

THE BID DOCUMENTS, CONDITIONS OF CONTRACT, DRAWINGS AND SPECIFICATIONS ARE HEREBY AMENDED, AS FOLLOWS:

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**Amendment 1**

**ARCHITECTURAL DRAWINGS**

- 1.1 Replace sheet A600 Finishes Plan and Schedule, with sheet A600 marked Revision #10 issued herewith, changes bubbled.

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**Amendment 2**

**08 11 13 – METAL DOORS AND FRAMES**

- 2.1 Replace specification section 08 11 13 – Metal Doors and Frames with revision R2 issued herewith. Changes as identified.

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**Amendment 3**

**COLOUR AND MATERIAL SCHEDULE**

- 3.1 Replace Colour and Material Schedule issued previously with Colour and Material Schedule issued herewith marked issued for Addendum #3, changes highlighted.

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**Amendment 4**

**31 22 19.13 - TOPSOIL & FINISH GRADING**

- 4.1 Add specification section 31 22 19.13 Topsoil & Finish Grading issued herewith.

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**Amendment 5**

**32 92 23 - SODDING**

- 5.1 Add specification section 32 92 23 Sodding issued herewith.

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**Amendment 6**

**32 93 00 – TREES, SHRUBS AND GROUND COVERS**

- 6.1 Add specification section 32 93 00 Trees, Shrubs and Ground Covers issued herewith.

**END OF ARCHITECTURAL ADDENDUM No. 3**



1 Level 1 Floor Finishes Plan  
1 : 75

Room Finish Schedule											
ROOM NO.	ROOM NAME	FLOOR		BASE		NORTH WALL		EAST WALL		SOUTH WALL	
		MATERIAL	FINISH	MATERIAL	FINISH	MATERIAL	FINISH	MATERIAL	FINISH	MATERIAL	FINISH
001	Vestibule	CT-1	Polished Concrete	CT-1	Polished Concrete	CT-1	Polished Concrete	CT-1	Polished Concrete	CT-1	Polished Concrete
002	Corridor	LNQ-1	Polished Concrete	LNQ-1	Polished Concrete	LNQ-1	Polished Concrete	LNQ-1	Polished Concrete	LNQ-1	Polished Concrete
003	Day Room	CT-1	Polished Concrete	CT-1	Polished Concrete	CT-1	Polished Concrete	CT-1	Polished Concrete	CT-1	Polished Concrete
004	Kitchen	LNQ-1	Polished Concrete	LNQ-1	Polished Concrete	LNQ-1	Polished Concrete	LNQ-1	Polished Concrete	LNQ-1	Polished Concrete
005	Dining	LNQ-1	Polished Concrete	LNQ-1	Polished Concrete	LNQ-1	Polished Concrete	LNQ-1	Polished Concrete	LNQ-1	Polished Concrete
006	Day Room	LNQ-1	Polished Concrete	LNQ-1	Polished Concrete	LNQ-1	Polished Concrete	LNQ-1	Polished Concrete	LNQ-1	Polished Concrete
007	Turnout	LNQ-1	Polished Concrete	LNQ-1	Polished Concrete	LNQ-1	Polished Concrete	LNQ-1	Polished Concrete	LNQ-1	Polished Concrete
008	Corridor	LNQ-1	Polished Concrete	LNQ-1	Polished Concrete	LNQ-1	Polished Concrete	LNQ-1	Polished Concrete	LNQ-1	Polished Concrete
009	Training	LNQ-1	Polished Concrete	LNQ-1	Polished Concrete	LNQ-1	Polished Concrete	LNQ-1	Polished Concrete	LNQ-1	Polished Concrete
010	Captain	LNQ-1	Polished Concrete	LNQ-1	Polished Concrete	LNQ-1	Polished Concrete	LNQ-1	Polished Concrete	LNQ-1	Polished Concrete
011	Vestibule	CT-1	Polished Concrete	CT-1	Polished Concrete	CT-1	Polished Concrete	CT-1	Polished Concrete	CT-1	Polished Concrete
012	Crew	LNQ-1	Polished Concrete	LNQ-1	Polished Concrete	LNQ-1	Polished Concrete	LNQ-1	Polished Concrete	LNQ-1	Polished Concrete
013	Vestibule	CT-1	Polished Concrete	CT-1	Polished Concrete	CT-1	Polished Concrete	CT-1	Polished Concrete	CT-1	Polished Concrete
014	Crew	LNQ-1	Polished Concrete	LNQ-1	Polished Concrete	LNQ-1	Polished Concrete	LNQ-1	Polished Concrete	LNQ-1	Polished Concrete
015	Vestibule	CT-1	Polished Concrete	CT-1	Polished Concrete	CT-1	Polished Concrete	CT-1	Polished Concrete	CT-1	Polished Concrete
016	Crew	LNQ-1	Polished Concrete	LNQ-1	Polished Concrete	LNQ-1	Polished Concrete	LNQ-1	Polished Concrete	LNQ-1	Polished Concrete
017	Vestibule	CT-1	Polished Concrete	CT-1	Polished Concrete	CT-1	Polished Concrete	CT-1	Polished Concrete	CT-1	Polished Concrete
018	Crew	LNQ-1	Polished Concrete	LNQ-1	Polished Concrete	LNQ-1	Polished Concrete	LNQ-1	Polished Concrete	LNQ-1	Polished Concrete
019	Vestibule	CT-1	Polished Concrete	CT-1	Polished Concrete	CT-1	Polished Concrete	CT-1	Polished Concrete	CT-1	Polished Concrete
020	Corridor	LNQ-1	Polished Concrete	LNQ-1	Polished Concrete	LNQ-1	Polished Concrete	LNQ-1	Polished Concrete	LNQ-1	Polished Concrete
021	Landry	CT-1	Polished Concrete	CT-1	Polished Concrete	CT-1	Polished Concrete	CT-1	Polished Concrete	CT-1	Polished Concrete
022	Janitor	CT-1	Polished Concrete	CT-1	Polished Concrete	CT-1	Polished Concrete	CT-1	Polished Concrete	CT-1	Polished Concrete
023	Storage	CONC-P	Polished Concrete	CONC-P	Polished Concrete	CONC-P	Polished Concrete	CONC-P	Polished Concrete	CONC-P	Polished Concrete
024	IT, AV & PSA Service Space	SDT-1	Polished Concrete	SDT-1	Polished Concrete	SDT-1	Polished Concrete	SDT-1	Polished Concrete	SDT-1	Polished Concrete
025	Electrical	CONC-P	Polished Concrete	CONC-P	Polished Concrete	CONC-P	Polished Concrete	CONC-P	Polished Concrete	CONC-P	Polished Concrete
026	Mechanical	CONC-P	Polished Concrete	CONC-P	Polished Concrete	CONC-P	Polished Concrete	CONC-P	Polished Concrete	CONC-P	Polished Concrete
027	Apprentice Bay	CONC-S	Polished Concrete	CONC-S	Polished Concrete	CONC-S	Polished Concrete	CONC-S	Polished Concrete	CONC-S	Polished Concrete
028	Tool and Material Bay	CONC-S	Polished Concrete	CONC-S	Polished Concrete	CONC-S	Polished Concrete	CONC-S	Polished Concrete	CONC-S	Polished Concrete
029	Room	CONC-S	Polished Concrete	CONC-S	Polished Concrete	CONC-S	Polished Concrete	CONC-S	Polished Concrete	CONC-S	Polished Concrete
030	Compressor	CONC-S	Polished Concrete	CONC-S	Polished Concrete	CONC-S	Polished Concrete	CONC-S	Polished Concrete	CONC-S	Polished Concrete
031	Extractor	CONC-S	Polished Concrete	CONC-S	Polished Concrete	CONC-S	Polished Concrete	CONC-S	Polished Concrete	CONC-S	Polished Concrete
032	Bunker Gear	CONC-S	Polished Concrete	CONC-S	Polished Concrete	CONC-S	Polished Concrete	CONC-S	Polished Concrete	CONC-S	Polished Concrete
033	WASTE COLLECTION POINT ENCLOSURE	CONC-S	Polished Concrete	CONC-S	Polished Concrete	CONC-S	Polished Concrete	CONC-S	Polished Concrete	CONC-S	Polished Concrete

