



**DS-07**

**Bike Infrastructure Design Standard**

**Version 1.1**

**July 2019**

**Metrolinx Design Standards**

Design Standard DS-07

Bike Infrastructure Standard

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## Bike Infrastructure Standard

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## **SECTION 1: Bikeway Facilities**

### **Definitions**

- A "cyclist" is a person who operates a muscular powered or motor assisted bicycle, tricycle, hand cycle, recumbent, or unicycle, and includes persons using any of the above as a mobility aid.
- A "bikeway" is defined as a roadway or part of a roadway, intended for the use of bikes, either exclusively or shared with other vehicular traffic or pedestrians.
- "Bike parking" includes all types of bike parking mentioned in SECTION 2: *Bike Parking* below.

### **General Requirements**

- Cyclists accessing the station shall be able to reach bike parking facilities via a safe and convenient route that is appropriate for users of all ages and abilities.
- Bikeways shall be built in accordance with the *Transportation Association of Canada (TAC) Geometric Design Guide for Canadian Roads, Chapter 5 - Bicycle Integrated Design*, or revised equivalent, latest version (hereafter referred to as "TAC Design Guidelines").
- Traffic control for bikeways, including signage, pavement markings, and signals, shall be in accordance with the *TAC Bikeway Traffic Control Guidelines for Canada*, or revised equivalent, latest version.
- Bikeways shall be designed and constructed to provide safe and direct bidirectional connections for cyclists between bike parking and the municipal street and/or path network at the edge of the station, also having regard for pedestrian and vehicular routes, circulation and potential conflicts on the site
- Bikeways shall be provided at all GO stations. Where existing or planned municipal bikeways exist, the bikeway shall be aligned to provide a direct connection to the off-site bikeway. Where bikeways do not exist and are not planned at the station edge, a bikeway shall be constructed and connect to the local street network.
  - Connections to the municipal street and/or path network include signalized crossings and intersection treatments (refer to *TAC Bikeway Traffic Control Guidelines for Canada*, or revised equivalent, latest version).
  - Where platform access is provided from both sides of the rail corridor, bikeways shall also be constructed on both sides of the rail corridor.
- Station sites and bikeways shall be designed and aligned to avoid requiring cyclists to dismount prior to reaching bike parking (see *Dismount Policy* section).
- Bikeways shall be designed to minimize the number of conflict points with other modes.
- Wherever possible, bikeways should be aligned to travel along or through areas of the station which are illuminated.

## Design Elements

- All design elements of bikeways shall be compliant with the guidelines referenced above, including but not limited to intersection elements, signage, pavement markings, curb cuts, cross-slope, width, and grade.
- Accessible curbs (curb cuts) shall be provided where bikeways intersect with vehicular roads, at bike parking locations, at connection points to the local street or bikeway network, and wherever there is change in level along a barrier-free path of travel.
- Where a bikeway runs parallel and adjacent to a walkway, consideration should be given to preventing pedestrian encroachment onto the bikeway and cyclist encroachment onto the sidewalk. This can be achieved by providing a wide buffer, a wider walkway, pavement striping, or a significant visual and tactile contrast between the sidewalk and bike lane.
- Where a high level of pedestrian cross-traffic is anticipated, pedestrian access across the bikeway should be channelized as much as possible, to guide pedestrians to cross at clearly-marked locations. Provide clear direction to cyclists when they are expected to yield to pedestrians crossing the bikeway.
- When a bikeway crosses a bus stop, the preferred design is to route the bikeway behind the transit stop, with bus passengers accommodated with a transit island. Refer to TAC Guidelines for detailed design requirements.
- When an existing or planned municipal bikeway is intended to pass through a station facility, placement of station elements, including bus bays, platform access points, passenger pick-up-drop-off facilities, and bike parking should be coordinated such that the bikeway can be made as continuous as possible through the station.
- A lateral clearance of 0.5 m shall be provided on each side of the bikeway. Lateral clearance areas shall be designed, constructed and maintained free from any obstruction.
- Obstructions, such as signposts, bollards and fences, shall not be placed within the bikeway facility, or within the lateral clearance area of the bikeway.

## Acceptable Bikeway Facility Types

- The types of bikeways from the TAC Guidelines deemed acceptable for GO Stations are summarized below. All requirements are in addition to those stated in the TAC Guidelines. They are presented in order of most preferred to least, based on the level of safety and comfort that each design provides.
  1. *Bike Path:* Bike paths are roadside facilities designed for the exclusive use of cyclists. They are separate from both motorists and pedestrians, but primarily require design based on bicycles operating in parallel with pedestrians, especially at intersections. A bike path is not a substitute for a walkway; where a bike path is constructed, a parallel walkway shall be provided, if a nearby parallel route does not already exist.
  2. *Multi-Use Path:* Multi-use paths are roadside facilities designed for mixed, bi-directional travel by cyclists and pedestrians, separate from motorists.

3. *Bike Lane:* Bike lanes are roadway facilities designed for the exclusive use of cyclists. They are separate from both motorists and pedestrians, but primarily require design based on bicycles operating in parallel with motor vehicles, especially at intersections.

### Selection of Bike Path versus Multi-Use Path

- When designing and constructing stations, separation of pedestrians and cyclists is the preferred design approach, using a bike path and separate walkway.
- For locations where space is constrained, consideration should be given to a multi-use path, however, if the expected daily volume of pedestrians and cyclists accessing a station, based on the station ridership forecast and access mode targets expressed in the 2016 GO Rail Station Access Plan or revised equivalent, latest version, exceeds 1,500, segregation of pedestrians and cyclists is recommended.

### Bikeway Width

- The default design width for bikeways shall fall within the *Recommended Width* range stated in the TAC Guideline. Usage of the *Practical Lower Limit* in the TAC Guideline is permitted where constraints exist, however justification shall be provided.
- The below table provides a summary of bikeways and widths from the 2017 TAC Guideline. These numbers are superseded in the case where a newer TAC Guideline is available.

Bikeway Type	Recommended Width	Practical Lower Limit
1. Bike Path + Walkway**	4.6-5.2 m**	4.0 m**
2. Bike Path	1.8-2.5 m (one-way) 3.0-3.6 m (two-way)	1.5 m (one-way) 2.4 m (two-way)
3. Multi-Use Path	3.0-6.0 m	2.7 m
4. Bike Lane (one-way, painted, no buffer)	1.8-2.1 m*	1.5 m*

\*Recommended width higher when buffers/separation used. Refer to TAC Guidelines.

\*\*Includes 1.6 m walkway width.

