



UNIVERSAL
EQUIPMENT
PLACEMENT
GUIDELINES

September 2017

UNIVERSAL

EQUIPMENT

PLACEMENT

GUIDELINES

BACKGROUND

The Universal Equipment Placement Guidelines are intended to eliminate poorly placed equipment within the streets and boulevards that detract from the enjoyment of the public realm. To inform the development of this criteria, internal and utility stakeholders have been engaged to provide feedback to the guidelines, and based on this consultation, the criteria were developed to provide predictable and improved design placement for essential utility equipment.

The Universal Equipment Placement Guidelines provides for a consistent standard for placement of above-ground and grade level utility infrastructure. Adherence to these guidelines will aid in protecting the interest of the City of Toronto, various communities and utility companies that are required to place equipment on the Right of Way.

All applications are reviewed with consideration of the Universal Equipment Placement Guidelines to ensure that all respective interests are addressed. Where a utility demonstrates a compelling reason for the variance (e.g. makes provision of the utility's service impossible or unreasonably burdensome) and the City is satisfied that there is a sufficiently compelling reason for the deviation, approval will be required from the General Manager of Transportation Services or his/her successor or designate.

OBJECTIVES

The Universal Equipment Placement Guidelines will ensure the uniform consistent placement of above and below ground infrastructure within the Right of Way.

This guideline will:

- Aid all utility companies to practice coordinating or co-locating plant wherever possible.
- Define best practice for placement patterns and various techniques to best disguise or bury above ground plant to provide minimal visual impact.
- Ensure that all utility companies install equipment that are consistent with City of Toronto standards to provide accessibility/good operation of streets.
- Discourages new and redundant equipment adjacent to residential areas.
- Provides an opportunity for meaningful public consultation with affected property owners.
- Allows utility companies to identify and resolve any potential issues concerning design at an early stage in the process.
- Develop better practices to reduce the amount, impact, necessity of above ground plant.

PRINCIPLES/GUIDING LEGISLATION

MCR – (Municipal Consent Requirements)

The MCR is a guideline currently used by all Utility company members within TPUCC. The MCR is a guideline to provide uniform standards to all utility companies when installing infrastructure within the Public Right of Way. This guideline must be considered to reduce the negative impacts of pedestrian and vehicle traffic and adjacent property owners and Business Improvement Areas. MCR Appendix O references the minimum clearances required

Chapter 743 – (Chapter 743)

Chapter 743 of the Toronto Municipal Code contains governing bylaws for the use of streets and sidewalks in the City of Toronto. This is also a governing document that is used by Transportation Services – Right of Way Management

Accessibility Standards – (City of Toronto Accessibility Guideline)

The governing law that supports the City of Toronto's Accessibility Standards is the AODA – Accessibility for Ontarians with Disabilities Act. As of January 2016, all new constructed or redeveloped infrastructure must comply with the AODA.

Vibrant Streets – (Vibrant Streets Document)

The vibrant streets document is currently used by The City's Public Realm to standardize the location of street furniture such as Transit Shelters, litter/recycling bins, Information Pillars and Publication Boxes. The goal for vibrant streets is to establish a linear pedestrian clearway; to enhance the use of the Right of Way through placement of furniture based on usage patterns, open space and surrounding architecture; to maintain site lines at intersections.

Key points of Vibrant Streets

- Proposed street furniture should take into consideration the pressures of the pedestrian clearway.
- Installed street furniture should respond to the width of the furnishing and the planting zone.
- Street furniture should be placed to allow access to underground and overhead services.
- Placement of street furniture must not be placed in a pedestrian clearway, in a manner that obstructs the sight lines or compromises the safety of pedestrians, cyclists, and vehicles.
- Furniture must not interfere with boarding/disembarking or cueing by transit passengers.

GENERAL PLACEMENT PRACTICES

Preserving Aesthetic View

The utility companies must have means to preserve sight lines from windows and front doors by placing landscaping/shrubbery to mitigate aesthetic concerns of adjacent homeowners when equipment is placed in the inner boulevard (between sidewalk and the house).