FLOORING LEGEND:											
LNQ-1	CT-1	CT-2	SDT-1	CONC-P	RSF-1	CONC-S					

FLOORING NOTES:											
1. FLOORING FINISHES ARE SHOWN FOR GRAPHICAL PURPOSES ONLY. FLOORING TO BE CENTERED WITHIN THE SPACE (HORIZONTAL AND VERTICAL DIRECTION) UNLESS NOTED OTHERWISE.											
2. FLOOR DRAINS HAVE NOT BEEN SHOWN ON THE FLOOR FINISH PLANS. REFER TO OVERALL AND ENLARGED PLANS FOR LOCATIONS.											
3. FLOORING TRANSITIONS TO BE CENTERED ON ADJACENT DOOR FRAMES OR WALL OPENINGS UNLESS SHOWN OTHERWISE.											
4. NOTE: IF FLOORING HATCH IS NOT SHOWING ON PRINTED SHEETS, PLEASE REFER TO FLOOR FINISH TAG AND ROOM FINISH SCHEDULE FOR FINISH.											

10	Addendum #3	2024.03.27
9	Issued for Tender	2024.02.23
8	Issued for 100% Contract Documents	2023.11.24
7	Issued for 90% Contract Documents	2023.11.10
6	Issued for Building Permit	2023.11.07
5	Issued for Site Plan Re-Submission	2023.11.07
4	Issued for 75% Contract Documents	2023.10.13
3	Issued for Progress	2023.09.25
2	Design Development Approval	2023.08.25
1	Issued for 100% Design Development	2023.06.27

No.	Revision	Date

Orientation

Seal

ONARIO ASSOCIATION OF ARCHITECTS  
GERRY P. PILON  
LICENSE 5042

All dimensions to be checked and verified on the job by the Contractor. Any discrepancies are to be reported to the Consultant prior to action. Only the latest approved drawings to be used for construction in conformance with all applicable codes, by-laws and regulations. All drawings remain the property of the Consultant.

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Project Information  
Barrie Fire Station 6

845 Mapleview Drive East, Barrie Ontario

For  
Barrie Fire and Emergency Services

Drawing Title  
Finishes Plan and Schedule

Date	2024.03.27	Project No	22030	Drawing No	A600
Drawn by	Author				
Scale	As indicated				

1 General

1.1 **SECTION INCLUDES**

- .1 Labour, Products, equipment and services necessary for metal door and frame work in accordance with the Contract Documents.

1.2 **REFERENCES**

- .1 ASTM A653/A653M, Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvanealed) by the Hot-Dip Process.
- .2 ASTM A924/A924M, Standard Specification for General Requirements for Steel Sheet, Metallic-Coated by the Hot-Dip Process.
- .3 ASTM E90, Test Method for Laboratory Measurement of Airborne Sound Transmission Loss of Building Partitions and Elements.
- .4 CAN4/ULC-S104M, Standard Method for Fire Test of Door Assemblies.
- .5 CAN4/ULC-S105M, Standard Specification for Fire Door Frames, Meeting the Performance Required by CAN4/ULC-S104M.
- .6 CAN/CGSB-1.198, Cementitious Primer, (for Galvanized Surfaces).
- .7 CGSB 41-GP-19Ma, Rigid Vinyl Extrusions for Windows and Doors.
- .8 CAN/ULC-S702, Thermal Insulation, Mineral Fibre for Buildings.
- .9 CSA W47.1, Certification of Companies for Fusion Welding of Steel Structures.
- .10 CSA W59-M, Welded Steel Construction (Metal Arc Welding).
- .11 CSDMA, Canadian Steel Door Manufacturer's Association.
- .12 NFPA 80, Standard for Fire Doors and Other Opening Protectives.
- .13 NFPA 252, Standard Methods of Fire Tests of Door Assemblies.

1.3 **DESIGN REQUIREMENTS**

- .1 Design exterior frame assemblies to accommodate expansion and contraction when subjected to minimum and maximum surface temperature of -35°C to 35°C.
- .2 Maximum deflection for exterior metal doors under wind load of 1.2 kPa not to exceed 1/175th of span.

**1.4 SUBMITTALS**

- .1 Product data: Submit manufacturer's Product data in accordance with Section 01 30 00 indicating door and frame construction.
- .2 Shop drawings:
  - .1 Submit shop drawings in accordance with Section 01 30 00 for each type of door and frame indicating:
    - .1 Thickness and type of steel.
    - .2 Thickness and type of core.
    - .3 Thickness and type of steel stiffeners and location of them within the door.
    - .4 Thickness and type of metal facing on edges of door and method of fastening.
    - .5 Location of mortises, reinforcement, anchorages, joining, welding, sleeving, exposed fasteners, openings and arrangement for hardware.
  - .2 Include schedule identifying each unit with door marks and numbers relating to numbering on Contract Drawings and in door schedule. Indicate doors and frames to be fire rated.

**1.5 QUALITY ASSURANCE**

- .1 Perform work in accordance with requirements by a member of the Canadian Steel Door Manufacturer's Association (CSDMA).
- .2 Label and list fire rated doors and frames by an organization acceptable to authorities having jurisdiction and accredited by the Standards Council of Canada in conformance with CAN4/ULC-S104M and CAN4/ULC-S105M for ratings indicated, Labelling shall be in accordance with NFPA 80.

**2 Products**

**2.1 ACCEPTABLE MANUFACTURERS**

- .1 Baron Metal Industries Inc.
- .2 Daybar Industries Limited
- .3 Fleming Doors Products.
- .4 Steelcraft.
- .5 Vision Hollow Metal Limited.
- .6 Or approved equivalent.

