

PART 1 GENERAL**1.1 Summary**

- .1 Unless otherwise indicated, follow the standards below when specifying exterior site furnishings. These standards are not intended to restrict or replace professional judgment.

1.2 References

- .1 Canadian Standards Association (CSA)
 - .1 CSA G164 Hot Dip Galvanizing of Irregularly Shaped Articles.
- .2 American Society for Testing and Materials (ASTM)
 - .1 ASMT B117 Standard Practice for Operating Salt Spray (Fog) Apparatus.
 - .2 ASTM D2247 Standard Practice for Testing Water Resistance of Coating in 100% Relative Humidity.
 - .3 ASTM D3359 Standard Test Methods of Measuring Adhesion by Tape Test.

1.3 Design Requirements

- .1 General
 - .1 All site furnishings other than the McGill Standard Collection shall meet the campus standards and shall be reviewed by McGill University's Garden and Grounds Committee, and the Architecture & Planning Advisory Committee.
 - .2 They shall always be located on flat (2% max for drainage), hard surfaces.
 - .1 Adjoining turfed or planted areas, the hard surface shall be no larger than necessary.
 - .2 Whenever possible, provide a hard surface adjacent to pedestrian clearway zones.
 - .3 Colour: Metal elements for outdoor furniture shall have be RAL #7016.
- .2 Garbage/Recycling Stations
 - .1 Garbage/Recycling stations are located throughout campus, near entrances of buildings, in plazas and at crossroads.
 - .2 They shall be placed in a manner that is visible and easily accessible, but also discreet.
 - .3 Single Garbage/Recycling stations may be installed as required. These are one (1) outdoor bin with:
 - .1 Two (2) smaller openings ("Landfill on the left, "Recycling" on the right) and two (2) smaller recipients.
 - .4 Double Garbage/Recycling stations may be installed, as required. These are two (2) side-by-side (5mm separation) outdoor bins with:

- .1 The left bin having one (1) large opening for “Landfill” and one (1) large recipient; and
 - .2 The right bin having one (1) large opening for “Recycling” and one (1) large recipient.
- .3 Benches, chairs and seats
- .1 All types of stand-alone benches with or without backrest and built-in benches.
 - .2 The users’ feet, when sitting, shall also be on a hard surface.
- .4 Bicycle Parking Stations
- .1 They shall be placed in a manner that is easily accessible while visually discreet, and clear of main circulation paths.
 - .2 Where possible, they shall be located in a sheltered area for protection from elements.
 - .3 Shall be within 20m of main entrance.
 - .4 Bicycle parking stations shall allow for smaller amount of parking structures but be implanted in a larger number so as to avoid the negative visual impact of mass bicycle parking.
 - .5 Layout, to allow room for unimpeded bike parking
 - .1 An optimal distance of 750 mm between each vertical element shall be respected to allow comfortable space between each bike.
 - .2 Bike rack (edge) should be at a minimum 600mm, ideally ± 700 mm from edge of hard surfaces or vertical elements.
 - .3 When rows of bike racks are placed back-to-back, bike racks should be separated by at a minimum 600mm, ideally ± 800 mm, centre-to-centre.
 - .4 When an aisle is planned between bike rack rows, racks should be separated by at a minimum 2400mm, ideally ± 3000 mm (centre-to-centre), This will result in an aisle of approximately 1200mm to 1800mm in width.
- .5 Tables
- .1 All types of tables on campus such as picnic tables, studying tables, etc.
 - .2 Tables on campus shall be segregated in small groups.
 - .3 The users’ feet, when sitting, shall also be on a hard surface.
 - .4 Tables should be laid out so that at least one end, if not both ends, remains universally accessible, namely away of steep slopes and free of nearby vertical obstructions. The hard surface put in place should extend beyond the table to accommodate a wheelchair at the table.
- .6 Flower Boxes
- .1 Refer to section 32 93 10 Tree, Shrubs and Ground Cover plantings, for planting selections.
 - .2 In-ground planting is preferred. Flower boxes are only permissible when in-ground planting is not possible or desirable (such as for space flexibility, etc.).
- .7 Bollards