### Signage and Pavement Markings

- Bikeway signage and pavement markings shall be provided in accordance with the *TAC Bikeway Traffic Control Guidelines for Canada*, or revised equivalent, latest version.
- GO Static Signage catalogue and GO DRM requirements will also apply to signage and pavement markings where applicable.

## Dismount Policy

- Bikeway routing through the station should enable cyclists to travel as close to bike parking as possible without dismounting. Consideration should be given specifically to the placement of bus bays, platform access points, passenger pick-up-drop-off facilities, and bike parking.
- Physical obstructions or obstacles such as bollards shall not be used as a strategy to force cyclists to dismount, as these pose significant hazard to cyclists, and can prevent access by persons using bicycles as a mobility aid.
- Where bollards are required at bikeway entrances to prevent motor vehicle access, a minimum of 1.5 meters spacing shall be provided between bollards to accommodate through access by persons using bicycles as a mobility aid. Flexible bollards are preferred as they absorb energy in the event of a cyclist or pedestrian collision.
- Bikeways are required to terminate at the edge of the Station Plaza and Platform Access areas and should do so as close to the bike parking as possible so that the need for cyclists to dismount before reaching the bike parking is minimized.
- Where termination of the Bikeway occurs, the following design elements shall be used to communicate the end of the bikeway (in accordance with *TAC Bikeway Traffic Control Guidelines for Canada*, or revised equivalent, latest version):
  - A transverse stop line across the full width of the bikeway;
  - A bright blue painted box with "DISMOUNT" painted in white paint; and
  - The "TAC Dismount and Walk Sign MUTCD C RB-79" sign posted outside the lateral clearance area.
- At operational facilities where several pedestrian safety complaints have been received regarding conflict with cyclists in plaza areas, flexible bollards are permitted for use as an additional dismount strategy at the terminus of the bikeway, provided that they are spaced a minimum of 1.5 meters apart so as to not hinder access for persons using bicycles as a mobility aid.

## **SECTION 2: Bike Parking**

### **Introduction**

Bike parking shall be provided at all GO facilities, to encourage cycling as an access mode, in accordance with the quantities specified in the *2016 GO Rail Station Access Plan*, or revised equivalent, latest version.

Types of bike parking include:

- Secure:
  - Integrated Secure Bike Rooms
  - Standalone Secure Bike Rooms
- Covered:
  - Integrated Covered Bike Shelters
  - Standalone Covered Bike Shelters

### **General Requirements**

Bike Parking shall provide an attractive, convenient and user-friendly solution for passengers to secure their bikes at the station for periods of longer than two hours (long-term parking).

#### Location

Bike parking shall be located:

- As near to the station building or platform and tunnel access points as possible and no more than 50 metres. Secure parking should be located as close as, or closer than, covered parking;
- No more than 10 metres from the terminus of bikeway facilities, with a curb-free and barrier-free access from the bikeway facilities;
- In such a way that does not hinder pedestrian flow to and from the train;
- In a highly visible location with high foot traffic for security purposes;
- Such that customers are not required to carry their bike up and down stairwells.

#### Quantity

- Bike parking shall be provided in sufficient quantity such that the Secure and Covered requirements for each side of the station, as specified in the *2016 GO Rail Station Access Plan*, or revised equivalent, latest version, are met or exceeded. Where there is a Station Plan that has been approved by Planning & Development, the specified bike parking quantities shall prevail over the Station Access Plan targets.
- Covered Bike Parking shall not be provided as a substitution for Secure Bike Parking, and vice versa.

### Constrained Sites

- In constrained locations, meeting the required quantities of bike parking should be prioritized over vehicle parking and pick-up-drop-off as per the hierarchy established in the *2016 GO Rail Station Access Plan*, or revised equivalent, latest version.
- In locations where land is not owned or controlled by Metrolinx, a best effort should be made to establish agreements with the local landowner(s) to provide bike parking as an amenity to GO customers consistent with the principles of this standard.

### Signage and Wayfinding

- Clear signage shall be placed throughout the station area as required to advertise the availability of bike parking and to direct users to the location of bike parking, both Secured and Covered Signage for secure bike parking facilities shall follow the specifications outlined in Section 5 of this document.
- Also refer to the Metrolinx Wayfinding Design Standard and DRM, latest version.

### Electrification Considerations

- Bike parking shall not be located in an area likely to be affected by a broken future electrification overhead conductor. Refer to GO Electrification drawings and specifications.
- Metallic shelter structures within the affected area shall be made electrically continuous and bonded to the station counterpoise/grounding grid.
- Any bike parking located within 4 to 6 meters from the centerline of track shall be grounded and bonded to the traction return system. See Enabling Works Electrification Standards and Specifications.

## Bike Parking Configuration

- Bike parking shall be accommodated with bike racks. Configuration of bike racks is dependent on the overall room shape and size.
- Bike rack styles, installation, materials, coatings, and placement shall meet the Performance Criteria specified in the *Essentials of Bike Parking* (2015), guideline published by the Association of Pedestrian and Bicycle Professionals (APBP), or revised equivalent, latest version. Any rack style included in the "Racks to Avoid" section is not permitted for use.
- Where "Inverted U" and "Post & Ring" style racks are used, the following minimum spacing requirements shall apply, as specified in the *Essentials of Bike Parking* (2015), guideline published by the APBP, or revised equivalent, latest version:

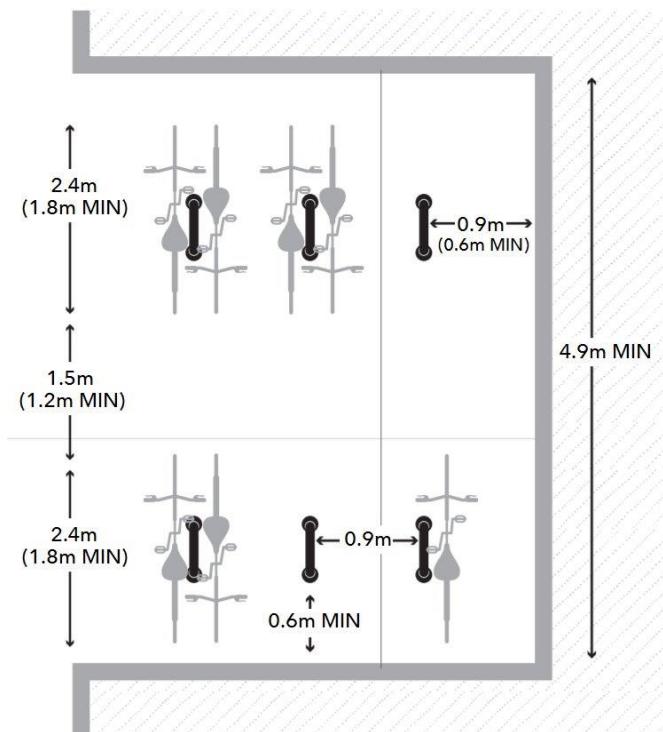


Figure 1 - Minimum spacing requirements for installation of Inverted-U and Ring & Post bike racks (adapted from APBP)