## 2.2 MATERIALS

- .1 General: All materials under work of this Section, including but not limited to, primers are to have low VOC content limits.
- .2 Steel: ASTM A924/A924M, Class 1; Commercial grade steel, hot dip galvanized to ASTM A653/A653M, ZF120 galvanized coating.
- .3 Minimum base steel thickness:
  - .1 Frames 1.6 mm
  - .2 Typical doors 1.6 mm
  - .3 Interior stiffeners 0.9 mm
  - .4 Lock/strike reinforcements 1.6 mm
  - .5 Hinge reinforcements 2.7 mm
  - .6 All other reinforcement 1.6 mm
  - .7 Top and bottom channels 1.2 mm
  - .8 Glazing stops 0.9 mm
  - .9 Guard boxes 0.9 mm
  - .10 Jamb spreaders 0.9 mm
- .4 Top caps and thermal breaks: CGSB 41-GP-19Ma; Rigid PVC extrusions.
- .5 Primer: CAN/CGSB 1.198.
- .6 Core material:
  - .1 Interior doors: Mineral fibre insulation with a minimum face density of 24 kg/m<sup>3</sup> (1.5 lbs/ft<sup>3</sup>).
  - .2 Exterior doors: Rigid poly/isocyanurate, closed cell insulation, 32 kg/m<sup>3</sup> (2.0 lbs/ft<sup>3</sup>), thermal value: RSI 1.9.
  - .3 Fire rated doors: Mineral fibre insulation to CAN/ULC S702, Type 1A; 24 kg/m<sup>3</sup> (1.5 lbs/ft<sup>3</sup>).
- .7 Screws: Stainless steel screws with countersunk flat head.
- .8 Door silencers: Type 6-180, black neoprene.
- .9 Frame anchors:
  - .1 Frames in masonry: 1.2 mm minimum, adjustable T-strap jamb anchors.
  - .2 Frames in steel stud partitions: 0.9 mm minimum steel anchors of suitable design securely welded inside each jamb.
  - .3 Labeled frames: In accordance with ULC requirements.
- .10 Floor anchors: 1.6 mm minimum adjustable floor clip angles with two (2) holes for anchorage to floor.
- .11 Labels for fire doors and door frame: Brass plate, riveted to door and door frame.
- .12 Glass and glazing: In accordance with Section 08 80 00.

## 2.3 FABRICATION

- .1 General
  - .1 Fabricate doors and frames in accordance with reviewed shop drawings.
  - .2 Welding: CSA W59-M to produce a finished unit with no visible seams or joints, square, true and free of distortion.
  - .3 Welding: Continuous unless specified otherwise. Execute welding by a firm fully acceptable to the Canadian Welding Bureau to requirements of CSA W47.1.
  - .4 Form profiles accurately to details shown on Contract Drawings.
  - .5 Ream and remove burrs from drilled and punched holes.
  - .6 Grind welded corners and joints to a flat plane and **ensure surface is cleaned and prepared to receive filler**. Fill with metallic filler and sand to a uniform smooth finish. Apply one coat of primer.
  - .7 Provide weather strip for exterior doors in accordance with Section 08 70 00 and door manufacturer.
- .2 Frames, windows, and screens:
  - .1 Fabricate frames of welded construction. Cut mitres and joints accurately and weld continuously on inside of frame profile. Exterior frames to be thermally broken.
  - .2 Construct large frame sections with provision for on Site assembly to suit Site conditions.
  - .3 Blank, reinforce, drill and tap frames for mortised, templated hardware. Protect mortised cut-outs with guard boxes.
  - .4 Reinforce frames where required for surface mounted hardware.
  - .5 Reinforce frames over 1200 mm wide with roll formed steel channels or hollow structural sections specified in Section 05 50 00 and as indicated on drawings.
  - .6 Furnish exterior door frames with a continuously welded integral steel weather drip at head of frame.
  - .7 Prepare each door opening for single stud rubber door silencers, 3 for single door openings located in strike jamb, and 2 for double door openings located in head.
  - .8 Install 2 channel or angle spreaders per frame, to ensure correct frame alignment. Install stiffener plates or spreaders between frame trim where required, to prevent bending of trim and to maintain alignment when setting in place.
  - .9 Form channel glazing stops minimum 16 mm height, accurately cut, mitred, fitted and fastened to frame sections with stainless steel counter-sunk, flat head screws spaced at maximum 450 mm throughout and 50 mm from each end.
  - .10 Provide the following requirements for electrified frame applications:
    - .1 Low voltage wire conduit for required electrified hardware devices.
    - .2 Junction boxes for all frame mounted electrified hardware devices, complete with required connectors to in frame low voltage wire conduit.

- .3 Anchorage:
  - .1 Anchor units to floor and wall construction. Locate each wall anchor immediately above or below each hinge reinforcement on hinge jamb and directly opposite on strike jamb, minimum number of anchors for each jamb:
    - .1 Frames up to 2285 mm 3 anchors.
    - .2 Frames from 2285 mm to 2440 mm 4 anchors.
  - .2 Where frames are to be set in masonry or concrete, supply adjustable anchors to trade installing frame.
  - .3 Fabricate frames for installation in steel stud partitions with steel anchors of suitable design, minimum number of anchors for each jamb :
    - .1 Frames up to 2285 mm height 4 anchors.
    - .2 Frames 2285 mm to 2440 mm 5 anchors.
- .4 General Door Requirements:
  - .1 Hollow steel construction, flush swing type, of sizes to conform to details, schedules and reviewed shop drawings with provisions for cut-outs for glass and grilles and reinforced to receive hardware fastenings.
  - .2 Blank, reinforce, drill and tap doors for mortised, templated hardware. Where required, reinforce doors for surface mounted hardware and door closers.
  - .3 Reinforce oversized doors with steel channels and plates specified in Section 05 50 00 and as indicated on drawings.
  - .4 Where openings are required, form integral cut-outs with framing, glass stop moldings and division bars.
  - .5 Install grilles to fit tight and secure into openings.
  - .6 Bevel both stiles of single doors 1 in 16.
  - .7 Provide the following requirements for electrified door applications:
    - .1 In door low voltage wire raceways.
    - .2 Steel astragals for hollow metal doors.
    - .3 Reinforcement for all door mounted electrified hardware devices as required and as indicated on Contract Drawings.
- .5 Interior Doors:
  - .1 Supply and install inverted, recessed, mechanically interlocked with tack welded channels at top and bottom of doors.
  - .2 Fabricate doors with joints between front and back panels meeting on stile edges. Make joints mechanically interlocked with tack welded **and fill with filler** for entire height of door. After welding has been completed, grind joints smooth to match metal. ~~Ensure that no filler is used in joints.~~ **Ensure surface is cleaned and prepared to receive filler and provide joints with filler for entire height of door.**
  - .3 Fill hollow space within door and vertical stiffeners from top to bottom with mineral fibre batt insulation.

