

# GO STATION ARCHITECTURE DESIGN STANDARD (DS-04)

MX-FAE-STD-A004

Facilities Architecture & Engineering  
Version 2.0  
October 2025



**Metrolinx Design Standards**

GO Station Architecture Design Standard

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## AMENDMENT RECORD

| Version No. | Publication Date | Remarks                                                                                                                                                                                                                                              |
|-------------|------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1.0         | July 2019        | First Edition                                                                                                                                                                                                                                        |
| 2.0         | October 2025     | Editorial changes, incorporation of DRM platform requirements, lessons learned, tables converted to clauses, restructured numbering and organization for consistency with Design Standards. Coordination with the Front End Design Standard (DS-00). |

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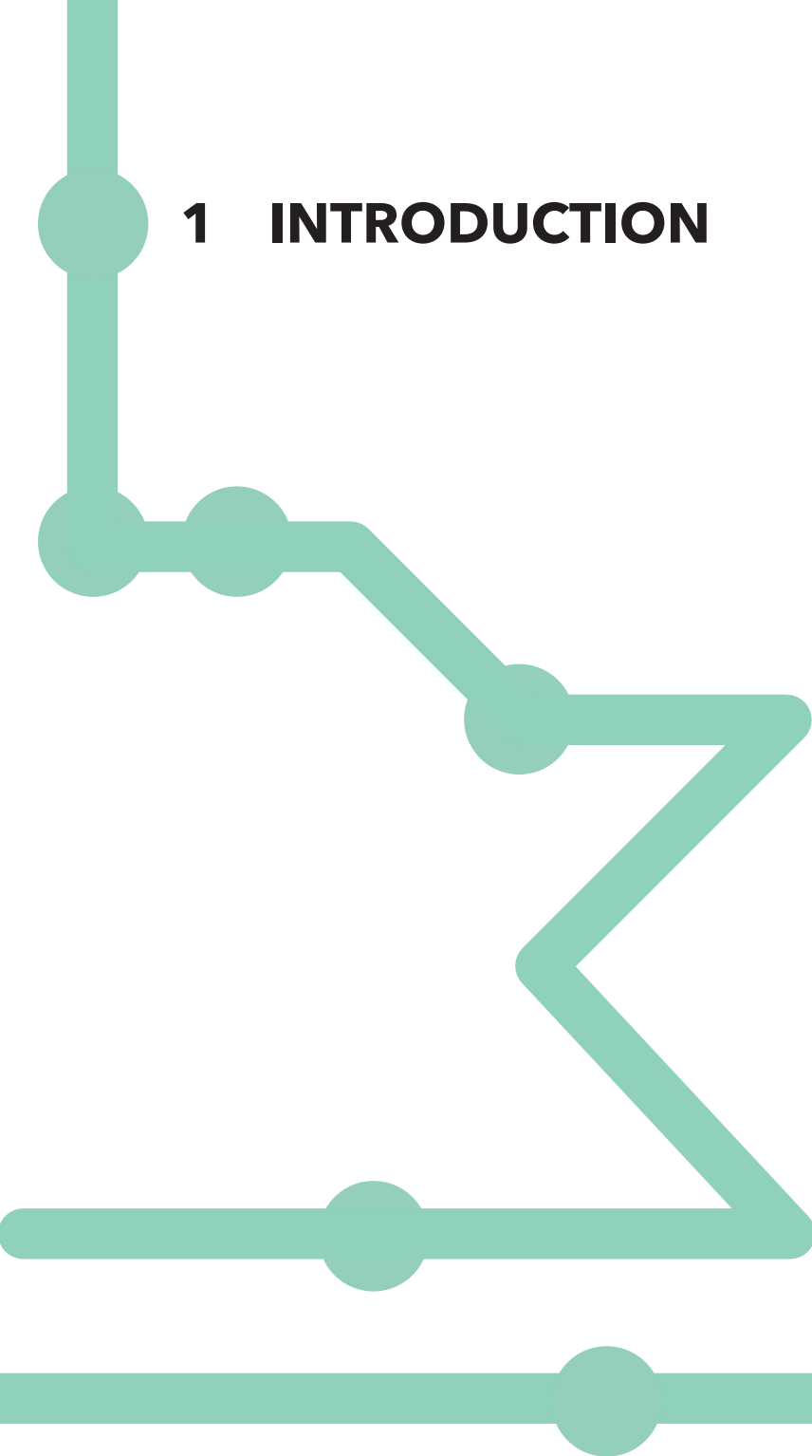
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# 1 INTRODUCTION

- 1.1 Preface
- 1.2 Purpose
- 1.3 Vision and Design Approach
- 1.4 The Customer Journey
- 1.5 Administering Standards

### 1.1 PREFACE

This is the second edition of the Metrolinx GO Station Architecture Design Standard (DS-04) document (MX-FAE-STD-A004). This version of the Standard incorporates editorial changes, platform requirements, and a restructuring of clause numbering and organization to ensure consistency with the Design Standards.

This Standard is applicable to all Metrolinx GO projects and provides architectural and urban design requirements for stations and associated customer-facing infrastructure. Operator-specific requirements are not in the scope of the Standard.

The GO Station Architecture Design Standard was developed by the Metrolinx Facilities Architecture and Engineering Team within the Asset Management and Maintenance Division.

This Standard is available for external users to download via the Metrolinx public download site at: <https://www.metrolinx.com/en/metrolinx-technical-standards>

Suggestions for revision or improvement, as well as inquiries for additional information, can be sent to the Owner of this Standard, Metrolinx Facilities Architecture and Engineering, Attention: Director.



Internal Metrolinx team members may submit lessons learned or suggestions for improving our Standards at the following:

<https://forms.office.com/r/fVQ03G9scg>

### 1.2 PURPOSE

The purpose of this Standard is to establish a consistent approach to the planning, design, and retrofitting of GO Stations across the Metrolinx network. It outlines design requirements for station buildings and platform architectural elements.

### 1.3 VISION AND DESIGN APPROACH

The GO Station design approach is intended to focus on simplicity, cost-efficiency, and functional performance in order to support reliable operations. The design and planning of the GO Station are based on a design language that considers architecture, engineering, functionality and user experience into a unified approach. This principle applies not only to station architecture but also to the broader customer experience across the commuter rail and regional express network, emphasizing context-sensitive, customer-focused solutions that integrate with the diverse communities of the Greater Golden Horseshoe Area (GGHA). Designs shall support long-term asset performance and remain adaptable to evolving customer needs.

As customers move through the station, they encounter payment areas and circulation pathways that guide them to the platform and train. The consistent design of these elements provides orientation and reinforces the overall GO Transit experience, contributing to greater customer satisfaction and long-term loyalty.

The design of the Station is based on established modules with a minimalistic design and focus on functional qualities. For the purposes of this Standard, the term "module" refers to a repeatable unit of design intended to support consistency, efficiency, and adaptability across transit infrastructure projects. Modules are intended to function as adaptable design elements that provide flexibility to address project-specific conditions while maintaining alignment with the overarching design approach and the system's identity.

The repetition of these modules across stations reinforces the identity of the transit system as a whole and emphasizes the connection between the dynamic and the stationary, such as the train and the station. This minimalistic approach results in a cohesive and restrained aesthetic that maintains consistency across the transit system. The modular approach supports site-specific variation, contextual response, and scalable solutions that are fit for purpose and tailored to the unique conditions of each location.

Modules are a kit-of-parts that describe standard large- and small-scale elements, and form the foundation for fixtures, finishes, and station layouts. The kit-of-parts methodology enhances navigation and orientation for passengers while ensuring efficiency, cost reduction, adaptability, and ease of maintenance for those who operate and maintain the system.

## 1.4 THE CUSTOMER JOURNEY

Customer experience refers to the immediate and sustained interaction between the built environment at a specific point within a facility, such as platforms, entrances, ticketing areas, or waiting zones. It encompasses the overall perception and satisfaction a passenger has throughout their end-to-end journey within the public transit system. A positive customer experience contributes to increased ridership, loyalty, revenue generation, and overall satisfaction with the service.

The Customer Journey in public transit refers to the complete sequence of interactions a passenger undergoes when using public transportation, from the initial need for travel to the completion of the trip and any post-travel interactions or engagements. This includes interactions with facilities, services, and amenities along the way. The customer journey is shaped by both physical and digital touchpoints, serving as a key framework for understanding and improving the overall customer experience in public transit. This dictates what is essential for service and should always be consistent. It informs the primary organizational approach used when laying out the interior programs and site layout.

Throughout the station environment, four key types of spaces should be considered when designing the station:



### Decision Space

Purpose: prioritizing passenger decisions, key customer orientation points.

Characteristics: unobstructed lines of movement respecting customer desire lines, clear messaging and design to aid decision making.

*Exemplar Space: Self-serve Hub*



### Administrative Space

Purpose: key point customer interface and service.

Characteristics: welcoming, open.

*Exemplar Space: Station Ambassador (where the station includes customer-facing staff)*



### Circulation Space

Purpose: prioritizing clear connections to program areas that are unobstructed.

Characteristics: unobstructed lines of movement respecting customer desire lines.

*Exemplar Space: Platform Access Area*



### Opportunity Space

Purpose: emphasis on passenger comfort and amenities.

Characteristics: welcoming, informing, clear site lines.

*Exemplar Space: Waiting Area*

### 1.4.1 Elements of Continuity for Transit

The Customer Journey and how passengers navigate and interact with the GO Transit service reveal the essential elements of continuity—what is crucial to ensuring a safe and efficient travel experience.

Customers typically go through five consistent stages at every station:

1. Arrival – the customer identifies and accesses the station;
2. Transaction – the customer purchases a ticket or loads their PRESTO funds to validate their fare (Ticket Vending Machine (TVM));
3. Access – the customer validates their fare (Station Fare Transaction Processor (SFTP) and gets to the platform.
4. Platform – the customer boards the train or bus and departs the station or stop; and
5. Connections – the customer alights the train or bus at their destination or transfers.

These stages form the Customer Journey. Key elements have been identified as touchpoints, where design identity is consistently conveyed to promote a safe and efficient travel experience.

The Customer Journey Map identifies these interactions and highlights key elements that matter to customers, informing design development.

By capturing these touchpoints, the Customer Journey Map ensures that customer needs and expectations guide the design and development of future stations, enhancing user experience and accessibility.

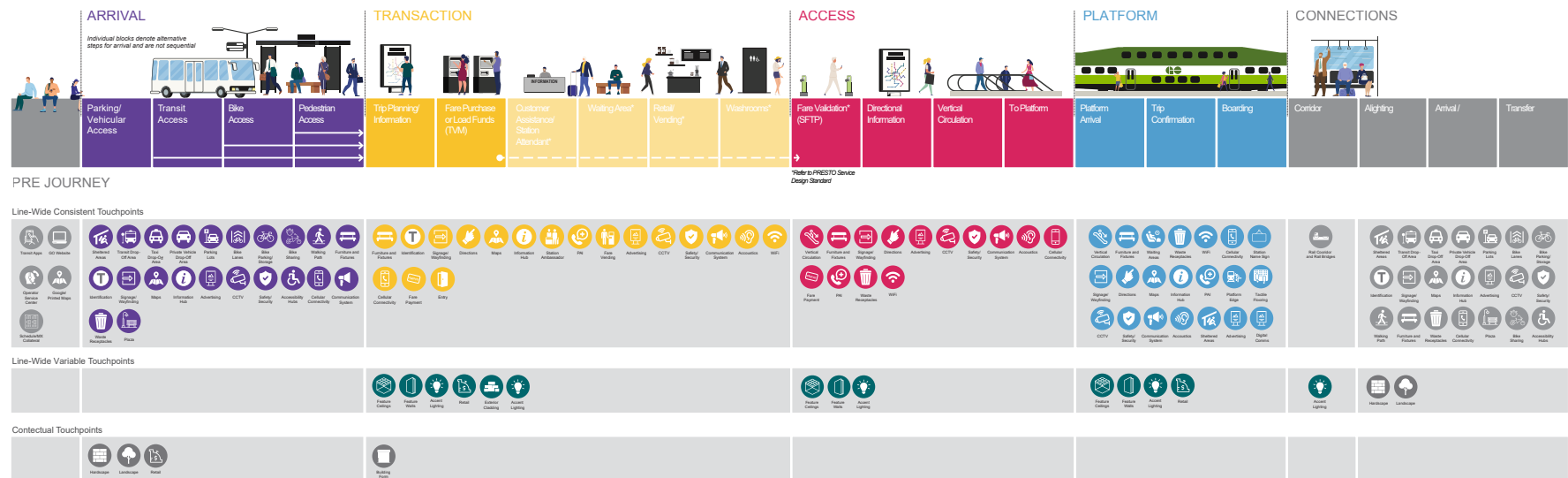
Arrival represents the first touchpoint in the customer journey. Customers may access the station on foot, by bicycle, by car, or by other transportation modes. Station planning areas are typically defined based on walking time to the station, adjacent neighbourhood characteristics, and the population or development density surrounding the station. The plaza serves both arriving and departing customers and shall be designed to accommodate the needs of both user flows.

The station building is the next step in the customer journey. Consistent architectural expression and identification provide a sense of familiarity, support wayfinding and navigation.

The transaction area is where customers plot their journeys, look at the maps and buy fares. This area forms an integral part of the customer journey, and the kit-of-parts approach is key to delivering consistent and predictable design.

The access area connects the transaction area to the platform. Vertical circulation systems are important elements in this step and consistent design is essential in accomplishing customer satisfaction.

GO platforms are key areas for customers boarding or alighting the train. Platforms shall be designed to serve both arriving and departing passengers. Platforms may include trip confirmation, digital displays of times of next trains, seating, advertising, public announcements and other information systems.



*Illustration Not to Scale*

Figure 1-1 Customer Journey: Touch points and Infrastructure illustrates the key stages of a passenger's journey through the site and station, highlighting the corresponding infrastructure, amenities, and design features that support customer needs at each point, from arrival to departure.

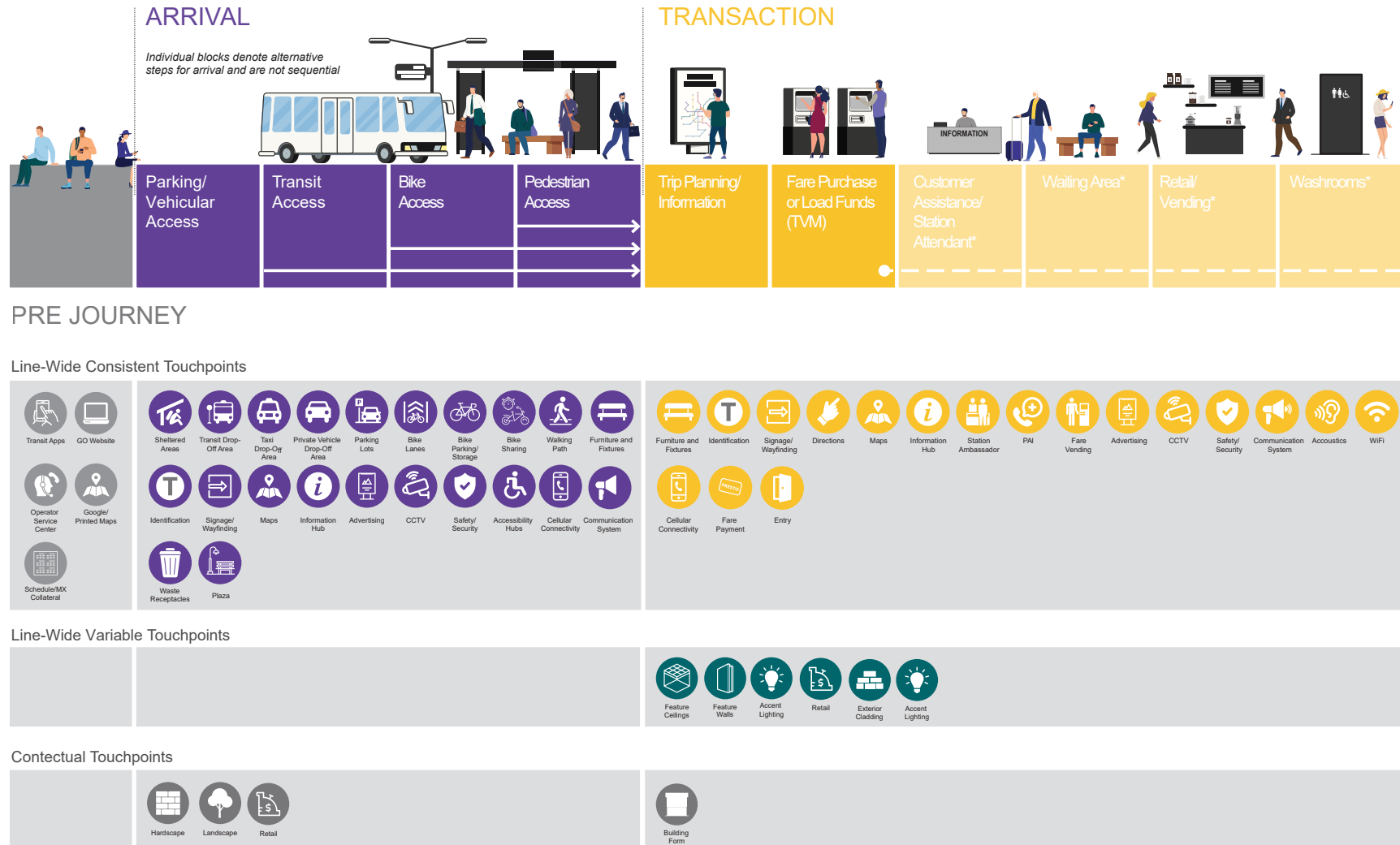


Illustration Not to Scale

Figure 1-2 Customer Journey: Touchpoints and Infrastructure illustrates the key stages of a passenger's journey through the site and station, highlighting the corresponding infrastructure, amenities, and design features that support customer needs at each point, from arrival to departure.



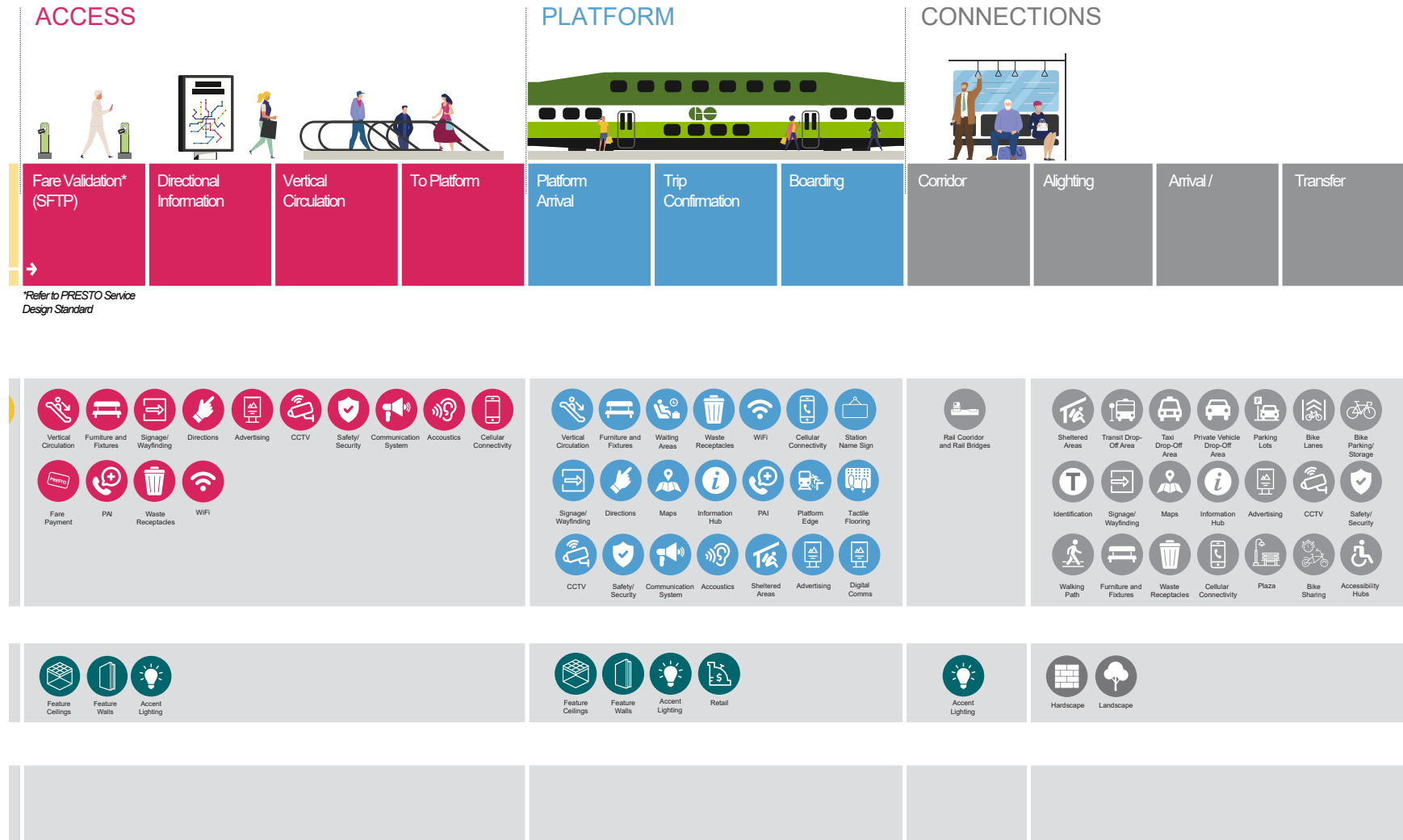


Illustration Not to Scale

Figure 1-3 Customer Journey: Touchpoints and Infrastructure illustrates the key stages of a passenger's journey through the site and station, highlighting the corresponding infrastructure, amenities, and design features that support customer needs at each point, from arrival to departure.

## **1.5 ADMINISTERING STANDARDS**

### **1.5.1 Overview**

This Standard defines requirements and design direction for all customer-facing architectural components of GO stations. This Standard shall be used in conjunction with applicable project-specific contract documents.

### **1.5.2 Relationship Between Metrolinx Standards**

This Standard defines architectural design requirements for GO Stations and serves as the central reference for station architecture. Technical and engineering requirements are addressed separately in the GO Design Requirements Manual (DRM), Facilities Civil Engineering Standards, and GO Standard Drawings and Specifications.

This document shall be read in conjunction with the Front-End Design Standard (DS-00), which establishes the overarching priorities, objectives, and administrative framework for all documents in the Metrolinx Architecture Design Standards (DS) catalogue. It consolidates architectural requirements for all Metrolinx transit facilities and governs the development of subsequent DS-series Standards.

Refer to the Front-End Design Standard (DS-00) for additional guidance.

### **1.5.3 Legislative, Codes and Regulatory**

GO Stations shall comply with all applicable codes and regulations for the project, including the provision and implementation of systems, strategies, and design practices that prevent fire ignition, limit the spread of fire and smoke, and protect occupants, emergency responders, and property during fire emergencies.

Refer to Front-End Design Standard (DS-00).

### **1.5.4 Design Review and Submittal Process and Requirements**

Refer to Front-End Design Standard (DS-00).

### **1.5.5 Acronyms & Terminology**

Refer to document Front-End Design Standard (DS-00).

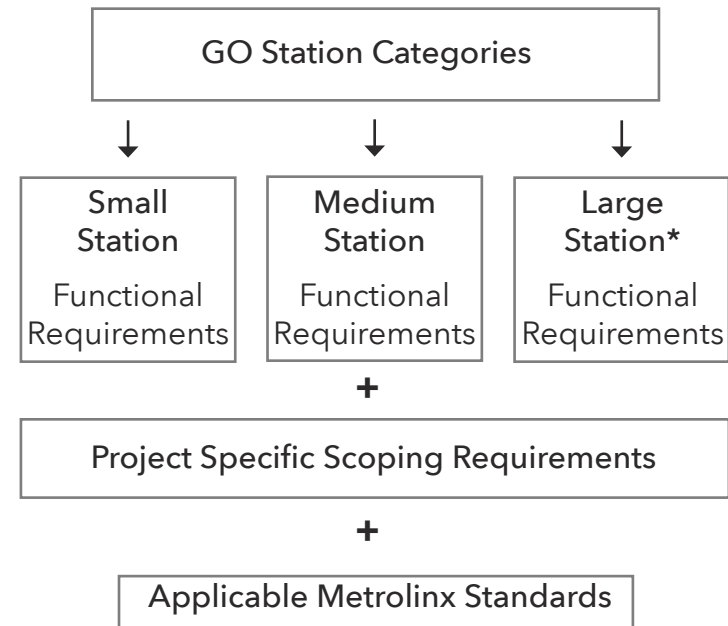
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- 2.1** Overview and Intent
- 2.2** Station Categorization
- 2.3** Site Design Requirements
- 2.4** Modular Design Approach
- 2.5** Station Building Requirements
- 2.6** Building Envelope and Massing

## 2.1 OVERVIEW AND INTENT

A GO Station is both a destination and a transition space for many passengers on their journey. It provides amenities and a consistent customer experience, while supporting intuitive wayfinding - guiding customers on their journey to and from the platform.

The GO Network serves customers throughout the GGHA, connecting communities in rural, suburban, and urban areas. Given that there is no 'one-size-fits-all' station building solution, Metrolinx is promoting a flexible and modular approach to Station planning and design. This approach provides flexibility to address site constraints and evolving customer needs, focusing on the essential functions and, in some cases, transferring or sharing functions with third-party developers. The vision is to develop a system that is scalable and adaptable while maintaining a consistent language across the network.



*\*Includes Interchange Stations*

Figure 2-1 Framework for GO Station Requirements - This diagram illustrates how station design is guided by a combination of Station Categorization, project-specific scoping requirements, and applicable Metrolinx standards.

## 2.2 STATION CATEGORIZATION

This Standard references Station Categorization, which classifies stations as “Small,” “Medium,” or “Large/ Interchange Station\*” based on factors such as ridership and service levels, determined on a project-specific basis. This approach ensures consistent application across the network, supports scalable and fit-for-purpose design, and ensures that station infrastructure is appropriately sized to meet operational needs.

\*Interchange Stations are defined as per the GO Rail Station Access document as stations with connections to higher-order transit, such as subway, LRT, and BRT and at a minimum shall follow the requirements for Large Stations.

For the purposes of this Standard, a GO Station encompasses the full extent of the site and all infrastructure supporting customer access. This includes the station site, walkways, bridges, and station modules, including but not limited to platforms, platform access structures, and ancillary buildings.

## 2.3 SITE DESIGN REQUIREMENTS

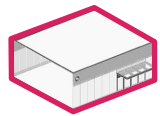
The station's orientation and layout focus on enhancing the GO Customers' Journey. The modal hierarchy established in the GO Rail Station Access Plan supports more sustainable travel behaviour and reflects Provincial and Metrolinx policies. The ideal hierarchy of access prioritizes pedestrian movement, followed by transit, cycling, pickup/drop-off and parking. Capacities for each type are to be provided on a project-specific basis.

Refer to the GO DRM for requirements related to site and landscape design, access provisions, and maintenance infrastructure, including waste management activities and garbage enclosures.

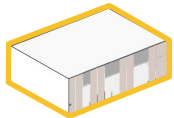
Refer to the Metrolinx Vegetation Guideline, where landscaping, vegetation removals, plantings, restoration activities, or vegetation management are taking place.

## 2.4 MODULAR DESIGN APPROACH

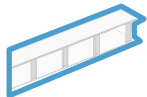
The selection of modules, including the level of staffing and provision of amenities, shall be determined on a project-specific basis. To support flexibility and scalability, a modular approach has been developed, comprising six modules tailored to the functional needs of each station. This modular approach allows the design to be tailored to each site, ensuring alignment with operational needs, passenger volumes, and the local context. These modules include:



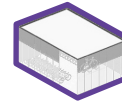
- **Platform Access** - This module serves as the connection point between the station and the platform. It includes ticketing, fare payment and vertical access, where grade-separated.
- **Support Facilities** - This module includes facilities to serve both staff and customers:



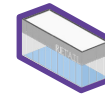
- **Customer:** Includes public washrooms, waiting space, and fixtures that support the customer journey; and
- **Staff:** May include workspaces, staff washroom(s), lockers, and a kitchenette, maintenance room, to be confirmed based on project scope and staffing model.



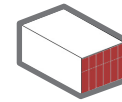
- **Platform** - This module serves as the space where customers wait, board, and alight trains.



- **Bicycle Storage** - This module can be standalone or integrated into the station building, providing a space for passengers to securely park their bikes as part of their first or last-mile commute.



- **Retail** - This module can be located either inside or outside the station building, providing service-based retail for passengers as they arrive or depart the station.



- **Ancillary and Service Area** - This module contains back-of-house infrastructure for station operations, including mechanical, electrical, and communications rooms, fuel storage, a backup generator, and snow melt equipment.

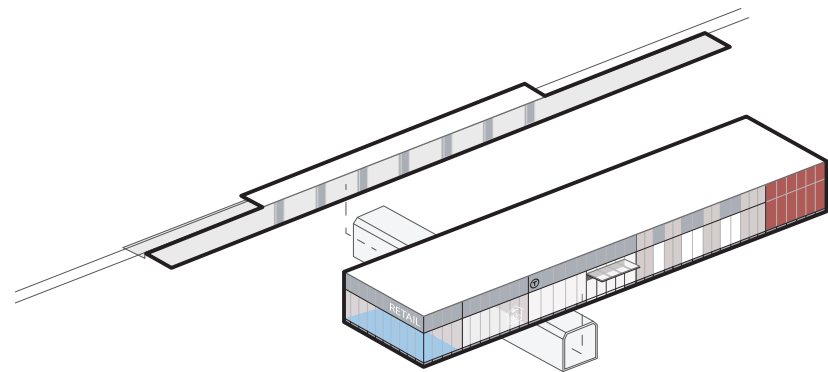


Figure 2-2 Station Modules: Sample planning diagram illustrating all modules.

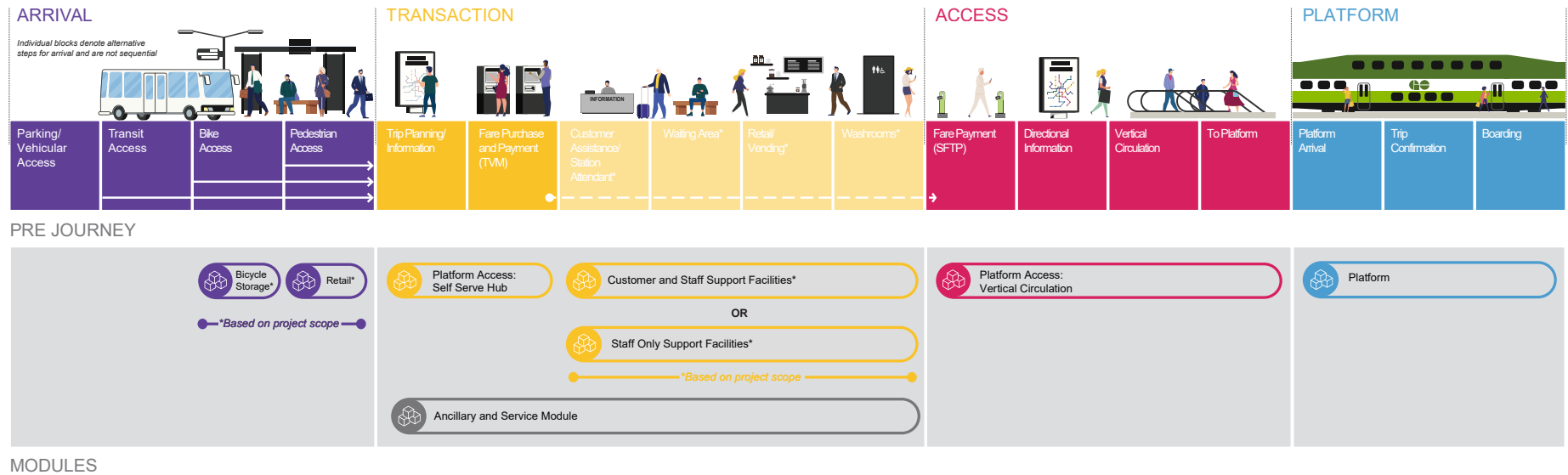


Illustration Not to Scale

Figure 2- 3 Station Modules: Alignment with Customer Journey Map illustrates how the station modules defined in this standard align with each stage of the customer journey.

### 2.4.1 Kit of parts

The architectural approach outlined in this Standard emphasizes the use of a kit of parts, which refers to the use of repetitive architectural elements, such as materials, forms, colours, patterns, modularity, and design language to establish a system-wide design approach that is consistent, recognizable, and reinforces the system's identity. This approach establishes a consistent set of materials, dimensions, and modules that streamline the design and construction process. The use of a kit of parts is designed to enhance efficiency, reduce costs, and simplify operations and maintenance, all while maintaining flexibility for site-specific applications. By implementing repeatable elements across the network, the design ensures predictability and consistency for customers.

This architectural strategy is designed to create an intuitive and functional experience for users navigating the station, guiding passengers effortlessly from one point to another. By strategically placing components, such as digital and static signage, customer information, fare payment and transaction areas, entry points, seating areas, and circulation paths, the design naturally directs passengers, reducing confusion and enhancing their overall experience.

Standardized components throughout the station help establish a cohesive and uniform visual identity, creating a consistent and recognizable experience for users. Together, these components work to reinforce the station's overall identity while balancing cost and station maintenance.

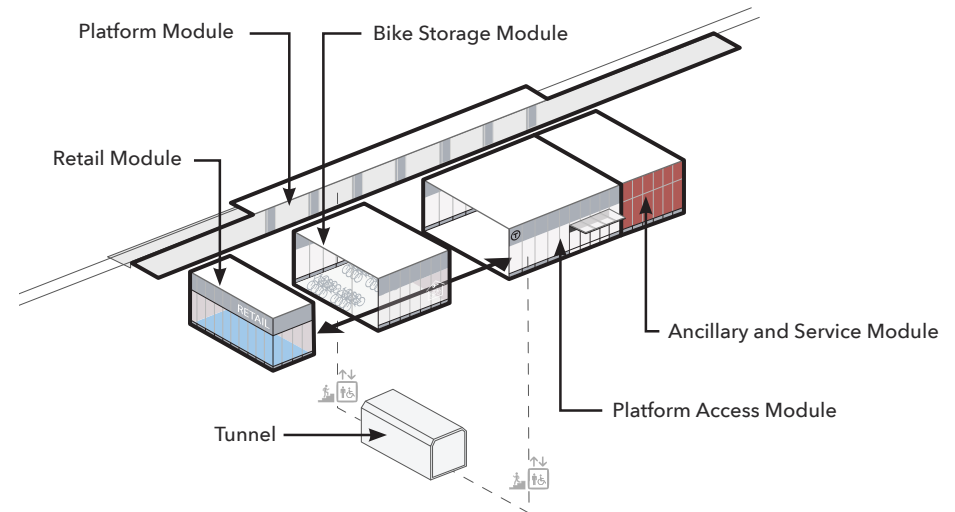


Figure 2-4 Sample Planning Diagram without Support Facility Module, illustrating Tunnel Platform Access.

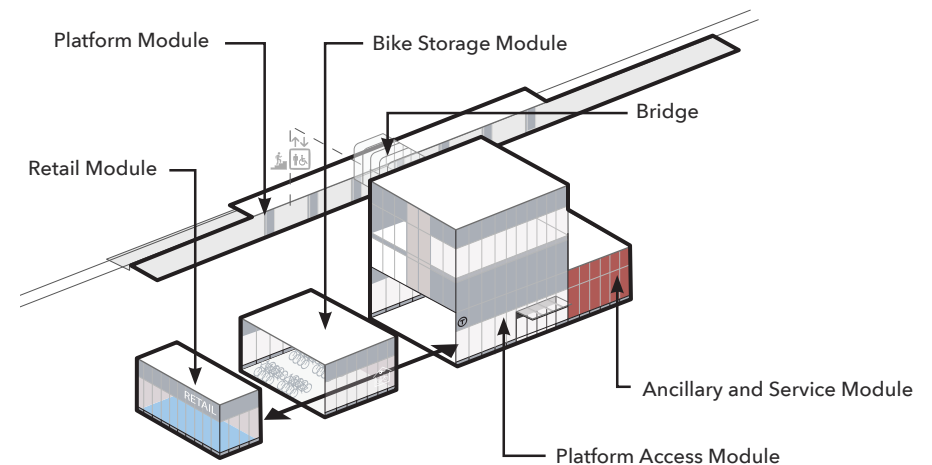


Figure 2-5 Sample Planning Diagram without Support Facility Module, illustrating Bridge Platform Access.



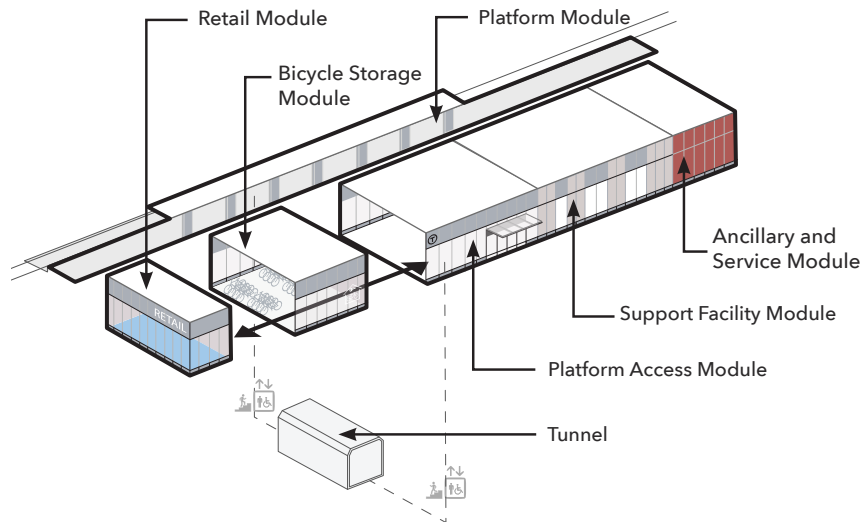


Figure 2-6 Sample Planning Diagram with all modules, illustrating Tunnel Platform Access.

