

Podium Elementary School & Exterior Play Space Design Guideline

tdsb

Toronto District School Board

Part G: Podium Design Guideline

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Steering Committee

TDSB Facilities Services and Planning

Toronto Lands Corporation

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1: Preamble

This document presents a detailed set of quantitative and qualitative guidance for the selection, planning, design and maintenance of a Podium School. It is meant to support TDSB and TLC when working with developers and designers to:

- evaluate potential opportunities for a school in a third-party development site.
- negotiate early terms and conditions required to secure opportunities for future school sites.
- explore opportunities to leverage TDSB-owned property to develop/redevelop a school with other uses.
- provide guidance to design professionals for the development of a Podium School.

What is a Podium School?

A Podium School is an educational facility integrated within the base (the podium) of a mixed-use commercial or residential development. These schools are anticipated to be located in densely populated urban areas where development space is limited.

Podium Schools maximize vertical space and integrate with urban environments in ways most greenfield school sites cannot. They present unique opportunities to be creative and distinct, embrace innovation, and leverage opportunities for shared use and integration with surrounding community amenities.

The unique features of a Podium School will set it apart from a typical TDSB single-use site in terms of how it is selected, planned, occupied, and maintained.

Why are Podium Schools being built?

Podium Schools address the challenge of land scarcity and the expanding population in urban areas. These schools aim to enhance quality of life and foster community engagement in densely populated urban environments by:

- avoiding busing students out of the area to attend a TDSB School
- ensuring local families benefit from walkable neighbourhoods

- leveraging mixed-use developments to provide co-located neighbourhood educational, recreational, and community-focused services and amenities



Figure 1.1A Crosstown Elementary School, Vancouver, BC- The school has a distinct presence within the rest of the development

1.1 Use of the Guideline

This guideline complements existing TDSB school design documents and is essential for stakeholders involved in planning, designing, and evaluating Podium School projects. It provides specific considerations tailored to the unique requirements of Podium Schools.

The guideline supplement TDSB's other Guidelines and Design Standards, and should be read in conjunction with the following:

[TDSB Elementary School Design Guideline \(ESDG\)](#)

[TDSB School Garden Resources](#)

[TDSB Annual Climate Action Report](#)

1.2 Guiding Principles

Although each site will have unique characteristics, the following principles have been derived from stakeholder consultations and both local and international research:

1.2.1 Emphasize Urban Neighbourhood Connectivity & Community Integration

- Design spaces that encourage interaction among students, teachers, and the surrounding neighbourhood to foster a sense of belonging and community and promote a holistic and integrated approach to education.
- Explore opportunities to integrate the school into the urban fabric, connecting it with nearby community amenities, public transportation, and green spaces.
- Design flexible and adaptable spaces that evolve with changing urban needs and foster collaboration with local organizations and initiatives.

1.2.2 Design for Distinct Identity and Presence

- Prioritize a 'school's-needs' approach to design, ensuring that school functions are distinctly considered and identified within the multi-use development.
- Design the school to have a unique and inviting identity within the urban landscape, making it easily recognizable and welcoming to students, parents, and the community.
- Ensure that the school's architecture and aesthetics complement the surrounding environment while standing out as a place of learning and growth

1.2.3 Ensure Safety and Security

- To address the unique challenges of a high-density urban environment, prioritize the safety and security of students, staff, and visitors
- Implement measures such as controlled access points, enhanced monitoring, and traffic management strategies to mitigate risks and ensure a secure learning environment

1.2.4 Align Stakeholder Interests

- Identify common goals between the Toronto District School Board and developers to optimize the design for both educational and urban development needs
- Seek opportunities for collaboration that benefit all parties and enhance the overall quality of the school and its surroundings

1.2.5 Incorporate Nature and Outdoor Learning

- To compensate for reduced outdoor site area at grade, provide other outdoor play and learning opportunities, including diverse and program-rich outdoor rooftop play spaces and/or courtyards that encourage exploration, creativity, and physical activity
- Integrate opportunities to incorporate views and access to natural light and vegetation into the school's architecture and landscaping, creating a rich and immersive natural environment that enhances student well-being and academic performance



Figure 1. 2 Marlborough Primary School, London, UK- A Rooftop play yards with varied play opportunities

2. Key Site and Building Design Considerations

2.1 Early Coordination with Developer

TLC and TDSB will engage with the developer early in the conceptual design and overall development planning process to ensure that critical site and base building requirements for a Podium School, noted in the sections below, can be accommodated. Early into the planning process, the developer shall provide the following documents to allow for optimal design of entrances, marshalling areas, and playgrounds for K–8 outdoor play:

- design drawings and reports. Drawings in digital format (BIM preferred) will allow the Board to complete a test-fit plan to review and confirm that program and operational needs can be met
- traffic, wind, shadow, and other environmental studies that the city may be seeking as part of the development application

A schedule of coordination meetings between the base build and school design team shall be established, as follows:

- **Planning Approval stages:**
 - Plan of subdivision, as applicable
 - Block Plan Stage
 - MOU
- **Building Design and Approvals stages:**
 - Preliminary Design
 - Site Plan Application
 - Detailed Design Development
 - Working Drawings (30%, 60% and 90% Construction Document)
 - Building Permit submissions
 - Changes in Contract

2.2 School Size Considerations

TDSB Planning will develop a site-specific Facility Space Template (FST), identifying the allocation of spaces as per Ministry of Education benchmarks. The FST, setting out the planned capacity/pupil enrolment will be provided to the developer and their architect at the outset of the project.

TDSB has identified 550-pupil places as the ideal size for a Podium School. However, this number may be lower or higher to reflect the specific needs and enrollment projections for a given area. It should be noted that any increase in occupants may increase the recommendations for vertical circulation, exiting and outdoor play areas.

The FST establishes a school's gross floor area (GFA) based on Ministry of Education benchmarks. It must be noted that the gross-up factor for a Podium School will generally exceed the percentage allocated by the Ministry, due to potential increases in vertical circulation, multiple stories and gross motor space.

Additionally, there may be inefficiencies of net to gross area as a result of transfer columns from towers above, or elevator cores passing through the school floor.

Additional GFA for indoor amenity space and gross motor skills development may be required to compensate for limited access to exclusive-use outdoor play areas. Consideration should be given to allocating approximately 0.5 sqm per student for indoor play and amenity space.

Where possible, consideration may be made for future expansion to accommodate future enrolment growth, such as an option to lease adjacent space for future school fit-out. However, the Ministry does not fund additional space beyond current needs. Since Podium Schools are typically located in high-density areas where land is limited, the school's capacity may ultimately be determined by the availability of both indoor and outdoor play areas.

2.3 School Facilities within the Development

Consider the following factors in locating a school within a mixed-use high-density development:

- On which floors of the podium the school will be located.

- Access to grade-level areas of the building and site.
- Access to sufficient outdoor grade-level student marshalling (for arrival and dismissal) and play areas



Figure 2.3A Spruce Street School, New York, USA - Generous sidewalk drop-off area, clear signage and visibility into the school lobby

2.3.1 Location and Relationship of School to Other Uses

A Podium School may be co-located with residential, commercial, and other non-school uses. Coordination with the developer to recognize the impact of hundreds of children sharing the building and site is required, including consideration of the following key criteria:

- 1 appropriate distance between school and public entrances
- 2 secure and adequately sized student marshalling area
- 3 clear identity of entrances and drop-off areas
- 4 safe traffic circulation on and around the site
- 5 adequate distance between vehicular underground parking/services entrances and pedestrian student entrances

- 6 wide sidewalks for families, strollers and children on bicycles
- 7 generous and safe access to outdoor playgrounds