- .6 Exterior Doors:
  - .1 Supply and install inverted, recessed, mechanically interlocked with tack welded channels at top and bottom of doors.
  - .2 Fabricate doors with joints between front and back panels meeting on stile edges. Make joints mechanically interlocked with tack welded **and fill with filler** for entire height of door. After welding has been completed, grind joints smooth to match metal. ~~Ensure that no filler is used in joints.~~ **Ensure surface is cleaned and prepared to receive filler and provide joints with filler for entire height of door.**
  - .3 Fill void between door faces with polyisocyanurate insulation as specified, thermally bonded to door skins.
- .7 Fire Rated Doors:
  - .1 Supply and install inverted, recessed, spot welded channels at top and bottom of doors. Supply and install steel flush top caps on exterior doors.
  - .2 Fabricate doors with joints between front and back panels meeting on stile edges. Make joints mechanically interlocked with tack welded **and fill with filler** for entire height of door. After welding has been completed, grind joints smooth to match metal. ~~Ensure that no filler is used in joints.~~ **Ensure surface is cleaned and prepared to receive filler and provide joints with filler for entire height of door.**
  - .3 Fabricate doors to achieve fire rating as indicated on drawings and in accordance with ULC. Provide ULC label on door at hinged edge midway between top hinge and head of door.

### 3 Execution

#### 3.1 EXAMINATION

- .1 Verify condition and dimensions of previously installed Work upon which this Section depends. Report defects to Consultant. Commencement of work of this Section means acceptance of existing conditions.
- 2. ***Verify that doors and frames have been prep to properly remove Mill Oil prior to the application of the body filler.***

#### 3.2 HOLLOW METAL DOOR, AND FRAME INSTALLATION

- .1 Install hollow metal doors, frames, windows, and screens in accordance with reviewed shop drawings, manufacturer's written instructions and to meet CSDMA requirements.
- .2 Install hollow metal doors, frames, windows, and screens plumb, square, level, secure, and at correct elevation.
- .3 Install doors clear of floor finishes, and with the correct rebate opening for the door installation. Install door silencers.



- .4 Secure anchorages and connections to adjacent construction. Brace frames rigidly in position while building-in. Remove temporary steel shipping jamb spreaders. Install wood spreaders at third points of frame rebate height to maintain frame width. Supply and install vertical supports as indicated on drawings for openings over 1200 mm in width. Remove wood spreaders after frames have been built-in.
- .5 Allow for structural deflection and prevent structural loads from being transmitted to hollow metal frames.
- .6 Touch-up areas where galvanized coating has been removed or damaged with primer.
- .7 Fire rated doors: Install fire rated doors and frames in accordance with requirements of NFPA 80.

### 3.3 **ADJUSTING AND CLEANING**

- .1 Adjust doors for smooth and balanced door movement.
- .2 Clean doors, frames, windows and screens.

END OF SECTION

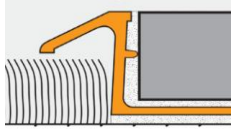
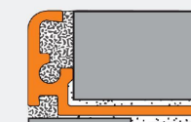
**NOTES:**


1. Read Colour Schedule in conjunction with full specifications, drawings and Room Finish Schedule.
2. It is the sub trades' responsibility to review Colour Schedule and bring to the attention of the Consultant any discrepancies, errors or inconsistencies. Those proceeding with work are responsible to correct mistakes.
3. Where specified products have more than one approved manufacturer, color selections are indicated for each manufacturer. Where products are single sourced, alternates will be allowed that match visually and of equal or superior quality. Alternates proposed during bidding will be subject to the process outlined in the City of Barrie Procurement documents. Substitutes during construction will be subject to the approval of the Consultant.
4. Where flooring has a direction/ pattern the subtrade must confirm Consultants intent prior to installing. Those proceeding without written confirmation will be responsible to correct mistakes.
5. Grout on projects will be Kiesel Servoperl Royal or approved equivalent.
6. Sub trades must confirm colour choices with designer prior to ordering materials. Those proceeding without approval will be responsible to correct mistakes.
7. Proposed alternates will be considered as per City of Barrie procurement policies. All alternates to be submitted to consultant for review. Proposed alternates to meet the same quality as original proposed materials.





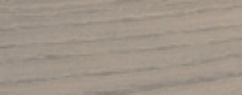
ABBREVIATIONS:							
*	Refer to Remarks	CG	Corner Guard	C.T.C	Centre to Centre	EQ	Equal
AFF	Above Finished Floor	CH	Coat Hook	C/W	Complete With	EXP	Exposed
ALUM	Aluminum	C/L	Centre Line	DIA	Diameter	EXIST.	Existing
ARCH	Architectural	CLG.	Ceiling	DIM	Dimensions	EXT	Exterior
A/V	Audio Visual	COL.	Column	DM	Decorative Metals	FD	Floor Drain
BF	Barrier Free	CONC	Concrete	DN	Down	FE	Fire Extinguisher
BLK	Block	CONST	Construction	DTL	Detail	O.C	On Centre
BLKG	Blocking	CFAW	Cold Fluid Applied	DWGS	Drawings	O.H	Overhead
BLKHD	Bulkhead	CONT.	Continuous	E.J	Expansion Joint	OWSJ	Open Web Steel Joist
BN	Bullnose	CPT	Carpet	ELECT	Electrical	P.WD	Plywood
B.O.H	Back of House	CRS	Course	ELEV	Elevator	PL	Plastic Laminate



CBD	Cement Board	CT	Countertop	EP	Epoxy Paint	PREFIN	Prefinished
PREMNUF	Premanufactured	S.S	Stainless Steel	MTL	Metal	F.O.H	Front of House
PT	Paint	ST	Stain	N.I.C	Not In Contract	GLAV	Galvanized
PU	Polyurethane	STRUCT	Structural	N.T.S	Not to Scale	GB	Grab Bar
R	Radius	SUSP	Suspended	TRANSP.	Transparent	GL	Glazing
RB	Resilient Base	SW	Sculptural Screen	TYP	Typical	GWB	Gypsum Wall Board
RBB	Rubber Base	WALL		U.N.O	Unless Otherwise Noted	H	Hardware
REQ'D	Required	T	Tile	FEC	Fire Cabinet	HD	Hand Dryer
RH	Robe Hook	MECH	Mechanical	FF	Factory Finish	HDR	Hand Rail
RF	Resilient Floor	MG	Mirror	FIN	Finish	HDWD	Hardwood
SEAL	Sealer	MIN	Minimum	FLR	Floor	HM	Hollow Metal


SP	Solid Lumber Panel	MM	Millimeters	FR	Fire Retardant	HORIZ	Horizontal
SPECD	Specified	MS	Metal Stud	FRP		HR	Hour
HT	Height	V.B	Vapour Barrier	WV	Wood Veneer	WR	Washroom
INSUL.	Insulation	VERT	Vertical	U/S	Underside	WT	Wood Trim
JT	Joint	VEST	Vestibule	URETH	Urethane		
L	Lighting	VP	Wood Venner Panel				
LVT	Luxury Vinyl Tile	W/	With				
M	Mirror	WB	Wood Base				
MAT	Material	WC	Wallcovering				
MAX	Maximum	WD	Wood				
UR	Urinal	WDSLT	Wood Slat				