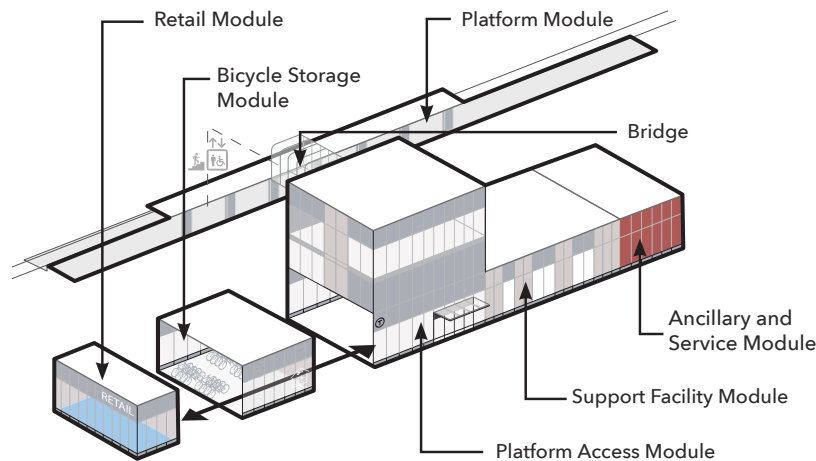


Figure 2-7 Sample Planning Diagram with all modules, illustrating Bridge Platform Access.

## 2.5 STATION BUILDING REQUIREMENTS

The Station Building shall be designed to conform to:

- a) comply with all applicable Metrolinx Standards;
- b) comply with the Ontario Building Code (OBC);
- c) comply with applicable fire and life safety codes and performance criteria in the design of all building elements, and allow safe and efficient access for inspection and maintenance;
- d) incorporate the principles of Crime Prevention Through Environmental Design (CPTED) for Transit Facilities APTA SS-SIS-RP-007-10;
- e) minimize the overall building footprint on site;
- f) consolidate modules, where feasible, to reduce the amount of building envelope required relative to the building area;
- g) align the primary path of travel with the customer journey touchpoints and infrastructure to minimize opportunities for customer error by facilitating efficient navigation, timely boarding, and accurate fare validation;
- h) ensure the planning and design of the customer journey is easy to navigate without relying solely on wayfinding signage;
- i) facilitate safe and convenient intermodal transfers;
- j) maintain a visual connection from the public areas within the station building to adjacent transit modes, including but not limited to bus facilities, Passenger Pick Up and Drop Off (PUDO) areas, parking lot, and municipal right-of-way;

- k) promote customer safety and comfort;
- l) promote natural daylighting;
- m) apply passive means of reducing energy consumption where it does not conflict with other customer service and operational requirements;
- n) incorporate lighting systems equipped with photocells and motion sensors, configured to maintain illumination levels that meet or exceed safety lighting thresholds during all hours of public operation;
- o) design stations to maximize transparency by ensuring high-visibility sightlines based on representative eye-level heights for both seated and standing users. Transparent materials shall be strategically integrated to maintain unobstructed sightlines in all key public areas, including platforms, entrances, and circulation pathways. This approach supports natural surveillance, enhances customer safety, and promotes intuitive wayfinding. Consideration shall also be given to maintaining visibility in both daytime and nighttime conditions;
- p) conduct a sightline analysis where physical obstructions impact critical sightlines within customer-facing areas of the station to verify compliance with visibility and surveillance objectives. Sightline diagrams shall be provided in both plan and elevation views, clearly identifying all obstructions and proposed mitigation measures to maintain effective sightlines;
- q) minimize projections above the roof plane;
- r) design the station building to be the most identifiable facility on the site;
- s) treat rooftop areas as a fifth elevation where it can be viewed from above. Care shall be taken to create a visually cohesive and organized arrangement of rooftop elements.
- t) reduce visual impact from street level where rooftop equipment is required. These elements shall be:
  - i) grouped together;
  - ii) located to the rear of the station building;
  - iii) set back from the building parapet by a minimum of 1500 mm; and
  - iv) screened with louvres that match existing adjacent finishes and are consistent in sizing with the overall modular dimensions of the facade elements.
- u) refer to the Metrolinx Pedestrian Flow Modelling Design Standard (DS-12) for the level of service requirements;
- v) refer to Metrolinx GO Rail Advertising Design Guideline (DGL-11) for opportunities to maximize non-fare revenue through the design and placement of strategic digital and static advertising; and
- w) For stations serving multiple modes, multiple operators, or integrated third-party developments, additional standards may apply with requirements differing from this document. Designers shall coordinate and integrate applicable standards to ensure system coherence and a consistent passenger experience. Any deviations or integration proposals shall be documented and submitted to the Owner of this Standard for review and approval prior to implementation.

## 2.6 BUILDING ENVELOPE AND MASSING

The building envelope shall reflect a balanced approach between transparent and opaque elements, driven by the need to mitigate solar heat gain while enhancing safety and security through Crime Prevention Through Environmental Design (CPTED) principles. Strategic placement of glazing and opaque cladding, combined with orientation, fritting, and material selection, will optimize energy efficiency and promote natural surveillance, visibility, and a sense of safety for customers.

The overall massing of the building will be primarily determined by platform access requirements. Where Platforms are accessed by Bridges or where Station Buildings navigate a change in grade, the massing of the Platform Access Module will be taller. For example, where Platforms are accessed by Tunnels or Side Platform conditions, the Platform Access Module will be a single storey.

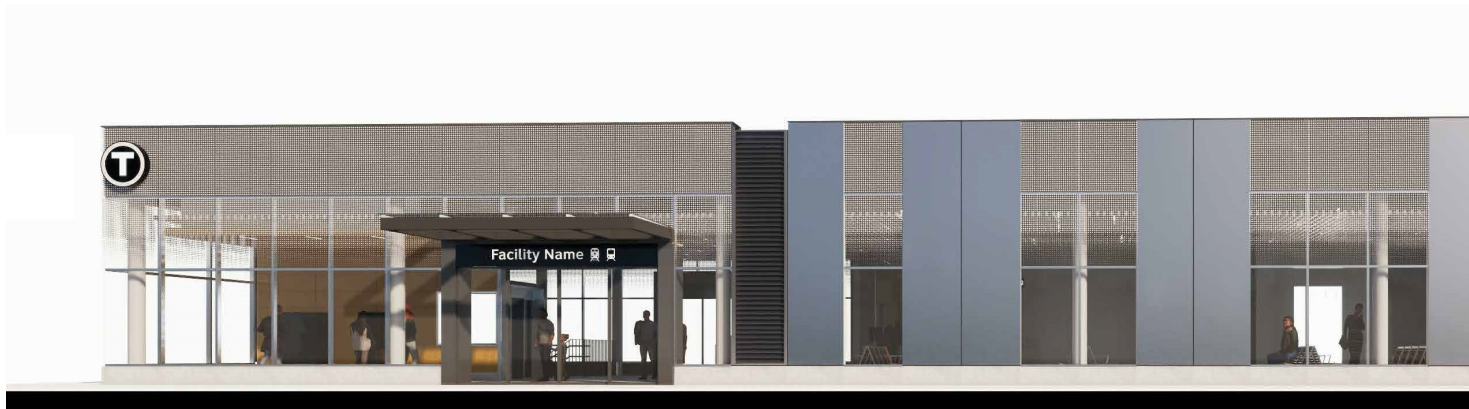


Figure 2- 8 Elevation rendering of a typical fully staffed station building from plaza illustrating materiality and massing.

### 2.6.1 Wall Base

- a) The exterior wall base shall be architectural concrete.
- b) Electrical boxes and other wall-mounted equipment shall not project into this base.
- c) The bases of floor-anchored equipment shall be continuous, and match adjacent wall base details.

### 2.6.2 Cladding

- a) A modular rhythm shall be expressed in the joints and panel sizes as illustrated in Figure 2-11. Panel width to be 1200 mm or close there to. Joints to be 12 mm maximum width between panels.
- b) Building envelope of Platform Access Module shall be no more than 40% clear glazing, excluding areas of glazing with ceramic frit, unless demonstrated by a solar heat gain study, subject to review and approval by the Owner of this Standard.
- c) Exterior cladding façade panels shall be vertically oriented with minimal horizontal breaks.
- d) Expression of the parapet cap shall be limited to a vertical dimension of 150 mm.

### 2.6.3 Louvres

- a) Louvres shall be flush with façade cladding.
- b) Louvres shall be understated and use architectural style with the minimum allowable free area per mechanical requirements.
- c) Materials and colour shall be consistent with overall façade material approach.
- d) Where louvres are integrated into an exterior façade, they shall be designed and specified as storm-resistant to prevent water ingress under wind-driven rain and other severe weather conditions.
- e) Louvres shall be self-draining.

### 2.6.4 Columns

- a) Interior columns located in front of curtain walls shall:
  - i) be aligned with the curtain wall mullion;
  - ii) be set back from the mullion a minimum of 100 mm; and
  - iii) be integrated with the wall base below.
- b) Interior columns not integrated with the wall base shall be provided with a stainless-steel base. The base height shall match the height of the adjacent wall base.
- c) Interior steel columns shall be paint finished.
- d) Exterior columns shall be clad to match adjacent finishes.

### 2.6.5 Curtain Walls

- a) Curtain walls shall be a two-sided structural silicone glazing system with exposed vertical mullions and structurally glazed horizontal joints.
- b) Circular frit shall be provided on glass surface 1 for best visibility. The façade shall be in accordance with Figure 2-8 and the Finishes Schedule.
- c) Curtain wall frames shall be anodized, including interior frames and exterior cover caps, for durability and scratch resistance.
  - i) Colour shall be coordinated with the overall station design and adjacent interior and exterior finishes. Where simultaneous alignment with both conditions is not feasible, precedence shall be given to exterior finish adjacency.
- d) No glazing units shall be larger than 1220 mm (W) x 1830 mm (H), and glazing shall be modular, allowing for ease of replacement.

- e) Frames shall be white anodized, which includes fire exit doors and fire hose cabinets.
- f) Glazing shall be clear, fully tempered, laminated, and insulating glass.
- g) Exterior glazing shall have Low-E coating with edge deletion.
- h) Glazing thickness shall be sized to suit wind loads and air pressure changes generated by high-speed trains and vibration.
- i) Glazing shall be engineered to suit site conditions for Platform access glazing.
- j) Refer to the Universal Design Standard (DS-02) and Wayfinding Design Standard (DS-03) for distraction pattern requirements.
- k) Sashes shall be 600 mm minimum above grade for all elevator and stair enclosures and white anodized to match fixed glass frames.
- l) Interior sills shall slope away from windows.
- m) Designs shall address glare mitigation and optical safety, particularly in areas with transparent glazing near platform edges and entryways, to prevent impacts on train operator visibility and customer navigation. Refer to Universal Design Standard (DS-02) for Unified Glare Rating requirements.
- n) Design buildings to withstand wind forces from local conditions and high-speed train turbulence in compliance with applicable codes and standards. Apply mitigation strategies such as safety glass and damping systems as required, especially around glazed surfaces adjacent to active rail corridors.

#### 2.6.6 Doors

- a) Doors along the barrier-free path of travel shall be automatic and meet OBC requirements for an exit.
  - i) At a minimum, one set of automatic sliding doors shall be provided at the primary barrier-free entrance.
- b) All doors and door hardware shall be suitable for heavy-duty use in a transit environment.
- c) Public-facing doors shall be contrasted with surrounding wall colours, which include fire exit doors and fire hose cabinets.
- d) Entrance door hardware shall:
  - i) include mullions and a horizontal push bar;
  - ii) act as an 'exit' as per Ontario Building Code requirements;
  - iii) have access control capability; and
  - iv) have door cylinder locking functionality.
- e) Refer to the Universal Design Standard (DS-02) for power-assisted door requirements.
- f) With exception of washroom, back-of-house and service room doors, all doors shall be either fully or partially transparent.

g) Access & Service Doors

- i) Door type, swing, size, and placement shall minimize conflict with pedestrian flow, promote ease of movement, including customers who use wheelchairs, scooters, bikes, strollers and luggage. This shall also allow easy movement of maintenance tools and equipment.
- ii) Service room doors shall not swing into a pedestrian or vehicular routes.

**2.6.7 Specialty Items**

- a) Grilles and covers, including outlet plates, screens, access covers, and hose bibs, shall be flush-mounted using vandal and tamper-resistant fasteners.

**2.6.8 Roof**

- a) Surfaces other than vegetation or solar PV panels shall have a high albedo; refer to the Sustainable Design Standard for requirements.
- b) No penetration of pipes, stacks, intakes and outlets shall be visible when viewed from grade.
- c) All penetrations shall be concealed within metal enclosures, such as louvred screens, coloured to match the exterior cladding.
- d) Roof design shall incorporate access for equipment installation, cleaning, inspection and maintenance without jeopardizing the safety of train operations or station users. Consideration shall be given to roof access hatches, permanent maintenance walkways, and rooftop fall protection systems.

**2.6.9 Joints**

- a) Joints between the same material shall be minimized.
- b) Joints between different materials shall be expressed as a reveal or shadow line.

**2.6.10 Entrance Canopy**

- a) The entrance canopy shall be constructed with laminated heat-strengthened fritted low-iron glass or opaque panels such as WF4A.
- b) The entrance canopy shall be placed to cover the entry portal.
- c) The minimum setback/depth of the identity canopy shall be 1500 mm.
- d) The minimum height from platform finish floor level to the underside of the entrance canopy shall be 3000 mm.
  - i) The underside height of the entrance canopy may change based on the site conditions. Where the underside of the entrance canopy is higher than 3000 mm, the depth of the canopy shall increase in proportion to the height to ensure protection from the elements.
- e) The rainwater leader from the entrance canopy shall be concealed and housed within a portal frame.
  - i) Access panels shall be provided within the portal frame for easy access and clean-out.
- f) Refer to Figure 2-8 for illustration of entrance canopy dimensions and integration of systems.

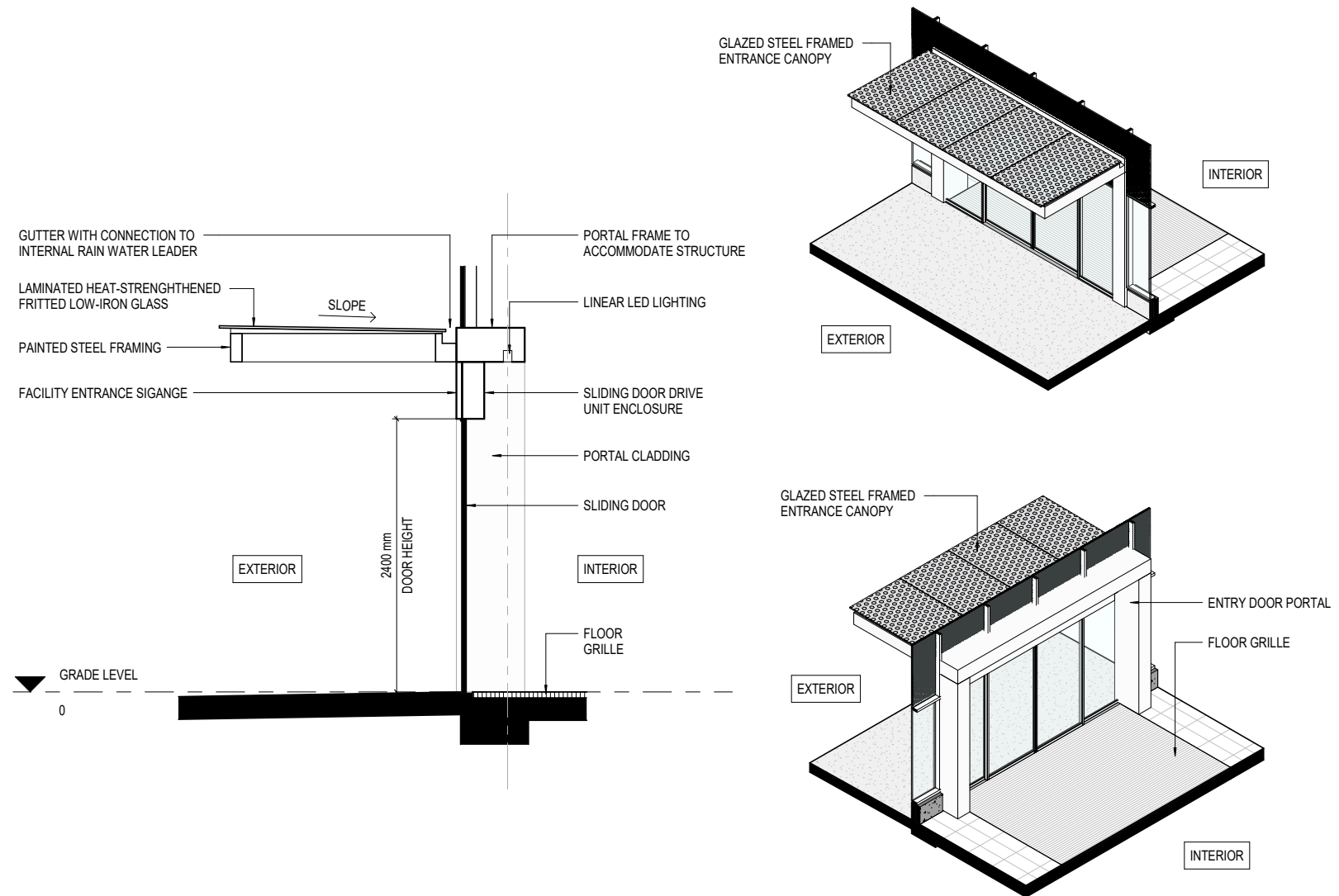


Figure 2-9 Section through entrance canopy illustrating the canopy, dimensions, and integrated systems within the entry portal.



### 2.6.11 Architectural Datums

Architectural datums serve as a means to establish a consistent reference framework for key building elements such as doors, windows, or ceiling heights. Establishing datums regularizes the relationship between key building elements and creates standardized dimensions, resulting in a well-ordered façade. This supports the kit-of-parts approach, reducing ongoing operations and maintenance requirements.

Key datums within the building and on the façade shall be established in accordance with the following Clauses and Figures.

- a) Exterior architectural datums shall be in accordance with the following:
  - i) Wall bases shall be 400 mm from finished floor level.
  - ii) Door/Portal datum shall be 2400 mm from finished floor level.
  - iii) The underside of entrance canopies shall be 3000 mm from finished floor.
  - iv) Vision glazing shall be from 400 mm to 2400 mm above finished floor.
  - v) Fritted glazing (100% frit to 0% frit) shall be from 2400 mm to 3900 mm above finished floor.
  - vi) Spandrel glazing shall be from 3900 mm to 5350 mm above finished floor.
  - vii) Refer to Figures 2-10 to 2-18 for illustration of architectural datums.

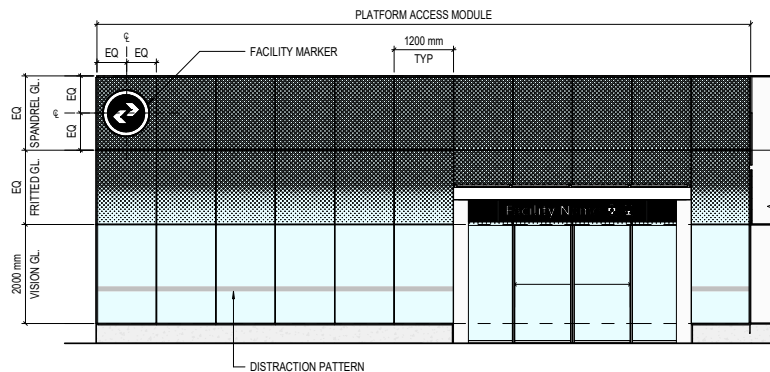


Figure 2-10 Elevation of station building Platform Access Module illustrating key architectural datums.



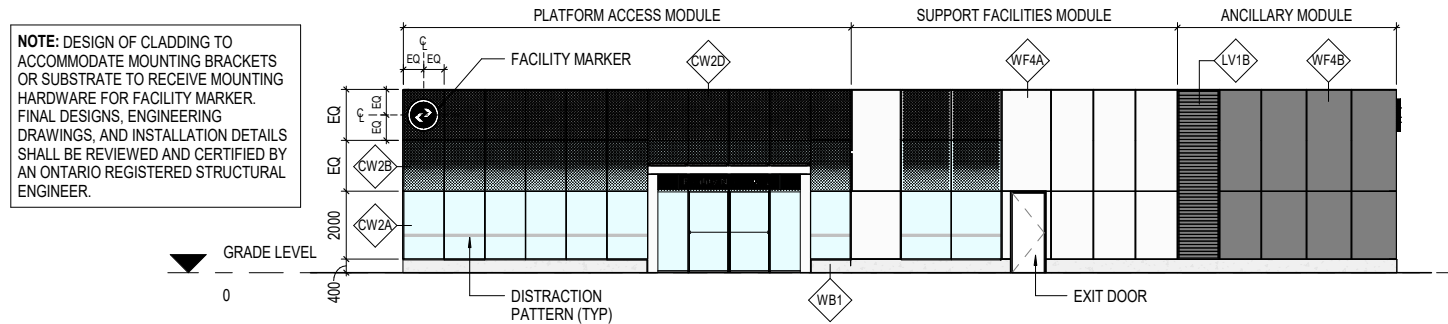


Figure 2- 11 Elevation of station building from plaza, illustrating exterior finishes, tunnel Platform Access, Support Facilities, and Ancillary Modules.

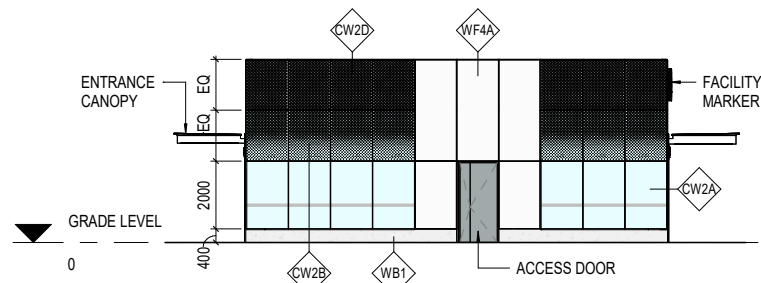


Figure 2- 12 Elevation of Platform Access Module with tunnel platform access illustrating materiality.

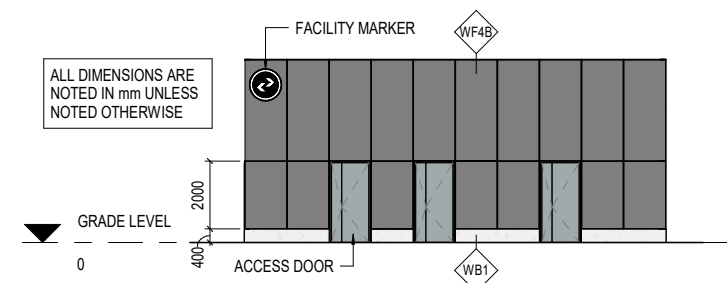


Figure 2- 13 Elevation of Ancillary Module illustrating materiality.

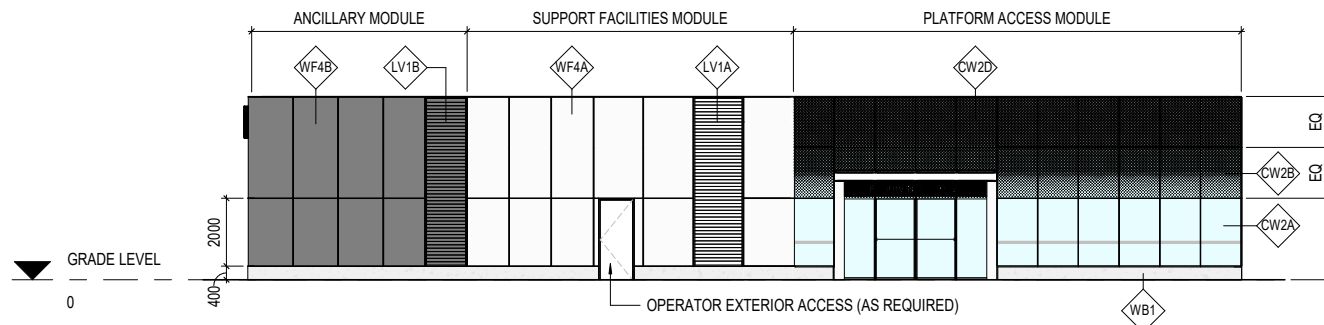


Figure 2- 14 Elevation of Station Building with tunnel Platform Access from Platform illustrating materiality.

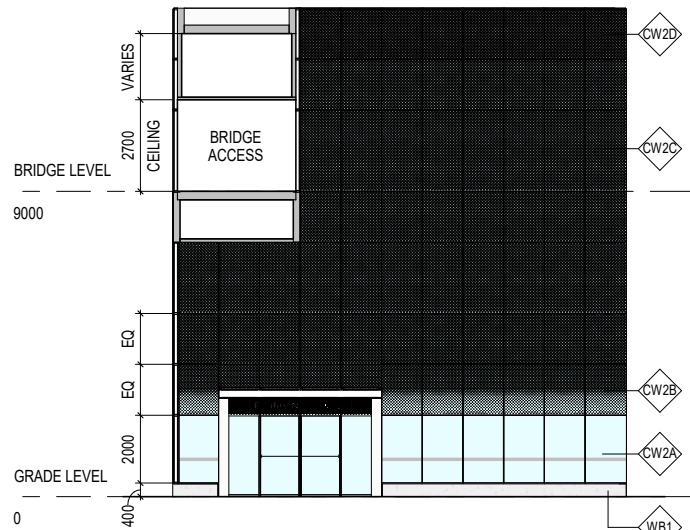


Figure 2-15 Elevation of Station Building from Plaza, illustrating exterior finishes, bridge Platform Access, Support Facilities, and Ancillary Modules.

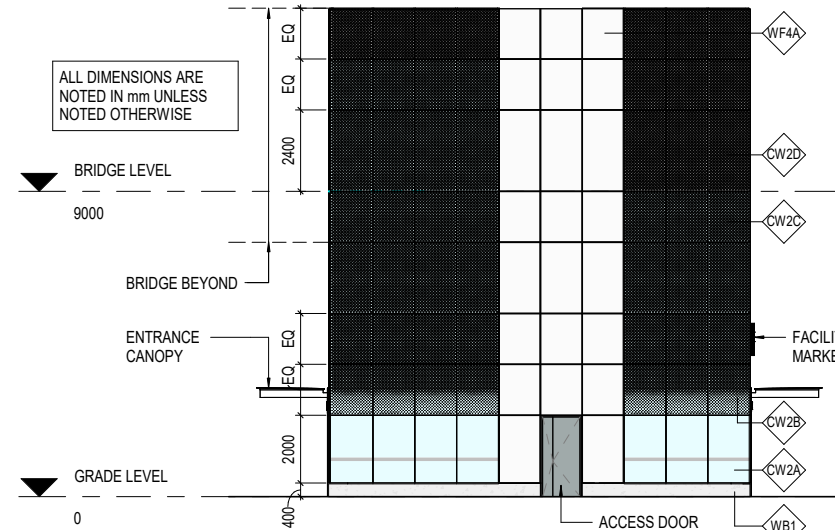


Figure 2-16 Elevation of Station Building illustrating bridge Platform Access Module illustrating materiality.

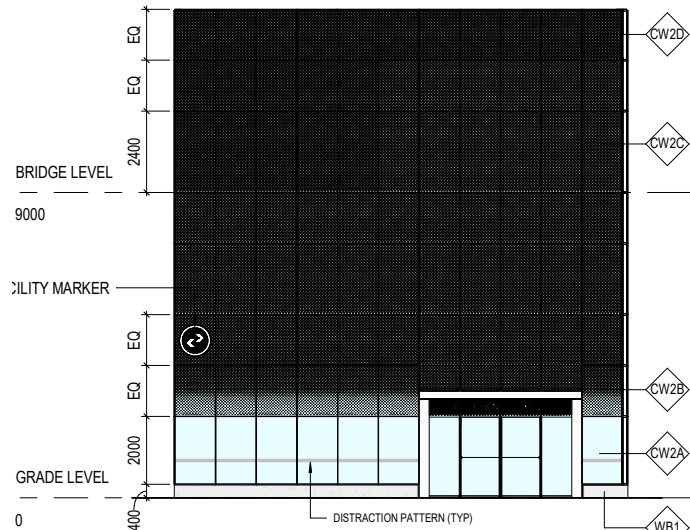


Figure 2-17 Elevation of station building illustrating exterior finishes, bridge Platform Access, Support Facilities, and Ancillary Modules.

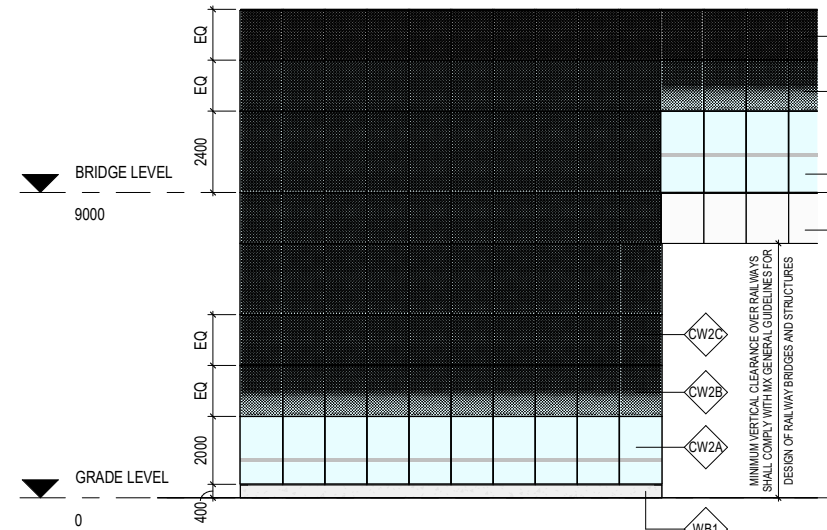
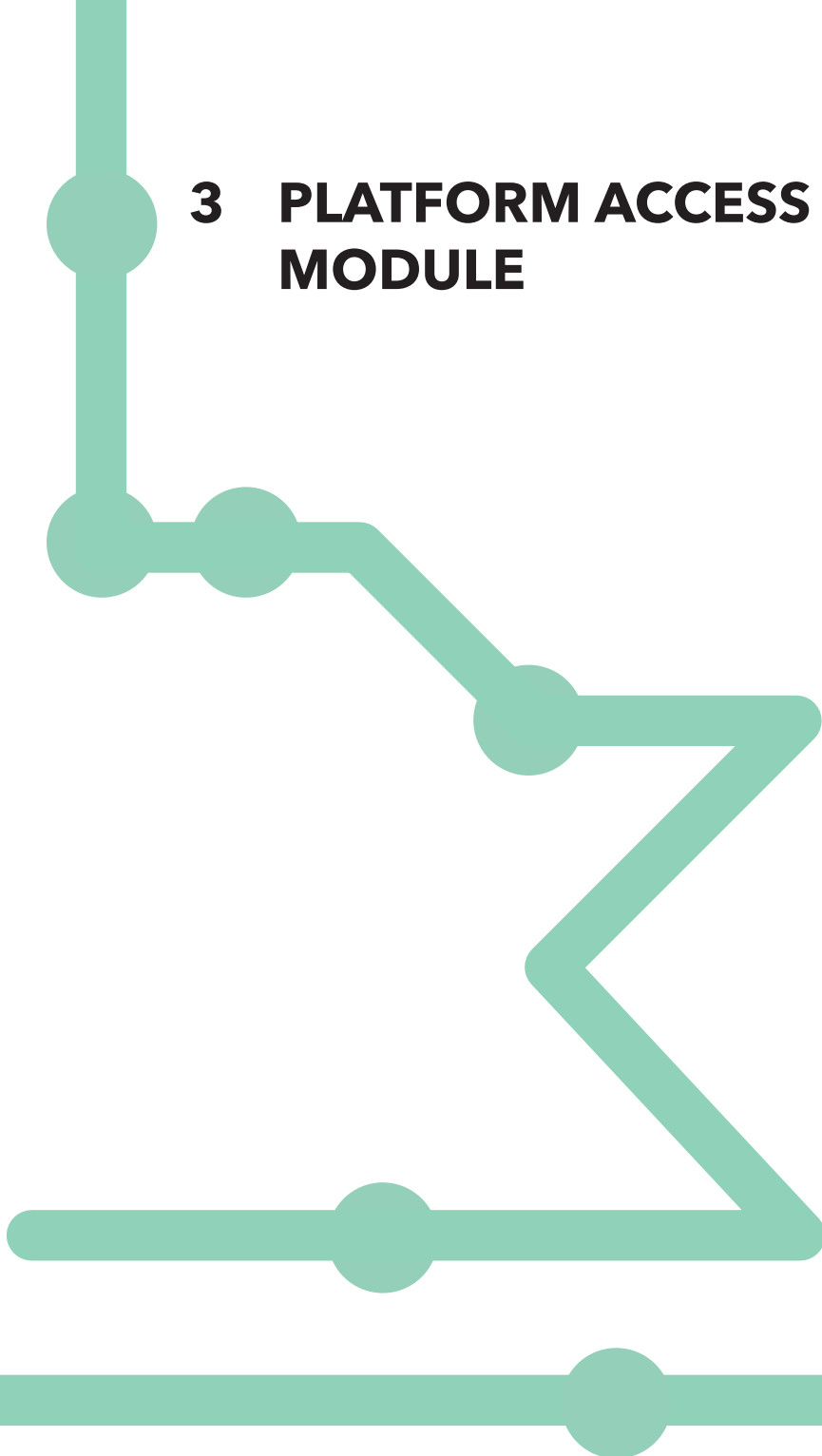


Figure 2-18 Elevation of Station Building illustrating bridge Platform Access and Ancillary Module illustrating materiality.



### 3 PLATFORM ACCESS MODULE

- 3.1** Overview and Intent
- 3.2** Module Requirements
- 3.3** Self-Serve Hub
- 3.4** Platform Access Area
- 3.5** Access to Platforms
- 3.6** Vertical Circulation
- 3.7** Pedestrian Bridges
- 3.8** Pedestrian Tunnels

### 3.1 OVERVIEW AND INTENT

The Platform Access Module is comprised of three primary program areas: the Platform Access Area (general circulation), the Self-serve Hub (fare payment or transaction, and information area), and Vertical Circulation Elements (stairs, elevators, or escalators) providing access to platforms via tunnels or bridges. The spatial relationship between these components shall remain consistent across all stations within the network.

The Platform Access Module is single-storey when providing tunnel access and multi-storey when accommodating grade changes for bridge access. While overall height may vary based on site-specific conditions, the internal organization and functional relationships between program elements shall remain consistent. These variations are illustrated in Figures 3-3 to 3-9. While the height depends on multiple factors, the design shall account for ease of access and long-term maintenance.

While the intent is to provide transparency to enhance natural daylighting, intuitive wayfinding, and support CPTED principles, the design of this module shall carefully balance glazing treatments with mechanical and passive ventilation strategies to maintain passenger comfort during extreme temperatures.

### 3.2 MODULE REQUIREMENTS

- a) The Platform Access Module shall be provided at Stations in accordance with Figures 3-1 to 3-10. Where noted, dimensions are prescribed. Where no dimensions are provided, sizing will be determined by passenger flow modelling, occupancy, exiting and code requirements.
- b) When connected to the Support Facilities Module, these spaces shall be separated by sliding doors.
- c) The Platform Access Module shall be ventilated through passive means.
  - i) Where seating is provided within an unconditioned platform access module, a supplemental sensor-activated mechanical ventilation system shall be installed to maintain the minimum outdoor air flow rate in accordance with ASHRAE 62.1 and to maintain the maximum internal temperatures below 35 °C (95 °F) DBT or 32.5 °C (90.5 °F) WBGT.
- d) The Platform Access Module shall feature transparent glazing incorporating a white frit, as illustrated in Figure 3-5 and Figures 3-12 to 3-15. Where required, additional strategies may be employed to enhance thermal comfort and improve the overall environmental performance of the space.
- e) Refer to the Metrolinx Wayfinding Design Standard (DS-03) for signage requirements.
- f) A storage room with a minimum dimensions of 1500 mm x 2500 mm shall be provided within the Platform Access Module for a walk-behind cart (located on Tunnel level or Bridge level as illustrated in Figures 3-2 to 3-10).