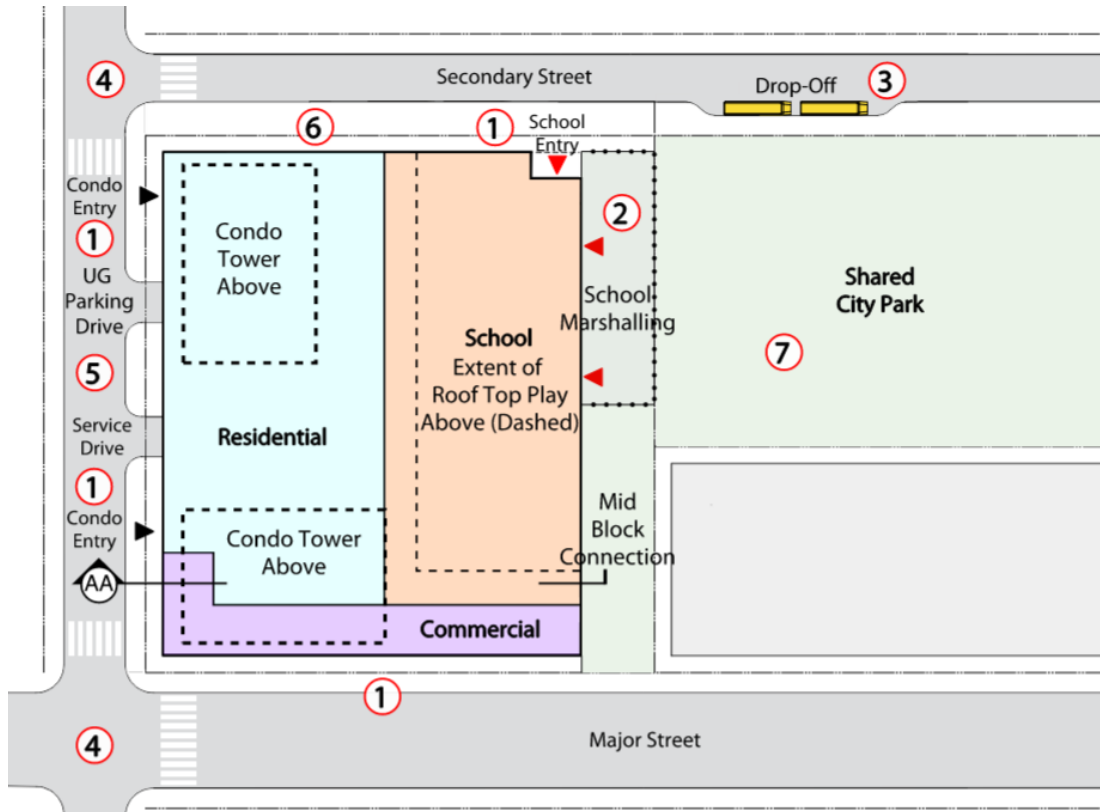


Figure 2.3.1A Key components of a Podium School and relationship to other uses on site

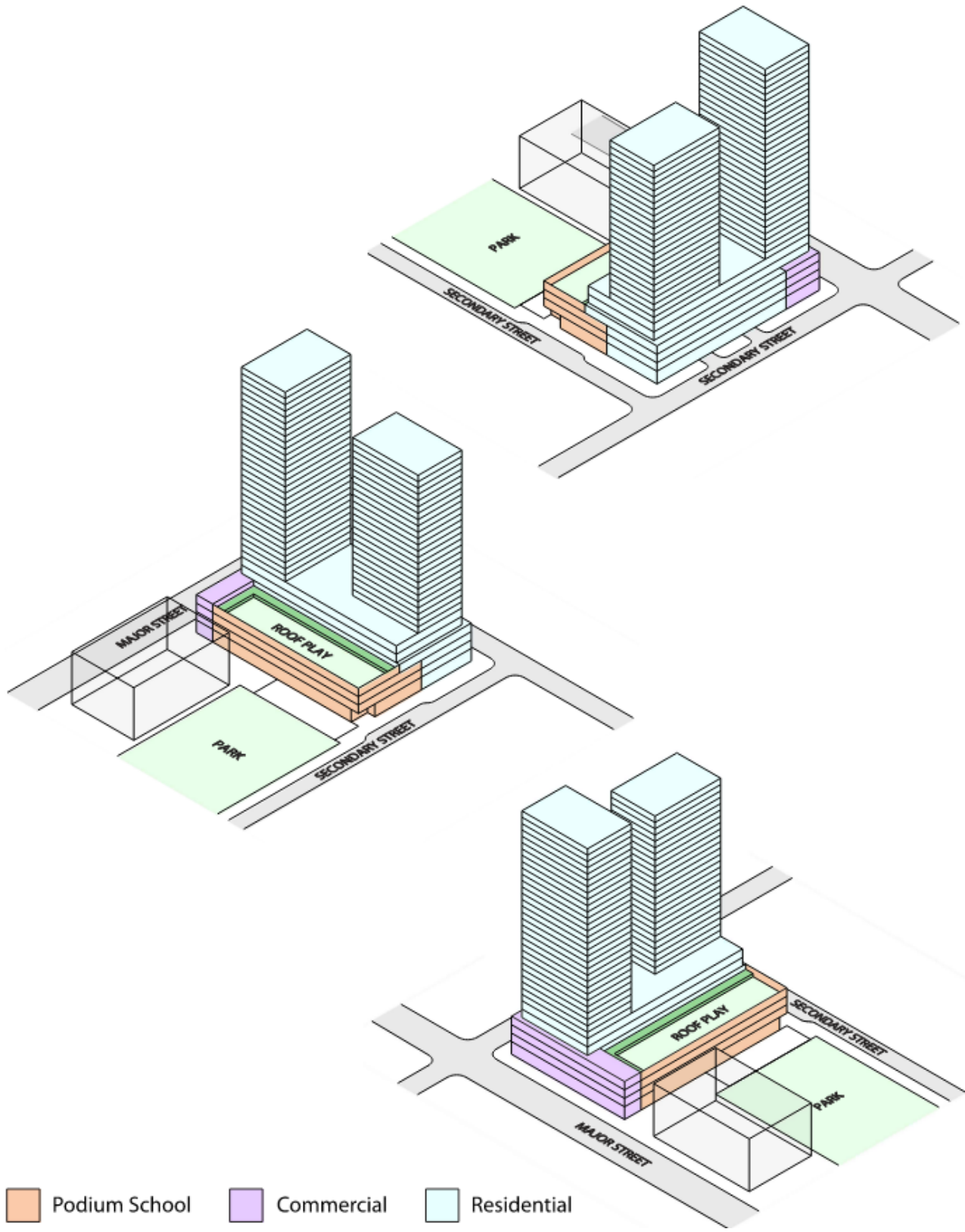


Figure 2.3.1B 3D views of prototype Podium School in a multi-use building

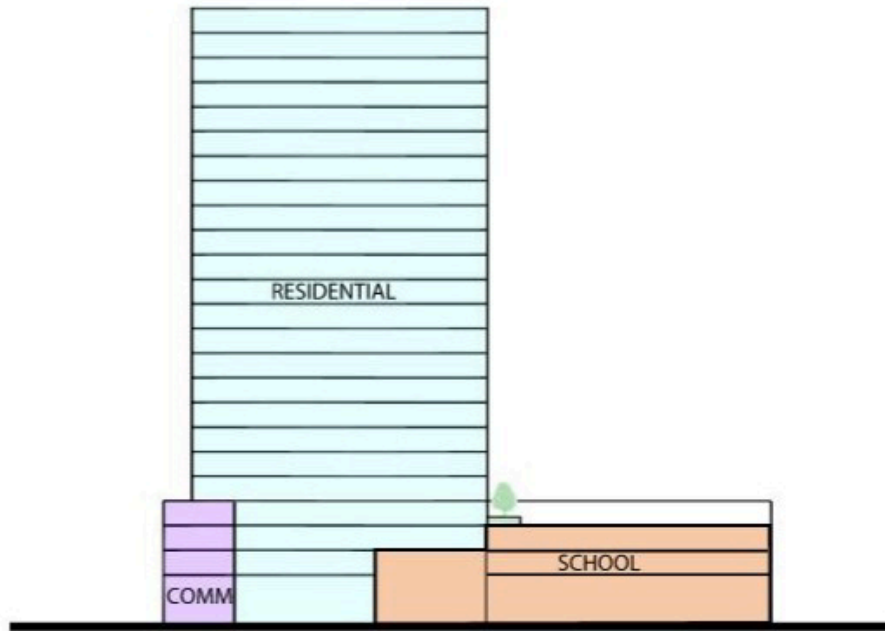


Figure 2.3.1C Multi-level Adjacent Podium School Section (AA)