05 50 00 - Metal Fabrications							
Code	Location	Manufacturer	Product	Colour	Finish	Remarks	Image
DM-1	Transition from Tile to LINO	Schluter Systems	Reno TK	Aluminum	Satin Anodized	1. Contractor to confirm specification	
							OR
							Approved Equal
DM-2	Tile Cap	Schluter Systems	Jolly	Aluminum	Satin Anodized	-	
							OR
							Approved Equal
MTL-1	Millwork Toe Kick, Typical	Custom	Custom 18ga stainless steel kick	match PT-3	powder coated	1. Refer to elevations for height	-



06 20 00 Finish Carpentry							
Code	Location	Manufacturer	Product	Colour	Finish	Remarks	Image
H-1	Kitchen, Day Room	Richelieu	Modern Metal Pull #BP9256160195	Nickel	Brushed	1. Refer to elevations for installation orientation	
							OR
							Approved Equal

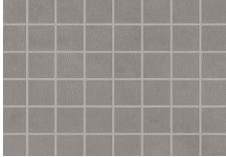
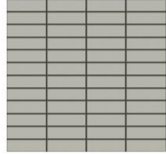
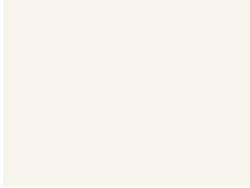
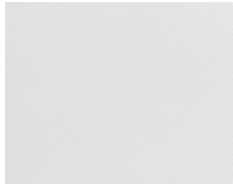
H-2	Crew Rooms Storage Millwork	Richelieu	Electronic Lock with Keypad #4001490	Grey	-	1. Refer to manufacturer for installation instructions	
	OR						
	Approved Equal						
H-3	Crew Rooms Storage Millwork	Richelieu	Modern Aluminum Edge Pull - 9494 #BP9494192170	Stainless Steel	-	-	
	OR						
	Approved Equal						
LAM-1	Crew Beds and Bedside Tables	Wilsonart	Compact Laminate	Grey Elm	#8201	-	
	OR						
	Approved Equal						
WD-1	Millwork	-	Solid Wood Hardwood Maple	-	STN-1	Contractor to provide control sample for approval	
WD-2	Millwork	-	Wood Veneer Hardwood Maple	-	STN-1	Contractor to provide control sample for approval	

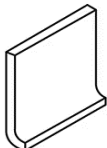
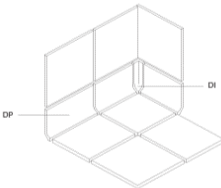


06 61 00 - Solid Surfacing							
Code	Location	Manufacturer	Product	Colour	Finish	Remarks	Image
SS-1	Countertop	Wilsonart	Solid Surface 1/2" Thick 30"x144"	Powder White #9230SS	-	1. Bullnose edge profile	
	OR						
	Countertop	Corian	Solid Surface 1/2" Thick 30"x144"	Stonique	-	1. Bullnose edge profile	
	OR						
	Approved Equal						

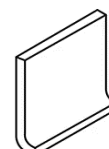
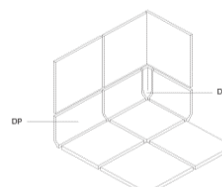
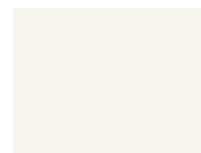

08 83 00 - Mirror							
Code	Location	Manufacturer	Product	Colour	Finish	Remarks	Image
MG-1	Training	-	Clear Mirror Panels 1800mm H x 900w	Clear	-	1. Affixed to partitions 2. Square edge profile, tightly abutted to adjacent mirror	






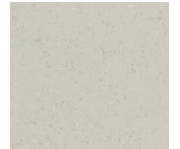
09 30 00 - Tiling						
Code	Location	Manufacturer	Product	Colour	Remarks	Image
CT-1	Vestibule Floor, WRM Floors	Daltile	Portfolio Ash Grey Rectangle 12x24 5/16 Thick	PF05 Ash Grey Matte Finish	1. Horizontal Stack Installlation 2. To be used with DM-1 As req 3. Grout	
	<u>OR</u>					
	Vestibule Floor, WRM Floors	Olympia Tile	Lea Stone Series Grey 12x24	HV.LS.GRY.122 4.MT	1. Horizontal Stack Installlation 2. To be used with DM-1 As req 3. Grout	
	<u>OR</u>					
	Approved Equal					



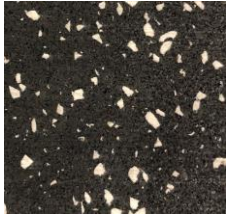
CT-2	Shower Floor	Daltile	Portfolio Ash GreyStraight Joint Mosaic 2x2 1/4 Thick	PF05 Ash Grey Matte Finish	1. Grout:	
	<u>OR</u>					
	Shower Floor	Olympia Tile	Unicolour Series Mosaic 2.3x7.3cm	Light Grey Matte Finish	1. Grout:	
	<u>OR</u>					
	Approved Equal					
CT-3	Shower Walls	Daltile	Color Wheel Arctic White 6x18 3/8" Thick	0190 Arctic White Glossy Finish	1. Vertical Stack Installation 2. Grout:	
	<u>OR</u>					
	Shower Walls	Mosa (Holten Impex)	Global Collection Plain Cool White 6x12 0.28" Thick	16840 Plain Cool White Glossy Finish	1. Vertical Stack Installation 2. Grout:	
	<u>OR</u>					
	Approved Equal					

CT-4	Shower Walls Tile Base (T-3 Walls)	Daltile	Color Wheel Arctic White 6x6 Cove Base #A3601 3/8" Thick	0190 Arctic White Glossy Finish	1. Grout: 2. Shower floor to be inline with edge of cove 3. Complete with corner pieces as required	
	OR					
	Shower Walls Tile Base (T-3 Walls)	Mosa (Holten Impex)	Global Collection Global Grip Plain Cool White 6x12 0.28" Thick	16840 Plain Cool White Glossy Finish	1. Grout: 2. Shower floor to be inline with edge of cove 3. Complete with corner pieces as required	
	OR					
Approved Equal						
CT-5	Shower Walls- Shower Control Wall	Daltile	Color Wheel Matte Chalkboard 6x18 3/8" Thick	0780 Matte Chalkboard Matte Finish	1. Vertical Stack Installation 2. Grout:	
	OR					
	Shower Walls- Shower Control Wall	Mosa (Holten Impex)	Global Collection Plain Ivory Black 6x12 0.28" Thick	16850 Plain Ivory Black Glossy Finish	1. Vertical Stack Installation 2. Grout:	
	OR					
Approved Equal						