### General Secure Bike Parking Requirements

All Secure Bike Parking facilities (Station Integrated Bike Rooms and Standalone Secure Bike Rooms) shall be:

- Designed utilizing Crime Prevention Through Environmental Design (CPTED) principles to provide clear views to the entire space from both inside and out, in an effort to ensure the safety of users.
- Located within 90 meters or closer of electrical and communications rooms.
- Protected from weather and fully enclosed to prevent bike/bike component theft.
- Equipped with secured doors to have 24 hour FOB access.
- Available for use twenty-four (24) hours per day and seven (7) days per week.
- Illuminated twenty-four (24) hours per day and seven (7) days per week. The illumination level for secure bike rooms shall be 200 LUX (Refer DRM requirements under Section F and Illuminated Engineering Society manual for prescribed levels). Astronomical timers, pre-programmed for sunrise and sunset, shall be used in the bike room for daylight control to reduce energy consumption. The entrance and walkway to the bike room shall be lit during all station operational hours of the day.
- Equipped with I.P. cameras mounted in an appropriate location which provides a dedicated identification shot (fixed) covering the entrances, as well as an overview (fixed) camera to capture activities inside the area. IP cameras shall be connected using conduit sized in accordance with GO Design Requirement Manual and shall be run from a network rack inside the IT room to the location of the cameras.

- Provide at least one GFCI 120 V electrical outlets in addition to the e-bike charging outlet with connections to either the main station building or on-site facility.
- Provide separate conduits for communications, data, power, lighting, door operators, convenience outlets, cameras, CCTV, security, PRESTO and pull-boxes in addition to provision for additional capacity at 25% of total number of conduits.
- Built with a minimum interior headroom of 2.6 meters, to accommodate two-tier bike parking.
- Equipped with a Bike Repair Stand (see Bike Repair Stand below), installed outside the entrance to the Secure Bike Parking (in the non-secure area), in a location not along or adjacent to a pedestrian path of travel.
- Designed with a super graphic version of the branded logo, applied as a ceramic frit and placed on one of the glazed walls, to identify the space from a distance and to assist with wayfinding, aligned with the *Metrolinx Wayfinding Design Standard*.
- Constructed from low maintenance, durable, enduring materials that have a minimum 20 year lifecycle and are easily replaceable (i.e. off the shelf type).
- Constructed with material and fasteners which are non-corroding, low maintenance and durable (this includes signage, light fixtures, and painted surfaces).
- Well ventilated by natural ventilation through the incorporation of horizontal louvres placed in the appropriate location and integrated with the architecture of the station building or Standalone Secure Bike Room, in order to mitigate the effect of heat gain internal to bike parking facilities.
- Wall adjacent to the back of the bike racks shall be frosted if glass, or opaque.

In addition, the following shall apply to Secure Bike Parking:

- Storm water management shall provide for roof and site drainage that prevents puddling, flooding or erosion. As per OBC, clean out shall be provided for storm water system and drainage system.
- If Secure Bike Parking is located more than 25 meters from a water source (hose bib), the facility shall be constructed with one key locked cover, a non-freeze hose bib located inside the facility with supply connection from main station building or on-site facility and drainage for ease of maintenance. Drainage to go into storm sewer on site.
- Concrete floors shall be painted with slip resistant exterior coating system for safety and ease of maintenance.
- Glass panels shall have bird frit patterns.
- Doors shall be framed, high quality, durable, low maintenance and should have full height unbreakable glass panels - suitable for bike and rider to safely enter or exit.
- Doors shall have extra heavy duty commercial grade frame, hinges, locks, handles, push bars, and exposed door closers.
- Doors shall have emergency exiting hardware as required by code.
- Door shall be equipped with a 10" kick plate at the bottom.
- Facility shall be well lit as per DRM and OBC.
- If constructed such that one of its building faces is within 6 meters of another building face (new or existing), then the building face of the Secure Bike Room (and associated structural supports) shall be constructed to a 2 hour rating as per the OBC.

- Access for fire department equipment shall be provided for. The main entrance doors of the Secure Bike Room shall be located within 3 to 15 meters from the nearest Fire Access Route on the station property.
- Provide either a connection to a sanitary sewer (as per OBC 3.7.4.1 (3)) or ensure janitorial facilities are located nearby. Project teams should review this requirement with local authorities.
- Where secure bike parking is available on both sides of the tracks, only one Bike Repair Stand shall be installed at the bike facility located closest to the station building. Signage shall be provided at other locations directing customers to the Bike Repair Stand.

#### Bike Parking Configuration

- Bike parking layout and placement of racks shall enable free movement of persons with bikes.
- All circulation aisles shall be a minimum of 1.75 meters wide (beyond the footprint of the bike racks when full).
- Vertical racks shall comprise no more than 50 percent of the overall bike parking capacity.
- A *Non-Standard Cycle Parking Area* (see Non-Standard Cycle Parking below) shall be provided inside every secure bike parking facility.

#### Secure Bike Parking Access and Access Control

- All doors shall be secured, with 24 hour access with door swing in one direction outward.
- Doorway shall be at least 1.2 meters and automatic. Door swing guard railings shall be used.
- Automatic door operators (“push buttons”) shall be placed within and outside the rooms in locations that maximize user convenience.
- Doors shall be equipped with
  - master key lock cylinder,
  - sensor indicators (when doors are unnecessarily left open for extended periods), and
  - electronic door controllers for CHUBB/FOB card access, adjacent to automatic door operators.
- Doors shall conform to Metrolinx Hardware Specifications.
- The bike room shall be secured with electronic door controllers using the CHUBB access control system at all access doors.
- One power conduit sized per DRM requirements outlined in Section F (PRESTO requirements) shall be run from the Electrical room to the location of the CHUBB access control points for use with future door control systems.
- One data conduit sized per DRM requirements outlined in Section F (PRESTO requirements) shall be run from a network rack inside the IT room to the location of the CHUBB access control points for use with future door control systems.