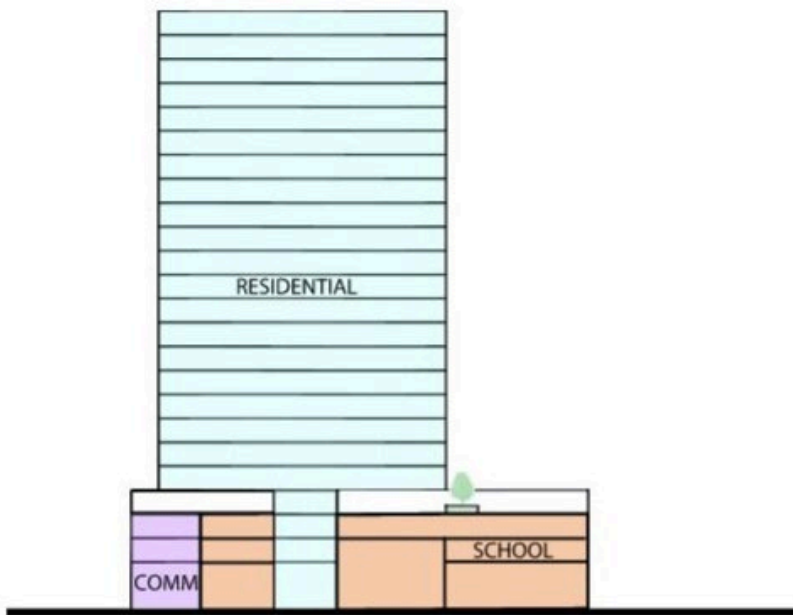


Figure 2.3.1D Multi-level Full Podium School Section (AA similar)

A Podium School may be located on one floor level or on multiple levels of a mixed-use building. Where occupying a single floor, ensuring direct access to windows and daylight for all instructional spaces will be a challenge. Where a school occupies multiple floors, convenient, secure internal circulation will be required between floor levels. TDSB does not support locating an elementary school on more than three levels of interior space, as it will result in inefficient circulation and be challenging to supervise, except where approved on a case-by-case basis.

If a licenced child care facility is to be part of the development, connections for before and after school care should be discussed early with the developer and child care provider. Coordination of the proposed connections, entrance, access for staff and parents, location of child care and play areas, and access for before and after programs is recommended.

2.4 Site and Base Building Standard Provisions

The following sections outline mandatory site and base building provisions for all Podium Schools:

2.4.1 Site Standard Provisions

Where possible, grade-level play areas should be located on the school site, while student marshalling areas must be positioned directly adjacent to the school. Crossing public roads to access playgrounds is strongly discouraged. If students must cross a road to reach a school playground, a pedestrian and vehicular traffic study must be completed to determine provisions for safe and efficient crossing. Provisions may include mid-block crosswalks, controlled pedestrian traffic signals, removable bollards, and/or street closure during specified school hours, crossing guards, and other traffic calming measures.

2.4.1.1 Student Marshalling Area

The school site must accommodate student marshalling areas at grade with direct access to multiple secured school entrances for morning arrival and afternoon dismissal. The safety of the students is the highest priority. Direct access to the kindergarten rooms is preferred if achievable. The main grade-level playground may be used as the marshalling area. If marshalling is to be conducted in an area

separate from the main play area, the following must be provided, and may be re-evaluated on a site-by-site basis:

- A minimum of 1.0 sqm unobstructed area per student
- A fenced or enclosed area, separated from the street and public sidewalk, with safe and generous access for direct hand-off of the student
- A minimum of two entrances with direct access from the marshalling area to avoid congestion at arrival and dismissal
- Canopy/weather protection at marshalling areas is desired

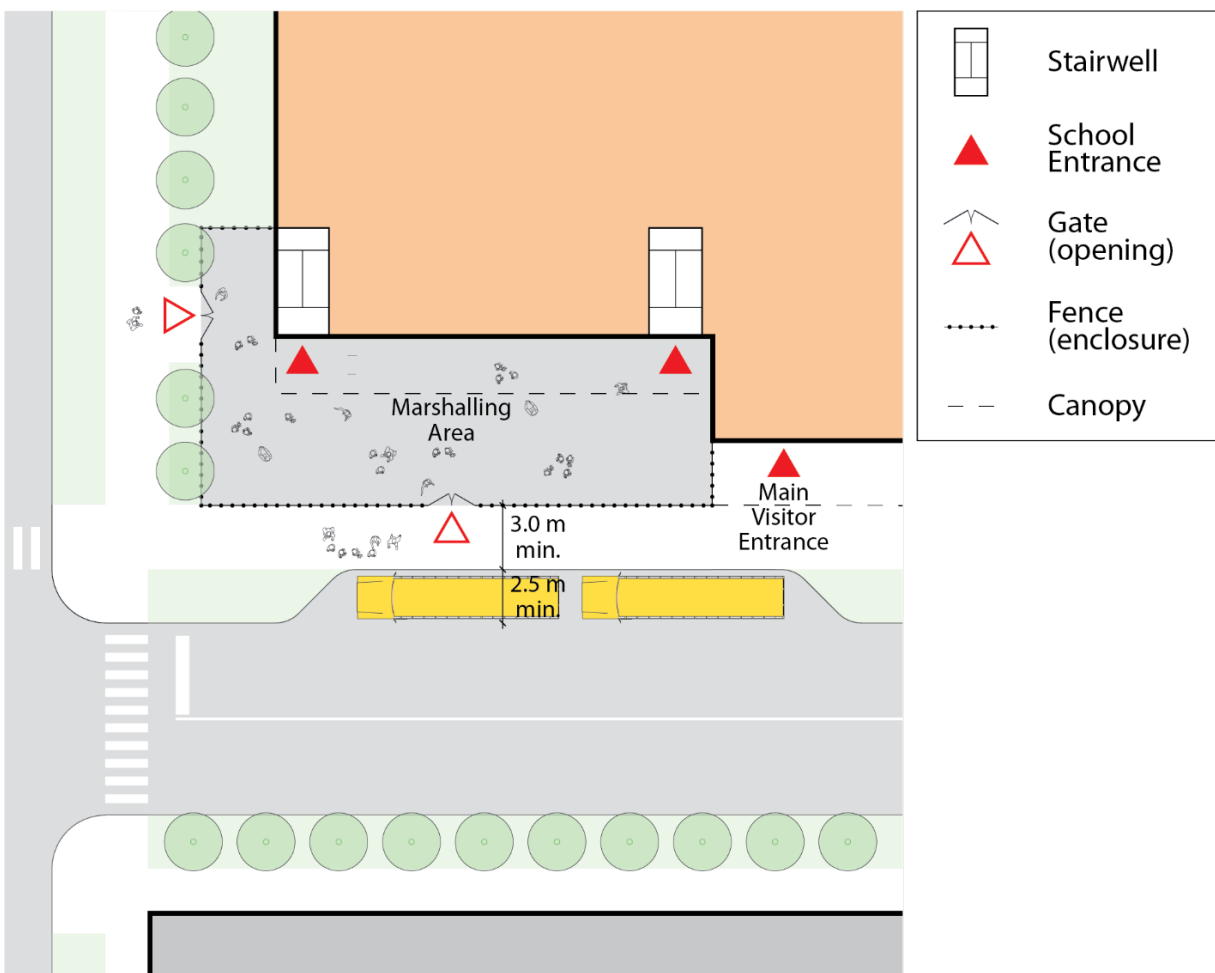


Figure 2.4.1B A key components and potential configuration of a marshalling area

2.4.1.2 Outdoor Learning and Play Environments

The design of outdoor spaces should maximize playground utilization and encourage active play. A total of 10.0 sqm per pupil outdoor play area is required. This may be accommodated with one or a combination of the following:

- Exclusive use playgrounds at grade level,
- Access to shared City Parks, or
- Exclusive-use rooftop play areas

The security and safety of students in at-grade playgrounds, open roof terraces, and courtyard play spaces with residential towers above must be a key consideration. Refer to Section 3. Site Design for more detailed examples of Outdoor Play and Learning Areas.

