



TO360 Map Content Selection Guidelines

DECEMBER 2016



The TO₃₆₀ wayfinding strategy supports walking as the connecting mode that enables sustainable transportation in the city. TO360 provides consistent multi-modal information through unified signage and mapping systems delivered by the City of Toronto and

project partners.

Introduction

Mapping sits at the core of the TO360 wayfinding strategy. The vision is to develop a map asset database that will enable the City of Toronto and third parties to efficiently produce consistent, useful mapping outputs for walking, cycling and transit.

This document sets out the map content selection guidelines for TO360 maps. It includes guidance for determining what types of destinations and geographic features will be shown on local and context maps in various types of settings, and where the data is sourced from.

The document also explains the participative process required to decide at a local level which 'tier' a given feature will belong to (there are six tiers that determine the visual appearance of the various map features).

About this document

The document is structured as follows:

- **Context** describes the TO360 wayfinding scheme currently being undertaken in Toronto
- **Mapping products** provides an overview of TO360 signage containing maps
- **Building local maps** describes map scale and orientation, data sources, content organization and the concept of tiering needed to create local maps
- Local map content describes the layers that make up local maps
- **Context map content** provides an overview of the features that should be shown on a context map
- **Appendix** details the graphic specification for TO360-style maps



Context

Clear guidelines for Phase Three of the TO360 strategy (described below) have been developed based on lessons learnt from the pilot implementation phase. These guidelines establish a standard set of principles that shall be applied to TO360 maps to be developed for other areas of the city.

TO360 wayfinding strategy

In 2011 the City of Toronto launched the Toronto 360 (TO360) Wayfinding Strategy to develop a unified multimodal wayfinding system for the city.

The system established a wayfinding strategy and now includes various signage elements, including two types of totem and several other variations. Several of these elements display one or two types of maps.

The Strategy has three phases:

- **Phase One (2011-2012)** develop guiding principles, themes, and a conceptual design for the system
- **Phase Two (2014-2015)** detailed design, implementation and evaluation of a pilot scheme centred on the city's Financial District
- Phase Three (2017 and beyond) creation of final design guidelines and roll-out city-wide

The TO360 Map Asset

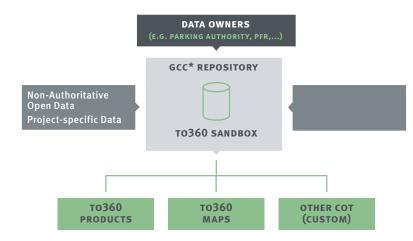
The TO₃60 Map Asset sits at the core of the wayfinding scheme. It includes topography and content, is verified for accuracy, and is adapted in order to meet the desired graphic look and feel.

The Map Asset retains the core geographic information in a single location, while allowing flexibility of scale, content and styles to support the needs of different end-users and product types at all stages of the wayfinding process – from system planning to end-user information.

The primary purpose of the Map Asset is to enable the production of the TO₃60 map products described in this document. The Map Asset can also be used as a platform to organize information and generate outputs to support the future production of a variety of cartographic products such as Toronto's Visitor Map, Toronto Cycling Map, Bike Share Toronto, and other maps currently produced by different City divisions. (*) See definitions on page 29.

Digital maps

While this document is focused on the selection and prioritization of features for printed maps at local and context scales the Map Asset will also provide an authoritative resource for future digital applications that will enable the selective display of features at multiple zoom levels. The database structure should therefore consider compatibility requirements for future digital use, acknowledging that digital maps will enable end users to draw on a more comprehensive database of features and attributes.



TO360 mapping products

Maps are a key feature on many TO360 signs. Sign types include narrow and wide totems and two wall-mounted map cases (single and double). The map types include local and context map crops.

T0620 Wide Totem Located at key gateways and decision points (e.g. outside subway stations). Provides orientation and context for pedestrians commencing their journeys. Wide totem map panels contain directional information, interpretative FINANCIAL DISTRICT King St W & Bay St text and image, and two map Map panel: 600 × 1500mm crops: local and context. TO360 Local map crop: Size: 580 × 580mm Context map: 270 × 270mm Scale: 1:1700 or 1:2500 Orientation: heads-up* TO360 Context map crop: Local map: 580 × 580mm Size: 270 × 270mm Scale: 1:9000 Orientation: heads-up*

TO460 Narrow Totem

Located along pedestrian corridors and at secondary decision points.