### Non-Standard Cycle Parking Area

All secure bike parking facilities (Integrated Secure Bike Rooms and Standalone Secure Bike Rooms) shall include a designated area designed to accommodate non-standard cycles, such as e-bikes, cargo bikes, and tricycles, which shall:

- Accommodate a minimum of 10 percent of the total bike parking capacity via "Inverted U" or "Post & Ring" bike racks, following the standard spacing as specified in the *Essentials of Bike Parking* (2015) guideline, or revised equivalent, latest version, published by the APBP, plus a minimum of 1.0 meters spacing between racks, and clustered together in the room.
- Be clearly marked with green paint on the floor and signage which reads "Reserved for e-bikes, cargo and non-standard cycles. Priority to disabled cyclists.", designed consistent with the principles of the *Metrolinx Wayfinding Design Standard*.
- Include two sets of GFI type receptacles per DRM requirements outlined in Section F (Receptacles) with connections to either the main station building or on-site facility.

### Bike Repair Stand

Bike Repair Stands shall be:

- Installed according to the manufacturers' instructions regarding appropriate clearances and placement of the stand
- Constructed from low maintenance, durable, and enduring materials and be rated for outdoor use
- Finished with a black powder coat to be consistent with the architectural language and materiality of the GO Shelter Family

Bike Repair Stands shall feature:

- A method to hold the bike off the ground
- A set of hand tools to enable the user to perform common repairs
  - Tools shall be attached to the stand with stainless steel cables and tamper proof fittings to reduce theft
  - Tools shall be replaceable for when they become damaged or lost
- An outdoor-rated bike pump, with an air pressure gauge, affixed to the stand and/or ground with tamper proof fittings to reduce theft
  - The pump shall be modular in design allowing maintenance and replacement of parts

## Integrated Secure Bike Room Requirements

Station Integrated Secure Bike Rooms shall be:

- Incorporated within the main station entrance building or within a secondary entrance building that provides direct tunnel/platform access. At least one set of doors shall accommodate a design width of 1.2 meters, to accommodate a person riding a non-standard cycle for accessibility purposes;
- Constructed with a minimum of one exterior fully glazed wall and be designed such that the entire room is visible from outside, prior to entry to station;
- Fully integrated into the building envelope and consistent with the architecture of the station building;
- Ceilings may be used to accommodate wiring for power and communications from the station building for integrated secure bike rooms where there is a clear routing method;
- Equipped with a primary doorway, providing direct access/egress to and from both the outside of the station building and a secondary doorway, providing access/egress to the inside of the station building during station operating hours. The primary doorway width shall be a minimum of 1.2 meters, to accommodate a person riding a non-standard cycle for accessibility purposes;
- Sized to meet or exceed the specified quantity of secure bike parking for each side of the station as specified in the *2016 GO Rail Station Access Plan*, or revised equivalent, latest version;
- Exposed concrete masonry walls to be coated with exterior grade paint.

## Standalone Secure Bike Rooms

For retrofit applications, where no significant station building renovation is part of the project, secure bike parking shall be provided with Standalone Secure Bike Rooms, which shall be:

- Located adjacent to the station building or platform and tunnel access points, and closer to the entrance than Covered Bike Parking;
- Designed to be consistent with the architectural language and materiality of the GO Shelter Family. Refer to renderings provided below for guidance;
- Equipped with two points of access entailing:
  - a glazed primary doorway with a width of at least 1.2 meters for access and egress, to accommodate a person riding a non-standard cycle for accessibility purposes; and
  - one emergency exit door for egress, complete with signage.
- Constructed with positive drainage towards a drain with the surface sealed to be non-slip with floor grate (see Table F-36 and F-37 in DRM) at the door location;
- Placed on the site in such a way that enables pedestrian circulation on all sides, and preferably located against a fence or a wall on the rear side. Where the rear face is placed against a wall, the gap shall be as small as possible, and no wider than 1.2

meters, for personal safety purposes. If it cannot meet this minimum, then it should be placed away from a wall at least 2.5 meters;

- Constructed in three standardized capacities, Small, Medium and Large, with capacities of 16, 32 and 64 bikes respectively, inclusive of Non-Standard Cycle Parking Area requirements, in such a way that the secure bike parking requirements for each side of the station, per the *2016 GO Rail Station Access Plan*, or revised equivalent, latest version are met or exceeded. (i.e. if 10 secure bike parking spaces are required on the North side of the station, and 42 on the South, then a 16-bike secure shelter shall be built on the North side, and a 64-bike secure shelter shall be built on the North). Flexibility is permitted in the dimensions and layout of the rooms provided that they meet the requirements of the *Bike Parking Configuration* section above.
- Designed and built with provisions such that Small and Medium Standalone Secure Bike Rooms can be simply expanded to Large Standalone Secure Bike Rooms at a future date if demand warrants.

In addition, the following shall apply to the design of the Standalone Secure Bike Rooms:

- Foundation design for secure bike rooms shall incorporate footings in accordance with OBC Requirements and GO Transit Design Requirements Manual;
- Fully enclosed with a properly constructed flat roof with provision for adequate slope and drainage
- Roof drains, sanitary pipe and domestic water supply pipe with heat tracing controlled by the station building automation system, in accordance with the GO DRM for unheated areas as part of electrical requirements;
- Portion of the exterior wall to be designed as housing for concealing any electrical or mechanical systems, with direct access from the interior of room and provision for architectural treatment on the exterior, such as spandrel glass panel, that integrates with the architecture of the room.
- Rainwater leaders shall be integrated with any columns/column cladding chases with provision for access panel and clean out; roof anchors/fall arrest shall be provided for operations and maintenance access and safety. Note: power and communications shall not share columns/column cladding chases with rainwater leaders;

### **Integrated Covered Bike Shelter Requirements**

Integrated Covered Bike Shelters shall:

- Be adjoined and integrated into the station building or parking structure and integrated with the station design;
- Be placed in highly visible locations in the vicinity of platform access points;
- Align with the architectural language and materiality of the station building;
- Include two GFI type receptacles per DRM requirements outlined in Section F (Receptacles) with connections to either the main station building or on-site facility; and

- Preferably use "Inverted U" and/or "Post & Ring" rack styles. Any rack specified in the "Racks to Avoid" section of the *Essentials of Bike Parking* (2015), guideline published by the APBP, or revised equivalent, latest version shall not be used.

### **Standalone Covered Bike Shelter Requirements**

Only where there are no opportunities for an Integrated Covered Bike Shelter, Standalone Covered Bike Shelters may be used. Refer to GO Standard drawings and specifications.