2.4.2 Base Building Standard Provisions

2.4.2.1 Base Building

- Provide windows at perimeter walls to allow daylight to all teaching spaces. Windows must not be obstructed by building structure (columns, piers, shear walls, etc.)
- Window sill heights must be appropriate for JK-8 classrooms, i.e., a maximum sill height of 0.6m above finished floor (AFF) for kindergartens and 0.8m AFF for other instructional spaces. Operable windows are required, with two vents minimum per classroom to encourage natural cross ventilation. Provide mitigation of solar heat gain.
- Consider other opportunities to bring additional daylighting and views into the podium's deep floor plates. Courtyards could increase opportunities for perimeter glazing. Skylights and interior windows into atria are not suitable alternatives to windows, though they may be considered to improve access to natural light.
- The minimum ceiling clearances are 3.0 m in teaching spaces, 6.7 m in the gym and stage, and 2.8 m in the corridors
- Vibration, acoustic and air quality studies are required to establish provisions for healthy and safe indoor and outdoor learning environments. Acoustic separation must be provided from all adjacent uses

- The column grid must allow clear, column-free space for classrooms and corridors
- Corridor width should not be less than 3.0m, and additional width should be considered for coat hooks and break-out spaces

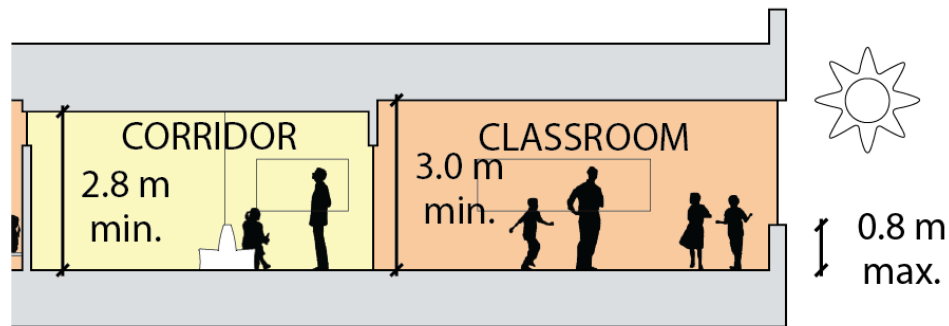


Figure 2.4.2A Section of typical classroom ceiling clearance and sill heights

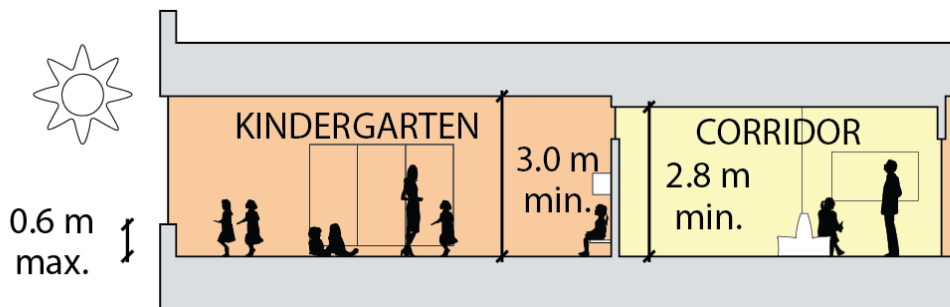


Figure 2.4.2B Section of typical kindergarten classroom ceiling clearance and sill heights

2.4.2.2 Key Program Areas

School Entrances:

- One main secured visitor entrance is required. This main school entrance must:
 - have a distinct address and street presence

- be directly accessible from a public walkway; parents and visitors should not travel through the playground or marshalling areas to access this entrance
- be adequately distanced from other building entrances
- be secured and monitored from the school office
- directly access a main lobby that includes a large gathering space to accommodate no less than 60 occupants
- Secondary exclusive-use entrances. These entrances must:
 - provide direct access for students and staff to outdoor play and marshalling areas
 - not be accessible to visitors
- For the safety and security of students and ease of access for all building users, and where possible, school entrances should be located to avoid proximity to:
 - access to underground parking
 - commercial entrances
 - residential entrance lobbies
- Paths to entrances should be designed to effectively manage traffic and avoid bottlenecking

2.4.2.3 Location of Key Program Areas

Preferred Ground Floor program areas:

- General office:
 - locate centrally to supervise the main school entrance and provide convenient access for students, staff and visitors
 - administrative functions (such as staff room, resource rooms and meeting rooms) may be distributed throughout the school if the general office is located at a different level than the majority of instructional spaces
- Gymnasium:
 - includes associated change rooms, storage, etc.
 - locate for safe after-hours access and community use
 - orientation so that both halves of the gym can be accessed independently is preferred

- If the school has a very small footprint at grade, e.g., the main entrance only, with most of the program occupying floor levels above grade, the main office and gymnasium will be located on an upper floor level. In such cases, the main entrance will require at a minimum:
 - a small administrative office
 - access to exclusive-use stairs and elevators
 - storage
 - a convenience washroom, and
 - enhanced security features, including, but not limited to security cameras and visitor intercom system
- Special education classrooms
- Kindergarten classrooms, if direct access to secured outdoor play can also be accommodated. They may be located on a floor above grade level if:
 - adequate marshalling space is available at grade,
 - convenient stair and elevator access is provided, and
 - there is convenient access to secured outdoor play, e.g., a rooftop play area

2.4.2.4 Access and Operational Requirements

Vertical Circulation

The location, size, and frequency of vertical circulation require careful, site-specific consideration. The guidelines below are general recommendations that should be carefully examined for each school.

- If a school is located on more than 3 levels, and if kindergarten and primary grade students are required to travel more than two storeys between ground floor and classrooms or classrooms and play areas, elevators should be provided as follows:
 - up to 300 students – minimum one 30-person elevator and one firefighter/passenger elevator
 - up to 600 students – minimum two 30-person elevators and one firefighter/passenger elevator
 - up to 900 students – minimum three 30-person elevators and one firefighter/passenger elevator
- A firefighter/passenger elevator is required in all multi-storey schools

- The distance between multiple elevators and stairs should be considered to avoid congestion at times of frequent use (arrival, dismissal, recess, and lunchtime).
- Proximity to secure, enhanced grade-level street crossings may also factor into elevator and stair locations.
- Escalators are not suitable for vertical circulation for the school.

Exclusive Use Access Stairs and Shared Exit Stairs

Access and exit stairs must be designed for use by young children

- Stair risers must be between 150mm and 170mm
- Child-height handrails should be provided on one side of staircases to help children use the stairs safely and efficiently
- Provide 25% additional stair exit width beyond what is required by the Ontario Building Code in response to the challenges the use of stairs presents to young children
- Exclusive-use stairwells are required to access the marshalling areas and outdoor play areas, as follows:
 - up to 600 students – minimum of two exclusive-use stairs
 - up to 900 students – minimum of three exclusive-use stairs
- Hold-open devices may be used between school floor levels and on exclusive-use stairs only
- Where possible, locate exclusive-use stairs at the building perimeter for daylighting, wayfinding, safety, and security

Shared Exit Stairs

Where required exit stairs are shared with the other uses in the development, the following safety and security measures are required:

- The stairwell shall be used for required fire exiting only, not for use for general circulation between floor levels
- Locks shall be provided restricting access from the stairwell to school floor levels
- Motion detectors, alarms and cameras must be installed at all doors providing access from the school to the shared exit stair, which will be

triggered if the door is opened when no fire alarm or emergency exiting is in progress

- No hold-open devices are permitted on shared stairwell doors

2.5 Other Provisions

2.5.1 Environmental/Sustainability

Broader base building sustainability objectives, and any impacts they could have on the school's long-term operations and maintenance, should be discussed early with the developer, in alignment with ES Guideline (A2.5, A2.6).

TDSB produces an annual Climate Action Report. The consultant team, Capital Planning staff, and the developer should review ways in which the Podium School's design can align with the strategic directions approved in this report.

2.5.2 Construction Phasing

Unlike a standalone school site, a new Podium School is more likely to be adjacent to or directly below ongoing construction and will see longer timelines for full site construction completion.

Provisions are required for the safety, security, quality of the educational environment (noise, vibrations, odours, etc.), and access to outdoor play areas during any planned long-term phased construction of the proposed development.

- Safety requirements and construction phasing must be reviewed with TDSB Facilities, Capital Development Stakeholders and the consultant throughout the project
- Hoarding must be secure, solid, and opaque to conceal visibility around the extent of construction zones and should have a height no less than the City of Toronto requirements for hoarding (2.4m)
- Decisions surrounding partial occupancy of the school while certain floors above the Podium School remain under construction will be made on a case-by-case basis
- The developers must ensure the safety of outdoor play spaces. No part of a crane swing radius may pass over occupied schools and outdoor play areas. This applies to shared park space when applicable

- Construction schedules should align with the school year calendar to ensure that the school is ready for September occupancy
- Where the Podium School is replacing an existing operating school, development and construction phasing will prioritize the accommodation of existing school pupils to minimize disruption

3. Site Design

3.1 Entrances

Provide one main secured visitor entrance that distinguishes itself from the rest of the Podium's entrances.

- Consider a dedicated entrance from the marshalling area for kindergarten students, with a stairwell and elevator conveniently located in proximity to kindergarten classrooms, and providing access to all floors of the school.
- Provide min two entrances for grades 1 to 8 students from the marshalling area or at-grade playground, with conveniently located staircases accessing all floor levels.
- Provide weather protection, such as canopies or overhangs, at the school entrances.
- Refer to Section 2.4 Site and Base Building Standard Provisions for additional details and diagrams related to marshalling.