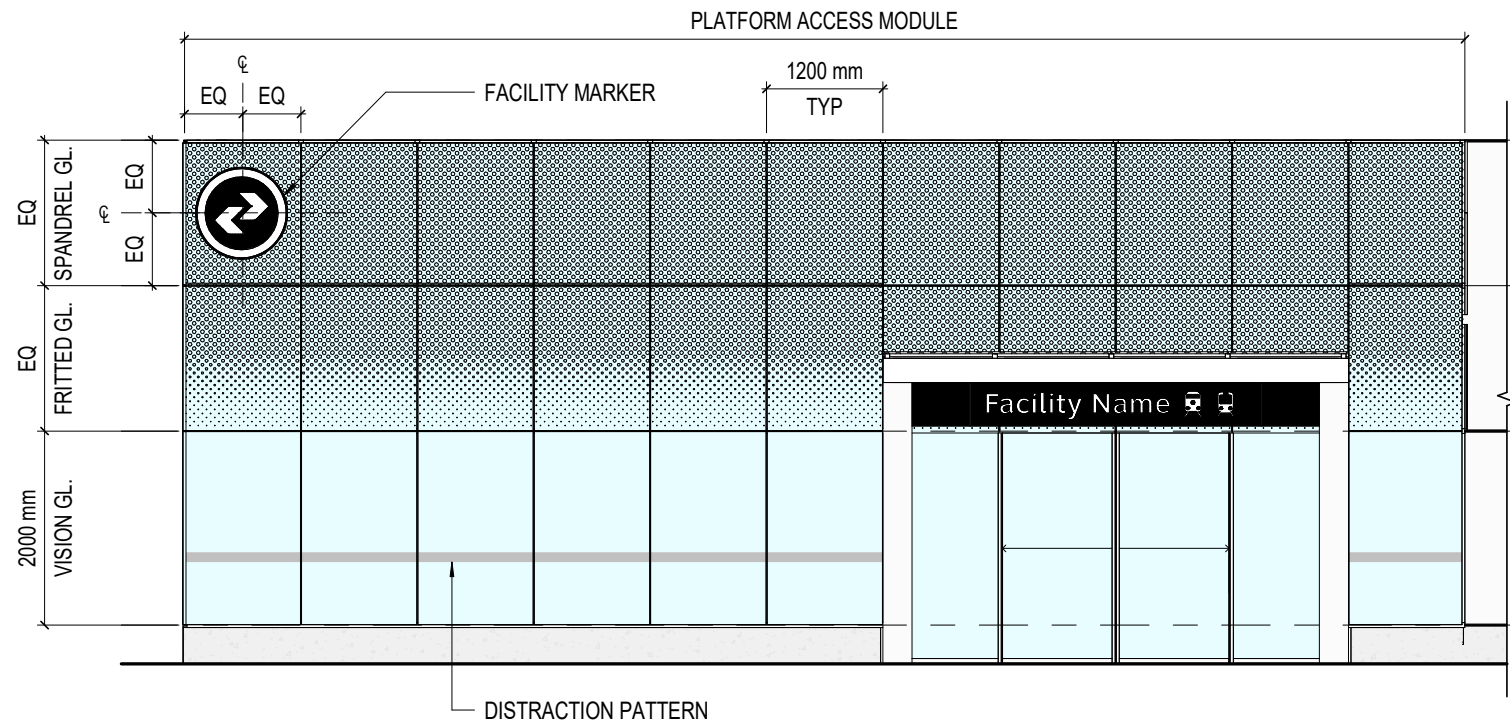


Figure 3-1 Elevation of Platform Access Module illustrating primary facade components and signage elements of continuity. Signage notations reference the Metrolinx Wayfinding Design Standard.

Platform Side

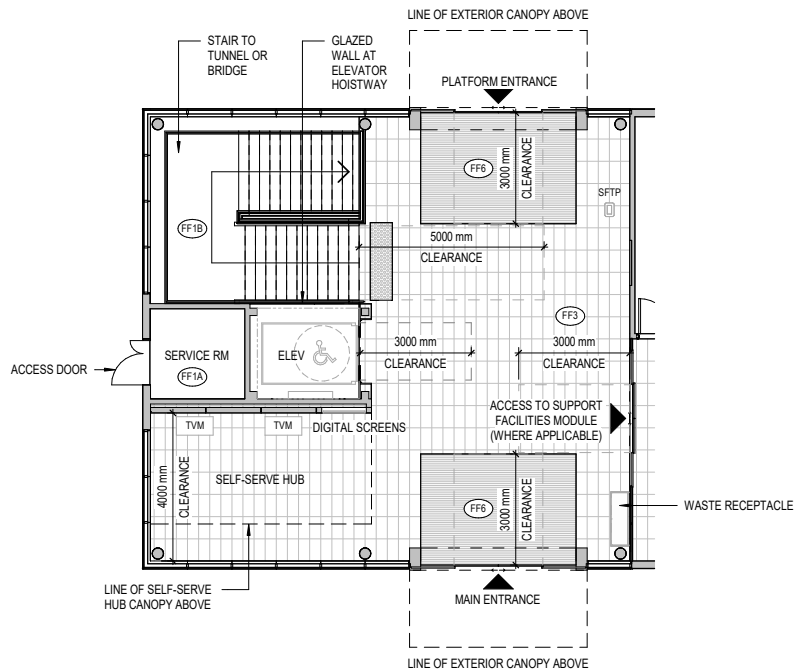


Figure 3-2 Typical Ground Floor Plan of Platform Access Module when joined to Support Facility Module illustrating key components and clearances of the module.

Platform Side

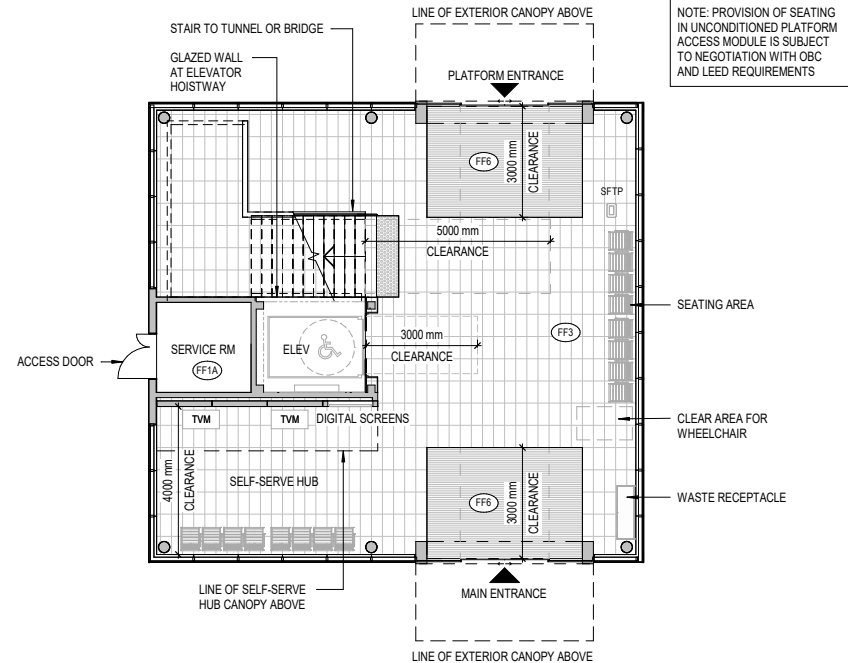


Figure 3-3 Typical plan of Platform Access Module illustrating courtesy seating area.

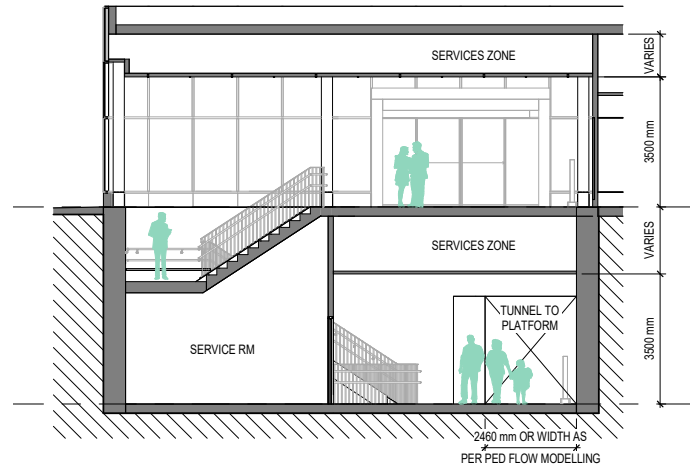


Figure 3-4 Cross Section of Platform Access Module (Tunnel configuration) illustrating key components and vertical clearances.

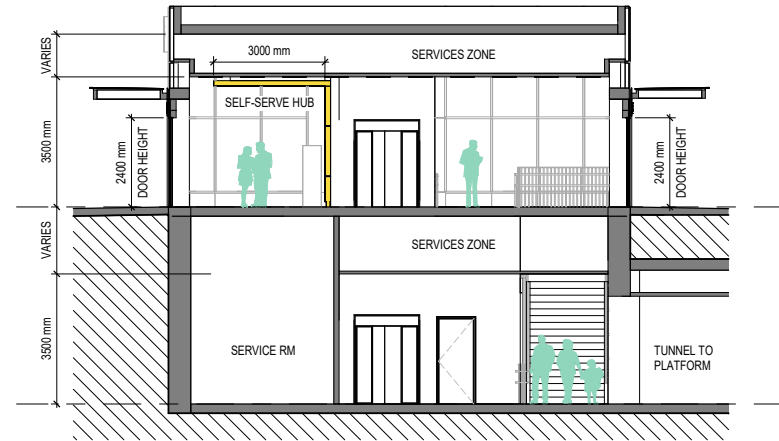


Figure 3-5 Cross Section of Platform Access Module (Tunnel configuration) illustrating key components and vertical clearances.

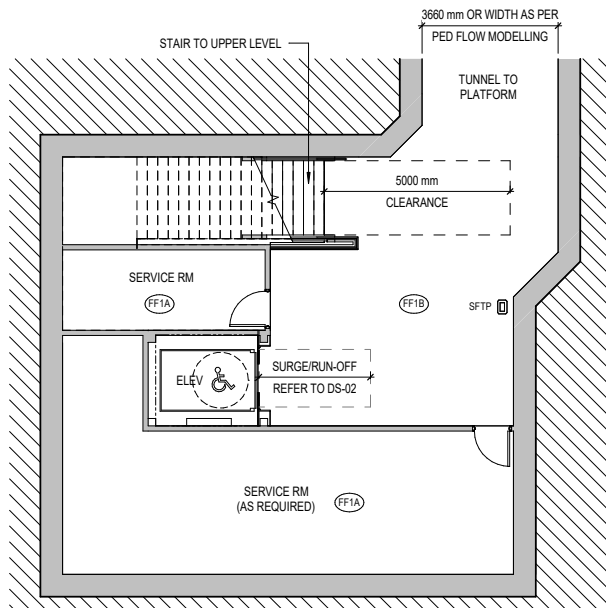


Figure 3-6 Typical Tunnel level plan of Platform Access Module illustrating key components, clearances and materiality.



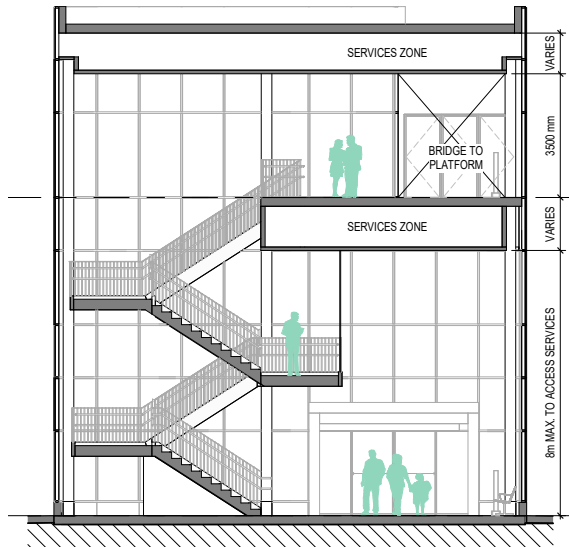


Figure 3-7 Cross Section of Platform Access Module (Bridge configuration) illustrating key components and vertical clearances.

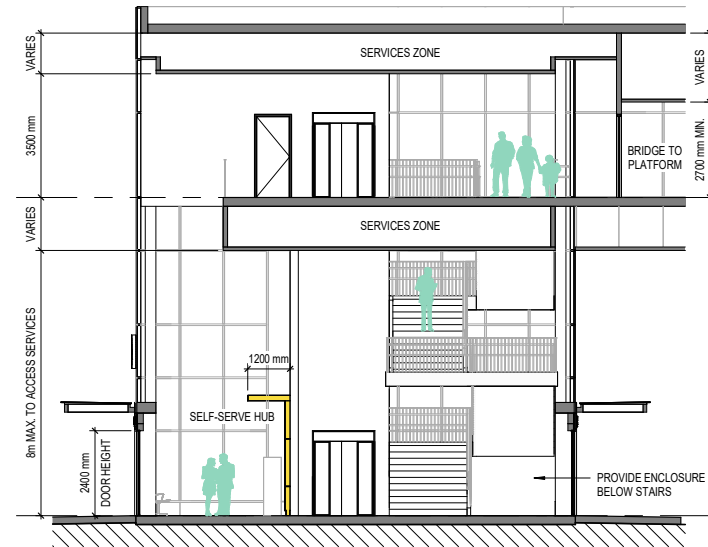


Figure 3-8 Cross Section of Platform Access Module (Bridge configuration) illustrating key components and vertical clearances.

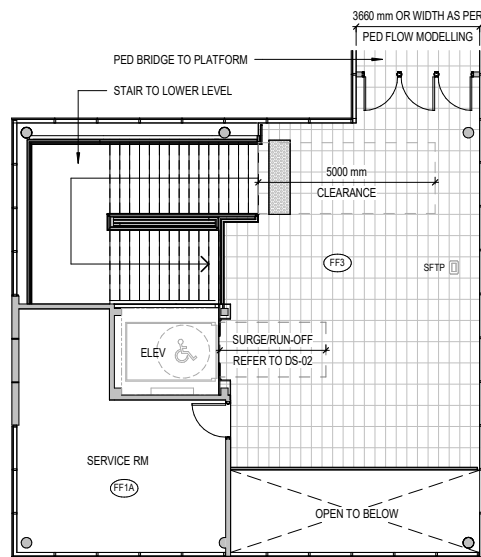


Figure 3-9 Typical Bridge level plan of Platform Access Module illustrating key components, clearances and materiality.



### 3.3 SELF-SERVE HUB

The Self-serve Hub is a consistent and highly visible zone within the Platform Access Module, housing fare equipment and digital departure screens. As an Element of Continuity across the GO Network, the Self-serve Hub is designed to provide a centralized and easily identifiable location for fare payment and trip planning information, ensuring customers can quickly and intuitively access these services within the Platform Access Module.

To support customer self-service for fare purchases, the design of the Station Building shall be organized to direct customer movement toward the platform access area to gather information, purchase/pay fares and continue their journey to access the platforms and trains.

The Self-serve Hub is intended to be designed to be easily recognizable due to its distinctive architectural features. It incorporates a prominent vertical and horizontal plane that wraps and distinguishes the Self-serve ticketing area. Colours and materials are intended to be thematically coordinated across the network. In cases where there is no Station Building, the Self-serve Hub may be adapted to become a stand-alone exterior structure within a sheltered area.

The number and type of devices will be determined in accordance with project-specific scope.



Figure 3-10 Conceptual view illustrating the Self-serve Hub wall within the Platform Access Module.

Self-serve Hubs shall be designed in accordance with the following:

- a) A minimum of one (1) Self-serve Hub shall be provided on each side of the corridor within the platform access module, where applicable.
- b) Finishes shall conform to the Finishes Schedule.
- c) Wall panels shall maintain uniform sizing across the elevation.
- d) Placement of Self-serve Hubs shall conform to the locations identified in Figures 3-13 to 3-17.
- e) Digital Screens shall:
  - i) be placed closest to the path of travel as shown in Figure 3-17;
  - ii) be mounted, one above the other, with the centerline of the combined screen assembly located 1500 mm above finished floor level as illustrated in Figure 3-17; and
  - iii) be wall-mounted and recessed with a telescopic arm within Self-serve Hub wall with 25 mm gap surrounding screens for access.
- f) One (1) waste receptacle shall be provided in proximity to TVM.
- g) The design shall conform to Reflected Ceiling Plan, Figure 9-2 and Station Building Interior Lighting Fixture.
- h) The Self-serve Hub shall be located so as not to impede or interfere with the pedestrian path of travel clear widths.
- i) Where the Platform Access Module is unable to accommodate the Self-serve Hub, the location of the Self-serve Hub shall be reviewed and approved by the Owner of this Standard.
- j) The Self-serve Hub shall be located along the primary path of travel. Placement and orientation shall maintain clear sightlines from multiple station approaches in accordance with the following hierarchy:
  - i) station building;
  - ii) bus loop;
  - iii) PUDO;
  - iv) vehicle parking; and
  - v) bike parking.
- k) Refer to Metrolinx Universal Design Standard (DS-02) and the Metrolinx Presto Service Design Standard for fare vending device clearance requirements.
- l) Refer to Metrolinx Wayfinding Design Standard (DS-03) for signage requirements.

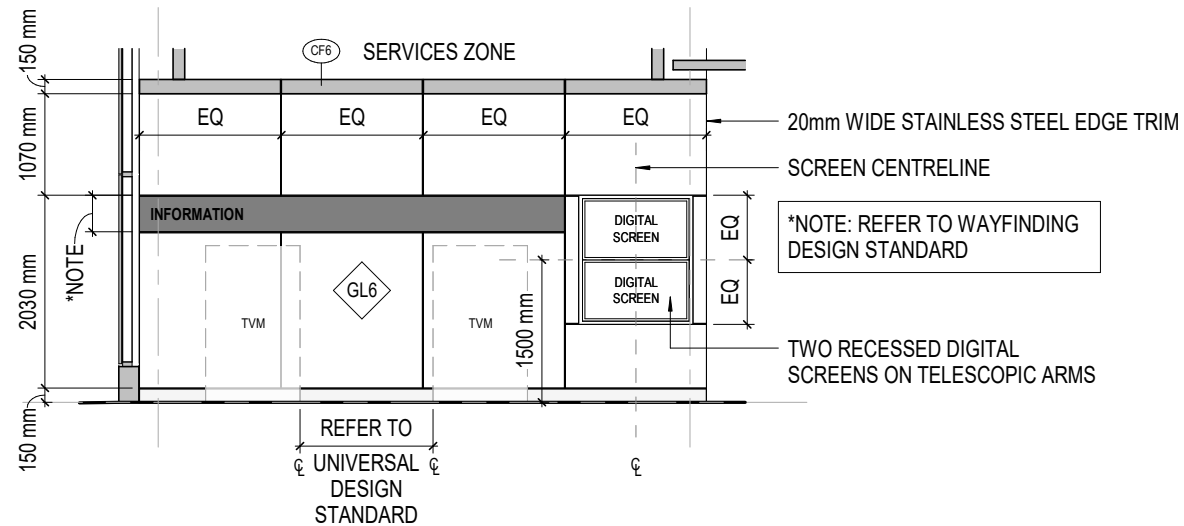


Figure 3-11 Elevation of Self-serve Hub wall illustrating components and dimensions (mm).

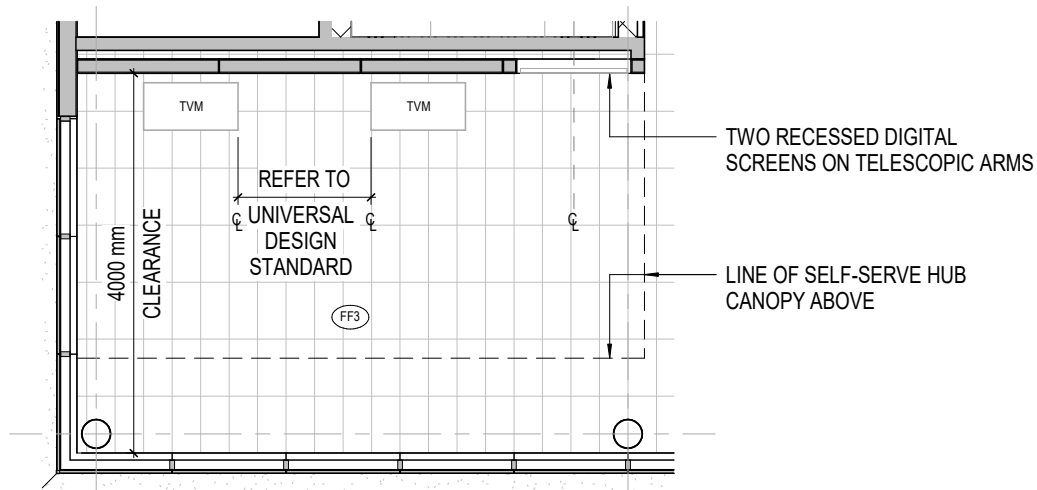


Figure 3-12 Plan of Self-serve Hub area illustrating components and dimensions (mm).

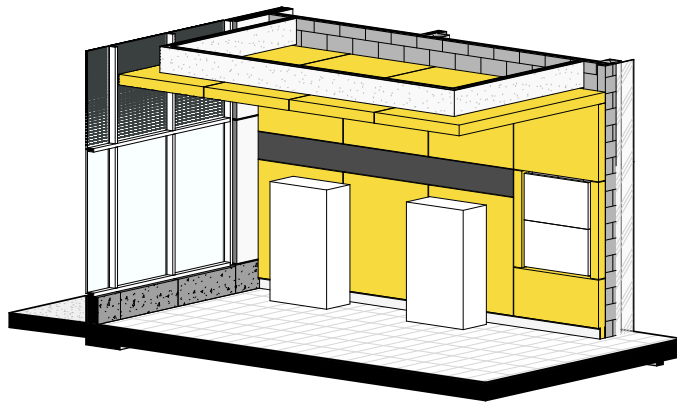


Figure 3-13 View of Self-serve Hub area illustrating critical dimensions (mm).

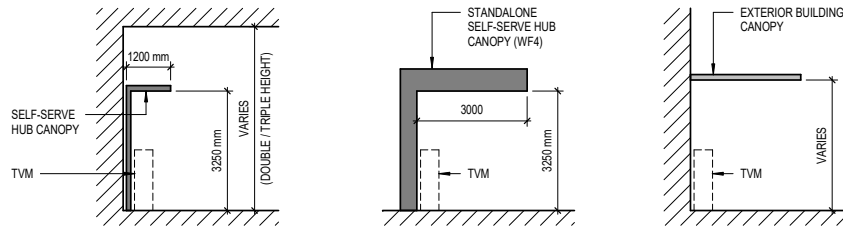


Figure 3-14 Sections of Self-serve Hub area in a 3 Storey building and in an exterior situation.

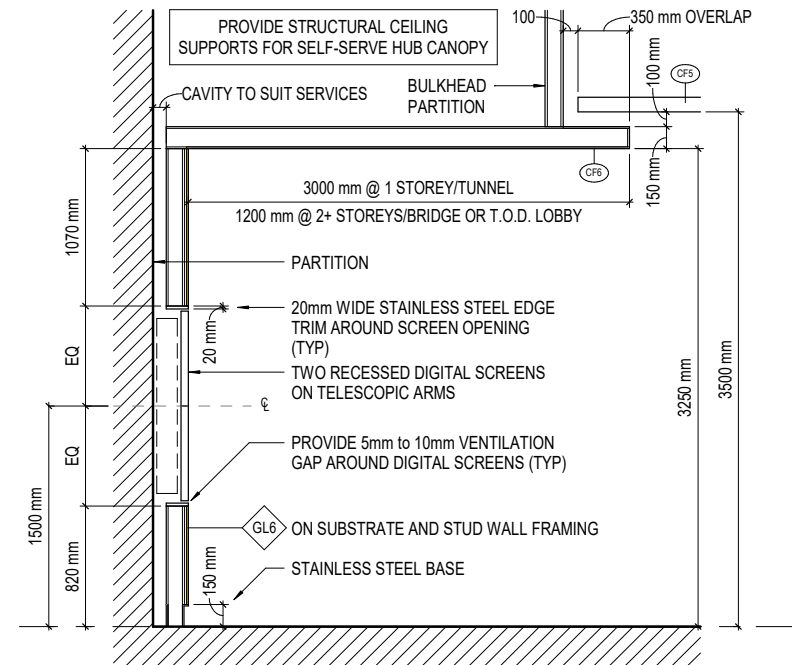


Figure 3-15 Section of Self-serve Hub area illustrating components and dimensions (mm).

### 3.4 PLATFORM ACCESS AREA

The Platform Access Area serves as the central circulation spine within the Platform Access Module, connecting passengers to a tunnel or bridge. Along this route, all information directing customers to ticketing, the Platform, and Station amenities shall be clearly provided.

The Platform Access Area shall be designed in accordance with the following:

- a) Where a station does not have a Customer Support Facilities Module, a courtesy seating area with a minimum of 8 seats (2 bench groupings) is recommended to be provided within the platform access module to accommodate waiting passengers for the PUDO and/or bus loop.
- b) Floor finish shall be as per the Finishes Schedule.
- c) Ceiling finish shall be as per the Finishes Schedule.
- d) Interior recessed foot grilles (FF6) shall be provided at all exterior doors.
- e) Waste receptacles shall be provided in immediate proximity to building entrances and exits as well as seating areas and retail (if applicable).
- f) Linear light fixtures shall be positioned within suspended prefinished metal ceiling grille as illustrated in Figure 9-2, Reflected Ceiling Plan.
- g) Lighting shall conform to Building Interior Lighting Fixtures.
- h) Provide hose bibs in all Service Areas. Refer to the GO DRM for requirements.
- i) Conceal all electrical and data leads to fare devices, CP24 screens, digital screens, public address devices, and CCTV devices.
- j) Unless otherwise noted, surge spaces (including queuing and run-offs) shall be free and clear of any obstruction and not overlap with other surge areas, run-offs or queuing spaces, such as at doors, stairs, elevators and devices. Where two or more elements converge, surge space requirements shall be considered cumulative.
- k) Refer to the GO DRM for lighting requirements.
- l) Refer to Metrolinx Wayfinding Design Standard (DS-03) for wayfinding and signage requirements.
- m) Third-party advertising shall complement and integrate with Signage and Wayfinding. Refer to Advertising Section and Metrolinx GO Rail Advertising Design Guideline (DGL-11) for additional information.

### 3.5 ACCESS TO PLATFORMS

This area captures the connection that guides passengers to the platform. Access shall be designed to minimize walking distances and provide multiple direct and continuous routes between the platform and the exterior of the station building, including PUDO, parking, transfers, and other relevant areas, for all passengers. Additionally, platform access should consider natural pedestrian desire lines within the immediate site context to support intuitive and efficient movement.

The following requirements apply to the design of routes to access the platform:

- a) Where side platforms are provided, multiple, continuous points of access and egress shall be provided.
- b) Platform Access shall be served by a barrier-free path of travel.
- c) Platform Access shall be clearly visible and easily navigable from site access points through the use of direct sightlines, unobstructed pathways, and prominent signage to support intuitive movement toward the rail platform.
- d) Number and location of access route to each rail platform shall be established based on the following:
  - i) Pedestrian flow modelling and distribution of passengers on platforms as per the requirements of the Metrolinx Pedestrian Flow Modelling Standard (DS-12).
  - ii) Site-specific considerations with the goal of establishing the most direct and easy-to-navigate connection between station elements.
  - iii) Where a Station Building with a dedicated waiting area exists, a pedestrian access route/path of travel linking it to all rail platforms shall be provided.
- e) Provide Vertical Circulation Elements (VCE) based on each station site plan configuration to promote a safe, clear and intuitive wayfinding through every station level.
- f) A minimum of one (1) Passenger Stair and one (1) Passenger Elevator shall be provided for each tunnel and/or bridge that is used to access each platform.
  - i) Where two (2) elevators are co-located to provide elevator redundancy within a tunnel or bridge, a minimum of one (1) passenger stair shall be provided for each additional platform access point per platform.
- g) VCE and their associated clearances shall be oriented longitudinally, in alignment with the platform length. Placement shall be arranged to minimize passenger congregation near the platform edge and to avoid positioning passengers with their backs to the track. The platform elements and VCE shall be designed and configured to enhance platform safety and maintain clear egress and circulation paths.
- h) Where an Island Platform is provided, VCE shall be centred within the platform width.
- i) Where a side platform is provided, VCE shall be aligned to the outside edge of the platform, opposite the platform edge.
- j) Refer to Universal Design Standard (DS-02) for barrier-free access requirements.

### 3.6 VERTICAL CIRCULATION

Vertical Circulation Elements (VCE) are comprised of stairs, ramps, and elevators, with escalators provided where applicable. These elements connect customers from the station entrance to the platform. Clear sightlines, visual transparency, and consistent finishes and materials are essential for orientation and helping customers navigate between levels and toward their destination.

Tunnels and bridges work alongside VCE to connect customers to platforms and surrounding communities, offering distinct advantages in both customer experience and constructability. In particular, tunnels provide shorter, more direct routes with less vertical travel, making them quicker and more accessible. Bridges, while requiring more vertical movement, can improve safety through better visibility, provide protection from flooding, and offer more natural light. However, bridge enclosures require careful thermal design to manage solar heat gain in summer and heat loss in winter.

Together, vertical circulation, tunnels, and bridges form critical components of the Platform Access Module, providing access to platforms and supporting broader community connections.

Vertical Circulation, Tunnels and Bridges shall be provided at Stations in accordance with the following requirements and figures.

- a) Minimum dimensions for VCE shall be based on the dimensions provided in this Section as well as the following:
  - i) Passenger Flow Capacity in accordance with the Metrolinx Pedestrian Flow Modelling Design Standard (DS-12);
  - ii) GO DRM;
  - iii) Universal Design Standard (DS-02); and
  - iv) Egress capacity in accordance with the Ontario Building Code (OBC).
- b) VCE shall be designed with transparent materials and transparency between levels in accordance with CPTED principles and to provide direct views.
- c) VCE shall be grouped together for ease of flow and intuitive wayfinding.
- d) Passenger Stairs shall be located so that the access point within the associated Tunnel or Bridge is no greater than 25 m from a Passenger Elevator.
- e) VCE shall be placed along the main path of travel with direct line of sight of the entrance into the station.
- f) VCE positions at adjacent stations may be offset from one another to avoid congestion within train coaches. In these cases, clear signage indicating access to VCE elements upon entry shall be prominently visible from both the entry and the coach.

### 3.6.1 Stairs

The following Section outlines the various elements and their requirements for stair design:

- a) Stairs shall be configured as a straight run on platforms.
- b) Stairs shall be designed to:
  - i) be clearly identified with intuitive wayfinding and signage;
  - ii) be located near the primary circulation routes;
  - iii) be offset from the direct route of travel so that they are not a hazard;
  - iv) have uniform riser heights and tread depths; and
  - v) maintain clearances, runoff areas, bicycle runnels, handrail extensions, and guardrails so they do not impede passenger flow.
- c) All stairs shall be precast reinforced concrete.
- d) The width of public stairs shall be determined based on the governing emergency egress capacity and Passenger Flow Modelling. The most stringent requirement shall apply.
- e) Tactile Attention Indicators shall:
  - i) be provided at top of stairs; and
  - ii) have a depth of 610 mm commencing one (1) tread depth from the edge.
- f) Refer to the Universal Design Standard (DS-02) and other relevant regulatory and/or barrier-free requirements, including but not limited to Tactile Attention Indicators, nosing, handrails, and landings.
- g) Provide a continuous 100 mm wide drainage channel on one (1) side of the stair to facilitate water runoff and cleaning.
- h) Provide a continuous 100 mm wide bicycle runnel on the opposite side of the stair, aligned flush with the front edge of each tread.
  - i) Bicycle runnels shall be provided at a minimum of one (1) continuous access route from the station access point to each platform.
  - ii) Bicycle runnels shall be located along the stair exterior perimeter. Where stairs are non-linear (e.g., incorporate landings, switchbacks, or directional changes), the runnel shall remain continuous across the stair configuration
- i) Materials and Finishes shall comply with the requirements within the Materials and Finishes Section.
- j) Floor elevation at platform shall provide a positive slope at doors to support drainage away from the door opening and the enclosure. Refer to Civil Engineering Standards. Floor elevation shall be level where required by code.
- k) Exterior stairs shall be weather protected (enclosed or canopied with heat-trace) to minimize safety risk and snow and ice control operations.



- l) Large drains, grates, pits or any other potential obstruction shall not be located at the top, mid or lower stair landings. Positive drainage towards the side drain channels shall be provided and shall flow towards a heat-traced sanitary drain at the bottom of the stairs.

#### **3.6.1.1 Lighting**

- a) Lighting in the stairwell shall be installed at easily maintainable heights requiring no more than a small step ladder.
- b) Lighting shall be integrated within walls or handrails to achieve the required illumination levels.
- c) Where a continuous LED strip is provided, it shall be located on the underside of the handrail to illuminate the stringer edge of the stair tread. Where a stair has secondary lower-height handrails, the LED strip shall be located in the lower handrail.
- d) Refer to the GO DRM for lighting requirements.

#### **3.6.1.2 Photo-luminescent strips**

- a) Where stairs and/or ramps connect to tunnels, photo-luminescent strips shall be located along the adjacent walls.
- b) Photo-luminescent strips shall be surface-mounted at 300 mm above stair nosing, ramps, and landings.

- c) Photo-luminescent strips shall be installed continuously along the entire length of the VCE wall, transitioning in a continuous manner at tunnel level. Where interruptions are required, such as with wall-mounted lighting or control joints, the disruption shall be localized to minimize the impact. The intent of a continuous strip shall be maintained to provide clear direction for customers.

#### **3.6.1.3 Handrails**

- a) Material, anchorage, and fittings shall be stainless steel, brush finish, Type 316.
- b) The design and placement of handrails shall take into account the adjacent wall conditions to minimize and discourage climbability.
- c) Refer to Universal Design Standard (DS-02) for additional requirements.

#### **3.6.1.4 Guardrails**

- a) Where fall protection is required, stainless steel guardrails shall be provided around stair and elevator openings on the interior side of glazing enclosures.
- b) Space for window washing shall be provided between columns/guardrails and glazing. Maintain a minimum of 100 mm between the columns/guardrails and back of the mullions of the glazing assembly.

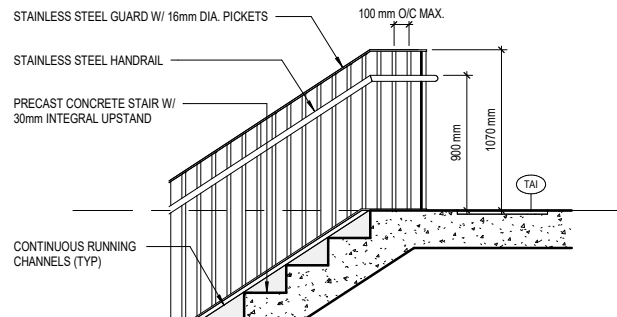


Figure 3-16 Section of stair railing in Platform Access Module illustrating stair detail.

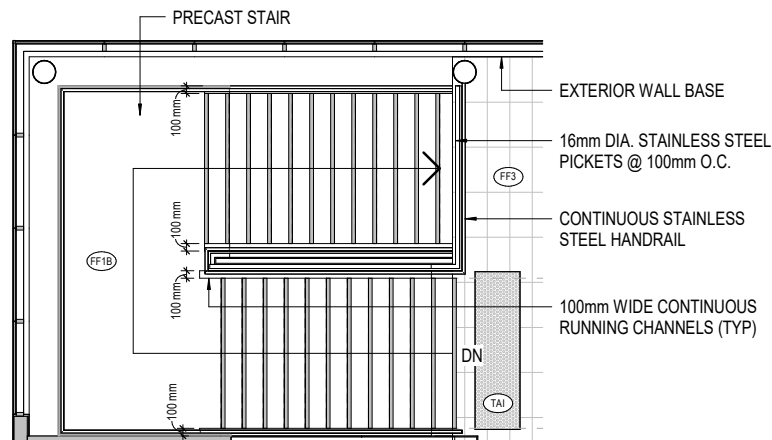


Figure 3-17 Plan of a precast stair in Platform Access Module with tunnel access.

### 3.6.2 Elevators

- a) The number of elevators provided, and elevator placement shall consider travel distances between station entrances, vertical rise, quality of service (waiting time for customers), handling capacity, access to other modes of transportation, and convenient access to services and amenities. Refer to the Pedestrian Modelling Flow Standard (DS-12) for pedestrian flow requirements.
- b) Direct elevator connections shall be provided from the tunnel or bridge levels to the platform level.
- c) Elevator shaft, car enclosure and entrance doors shall:
  - i) have minimal framing elements; and
  - ii) be transparent to achieve visibility through these elements and to meet safety and CPTED requirements, while balancing solar heat gain.
    1. Tinted glass or other solar heat gain mitigation strategies may be used in elevator enclosures to improve equipment performance and enhance customer comfort within glazed hoistways.
- d) Standard passenger elevator approaches, interior cab layouts and controls, shall be provided for customer orientation and ease of access.
- e) Floor grilles shall be constructed from stainless steel and designed for clean out by one (1) person, unaided.

- f) Elevator buttons shall be vandal-resistant.
- g) Elevator Rollers and Gibbs to be galvanized to protect against environmental damage. Any potential changes to the door track plate in the Design Standard to avoid an accumulation of debris that interrupts door function.
- h) Elevator controllers shall be non-proprietary to minimize elevator downtime and impacts to customers.
- i) Passenger Elevators shall be clearly identified with signage. Refer to the Metrolinx Wayfinding Design Standard (DS-03) & DS-03 P2B Sign Implementation Manual.
- j) Refer to the Universal Design Standard (DS-02), GO DRM, GO Standard Drawings and Specifications for passenger elevator requirements.
- k) Refer to the GO Master Elevator Specification for engineering requirements.
- l) Refer to the GO Standard Drawings for the Elevator Cab button configuration.
- m) Refer to GO Master Specification rooftop overrun requirements.
- n) Elevator sump drainage shall be separate from other drainage. Refer to the GO DRM for requirements.
- o) Refer to GO DRM for services, operations and maintenance requirements.

### **3.6.2.1 Elevator Numbering Convention**

- a) Elevators north of the tracks shall be assigned numbers first, if not applicable, east side of track shall be first.
- b) Elevators serving platforms shall be numbered in a sequence following platform numbers being served (i.e. platform one first, followed by subsequent platforms).
- c) Elevator groups serving a parking structure shall be numbered in one sequence.