Clustering of Equipment

Generally Clustering of equipment should be avoided to ensure neutrality in a residential area.

- Only consider clustering of equipment when otherwise the placement of new equipment would be less appealing within the neighborhood.
- When adding a third piece of equipment to a location, The City will consider clustering provided there is an aesthetic treatment applied to all three boxes. The aesthetic treatment has to be consistent in nature and should allow it to blend in to its surrounding.

Above Ground Plant

Equipment that is placed within the Right of Way and stands above the grade surface.

- It is preferred that all equipment installations be below ground/grade level.
- It is preferred that that equipment be placed on projected property lines (shared between two properties).
- It is preferred that that equipment be placed behind fences and hedges.
- For above ground plant that have an overall foot print (including protective measures) larger than 1m x 1m x 1m all utility companies must provide aesthetic treatment options and alternate location options when submitting an application to the City. Review documentation of alternate locations to be provided to the City with the application.

No above ground plant will be placed:

- In a location that obstructs the sight lines of vehicular and pedestrian traffic (Road and sidewalk).
- Less than 0.5m from a curb or sidewalk (MCR appendix O).
- Less than 0.5m from the property line of a residential property.
- In a manner which is in plain sight of a window, window display, door, unless the owner or occupant provides written consent.

Below Grade plant (grade level)

Equipment that is placed on the Right of Way and sits flush to the grade surface

- It is preferred that that equipment be placed on projected property lines (shared between two properties).
- It is preferred that that equipment be placed behind fences and hedges.
- Must not place on concrete/hard/brick interlocked surfaces that are part of a pedestrian clearway
- Must be mindful of the adjacent residential property or home owner.
- Must be mindful of sight lines from windows/doors of the adjacent properties.

No above ground plant will be placed:

- Less than 0.5m from a curb or sidewalk. (MCR appendix O).
- Less than 0.5m from the property line of a residential property.



Thoughtfully placed behind landscaping to maintain aesthetic view



Clustering of equipment – no aesthetic treatment

GENERAL PLACEMENT PRACTICES

Notification / Sign Off

Engaging and consulting with the public allows for a more informed public and furthermore leads to a smooth construction process. Notifications and sign offs are required as residents and businesses are affected by construction in front of their properties and more so affected by new above ground and grade level equipment fronting or siding their properties. Notification/concurrence letters must include the type, size and location of the plant.

Notice of Design

A notice of design must be sent to allow all affected residences to be aware of any future equipment placement. Notices must include pictures of proposed equipment and location, project and contact information.

Above Ground Plant Notification

A notification to the adjacent property owner(s) is required for any above ground plant when:

- Proposed equipment is at the flank of the property. (not facing the front of the house)
- When fronting a property and placed in grass boulevard in between the sidewalk and curb.
- When an equipment placed in front of park which is opposite of residential homes and have an overall foot print larger than 1m x 1m x 1m, Parks Supervisor and Councillor must be notified.

Above Ground Plant Concurrence

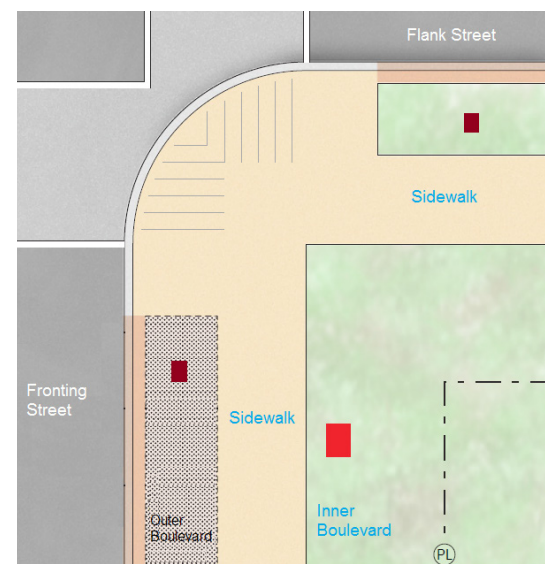
A concurrence sign off from the adjacent property owner(s) or an authorized representative is required for any above grade plant when fronting a property and:

- Placed in a grass boulevard with no sidewalk or,
- Placed in inner boulevard in between the sidewalk and property.