3.1.1 School Identity and Site Signage

Provide a clear and distinct identity, address, and welcoming entrance for the school, as an important community asset. Incorporate TDSB standard exterior school site signage into the building design.

- Designate visitor access and exclusive-use school playground areas and building entrances in site wayfinding signage.
- Coordinate building and site signage with the developer for municipal approvals process.
- Refer to Signage section in TDSB Elementary School Design Guideline for standard TDSB standard signage requirements.

3.2 Pedestrian and Bike Access

Podium Schools will have a high level of pedestrian and bike traffic. Coordinate with the developer to provide the following:

- Wide sidewalks at the school's main entrance and marshalling area to accommodate students and parents, and their bikes and strollers.
- Convenient, secure, highly visible exterior bicycle parking for the school population.
- Enhanced crosswalk design at all crossings adjacent to the school that emphasizes that vehicles and bicycles must stop for pedestrians.
- This may include wider crosswalks, reduced lane widths, and creative-coloured designs for high visibility.

3.3 Traffic, Drop-off, Circulation

3.3.1 Pick-up and Drop-off (Arrival and Dismissal)

TDSB will provide the project-specific requirements for accommodating school buses and cars. Vehicular pick-up and drop-off (PUDO) areas should be as follows:

- Adjacent wide sidewalks (3.0 m minimum)
- In close proximity to student marshalling areas
- Designated and signed for school use only
- Designed to prevent children from going into traffic
- Located away from public transit stops and traffic intersections
- Separated for school buses and cars, where possible

To reduce PUDO requirements, Podium School sites should be designed to:

- Encourage active transportation, such as walking and cycling
- Accommodate a large number of students and parents walking to the school at arrival and dismissal
- Minimize pedestrian and vehicular conflicts

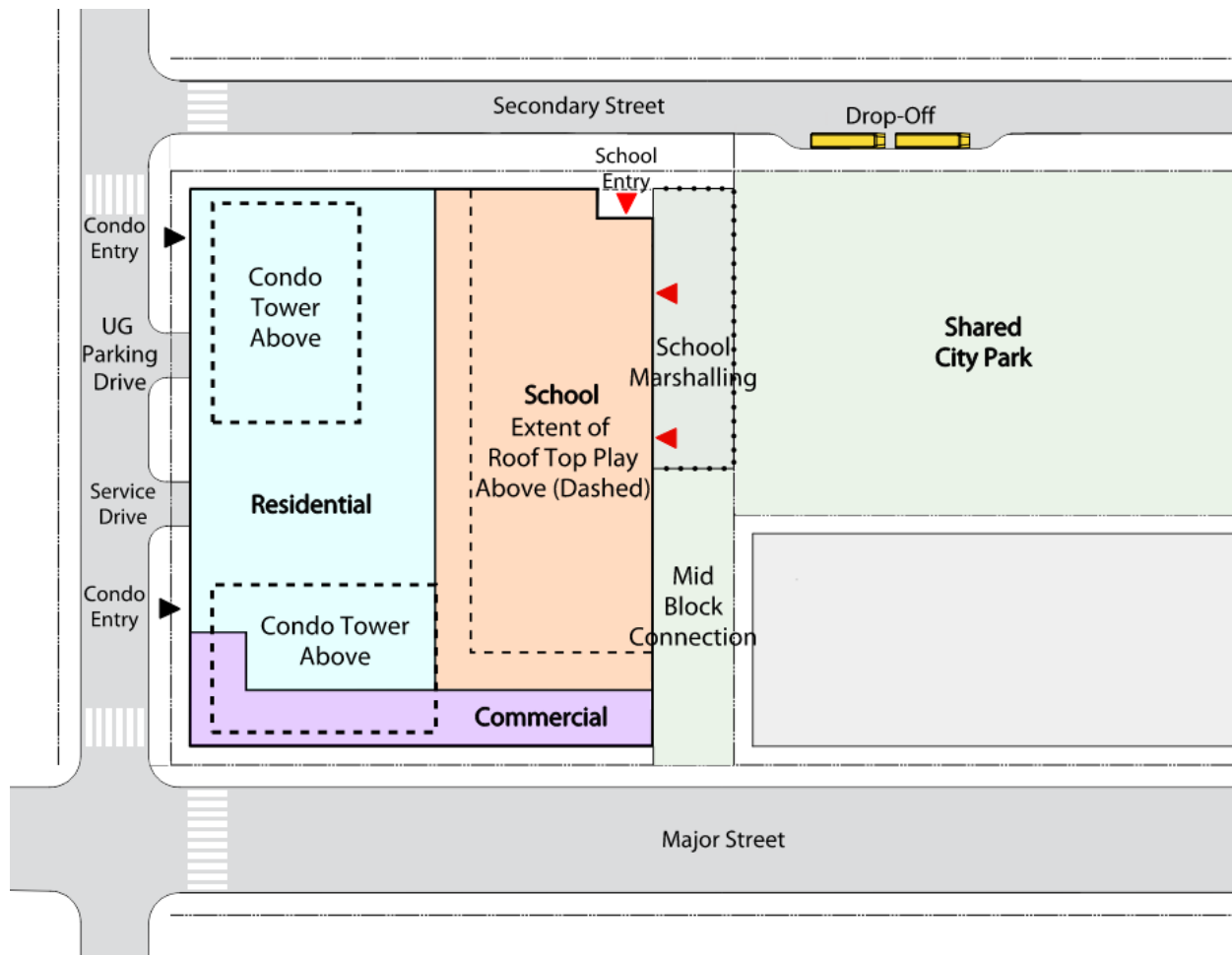


Figure 3.3.1A Typical Podium School Site Plan – access and entrances

3.4 Parking, Garbage and Receiving

Provide direct access to the designated underground parking area via elevator and stairs from the school's ground floor. The number of required designated school parking spaces will be determined on a case-by-case basis, taking into consideration transit access. Provide convenient daily access to garbage and receiving storage from the school via elevator and stairs.

3.5 Outdoor Play and Learning Areas

Vibrant, bustling schoolyards generate significant noise, which may disrupt other residents or businesses within the development. Plan and design a playground that allows children to play freely and loudly and minimize noise disruptions for others

in the vicinity. Maintain privacy for students during school hours and allow community access outside of these times.

In a high-density urban environment, it is important to maximize outdoor play and learning spaces in a natural environment where students experience the weather, rain, snow, and sunlight.