Provides continuity between arrival points and primary destinations; and supports journeys within a local context.

Narrow totem map panels contain directional information, interpretative text and image, and two map crops: local and context.

TO360 Local map crop:

Size: 420 × 600mm Scale: 1:1700 or 1:2500 Orientation: heads-up* **T0360 Context map crop:** Size: 270 × 270mm Scale: 1:9000 Orientation: heads-up* Context map: 270 × 270mm

Map panel: 440 × 1500mm

Local map: 420 × 600mm



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FINANCIAL DISTRICT Bay St

(*) See definitions on page 29.

TO750 Fingerpost

Located at intersections and where totems are not an option due to narrow sidewalks.

Provides continuity and reassurance to users by directing to key destinations.

Fingerposts do not contain maps.





TO6oo Single Wall Map

Mounted both internally and externally to buildings, (e.g. parking structures/local library). Provides orientation and context for pedestrians commencing their journey.

Wall-mounted map panels contain directional information and one local map crop.

TO360 Local map crop:

Size: 580 × 580mm Scale: 1:1700 or 1:2500 Orientation: Toronto North *

TO1200 Double WallMap

This type of map case includes a second display area to accommodate third-party information.

The TO₃60 map panels contain directional information and one local map crop.

TO360 Local map crop:

Size: 580 × 580mm Scale: 1:1700 or 1:2500 Orientation: Toronto North *

Third-party map crop:

Size: 580 × 580mm Scale: variable Orientation: Toronto North *

Local map: 580 × 580mm



Local map: 580 × 580mm 3rd party map: 580 × 580mm



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Coordinated Street Furniture maps

Info pillars, Ad pillars and transit shelters are part of Toronto's Coordinated Street Furniture programme and contain map cases whose content will be replaced with TO360 maps.

Info and Ad pillar map

Info pillars contain map cases on both sides and are placed perpendicular to the sidewalk. Ad pillars consist of a large advertising face and one map case, and are placed parallel to the sidewalk.

The map panels for both contain the sign location, directional information and two map crops: local and context.

TO360 Local map crop:

Size: 360 × 540mm
Scale: 1:1700 or 1:2500
Orientation: heads-up*
TO360 Context map crop:
Size: 360 × 360mm
Scale: 1:9000

Map panel: 387 × 1613mm

Context map: 360 × 360mm

Local map: 360 × 540mm





Transit shelter maps

Nearly all transit shelters that are part of the Coordinated Street Furniture programme contain a poster case. A modification to the existing design will allow for two individual poster cases: one for transit maps and one for local maps. The modified poster cases are expected to be durable, easy to clean, water- and scratch-resistant. Poster cases are to be sprung and framed independently, allowing for independent replacement or either poster.

TO360 Local map poster:

Local map crop size: 490 × 505mm Scale: 1:1700 or 1:2500 Orientation: Toronto North *

TTC transit information poster:

Poster size: 830 × 700mm Scale: n/a (*) See definitions on page 29.



Building local maps Map scale and orientation

Local maps have been developed at two scales to accommodate information in more/less dense areas of the city. Most TO360 maps are oriented to match the user viewpoint when reading a map on the street (heads up).

Toronto North is used on TO360

signage that is not located facing the user's direction of travel. These include wall map cases and poster cases in transit shelters.

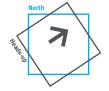
Toronto North is a convention used in most Toronto maps to match the North-South/ East-West street grid. It corresponds to a rotation of -15 degrees from geographic North.

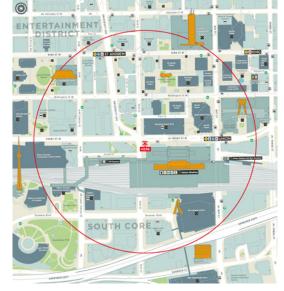


Heads-up mapping is used on all

TO360 signs that are oriented to the user viewpoint when reading the map. These include the narrow totem, the wide totem and (non-ad) Info Pillars.