### **3.6.3 Ramps**

- a) Sloped walks are preferred over ramps as defined in the OBC.
- b) Refer to Universal Design Standard (DS-02) for interior and exterior ramps within Metrolinx property (excluding the Mini-Platform ramps).
- c) Refer to GO Mini-platform Standard Drawings for the Mini-Platform ramp requirements.
- d) Materials and Finishes shall comply with the requirements within the Materials and Finishes Section.

### 3.7 PEDESTRIAN BRIDGES

Pedestrian bridges are elevated structures that provide safe, direct, and barrier-free connections between the station building and platforms, allowing passengers to cross tracks or other obstacles without interacting with trains or vehicles.

- Architectural design shall follow the kit of parts, materials and finishes used across the station.
- Pedestrian bridges shall provide a minimum clear interior width of 3660 mm. Reduced widths may be considered only where pedestrian flow modelling demonstrates that the proposed width adequately accommodates expected volumes without compromising safety, comfort, or accessibility.
- Pedestrian bridges shall have a minimum 2700 mm clear headroom, inclusive of floor finish.
- Services shall be concealed to protect the services from environmental exposure, physical damage and vandalism.
- Refer to Facilities Civil Engineering Standards for pedestrian bridge requirements.

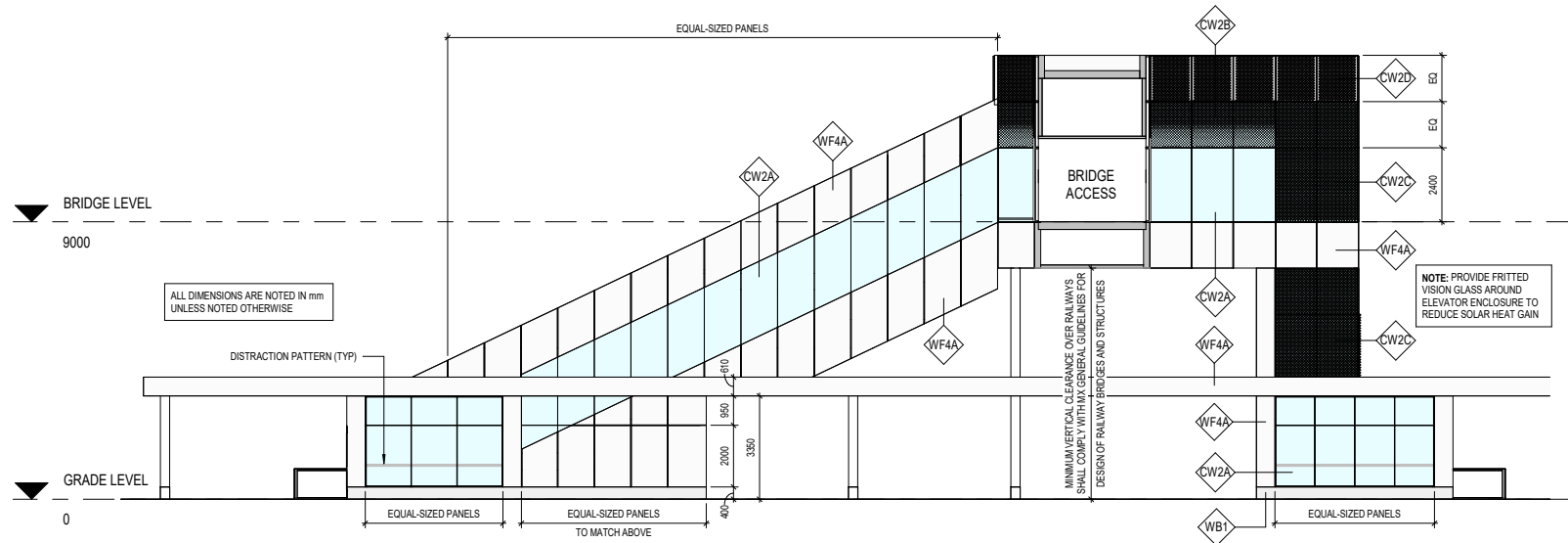


Figure 3-18 Elevation of Platform Level at bridge interface illustrating vertical circulation elements and enclosures.

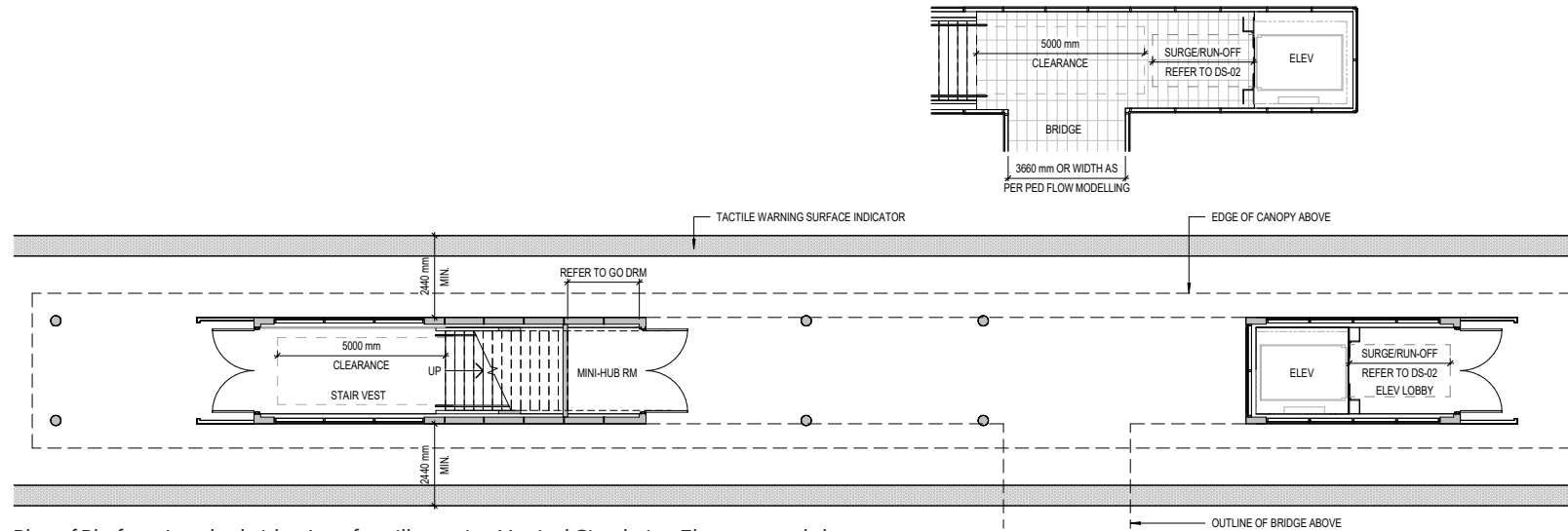


Figure 3-19 Plan of Platform Level at bridge interface illustrating Vertical Circulation Elements and clearances.

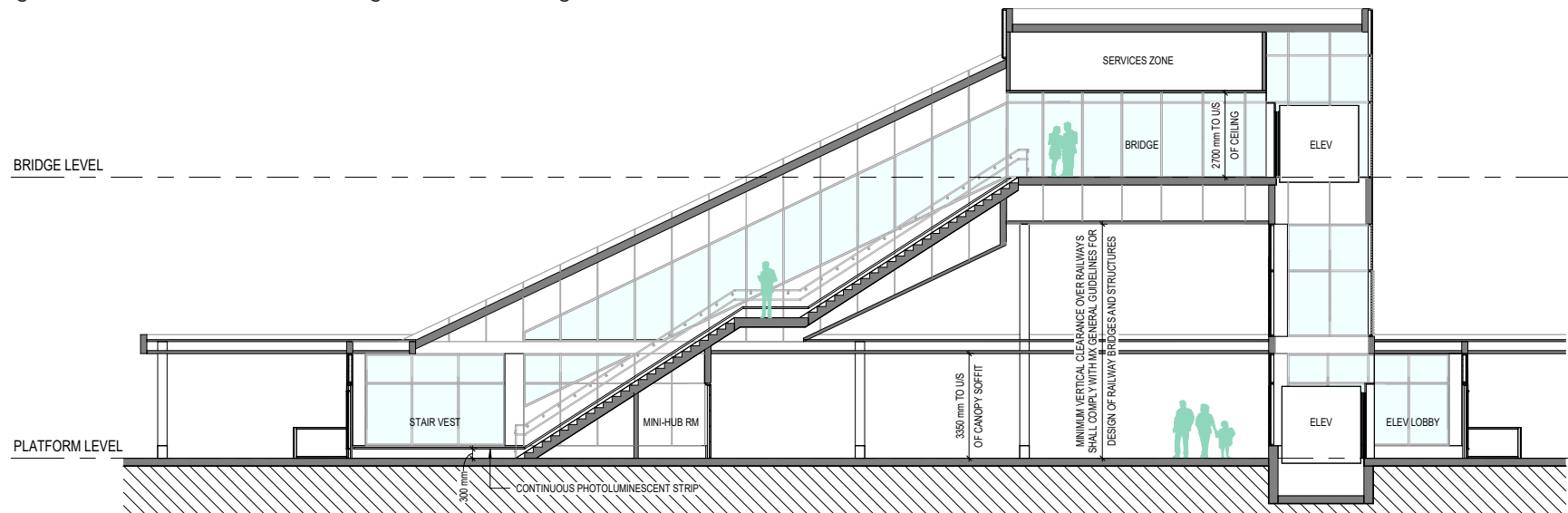


Figure 3-20 Longitudinal section through island platform at bridge interface illustrating vertical circulation elements and enclosures.

### 3.8 PEDESTRIAN TUNNELS

Pedestrian tunnels are below-grade passages that provide safe, direct, and barrier-free connections between the station building and platforms, allowing passengers to cross tracks or other obstacles without interacting with trains or vehicles.

- a) Tunnels shall have a minimum clear interior horizontal width of 3660 mm, measured from finished surface to finished surface. Refer to the Universal Design Standard (DS-02) regarding horizontal projections or protrusions into the clear width.
- b) Power and communication raceways shall be separate (they cannot be mixed). Each shall have at minimum a hand well or manhole feeding and/or exiting the tunnel and at each 90-degree turn.
- c) Where future expansion is anticipated, the tunnel and chase shall be designed to preserve continuous vertical and horizontal datum lines and alignments, match materials, colours and finish thicknesses at interfaces, and detail transition areas, terminations and connection points so new finishes can be extended flush to existing finishes without significant alteration to the existing structure.
- d) Drywall shall not be used.
- e) Digital signage shall require both power and communications, where required.
- f) At a minimum, tunnels shall include elevators and pump rooms. Where hub rooms for electrical and communications distribution are not provided at the platform level, they shall be located within tunnels, along with elevator control rooms and closets.
- g) Tunnel materials and finishes shall conform to the Finishes Schedule.
- h) Tunnel design shall be designed to maximize passenger flow.
- i) SFTPs shall not be placed within the tunnel area.
- j) Tunnels shall be designed to:
  - i) be compatible with CCTV requirements;
  - ii) prevent CCTV field view from being obscured by overhead signs;
  - iii) have a minimum 2700 mm clear headroom, inclusive of floor finish;
  - iv) maintain a minimum of 2300 mm vertical clearance from finished floor to the underside of signage. Refer to Wayfinding Design Standard (DS-03) for signage requirements;
  - v) have a minimum slope of 1% for drainage;
  - vi) include side gutters 40 mm deep by 80 mm wide;
  - vii) not locate drains, pits or other obstructions at the bottom of stairs or in front of service doors and elevator doors; and
  - viii) include pump rooms with pits.
- k) Corners shall be 45-degree angled (300 mm x 300 mm minimum corner cuts at 45 degrees) or approved alternate if required for safety and passenger flow.

- l) Convex mirror units shall be provided at internal 90-degree corners and angled wall corners at directional changes.
- m) Inside the precast design, there shall be PVC raceways placed to feed boxes in the ceiling for mounting speakers, cameras, antennas (cell and WI-FI coverage), exit signs, fire alarm systems, digital signs, advertising and all electrical and IT elements.
- n) The precast and cast-in-place concrete areas shall have a coordinated design, ensuring chases and cavities are continuous and linked to connections at Platform Access Modules and at rail platforms in a concealed fashion, not visible to customers. The design shall include a method of mounting the raceways to the ceiling in a clean, organized manner.
- o) The location of raceways and crossovers shall be coordinated.
- p) Tunnels shall have a hose bibb every 30 m or less along the length of the tunnel.
- q) Sump pit access doors/covers shall not be located in public paths of travel.
- r) To support operations and maintenance activities, sump pits shall have dedicated access.

### 3.8.1 Tunnel Walls

- a) The following systems may be used individually or in combination:
  - i) Where tunnel walls are exposed concrete:

- 1. The concrete shall be architectural concrete as per Metrolinx Architectural Materials and Finishes Design Standard.
    - 2. Conceal electrical conduits, raceways, plumbing pipes, or other utilities within the ceiling and walls of the tunnel as per Section 3.8.2.
  - ii) Demountable porcelain panels may be used where building services cannot be concealed as required in Section 3.8.2. This may include instances where concealment in the ceiling or within horizontal stainless-steel chases is not feasible. Where this is provided over tunnel walls:
    - 1. A 250 mm cavity shall be provided along both sides of the tunnel walls, behind the panels. This shall accommodate the depth of the digital signage and advertising (non-fare revenue zone), plus mounting space for services.
    - 2. The wall panels shall allow for easy access to the supporting structure behind (e.g. hinged or removable panels). These panels shall not be easily opened by the public and shall require a tool to open and lock them in place.
    - 3. If water piping is required in the chase, it shall be located at the bottom of the cavity.
    - 4. Substitutions for tunnel wall finishes may be requested for review and approval by the Owner of this Standard.

- b) Photo-luminescent Strips shall be:
  - i) provided along both sides of tunnel walls;
  - ii) integrated within wall panel system; and
  - iii) surface mounted at 300 mm above finished floor and installed continuously along entire length of tunnel, transitioning in a continuous manner to all stairwells.
- c) Refer to Facilities Civil Engineering Standards for exterior tunnel wall requirements.
- d) Refer to General Guidelines for Design of Railway Bridges and Structures for requirements on pedestrian tunnels under the corridor.

### 3.8.2 Tunnel Chase

A tunnel chase refers to a continuous channel used to conceal electrical conduits, raceways, plumbing pipes, or other utilities.

- a) Where services are located along the tunnel ceiling, they shall be concealed by a Metal Panel Ceiling system (CF5), as per the Finishes Schedule, to protect the services from environmental exposure, physical damage and vandalism.
- b) Where connected, the tunnel wall chase shall match the ceiling finish.

- c) Surface-mounted chases that are independently routed along wall surfaces shall be enclosed with stainless steel cladding and positioned outside of high-contact zones.
- d) Where bulkheads are used within a tunnel or platform access, the finish shall maintain the same materiality as the ceiling or wall, subject to review by the Owner of this Standard.
- e) Chases shall be provided for the interconnection of raceways to the platform canopy.
- f) The chase cavities:
  - i) shall be continuous above door, stair and elevator openings as well as tunnel interconnections;
  - ii) covering shall be easily removable cover pans with similar material to the tunnel flooring;
  - iii) cover pans shall require a special tool to remove them and a covered opening to place the tool in to remove the pan; and
  - iv) below the floor shall be equipped with a drainage system.
- g) Vertical chases (for raceways) shall be cast in place in tunnel transitions to stairways and elevators.
- h) The chase shall have pull, junction and receptacle boxes. There shall also be an allowance for drivers and boxes.
- i) Refer to Raceway for Electrical Systems Specification 26 05 34 for additional information.



### 3.8.3 Tunnel Lighting

- a) The recessed mounted lighting shall be continuous for the whole length of the tunnel and be easily maintained and replaced.
- b) The lighting fixture shall be vandal-resistant and be power washable.
- c) The lighting in the tunnel shall be equipped with occupancy sensors.

### 3.8.4 Advertising Placement in Tunnels

- a) Advertising in tunnel shall not be located on floor of tunnel.
- b) Advertising panels shall be hung at an equal distance from tunnel floor to ceiling.
- c) Electrical and communication connections shall be provided at a minimum of 1500 mm horizontal spacing along tunnel walls.
- d) Communication racks and infrastructure required to support the content management system shall be provided within a separate Third-party Communications Room within the Services Module.

- e) Electrical and data cables shall be accessible from behind.
- f) All final advertising placements shall be at the discretion of Metrolinx.
- g) All third-party systems, including advertising are to operate as fully standalone systems, and cannot share or piggyback off of Metrolinx infrastructure to serve its intended purpose(s).
- h) Refer to GO Rail Advertising Design Guideline (DGL-11).

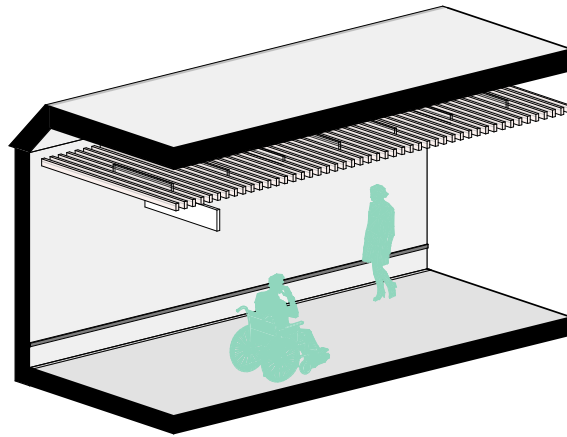


Figure 3-21 Axonometric section of tunnel.

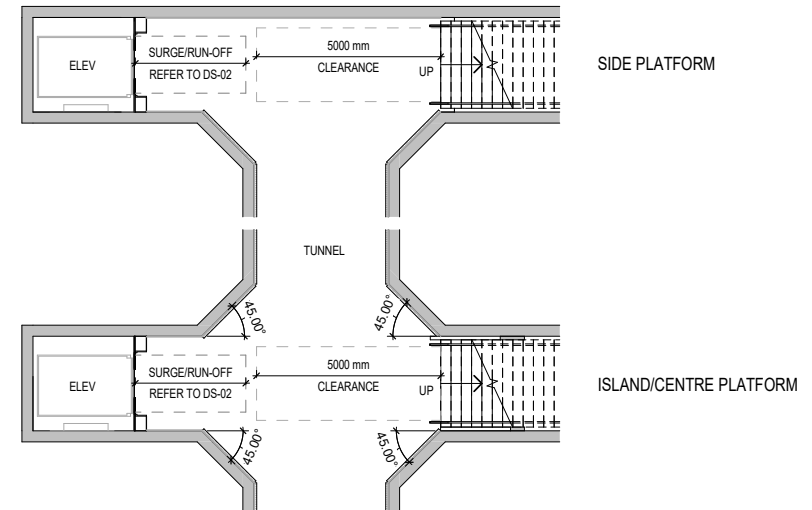


Figure 3-22 Typical plan of tunnel configurations for Island and side platforms.

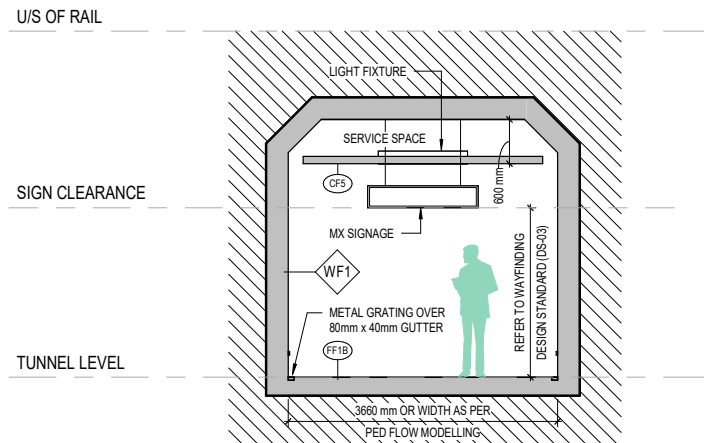


Figure 3-23 Cross section of tunnel illustrating materiality.

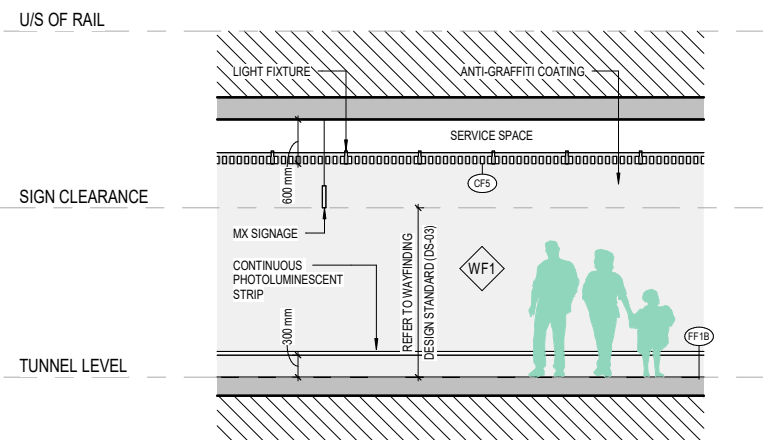


Figure 3-24 Longitudinal section of tunnel illustrating materiality.

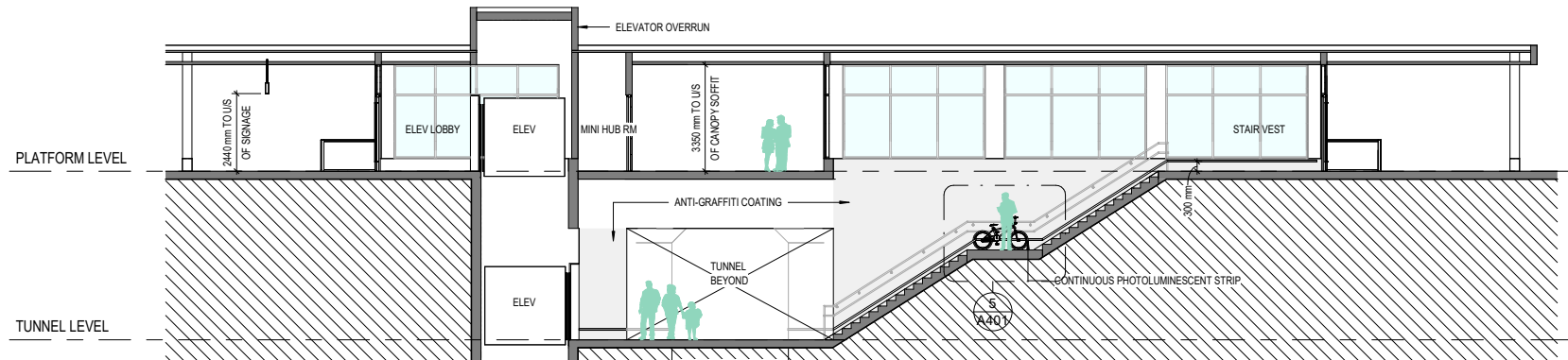


Figure 3-25 Longitudinal section through island platform at tunnel interface illustrating vertical circulation elements and enclosures.

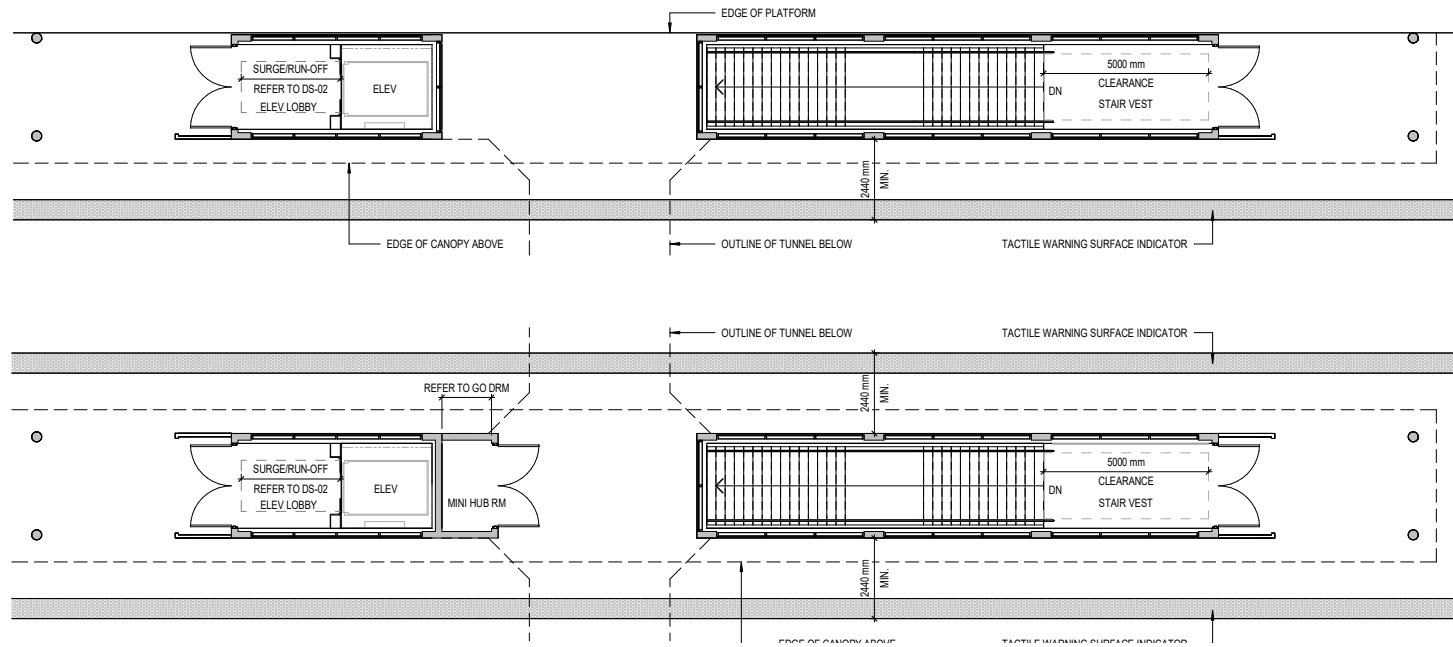


Figure 3-26 Plan of Platform Level at tunnel interface illustrating Vertical Circulation Elements and clearances.

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- 4.1** Overview and Intent
- 4.2** Customer Support Facilities
- 4.3** Staff Support Facilities

## 4.1 OVERVIEW AND INTENT

The Support Facilities module is designed to accommodate both staff and customer infrastructure. These areas are intended to be designed and scaled in alignment with station ridership and will be determined on a project-specific basis. The following customer and staff areas may be incorporated within the Support Facilities Module:



### Customer Facilities:

- Customer support facilities (Section 4.2).
  - Waiting area
  - Public washrooms



### Staff Facilities:

- Type 1: Customer-facing staffed facilities (Section 4.3.1); or
- Type 2: Support-staffed facilities (Section 4.3.2); or
- Type 3: Operator washrooms (Section 4.3.3).

In all Support Facilities Module types, a maintenance room will be required (Section 4.3.5).

The design of the Support Facilities Module shall set out a consistent architectural language and materiality by establishing a kit-of-parts approach to create an integrated design across the system and various modules. Refer to approach illustrated in Figure 4-1.

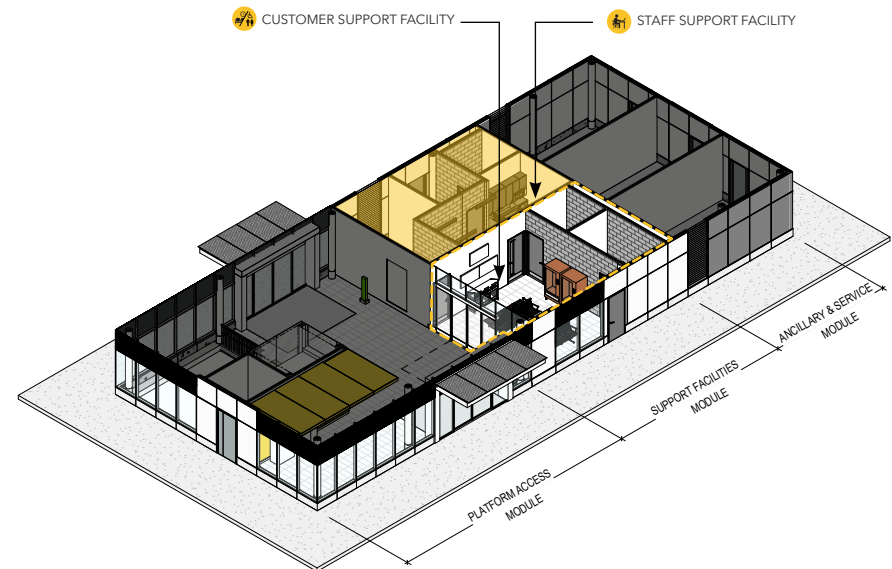


Figure 4-1 Illustration of a station configuration showing Platform Access Module, Support Facilities Module, and Ancillary Module.

## 4.2 CUSTOMER SUPPORT FACILITIES

Washrooms and waiting areas are key facilities required to provide a satisfactory customer experience in public transit. Both areas are designed to enhance the overall customer experience by ensuring convenience and comfort while at the station.

The relationship between the station staff support facilities, the customer support facilities and the Maintenance Room (in either Large or Small modules) shall always be consistent in new builds and as close as possible in retrofit situations.

### 4.2.1 Waiting Area

The Waiting Area is a designated space located adjacent to the public washrooms, provided as an amenity for individuals waiting for pickup, bus departures, PUDO services, during service disruptions, or for those arriving at the station early. The size of the Waiting Area will vary in response to ridership and project scope, resulting in either a large or small waiting area.

- a) The Waiting Area shall be designed to:
  - i) be a conditioned space as per GO DRM;
  - ii) have a finished ceiling height minimum of 3500 mm and maximum of 4000 mm;
  - iii) separate circulation path from seating zone;
  - iv) maintain visual connections from standing and seated positions to passenger pick-up and drop-off (PUDO), digital signage, and public washrooms; and
  - v) include free-standing furnishings as per GO Standard benches and waste receptacles.
- b) Refer to the Universal Design Standard (DS-02) for designated clear floor area requirements.
- c) The Waiting Area shall be provided at Stations in accordance with Figures 4-2 and Figure 4-10.
- d) Recessed Foot Grilles shall be provided at all exterior doors.
- e) Floor finish shall conform to Finishes Schedule.
- f) Ceiling finish shall be a suspended prefinished continuous linear metal grille ceiling system that incorporates linear light fixtures between grilles, as per the Finishes Schedule.

- g) One (1) charging station (power receptacle with USB plug-in) shall be provided for every four (4) seats. Refer to the Universal Design Standard (DS-02) for accessible reach and maneuvering clearances.
- h) One (1) waste receptacle shall be provided in immediate proximity to seating area.
- i) One (1) barrier-free water fountain and water bottle filling station shall be provided within the Waiting Area.
- j) Feature Elements
  - i) Seating shall be delineated as a distinct seating zone.
  - ii) Refer to Metrolinx Wayfinding Design Standard (DS-03), and Sign Implementation Manual for wayfinding and signage requirements.
  - iii) Fixtures and Furnishings shall be provided as per the Fixtures and Furnishings Section.
- k) Lighting Strategy
  - i) Linear light fixtures shall be provided in waiting area.
  - ii) Lighting shall conform to the Interior Lighting Fixtures Schedule in this Standard.



Figure 4-2 Conceptual view of Waiting Area illustrating materials and finishes.

#### 4.2.2 Public Washrooms

Public Washrooms shall be designed to serve all customers and be read in conjunction with the requirements found within the Universal Design Standard (DS-02), the GO DRM, and the Ontario Building Code Section 3.8. Number of washrooms is determined on a project-specific basis.

Public Washrooms are associated with the Waiting Area and shall be highly visible. The Public Washrooms shall be designed to meet the following requirements:

- a) Entrances into multiple occupancy washrooms shall be doorless.
  - i) All doorless washrooms shall have a clear opening with a lockable steel shutter door that can be closed during regular cleaning or maintenance intervals.
  - ii) Shutter door shall be a swing door or sliding door concealed from view within a recessed pocket.
  - iii) Shutter door pocket and door shall be secure and tamperproof, such that when the door is within the recess or pocket, the recess is sealed and lockable.
  - iv) The design of the shutter door shall match the colour of the adjacent wall finish and align with the quality derived from the architectural kit-of-parts.
- b) All plumbing fixtures shall be located on interior walls.
- c) One (1) standard infant change table shall be provided in each washroom.
  - i) Infant change tables shall be located such that their installation and operation do not interfere with all required clearances as per OBC.
- d) Floor drains shall not be located in pedestrian paths.
- e) Universal and accessible stalls within multiple occupancy washrooms shall be provided in accordance with Metrolinx Standards and OBC.
- f) In public washrooms and maintenance facilities, toilet partitions shall be embossed. Refer to the Architectural Materials and Finishes Design Standard for additional requirements.
- g) Toilets and urinals shall be wall-hung with touchless flush valves.
- h) Sinks shall be wall-hung and barrier-free.
  - i) one (1) mirror shall be installed above each lavatory. Where multiple lavatories are grouped together, a single continuous mirror may be used to serve all lavatories.
- j) Where required, mirrors shall be mounted at a barrier-free height.
- k) Mirror frames shall be constructed of stainless steel.
- l) One (1) electric hand dryer shall be provided for every two (2) lavatories.
- m) Where only one (1) lavatory is in a room, one (1) electric hand dryer shall be provided.



- n) Toilet paper dispenser shall be surface-mounted, multi-roll vertical type, lockable, and commercial grade.
- o) Waste receptacles shall be wall-mounted, stainless steel, vertical type with a capacity of 20L minimum, commercial grade.
- p) Soap dispensers shall be wall-mounted, commercial-grade, touchless.
- q) One (1) coat hook shall be provided at barrier-free height in each universal or barrier-free washroom, and in every stall within multi-occupancy washrooms.
- r) One (1) surface-mounted sanitary napkin disposal shall be provided in each universal/ barrier-free and female washroom water closet stall.
- s) Public washrooms shall be strategically placed to promote linear and efficient circulation.
- t) Public washroom fixtures and finishes shall be durable to dissuade vandalism and abuse. Anti-graffiti partitions shall be installed. Designs shall not create opportunities for misuse or tampering with interior fit-out and fixtures.
- u) Public washrooms shall be designed to be easily cleaned and maintained.
- v) Washrooms shall be designed in accordance with Table 4-1.

Table 4-1: Minimum Washroom Fixture Requirements

| FIXTURE TYPE                                                                                                                                                                                                                                                                                                                                                             | UNIVERSAL/<br>BARRIER-FREE<br>WASHROOM | MULTIPLE<br>OCCUPANCY<br>WASHROOMS<br>(GENDERED) |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|--------------------------------------------------|
| Water Closet                                                                                                                                                                                                                                                                                                                                                             |                                        | 1                                                |
| Barrier-Free Water Closet                                                                                                                                                                                                                                                                                                                                                | 1                                      | 1                                                |
| Urinal                                                                                                                                                                                                                                                                                                                                                                   |                                        | **                                               |
| Washbasin                                                                                                                                                                                                                                                                                                                                                                | 1                                      | 2                                                |
| Mirror (Number shall include one barrier-free mirror at accessible lavatory)                                                                                                                                                                                                                                                                                             | 1                                      | 2                                                |
| Waste Receptacle (Recessed)                                                                                                                                                                                                                                                                                                                                              | 1                                      | 1                                                |
| <p><i>All required universal washroom fixtures and accessories, including an Adult Change Table, to comply with OBC.</i></p> <p><i>**Urinals are permitted to be substituted for water closets in male washrooms and may be counted as water closets so long as a minimum of one barrier-free water closet stall and one typical water closet stall is provided.</i></p> |                                        |                                                  |

#### 4.2.2.1 General Requirements

The following requirements are intended to support the ongoing operations and maintenance of washroom facilities:

- a) Wall tile shall extend the full height of the walls.
- b) Measures shall be taken to ensure wall tiles are protected from damage at corners.
- c) All spaces shall be designed to facilitate easy inspection of equipment and fixtures, with clear view of critical components and consumables.
- d) Maintainable assets shall not be placed above main access doors to minimize customer impact with the exception of assets directly supporting the access doors.
- e) Any interior space with a height greater than 3500 mm shall accommodate a scissor lift.
- f) Access cover panels, equipment and boxes shall be located in areas outside of main travel paths and far enough away to allow ladders and lifts to service without creating an obstruction. This requirement also applies to exterior work.
- g) Interior circulation shall be provided to accommodate safe operation of equipment.
- h) Any specialized equipment (excluding scissor lift) required to access building systems shall be avoided to minimize downtime, safety risk and additional expenditures, or as directed by Metrolinx.

#### 4.2.2.2 Lighting Strategy

- a) Linear LED lighting shall be provided in the ceiling cove at the back wall of washroom stalls to create a soft, uniform glow in the space.
- b) Recessed LED fixtures shall be provided for the rest of the washroom area.
- c) Perimeter ceiling cove and linear lighting shall be provided along the wall within the female/male washroom stalls.
- d) Lighting shall conform to the Interior Lighting Fixtures in this Standard.