- .1 For bollard which contain a light source, refer to section 32 37 50 Outdoor Lighting.
- .2 May install Fixed Bollards or Hydraulic Bollards as needed, in consultation with Security Services.
- .3 Bollards can be located in places needed to separate pedestrian and vehicular circulations or along pedestrian plazas.
- .8 Ashtrays
 - .1 McGill's campuses are non-smoker. Ashtrays shall not be installed.
- .9 Tag Markers for Snow Removal
 - .1 Markers shall be placed 150mm from vertical obstructions.
 - .1 Location within prefabricated pavers shall be according to manufacturer's recommendations, no less than 150mm from vertical obstructions.
- .10 Outdoor Charging Stations
 - .1 Outdoor charging stations will be located near benches or tables.
- .11 Outdoor Drinking Fountains
 - .1 Outdoor drinking fountains will be located throughout the campus at key locations.
 - .2 They shall have their arms parallel to the general circulation flow, with push-buttons and water fillers oriented towards the front.
 - .3 They shall be installed within a dedicated area immediately adjacent to (but not within) circulation paths. The dedicated area shall :
 - .1 be universally accessible, free of any obstacles;
 - .2 be, at a minimum, 2000mm x 2000mm;
 - .3 have a surface of precast pavers;
 - .4 have the drinking fountain 500mm from its back edge, and centered laterally within it.

PART 2 PRODUCTS**2.1 Anchoring**

- .1 All site furniture shall be fixed using anti-vandalism, stainless steel bolts.

2.2 Wood

- .1 Robinia pseudoacacia (Black Locust) wood is preferred for all outdoor site furnishings.
 - .1 All wood must be FSC certified.
 - .2 All wood must be furniture grade.
 - .3 Robinia pseudoacacia does not require any protective coatings.



2.3 McGill Standard Collection

.1 General

.1 McGill Standard Collection List:

McGill Exterior Site Furnishings		
Item	Description	Overall dimensions in mm (H. x L. x D.)
1	Garbage/Recycling Station	1078 x 581 x 584
2	Table	765 x 1822 x 1012
3	Picnic table	765 x 1822 x 1754
4a	Bistro table	1067 x 1012 x *912
4b	Bistro chair	777 x 610 x 434
5	Bicycle Parking Station	1184 x 413 x 257
6	Flower box	452 x 1092 x 431
7	Seat with backrest	897 x 628 x 531
8	Seat without backrest	452 x 629 x 431
9	Long chair - type 1	808 x 889 x 1454
10	Long chair - type 2	808 x 889 x 839
11	Bench with backrest - no legs	877 x 1825 x 532
12	Bench without backrest - no legs	451 x 1822 x 431
13	Bench with backrest	877 x 1822 x 531
14	Bench without backrest	452 x 1822 x 431
15	Double bench with backrest - no legs	877 x 1822 x 1092
16	Double bench without backrest - no legs	451 x 1822 x 1092
17	Double bench with backrest	877 x 1822 x 1092
18	Double bench without backrest	452 x 1822 x 1092
19	Arm rest	139 x 450 x 73

* Dimensions are approximate

- .2 “Tessier Récréo-Parc” is the official supplier for all McGill exterior site furnishing and it is subjected to a single contract.
- .3 All McGill site furnishing has to be supplied exclusively by this supplier except for these items: bollards, ashtrays, tag markers for snow removal, outdoor charging stations and outdoor lighting.
- .4 Drawings are available for Consultants upon request.
- .5 Exterior painting: refer to Section 09 91 13 – Exterior painting.
- .6 Galvanisation:
 - .1 Hot-galvanized with a coat of at least 610g/sq.m., according to the CSA G164 standard.
- .2 Garbage/Recycling Stations
 - .1 Characteristics
 - .1 Structure
 - .1 Steel angles 6 mm x 38 mm x 38 mm.
 - .2 Aluminium flats 6.4 mm thick.
 - .2 Front, back: wood slats
 - .3 Front panel: interchangeable aluminium flats 6.4mm
 - .1 Openings: “Landfill”, “Recycling”
 - .4 Recipient: rigid plastic liner
- .3 Benches, chairs and seats
 - .1 Benches and seats may be with/without backrests and/or arm rests.
 - .2 Benches and seats may have standard-length legs or be placed on a base made of a separate material, as seen in the drawings below.
 - .3 Characteristics
 - .1 Structure
 - .1 Footing
 - .1 Steel flats 10 mm x 64 mm.
 - .2 Laser-cut steel, 10 mm thick.
 - .2 Mid support bands
 - .1 Steel flats 10 mm x 51 mm.
 - .3 Reinforcement
 - .1 38 mm x 38 mm x 6 mm angle.
 - .4 Bicycle Parking Stations
 - .1 Characteristics
 - .1 Structure