Below Grade Plant Notification

A notification to the adjacent property owner(s) is required for any below grade plant when:

- Proposed equipment is at the flank of the property. (not facing the front of the house)
- When fronting a property and placed in the grass boulevard in between the sidewalk and curb.



Above Ground Plan - Notification/Concurrence requirements for residential locations

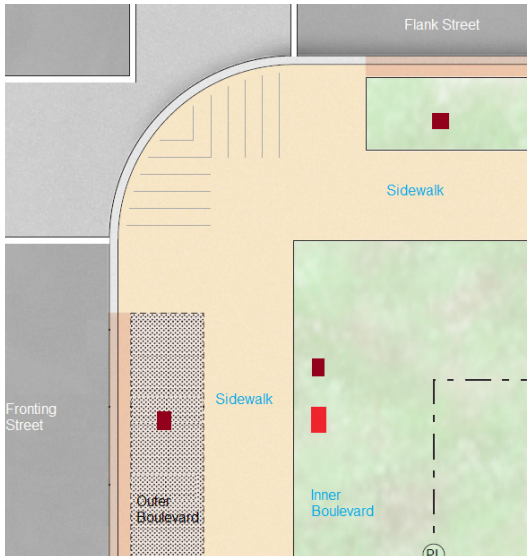
Notification Concurrence

Below Grade Plant Concurrence

A concurrence sign off from the adjacent property owner(s) or an authorized representative is required for any below grade plant when fronting a property and:

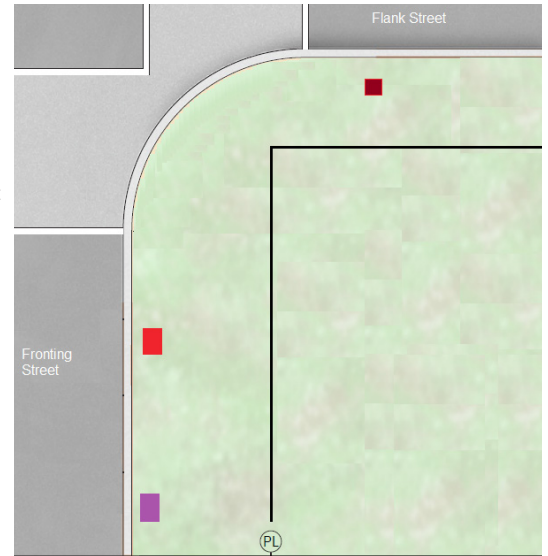
- Equipment is larger than 50cm x 75cm.

Below Grade Plant - Notification/ Concurrence requirements for residential locations



Dark red square: Notification
Red square: Concurrence (50cmx75cm)

Above Ground / Below Grade Plant - Notification/ Concurrence requirements for residential property without any sidewalks



Dark red square: Above ground / below grade plant - Notification
Red square: Above ground plant - Concurrence
Purple square: Above ground /below grade plant - Notification

Construction Notice

Notice of construction must be sent to all effected residences/businesses a minimum of 48h prior to construction / installation.

[Refer to the appendix for notification samples].

DESIGN PLACEMENT CONSIDERATIONS

Residential

Above Ground Structures

Above ground equipment are easily seen from a building or from the road, impacting the street view of a house. Curb appeal is very important to many homeowners and special design considerations is required regarding placement of above ground structures such as:

- Must consider a smaller or below grade equipment instead.
- Must explore placing above ground equipment on the side of a property (flankage) where it does not face the front of a house.
- Utilize fences and shrubs to potentially hide the view from a house.
- Placed within the preferred outer boulevard (between the sidewalk and curb) area.
- Must have a 0.5m clearance from the driveways / Sidewalks.

