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)
   .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  Double or triple Garbage/Recycling Stations may be installed, as required.
      .1  Double Stations shall have a “Garbage” opening on the left and a “Bottle” opening on the right.
      .2  Triple Stations shall have a “Garbage” opening on the left, a “Bottle” opening in the middle, and a “Paper” opening on the right.
.3  Benches 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 Must 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 must be respected to allow comfortable space between each bike.
.2 Bike rack (edge) should be at a minimum 600mm, ideally ±700mm 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 ±800m, centre-to-centre.
.4 When an aisle is planned between bike rack rows, racks should be separated by at a minimum 2400mm, ideally ±3000m (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 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.

.7 Ashtrays
.1 McGill’s campuses are non-smoker. Ashtrays should not be installed.

.8 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.).

.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  TO BE DISCUSSED
   .1 Ipe wood is preferred for all outdoor site furnishings.
      .1 Acceptable alternative to Ipe wood is Radiata Pine wood, manufactured through the ACCOYA proprietary acetylation process of the Accsys Group, or equivalent preliminarily approved by the University.
   .2 Ipe wood must be treated with protective oil coating.
   .3 Refer to McGill’s Building Design Standards – Landscape for information regarding wood procurement.

2.3 McGill Standard Collection
   .1 General
      .1 McGill Standard Collection List:
<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
<th>Dimensions in mm (H. x L. x D.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Waste basket</td>
<td>1028 x 500 x 484</td>
</tr>
<tr>
<td>2</td>
<td>Table</td>
<td>765 x 1822 x 1012</td>
</tr>
<tr>
<td>3</td>
<td>Picnic table</td>
<td>765 x 1822 x 1754</td>
</tr>
<tr>
<td>4a</td>
<td>Bistro table</td>
<td>1067 x 1012 x 912</td>
</tr>
<tr>
<td>4b</td>
<td>Bistro chair</td>
<td>777 x 610 x 434</td>
</tr>
<tr>
<td>5</td>
<td>Bike rack</td>
<td>1184 x 413 x 257</td>
</tr>
<tr>
<td>6</td>
<td>Flower box</td>
<td>452 x 1092 x 431</td>
</tr>
<tr>
<td>7</td>
<td>Seat with backrest</td>
<td>897 x 628 x 531</td>
</tr>
<tr>
<td>8</td>
<td>Seat without backrest</td>
<td>452 x 629 x 431</td>
</tr>
<tr>
<td>9</td>
<td>Long chair - type 1</td>
<td>808 x 889 x 1454</td>
</tr>
<tr>
<td>10</td>
<td>Long chair - type 2</td>
<td>808 x 889 x 839</td>
</tr>
<tr>
<td>11</td>
<td>Bench with backrest - no legs</td>
<td>877 x 1825 x 532</td>
</tr>
<tr>
<td>12</td>
<td>Bench without backrest - no legs</td>
<td>451 x 1822 x 431</td>
</tr>
<tr>
<td>13</td>
<td>Bench with backrest</td>
<td>877 x 181 x 531</td>
</tr>
<tr>
<td>14</td>
<td>Bench without backrest</td>
<td>452 x 1822 x 431</td>
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<tr>
<td>15</td>
<td>Double bench with backrest - no legs</td>
<td>877 x 1822 x 1092</td>
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<tr>
<td>16</td>
<td>Double bench without backrest - no legs</td>
<td>451 x 1822 x 1092</td>
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<tr>
<td>17</td>
<td>Double bench with backrest</td>
<td>877 x 1822 x 1092</td>
</tr>
<tr>
<td>18</td>
<td>Double bench without backrest</td>
<td>452 x 1822 x 1092</td>
</tr>
<tr>
<td>19</td>
<td>Arm rest</td>
<td>139 x 450 x 73</td>
</tr>
</tbody>
</table>

* 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.
      .1 Lid: 3,17mm thick
      .2 Openings: “Bottle”, “Garbage” and “Paper”.
      .3 Recipient: 91 Litres.

.3 Benches 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 Bollards
.1 For bollard which contain a light source, refer to Section 32 37 50 – Outdoor Lighting.
.2 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.
.3 Top: Aluminium
.4 Refracting strip: 55mm.
.5 Height: 600mm.
.6 Diameter: 275mm.
.7 Weight: 34kg.

.3 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.
.3 Top: Aluminium
.4 Refracting strip: 55mm.
.5 Height: 600mm.
.6 Diameter: 275mm.
.7 Weight: 34kg.
.8 Emergency lowering in the event of a power cut.

.7 Flower Boxes
.1 Characteristics
.1 Structure
.1 Steel angles 6 mm x 38 mm x 38 mm.
.2 Aluminium flats 6,4 mm thick.

.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