- .1 Laser-cut steel, 13 mm thick.
- .5 Tables
 - .1 Characteristics
 - .1 Structure
 - .1 Laser-cut steel, 10 mm and 13 mm thick.
 - .2 Steel angles, 38 mm x 38 mm x 6 mm.
- .6 Flower Boxes
 - .1 Characteristics
 - .1 Structure
 - .1 Steel angles 6 mm x 38 mm x 38 mm.
 - .2 Aluminium flats 6.4 mm thick.
- .7 Bollards
 - .1 For bollard which contain a light source, refer to Section 32 37 50 – Outdoor Lighting.
 - .2 Anchoring base plate: when the bollard within an area of precast concrete pavers (as would normally be the case, the following measure shall be taken)
 - .1 No concrete, asphalt or other such material shall be visible around the bollard's base plate.
 - .2 The base plate frame shall be modified to remove any protrusions, to allow installation of pavers right up to the frame without the need to alter the pavers' thickness.
 - .3 Fixed Bollards
 - .1 Bollard J275 F 600 fixed traffic bollard in painted steel, as manufactured by FAAC or approved equivalent.
 - .2 Characteristics:
 - .1 Material: Steel Fe 360 (4mm thickness).
 - .2 Paint: cataphoresis and polyester powder paint.
 - .1 Colour: RAL #7021 Black grey.
 - .3 Top: Aluminium
 - .1 Colour: RAL #9006 White aluminium.
 - .4 Refracting strip: 55mm.
 - .5 Height: 600mm.
 - .6 Diameter: 275mm.
 - .7 Weight: 34kg.
 - .4 Hydraulic Bollards
 - .1 Bollard J275 HA 600 automatic retractable traffic bollard in painted steel, as manufactured by FAAC or approved equivalent.

- .2 Characteristics:
 - .1 Material: Steel Fe 360 (7mm thickness).
 - .2 Paint: cataphoresis and polyester powder paint.
 - .1 Colour: RAL #7021 Black grey.
 - .3 Top: Aluminium
 - .1 Colour: RAL #9006 White aluminium.
 - .4 Refracting strip: 55mm.
 - .5 Height: 600mm.
 - .6 Diameter: 275mm.
 - .7 Weight: 34kg.
 - .8 Emergency lowering in the event of a power cut.
- .8 Tag Marker for Snow Removal
 - .1 Orange tag marker screwed into edge of cement, height of 1800mm, composed of:
 - .1 An orange rod, 20mm in diameter, fibreglass 10mm or 12.5mm in diameter covered with an envelope of low density polyethylene with a thickness of 5mm or 3.75mm tinted orange and treated against UV rays, with a low density reflective strip 75mm in height situated 200mm from the tip of the rod.
 - .2 Polycarbonate border receptacles, 115mm in length, with internal threads.
 - .3 Polycarbonate ground receptacles, 115mm in diameter and 64mm in length, with internal threads.
 - .4 Polycarbonate reference rod connector held at the base with strips using lateral pressure clinging to the notch of the polyethylene casing.
 - .5 Galvanized steel pipe, 19mm in diameter, length varying from 600mm to 900mm fitted a retainer plate at one end and threaded at the other, able to hold ground receptacle.
 - .2 Acceptable product: “Tag marker R-6” and rod, as manufactured by P.S.B Gesma Inc. or approved equivalent.
- .9 Outdoor Charging Stations
 - .1 “Wiremold – Power Pedestal” outdoor charging station, as manufactured by LeGrand or approved equivalent. Includes colour-matched door, two (2) device shelves “XCSSHELF”, anchoring base.
 - .2 Characteristics
 - .1 Material: 4.78mm thick aluminium body powder coated with durable, outdoor-rated paint.
 - .1 Colour: RAL #7016 Antracite Grey.
 - .2 Dimensions: 864mm (H) x 152mm (L) x 203mm (W)
- .10 Outdoor Drinking Fountains

- .1 Modular outdoor bottle filler pedestal with internal flange anchoring, and drinking fountain arm configured in the “Adult position”.
 - .2 Custom paint colour RAL #7016 Antracite Grey
 - .3 Optional accessories shall not be included, unless specifically requested by McGill.
For example:
 - .1 Modular outdoor dog bowl
 - .2 Modular outdoor pedestal lockable hose bib
 - .4 Acceptable product: Model 3611 by Haws:
- 2.4 Custom designed furniture:**
- .1 Custom-designed furniture may be used in exceptional circumstances. Design change to be submitted as a variance.
- 2.5 Outdoor Lighting**
- .1 Refer to Section 32 37 50 – Outdoor Lighting.

END OF SECTION