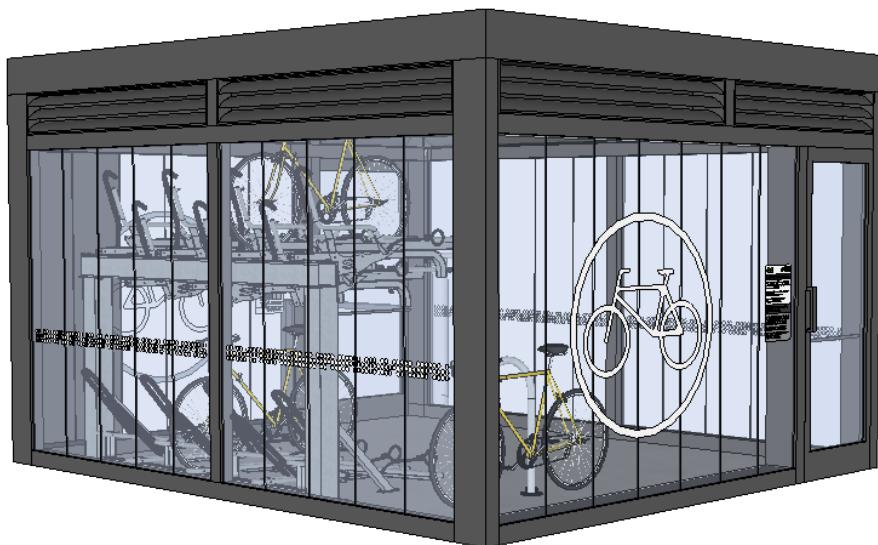
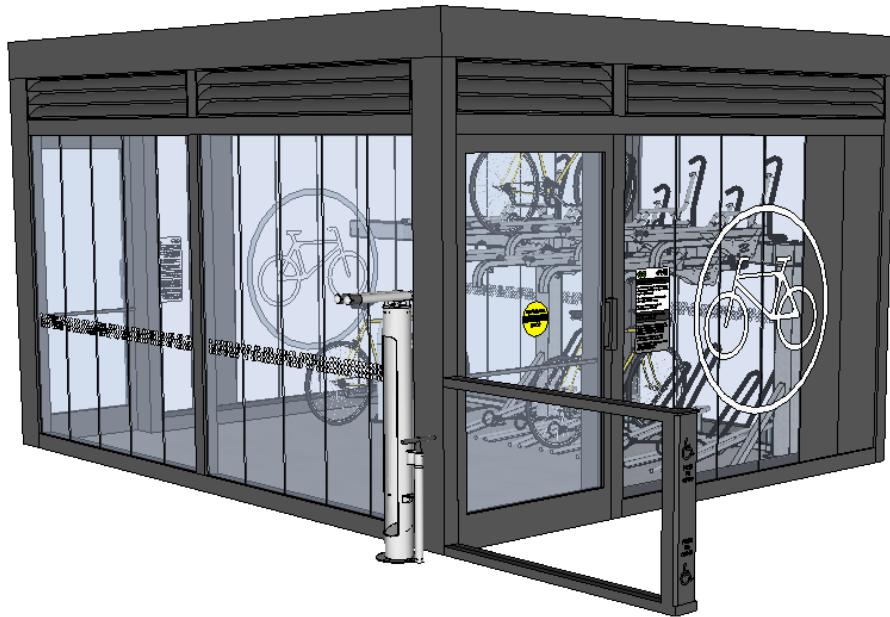
Standalone Covered Bike Shelters shall:

- Provide a roof covering that is consistent with the architectural language and materiality of the GO Shelter Family. Refer to renderings provided below for guidance.
- Be mounted to a foundation of concrete slab on grade, broom finished, and sealed.
- Preferably use "Inverted U" and/or "Post & Ring" rack styles. Any rack specified in the "Racks to Avoid" section of the *Essentials of Bike Parking* (2015), guideline published by the APBP, or revised equivalent, latest version shall not be used.

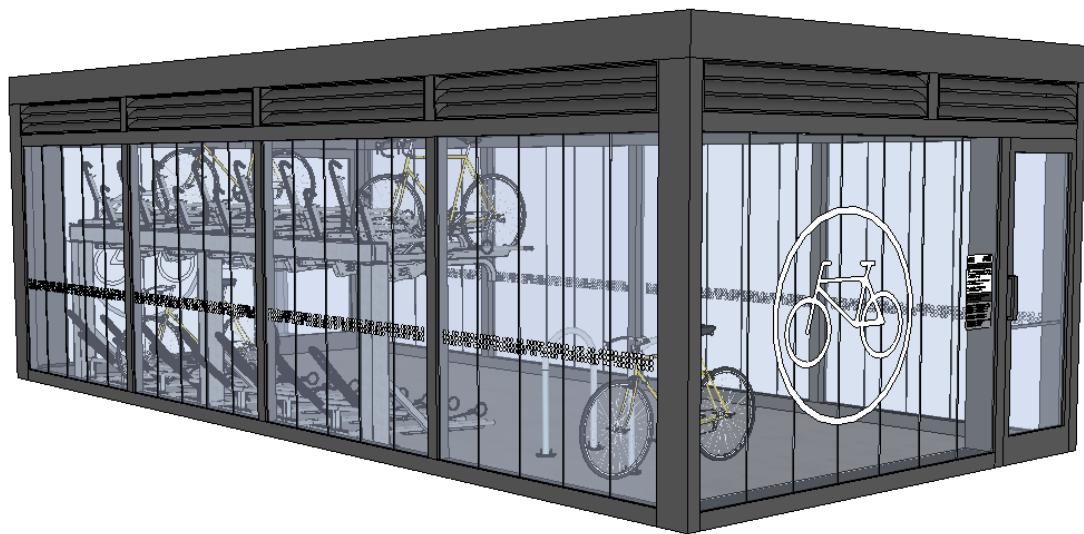
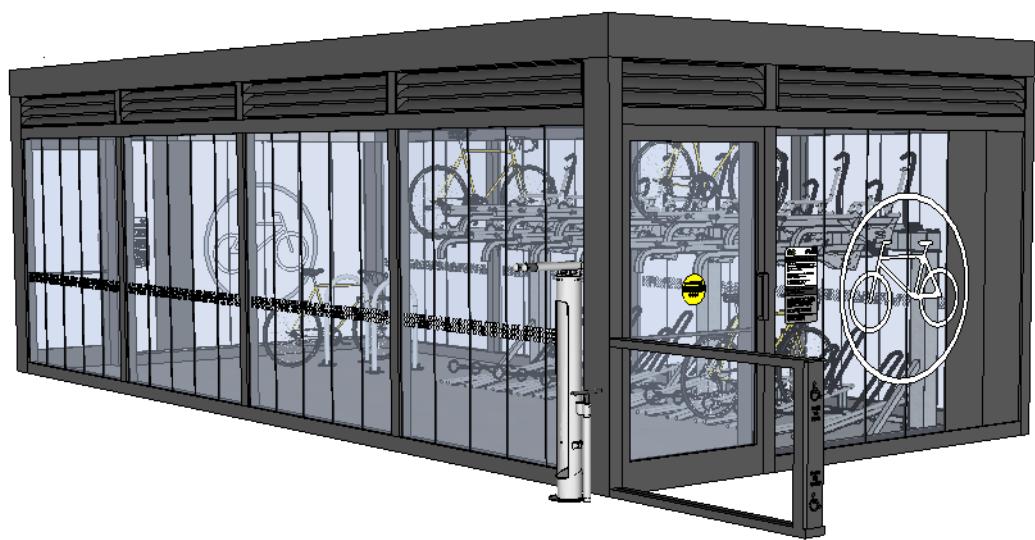
### **SECTION 3: Standalone Secure Bike Room Design Renderings**