In order to achieve a heads-up map the base map should be rotated to match the location of the totem or pillar on the street, with a tolerance of no greater than 3 degrees.





Scale 1:1700

The 1:1700 map scale is suitable for denser areas of the the city, with many destinations located within a relatively small area. The map scale 1:1700 should be used in local area maps within the boundaries of the TOcore(*).

This scale enables the depiction of pedestrian features (steps, walkways, PATH, etc), pedestrian connections, and squares between buildings.



Scale 1:2500

The 1:2500 map scale is suitable for nondowntown locations, as these generally have a lower density of points of interest and destinations. The map scale 1:2500 should be used in local area maps outside the TOcore(*). Pedestrian routes typically follow the road layout – except in parks where pedestrian pathways and multi-use trails should be included on maps.

Building local maps Data sources

A number of data sources can be used to obtain map content. These should be utilised in a prioritised order in order to populate a local area map.

Data sources

The types of data that can be used to create maps include:

- Authoritative data
- Non-authoritative open data
- Project-specific data

Authoritative data

Official data which is obtained from sources such as PDM CAD data*, City of Toronto Open Data*, TTC and Metrolinx data, etc. To be used as first sources of information.

Non-authoritative open data

Data which is supplied by unofficial sources and may be crowd-sourced. These sources are not necessarily maintained or checked for accuracy, completeness or quality but can reflect local knowledge and interest. Sources include Open Street Map data.

Project-specific data

Data which is fit-for-purpose that has been collected with wayfinding in mind. Sources include desk-based research (e.g. using Google maps, streetview), commissioned surveys and local knowledge, e.g. using local stakeholders. (*) See definitions on page 29.

Building local maps Content selection process

Content selection is a three-step process which leads to the creation of an accurate TO360 map base that is consistent across the city and also relevant at the local level.

The process starts with autoritative City of Toronto data at a citywide level. Further steps, including sourcing additional data, site surveys and consultation, are then required for the TO₃60 map base to be accurate and relevant at the local level.

The three-step process is summarized below and expanded on the following pages.

Step 1

Creation of base layer

Data source

Authoritative data

Content selection

As established in this document (see page 15 onwards)

Output

Base layer. This output will be generally updated to a TO360 map base as and when required for implementation and could be made available to produce related map products such as Parks & Trails wayfinding maps.



Step 2 Sourcing additional POIs

Data source Non-authoritative data Project-specific data

Content selection

As established in this document (see page 16 onwards)

Output

Combination of base layer and additional layers. This is an intermediate output for consultation only, not suitable for publishing.



Step 3 Content selection and tiering

Data source

Additional surveys Local stakeholder consultation

Content selection

As established in this document (see page 17 onwards)

Output

TO360 map base. Final output with TO360 specification. Additional artworking is required to create crops to fit TO360 signage and, if required, rotate the map to match the desired orientation.





A base layer will be created using authoritative data provided by the City of Toronto for geographic data and some Points of Interest (example shown adjacent). This map will be uniform across the city. The content of this base layer will include:

Neighbourhood names
Transit stops (all modes/operators)
Bike share stations
Parking (municipal)
Bikeways
Address point - address number
Road names
Parks and green spaces
Bodies of water
Beach
Building rooftop outlines
Subway track
Rail yard
Sidewalk
Walkways/sky bridge
Schools/universities
Places of worship
Fire and police stations
Libraries
Hotels



(See page 19 for complete list.)

Sourcing additional POIs (Points of Interest)

Digital maps

All entries captured during Step 2 should be retained in the database. This data will provide the basis for future digital applications where multiple information layers can be displayed selectively based on end user needs.

(*) See definitions on page 29. The next step incorporates the addition of non-authoritative (e.g. Address point and OpenStreetMap)* and projectspecific data (see adjacent example). Content may include: Hospitals/health clinics Civic buildings Museums/art galleries Historical/heritage buildings Performing arts venues/ theatres/cinemas Convention/trade centres Major retail (regional shopping centre) Retail clusters Sports arenas/entertainment venues Major condos and residential buildings Corporate headquarters/office buildings Visitor information centre Monuments/public art PATH entrances Building entrances Monuments and public art Privately owned publiclyaccessible spaces (POPS)