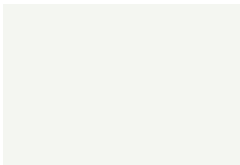


CT-6	Shower Walls Tile Base (T-5 Walls)	Daltile	Color Wheel Matte Chalkboard 6x6 Cove Base #A3601 3/8" Thick	0780 Matte Chalkboard Finish	1. Grout: 2. Shower floor to be inline with edge of cove 3. Complete with corner pieces as required	
	OR					
	Shower Walls Tile Base (T-5 Walls)	Mosa (Holten Impex)	Global Collection Global Grip Plain Ivory Black 6x12 0.28" Thick	16850 Plain Ivory Black Glossy Finish	1. Grout: 2. Shower floor to be inline with edge of cove 3. Complete with corner pieces as required	
	OR					
	Approved Equal					
CT-7	Kitchen Backsplash	Daltile	Color Wheel Arctic White 3x6 3/8" Thick	0190 Arctic White Glossy Finish	1. Horizontal Stack Installation 2. To be used with DM-2 as Req. 3. Grout:	
	OR:					
	Kitchen Backsplash	Olympia Tile	Colour & Dimension Series Arctic White 3x6	QT.CD.ARW.03 06.BR Arctic White Finish: Bright	1. Horizontal Stack Installation 2. To be used with DM-2 as Req. 3. Grout:	
	OR					
	Approved Equal					

09 51 23 Acoustic Ceilings						
Code	Location	Manufacturer	Product	Colour	Remarks	Image
ACT-1	ACT Ceilings	Armstrong Ceilings	#1773 Dune Lay-In Tile with HumiGuard Plus and BioBlock 610mm x 1220mm x 16mm thick Suspension Grid System:Prelude XL - 23mm Wide Exposed T-Grid, White	White	1. Refer to ceiling plan for ceiling tile locations	
	OR:					
	ACT Ceilings	CGC Inc.	Olympia Micro ClimaPlus 4913 Lay in Tile 610mm x 1220mm x 16mm Suspension Grid System: Donn DX-23mm wide Exposed T-Grid, White	White	1. Refer to ceiling plan for ceiling tile locations	
	OR:					
	Approved Equal					

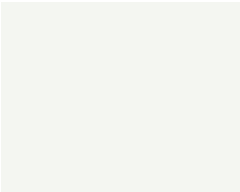
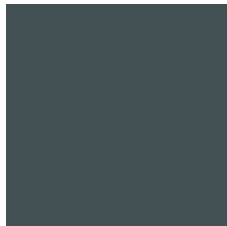

09 65 00 Resilient Flooring							
Code	Location	Manufacturer	Product	Colour	Finish	Remarks	Image
LINO-1	Flooring	Gerflor	Linoleum Design: Lino Art Flow Format: Roll #R896-0050	0050 Grey Line	-	1. NCS: 5000-N 2. LRV: 26,0 3. Welding Rod: R8975150 4. C/W matching cove base wherever used	
	OR:						
	Flooring	Forbo	Marmoleum Striato Format: Roll	5248 Urban Silver	-	1. NCS: S 2005-Y10R 2. LRV:52 3. C/W matching cove base wherever used	
	OR:						
	Approved Equal						
SDT-1	IT, AV, FSA Service Space	Gerflor	Mipolam EL7 Format: Roll (2mx20m)	4111 Raffia	Permanent Dissipative Flooring	1. NCS: 2002-Y50R 2. LRV: 48.5 3. Welding Rod: 05852788 C/W RB-1 Base	
	OR:						
	IT, AV, FSA Service Space	Polyflor	Palettone SD Formatt: Roll 2mx20m	8606SD Frosted Glass	Permanent Dissipative Flooring	1. NCS: S 2002-G50Y 2. LRV: 53 3: Weld Rod: 8606	
	OR:						
	Approved Equal						


<b>RB-1</b> (Colours for tender only. TBD Once Floor Manufacturers are selected)	Resilient Base (Used with SDT-1 & RSF-1)	Johnsonite	Traditional Wall Base with Toe	40 Black	-	-	
	<b>OR:</b>						
	Resilient Base (Used with SDT-1 & RSF-1)	Roppe	Toeless Wall Base 4"Hx 0.125" Thick	100 Black	-	-	
	<b>OR:</b>						
	Approved Equal						
<b>RSF-1</b>	Rubber Sports Floor	Faber Surfaces	Canadian Sport Rubber Fit Tile	Black Field, White Accent	-	1. Roll installation 2. To be used with RB-1 Rubber Base	
	<b>OR:</b>						
	<b>APPROVED EQUAL</b>						

09 91 00 - Painting							
Code	Location	Manufacturer	Product	Colour	Finish	Remarks	Image
CFAW1	Sealed Concrete	SikaFloor	Alkali - Silicate, water soluble concrete hardner and dust proofer	Sikafloor 3D	-	Sealed Concrete floors to have a metal trowel finish	-
	OR:						
	APPROVED EQUAL						

09 91 00 - Painting							
Code	Location	Manufacturer	Product	Colour	Finish	Remarks	Image
PT-1	Wall Colour	Benjamin Moore	Scuff-X (F485)	Chantilly Lace OC-65	Eggshell	1. Moisture and Mildew resistant in W/R	
	OR						
	Approved Equal						
PT-2	Accent Wall Colour	Benjamin Moore	Scuff-X (F485)	Quiet Momements 1563	Eggshell	-	
	OR:						
	Approved Equal						
PT-3	Accent Wall Colour	Benjamin Moore	Scuff-X (F485)	Narragansett Green HC-157	Eggshell	-	
	OR:						
	Approved Equal						



PT-4	Ceiling Paint	Benjamin Moore	Waterborne Ceiling Paint	Chantilly Lace OC-65	Ultra Flat	1. Typical for all painted ceilings	
	OR:						
	Approved Equal						
PT-5	Hollow Metal Doors and Casing	Benjamin Moore	-	Narragansett Green HC-157	Eggshell	-	
	OR:						
	Approved Equal						
ST-1	WD-1	Sansin Stains	Purity Glacier	Morning Haze 3459	Low Lustre	1. Contractor to provide control sample for approval	
	OR						
	Approved Equal						

12 24 13 Rollar Window Shades							
Code	Location	Manufacturer	Product	Colour	Finish	Remarks	Image
RS	All Exterior Windows	Altex	Altex Deko S-70 Chainless Single Cassette Roller Shade System with Vision Shade	Broome II Opaque - Monument 14BR33423	Pitch Black TM Blockout Coating	1. Typical for all exterior windows 2. Coverings to be complete blackout covering. 3. Ceiling Mount. Clear Anodized Aluminum Fascia and Weight Bar to be included	
OR:							
Approved Equal							

