox"/>
BASIC ★	5.1.2 Unbundle parking cost from monthly rent (<i>multi-family</i>)	<input checked="" type="checkbox"/>

TDM measures: <i>Residential developments</i>			Check if proposed & add descriptions
6. TDM MARKETING & COMMUNICATIONS			
6.1 Multimodal travel information			
BASIC	★	6.1.1 Provide a multimodal travel option information package to new residents	<input checked="" type="checkbox"/>
6.2 Personalized trip planning			
BETTER	★	6.2.1 Offer personalized trip planning to new residents	<input type="checkbox"/>