These, however, should not include the following due to their high turnover rate (the exception being if they serve another function, e.g. as a wayfinding aid or historic building): Restaurants, bars and cafes Individual shops Small businesses Strip malls



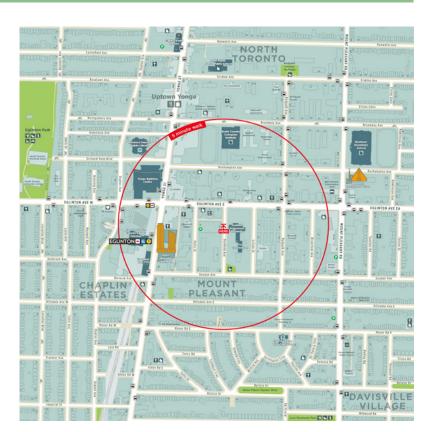


Once the additional POIs have been added to the base layer, a process of selection and tiering needs to occur. The number of POIs will generally exceed the desirable density of labels on a local map and certain buildings will also need to be 'upgraded' to a higher tier (according to local prominence). A dual process should

be used to determine:

 Which POIs should be retained/ removed/added (including pictograms and/or labels); and
 Which POIs should be 'upgraded' to a higher tier (see next page).

A number of factors relative to the local context such as uniqueness, balance, relative size and saturation need to be considered as part of a participative process working with local stakeholders. This will ensure that a local area map is not only accurate and relevant to the local context, but also contains a valuable mix of venue types and tiers, and is neither overly cluttered or too sparse.



Local consultation process Local area

stakeholders, including BIAs, residents' associations, ward representatives, councillors and local businesses should be invited to a stakeholder wayfinding group meeting. The meetings should be facilitated by City staff or appointed consultants.

At this meeting, the Step 2 map output should be used as a basis for discussion. The tiering criteria summarized on the following pages should be used to help the group determine an appropriate tier for each of the 'additional POI' features (using the default tier as a starting point, see p.25/26). This process should take into consideration the overall map area, to ensure that the tier mix is balanced.

Following the meeting, the final agreed map tiering should be circulated as a record.

The TO360 database should be updated accordingly.

Building local maps Content selection process

The TO360 strategy prioritizes Places of Interest (Pol) using a system of tiers. Each tier is represented in a different way on maps.

The six tiers rank from Tier 1 (most prominent) to Tier 5 (least prominent). The sixth one, the transit tier, sits above the others as this information should always be shown on maps (though the styling differs by map type). There are general categories that map features, such as buildings and destinations, can fall into. However the tier that one feature falls into can also vary according to the context of the area and prominence of the feature. For example, a place of worship is by default included as a Tier 4 feature, however if it is a also a distinct landmark that serves

as a clear wayfinding aid in its area, it

could move to Tier 3, 2 or even 1.



Landmarks

Includes features that are memorable as a wayfinding aid, have architectural significance and/or heritage value, which define the identity of the area and have a low turnover rate (non-volatile).





Primary destinations

Includes features that are unique to their district, define the area's character, attract visitors from other parts of the city and have a low turnover rate (non-volatile).



Map representation Building or feature name Building or feature illustration 2D (orange) Highlight footprint (medium grey) Main entrances if applicable



Map representation

Building or feature name Footprint (dark grey) Main entrances if applicable Pictogram if applicable

Tier 3



Secondary destinations

Named features that serve the local community, generally do not generate trips from other areas of the city and have a low turnover rate (non-volatile).



Tier 4

Generic destinations

Unnamed features that are functional, provide a generic facility/amenity and serve the local community.



Tier 5

Individual businesses

Private businesses that are open to the public but have a high turnover rate (volatile).

Transit tier



Public transportation

Any transit facility open to the public.