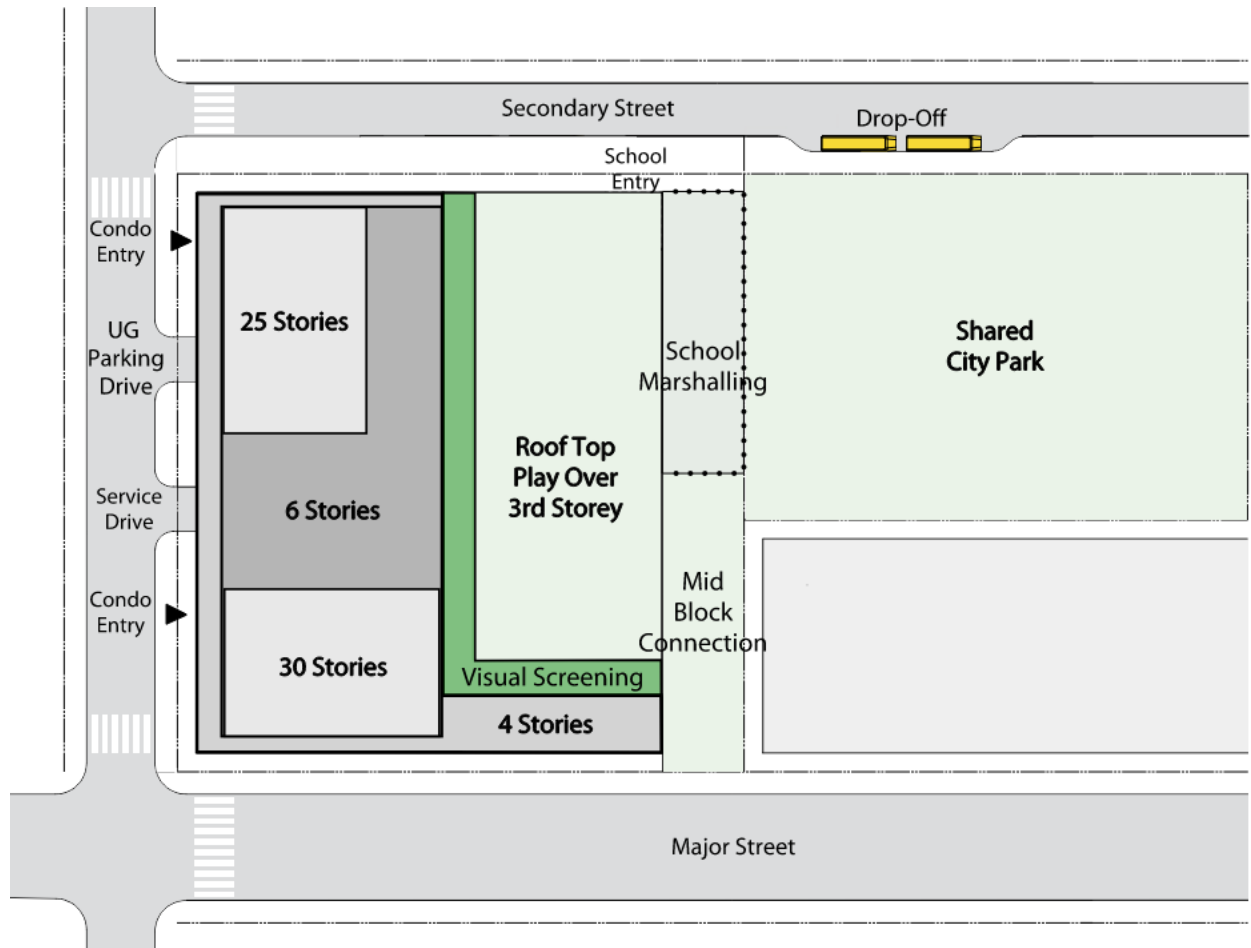


Figure 3.5A Typical shared park and rooftop play conditions

3.5.1 Total Play Area per Pupil

Plan outdoor play areas as follows:

- Min total outdoor play area (combined at-grade and rooftop play): 10.0 sqm per pupil place.

- Where this number is not achievable, provide compensation in the form of additional indoor play and amenity space for all age groups.
- Grade-level playground preferred.
- Provide supplementary protected and secure rooftop play areas as required to meet total play requirement.
- Where total play area is divided among multiple spaces, each play area must accommodate min 50% of grades 1 to 8 students to allow for a split supervision schedule.
- Avoid barriers to supervision, such as blind corners or clusters of large columns.

3.5.2 Rooftop Playgrounds

Incorporate preventative measures into the building design to ensure the rooftop is a safe, habitable environment, as follows:

- Engage specialty consultants (acoustic and wind engineers) to assess impacts of wind, wind-induced noise and external noise.
- Limit balconies on floors directly above/adjacent to the play areas and/or design balcony guardrails to manage risk of residents dropping items from their balconies into the play area.

Plan and design outdoor rooftop play areas to provide student and staff safety and security, as follows:

- Ensure school staff can easily supervise all children.
- Fully accessible, with convenient access to school circulation.
- Enclosed with guards at least 3.0m high.
- Access from min. one elevator and two exclusive-use circulation stairs (more if required by Code).
- Structural capacity to accommodate live load occupancy, planting, play equipment, shade structures, etc.
- Depressed roof slab of no less than 300mm is required to allow for play surfaces, decking planters.
- Snow and ice removal throughout.
- Heat-trace primary circulation routes.

Provide engaging, exemplary environments for all students to move freely, as follows:

- Access to fresh air, sunlight and shade.
- Access to water (non-freeze hose bibs)
- Convenient access to washrooms.
- Plantings, multiple play surfaces and activities.
- Consider rubberized surfaces or artificial turf in lieu of asphalt or concrete
- Storage for maintenance equipment, and outdoor toys and equipment

Rooftop play areas are a unique requirement for Podium Schools. Since the cost of exemplary rooftop play spaces exceeds Ministry of Education benchmark funding, consider negotiating developer contributions or applying for additional Ministry funding to support their development.



Figure 3.5.2A Kingston Community School, UK - A Rooftop playground with high guards



Figure 3.5.2B Nightingale Primary School, London, UK - Colourful tiered playgrounds



Figure 3.5.2C South Melbourne Primary School, Melbourne, AUS - A well-shaded rooftop playground with plantings and varied play surfaces

3.5.3 Grade Level Playgrounds

Grade-level playgrounds can function as student marshalling spaces for school arrival and dismissal and will also typically be used by the community after hours. Grade level play space may be stratified over underground parking facilities.

- Provide convenient outdoor storage and access to student washrooms.
- Secure grade level playgrounds with fencing or barriers consisting of landscape features.
- Determine extent of enclosure on a site-by-site basis.

3.5.3.1 Hard Surface Play

Provide robust hard play surfaces to serve a wide range of student interests and abilities, as follows:

- Multipurpose hardscapes which allow for optimal flexibility
- Integrate colours and patterns into hardscaping to provide visual interest and programmatic stimulation, e.g., hopscotch, four-square, race, etc.
- Utilize environmentally friendly surfacing materials:
 - High Solar Reflectance Index (SRI) values to reduce contribution to urban heat island effect
 - Permeable paving, where possible, to aid in stormwater management
 - Engineered wood fibres at grade.

3.5.3.2 Playfield

Prioritize multi-purpose fields and play areas.

Provide, artificial turf play fields, where site configuration allows, for heavy-use all-season softscapes.

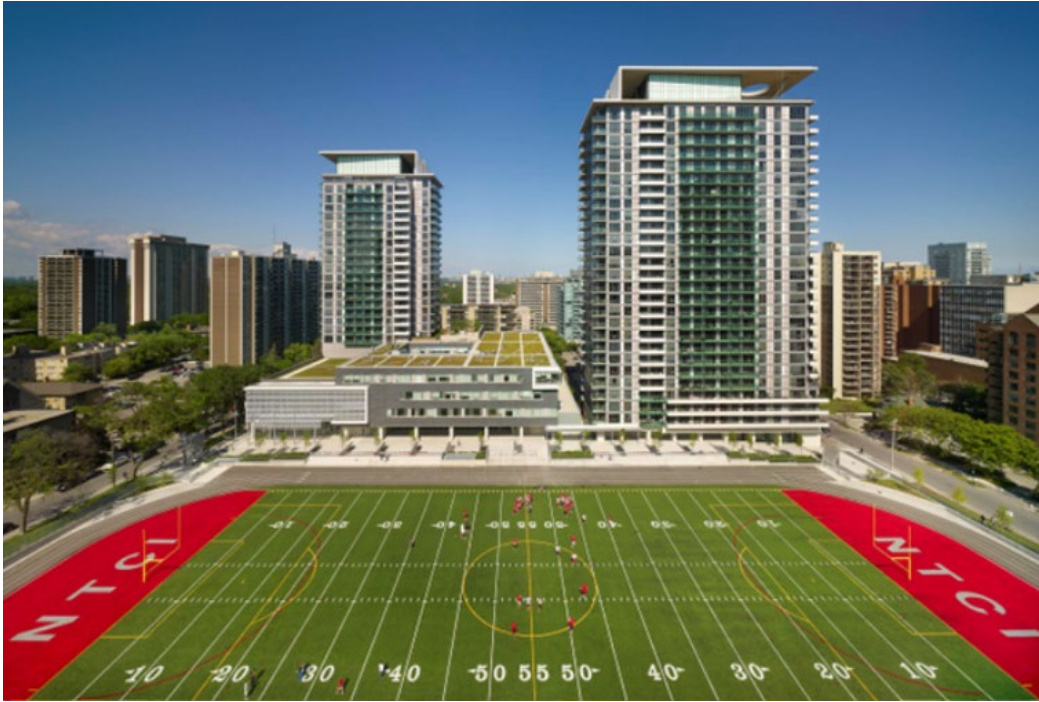


Figure 3.5.3C North Toronto Collegiate Institute - Toronto- School has a clear identity and presence, and artificial turf play field

3.5.4 Playgrounds shared with City Parks

Where a Podium School project intends to share a municipal park as playground, TDSB will make efforts to negotiate an agreement with the city as early as possible. Coordinate with City Parks Forestry & Recreation department to determine hours of use and ensure the design of the park includes playground and outdoor spaces that meet the school's play and learning requirements. Develop operations and maintenance agreements for park structures. Provide equitable play opportunities for the whole student community. Provide the following in the design of park co-located with school playground:

- Safe and controlled access.
- Signage clearly identifying dedicated school use time
- Enclosure for students' safety and security. Create enclosure with a combination of fences, benches, berms, and planting.
- Convenient access to dedicated student washrooms and outdoor storage. If direct access to student washrooms cannot be accommodated in the development, consideration should be given to a provision of a washroom and storage structure within the park.