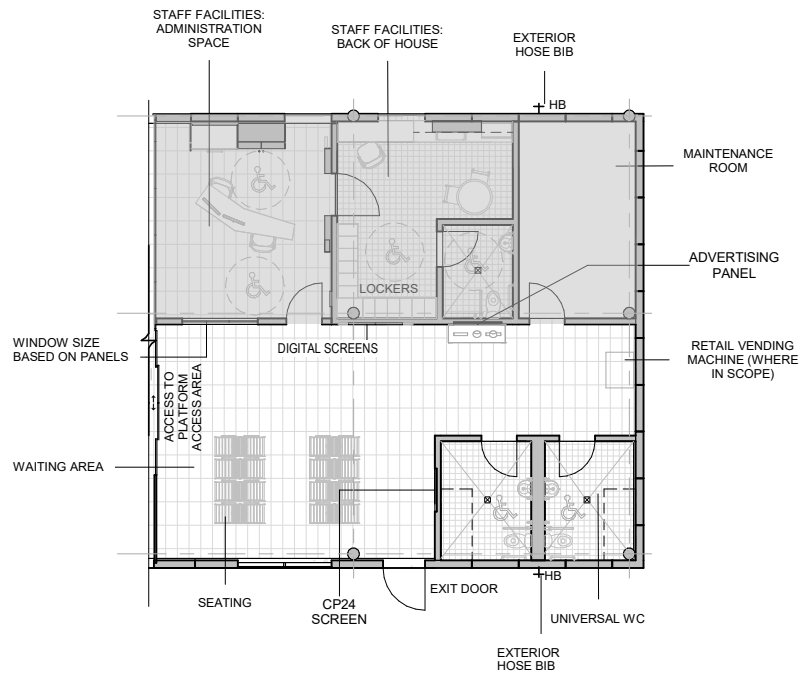


Figure 4-3 Plan of Support Facilities Module (small) illustrating Customer and Staff Support Facilities. Staff Support Facility design is for illustration only.

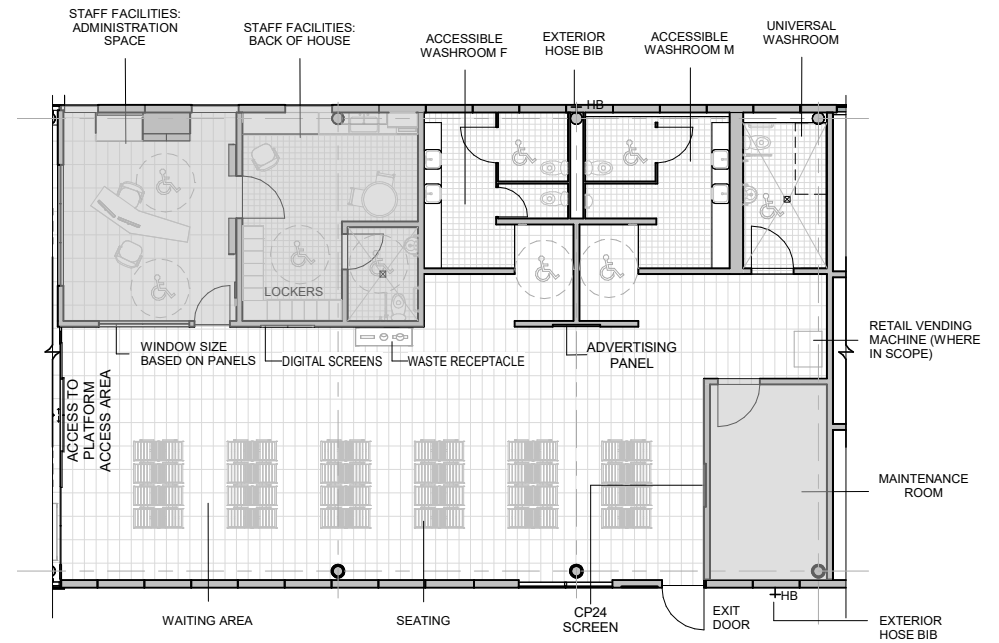


Figure 4-4 Plan of Support Facilities Module (large) illustrating Customer and Staff Support Facilities. Staff Support Facility design is for illustration only.

## 4.3 STAFF SUPPORT FACILITIES

The staff support facilities are designed to provide the station staff with a place to do their work. It is their “home base” complete with all required equipment. The level of staffing and support facilities required are determined on a project basis in consultation with Station Services and Station Operations. Staffing model to be determined prior to schematic design.

In retrofit situations, this area will use the space formerly devoted to Service Counters.

### 4.3.1 General Requirements

The following requirements shall be applied to each staff support facility type:

- a) Staff facilities shall conform to Interior Lighting Fixtures Section.
- b) Doors shall be lockable with ‘fob’ access.
- c) All millworks shall be lockable.
- d) Provide non-freeze exterior hose bibs on each exterior wall.
- e) Staff facilities shall:
  - i) be conditioned. Refer to the GO DRM;
  - ii) be barrier-free in compliance with OBC;
  - iii) have a finished ceiling height minimum of 3500 mm and maximum of 4000 mm;
  - iv) be located in close proximity to the Waiting Area and Platform Access Area;
  - v) maintain visual connection to the Self-serve Hub and the Waiting Area;
  - vi) have access to Metrolinx Wi-Fi;
  - vii) include I&IT connection; and
  - viii) be provided with a potable water supply.
- f) It is recommended that Station Operations be consulted during planning and design to ensure that space is provisioned for the installation of emergency response-related equipment. This may include eye wash stations, AEDs, first aid kits, fire extinguishers or other articles.

### 4.3.2 Type 1: Customer-Facing Staffed Facilities

These stations refer to stations where staff are regularly present to aid customers. Staff coverage may range from a few hours to the full day, depending on demand and operational needs. In these stations, a Station Ambassador Administration space and a back-of-house space are included.

#### 4.3.2.1 Administration Space

- a) The Station Ambassador Administration Space shall include a minimum of two (2) desks for staff usage.
- b) Finishes shall conform to the Finishes Schedule.
- c) Back wall shall include millwork for:
  - i) customer information products and office supply storage;
  - ii) location for printer; and
  - iii) charging docks for a minimum of four (4) mobile devices.
- d) Each computer station shall:
  - i) include CPU storage under the desk;
  - ii) include docking station with two (2) monitors;
  - iii) include a panic button on the underside of the desk at workstation location;

- iv) provide two (2) chairs for staff; and
  - v) provide digital network clock and PA phone.
- e) Power to supply the feature desk shall come from below.
  - f) Wall and floor receptacles shall be provided and coordinated with desk and printer locations.

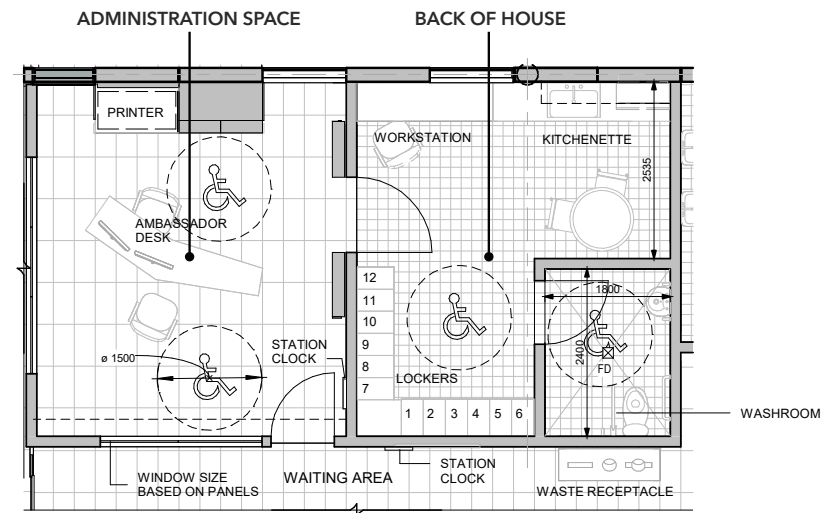


Figure 4-5 Plan of Staff Support Facilities illustrating Administration Space and Back of House. Design is for illustration only.

#### 4.3.2.2 Back of House

The Station Ambassador Back of House shall be designed to:

- a) be barrier-free in accordance with OBC Section 3.8;
- b) have a finished ceiling height minimum of 3500 mm and maximum of 4000 mm;
- c) include a kitchenette with sink, microwave and under-counter refrigerator;
- d) include a lunch area with table and seating for two;
- e) include a small workstation and safe (a safe is only required at large stations);
- f) accommodate 12 lockers (each locker is 1800 mm high, 375 mm wide, and 525 mm deep); and
- g) include one (1) barrier-free Washroom with compliant hand sink, toilet, paper towel dispenser, coat hook, toilet paper dispenser, garbage bin and mirror.

#### 4.3.3 Type 2: Support-Staffed Station

These stations may not have customer-facing staff on site at all times but should accommodate back-of-house space to support temporary staff presence during service disruptions, security patrols, special events, or maintenance activities. Additional requirements for the number and type of furniture may be determined on a project basis in coordination with Station Operations.

At a minimum, the back-of-house “Support Staff Hub” shall include:

- a) one (1) barrier-free washroom;
- b) five (5) lockers; and
- c) one (1) desk;

#### 4.3.4 Type 3: Operator Washroom

- a) Where provided, the operator washroom shall be positioned to avoid direct visibility from public access doors, in order to reduce customer confusion and prevent unintended access.
- b) Washrooms may be used as a changing area for staff and require at least two (2) clothes hangers and circulation space.

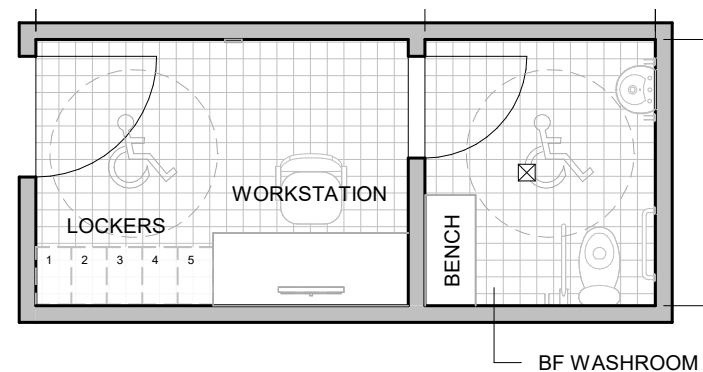
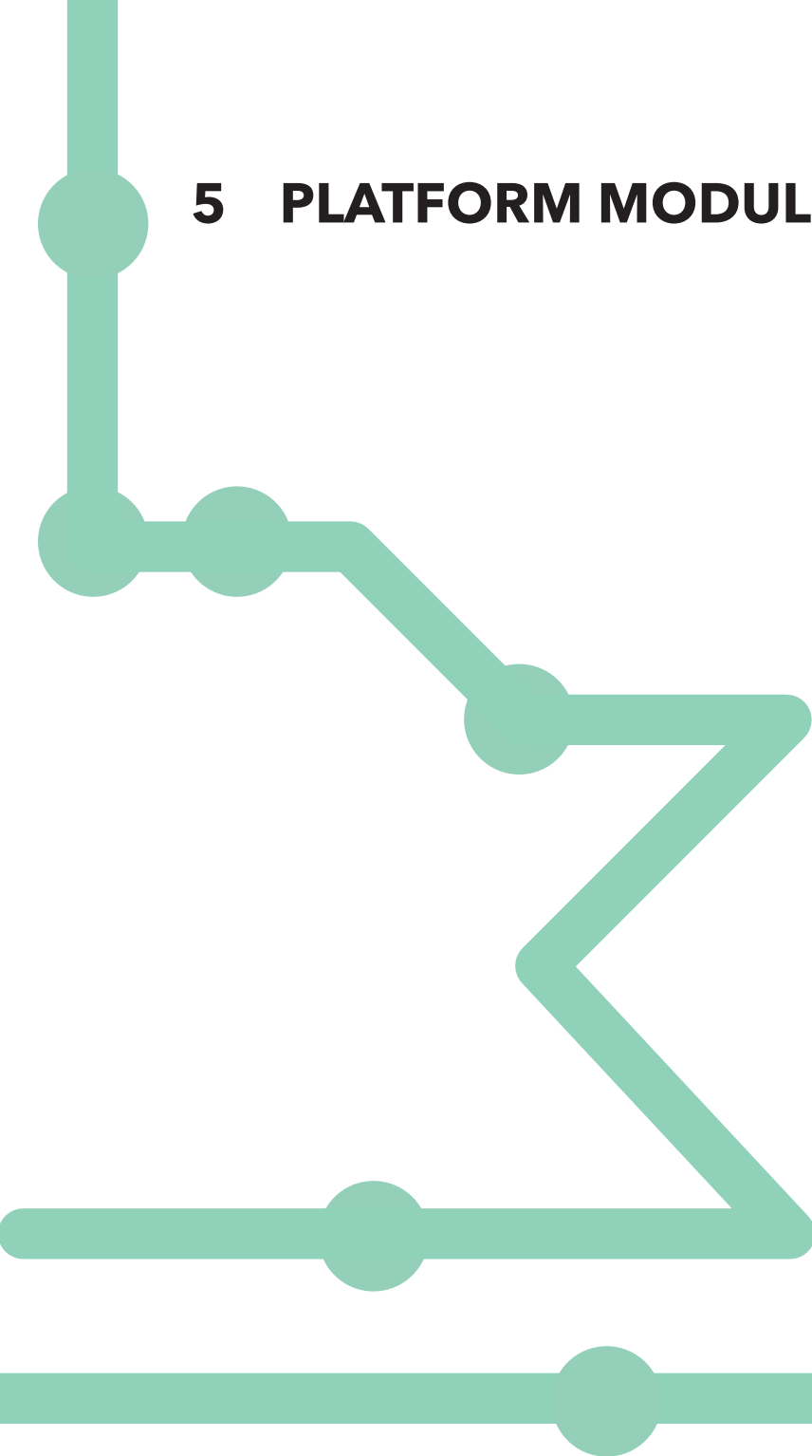


Figure 4-6 Plan of support-staff station illustrating Support Staff Hub. Design is for illustration only.

#### 4.3.5 Maintenance room

- a) In a Station with customer facilities, the maintenance room shall be located within the Support Facilities Module in close proximity to the Public Washrooms.
- b) In a support-staffed Station or a Station with only an operator washroom, the maintenance room shall be incorporated within the Service Allocation areas.
- c) Direct access shall be provided from within the building interior.
- d) This room shall be a dedicated space for maintenance equipment and storage only, and shall not contain items such as meters, water tanks or other intrusions.
- e) The door to Maintenance Room shall be:
  - i) an in-swinging door;
  - ii) extra wide heavy-duty hollow metal double door with a single 915 mm leaf and a second 305 mm latching section, for a total opening of 1220 mm; and
  - iii) provided with a minimum of four (4) butt hinges per door.
- f) The maintenance room shall be a minimum of 15 m<sup>2</sup>.
- g) The room shall be sized to accommodate:
  - i) space for a mop bucket (610 mm x 460 mm x 460 mm); and
  - ii) space for a walk-behind-Scrubber (1370 mm x 610 mm x 1140 mm).
- h) The maintenance room shall include the following fixtures and furnishings:
  - i) 4-6 power receptacles;
  - ii) floor-mounted mop sink (610 mm x 610 mm x 300 mm) with easy access clean out for slop sink P trap;
  - iii) stainless steel mop hangers;
  - iv) faucets and floor drains;
  - v) wall-mounted water purification system;
  - vi) hot water tank or wall-mounted tankless hot water heater;
  - vii) exhaust fan;
  - viii) open shelving and mop hooks;
  - ix) wall-mounted hose rack;
  - x) wall-mounted hangers for three (3) brooms; and
  - xi) key fob access.
- i) Lighting shall be provided in accordance with Interior Lighting Fixtures Section.
- j) It is recommended that Station Operations be consulted during planning and design to ensure that appropriate ventilation is incorporated into the design in accordance with chemical storage requirements and spill containment measures.

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## 5 PLATFORM MODULE

- 5.1 Overview and Intent
- 5.2 Platform Design
- 5.3 Platform Services
- 5.4 Shared Platform Coordination



## 5.1 OVERVIEW AND INTENT

GO platforms are key areas within the transit network, serving as the primary interface between passengers and the system. As such, their design plays a vital role in shaping the overall customer experience. Key considerations include optimizing passenger flow, ensuring safety and security, and supporting full operational functionality. A strong emphasis is placed on delivering an inclusive, accessible environment that accommodates all users, enhancing comfort, clarity, and confidence throughout the customer journey.

The intent is to promote a consistent, well-coordinated approach to platform design that not only supports safety, operations, and maintenance but also elevates the overall passenger experience. A unified design language, anchored in a cohesive aesthetic and functional clarity, will be applied across all major platform elements to ensure a recognizable and familiar environment throughout the transit network.

Platform structures and associated enclosures will serve as visual and functional elements of continuity, reinforcing a common identity. A standardized approach to materials and systems integration, leveraging a kit-of-parts methodology, will simplify implementation, streamline maintenance, and support a clear architectural expression through the integrated design of all components.

## 5.2 PLATFORM DESIGN

### 5.2.1 Platform Design Priorities

The following priorities outline key outcomes for effective platform design and integration:

#### a) Safety:

- i) All platform elements, including surfaces, tactile edges, handrails, canopy coverage, lighting, signage, and drainage, work together to create a safe environment for all users.
- ii) Design minimizes hazards by reducing the risk of slips, trips, and falls, especially in high-traffic areas such as stairs, ramps, and landings.
- iii) Clear sightlines, lighting levels, and the integration of safety infrastructure are essential to support passenger safety, visibility, and situational awareness.

#### b) Access Routes:

- i) Platforms are designed to provide barrier-free, universally accessible routes for all passengers. This includes unobstructed, clearly defined paths of travel and accessibility features, such as tactile attention indicators, contrasting surfaces, accessible seating, and integrated wayfinding, to provide a consistent user environment across the network.

- ii) Incorporating weather-protected routes provides consistent and equitable access, supports reliable train boarding and on-time performance, and enhances year-round usability and comfort.

**c) Weather Protection and Resilience:**

- i) Platform components are designed to perform reliably under extreme and variable weather conditions, including snow, ice, rain, wind, and heat.
- ii) Durable materials, efficient drainage, snow and ice management systems, and UV- and corrosion-resistant finishes are critical.
- iii) Enclosures, equipment housings, platform surfaces, and fixtures are designed for year-round exposure, providing material longevity, system resilience, and passenger comfort and satisfaction.

**d) Passenger Flow and Spatial Distribution:**

- i) The layout and placement of access points, seating, wind and weather protection, and other platform elements are designed to support smooth and intuitive passenger movement.
- ii) Spatial planning facilitates even distribution along the platform, reduces bottlenecks, and improves dwell times through efficient boarding and alighting.
- iii) Elements are strategically positioned to support clear sightlines, intuitive wayfinding, and visibility to service information.

**e) Protection and Integration of Systems and Infrastructure:**

- i) Platform designs accommodate and protect a wide range of mechanical, electrical, communications, and safety systems. Infrastructure such as conduits, drainage channels, lighting, PA systems, security cameras, and digital signage are integrated discreetly and efficiently into platform elements.
- ii) The overall design prevents direct exposure to environmental conditions to extend equipment service life and reduce the frequency of maintenance.
- iii) The coordination and design of mounting details, access panels, finishes, and service zones are essential to ensure system reliability, ease of inspection, minimize interruption to operation of Station when serviced and support efficient lifecycle management.

### 5.2.2 Planning Requirements

At a minimum, incorporate the following into design submissions when determining canopy coverage and shelter placement on a project-by-project basis, subject to the requirements within this Section:

- a) Platforms shall be designed in accordance with applicable building codes, regulations, and railway safety standards.
- b) Platforms shall be designed to ensure safe, efficient, and accessible passenger movement and queuing in compliance with the Metrolinx Pedestrian Flow Modelling Standard (DS-12).
- c) Pedestrian flow analysis shall be conducted to identify and prevent reduced Level of Service (LOS) levels (i.e., bottlenecks at critical points where people are entering, exiting, and waiting on the platform), accommodate peak-hour congestion, and anticipate future growth potential.
- d) Platforms shall have unobstructed pathways that comply with the minimum clearance requirements outlined in this Standard and other applicable standards.
- e) The design shall account for passenger volumes, movement patterns and human behaviour during inclement weather.
- f) Each platform shall be served by a minimum of two independent means of egress.
- g) Canopy coverage and shelters shall be located to distribute passengers and prevent congestion at vertical circulation elements and decision-making points.

- h) Wider platforms may be required at interchange stations or at high-ridership stations, evaluated on a case-by-case basis.
- i) Where expansion joints are located on the platform walking surface, they shall be designed to safely accommodate high volumes of pedestrian traffic and shall incorporate either a cover or protective system, secured to one side, or an integral elastomeric gland and nosing system designed for pedestrian loading, to prevent trip hazards and damage to the joint.

### 5.2.3 Platform Dimensions

- a) Platform dimensions and clearances shall be designed to ensure that the following elements are accounted for:
  - i) protection of paths of travel along and across the platform
  - ii) maintenance of the train's dynamic envelope as per Metrolinx Track Standards;
  - iii) provision of adequate space for access and manoeuvring of operations and maintenance equipment;
  - iv) conformance with the Ontario Building Code (OBC)
  - v) ensuring conformance to universal design standards for passenger circulation, as defined in the Universal Design Standard (DS-02); and
  - vi) meeting minimum levels of services for passenger queuing, flow, and crowding on the platform are met, as per the requirements of the Pedestrian Flow Modelling Standard (DS-12).

#### Planning Guidance

- b) For the purposes of planning platforms, the following dimensions shall be employed at the preliminary design level:
- i) Side Platform Width - 4900 mm (including shelters)
  - ii) Island Platform Width - 7800 mm (minimum)
  - iii) Centre line to centre line of tracks serving an island platform - 10.67 m (minimum)
  - iv) Platform length - 315 m

#### Platform Length Requirements

- c) Platform designs shall adhere to the following minimum design dimensions, measured along the length of the platform, as specified in Table 5-1.

Table 5-1: Platform Length Requirements

| CLAUSE # | DESCRIPTION                                                                  | SPECIFICATION | BASIS                                                                            |
|----------|------------------------------------------------------------------------------|---------------|----------------------------------------------------------------------------------|
| i)       | Platform length - measured from end of platform gate to end of platform gate | 315 m         |                                                                                  |
| ii)      | Clearance at bottom of Mini-platform ramp, measured from bottom of ramp      | 5000 mm       | Ease of pedestrian access to Mini-platform and vehicle and equipment maneuvering |
| iii)     | Unencumbered clearance at end of platform                                    | 5000 mm       | Ease of pedestrian and vehicle access                                            |

- d) Minimum clearance widths shall adhere to the dimensions specified in Table 5-2, and are measured across the width of the platform.

Table 5-2: Minimum Clearance Widths - Platforms

| CLAUSE # | DESCRIPTION                                                                                                                                                                        | SPECIFICATION                                                                                       | BASIS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| i)       | Tactile Walking Surface Indicator (TWSI) - installed along platform edge for length of platform                                                                                    | 610 mm                                                                                              | Typical product dimensions                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| ii)      | Edge of the platform to the edge of any structure (i.e., shelters, VCE enclosures, structural supports, Mini-hub rooms, poles and pole bases, etc.) or other permanent encumbrance | 2440 mm                                                                                             | <p>Reduce crowding by maintaining LOS C or better, without allowing for circulation paths to overlap or include the Tactile Warning Surface Indicator at edge of platform.</p> <p>Ensure safety and function of platform by providing 2-way pedestrian flow for all users, including people who use mobility devices, strollers, and luggage, avoiding potential for injury or interaction with the train dynamic envelope.</p> <p>Allow movement of maintenance equipment and other operations requirements on platform.</p> |
| iii)     | End of side platform width                                                                                                                                                         | 3600 mm                                                                                             | Equipment access and maneuvering through gate                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| iv)      | End of island platform width                                                                                                                                                       | 4880 mm                                                                                             | Minimum width associated with two (2) platforms, located on either side of island                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| v)       | Snow Storage along length of platform (where no snow melt system is in place)                                                                                                      | To be determined - per review and consultation with Metrolinx Operations and Owner of this standard | Snow storage is often required along the length of a platform for ease of maintenance, equipment availability, etc. when no snow melting system is in place                                                                                                                                                                                                                                                                                                                                                                   |

*Note: Additional pavement marking and signage to be provided for reduced platform clearances.*

### Mini-Platforms

- e) The following dimensions are to be applied in the siting and design of mini-platforms:
  - i) The centre line of the Mini-platform to the locomotive end of the main platform shall be 122.5m. Refer to Figure 5-2 for direction of locomotive.
  - ii) Dimensions of Mini-platforms shall follow Drawings MINI-001 for island platforms and Drawings MINI-002 and MINI-003 for side platforms.
  - iii) The Mini-platform shall remain unencumbered for accessible maneuvering and queuing.

### Vertical Clearances

- f) The following minimum vertical clearances are to be employed in siting canopies, structures and other infrastructure above the platform:
  - i) Minimum vertical clear height to any obstruction (i.e., static and digital signage) shall be 2440 mm above the finished floor.
  - ii) Additional vertical clearances from the track shall be as per Metrolinx Track Standards.

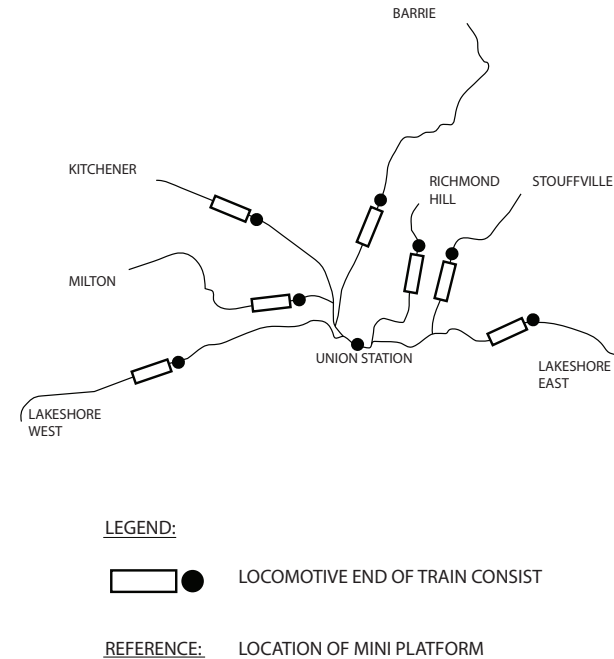


Figure 5-7 Typical orientation of locomotive end to locate Mini Platforms.

### 5.2.3.1 Clearances from Track

- a) Refer to Metrolinx Track Standards for the minimum horizontal/lateral clearance from the centre line of the track to the platform edge and all platform structures, including but not limited to canopies, roof overhangs, shelters, enclosures, and Mini-platform.
- b) Refer to Metrolinx Track Standards for the vertical clearance above top of rail to the platform and Mini-platform.
- c) Refer to General Guidelines for Design of Railway Bridges and Structures for the minimum clearance from the top of the tunnel to the underside of the rail and underside of bridge to the top of the rail.

### 5.2.3.2 Slopes

- a) Refer to Metrolinx Facilities Civil Engineering Standards for platform cross slopes and longitudinal slopes.
- b) Platform drainage design shall include positive drainage away from doors, structures and enclosures to prevent ingress of water.
- c) In areas of the platform that do not contain enclosures such as elevators, stairs, Mini Hub Rooms, and passenger shelters, the platform drainage design shall use linear drains to minimize drainage of water to the rail corridor.

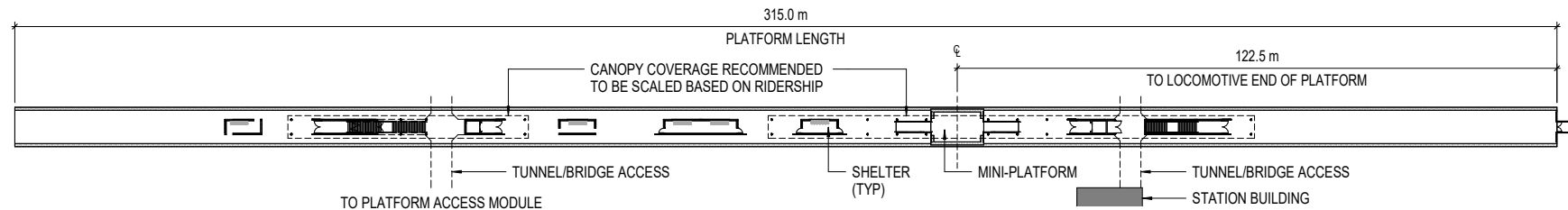


Figure 5-8 Plan of Island Platform illustrating access / egress locations.

### 5.2.4 Architectural Datums

Architectural datums shall be established continuously along the length of the platform to create a clear, unified horizontal expression that is consistent across all platform configurations. This approach aims to unify the expression of all platform elements and establish vertical zones defined by a consistent application of materials, signage, and servicing locations, as well as establish clear height limits across all platforms.

The following requirements shall apply to all platform elements described within this Section:

- a) Comply with envelope clearance requirements specified by Metrolinx, Canadian National Railway, Canadian Pacific Railroad, and/or VIA Rail, as required based on the station/corridor location.
- b) Where electrification is in scope, all elements that are within this zone are subject to electrification clearances, which may impact datums, and shall adhere to the requirements of Section 5.2.13 Overhead Contact System and Electrification and all referenced Electrification Standards.
- c) The four zones identified are as follows:  
Note: The highest point of the platform, inclusive of all slopes for drainage, shall be considered the "Top of Platform Level" (TOPL):

- i) Base Zone: 0 mm – 400 mm above TOPL.
  - 1. This zone refers to the lowermost section of all platform elements structures and enclosures, including curbs for lighting poles, OCS poles and all other fixtures. This section shall be resistant to de-icing salts, and able to withstand frequent cleaning and wet/dry cycles.
  - 2. Material at the base of all platform elements, structures, and enclosures shall be concrete as per the requirements within the Materials and Finishes section.
- ii) Cladding Zone: 400 mm above TOPL to the underside of canopy elements.
  - 1. This zone refers to areas where cladding panels and glazing are located, including areas within high contact zones to the underside of the canopy. This includes any signage elements required to be above passenger head clearance.
  - 2. Glazing shall be provided at a height starting no higher than 400 mm above TOPL and up to 2840 mm above TOPL for safety (both real and perceived) and natural surveillance purposes.
  - 3. Cladding and glazing panels shall be equally sized and spaced.
  - 4. To minimize solar heat gain and reduce glazing dimensions to improve replaceability, opaque panels shall be provided above glazing starting at 2840 mm above TOPL.



5. Cladding and glazing systems shall be coordinated with door heights, louvres, and signage, and shall maintain alignment across consistent horizontal datums, vertical modulations, panelization patterns, and standardized unit dimensions.
  6. Cladding or glazing panels shall be vertically continuous with no unnecessary horizontal joints.
  7. To minimize the need for flagging, service access points should be located within accessible reach for maintenance staff, while remaining outside designated clearance zones required for flagging.
- iii) Signage Zone: 2440 mm above TOPL.
1. This zone refers to areas where static and digital signage elements are located.
  2. Speakers, CCTV, and the related infrastructure shall be located within this zone.
- iv) Canopy Zone: 3350 mm above TOPL.
1. For Canopy design requirements, refer to Section 5.2.5 Platform Canopy.

d) Platform Glazing

- i) Transparency around elevators shall be provided to promote natural surveillance and CPTED.
1. Where glazing does not provide transparency into the cab or through the elevator shaft for CPTED, it may be replaced with opaque panels to match adjacent materials.
  2. To protect elevator hoistways from vandalism and reduce solar heat gain, glazing in front of the mechanical systems of an elevator hoistway is not required.
- ii) For areas where there is direct solar exposure, mitigations to reduce solar heat gain shall be provided.
1. Mitigations shall include the use of ceramic fritting and/or sun louvres.
  2. A sun study shall be provided to validate the design and orientation of louvres.

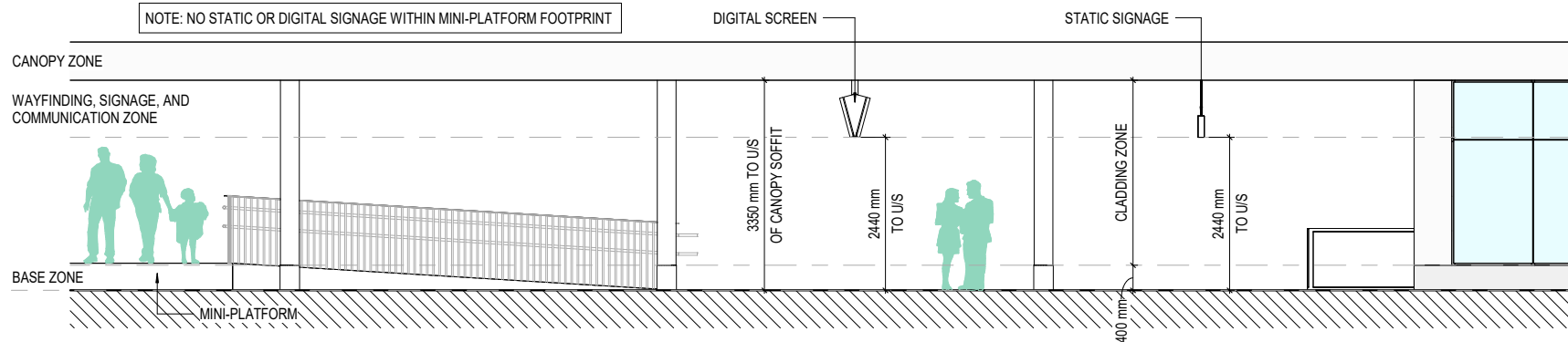


Figure 5-9 Architectural datums illustrating the four zones: Base zone, cladding zone, signage zone and canopy zone.

### 5.2.5 Platform Canopy

- a) Canopy coverage is intended to be scaled based on projected ridership.
- b) It is recommended that canopy coverage take into account project-specific needs and site conditions, including factors such as dwell times, consist length, access points, and connections with other transit services, as well as other factors such as, but not limited to, support for electrical and communication systems.
- c) For medium or higher ridership stations, where multiple entrances are provided and ridership is similarly distributed between primary and secondary access points, additional canopy coverage should be provided and take into account site-specific conditions. This may include providing additional coverage, such as continuous coverage along the secondary accessible path of travel to the Mini-platform, and confirmed through site-specific evaluation. Providing additional coverage improves comfort, safety, and accessibility for a broader range of users, particularly those using mobility aids or during adverse weather conditions, ensuring equitable access from entry points.
- d) For high-ridership and interchange stations, additional canopy coverage should be provided to extend to all platform shelters where supported by ridership and dwell time. This supports a balanced passenger distribution along the platform, mitigates localized congestion adjacent to vertical circulation elements, and minimizes operational and safety risks associated with crowding, thereby enhancing overall user flow and service quality.

Note: The extent of the canopy is to be determined on a project-specific basis in consultation with relevant stakeholders.

- e) At a minimum, the platform canopy shall:
  - i) provide continuous, unobstructed coverage along the primary barrier-free path of travel from the primary platform access point to over the Mini-platform so that users with mobility aids, strollers, and other assistive devices can move freely between the two points; and
  - ii) provide coverage between the Mini-platform and at least one (1) adjacent shelter to ensure a continuous barrier-free path of travel from the Mini-platform to an enclosed shelter.
- f) Vertical clearance from TOPL to the underside of the lowest point of the canopy shall be 3350 mm.
- g) The Platform Canopy shall be a single continuous plane with no variation in profile or height along its full length.
- h) To maintain a continuous datum across the platform, digital signage shall not be suspended directly above the Mini-platform.
- i) Where digital signage above the mini platform footprint is required, the vertical clearance from the top of the mini platform to the underside of the lowest point of the canopy shall be 3350 mm.

- j) Where a single continuous canopy plane is proven not possible, the canopy shall be continuous, with vertical upturns to ensure no gaps are resulting from the difference in height.
- k) The platform canopy roof shall have a minimum slope of 2% and maximum slope of 5% towards a roof drain or concealed linear drain connected to a rainwater leader. Refer to Metrolinx Facilities Civil Engineering Standards for engineering requirements.
- l) The platform canopy shall be integrated with passenger shelters and vertical circulation element enclosures where present.
- m) Lighting and other fixtures and amenities including but not limited to CCTV and digital signage, shall be integrated into the platform canopy support structure or soffit.
- n) Structural loading for the canopy shall account for additional loads due to digital signage, PV Panels, and periodic maintenance where personnel are required to access the canopy roof.
- o) Fall restraint system shall comply with the OBC and Metrolinx Standards and shall be installed outside of the OCS impact zone in accordance with applicable electrification standards.



Figure 5-10 Conceptual view of platform area illustrating materiality, and integration of lighting. Lighting design is subject to actual canopy design and photometric analysis.