Map representation Building or feature name Pictogram if applicable



Map representation
Symbols and pictograms



Map representation Not included on street maps Digital database

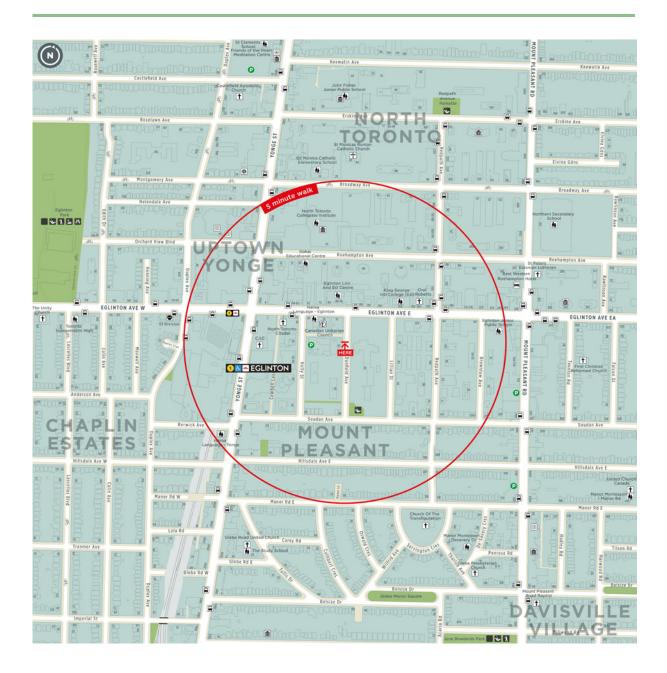


Map representation
Symbols and pictograms

Aligned with transit agencies information systems

Local map content > Base layer

The table on the next pages lists the layers that should be included in the base layer (also shown in the example map below). They are sourced from authoritative data supplied by the City of Toronto.



Geographic								
Layer	Tier 1	Tier 2	Tier 3	Tier 4	Tier 5	Transit	Source	Notes
Neighbourhood area names			n,	/a			Steer Davies Gleave data	Label from area; combination of neighbourhoods and BIAs
TTC transit stops - railway						х	Toronto Transit Commission Open Data - Stops	Pictogram and label from point; no attribute data - to manually subdivide
GO transit stops						х	Metrolinx	Pictogram and label from point
Transit stops - subway station						Х	Toronto Transit Commission Open Data - Stops	Pictogram and label from point; no attribute data - to manually subdivide
Bus terminals						х	Toronto Transit Commission Open Data - Stops	Pictogram and label from point; no attribute data - to manually subdivide
Coach terminals						х	Toronto Transit Commission Open Data - Stops	Pictogram and label from point; no attribute data - to manually subdivide
Ferry terminals						х	Toronto Transit Commission Open Data - Stops	Pictogram and label from point; no attribute data - to manually subdivide
Transit stops - bus stop						х	Toronto Transit Commission Open Data - Stops	Pictogram; no attribute data - to manually subdivide
Bike share stations						х	CoT Open Data - Address point	Pictogram
Parking (municipal)				х			CoT Open Data - Address point	Pictogram
Bikeways (incl. bike lanes, cycle tracks, sharrows)						х	CoT Open Data - Centreline bikeway	On-line pictogram; directional arrow for contraflow

Layers are listed by drawing order, with those listed first generally appearing above other data on a map.