- Provision of shade through structures and planting.
- Restricted access during school hours.
- Equitable, diverse and varied types of play amenities.
- Junior play equipment, sports fields, trails or a track and multipurpose sports courts in accordance with site opportunities and community needs.
- Robust, safe site furnishings.

3.5.5 Kindergarten Play Areas

Direct access from kindergarten classrooms to exterior play is preferred. It is also preferred that the kindergarten play be located on the same floor level as their classroom spaces. Primary grades (Grades 1-3) may share kindergarten play areas where access to other outdoor play is not feasible. Give design consideration to accommodating a broader age range (Kindergarten to Grade 3).

3.5.6 Outdoor Classrooms

Refer to Elementary School Design Guideline section on Outdoor Classrooms, Gardens and Nature Study areas. Provide high-quality shaded outdoor learning areas.

3.5.7 Site Furnishings and Sports Equipment

Provide a variety of site furnishings and play equipment characteristics and types, as follows:

3.5.7.1 Site Furnishings

Provide multi-functional, durable, low-maintenance and playful site furnishings, utilizing graffiti-resistant materials and coatings. Refer to the TDSB Elementary School Design Guideline for on site furnishings.

Provide the following furnishings and equipment:

- Bike racks
- Garbage/recycling bins
- Benches
- Equipment storage

Where space allows, provide picnic tables.

3.5.7.2 Sports Equipment

Provide visually playful equipment to encourage active use. Provide multi-use sports equipment to provide diverse options within limited space allowances.

The following play equipment is preferred on Podium School sites:

- Basketball Goal
- Three-Way Basketball Hoop
- Futsal Goal
- Exterior Ping Pong Table (pre-cast)
- Multi-sport and game field

3.5.7.3 Shade Structures

Provide shade structures, trellises, pergolas, and other fixed structures for shelter and shade, especially at rooftop play spaces. Protection from rain with a nonporous roof may be necessary to expand their usability.

3.6 Landscaping

Carefully consider selection of plant material based on microclimate and infrastructure conditions. Prioritize local and regional native plants, drought-tolerant species, and low-maintenance varieties.

Charts below provide planting recommendations suitable for the limited planting depth afforded in rooftop and grade-level outdoor play space stratified over underground parking facilities.

Selections provided are supplementary to current TDSB-approved Tree and Shrub Species lists in Part B1.9 Landscaping section of Elementary School Design Guideline Site Design Manual. Review final plant selections with Design Coordinator on a project-by-project basis.

Full Shade Plantings

	<i>Botanical Name</i>	<i>Common Name</i>
Shrubs	Ribes aureum	Golden Currant
Grasses	Elymus hystrix	Bottlebrush Grass

	Carex bebbii Carex pensylvanica	Bebb's Sedge Oak Sedge
Perennials	Dennstaedtia punctilobula	Hay-Scented Fern
Groundcovers	Aster divaricatus Cornus canadensis Viola canadensis	White Wood Aster Bunchberry Canada Violet

Partial Shade Plantings

	Botanical Name	Common Name
Shrubs	Ceanothus americanus Physocarpus opulifolius	New Jersey Tea Common Ninebark
Grasses	Chasmanthium latifolium Schizachyrium scoparium Sporobolus heterolepis	Northern Sea Oats Little Bluestem Prairie Dropseed
Perennials	Anaphalis margaritacea Echinacea pallida Eutrochium purpureum Helianthus divaricatus Penstemon hirsutus	Pearly Everlasting Pale Purple Coneflower Purple Joe Pye Weed Woodland Sunflower Hairy Beardtongue
Groundcovers	Fragaria virginiana Geranium maculatum	Virginia Strawberry Wild Geranium

Full Sun Plantings

	Botanical Name	Common Name
Shrubs	Amorpha canescens Aronia arbutifolia	Lead Plant Red Chokeberry
Grasses	Andropogon gerardi Bouteloua gracilis Deschampsia cespitosa	Big Blue Stem Blue Grama Tufted Hair Grass
Perennials	Agastache foeniculum Echinacea purpurea Eryngium yuccifolium Monarda fistulosa Solidago speciosa	Anise Hyssop Purple Coneflower Rattlesnake Master Wild Bergamot Showy Goldenrod
Groundcovers	Allium cernuum	Nodding Onion

4. Building Fit-out Design

4.1 Plan Organization

4.1.1 Circulation

Refer to Section 2.4. Functional Requirements for specific Podium School corridor, stair and elevator requirements.

4.1.2 Security and Supervision

Refer to Section 2.4 for security of shared exit stairs, Section 6.3 for Electrical Specifications and Specialty Alarm and Monitoring Systems, and TDSB ESDG related to Design for Lockdown and CPTED. For all other matters related to safety and security, coordinate early and on an on-going basis with the developer and property management team.

4.2 Room Layout and Area Requirements

Refer to Part C3 of the TDSB Elementary School Design Guideline for typical room layout and area requirements. Requirements listed below are specific to Podium Schools.

4.2.1 Community-use School Spaces

School playgrounds, gymnasiums, indoor amenity spaces and classrooms may be available after school hours for community use. These spaces may be used for extracurricular activities, summer camps, sports clubs, Eco-clubs, or community gardens. Design of the podium should support convenient, safe and secure after-hours access to potential community-use spaces.

4.2.2 Gymnasium and Indoor Amenity Spaces

Provide the following features in the design of elementary School gymnasiums:

- Clear length and width per game line requirements in the TDSB Elementary School Design Guideline, as approved by TDSB Project Coordinator.
- Access to both halves of the gym.

- Direct access to multi-purpose stage (for performance, music, fitness and other activities).

Indoor amenity spaces for physical activities, collaboration, informal teaching, lunch and indoor recess, community rooms for physical activities may be provided to supplement outdoor playgrounds, informal teaching, lunch and indoor recess, community rooms.

Provide visual and physical connections between indoor and outdoor amenity spaces where feasible.

4.2.3 Administration Spaces

Provide general office with direct visibility to the main school entrance lobby, elevator and one stairwell. Provide cameras and an intercom system as required by the TDSB Elementary School Design Guideline and approved by TDSB Project Coordinator.

When the general office cannot be located on the same floor as the majority of instructional spaces, consider distributed administration spaces.

When the general office cannot have direct access to exterior daylight, provide glazing to allow borrowed light into the space.

The school will require a secure method for mail delivery, such as a dedicated mailbox distinct from those of the other building occupants. Coordinate mail delivery early with the developer.

4.3 Building Code & Life Safety Issues

Coordinate early with the developer to ensure the shell space is designed to comply with OBC A2 assembly occupancy requirements.

Secure all areas, at all times where students are under TDSB supervision from the remainder of the podium. Coordinate for school lockdown procedures and fire drills, including selecting a suitable area for assembly.

5. Mechanical Systems

5.1 General Instructions

Read Mechanical Podium School Design Guideline in conjunction with current TDSB Elementary School Design Guideline.

5.2 Coordination with other Divisions

Maintain effective coordination with the base building consultants, developers, and contractors, and coordinate with other divisions fitting out the school.

At the preliminary design stage, review and comment on the lease/sale agreement, base building drawings, TDSB design manuals, and other documents informing the scope and requirements of base building and fit-out work. Highlight items not conforming with TDSB design guidelines.

Review and comment on the appropriateness of the following:

- Service room sizes and locations.
- Floor to floor heights.
- Base building proposed mechanical system.
- Clauses requiring TDSB to single source equipment, contractors, service contracts or energy providers (i.e., Enwave).
- Base building services that may affect fit-out space (e.g. base building pipes in the TDSB space or noisy base building equipment that may affect the school).
- Base building pipe connection flows, locations and sizes.

Request, review and comment on base building drawings and specifications as the project progresses.

Consultants' drawings may be submitted to the base building consultants for review and comment at certain milestones. Involve TDSB early in discussion with utility or service providers (e.g. Enwave District Energy) that commits them to agreements that affect their space.

Ensure base building services do not run through TDSB spaces to limit damage from leaking services and limit base building services contractors accessing school spaces for regular maintenance or emergency repairs. Locate vertical risers serving the base building outside of TDSB spaces. Locate horizontal services outside the TDSB spaces whenever possible. Where horizontal services must be located within TDSB spaces, make every effort to limit extent. Where base building services must be located in the school bring to the attention of TDSB staff for review.