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1	General
1.1	<b>RELATED SECTIONS</b>
.1	Section 32 92 23 Sodding
.2	Section 32 93 00 Trees, Shrubs and Ground Covers
1.2	<b>MATERIALS</b>
.1	Contract will use native topsoil, amended as directed. Fertilizer is to be delivered to the job site with manufacturer's labels intact. All material to be approved by the project co-ordinator.
1.3	<b>SCHEDULE OF WORK</b>
.1	Schedule placing of topsoil and finish grading to permit sodding or seeding operations under optimum soil moisture and weather conditions.
1.4	<b>MEASUREMENT FOR PAYMENT</b>
.1	Payment for rough grading will be paid by lump sum based on estimated volumes. Payment for fine grading and amendments will be paid on a per square meter basis included into the cost of other items, including sodding.
2	Products
2.1	<b>MATERIALS</b>
.1	Topsoil shall be: friable, neither heavy clay nor of very light sandy nature containing minimum of 4% organic matter to a maximum of 20% by volume. Free from subsoil, roots, grass, weeds, toxic materials, stones, foreign objects and with an acidity range (pH) of 5.5 to 7.5.
.2	Planting soil for planting trees and shrubs: mix 9 parts topsoil with 1 part peatmoss. Incorporate bonemeal into planting soil at rate of 3 kg/m <sup>3</sup> of soil mixture.
.3	Peatmoss:
.1	Derived from partially decomposed fibrous or cellular stems and leaves of species of Sphagnum Mosses.
.2	Elastic and homogeneous, brown in colour.
.3	Free of wood and deleterious material which could prohibit growth.
.4	Shredded particle minimum size: 5mm.
.4	Fertilizer:
.1	Complete commercial synthetic slow release fertilizer with minimum 35% water soluble nitrogen.
.2	Formulation ratio: 6-14-14 at 10lbs per 1000 sq feet incorporated into the rootzone.
.5	Bonemeal:
	Raw, steamed bonemeal, finely ground with a minimum analysis of 3% nitrogen and 20% phosphoric acid.
3	Execution
3.1	<b>SPREADING OF NATIVE/IMPORTED TOPSOIL/PLANTING SOIL</b>
.1	Spread topsoil after Landscape Architect has inspected and approved subgrade.
.2	Spread topsoil with adequate moisture in uniform layers over approved, unfrozen subgrade, where sodding and planting is indicated.
.3	Apply topsoil to following depths: 100 mm of topsoil for sodded areas 600mm of topsoil for planting areas
.4	Manually spread topsoil/planting soil around trees, shrubs and obstacles.

3.2        **APPLICATION OF FERTILIZER**

- .1        Mix fertilizer thoroughly to full depth of topsoil.

3.3        **FINISH GRADING**

- .1        Fine grade and loosen top soil. Eliminate rough spots and low areas to ensure positive drainage. Prepare loose friable bed for sodding and planting areas, by means of cultivation and subsequent raking.
- .2        Roll with 50 kg roller, minimum 900 mm wide, to consolidate leaving surface smooth, uniform, firm against deep foot printing, and with a fine loose texture to approval of Landscape Architect.

3.4        **RESOTRATION OF STOCKPILE SITES**

- .1        Restoration of stockpile sites to include grading, seeding and sodding where required to match proposed surface treatment.

3.5        **SURPLUS MATERIAL**

- .1        Dispose of materials not required off site.

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1	General
1.1	<b>RELATED SECTIONS</b>
.1	Section 31 22 19.13 Topsoil & Finish Grading
1.2	<b>SOURCE QUALITY CONTROL</b>
.1	Obtain approval from Landscape Architect of sod at source.
.2	When proposed source of sod is approved, use no other source without written authorization.
1.3	<b>SCHEDULING</b>
.1	Schedule sod laying to coincide with topsoil operations.
1.4	<b>MEASUREMENT FOR PAYMENT</b>
.1	Nursery sod will be measured in square metres and paid for under item "Sod".
.2	Access areas and work zones with high erosion potential will require protection in the form of pegged sod.
2	Products
2.1	<b>MATERIALS</b>
.1	Nursery sod: Quality and source to comply with standards outlined in "Guide Specification for Nursery Stock", Section 17, 9th edition, published by Canadian Nursery Trades Association.
.2	Number one Kentucky Bluegrass/Fescue Sod: sod grown from maximum 40% Kentucky Bluegrass, 30% creeping Red Fescue, supplied by Greenhorizons, 519-653-7494 or approved equivalent.
.3	Broken, dry, discoloured pieces will be rejected by Landscape Architect.
.4	Wooden pegs 17 x 17 x 200 x 200 mm.
.5	Water: potable.
.6	Fertilizer: complete synthetic slow release fertilizer with maximum 35% water Soluble nitrogen. Formulation ratio: 21-7-7 with slow release nitrogen at 3lbs per 1000 sq feet.
3	Execution
3.1	<b>LAYING OF SOD</b>
.1	Prior to sodding, obtain approval from Landscape Architect that finished grade and depth of topsoil are satisfactory.
.2	Lay sod within 24 hr. of being lifted.
.3	Sodding during excessively wet conditions, at freezing temperatures or over frozen soil is not acceptable.
.4	Lay sod in rows, perpendicular to slope, and with joints staggered. Butt sections closely without overlapping or leaving gaps between sections. Cut out irregular or thin sections with sharp implements.
.5	Provide close contact between sod and soil with light rolling. Use of heavy roller to correct irregularities in grade is not permitted.
.6	Water sod immediately after laying to obtain moisture penetration to top 100 mm of topsoil.
3.3	<b>MAINTENANCE</b>
.1	Maintain sodded area from start of installation until final acceptance is awarded from the Landscape Architect for all landscape project items unless otherwise directed by the Landscape Architect.

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- .2 Water sodded areas in sufficient quantities and at frequency required to maintain soil under sod continuously moist to depth of 75 mm to 100 mm. This is assumed, at a minimum, to be twice a week for the 4 weeks following installation, and once every two weeks thereafter from June through to September.
  - .3 Maintain sodded areas weed free.
  - .4 Fertilize sodded areas two weeks after sodding with .2.11 ratio fertilizer. Spread evenly at rate of 1 kg. of nitrogen/100m<sup>2</sup> and water in well.

3.4

**ACCEPTANCE**

- 1. Sodded areas will be accepted at final inspection by Landscape Architect provided that:
  - .1 Sodded areas are properly established.
  - .2 Sod is free of bare and dead spots and without weeds.
  - .3 No surface soil is visible when grass has been cut to height of 40 mm.
  - .4 Sodded areas have been cut minimum 2 times.
  - .5 Sodded areas have been fertilized.  
(Landscape Architect is to be notified 24 hrs in advance by the contractor of when the fertilizer application is to be applied.)