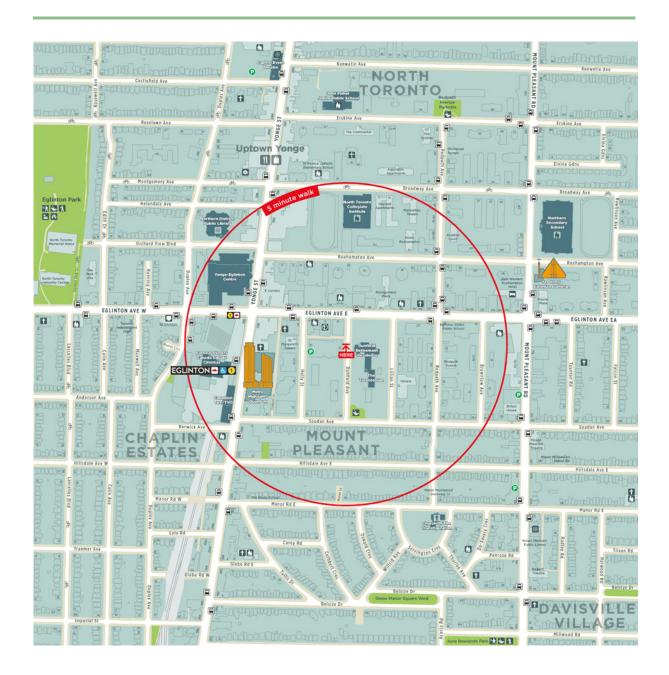
Geographic - continued								
Layer	Tier 1	Tier 2	Tier 3	Tier 4	Tier 5	Transit	Source	Notes
Address point - address number			n	/a		CoT Open Data - address point	Label from point; only display for large building plots, junctions and end of building cohorts	
Centreline - expressway and major arterial			n	/a		CoT Open Data - Centreline	Label from line; see style guidelines for text size/ style	
Centreline - minor arterial			n	/a		CoT Open Data - Centreline	Label from line; see style guidelines for text size/ style	
Centreline - local road			n	/a		CoT Open Data - Centreline	Label from line; see style guidelines for text size/ style	
Centreline - laneway, trail, walkway and sky bridge			n	/a		CoT Open Data - Centreline	Label from line; see style guidelines for text size/ style	
Subway track			n	/a			PDM CAD data	Line
Building rooftop outlines			n	/a			PDM CAD data	Area
Rail yard			n	/a			PDM CAD data	Area; clipped to 'city block' polygons
Rivers, ponds and streams			n	/a			PDM CAD data	Line and label from line
City green spaces			n	/a			CoT Open Data - City green space	Area and label from line; no attribute data - to manually subdivide
Parks and green spaces			n	/a		CoT Open Data - Parks, Forestry and Recreation park assets	Area and label from line	
Public Street			n	/a		PDM CAD data	Area	
Sidewalk			n	/a		PDM CAD data		
Beach			n	/a			CoT Open Data - City green space	No attribute data - must manually subdivide

Points of interest								
Layer	Tier 1	Tier 2	Tier 3	Tier 4	Tier 5	Transit	Source	Notes
Fire stations				х			CoT Open Data - Fire Facility	Pictogram
Police stations			х				CoT Open Data - Police Facility	Pictogram and label
Libraries			х				CoT Open Data - Public Library Branches	Pictogram and label
Places of worship				Х			CoT Open Data - Places of Worship	Pictogram and label
Universities and colleges			х				CoT Open Data - Schools	Pictogram and label
Primary/secondary schools			х				CoT Open Data - Schools	Pictogram and label
Hotels				х			CoT Open Data - Hotels	Label

Note: The points of interest on the base map (listed above) are shown in their respective default tiers however these are subject to upgrades as per Step 3 described earlier.

Local map content > Additional layer

The table on the next pages shows the additional layers that may potentially be included for a more complete TO360 map. This information will be based on several non-authoritative data sources and as such the list is not comprehensive. These guidelines should be viewed as general and not prescriptive.



Layer	Tier 1	Tier 2	Tier 3	Tier 4	Tier 5	Transit	Source	Notes
Transit hubs (as buildings)	х	х	х				Combination of building outlines (Toronto Open Data) and rail stations (Toronto Transit Commission Open Data)	Include if Tier 1 wayfinding landmark
Hospitals/health clinics	Х	х	Х				CoT Open Data - Address point	Pictogram and label
Civic buildings	х	х	х				CoT Open Data - Address point	Label
Historical/heritage buildings	х	х	х				National Historic Sites of Canada in Toronto - excluding non-existent sites (Wikipedia)	Label
Museums/art galleries	Х	х	Х				CoT Open Data - Address point	Pictogram and label
Performing arts venues/ theatres/cinemas	х	х	х				CoT Open Data - Address point	Pictogram and label
Convention/trade centres	х	х					[no data available]	Label
Other visitor attractions	х	х	х				[no data available]	Label
Restaurants/cafes/bars					х		CoT Open Data - Address point	Not labelled
Major retail (regional shopping centre)	х	х					CoT Open Data - Address point	Label
Retail clusters			х				[no data available]	Label
Shops (individual)					х		CoT Open Data - Address point	Not labelled
Sports arenas/ entertainment venues	х	х	х				CoT Open Data - Address point	Label

Layer	Tier 1	Tier 2	Tier 3	Tier 4	Tier 5	Transit	Source	Notes
Visitor information centre				х			[no data available]	Pictogram
Privately owned publicly- accessible spaces (POPS)			х				City planning	
Monuments/public art	Х						[no data available]	Include if Tier 1 wayfind- ing landmark
Corporate headquarters/ offices	х	х	х				[no data available]	
Day Care			х				CoT Open Data - Address point	Pictogram and label
PATH entrances				х			Financial District data	Pictogram
Building entrances			n,	/a		[no data available]	Pictogram (for Tier 1 and 2 buildings only)	

Note: All possible tiers for each layer are shown in the table however the lowest tier is the default. Following this, the ultimate tier of any given building on a TO360 map is determined as per Step 3 described earlier.