*Note: All renderings shown for demonstration purposes only. Refer to Section 2 for back wall glass finish requirements.*

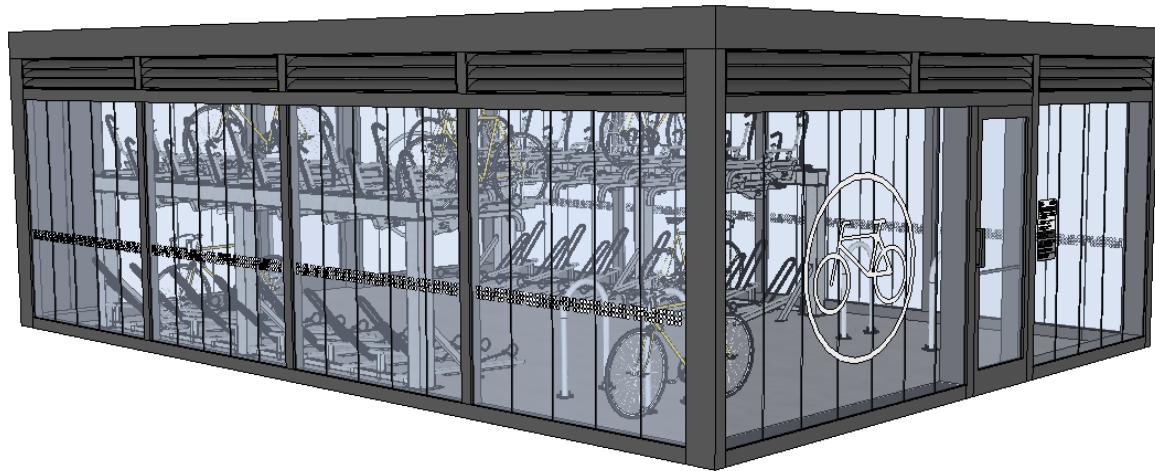
**Small Standalone Secure Bike Room (16-Bike Capacity). Views below show the front entrance (top) and back elevation exit door.**

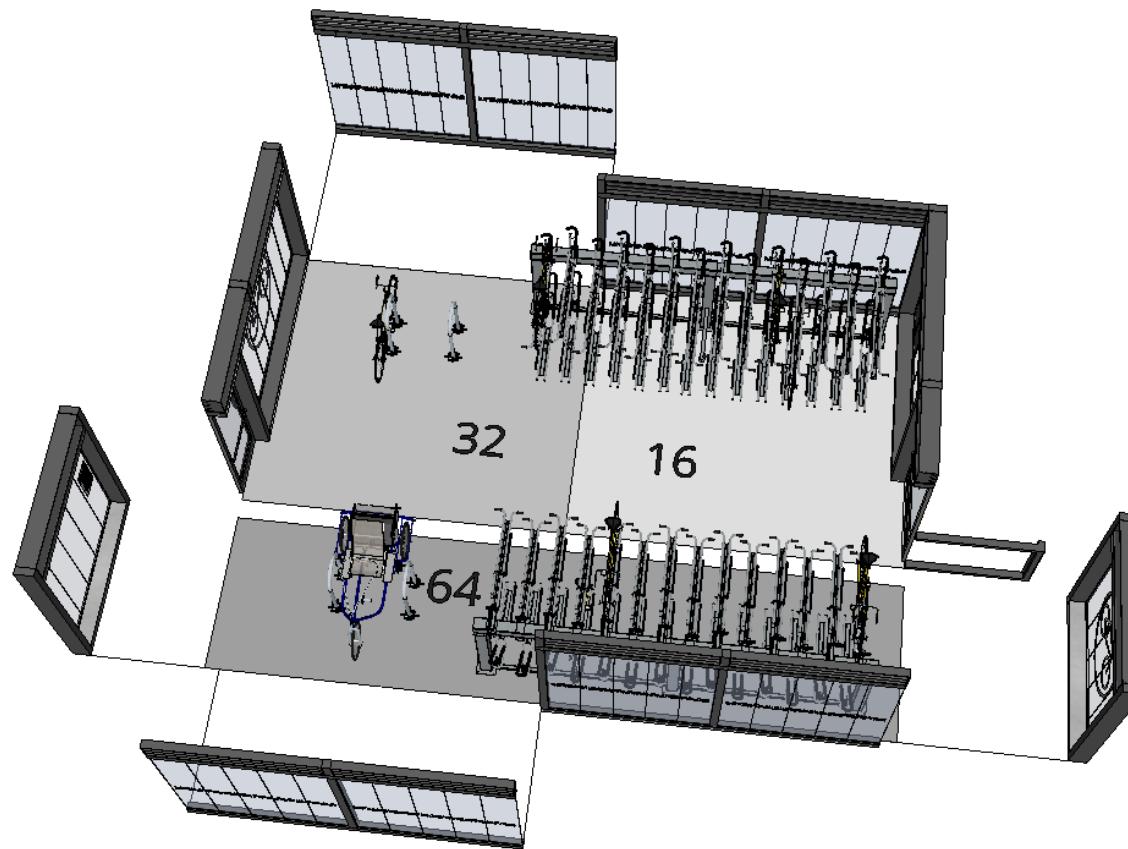


Medium Standalone Secure Bike Room (32-Bike Capacity). Views below show the front entrance (top) and back elevation exit door.



Large Standalone Secure Bike Room (64-Bike Capacity). Views below show the front entrance (top) and back elevation exit door.