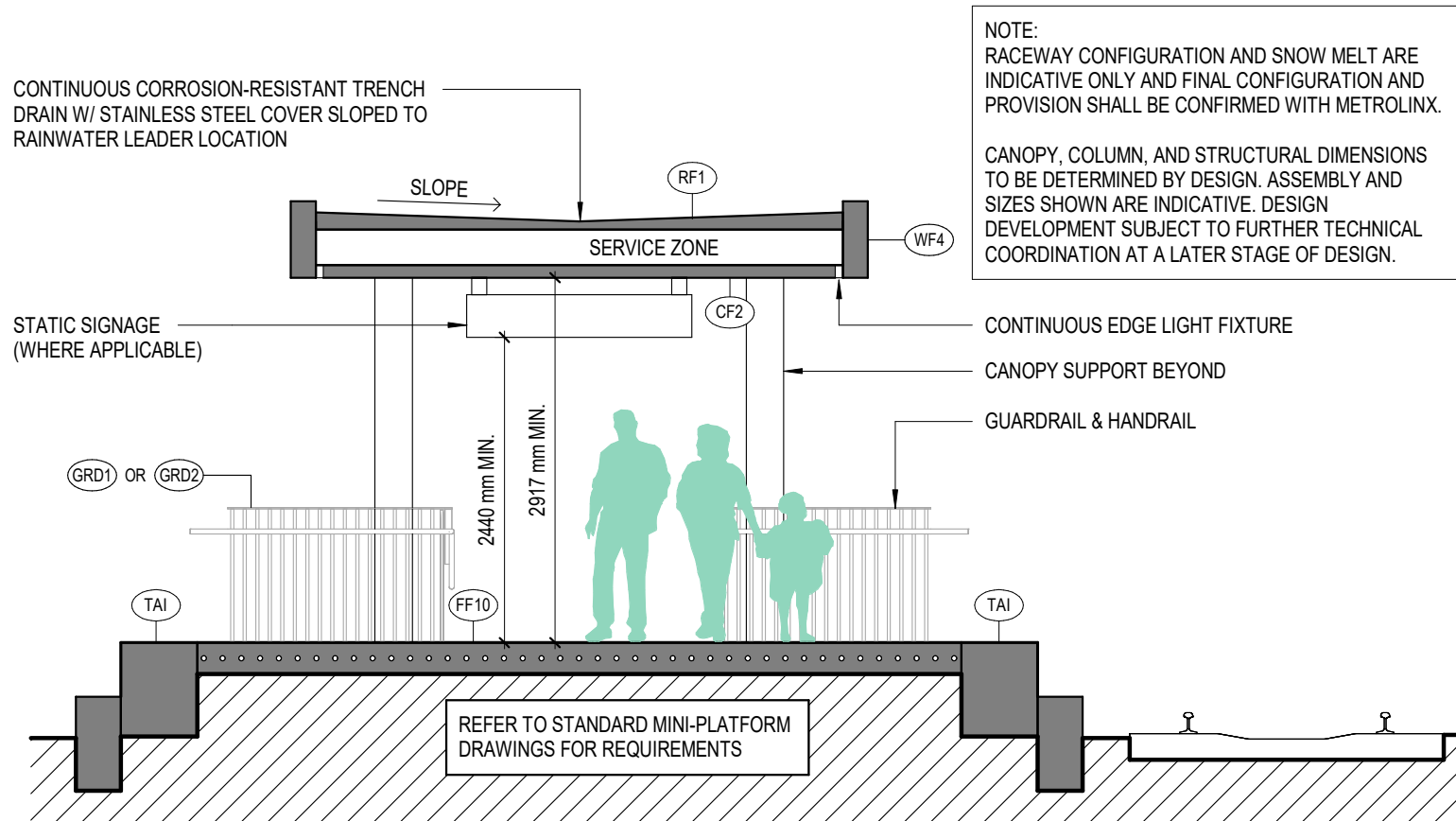


Figure 5-11 Section through centre platform canopy at mini-platform illustrating design intent for minimal canopy profile thickness, materiality and vertical clearances to underside of canopy and digital signage.

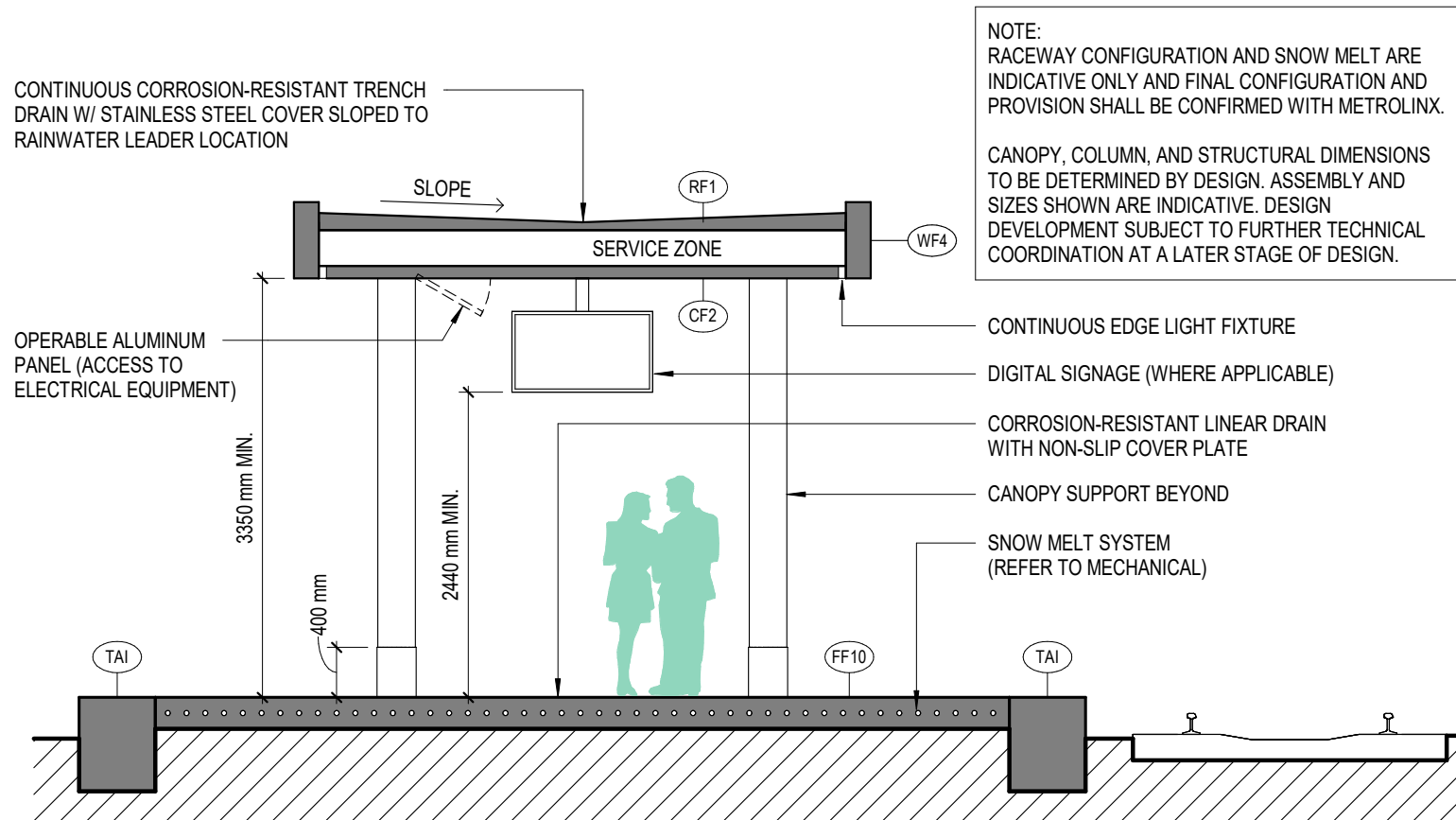


Figure 5-12 Section through centre platform canopy at mid-span illustrating design intent for minimal canopy profile thickness, materiality and vertical clearances to underside of canopy and digital signage.

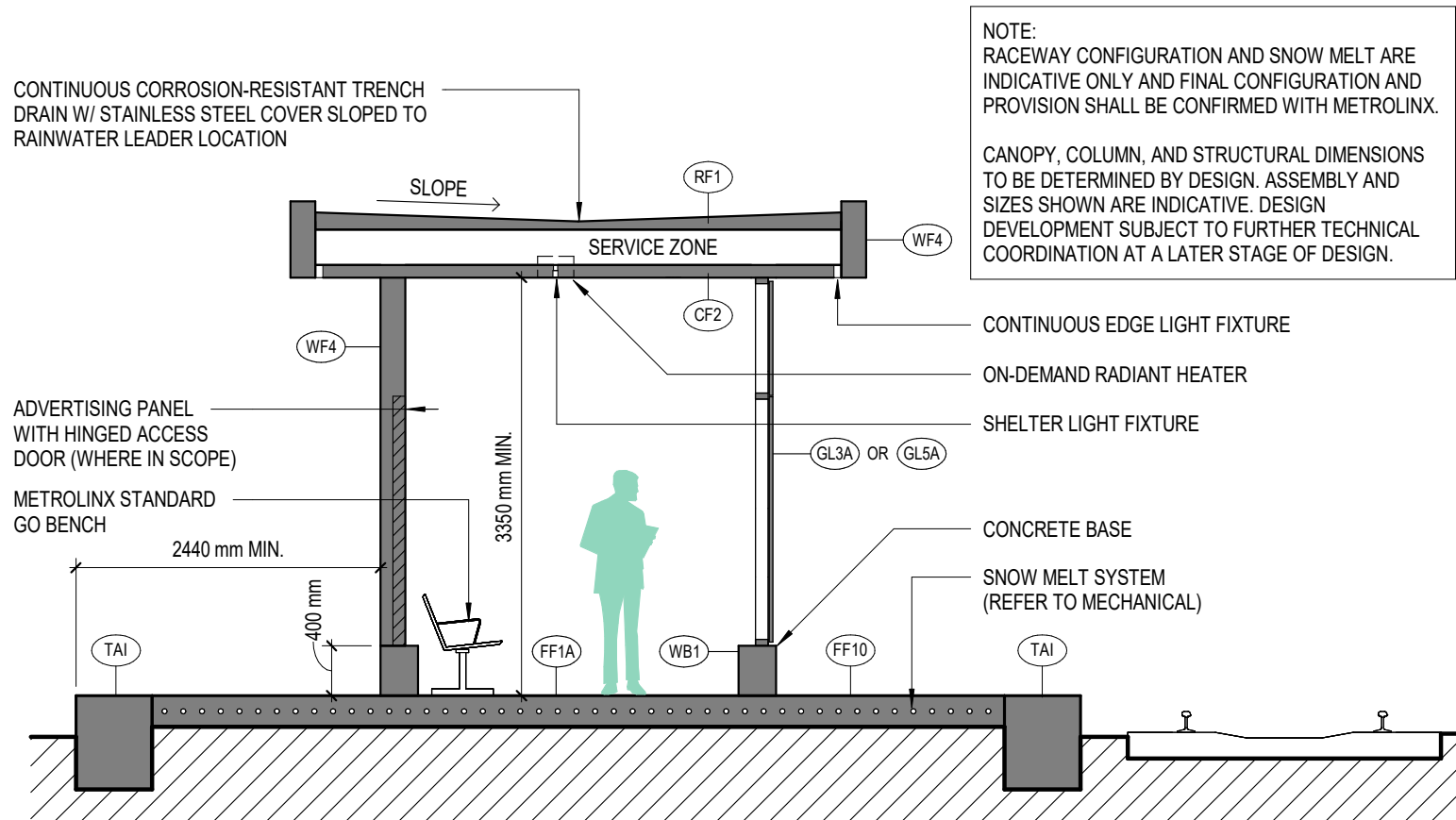


Figure 5-13 Section through central platform canopy at structural support illustrating design intent for minimal canopy profile thickness, integrated services within the canopy, and materiality.

### 5.2.6 Passenger Shelters and Enclosures

This section includes requirements related to public-facing platform enclosures, including Passenger Shelters and Enclosures such as wind walls and VCE (Vertical Circulation Elements). The intent is to provide a coherent and unified design approach for all major platform elements.

A common strategy for materiality and systems integration will also simplify operational and maintenance requirements through a kit-of-parts approach. The clarity and simplicity of architectural expression can be achieved through the integrated design of all systems and elements.

Shelters shall be provided in accordance with the following:

- a) Passenger Shelters and Enclosures shall comply with the dimensional requirements and clearances described in Architectural Datums and Platform Clearances.
- b) Designs shall strategically co-locate mechanical and electrical services within structural and massing elements to reduce visual clutter (e.g. drains and raceways within canopies).
- c) All exterior equipment and maintenance elements, including rooftop fall arrest/restraint systems, elevator overruns, etc., shall be hidden from view from platform level through strategic positioning and incorporation with the overall massing.
- d) Where a canopy is provided, Passenger Shelters and Enclosures shall be visually integrated with the Platform canopy, ensuring the enclosure extends to the underside of the platform canopy and is integrated.
- e) Floor elevations at door thresholds shall provide a positive slope away from the doors and entrances, a minimum of 2% and a maximum less than 5%, to ensure that water does not flow into Shelters and Enclosures.
- f) Doors shall not swing towards the platform edge.
- g) Power-operated doors shall be protected from swinging into the path of passenger circulation by a door swing guard. Refer to the Universal Design Standard (DS-02) for additional requirements.
- h) The following shelter allocation targets are recommended in accordance with station categorization ridership and platform planning requirements. These allocations are intended to promote even passenger distribution along the platform and support scalability relative to projected ridership levels, access patterns, and site-specific constraints. Final determination of the number of shelters shall be made on a project-specific basis.
  - i) Small Station Categorization - One (1) shelter per every four (4) train cars.
  - ii) Medium Station Categorization - One (1) shelter per every three (3) train cars.
  - iii) Large/Interchange Station Categorization - One (1) shelter per every two (2) train cars.
- i) At a minimum, one (1) Fully Enclosed Passenger Shelter shall be located within 25 m of the Mini-platform.
  - i) The shelter closest to the Mini-platform shall be barrier-free with power-operated doors.



- j) All shelter types shall include a minimum of two (2) 3-seater benches designed as per GO Standard Drawings;
- k) Refer to Universal Design Standard (DS-02) for clearance requirements.
- l) Lighting shall be provided per the requirements of the GO DRM.
- m) Refer to the Materials and Finishes Section for acceptable finish materials.

### 5.2.7 Shelter and Enclosure Types

To provide flexibility, multiple shelter typologies have been established to cater to ridership, project needs, environments, and circumstances.

Shelters and enclosure types shall comply with the following:

- a) Determination of the type of shelters shall be made on a project-specific basis.
- b) A maximum of two (2) semi-enclosed shelters shall be used per platform.
  - i) Where semi-enclosed shelters are provided, they shall be positioned beneath the canopy to ensure adequate weather protection for customers during inclement conditions.
- c) Where a shelter or enclosure is located beneath a canopy, the canopy shall extend beyond the shelter or enclosure footprint in front of doors and entryways by a minimum of 1000 mm or to the maximum extent possible while maintaining all required clearances including the train dynamic envelope.

### 5.2.7.1 Fully Enclosed Passenger Shelters

- a) In addition to the requirements in Passenger Shelters and Enclosures Section 5.2.6, Fully-Enclosed Passenger shelters shall conform to the following:
  - i) As required, include a service wall that can accommodate advertising panels.
  - ii) Include on-demand heating units and associated services shall be provided within shelters.
  - iii) Be designed to facilitate passive ventilation of the shelter enclosure to avoid the provision of active ventilation systems.
  - iv) Incorporate passive ventilation solutions (i.e., horizontal louvres) at the discretion of Metrolinx. Solutions shall not create unnecessary operational regimes and shall be designed as “low-tech” alternatives.
  - v) Provide swing doors at both ends of the passenger shelter, capable of being fixed in the open position.

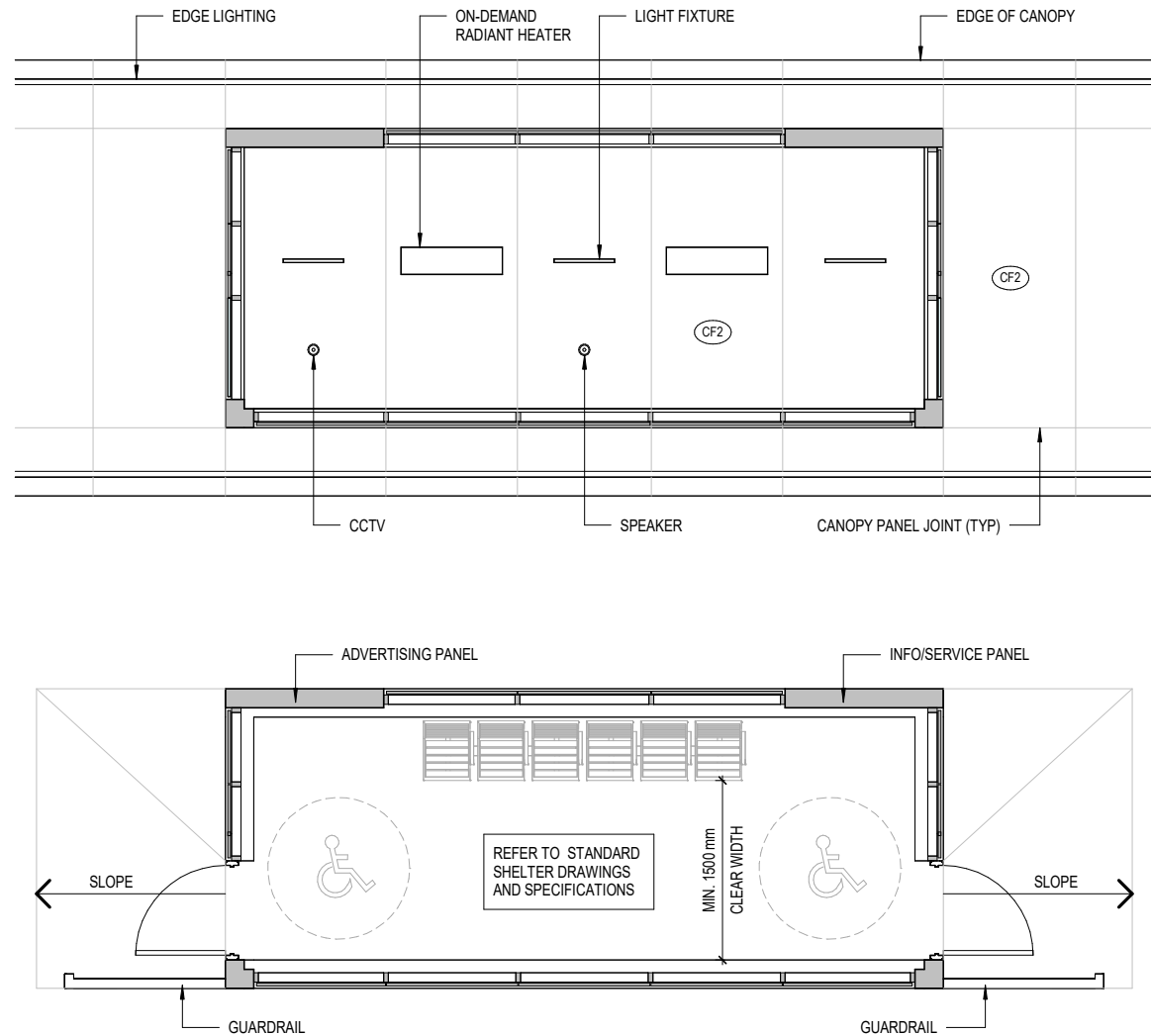


Figure 5-14 Reflected ceiling plan and plan of Fully-Enclosed Passenger Shelter Typology. For illustrative purposes only, refer to Shelter Drawings and Specifications.

### 5.2.7.2 Semi-Enclosed Passenger Shelters

- a) In addition to the requirements in Passenger Shelters and Enclosures Section 5.2.6, Semi-Enclosed Passenger shelters shall conform to the following:
  - i) Be designed with a glazed wind barrier on four sides of the area, with openings determined based on a wind study to determine the direction of the wind, in alignment with Figures 5-17 and 5-18.

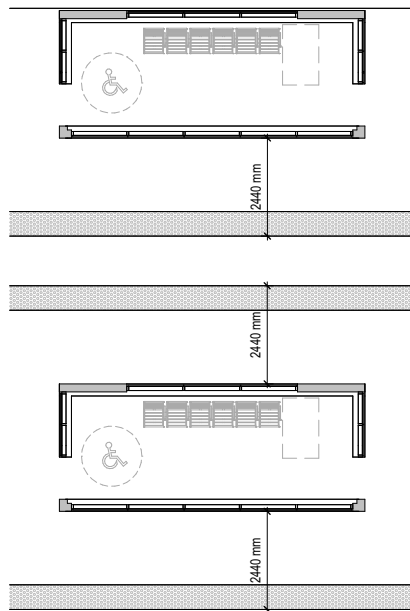


Figure 5-15 Plan of Semi-Enclosed Passenger Shelter Typology for Side and Centre/Island Platforms - Option 1. For illustrative purposes only, refer to Shelter Drawings and Specifications.

- ii) Incorporate an optically visible/contrasting edge, where a concrete curb is not provided, to ensure both customer safety and operational awareness to avoid damage.
- iii) Direct drainage within the shelter toward openings or perimeter edges to prevent water accumulation, particularly in areas not protected by a canopy.

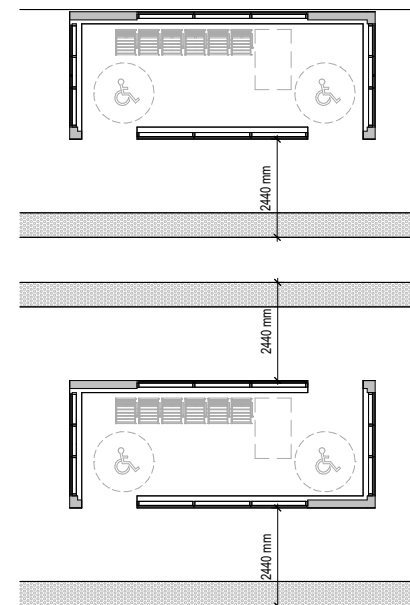


Figure 5-16 Plan of Semi-Enclosed Passenger Shelter Typology for Side and Centre/Island Platforms - Option 2. For illustrative purposes only, refer to Shelter Drawings and Specifications.

### 5.2.7.3 Double Passenger Shelters

- a) Where space permits, shelters may be combined to form a double-length passenger shelter.
- b) In addition to the requirements in Passenger Shelters and Enclosures Section 5.2.6, Double Passenger shelters shall conform to the following:
  - i) Accommodate the elements for each type of Fully Enclosed or Semi-Enclosed indicated in the previous Sections.
  - ii) Provide double of the seating requirements typical of one (1) shelter.

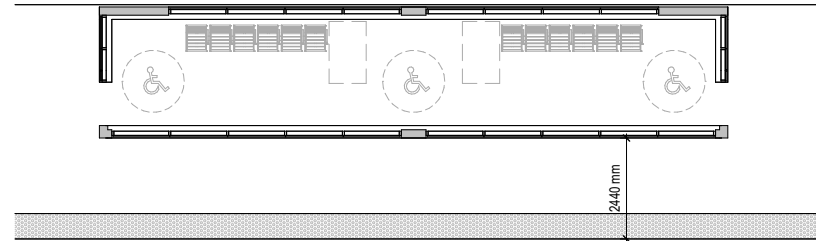


Figure 5-17 Plan of Double Semi-Enclosed Passenger Shelter. For illustrative purposes only, refer to Shelter Drawings and Specifications.

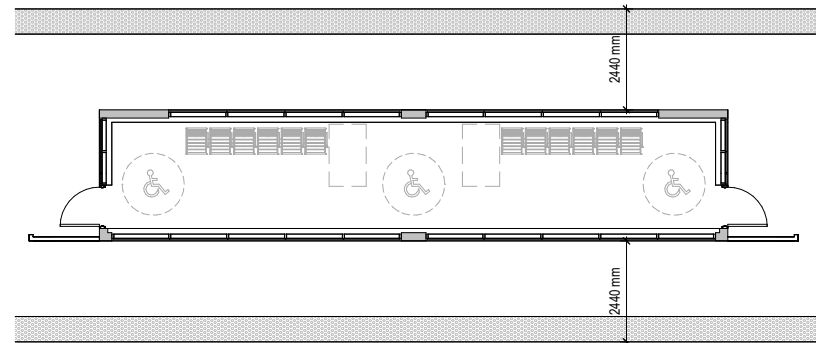


Figure 5-18 Plan of Double Fully-Enclosed Passenger Shelter. For illustrative purposes only, refer to Shelter Drawings and Specifications.

### 5.2.8 Mini-Platform

Barrier-free access to the train is provided by an accessible elevated Mini-platform that is aligned to train Car 5 (the designated accessible rail car).

- a) Refer to GO Standard Drawings for Mini-platform details and placement requirements.
- b) Mini-platform shall be free of any obstructions including columns.
- c) Provide ramps for the Mini-platform that are compliant with GO Standard Drawings.
- d) Provide a 5000 mm clear run-off area at the base of the ramps, free of obstructions.
- e) When locating and orienting the Mini-platform, the steps outlined below shall be followed:
  - i) Orient the mini-platform with an understanding of train consist orientation and operation.
  - ii) Locate the Mini-platform and rail platform dimensions, depending on the island or side platform configuration in accordance with the criteria and specifications and subsequent figures.

### 5.2.9 Support Structures Landing on Platform Areas

Where structural supports for bridges land on platforms, the following requirements shall be met:

- a) Supports shall be incorporated into other platform elements (i.e., VCE Enclosures, Mini Hub Rooms, etc) without creating unnecessary visual bulk or obscuring glazed areas.
- b) CPTED principles shall be adhered to. Blind spots, alcoves, dead ends, and other obstructions shall be avoided.
- c) Where supports land on the platform as isolated elements, a 2440 mm unobstructed horizontal clearance shall be provided on all sides of the support to avoid impeding passenger flow or creating blind spots.
- d) Where feasible, structural supports shall be clad with the same material (including colour and finish) as all other platform support structures. Where a structural support penetrates a canopy, cladding shall be provided to the underside of the canopy at a minimum. Refer to the Materials and Finishes section for acceptable finish materials.

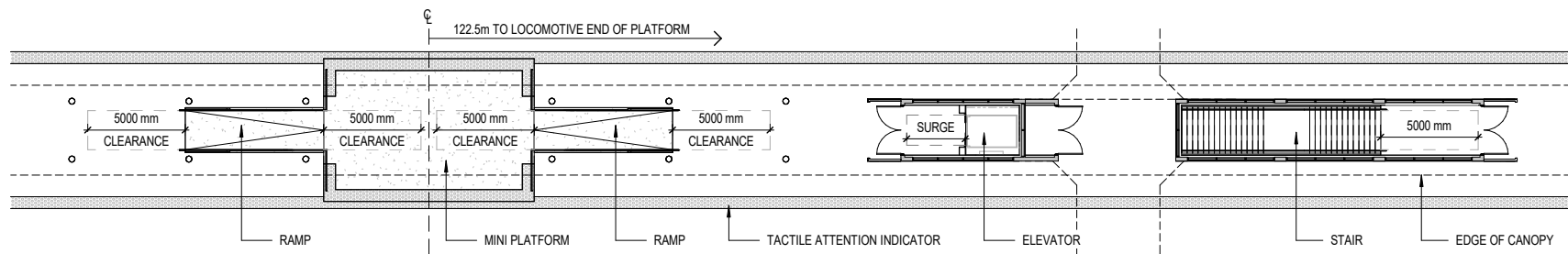


Figure 5-19 Plan of Mini-Platform - island platform

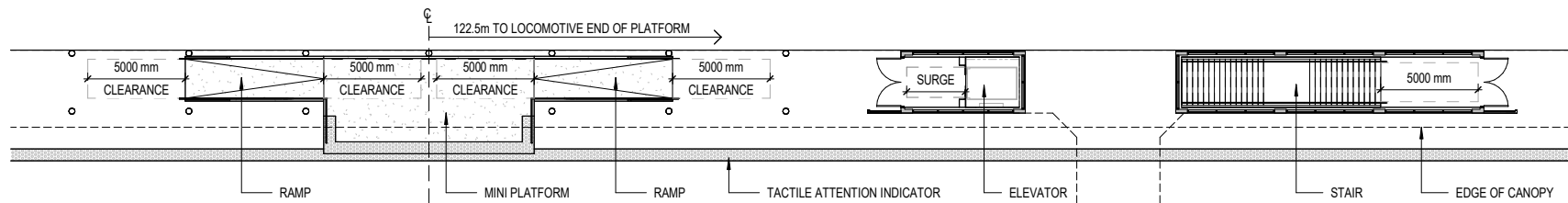


Figure 5-20 Plan of Mini-Platform - side platform

### 5.2.10 End of Platform Protection

- a) Ends of platforms shall be protected and clearly demarcated to all customers, including people with disabilities, by implementing a railing or guard located within the detection range of a visually impaired person using a cane.
- b) End of platform protection shall consist of a guard equipped with an outward-swinging, self-closing gate oriented toward the corridor.
- c) Gate mechanism shall remain closed during regular operation.
  - i) Gates shall swing outwards, away from the platform.
- d) A maintenance ramp no steeper than 1:8 slope shall be provided at platform ends to allow servicing from the nearest track crossing to the top of platform.
- e) Refer to Metrolinx Facilities Civil Engineering Standards for additional gate requirements.

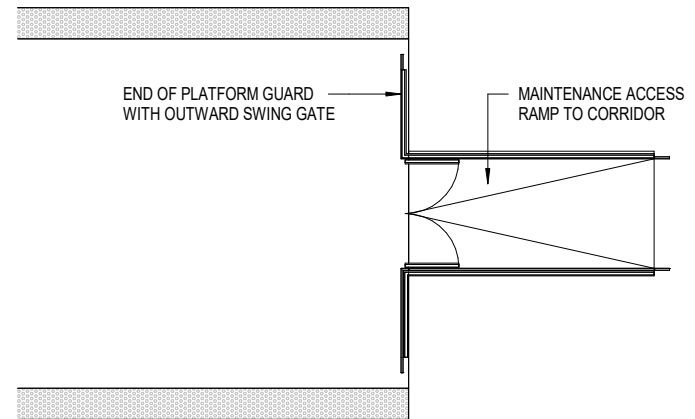


Figure 5-21 Plan of End of Platform illustrating end of platform guard with Maintenance Access to corridor.

### 5.2.11 Platform Signage

- a) Signage that is within the Signage Zone shall be aligned such that the bottom edge of all wayfinding elements are mounted at the same height. Refer to Architectural Datums for dimensional requirements.
- b) Wayfinding signs shall be either ceiling-mounted to the Platform Canopy (suspended), or wall-mounted to a Platform Envelope structure (i.e. VCE Enclosure or Passenger Shelter). Floor-mounted signs shall be avoided to minimize impeding the usable platform area.
- c) Where floor-mounted signs are proven to be the only suitable means of mounting signage, signs shall be mounted in a manner that does not impact natural passenger flow.
- d) Platform signage shall be oriented such that:
  - i) passengers do not have to turn their backs to the platform edge to read the sign; and
  - ii) passengers do not block surge spaces or queuing spaces to read the sign.
- e) Refer to the Wayfinding Design Standard (DS-03) for signage requirements.

#### 5.2.11.1 Digital Signage

- a) Technical design requirements shall conform to I&IT Specifications Standard for Digital Signage, Business Technology Telecommunications & Systems Standard and Business Technology's Pre-qualified Contractors/Vendors for LED LCD Monitor/Screen document.
- b) All contacts, controls, conduits, connections, outlets and other infrastructure elements shall be concealed from view to avoid tampering with screens.
- c) All digital signage shall be clearly legible, consistent, and intuitive. Screens shall have a non-glare finish.
- d) Ensure digital signs do not interfere with any other devices or static signage servicing the area.
- e) Provide a Digital Signage panel adjacent to the mini platform.
- f) Digital signage, including mounting supports, shall provide a minimum 2440 mm clear headroom above platform level.
- g) Refer to Section 10.8.1.3 for the number of digital signage.
- h) Placement and orientation requirements shall be coordinated with the Wayfinding Design Standard (DS-03).



### 5.2.12 Lighting

- a) Refer to the GO DRM for Exterior Lighting Illumination Levels.
- b) The lighting of the platform area, stairs, and elevator access points shall be provided by direct/indirect lighting fixtures which fixture's light cones on surface, aligned and parallel to the platform edge.
- c) At platforms without canopy soffits, lighting shall be provided by direct full cut-off lighting.
- d) The platform shall be uniformly illuminated along its entirety to avoid dark spots and provide even lighting along the platform edge.
- e) Lighting shall be easily accessible by maintenance and staff to minimize the use of mechanical equipment or devices such as scissor lifts for maintenance.
- f) Where light poles are provided, PA and CCTV elements shall be co-located where possible to reduce additional vertical elements and avoid visual clutter and spatial obstacles.
- g) Refer to the GO DRM for engineering requirements.



Figure 5-22 Conceptual view of platform area illustrating the integration of systems within the canopy, coordinated placement of fixtures and furnishings, and the distribution of passengers along the platform.

### 5.2.13 Overhead Contact System and Electrification

The Overhead Contact System (OCS) is an integral overhead power distribution system for train propulsion by the use of a continuous element stretching along all sections of the guideway. This infrastructure has a direct impact on both the transit customer and the communities that the system traverses through. The location and number of OCS poles are critical to the overall visual impact along the guideway, elevated guideway, grade separations and through portals. In addition to the impact of the poles and wires, there may be additional infrastructure attached to these poles that will need to be considered as part of the design, such as antennas and conduits.

This section shall be read in conjunction with the Electrification Enabling Works Standards for all requirements, dimensions, clearances, and other technical requirements.

- a) For integration with Station Elements such as Passenger Shelters, Canopy, and Vertical Circulation Enclosures, as well as standalone scenarios, refer to Performance Specifications for Electric Traction Enabling Works.
- b) OCS support poles, mounting hardware and associated elements shall be of a simple design and integrated with the other structural elements on the platform.
- c) OCS Poles shall be visually similar to exposed platform elements, such as finish and colour.
- d) Where feasible, OCS Poles shall be clad up to the canopy level in a manner identical to all other canopy support structures.

- e) Where cladding is provided for OCS Poles, it shall be flush with the pile cap and curb at platform level and comply with the requirements within the Materials and Finishes Section.
- f) Where poles are located near the edges of the platform adjacent to fencing, the design shall incorporate trespasser deterrence features such as anti-climb treatments, or shall position poles to prevent climbability.



Figure 5-23 Conceptual view of platform area illustrating the integration of a platform shelter with canopy structure and OCS pole.

## 5.3 PLATFORM SERVICES

### 5.3.1 Services Raceways

Simplicity of architectural expression shall be achieved through the visual integration of structures, systems, and services into the overall design. Further integration of structures, systems, and services shall be considered with respect to the relationship of the site to its context, the configuration of individually built elements on the site, the design of the public-facing buildings and infrastructure, and the material specification and construction detailing.

### 5.3.2 Communications and Electrical Equipment

- a) Refer to GO DRM for locations and requirements of all communications and electrical equipment and associated infrastructure.
- b) In public-facing areas, services shall not be surface-mounted, with the exception of equipment required to interface with the exterior or require a visible line of sight, including but not limited to CCTVs and PA speakers. All other services shall be concealed within cladding elements.
- c) Rough openings for service connections below the platform shall be coordinated and provisioned for during the design of the platform foundation, slab, and curbs.

### 5.3.3 Mini Hub Room

- a) Refer to GO DRM for the Mini Hub Room general design and engineering requirements.
- b) Exterior cladding shall match the platform material palette to give a consistent, cohesive, uniform appearance. This includes the wall shared by the Mini Hub Room and the enclosure.
- c) Materials and Finishes shall comply with the requirements of Materials and Finishes section.
- d) Mini Hub Rooms shall have minimal impact and be designed as background elements on the platform and co-located with other back-of-house elements (i.e. Elevator shaft, stair enclosure, or customer amenity).
- e) The Mini Hub Room location shall not impede passenger flow and be positioned so that they don't disrupt sight lines to be compliant with CPTED.
- f) Where a Mini Hub Room is located under a platform canopy, extend the exterior enclosure of the Mini Hub Room continuous up to the underside of the platform canopy.
- g) Where the location does not have a canopy, extend the exterior finish of the Mini Hub Room to the height of the adjacent structure (elevator or stairwell enclosure).
- h) Mini Hub Room access doors shall not swing towards the platform edge. Door swings shall not impede pedestrian flow.

### 5.3.4 Access Panels and Removable Cladding Panels

The following requirements apply to all access panels located on the platform:

- a) Provision shall be made to access conduits, rainwater leader clean-outs, and other services concealed behind the cladding.
- b) Services access, such as access panels and hand-wells, shall be flush with platform finishes.
- c) Access panels or removable cladding panels shall use tamper-proof mechanical fasteners, or a concealed hinged system designed to minimize the need to provide visible access hardware.
- d) Panels shall match the finish and colour of adjacent cladding materials and shall be rated for durability and performance in exterior environmental conditions.

### 5.3.5 Plumbing

- a) Platform drainage systems shall be designed in accordance with the GO DRM.
- b) Piping associated with the plumbing systems shall be concealed in all public areas and wherever else possible.
- c) At least one (1) recessed, lockable non-freeze hose bibb shall be provided at the platform level.
- d) Drainage shall be provided in pedestrian tunnels and in areas where water can be expected.
- e) At least one floor drain shall be provided at each level.

- f) Drains shall comply with the following requirements:

- i) Drain covers shall be corrosion-resistant, anti-slip, and designed to support the same live loads for which the surrounding construction is designed.
  - ii) Gratings shall be fixed into position to prevent movement and vibration, and gaps around the edges shall be sealed to prevent standing water and build-up of dirt.
- g) All piping, gutters, and rainwater leaders in exterior or unconditioned areas shall be heat-traced.
- h) Headers, valves and meters shall be located in dedicated rooms, separated from cross passages and shall not be located in public spaces.
- i) Gutters serving canopy roofs shall be covered with a stainless-steel cover to avoid clogs from dirt and debris.
- j) Rainwater leaders shall be concealed within cladding for canopy supports, vertical circulation element enclosures, or Passenger Shelters.
- k) Clean-outs shall be easily accessible via access panels.

### 5.3.6 Salt Bin

- a) Salt bins located on the platform shall be located outside of the pedestrian path of travel.

## 5.4 SHARED PLATFORM COORDINATION

This Section will describe the requirements when two modes of transit access the same platform (e.g., Subway, LRT, and GO Train). It shall be read in conjunction with applicable modal Architecture Design Standards.

- a) Where intermodal or interchange stations allow for cross-platform access, boundaries between connecting modes of transit shall be clearly delineated.
- b) The layout of connecting platforms shall not result in a width reduction below the required minimum clearances of the GO rail platform.
- c) Fare payment devices shall be required for customer fare payment of the connection mode of transit and shall remain within their respective zone of control.
- d) Wayfinding and signage shall clearly demarcate the zone of control for each transit service and orient passengers toward the correct mode of transit.
- e) Where the design of an interconnected platform does not include a fire separation between various modes of Transit, the Means of Egress shall consider the entire Platform Load, including all modes of transit.
- f) Where differences in platform heights occur:
  - i) Sloped walks or ramps shall be the preferred means of barrier-free access between platform levels.
  - ii) Stairs, elevators, and other lifting devices shall not be used to travel along the differing platform levels or to switch between modes.
  - iii) Barrier-free access to the platform shall be provided parallel to the platform edge only.