Context map content

The example map and table provide guidelines on which layers and features should be included on context maps.



Layer	Tier 1	Tier 2	Tier 3	Tier 4	Tier 5	Transit	Source	Notes
Neighbourhood area names	n/a						Steer Davies Gleave data	Label from area; combination of neighbourhoods and BIAs
Centreline - expressway and major arterial	n/a						CoT Open Data - Centreline	Label from line
Parks and green spaces/ beaches	n/a						CoT Open Data - Parks, Forestry and Recreation assets	Area and label (if large/ iconic)
Water areas	n/a						CoT CAD data	Area and label (if large)
TTC transit stops						x	Toronto Transit Commission Open Data - Stops	Pictogram and label from point; no attribute data - to manually subdivide
GO transit stops						х	Metrolinx	Pictogram and label from point
Transit stops - subway station						х	Toronto Transit Commission Open Data - Stops	Pictogram and label from point; no attribute data - to manually subdivide
Subway line						х	Toronto Transit Commission Open Data	
Points of interest	n/a						CoT Open Data	Label; Tier 1 buildings only

Definitions

GCC (GEOSPATIAL COMPETENCY CENTRE):

The GCC provides a wide range of geographic data services and map products and is part of the Information & Technology Division (I&T) at the City of Toronto. The GCC catalogue includes both digital maps and published maps from a variety of areas which include: parcel mapping, ward maps, city photo maps, land subdivision maps and much more.

HEADS-UP MAPS: A cartographic convention where maps are rotated to match the direction users are facing when viewing a map on the street.

PDM CAD DATA: The Property Data Map (PDM) Series is a hybrid product from the City of Toronto, combining elements of topographic, parcel mapping, the One Address Repository (OAR) and Toronto Street Centreline (TCL). The PDM series provides a base for thematic mapping services and other published hardcopy products.

The PDM depicts the following features: building envelopes, railway lines, major watercourses, curbs, catchbasins, hydrants, streetlights/poles, municipal addresses, street names, park names, property lines, street lines, and right of way boundaries **POIS (POINTS OF INTEREST):** A feature on a map (or in a geodataset) that occupies a particular point, as opposed to linear features like roads or areas of landuse. Some example POI types include places of worship, schools, town halls and distinctive buildings.

OSM (OPEN STREET MAP): A collaborative project to create a free editable map of the world. OSM is considered a prominent example of volunteered geographic information. Map data is collected from scratch by volunteers performing systematic ground surveys. The data is then entered into the OpenStreetMap database. All data added to the project needs to have a licence compatible with the Open Database Licence.

TOCORE: A downtown study area bounded by Lake Ontario to the south, Bathurst Street to the west, the rail corridor and Rosedale Valley Road to the north and the Don River to the east.

TORONTO OPEN DATA: A data catalogue made publicly available by the City of Toronto under a open government licence. The licence grants a worldwide, royalty-free, perpetual, non-exclusive licence to use the information, including for commercial purposes. **TORONTO NORTH:** A cartographic convention used in most maps of Toronto to match the North-South/East-West downtown street grid. It corresponds to a rotation of -15 degrees from geographic North.

T0360 WAYFINDING SYSTEM: A set of wayfinding signage elements, installed in the urban realm, and intended to work together with other features to assist people to navigate the City of Toronto, orient themselves, and encourage exploration, and discovery.

TO360 SIGNAGE ELEMENTS: A set of 4 types of wayfinding elements, designed to support wayfinding to suit a variety of urban conditions. These types include: a wide signage totem; narrow signage totem; fingerpost; and wall mounted map.

For further information

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