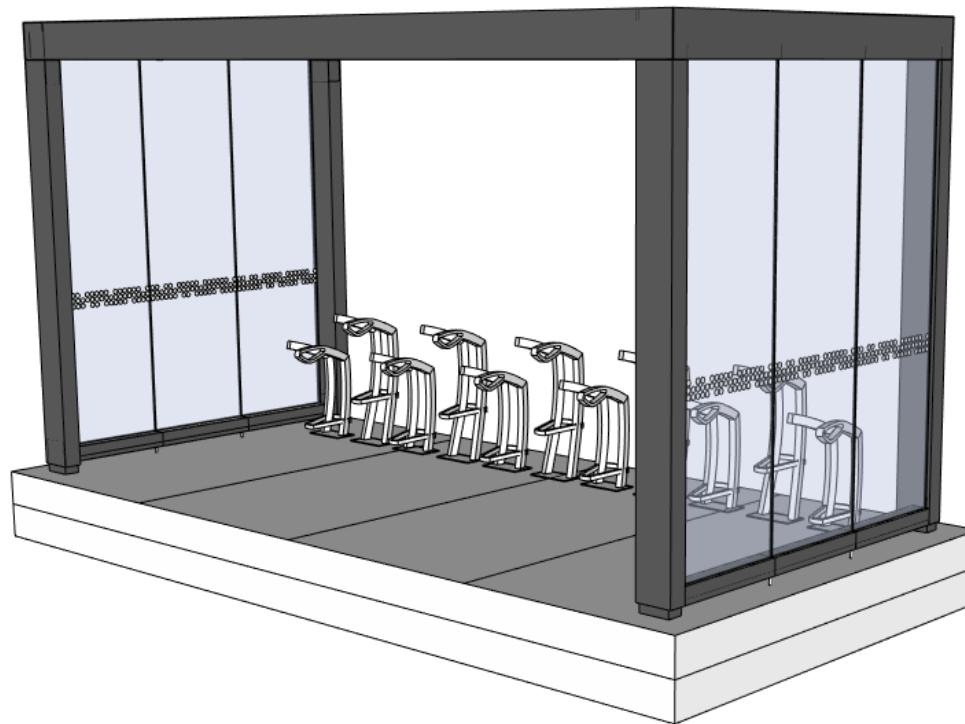


**Example of Modular Conversion of Small Secure Standalone Room to Large Secure Standalone Room**

## SECTION 4: Standalone Covered Bike Shelter Renderings

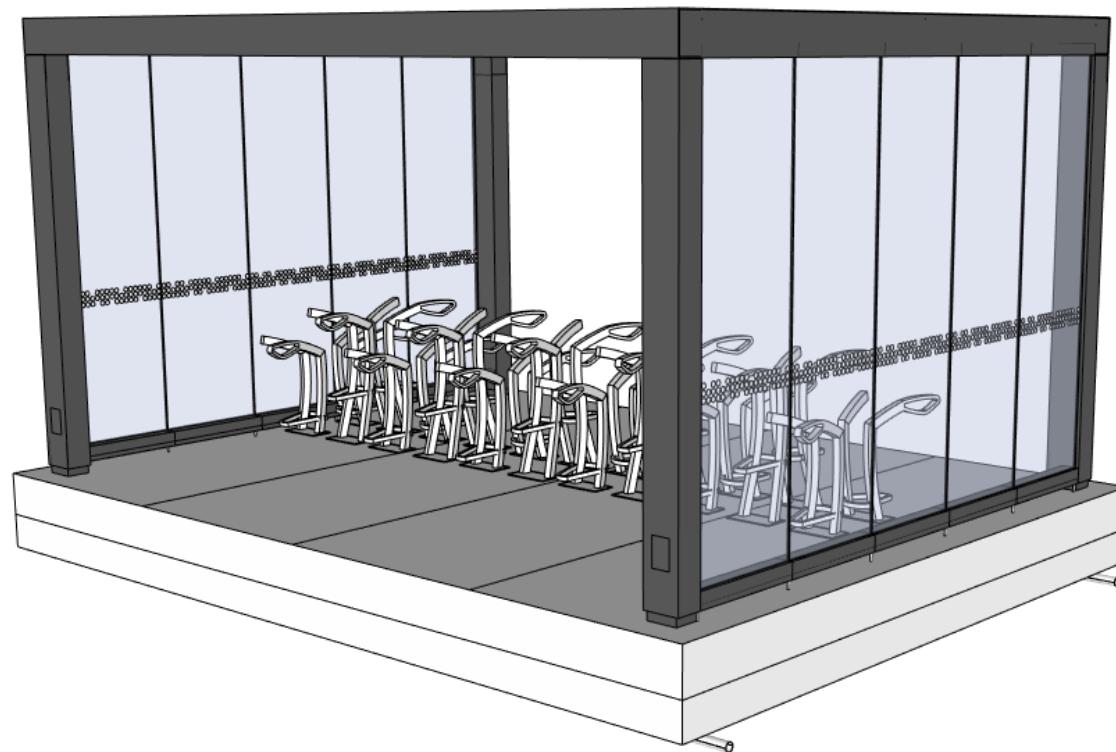
### **Small Covered Bike Shelter**

*Rack shown for demonstration purposes only.*



**Large Covered Bike Shelter**

*Rack shown for demonstration purposes only.*

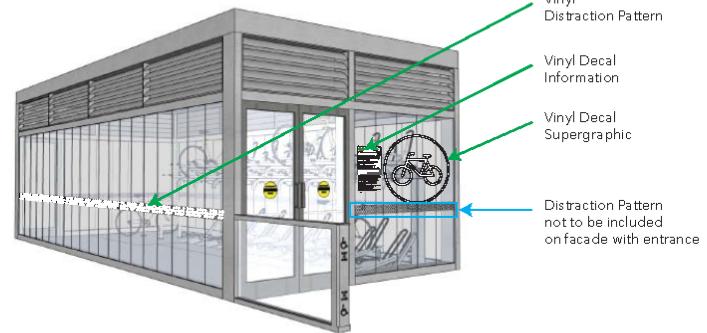


## **SECTION 5: Secure Bike Parking Signage Requirements**

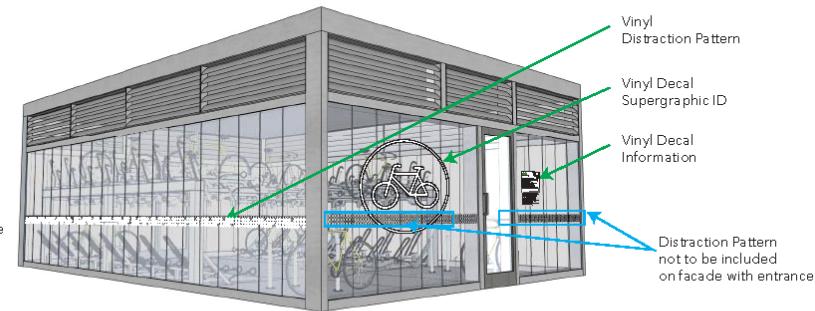
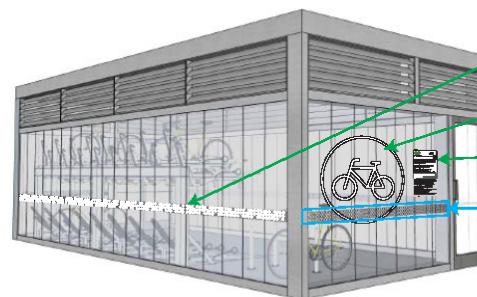
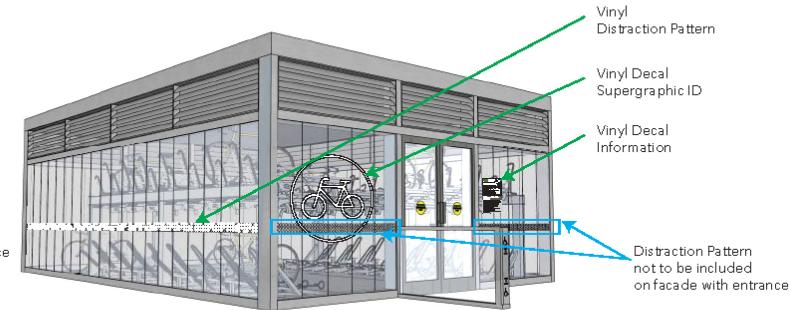
*Note: All signage and text paintings shall be aligned with the Metrolinx Wayfinding Design Standard.*

### **SECURE BIKE SHELTER/PARKING - SIGNAGE**

**SMALL SHELTER**

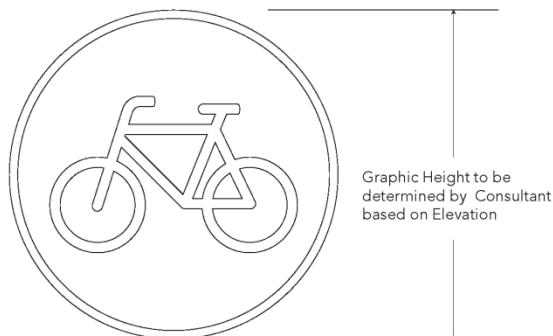


**LARGE SHELTER**



Drawing: NTS

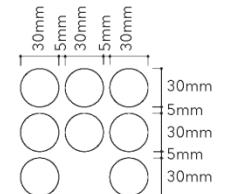
## SECURE BIKE SHELTER/PARKING - SIGNAGE



**Production Note:**  
Exterior Grade White Vinyl,  
Matte finish;  
Applied to 1st surface  
of Glazing