## A decorative graphic element consisting of a thick green line with several circular nodes at various points. The line starts vertically on the left, moves horizontally to the right, then diagonally down-right, then horizontally to the right again, then diagonally down-left, then horizontally to the right, and finally diagonally down-left towards the bottom right corner. There are six circular nodes along this path.

- 6.1** Overview and Intent
- 6.2** Requirements

## 6.1 OVERVIEW AND INTENT

The Bicycle Storage Module is an amenity intended for the storage of bicycles. Bike storage requirements are outlined in the Bike Infrastructure Standard and is delivered on a project-specific basis. Types of bicycle storage include:

- a) integrated secure bike room;
- b) standalone secure bike room;
- c) integrated covered bike shelter; and
- d) standalone covered bike shelter.

Bike storage shall provide a user-friendly solution for passengers to store their bikes at the station for periods of longer than two hours (long-term parking).

Bike Rooms and Shelters should be integrated into the station building or parking structure and integrated with the station design, aligning with the architectural language and materiality of the station building.

## 6.2 REQUIREMENTS

- a) Refer to Bike Infrastructure Design Standard (DS-07) for requirements.

[illegible]

- 7.1** Overview and Intent
- 7.2** Requirements



## 7.1 OVERVIEW AND INTENT

The retail strategy may include short-term pop-ups, “Grab and Go”, or long-term leased retail space within and outside the station environment.

Where retail is provided, it is intended to be a consistent and integrated amenity in stations. At Metrolinx, retail offerings are primarily “service-based” and may include:

- a) retail vending with potential for future-ready virtual vending;
- b) kiosks/pop-up retail; and
- c) leased tenant retail.

Retail and supporting infrastructure shall be strategically situated within the station to provide convenience for customers while avoiding disruption to daily transit operations. The inclusion of retail spaces requires careful planning and well-defined design and infrastructure provisions. These considerations ensure retail functions efficiently within the transit environment, supporting both operational effectiveness and a positive customer experience.

Retail should be integrated with the station design and align with the architectural language and materiality of the station building while maintaining the recognizable third-party brand.

The number, type and location of retail is determined on a project-specific basis.

## 7.2 REQUIREMENTS

### 7.2.1 Station Retail

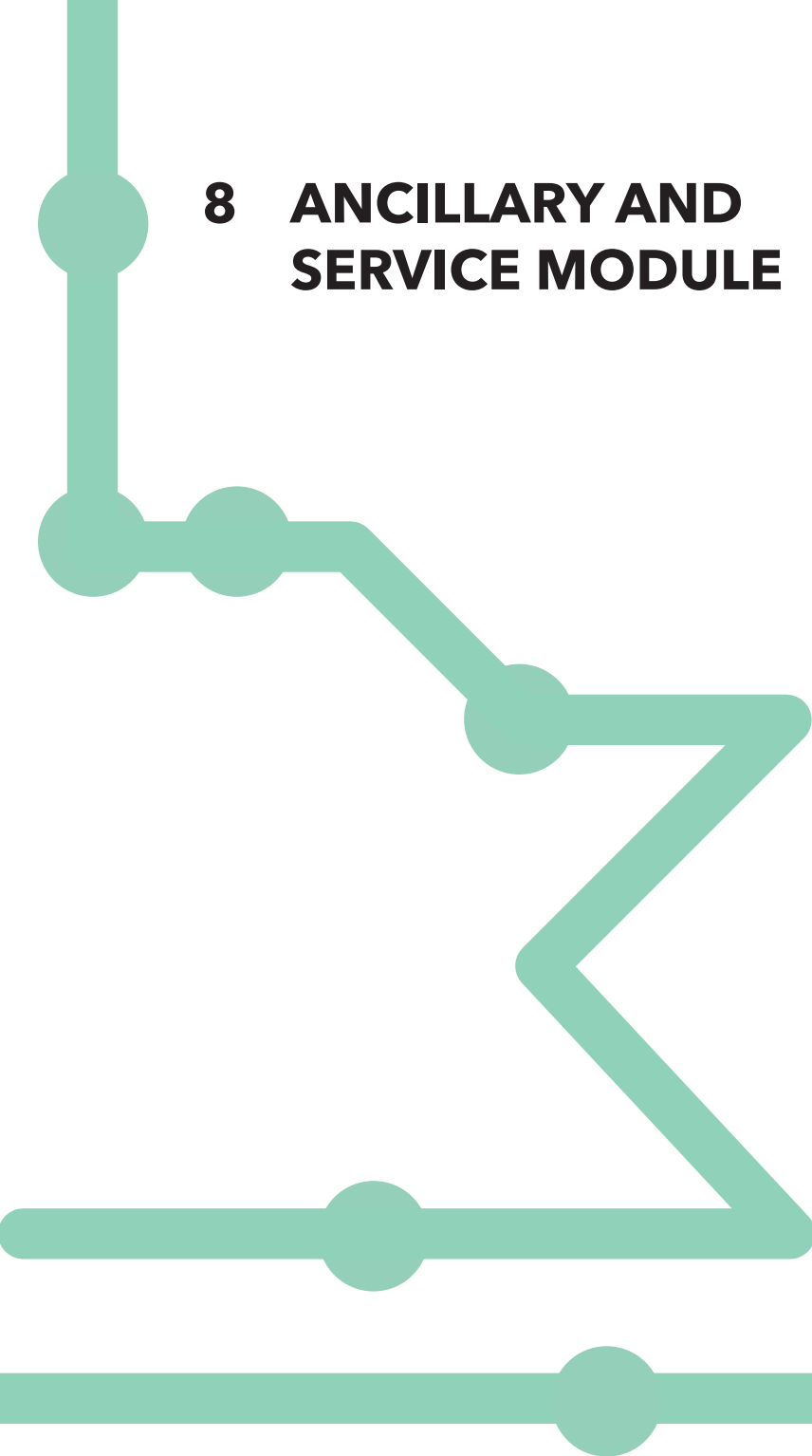
- a) Refer to the Metrolinx Retail Strategy and the Non-Fare Revenue Team for requirements.

### 7.2.2 Platform Retail

Where retail on platforms is within the scope of the project, the following shall apply:

- a) Retail shall be located to ensure they are accessible to all customers, regardless of abilities. Refer to Universal Design Standard (DS-02) for additional requirements.
- b) Retail vending and their associated queuing areas shall be located according to the following requirements:
  - i) Where possible, retail shall be positioned along the central axis of the platform in highly visible locations.
  - ii) Retail shall be placed so that queuing areas are parallel to the platform edge.
  - iii) Retail shall not impede any clearances specified in Metrolinx Standards.
  - iv) Retail shall not impede passenger flow and be positioned so they don't disrupt sight lines to be compliant with CPTED principles.
  - v) Where retail is installed against glazing, the back of the machine shall be concealed with film or other solutions so that it is not visible to customers.

- vi) Where possible, retail should be placed against an opaque wall.
- vii) Retail shall not be placed within the Mini-platform.
- viii) Retail shall be located so as not to impede access, circulation, surge areas, or maneuverability spaces, and shall not obstruct the clear path of travel to the mini-platform.
- ix) Where placed within shelters, they shall not impact customer usage of the shelter. Minimum clearance in front of the device shall not overlap with other clearances.
- x) Where not feasible, retail vending machines shall be located under canopy coverage to reduce the exposure to environmental and weather conditions.
- c) A 120 VAC, 60 Hz, 12A electrical outlet shall be provided adjacent to the vending machine.
- d) The electrical outlet shall be located close to the ground to allow for direct connection to the vending machine and in accordance with specification 26 05 00. Outlets within reach shall be tamperproof.
- e) All infrastructure including conduit and power and data cabling shall be concealed.
- f) Beverage vending machine dimensions shall be a maximum of 1830 mm H x 940 mm W x 864 mm D (72" H X 37" W X 34" D).
- g) Inventory access shall be accommodated from the front, with a minimum of 900 mm clear space in front of the retail vending machine, shall be provided to ensure there is adequate space for the vending machine door to fully open to restock the machine.
- h) Clearances for maintenance of vending machines, shall allow for 150 mm from the back wall and 50 mm on either side, unless otherwise specified by the equipment manufacturer. The most stringent requirements shall take precedence.
- i) Where possible, floor drain(s) shall be located near the vending machines. Floor drains shall be located flush with floor finish and shall not obstruct path of travel.
- j) For minimum surge space, refer to Platform Clearances Section.



## **8 ANCILLARY AND SERVICE MODULE**

- 8.1** Overview and Intent
- 8.2** Ancillary Areas
- 8.3** Service Building

## 8.1 OVERVIEW AND INTENT

Ancillary spaces and service areas house back-of-house infrastructure necessary for the operations of the Station Building. This includes the Mechanical Room, Electrical Room, and Communications Room.

The functions included within the service area will vary depending on the particular station requirements, but can include fuel storage, a backup generator room, snow melt equipment, as well as the main Mechanical, Electrical and Communications rooms that service the Station site.

Where ancillary or service areas face public roads or station entrances, their façades shall be carefully treated to integrate with the overall station architecture. Though secondary in focus, these elements should use consistent materials, landscaping, and screening to minimize visual impact.

Functions should be consolidated where possible to reduce the number of rooms or standalone structures.

## 8.2 ANCILLARY AREAS

### 8.2.1 Mechanical Room(s)

- a) Refer to the GO DRM Mechanical section for requirements.
- b) Mechanical rooms shall have direct access at grade through double doors.
- c) Fixtures and furnishings shall include:
  - i) power receptacles;
  - ii) floor drains;
  - iii) spare and additional filters;
  - iv) storage shelves and/or cabinets;
  - v) eye-wash station;
  - vi) interior hose bibb; and
  - vii) exterior non-freeze hose bibb.

### 8.2.2 Electrical Space(s)

- a) Refer to GO DRM Electrical section for requirements.
- b) Electrical rooms shall have direct access from building exterior for after-hour access.

### 8.2.3 Communication Space(s)

- a) Refer to the GO DRM Communication section for requirements.
- b) Communications Room shall have direct access from the building exterior for after-hours access.
- c) They shall be located in proximity to the electrical room.

#### 8.2.4 Ancillary Equipment Screening

- a) Where there are multiple rooftop units, these units shall be grouped together, located at the back of the roof and screened, using architectural louvres.
  - i) Louvre design to match Station modulation and finishes in the façade. Colours shall match the colour of the adjacent walls.
  - ii) Ancillary structures shall limit all exterior-mounted mechanical components and serviceable modules to a single elevation, screened from the public.
  - iii) The rooftop of any large ancillary equipment, such as generators, shall be treated as a 5th elevation where it can be viewed from above, for example in urban areas, and care shall be taken to create a visually cohesive and organized arrangement of rooftop elements.
  - iv) Architectural louvres shall be used as screening of these units where they are viewed from adjacent properties and be coloured to match equipment.
- b) Vents and mechanical elements shall be screened using a consistent screen and material palette that is part of the overall design language.
  - i) Screening from public view shall maintain a consistent screen material and colour.
- c) Where large ancillary equipment, such as generators, are located outside of the station building ancillary module and are in proximity to public view, screening shall be used to minimize their presence and visual impact.
  - i) Screening shall use consistent cladding, colours and material palette (including louvres) from the kit-of-parts used in the adjacent station cladding.
  - ii) Design of screening shall match the Station modulation and finishes in the façade.
  - iii) Ancillary equipment shall be strategically placed to obscure their visibility using building massing and screening.
  - iv) A perimeter enclosure shall be used to provide security, spatial and visual separation for ancillary structures.
  - v) Chain link or any other transparent fencing shall not be used.
  - vi) Equipment identified for installation in secured areas shall be protected by an access control system that restricts entry to authorized personnel only, as required by Operations.
  - vii) Where located adjacent to buildings or structures, the screening shall reflect the design language, material palette, and kit of parts of the building.
    - 1. The height of the screening shall align with architectural datums of the adjacent building or structure.
  - viii) Where ancillary structures are not integrated with other buildings or structures, they shall be located to minimize visual impact and not impede pedestrian and vehicular circulation.

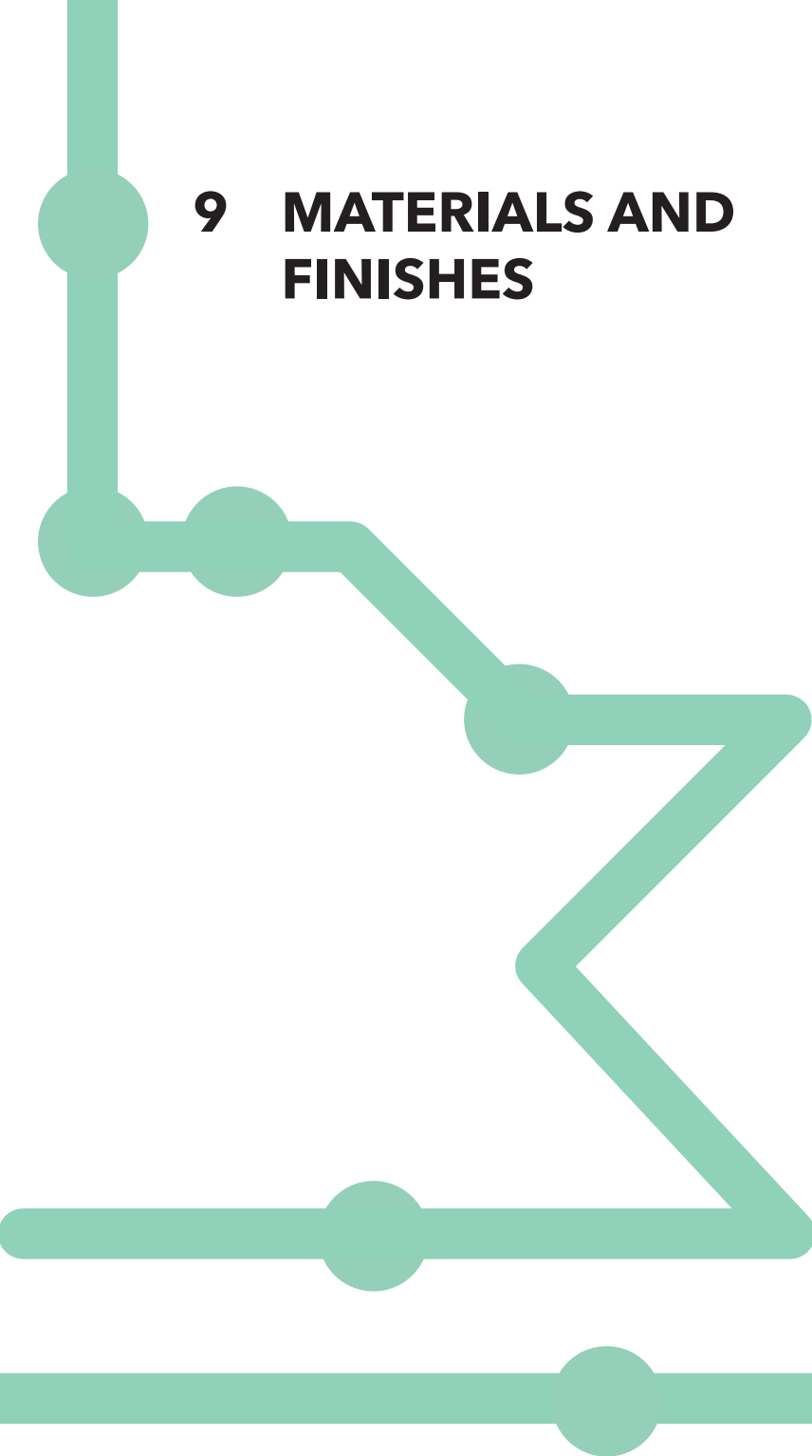
- ix) The height of the screening shall be designed to accommodate visual concealment of the equipment.
- x) The design and placement shall conform with CPTED principles.
- xi) Screening shall be comprised of precast concrete panels, prefinished aluminum panels, prefinished aluminum architectural louvres and/or material to match adjacent building material palette.
- xii) Screening shall be secure, anti-climb, anti-cut, and vandal-resistant.
- xiii) Screening shall be designed to allow for easy removal or replacement of equipment.
- xiv) Screening materials shall be selected and designed to allow for exhaust and air flow as required by the enclosed equipment, to be confirmed by engineer.
- xv) Where space permits, screening shall be complemented with landscaping, setback 500 mm around the perimeter of the screening, to reduce its visual impact and shall adhere to CPTED principles.
- xvi) A minimum of two (2) access points shall be provided.
  - 1. Doors shall swing inwards where the openings face the public, not to impede pedestrian movements, unless proven not possible.

- d) Where structures and/or enclosures are located within parking areas or along vehicular routes, bollards shall be provided to protect from vehicular traffic.
  - i) A raised curb may be considered but shall have consideration to allow for natural site drainage.

### 8.3 SERVICE BUILDING

The service building may consist of the following spaces:

- snow melt system (i.e. boiler and controls);
  - emergency generator;
  - diesel storage;
  - main mechanical;
  - main electrical; and
  - main communications.
- a) Refer to the GO DRM for back-of-house space requirements.
  - b) Areas shall be consolidated with other service spaces to minimize the amount of building on site.
  - c) Direct access shall be provided at grade to the Snow Melt System and Emergency Generator.



## 9 MATERIALS AND FINISHES

- 9.1 Material and Finish Design Strategy
- 9.2 Finishes Schedule

## 9.1 MATERIAL AND FINISH DESIGN STRATEGY

Exterior and interior architectural finishes and materials along the customer journey impact the customer experience.

- a) Where alternative materials or finishes are proposed, such as adjacent to heritage structures, they shall:
  - i) meet or exceed the performance criteria of the materials being replaced;
  - ii) be subject to review and approval by the Owner of this Standard; and
  - iii) comply with requirements set out in this document and the Project Agreement (PA).
- b) Selected materials shall incorporate graffiti-resistant properties, coatings, and design strategies to deter or minimize vandalism.
  - i) Materials and finishes used in public-facing high-contact zones shall be resistant to graffiti and allow for effective cleaning without material degradation.
- c) Materials and finishes shall conform to Section 9.2 Finishes Schedule.
- d) Refer to Metrolinx Architectural Materials and Finishes Design Standard for material performance and durability requirements.



## 9.2 FINISHES SCHEDULE

The following Finishes Schedules shall be read in conjunction with the corresponding Sections applicable to each listed location, where additional requirements are specified. For example, tunnel finishes identified in the Finishes Schedules shall be coordinated with the requirements in Section 3.7.

### 9.2.1 Material and Finishes Schedule

Alternate finishes, textures, shapes, and colours for the materials in Table 9-1 may be proposed through the Engineering Exception process to the Owner of this Standard, with justification, on a project-specific basis. Proposals shall be submitted with supporting documentation for review and approval.

Table 9-1: FINISHES SCHEDULE

| ELEMENT      | CODE | DESCRIPTION                                                                                                                                                                         | APPLICATION         | LOCATION                                                                                                  |
|--------------|------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|-----------------------------------------------------------------------------------------------------------|
| Floor Finish | FF1A | <b>Description:</b> Sealed Concrete Floor<br><b>Colour:</b> Light Grey<br><b>Finish:</b> Clear sealer                                                                               | Exterior & Interior | Mechanical Room, Maintenance Room                                                                         |
|              | FF1B | <b>Description:</b> Hardened Concrete Floor<br><b>Colour:</b> Light Grey<br><b>Finish:</b> Brushed                                                                                  | Exterior & Interior | Platform Surface (Alternative to FF10), Platform Access Module Tunnel Level, all VCE, Bike Storage Module |
|              | FF2  | <b>Description:</b> Granite Floor Tile<br><b>Dimensions:</b> 305 mm x 610 mm<br><b>Thickness:</b> 20 mm<br><b>Colour:</b> Medium Grey<br><b>Finish:</b> Flamed                      | Interior            | Platform Access Module at Grade, Waiting Area, Retail Module                                              |
|              | FF2A | <b>Description:</b> Granite Floor Tile<br><b>Colour:</b> Charcoal Grey<br><b>Finish:</b> Flamed<br><b>Note:</b> Pre-formed treads with nosing, and risers with integral cove.       | Interior            | VCE (Alternative to FF1B)                                                                                 |
|              | FF2B | <b>Description:</b> Granite Floor Tile - Accent<br><b>Colour:</b> Light Grey<br><b>Finish:</b> Flamed<br><b>Note:</b> Pre-formed treads with nosing, and risers with integral cove. | Interior            | VCE (Accent to FF2A)                                                                                      |

| ELEMENT      | CODE | DESCRIPTION                                                                                                                                                                                                                                                               | APPLICATION         | LOCATION                                                                                                      |
|--------------|------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|---------------------------------------------------------------------------------------------------------------|
| Floor Finish | FF3  | <b>Description:</b> Porcelain Floor Tile<br><b>Dimensions:</b> 305 mm x 610 mm<br><b>Thickness:</b> 10 mm<br><b>Colour:</b> Slate Gray<br><b>Finish:</b> Matte                                                                                                            | Interior            | Washrooms, Staff Support Facilities                                                                           |
|              | FF5  | <b>Description:</b> Fluid-Applied Epoxy Flooring<br><b>Colour:</b> Clear<br><b>Finish:</b> Anti-static finish                                                                                                                                                             | Interior            | Mini-Hub Room, Electrical Room, Communications Room                                                           |
|              | FF6  | <b>Description:</b> Recessed Floor Grille – Stainless Steel<br><b>Dimensions:</b> 3,000 mm (length) x width to match entry/exit door width<br><b>Finish:</b> No.4 Brushed<br><b>Note:</b> C/W drain pan, surface shall be recessed flush with the adjacent finished floor | Interior            | Station Building Entrances                                                                                    |
|              | FF8  | <b>Description:</b> Resilient Sheet Flooring<br><b>Colour:</b> Slate Grey                                                                                                                                                                                                 | Interior            | Staff Support Facilities                                                                                      |
|              | FF10 | <b>Description:</b> Asphalt<br><b>Colour:</b> Black                                                                                                                                                                                                                       | Exterior            | Platform Surface (Alternative to FF1B)                                                                        |
|              | TAI  | <b>Description:</b> Tactile Attention Indicator<br><b>Dimensions:</b> Refer to Universal Design Standard (DS-02)<br><b>Colour:</b> Yellow (Platform Edge), Refer to Universal Design Standard (DS-02)                                                                     | Exterior & Interior | Platform Edge, Stairs & Ramps (as per applicable codes)                                                       |
| Wall Base    | WB1  | <b>Description:</b> Concrete Base<br><b>Height:</b> 400 mm A.F.F.<br><b>Colour:</b> Light Grey<br><b>Finish:</b> Clear sealer                                                                                                                                             | Interior            | Station Building Modules, all vertical structural elements (i.e., light/equipment poles), Platform Enclosures |
|              | WB2  | <b>Description:</b> Granite Base<br><b>Height:</b> 150 mm A.F.F.<br><b>Colour:</b> Medium Grey<br><b>Finish:</b> Flamed                                                                                                                                                   | Interior            | All areas with FF2                                                                                            |

| ELEMENT     | CODE | DESCRIPTION                                                                                                                                                                                                                                                                                        | APPLICATION         | LOCATION                                                                          |
|-------------|------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|-----------------------------------------------------------------------------------|
| Wall Base   | WB3  | <b>Description:</b> Porcelain Tile Base<br><b>Height:</b> 150 mm A.F.F.<br><b>Colour:</b> Slate Grey<br><b>Finish:</b> Matte                                                                                                                                                                       | Interior            | All areas with FF3                                                                |
|             | WB5  | <b>Description:</b> Integral Fluid-Applied Epoxy Cove Base<br><b>Height:</b> 150 mm A.F.F.<br><b>Colour:</b> Clear                                                                                                                                                                                 | Interior            | All areas with FF5                                                                |
|             | WB6  | <b>Description:</b> Stainless Steel Base - 16-gauge, Grade 304 (typical), Grade 316 (where exposed to moisture)<br><b>Height:</b> 150 mm A.F.F. (typical), 400 mm around standalone columns<br><b>Finish:</b> No.4 Brushed                                                                         | Interior            | Self-Serve Hub, Platform Access Tunnels where WF3A is located                     |
|             | WB7  | <b>Description:</b> Rubber Base<br><b>Height:</b> 100 mm (BOH), 150 mm (FOH, exposed to public view)<br><b>Colour:</b> Black                                                                                                                                                                       | Interior            | All areas with FF1A                                                               |
|             | WB8  | <b>Description:</b> Integral Resilient Sheet Base<br><b>Height:</b> 150 mm A.F.F.<br><b>Colour:</b> Slate Grey                                                                                                                                                                                     | Interior            | Staff Support Facilities                                                          |
| Wall Finish | WF1  | <b>Description:</b> Concrete Wall<br><b>Colour:</b> Light Grey<br><b>Finish:</b> Smooth architectural finish with anti-graffiti coating                                                                                                                                                            | Exterior & Interior | Platform Access Tunnel (Alternative to WF3A), VCE Enclosures, Bike Storage Module |
|             | WF3A | <b>Description:</b> Porcelain Wall Tile<br><b>Dimensions:</b> 2,440 mm x 1,200 mm<br><b>Thickness:</b> 6 mm<br><b>Colour:</b> Light Grey (Pantone 20-0082 TPM)<br><b>Finish:</b> Matte<br><b>Note:</b> Porcelain panels shall be demountable or hinged for service access and inspection purposes. | Interior            | Platform Access Tunnel (Alternative to WF1)                                       |

| ELEMENT     | CODE | DESCRIPTION                                                                                                                                                                                                                                                                                                                                              | APPLICATION | LOCATION                                                                                                                   |
|-------------|------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|----------------------------------------------------------------------------------------------------------------------------|
| Wall Finish | WF3B | <b>Description:</b> Porcelain Wall Tile<br><b>Dimensions:</b> 2,440 mm x 1,200 mm<br><b>Thickness:</b> 6 mm<br><b>Colour:</b> White (Pantone 11-0601 TPG)<br><b>Finish:</b> Matte                                                                                                                                                                        | Interior    | Platform Access Module, Waiting Area, Retail Module                                                                        |
|             | WF3C | <b>Description:</b> Porcelain Wall Tile<br><b>Dimensions:</b> 152 mm x 305 mm (minimum), 610 mm x 1,220 mm (maximum)<br><b>Thickness:</b> 5 mm<br><b>Colour:</b> Light Grey (Pantone 20-0082 TPM)<br><b>Finish:</b> Matte                                                                                                                                | Interior    | Washrooms                                                                                                                  |
|             | WF4  | <b>Description:</b> Prefinished Aluminum Panel or Aluminum Composite Panel (ACP)<br><b>Colour:</b> Light Grey (Pantone 20-0082 TPM)<br><b>Finish:</b> Matte<br><b>Note:</b> Pre-formed and shop-painted, spline and aluminum track colour to match panel, pre-formed folded corners, maximum 10 mm horizontal and vertical reveals, concealed fasteners. | Exterior    | Platform Module (i.e., exterior finish panels to vertical structural supports, canopy, passenger shelters, VCE enclosures) |
|             | WF4A | <b>Description:</b> Prefinished Aluminum Panel or Aluminum Composite Panel (ACP)<br><b>Colour:</b> Light Grey (Pantone 20-0082 TPM)<br><b>Note:</b> Rain-screen assembly with concealed fasteners.                                                                                                                                                       | Exterior    | Support Facilities Module, Platform Access Module, Bike Storage Module, Retail Module                                      |
|             | WF4B | <b>Description:</b> Prefinished Aluminum Panel or Aluminum Composite Panel (ACP)<br><b>Colour:</b> Medium Grey (Pantone 2333 C)<br><b>Note:</b> Rain-screen assembly with concealed fasteners.                                                                                                                                                           | Exterior    | Ancillary and Service Module                                                                                               |
|             | WF4C | <b>Description:</b> Prefinished Aluminum Panel or Aluminum Composite Panel (ACP)<br><b>Colour:</b> Pantone 7549 CP                                                                                                                                                                                                                                       | Exterior    | Exterior Self-Serve Hub                                                                                                    |
|             | WF10 | <b>Description:</b> Gypsum Wall Board<br><b>Colour:</b> White<br><b>Finish:</b> Satin enamel paint<br><b>Note:</b> Impact resistant and moisture-resistant.                                                                                                                                                                                              | Interior    | Staff Support Facilities                                                                                                   |

| ELEMENT             | CODE | DESCRIPTION                                                                                                                                                                                                                                                                                                                                                      | APPLICATION | LOCATION                                                                                      |
|---------------------|------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|-----------------------------------------------------------------------------------------------|
| Wall Finish         | WF12 | <b>Description:</b> Concrete Masonry Unit – Back-up Wall<br><b>Colour:</b> White<br><b>Finish:</b> Satin enamel paint<br><b>Note:</b> Refer to GO DRM for additional requirements.                                                                                                                                                                               | Interior    | Staff Support Facilities, Mini-Hub Back-up Walls                                              |
| Finish              | PT2  | <b>Description:</b> Exterior Paint<br><b>Colour:</b> Charcoal or Black<br><b>Note:</b> OPSS 1704 Paint Coating System                                                                                                                                                                                                                                            | Exterior    | Service poles not enclosed with cladding, End of Platform Fences, Public-Facing Fences        |
| Curtain Wall System | CW2A | <b>Description:</b> Curtain Wall System – Two-Sided Structural Silicone Glazing<br><b>Glazing:</b> Vision Glass (GL1A)<br><b>Height:</b> Refer to building and platform Architectural Datums sections (2.6.11 and 5.2.4)<br><b>Colour:</b> White, Clear Anodized, or Charcoal. Mullion colour shall be coordinated with adjacent exterior and interior finishes. | Exterior    | Platform Module (Alternative to GL3A/GL5A), Platform Access Module, Support Facilities Module |
|                     | CW2B | <b>Description:</b> Curtain Wall System – Two-Sided Structural Silicone Glazing<br><b>Glazing:</b> Gradient Fritted Vision Glass (GL1B)<br><b>Colour:</b> Same as CW2A                                                                                                                                                                                           | Exterior    | Platform Module (Alternative to GL3A/GL5A), Platform Access Module, Support Facilities Module |
|                     | CW2C | <b>Description:</b> Curtain Wall System – Two-Sided Structural Silicone Glazing<br><b>Glazing:</b> 80% Fritted Vision Glass (GL1C)<br><b>Colour:</b> Same as CW2A                                                                                                                                                                                                | Exterior    | Platform Module (Alternative to GL3A/GL5A), Platform Access Module, Support Facilities Module |
|                     | CW2D | <b>Description:</b> Curtain Wall System – Two-Sided Structural Silicone Glazing<br><b>Glazing:</b> Fritted Spandrel Glass (GL1D)<br><b>Colour:</b> Same as CW2A                                                                                                                                                                                                  | Exterior    | Platform Module (Alternative to GL3A/GL5A), Platform Access Module, Support Facilities Module |
| Glazing             | GL1A | <b>Description:</b> Insulated Glass Unit (Vision Glass)<br><b>Height:</b> Refer to building and platform Architectural Datums sections (2.6.11 and 5.2.4)<br><b>Note:</b> Double-glazed, Low-E coating on surface #2 or #3, Bird-Friendly Frit on Surface #1.                                                                                                    | Exterior    | Platform Module (Alternative to GL3A/GL5A), Platform Access Module, Support Facilities Module |

| ELEMENT        | CODE | DESCRIPTION                                                                                                                                                                                                                                                                                                                                                                            | APPLICATION         | LOCATION                                                                                      |
|----------------|------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|-----------------------------------------------------------------------------------------------|
| Glazing        | GL1B | <b>Description:</b> Insulated Glass Unit (Gradient Fritted Vision Glass)<br><b>Note:</b> Double-glazed, Low-E coating on surface #2 or #3, 20-80% white ceramic frit on Surface #1.                                                                                                                                                                                                    | Exterior            | Platform Module (Alternative to GL3A/GL5A), Platform Access Module, Support Facilities Module |
|                | GL1C | <b>Description:</b> Insulated Glass Unit (80% Fritted Vision Glass)<br><b>Note:</b> Double-glazed, Low-E coating on surface #2 or #3, 80% white ceramic frit on Surface #1.                                                                                                                                                                                                            | Exterior            | Platform Module (Alternative to GL3A/GL5A), Platform Access Module, Support Facilities Module |
|                | GL1D | <b>Description:</b> Insulated Glass Unit (Fritted Spandrel Glass)<br><b>Note:</b> Double-glazed, Low-E coating on surface #2 or #3, 80% white ceramic frit on Surface #1, back-painted white on Surface #4.                                                                                                                                                                            | Exterior            | Platform Module (Alternative to GL3A/GL5A), Platform Access Module, Support Facilities Module |
| Glazing System | GL3A | <b>Description:</b> Tempered Glass - Low-iron glazing with structural silicone joints<br><b>Thickness:</b> 20 mm<br><b>Finish:</b> Frame - White or Clear Anodized<br><b>Note:</b> Butt-jointed glazing with perimeter framing, vision glass with bird-friendly frit on Surface #1, distraction pattern on Surface #2.                                                                 | Exterior & Interior | Platform Shelters and VCE Enclosures (Alternative to GL5A), Waiting Area                      |
|                | GL5A | <b>Description:</b> Laminated Safety Glass - Low-iron glazing with structural silicone joints<br><b>Thickness:</b> two layers of min. 6 mm thick glass with clear PVB interlayer<br><b>Finish:</b> Frame - White or Clear Anodized<br><b>Note:</b> Butt-jointed glazing with perimeter framing, vision glass with bird-friendly frit on Surface #1, distraction pattern on Surface #2. | Exterior & Interior | Passenger Shelters and VCE Enclosures (Alternative to GL3A)                                   |
|                | GL6  | <b>Description:</b> Back-painted Spandrel Glass - Low-iron tempered glazing with bevelled edges<br><b>Thickness:</b> 12 mm<br><b>Colour:</b> Pantone 7549 CP, Paint specification to match CF6                                                                                                                                                                                         | Interior            | Interior Self-Serve Hub                                                                       |

| ELEMENT  | CODE | DESCRIPTION                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | APPLICATION         | LOCATION                                                                                   |
|----------|------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|--------------------------------------------------------------------------------------------|
| Louvres  | LV1A | <b>Description:</b> Prefinished Aluminum Architectural Louvre<br><b>Colour:</b> Light Grey, Match WF4A<br><b>Note:</b> Louvre framing shall be integrated with the cladding system to minimize visibility. Where louvres are integrated into an exterior façade, they shall be designed and specified as storm-resistant louvres to prevent water ingress under wind-driven rain and other severe weather conditions.                                                       | Exterior            | Support Facilities Module, Platform Access Module, Bike Storage Module, Retail Module      |
|          | LV1B | <b>Description:</b> Prefinished Aluminum Architectural Louvre<br><b>Colour:</b> Medium Grey, Match WF4B<br><b>Note:</b> Louvre framing visible from the public side shall either be concealed or integrated into the system and installed flush with the blades. Where louvres are integrated into an exterior façade, they shall be designed and specified as storm-resistant louvres to prevent water ingress under wind-driven rain and other severe weather conditions. | Exterior            | Ancillary and Service Module, Ancillary Structures (i.e., Exterior Generators)             |
| Ceilings | CF1  | <b>Description:</b> Exposed Ceiling<br><b>Colour:</b> White<br><b>Finish:</b> Flat paint                                                                                                                                                                                                                                                                                                                                                                                    | Interior            | Ancillary and Service Module                                                               |
|          | CF2  | <b>Description:</b> Prefinished Aluminum Ceiling Panels with Integrated Linear Lighting<br><b>Dimensions:</b> to match exterior cladding unit sizing<br><b>Colour:</b> to match exterior cladding<br><b>Note:</b> Panels shall be anchored to suspended grid/frame and be removable for service access                                                                                                                                                                      | Exterior & Interior | Platform Module (i.e., canopy soffit, passenger shelters, VCE enclosures), Entrance Canopy |
|          | CF2A | <b>Description:</b> Prefinished Aluminum Ceiling Panels<br><b>Colour:</b> Pantone 7549 CP                                                                                                                                                                                                                                                                                                                                                                                   | Exterior & Interior | Exterior & Interior Self-Serve Hub                                                         |
|          | CF4  | <b>Description:</b> Acoustic Ceiling Tile System<br><b>Dimensions:</b> 610 mm x 610mm<br><b>Colour:</b> White                                                                                                                                                                                                                                                                                                                                                               | Interior            | Staff Support Facilities                                                                   |
|          | CF5  | <b>Description:</b> Prefinished Metal Grille Ceiling with Integrated Linear Lighting<br><b>Colour:</b> Light Grey (Pantone 20-0082 TPM)<br><b>Finish:</b> Matte<br><b>Notes:</b> Ceiling shall be anchored to suspended grid/frame and be removable for service access.                                                                                                                                                                                                     | Interior            | Waiting Area, Platform Access Module, Tunnels and Bridges                                  |

| ELEMENT  | CODE | DESCRIPTION                                                                                                                                                                                                                                                                                                                                                                                                                                                   | APPLICATION         | LOCATION                                                                                                       |
|----------|------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|----------------------------------------------------------------------------------------------------------------|
| Ceilings | CF6  | <b>Description:</b> Lacquered Panel<br><b>Colour:</b> Pantone 7549 CP<br><b>Finish:</b> High Gloss<br><b>Note:</b> Lacquered panels may be used in conditioned spaces. Panels shall be moisture-resistant medium-density fibreboard (MDF) with factory-applied lacquer finish.                                                                                                                                                                                | Interior            | Interior Self-Serve Hub                                                                                        |
|          | CF10 | <b>Description:</b> Gypsum Board<br><b>Colour:</b> White<br><b>Finish:</b> Painted<br><b>Note:</b> Gypsum board to be high-impact and mould and moisture-resistant.                                                                                                                                                                                                                                                                                           | Interior            | Washrooms, Maintenance Room                                                                                    |
| Roofs    | RF1  | <b>Description:</b> Fully Adhered Single Ply Roofing System<br><b>Colour:</b> White cap sheet<br><b>Note:</b> High Albedo.                                                                                                                                                                                                                                                                                                                                    | Exterior            | All Modules                                                                                                    |
| Millwork | CT2  | <b>Description:</b> Solid Surfacing Countertop<br><b>Colour:</b> Light Grey                                                                                                                                                                                                                                                                                                                                                                                   | Interior            | Staff Support Facilities                                                                                       |
|          | MW1  | <b>Description:</b> Plastic Laminate Millwork<br><b>Colour:</b> Slate Grey                                                                                                                                                                                                                                                                                                                                                                                    | Interior            | Staff Support Facilities                                                                                       |
| Doors    | DR1  | <b>Description:</b> Sliding Aluminum Doors and Frames - Automatic<br><b>Glazing:</b> Laminated Tempered Glass or IGU<br><b>Colour:</b> to match adjacent finishes                                                                                                                                                                                                                                                                                             | Exterior & Interior | Platform Access Module (Alternative to DR2), Waiting Area                                                      |
|          | DR2  | <b>Description:</b> Aluminum Doors and Frames<br><b>Glazing:</b> Laminated Tempered Glass or IGU<br><b>Colour:</b> to match adjacent finishes<br><b>Hardware:</b> Heavy-duty stainless-steel hardware<br><b>Note:</b> Provide discreet latch to fix door open against guardrail as required. Where spaces are mechanically conditioned, insulated glazing units (IGUs) shall be used; where spaces are unconditioned, laminated tempered glass shall be used. | Exterior & Interior | Platform Access Module (Alternative to DR1), Waiting Area, Platform Module, Bike Storage Module, Retail Module |



| ELEMENT            | CODE | DESCRIPTION                                                                                                                                                                                                                                       | APPLICATION         | LOCATION                                                                                 |
|--------------------|------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|------------------------------------------------------------------------------------------|
| Doors              | DR3  | <b>Description:</b> Hollow Metal Doors and Frames<br><b>Colour:</b> to match adjacent finishes<br><b>Hardware:</b> Provide hold-open hardware<br><b>Note:</b> Fire-rated as required.                                                             | Exterior & Interior | Mini-Hub Door, Washrooms, Ancillary and Service Module, Maintenance and/or Service Rooms |
| Guards & Handrails | GRD1 | <b>Description:</b> Steel Guard Railing<br><b>Finish:</b> Hot-dipped galvanized.                                                                                                                                                                  | Exterior            | Mini-Platform                                                                            |
|                    | GRD2 | <b>Description:</b> Stainless Steel Guard Railing<br><b>Finish:</b> Grade 316 for exterior and high-contact zones, Grade 304 for all remaining, No. 4 Brushed.                                                                                    | Exterior & Interior | Public Stairs and Ramps (Alternative to BL)                                              |
|                    | GRD3 | <b>Description:</b> Glazed Decorative Metal Railing<br><b>Glazing:</b> Laminated Glass (GL5A)<br><b>Base:</b> 150 mm high base (WB1)<br><b>Finish:</b> Grade 316 for exterior and high-contact zones, Grade 304 for all remaining, No. 4 Brushed. | Exterior & Interior | Public Stairs and Ramps (Alternative to EG)                                              |
| FF&E               | BEN1 | <b>Description:</b> Copper Beech Finished Pagwood Veneer<br><b>Frame Material:</b> Aluminum<br><b>Frame Colour:</b> RAL 9006<br><b>Frame Finish:</b> Galvanized, Rilsan Coated<br><b>Note:</b> As per Metrolinx GO Transit Suite of Benches.      | Exterior & Interior | Seating                                                                                  |
|                    | BEN2 | <b>Description:</b> Epoxy-coated Mesh Seating<br><b>Frame Material:</b> Aluminum<br><b>Frame Colour:</b> RAL 9006<br><b>Frame Finish:</b> Galvanized, Rilsan Coated<br><b>Note:</b> As per Metrolinx GO Transit Suite of Benches.                 | Exterior            | Seating (Alternative to BEN2 where exposed to the elements)                              |
|                    | LR1  | <b>Description:</b> Aluminum<br><b>Colour:</b> RAL 9006<br><b>Finish:</b> Galvanized, Rilsan Coated                                                                                                                                               | Exterior & Interior | Leaning Rails                                                                            |

[illegible]

- 10.1** Overview and Intent
- 10.2** Seating and Waste Receptacles
- 10.3** Services and Systems
- 10.4** Interior Lighting Fixtures
- 10.5** Advertising
- 10.6** Fare Payment
- 10.7** Passenger Shelters
- 10.8** Signage

## 10.1 OVERVIEW AND INTENT

Fixtures and furnishings shall be designed to ensure convenient access to services and information, and their placement shall support intuitive wayfinding, enhance passenger safety, and promote passive surveillance of adjacent areas through clear visibility.