5.3 Mechanical Specifications

Design equipment, materials and installation to the more stringent of the TDSB standards or the base building standards from the point of connection to the base building systems.

Design piping and equipment subject to high pressures in high-rise buildings for the pressures or install a pressure break installed.

5.3.1 HVAC and Plumbing Systems

Provide for operating schedules for systems serving the school to operate independently from the base building. No base building schedules shall affect the school's operation during school hours.

Provide plumbing fixtures and trim per TDSB standards. Coordinate sanitary discharge with base building and communicate all hydraulic loads to base building design team.

Tie domestic water supply into base building water main Provide sub-metering. Coordinate domestic water demand with the base building consultant.

5.3.2 Domestic Water heaters

Provide domestic hot water independent from the base building. Provide Heat pump DHW heaters with electric resistive backup.

5.3.3 Air Distribution

Provide full air-conditioning to all indoor spaces except for service rooms.

Provide dedicated HVAC equipment, independent from the base building, except for the central heating and cooling plant. Coordinate with base building consultant for services and scheduling of central heating/cooling systems.

Provide fresh air, independent from the make-up air unit serving the base building meeting TDSB standards/ASHRAE 62 requirements.

Coordinate fresh air intakes and exhaust louvres with the base building consultant.

5.3.4 Metering

Meter all services with flow and BTU meters where practical. Provide BTU meters on heating water, condenser water, and chilled water. Provide flow meters on outdoor air, natural gas, steam, domestic cold water, domestic hot water, domestic hot water recirculation, and rainwater reuse water.

Provide for all meters serving the school to be directly readable via the school's BAS or EMS.

5.3.5 Building automation system (BAS)

Provide dedicated school BAS under the full control of TDSB, separate from the base building BAS. School BAS system may share read-only points with the base building as required by the base building BAS. Base building BAS shall not be able to change setpoints or sequences.

Coordinate switchover schedule with TDSB, where base building uses a 2-pipe heating/cooling distribution. Provide HVAC systems serving the school, capable of heating when the central system has been switched to cooling.

6. Electrical Systems

6.1 General Instructions

Read Electrical Podium School Design Guideline in conjunction with current TDSB Elementary School Design Guideline.

6.2 Coordination with other Divisions

Maintain effective coordination with the base building consultants, developers, and contractors, and coordinate with other divisions fitting out the school. At the preliminary design stage, review and comment on the lease/sale agreement, base building drawings, TDSB design manuals, and other documents informing the scope and requirements of base building and fit-out work. Highlight items not conforming with TDSB design guideline.

Review and comment on the appropriateness of the following:

- Service room sizes and locations.
- Floor to floor heights.
- Base building proposed mechanical system.
- Clauses requiring TDSB to single source equipment, contractors, service contracts or energy providers (i.e., Enwave).
- Base building services that may affect fit-out of spaces (e.g. base building pipes in the TDSB space or noisy base building equipment that may affect the school).
- Base building pipe connection flows, locations and sizes.

Ensure base building services do not run through TDSB's spaces to limit damage from leaking services and limit base building service contractors accessing school spaces for regular maintenance or emergency repairs. Locate vertical risers serving the base building outside of TDSB spaces. Locate horizontal services outside the TDSB spaces whenever possible. Where horizontal services must be located within TDSB spaces, make every effort to limit extent. Where base building services must be located in the school bring to the attention of TDSB staff for review.

6.3 Electrical Specifications

Design equipment, materials and installation to the more stringent of TDSB standards or base building standards from the point of connection to the base building systems.

6.3.1 Electrical Rooms

Provide school with its own electrical distribution/panel board equipment inside designated service room within the school shell space. Provide and sub-meter power supply from base building. Coordinate electrical demand of the school with base building consultant and establish the demarcation point with base building owner/landlord.

6.3.2 Preferred Distribution Voltage

Do not locate transformer, if required to meet the school's preferred utilization distribution voltage, within the leased space.

6.3.3 Essential Service (Standby Generator Provision)

Provide central battery inverter system within school's electrical room for emergency lighting, exit signs, and PA system. Provide separate standby life safety power tenant panel fed from base building for other life safety loads such as pumps, exhaust fans, electric heaters.

Provide min run time of emergency power systems to comply with Ontario Building Code (OBC) requirements for the building classification.

Where TDSB requires other non-life safety loads to be on emergency power, the consultant shall coordinate a non-life safety power service with the base building consultant.

6.3.4 Outgoing (outside line) telephone system

Provide 25mm (1") conduit (individually home run) complete with required telephone wiring per TDSB standards from TDSB communication room to base building main telecommunication room. Verify demarcation point with base building owner/landlord and service provider.

6.3.5 Data network systems

Provide 75mm (3") conduit (individually home run) complete with required copper cabling from TDSB communication room to base building main telecommunication room. Where cabling distances render this not feasible, provide 50 mm (2") conduit complete with 12-strand fibre-optic cable. Verify the demarcation point with base building owner/landlord and service provider.

6.3.6 Fire alarm system

Provide audible notification devices (e.g., speakers, horns, etc.) matching the type used in the base building unless otherwise directed by TDSB or their code consultant.

Provide TDSB space with its own data-gathering panel (DGP).

Indicate in design documents that base building fire alarm contractor be engaged for any modifications to the base building fire alarm system.

6.3.7 Specialty alarm and monitoring systems

Review base building alarm and monitoring systems to coordinate interfaces with TDSB systems for shared building areas such as exterior doors and shared entrances. Coordinate with base building owner/landlord and base building system provider to provide a connection to TDSB central system call center.

7. Real Estate Considerations

7.1 Ownership Structure

Provide stratified, non-condominium, fee simple title ownership to the school space within the development. Provide outdoor play areas at the ground level or rooftop secured as stratified fee simple ownership or provide as exclusive use easement.

TDSB and the developer will negotiate and enter into an agreement of purchase and sale for the purchase by TDSB of the school space. The agreement will contain terms and conditions for the real estate interest and approved building plans and specifications.

7.2 Reciprocal Easements

The integration of the school space within a mixed-use development may require additional real estate agreements, such as easements, between the parties. An easement is the legal right to use someone else's property for a specific purpose. A number of reciprocal easements may be secured regarding the building structure and functioning of building services.

Mechanical and Electrical Design Guidelines require no base building services run through the school space. TDSB approval will be required if any services benefitting another party or shared with other building parties must be installed within school spaces, and easements will need to be negotiated. Easement agreements would contain terms and conditions, including conditions under which base building service contractors could access the school space for regular maintenance or during emergencies.

7.3 Common Areas and Shared Site Facilities

The Podium Design Guideline advises that school spaces function independently of the operation of the remainder of the building. There are some elements, such as underground parking, that may be most cost-effective if shared amongst the parties and would lead to a more efficient building design.

A Shared Site Facility describes facilities, equipment, services, systems, components or areas within the building that are utilized in common by two or more of the Parties, and the legal right to use that Shared Facility may be covered by an Easement.

Where Shared Site Facilities exist, such as underground parking and loading and waste bays, TDSB and the developer will enter into a Shared Site Facilities Agreement. The Agreement will include an annual budget and administration protocols for the cost sharing for maintenance, repairs and replacement.

Imagery References

Figure Number	Reference Link
1.1A	https://architizer.com/projects/crosstown-elementary-school/
1.3A	https://architecturetoday.co.uk/high-achievement/
2.3A	https://www.homes.com/school/new-york-ny/p-s-397-spruce-street-school/vs1rtjg3d7syr/?dk=90q9w2xvkskmj&tab=2
2.4.1A	https://www.alamy.com/stock-photo-colourful-crossings-multicoloured-pedestrian-crossing-by-camille-walala-133687479.html
3.5.2A	https://stridetreglown.com/projects/kingston-community-school/
3.5.2B	https://www.maxfordham.com/projects/nightingale-primary-school
3.5.2C	https://hayball.com.au/projects/south-melbourne-primary-school/
3.5.3A	https://www.archdaily.com/893807/marlborough-primary-school-dixon-jones
3.5.3B	https://www.cramworkshop.com/cram-workshop-kensington
3.5.3C	Photography credit: Tom Arban
3.5.4A	https://worldlandscapearchitect.com/playground-and-green-space-in-berlin-friedrichshain/?v=5435c69ed3bc
3.5.6A	https://www.olsonlewis.com/news/outdoor-classrooms-in-the-time-of-a-pandemic
3.5.7A	https://www.activediscovery.net.au/product/fusion-original/
3.5.7B	https://unityhousing.org.au/lions-park-upgrade/
3.6A	Image credit: Janet Rosenberg Studio