**NOTE:**  
*Distraction pattern is not required if there is a knee wall 18" or taller before glazing starts*

**Production Note:**  
Exterior Grade White Vinyl,  
Matte finish;  
Applied to 1st surface  
of Glazing



Length to be as needed based on glazing span

② Vinyl Distraction Pattern - Detail View  
Drawing: NTS

① Vinyl Decal Supergraphic ID - Detail View  
Drawing: NTS



**Production Note:**  
Exterior Grade White Vinyl,  
Digitally Printed graphics;  
Matte over-lam;  
Applied to 1st surface  
of Glazing



**Production Note:**  
Exterior Grade White Vinyl,  
Digitally Printed graphics;  
Matte over-lam;  
Applied to 0.080 Aluminum;  
Mounted to inside of shelter  
onto wall with S.S. Hardware;  
*Alternate placement - Vinyl Decal on 1st surface of Glazing*

③ Vinyl Decal Information (Exterior) - Detail View  
Drawing: NTS

④ Information (Interior - Panel or Decal) - Detail View  
Drawing: NTS

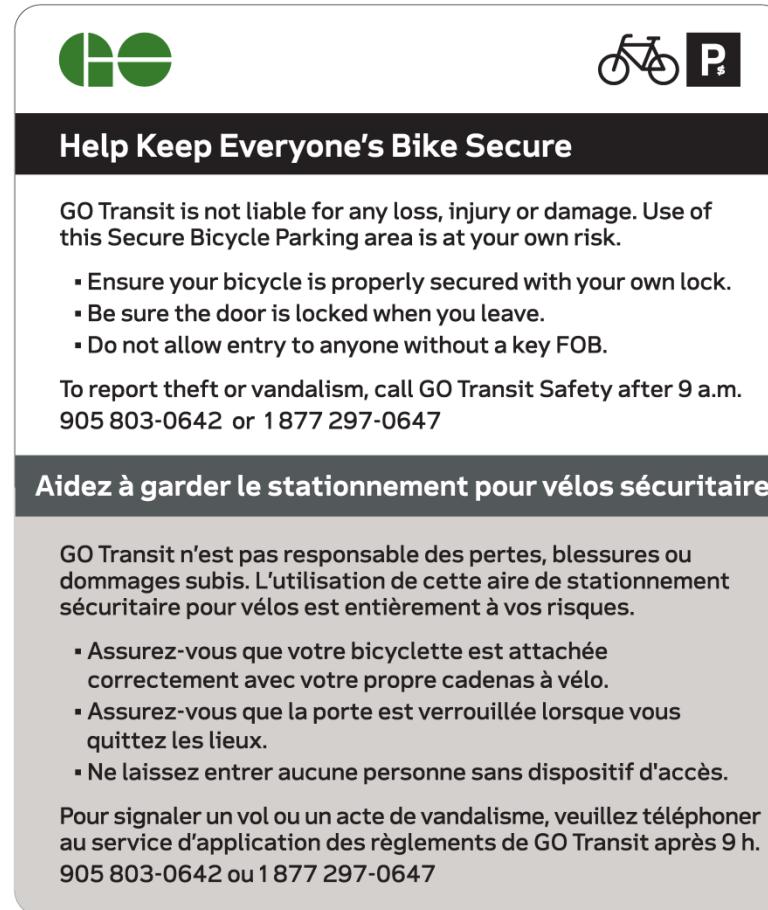
French Translations have been vetted  
Drawing: NTS



NOTE: SIGNAGE SERVICES, STATION SERVICES & STANDARDS HAS SIZE AS VECTOR ARTWORK OF EACH SIGN



Exterior Signage  
300mm x 520mm



Interior Signage  
560mm x 660mm