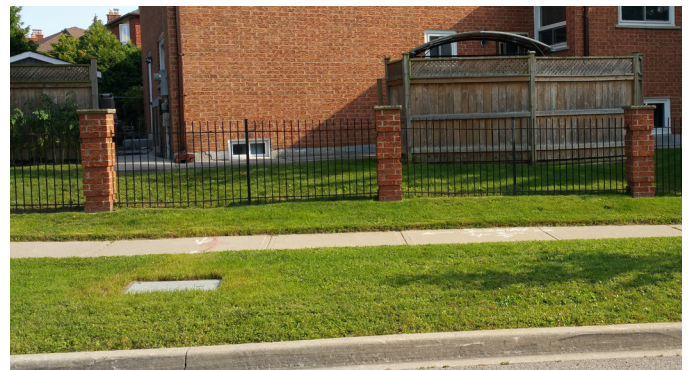
Below Grade Structures

Below grade structures, such as Grade Level Boxes (GLB) / Flush to surface structures are the preferred equipment for residential builds. Design considerations is required regarding placement of below ground structures such as:

- Must explore placing below grade equipment on the side of a property (flankage) where it does not face the front of a house.
- Place in a location that is not visible from the front door/window of a house.
- Utilize fences and shrubs to potentially hide the view from a house.
- Placed within the preferred outer boulevard (between the sidewalk and curb) area.
- Must have a 0.5m clearance from the driveways / Sidewalks.



Equipment placed next to a driveway behind a fence.
Picture credit: Toronto Hydro



GLB placed behind fence on the flank

Large Scale Above Ground Structures

Large scale above ground structure such as Tap Boxes, Transformers, District Stations, Outside Plant Interfaces have larger foot print and special consideration must be taken during the design such as:

- Must be placed on a flanking street for residential property.
- Must maintain safe sight lines and setbacks from the road.
- Must include aesthetic treatments.

Commercial/Institutional/Industrial

Above Ground structures

- Must have a 0.5m clearance from the driveways / Sidewalks.
- Must consider sight lines of traffic coming in/out of the property.
- Must not be higher than 1.2m.
- Must consider grouping of equipments with same/other utilities where possible.

Below Grade Structures

- Must have a 0.5m clearance from the driveways / Sidewalks.
- Must consider grouping of equipments with same/other utilities where possible.

Large Scale Above Ground structures

- Must have a 0.5m clearance from the driveways / Sidewalks.
- Must maintain safe sight lines and setbacks from the road.



Tap box placed behind fence/hedges at the flank of a house

DESIGN PLACEMENT CONSIDERATIONS

Large Scale Above Ground structures (continued)

- Must not be higher than 1.2m
- Must have a minimum boulevard width of 2m.
- Must not block a commercial store front and store signs.
- Must maintain safe sight lines.
- Must include aesthetic treatments.

Public Spaces – Parks & Parkettes, Community & Open Spaces

- Place in a location where it is furthest away from a park entrance.
- Must place the equipment away from walkways into the park.
- Must place equipment away from the park signs.
- Must place equipment away from the elements within the park.
- Must place beyond 15m of an intersection.
- Must consider corners of the park boundary
- Must provide aesthetic treatments to blende equipment into the streetscape / parkscape (shrubs, boulders, rocks, etc.).
- Must consider community involvement (such as schools) for aesthetic treatment.
- When an equipment placed in front of park which is opposite of residential homes and have an overall foot print larger than 1m x 1m x 1m, Parks Supervisor and Councillor must be notified.