The following section outlines key elements used throughout the site and station environments that directly impact the safety, comfort, and well-being of all customers and staff.

Fixtures and Furnishings shall be designed to:

- a) Provide queuing areas that do not interfere with pedestrian/passenger traffic.
- b) Be clustered where possible to clearly identify points of passenger service, information and efficiently utilize station infrastructure.
- c) Provide installation tolerances and operational requirements to facilitate ease of ongoing site operations and maintenance.
- d) Seating and waste receptacles shall be considered standardized line-wide elements and shall carry a consistent language throughout the station environment.
- e) Furniture arrangements and orientation of seating elements shall provide direct sightlines to vehicle connections, transit information, and path of travel while ensuring customer safety.
- f) Design and fabrication shall be based upon a kit of parts system, providing flexibility and modularity for a variety of customer types, and is easy to assemble, maintain, repair, and replace.
- g) Design shall convey detectable information that is clear and easily understood by all users, minimize hazards that could create risks or obstacles, and be designed with appropriate proportion, size and space for use, regardless of a customer's age, body size, posture or mobility, and promote ease of access for all.
- h) Refer to GO Standard Drawings and Specifications for additional requirements.
- i) Refer to the Universal Design Standard (DS-02) for additional requirements.
- j) Refer to Metrolinx Architectural Materials and Finishes Design Standard for material performance and durability requirements.

## 10.2 SEATING AND WASTE RECEPTACLES

### 10.2.1 Seating

Seating includes both benches with backrests and armrests. These elements shall be integrated within the interior and public realm environments as either stand-alone or integrated elements.

- a) Furniture elements shall not interfere with the path of travel and shall be located outside areas of the main circulation.
- b) Where alternatives to Metrolinx standard benches are proposed they shall comply with the following requirements at a minimum:
  - i) Customer seating shall include seat and back/lumbar support.
  - ii) Fasteners shall be concealed and vandal-proof.
  - iii) Components shall be serviceable through modular design, allowing for replaceability.
  - iv) A gap shall be incorporated between seat and seat back to allow for easy maintenance.
  - v) Design shall minimize opportunities for items to be concealed from view to easily identify any potential safety hazards to customers, transit and maintenance personnel.
  - vi) Alternatives shall be submitted for Metrolinx review and approval.



Figure 10-1 View of GO Standard Bench

- c) Where benches are wall-mounted, anchoring of seat bench to wall shall be coordinated during early design planning with structural engineer to ensure wall structure and anchoring are firmly secured to prevent damage due to vandalism.
- d) Where benches are floor mounted, design shall reflect a clean and minimalist approach that allows for easy maintenance.
- e) Where raised planters are provided as seating, they shall be designed to deter skateboarding along planter edges through features such as raised aluminum edge guards or other integrated deterrent elements.
- f) Refer to Materials and Finishes for acceptable materials;
- g) Refer to Universal Design Standard (DS-02) for additional requirements such as general placement, frequency along the accessible path of travel, and accessible clearances.

h) Benches shall be provided at the following locations:

- i) rail platform, in shelters - two (2) groupings every shelter;
- ii) rail platform, standalone - one (1) grouping for every two rail cars;
- iii) bus platform, standalone or within shelters - one (1) grouping for every two bus bays;
- iv) station building interior (small), waiting area - 4 benches (16 seats) or as per ridership;
- v) station building interior (large), waiting area - 12 benches (48 seats) or as per ridership;
- vi) transit plaza (integrated with Raised Planters); and
- vii) park and ride lots - in shelters.

Note: A grouping consists of two (2) 3-seater benches. Where space constraints are demonstrated, one (1) 4-seater bench may be provided.

### 10.2.2 Waste Receptacles

- a) Waste Receptacles shall comply with GO Standard drawings. Where alternatives are proposed, approval from Metrolinx shall be required.
- b) Waste Receptacles shall be floor-mounted, stainless steel, vertical type, and commercial grade.
- c) Waste receptacles shall be accessible to all customers, including those who use wheeled mobility aids and/or scooters and the visually impaired.
- d) Waste receptacles shall be located adjacent to high-traffic areas along the main path of travel that are anticipated to generate garbage.
- e) Waste receptacles shall not obstruct any part of an accessible route and ensure access is along a barrier-free path.
- f) Consistent graphics, and colour shall be used to clearly identify the various waste/recycling streams and examples of typical items that belong in each stream across all new line stations.
- g) Access for depositing waste/recycling shall be from the top when up against the wall and from all sides at the platform level.
- h) Waste receptacles shall be securely anchored to floor or wall using tamper-proof hardware.
- i) Waste receptacles shall be fabricated to have tamper-proof and/or hidden fasteners.
- j) Waste receptacles shall allow for clear space for side or front access approach, reach, and space ranges.

- k) Refer to Universal Design Standard (DS-02) for hazard detection requirements along the pedestrian path of travel.
- l) Waste and recycling units shall be positioned such that views of contents are unobstructed and in clear view of strategically located CCTV cameras.
- m) Waste receptacles shall be provided at the following locations:
  - i) station building interior (waiting area);
  - ii) Platform Access areas;
  - iii) bus platform;
  - iv) rail platform;
  - v) park and ride lots;
  - vi) washrooms;
  - vii) Support Facilities Module; and
  - viii) at each carpool/park and ride site.

## 10.3 SERVICES AND SYSTEMS

Station services and systems shall be coordinated with the overall station design to provide functional performance, visual integration, accessibility, and maintainability, while supporting a positive customer experience.

### 10.3.1 CCTV

- a) CCTV shall be integrated with the ceiling where possible.
- b) Placement shall balance the need for protection from damage and vandalism, maintenance requirements and security coverage with maintaining overall consistent architectural datums.
- c) For new facilities, CCTV layout and infrastructure shall be coordinated and designed concurrently with all ceiling and wall-related systems including lighting, speakers, sprinklers, architectural, and interior finishes, to ensure an integrated appearance where placement of cameras is aligned with ceiling grid and/or wall reveals, and are located in a consistent pattern. Where CCTV cameras are mounted on poles, cameras shall be integrated where exposed fasteners are maintained to a minimum.
- d) Mounting brackets shall only be used where direct fixation is demonstrated to be not feasible or would reduce CCTV performance.
- e) All infrastructure, such as conduit, cabling, and wiring, shall be run in a neat and orderly fashion in a conduit system, concealed from view.
- f) Fasteners shall be concealed and tamperproof.

- g) Mounting brackets shall be consistent throughout the station environment and meet the following requirements:
  - i) Mounting brackets shall be fabricated of a continuous diameter that can be demonstrated to be the minimum required to carry design loads of the respective device.
  - ii) The length of the mounting bracket shall not extend further than required to support the CCTV device.
  - iii) Finish colour and sheen of the mounting bracket shall match with colour and sheen of adjacent finishes (background colour).
  - iv) Mounting brackets shall be integrated within the wall or ceiling design and finishes where mounting brackets align with reveals, joints, and or intersection of materials.
  - v) Where exterior pole mounting is required, all connections from pole to camera mount shall be shop-fabricated with shop finishes and integral corrosion protection. Field installation of mounting brackets that compromise the corrosion performance is not permitted.

### 10.3.2 Audio / Speakers

Intelligible, clear, and audible information shall be designed to be reliable, consistent, and provided in real-time to inform all customers, ensuring that the outcome ensures that all messages are understood at the first broadcast. Audible and visual information shall be synchronized for all customers simultaneously, while addressing customers with accessible needs and ensuring equitable access.

- a) Speakers shall be mounted with the purpose of integrating with exterior and interior environments, and, including ceilings, walls, structure, and enclosures.
- b) Colour of public-facing speaker trim, including raceways, shall match the colour of the mounting surface/background to eliminate colour contrast and appear visually less prominent for aesthetic consistency.

### 10.3.3 Automated External Defibrillator

- a) Automated external defibrillators shall be located in the Station Building interior (Waiting Area).

### 10.3.4 Charging Stations (cellphone, laptop)

- a) Where in scope, public charging stations shall be located along the wall adjacent to seating in Station Building interior (Waiting Area or Platform Access Area).

### 10.3.5 Wi-Fi

- a) Access to Wi-Fi shall be provided throughout the:
  - i) station building interior; and
  - ii) rail platform.

### **10.3.6 Infotainment/CP 24**

- a) Infotainment/CP24 screens shall be located in the Station Building Interior (Waiting Area).

### **10.3.7 Network Clock**

- a) A network clock shall be located in the Station Building Interior (Waiting Area).

### **10.3.8 Two-Way Intercom**

The intent of the two-way intercom is to provide communication access for customers requesting emergency support, where safety and security are vital.

- a) Two-way intercoms shall be provided at the following locations:
  - i) in the vicinity of the Mini platform;
  - ii) secure entrance points for GO Operational Facilities; and
- b) Emergency call systems shall be provided as per applicable codes and legislation, including but not limited to OBC, TSSA and/or CSA B44 at the following locations:
  - i) In the elevator cab; and
  - ii) in all universal washrooms;
- c) Refer to Metrolinx Innovation & Information Technology Telecommunication and System Standard for requirements.

## **10.4 INTERIOR LIGHTING FIXTURES**

### **10.4.1 Luminaire LE-3**

- a) Location: Platform Access Area, Waiting Area.
- b) Suspended between the perimeter of the metal grille ceiling system and the finished ceiling in front of the Station Ambassador Administration Space and along the length of the main wall.
- c) Linear Pendant to be used along the length of walls of the Service Area, Waiting Area and Retail Area.

### **10.4.2 Luminaire LE-4**

- a) Location: Self-serve Hub.
- b) Suspended and flush between the panels of the ceiling system.

### **10.4.3 Luminaire LE-10**

- a) Location: Station Ambassador Administration Space and Back of House.
- b) Located in the Service Staff Support Areas.
- c) Surface-mounted direct linear LED luminaire system is used for the staff support room.

### **10.4.4 Luminaire LE-12**

- a) Location: Washrooms (Public and Staff).
- b) Provides general lighting to the Public Washrooms.
- c) Use fixture LE-13 for washroom stalls.
- d) Recessed adjustable LED fixture.



#### 10.4.5 Luminaire LE-13

- a) Location: Washrooms, above stalls.
- b) Located above the stalls in the public washrooms.
- c) Use of linear LED lighting in cove to create a soft uniform glow in the space.
- d) The cove shall be used in the stalls.
- e) Light levels shall have minimum 50 lux horizontal and 30 lux vertical.

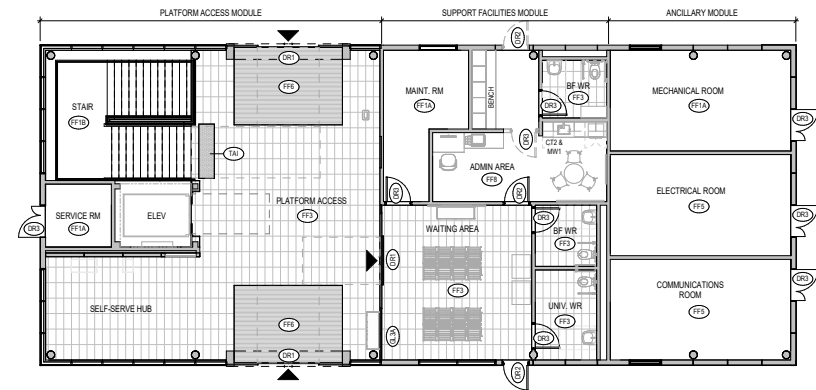


Figure 9-1 Plan of Station building Interior illustrating materials and finishes.

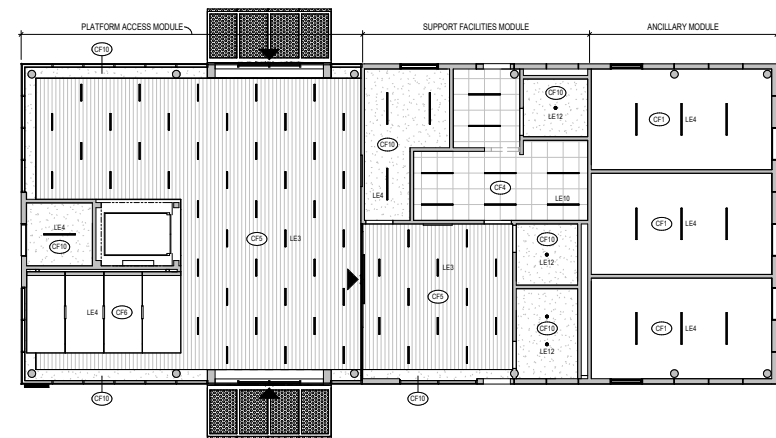


Figure 9-2 Reflected Ceiling Plan illustrating ceiling finishes and lighting fixtures.

## 10.5 ADVERTISING

Advertising requires careful placement and integration to ensure it does not interfere with station messaging, including signage or navigation cues.

The intent is for advertising to form part of the architecture and appearance of the station without compromising passenger safety or journey planning. With advancements in digital technology and changing dimensional sizes of advertising products, the design strategy developed should include flexibility.

- a) Both static and digital wayfinding signage shall always take precedence over all forms of advertising in all areas within the station and along the customer journey.
- b) Advertising shall not obstruct or impede minimum corridor width, floor to ceiling clearances, main paths of circulation, or egress in emergency.
- c) Advertising shall not be applied to:
  - i) surface of a ramp;
  - ii) on or in front of glazing, glass balustrades or glass doors; nor
  - iii) ceilings or soffits.
- d) Advertising shall not obstruct other design elements and station infrastructure such as benches, waste receptacles, or light fixtures.
- e) Advertising shall be located at suitable mounting heights for all customers.
- f) Advertising placement shall complement and integrate with other design elements, including but not limited to wayfinding signage, benches and waste receptacles.
- g) Advertising shall be located in public-facing modules, specifically in high-traffic areas and in high-dwell time areas such as the Support Facilities Module interior and exterior (platform-facing elevation), pedestrian tunnels and bridges, and the Bike Storage Module.
- h) Digital advertising screens shall be integrated with surrounding cladding and not protrude or create hazards to customers by complying with the requirements of the OBC.
- i) Advertising shall not obstruct or impede sight lines or customer access.
- j) Advertising shall be securely fastened using concealed, tamper-proof fasteners.
- k) Advertising shall be silent to avoid any confusion with emergency and informational announcements.
- l) Advertising panels shall be provided within dedicated wall niches.
- m) Advertising panel locations shall be at the discretion of Metrolinx.
- n) Power and data conduits shall be provided at all advertising locations in order to be future-ready for all digital advertising. Exposed conduit running from floor or ceiling to advertising is not acceptable. Electrical and data cables at advertising screens and panels shall be concealed and accessible from behind, concealed with removable cladding to hide the location of future screen.

- o) Depth of the advertising panels shall include mounting space for services and incorporate sufficient airflow for ventilation.
- p) Where advertising is provided on the platform, it shall not be located on or directly adjacent to the mini platform or any emergency equipment.
- q) Electrical and data cables behind the panel shall be easily accessible via a swing-open door for single-person servicing.
- r) For advertising placement in tunnels, refer to Pedestrian Tunnel Design Requirements.
- s) Refer to GO Rail Advertising Design Guideline (DGL-11) for detailed guidance on advertising in GO stations by area and module.
- t) Refer to the GO DRM, Metrolinx Universal Design Standard (DS-02), and Wayfinding Design Standard (DS-03) for additional requirements.

## 10.6 FARE PAYMENT

### 10.6.1 Station Fare Transaction Processor

Station Fare Transaction Processors (SFTP) are the “Tap-on/Tap-off” fare devices for customers using their PRESTO cards. The SFTPs shall be placed at platform access points and within the Platform Access Module as well as other points along the customer’s journey to the platform.

The following requirements shall apply to the Platform area:

- a) Devices shall be placed along passenger natural flow, at clear and visible locations, and shall be readily accessible by cardholders for fare payment. Ideally, customers shall have the opportunity to pass both the Self-serve Hub and/or Support Facilities Module (if part of the Station Building program) prior to payment.
- b) Devices shall be placed at locations with direct rail platform access.
- c) Where SFTP devices are provided, the following requirements shall apply:
  - i) SFTP devices shall be provided at main access points and be highly visible.
  - ii) SFTP devices shall be provided as per GO DRM Electrical and Communications requirements.
  - iii) Devices shall be weather-protected, where possible.
  - iv) Placement of devices and orientation of queuing areas shall not adversely impact the main flow of customers or block major egress locations.

- v) When installed on the platform, devices shall be approached parallel to the path of travel to avoid disruption of pedestrian traffic flow, allowing for queuing space, and reducing safety risk and conflicts of passengers' cross traffic.
- vi) Passenger safety and unimpeded passenger flow shall be the priority in placement of devices.
- vii) Devices shall not be placed adjacent to an unprotected platform edge.
- d) Refer to the Universal Design Standard (DS-02) for additional requirements, including clear space for side or front approach and reach and space ranges to accommodate customers in seated and standing positions.
- e) SFTP's shall be provided at the following locations:
  - i) Platform Access locations;
  - ii) platforms, where required;
  - iii) bus terminal locations require SPOSs only (TVMs); and
  - iv) as per project scope.
- f) Refer to the PRESTO Service Design Standard for additional details and requirements.

### 10.6.2 Ticket Vending Machine

Ticket Vending Machines (TVM) are fare devices that allow customers to purchase tickets or load funds onto PRESTO cards.

- a) Where site configuration permits, it is recommended that TVMs be located to satisfy both mandatory and preferred requirements, maximizing accessibility and customer convenience with a single unit. TVMs shall be visible from the main entrance and positioned in high-traffic areas, without obstructing major egress routes
- b) TVMs shall be provided with weather protection where possible.
- c) Preference is for a shelter over the TVM.
- d) TVMs are to utilize sunshade top (both large and smaller-sized sunshades) as site conditions warrant where a full shelter is not possible.
- e) A minimum queuing space in front of TVM shall be three customers.
- f) Placement and orientation of TVMs and queuing areas shall not adversely impact the main flow of customers.
- g) TVMs shall be provided at the following locations:
  - i) Self-serve Hub;
  - ii) Platform Access Module (outside of station building);
  - iii) bus platform;
  - iv) bus terminals;

- v) pedestrian bridge, mid span, as site conditions allow;
- vi) satellite surface parking lot;
- vii) parking structure;
- viii) park and ride lot; and
- ix) as per project scope.
- h) Refer to the Presto Service Design Standard.
- i) TVM concrete base installation details as per GO Standard Drawings TVM-001, TVM-002 and TVM-003;
- j) TVM Electrical and Communication details as per Electrical and Communications sections.

## 10.7 PASSENGER SHELTERS

- a) Shelters shall be provided at the following locations:
  - i) rail platform - Refer to Section 5.2.6.;
  - ii) bus platform - Recommend one (1) for every two bus bays;
  - iii) park and ride lots;
  - iv) remote/PUDO; and
  - v) on street GO bus stops.

Note: Final determination of the number of shelters shall be made on a project-specific basis.

- b) Refer to GO Standard Drawings and Specifications.

## 10.8 SIGNAGE

### 10.8.1 Digital Signage

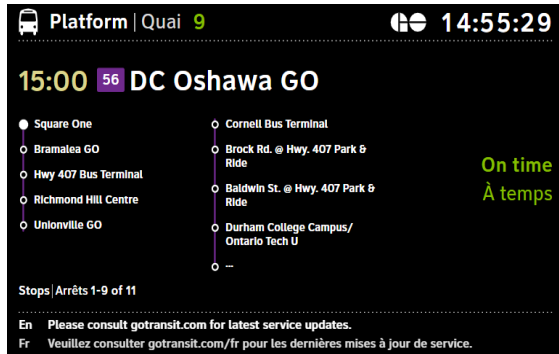
The following requirements are applicable to train and bus Line Stations, Terminals and Carpool Lots:

- a) Where existing site conditions prevent a recessed installation, consult with Metrolinx for direction and approval.
- b) Ensure recess in wall for digital sign is 10% larger than overall current monitor size to accommodate for flexibility in future monitor sizes.
- c) Provide a filler panel to enclose the niche opening.
- d) All placements and orientations shall be coordinated with Metrolinx Wayfinding Design Standard (DS-03 Part 1), under Planning Guidelines and Metrolinx Universal Design Standard (DS-02) and this Standard, Metrolinx GO Station Architectural Design Standard (DS-04).
- e) The placement of digital signs shall comply with the vertical and horizontal clearance requirements outlined within this Standard.
- f) Final determination of the number, placement and orientation of digital screens shall be made on a project-specific basis.

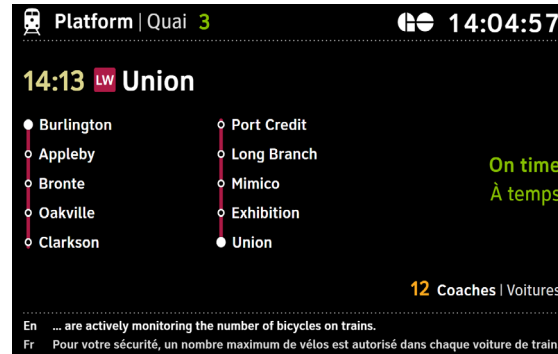
- g) The suite of digital sign types include:
  - i) Digital Departure Screens (Train and/or Bus) - Shows the next three trips in each direction for rail stations.
  - ii) Digital Platform Specific Screen (Train or Bus) - Shows the following trip details for that platform.
  - iii) Digital Parking Counter - Monitors and displays the number of available parking spaces in a lot or garage.
  - iv) Network Service Status - Provides customers with service information on current performance for the GO and UP Express networks.
- h) Digital signs shall be provided at the following locations:
  - i) bus platform entrances;
  - ii) rail platform entrances;
  - iii) station buildings interior;
  - iv) bus platforms; and
  - v) rail platforms.

#### **10.8.1.1 Digital Departure Signs (Train and/or Bus)**

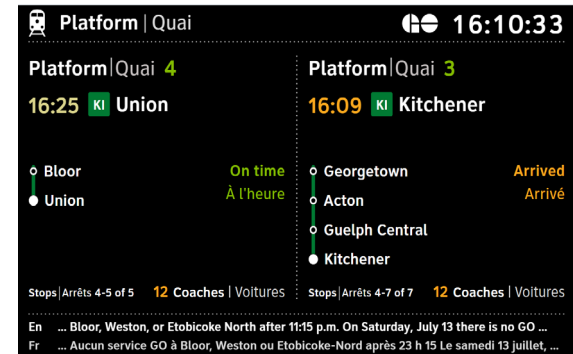
- a) Where feasible, exterior digital screens shall be integrated into the building envelope and provided with weather protection, such as by a building canopy.
  - i) Where integration with the canopy is not possible, independent weather protection shall be provided, in consultation with GO.
- b) Digital screens at carpool lots shall be integrated into the carpool shelter.
- c) Where possible, eye-level digital signs shall be recessed into walls to prevent injury, with the screen face flush to adjacent surfaces and fully visible from all required viewing angles.
- d) All conduits, connections, and supporting infrastructure shall be concealed from view.
- e) Wall-mounted monitor faces shall not project more than 100 mm horizontally, in accordance with OBC requirements.
- f) Digital screens shall be installed with a minimum clearance of 2440 mm (8'-0") to the underside to allow for maintenance activities and snow-clearing equipment.
- g) Refer to the Universal Design Standard (DS-02) and OBC regulations for additional requirements on mounting heights.



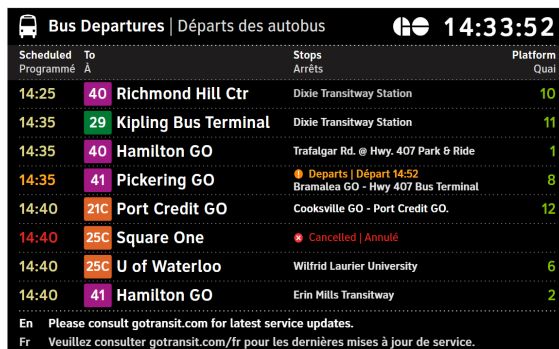
Bus Platform Digital Screen



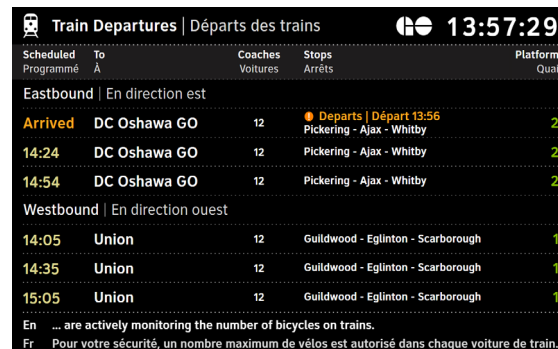
Rail Platform Digital Screen



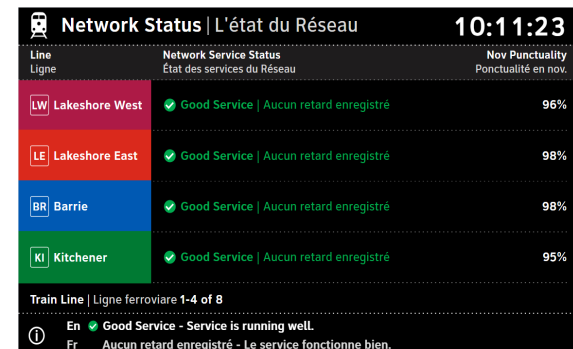
Split Rail Platform Digital Screen



Bus Departure Digital Screen



Rail Departure Digital Screen



Network Service Status Digital Screen

Figure 10-3 Digital Screen Types

- h) Digital departure signs shall be located:
  - i) inside station and terminal buildings adjacent to waiting areas;
  - ii) at rail platform access points, including tunnel and bridge entrances, parking structures, and side platforms accessible by ramp or walk-on access;
  - iii) at primary bus loop access points; and
  - iv) at GO carpool lot and bus park-and-ride remote parking lot locations, at Metrolinx's discretion.
- i) A minimum of one (1) digital departure screen for rail, one (1) for bus, and one (1) network service status screen shall be provided at the required locations.
- j) For larger sites with significant service, the total number of digital departure screens shall be confirmed with Metrolinx.

#### **10.8.1.2 Digital Departure Signs (Interchange Stations)**

- a) Digital screens at interchange stations shall follow the requirements in Section 10.8.1.1.
- b) Digital screens shall be placed along key transfer points between connecting modes to ensure customers receive timely information throughout their journey.
- c) Digital screens shall be available across the customer's entire travel experience so that customers can access the information they need before reaching their intended platform.
- d) The number of digital screens is to be determined on a project-specific basis and confirmed with Metrolinx.

#### **10.8.1.3 Digital Platform Specific Signs (Train and/or Bus)**

- a) Static platform numbers shall be placed:
  - i) on trackside at rail platforms; and
  - ii) on roadside at bus platforms.
- b) Clustering of digital screens in close proximity shall be avoided. Digital Departure Screen locations shall take precedence over Digital Platform Screens.
- c) Where possible, Digital Platform Screens on rail platforms shall be mounted to the underside of the platform canopy.
- d) Digital screens shall be installed outside of train envelopes.
- e) Pedestrian traffic flow shall not be interrupted by queuing, and a minimum clear width of 1500 mm shall be maintained for a queuing line.
- f) Digital screens shall be installed with a minimum clearance of 2440 mm (8'-0") to the underside to accommodate maintenance activities and snow-clearing equipment.
- g) Digital screens on rail platforms shall comply with the minimum lateral clearance requirements to major and elevated platform structures from the track centerline.
- h) All digital screens shall be aligned to the path of travel on the platform.
- i) Digital screens shall be evenly distributed along the platform, to the greatest extent possible, to:
  - i) encourage passengers to spread out along the entire length of the platform to protect OTP or such that boarding/alighting time are minimized; and



- ii) reduce clustering and discourage congregation near the platform edge and vertical circulation areas.
- j) Placement of digital screens shall prioritize the midpoint between the Mini-platform (5A coach) and each end of the platform.
- k) Digital screen(s) adjacent to and with the greatest proximity to the Mini-platform shall be located to provide a direct line of sight from the Mini-platform.
- l) Digital screens shall be oriented perpendicular to the path of travel to prevent passengers from turning their backs to the tracks, and shall be mounted for visibility from multiple vantage points.
- m) Requirements within the section are based on the typical length of a GO platform.
- n) The following digital screen allocation targets are recommended in accordance with station categorization, ridership, and platform planning requirements. The numbers are intended to be applied to each track used by GO. Final determination of the number of screens shall be made on a project-specific basis.
  - i) Small Station Categorization – Two (2) single-sided digital screens.
    1. One (1) set of back-to-back digital screens located adjacent to the Mini-platform, along the accessible path of travel from the primary VCE.
    2. Larger digital screens are recommended to increase viewing distances and reduce crowding.

- ii) Medium Station Categorization – Four (4) digital screens:
  1. One (1) set of back-to-back digital screens located adjacent to the Mini-platform, along the accessible path of travel from the primary VCE.
  2. Two (2) single-sided or one (1) double-side digital screens shall be distributed along the platform.
  3. Larger digital screens are recommended to increase viewing distances and reduce crowding.
- iii) Large/Interchange Station Categorization – Six (6) digital screens:
  1. One (1) set of back-to-back digital screens shall be located adjacent to the Mini-platform, along the accessible path of travel from the primary VCE
  2. Two (2) sets of back-to-back digital screens shall be distributed along the platform.
- o) Site-specific placement of digital screens shall be determined based on the following criteria:
  - i) Digital screens shall be located to provide information customers need and expect at each stage of the journey from station access to the platform. Placement shall support both customer navigation and communication of real-time service information.

- ii) Screen placement shall consider the type of platform access configuration:
  - 1. Placement shall account for customer movement to any point along the platform.
  - 2. Where platforms have two or more at-grade access points, screens shall be positioned to provide equal visibility upon entry.
  - 3. Side or island platforms accessed via bridges, tunnels, stairs, or elevators, digital screens shall be located at natural transition points.
- iii) Digital screens shall be located in proximity to VCEs where customers naturally congregate or wait, particularly in areas with limited weather-protected shelters.
- p) Where digital screens are mounted in back-to-back configuration, each screen shall be provided with an independent electrical circuit and a dedicated networked data feed to minimize the impact of a single fault on the overall system.
- q) At each bus platform at Line Stations, Bus Terminals, and Carpool Lots, one set of back-to-back Digital Platform Screens (Bus) shall be provided per bus bay.
- r) Digital signs at bus platforms shall be located consistently at the driver's end of each platform.
- s) Digital signs shall be installed outside of road and vehicular clearance envelopes.
- t) Digital Platform Specific Signs at bus platforms shall be mounted from the underside of the canopy where possible. Where canopy mounting is not possible, a standard GO pole shall be used. Poles shall be located clear of the barrier-free path of travel.
- u) Housing design shall incorporate thermal management and precipitation protection.
  - i) Protective housing shall be provided where digital screens are independently mounted and not under a sheltered area. Housing shall protect against vandalism and environmental conditions.
  - ii) Cabling shall be neatly installed and concealed to prevent exposure to the elements.
  - iii) Architectural drawings shall include design drawings, enclosures, and all infrastructure associated with digital signs.
  - iv) Shop drawings shall be submitted by the contractor for review by Metrolinx (Facilities Architecture and Engineering, Station Services, Customer Communications) prior to fabrication.
- v) Refer to the GO Standard Drawings for poles and canopy mounts.
- w) Monitor types and requirements shall comply with the I&IT Telecommunications and Systems Standard, GO Design Requirements Manual, and Metrolinx Specifications.

#### **10.8.1.4 Digital Parking Counter**

- a) Digital parking counter shall be located at vehicular entrance(s) to parking structures, visible when approaching by road.
- b) The 'look and feel' shall be integrated with the GO Station ID Totem suite.

#### **10.8.1.5 Network Service Status**

- a) Network Service Status screens shall be located within stations adjacent to the rail departure boards in at least one location. The screen shall be located along the path of travel from the station access to the platform.

#### **10.8.1.6 Static Signage**

- a) This section shall be read in conjunction with Metrolinx Wayfinding Design Standard (DS-03), Part 1 and Part 2B, Sign Implementation Manual: GO Transit Edition and Universal Design Standard (DS-02).
- b) Static signage and information shall be integrated within the station environment and be consistent to support familiarity across all new stations, upgrades, and renovations.

- c) Mountings shall be minimalistic, subtle and unobtrusive, without unnecessary complexity, and integrate with the platform architecture and finishes.
- d) Signage shall be clearly legible and consistent.
- e) Where multiple modes and/or transit agencies are provided, signage shall be located to avoid confusion between fare systems and networks.
- f) Sign placement shall consider passenger flow at platform access points and within the platform and Mini-platform location.
- g) Static signs shall be provided at the following locations:
  - i) as per Sign Implementation Manual;
  - ii) station building exterior;
  - iii) park and ride lots; and
  - iv) remote and ancillary parking lots.