Placed outside of a commercial property with aesthetic treatments



Clustering of boxes with aesthetic treatment



Special Considerations

Tree Protection Zones

Tree protection zones should be avoided if possible. Where there is a proposed equipment within a tree protection zone, the utility company must refer to MCR Appendix F or contact Parks Forestry & Rec for instructions

Heritage Locations

When utility equipment is to be placed adjacent to the property line of a heritage building, structure or landscape (listed or designated), the utility company must contact and obtain sign off from Heritage Preservation Services.

See related information MCR Page 16 – Heritage Properties

Appendix O – Minimum Clearance Requirements

MCR Appendix O describes the minimum clearances required for above and below ground installations

State of Good Condition

All above and at grade equipments should be kept in a state of good condition to ensure public safety and be aesthetic appeal.

Sight Lines

Any above ground equipment should fall outside of the area directly adjacent to vehicular intersection (sight triangle).

Special Situations

It is anticipated that there will be special situations which will require site specific solutions for the placement of equipments. These special situations may requires special considerations for the placement and size of utility equipments.

The review of these special situations will be part of the approval process.

APPENDIX -

NOTIFICATION SAMPLES



Enbridge Gas Distribution

enbridgegas.com

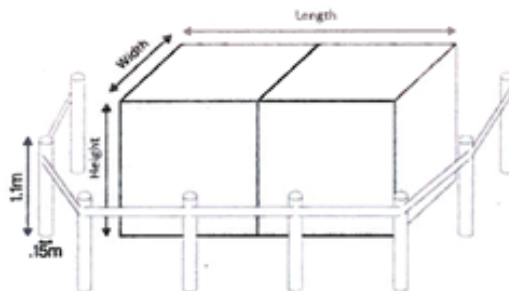
[INSERT DATE]

Dear [INSERT BUILDING RESIDENT NAME]:

RE: Notification of Natural Gas Network Equipment Upgrades

Enbridge Gas Distribution is committed to providing the safe and reliable delivery of natural gas. As part of our processes to continuously improve service, we are upgrading our natural gas equipment in your neighbourhood.

This equipment is currently underground and will be relocated above ground in the same general location. This work is necessary to improve safety and reliability, and meet growing energy demand. The proposed location for this above ground equipment is [INSERT GENERAL LOCATION] on city-owned property that is designated for utilities.



The equipment will be housed in a standard green Enbridge Gas Distribution utility enclosure that is approximately X.X m (Y.Y ft.) wide by X.X m (Y.Y ft.) long by X.X m (Y.Y ft.) tall. Protective posts (or an equivalent) may also be required in order to prevent damage. The work site will be restored in accordance with local municipal consent requirements.

Please note:

- If this work will impact your property, we will contact you in advance of starting the work.
- Enbridge employees and authorized contractors will be performing this work.
- This work is not expected to impact your natural gas service.
- There may be temporary traffic restrictions, open excavations, and noise along the work area.
- This work will take place on weekdays, during business hours, unless notified otherwise.

Please contact me within 15 calendar days from the date of this notification if you have any questions regarding this required work.

We apologize for any inconvenience and thank you in advance for your cooperation.

Sincerely,





Date: _____ Method of Delivery: STANDARD LETTER MAIL CANADA POST
Time: 06:00pm

Dear Resident: _____

In order to meet future communication requirements, we are proposing to upgrade current facilities in your area. In order to provide upgraded facilities, the placement of Bell Canada grade level box will be required on the municipal property.

The approximate size of the following grade level box is L84.5cm X W55cm X D61cm (see picture).
It is intended that this work will be performed with the least possible disturbance.

Approx Location For Proposed grade level box

GLB on the N S **E** W side of _____, approx. _____m N S E W of F _____
_____m N S **E** W of the curb.

Should you have any questions or concerns, please contact _____ at: _____
Please quote Bell Canada Network # _____

We apologize for any inconvenience that this work may cause and we thank you in advance for your co-operation.



In accordance with the City of Toronto outlined in the Municipal Consent Requirements (MCR) available at www.toronto.ca/engineering/mcr/index.htm



Web: toronto.ca/transportation
Twitter: @TO_Transport