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1	General
1.1	<b>RELATED SECTION</b>
.1	Section 31 22 19.13 Topsoil & Finish Grading
1.2	<b>SOURCE QUALITY CONTROL</b>
.1	Obtain approval from Landscape Architect of sod at source.
.2	Notify Landscape Architect of source of material at least 7 days in advance of shipment. No work under this Section is to proceed without approval.
.3	Acceptance of plant material at its source does not prevent rejection on site prior to or after planting operations.
1.3	<b>MEASUREMENT FOR PAYMENT</b>
.1	Payment will be unit price for supply and installation of trees and shrubs. Installation includes:
.1	Excavations for planting.
.2	Supply of peat moss and fertilizer for planting.
.3	Tree and shrub placement as shown on planting details.
.4	Staking and guying as per specification.
.5	Mulching.
1.4	<b>SHIPMENT AND PRE-PLANTING CARE</b>
.1	Coordinate shipping of plants and excavation of holes to ensure minimum time lapse between digging and planting.
.2	Tie branches of trees and shrubs securely and protect plant material against abrasion, exposure and extreme temperature change during transit. Avoid binding of plant stock with rope or wire which would damage bark, break branches or destroy natural shape of plant. Give full support to root ball of large trees during lifting.
.3	Cover plant foliage with tarpaulin, and protect roots by means of dampened straw, peatmoss, sawdust, or other acceptable material to prevent loss of moisture during transit and storage.
.4	Remove broken and damaged roots with sharp pruning shears.
.5	Keep roots moist and protected from sun and wind. Heel in trees and shrubs, which cannot be planted immediately, in shaded areas and water well. Heeled in trees and shrubs are to be kept to a minimum on-site. Landscape Architect must be notified prior to any on-site storage of materials.
1.5	<b>GUARANTEE</b>
.1	Provide a written guarantee, signed and issued to the owner stating that the plant material as itemized on the plant list is guaranteed against defects for a period of twelve (12) months from the date of Acceptance.
.2	End-of-warranty inspection will be conducted by the Landscape Architect.
.3	Landscape Architect reserves the right to extend Contractor's warranty responsibilities for an additional one year if, at end of initial warranty period, leaf development and growth on trees and shrubs is not sufficient to ensure future survival.

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- 1.6      **REPLACEMENTS**
- .1      If any plant material is found either dead or not in satisfactory health as determined by the Landscape Architect, it will, upon request, be immediately removed from the site and replace as soon as conditions permit during the normal planting season.
  - .2      Replace dead plant material immediately.
  - .3      Extend warranty on replacement plant material for a period equal to the original warranty period.
  - .4      Continue such replacement and warranty until plant material is accepted by the Landscape Architect.
- 2              Products
- 2.1          **MATERIALS**
- .1      Water: potable and free of minerals which may be detrimental to plant growth. use appropriate treegator watering bag as specified in tree planting details.
  - .2      Stakes: Wood stakes 40 x 40 x 5 x 2440 mm.
  - .3      Guy Wires: steel wire strand at following size.
    - .1      Shrubs and trees under 75 mm caliper use No. 12 galvanized wire (not on podium deck)
  - .4      Tree Rings: fabricated from 3 mm galvanized wire encased in two ply reinforced 12 mm diameter rubber garden hose or equivalent.
  - .5      Tree Wrapping Material:  
Not Applicable
  - .6      Mulch: Submit sample prior to shipping to site for approval by Landscape Architect:
    - .1      Shredded bark mulch: free of small branches, leaves and varying in size with no pieces thicker than 12 mm.
  - .7      Anti-desiccant:Wax-like emulsion to provide film over plant surfaces reducing evaporation but permeable enough to permit transpiration.
  - .8      Fertilizer: 6-24-24 at 12lbs per 1000sq ft incorporated to half rootball depth, and to the dripline of trees.
  - .9      Peatmoss:
    - .1      Derived from partially decomposed fibrous or cellular stems and leaves of species of Sphagnum Mosses.
    - .2      Elastic and homogeneous, brown in colour.
    - .3      Free of wood and deleterious material which could prohibit growth.
    - .4      Shredded particle minimum size: 5 mm.
- 2.2          **PLANT MATERIAL**
- .1      Quality and Source:  
Comply with Guide Specification for Nursery Stock, latest edition of Canadian Nursery Trades Association referring to size and development of plant material and root ball.  
Measure plants when branches are in their natural position. Height and spread



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dimensions refer to main body of plant and not from branch tip to branch tip. Use trees and shrubs of No. 1 grade.

.2 Additional plant material qualifications:

.1 Plant material obtained from areas with milder climatic conditions from those of site acceptable only when moved to site prior to the breaking of buds in their original location and heeled-in, in a protected area until conditions suitable for planting.

.2 Use trees and shrubs with strong fibrous root system free of disease, insects, defects or injuries and structurally sound. Use trees with straight trunks, well and characteristically branched for species. Plants must have been root pruned regularly, but not later than one growing season prior to arrival on site.

.3 Large trees must have been half root pruned during each of two successive growing seasons, the latter at least one growing season prior to arrival on site.

.4 Plant material that has come out of dormant stage and is too far advanced will not be accepted unless prior approval obtained.

.3 Cold Storage:

Approval required by Landscape Architect for plant material which has been held in cold storage.

.4 Container Grown Stock:

.1 Acceptable if containers large enough for root development. Trees and shrubs must have grown in container for a minimum of one growing season but not longer than two. Root system must be able to "hold" soil when removed from container. Plants that have been root bound are not acceptable. Container stock must be fertilized with slow releasing fertilizer.

.5 Balled and Burlapped:

Coniferous and broad-leaved evergreens over 500 mm tall must be dug with soil ball.

Deciduous trees in excess of 3 m height must have been dug with large firm ball. Root balls must include 75% of fibrous and feeder root system. This excludes use of native trees grown in light sandy or rocky soil. Secure root balls with burlap, heavy twine and rope.

For large trees: wrap ball in double layer of burlap and drum lace with minimum 10 mm dia. rope. Protect root balls against sudden changes in temperature and exposure to heavy rainfall.

.6 Substitutions:

Substitutions to plant material as indicated on planting plan are not permitted unless written approval has been obtained from Landscape Architect as to type, variety and size. Plant substitutions must be of similar species and of equal size as those originally specified.

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- 3 Execution
- 3.1 **WORKMANSHIP**
- .1 Obtain approval prior to excavating.
  - .2 Apply anti-desiccant in accordance with material manufacturer's instructions.
  - .3 Coordinate operations. Keep site clean and planting holes drained. Immediately remove soil or debris spilled onto pavement.
- 3.2 **PLANTING TIME**
- .1 Plant deciduous plant material during dormant period before buds have broken. Plant material noted for spring planting must be planted in dormant period.
  - .2 Plant material imported from region with warmer climatic conditions may only be planted in early spring.
  - .3 When permission has been obtained to plant deciduous plant material after buds have broken, spray plants with anti-desiccant to slow down transpiration prior to transplanting.
  - .4 Plant evergreens in spring before bud break.
  - .5 When permission has been obtained, trees and shrubs, and ground covers growing in containers may be planted throughout growing season.
  - .6 Plant only under conditions that are conducive to health and physical conditions of plants.
  - .7 Provide planting schedule:  
Extended planting operations over long period using limited crew will not be accepted.
- 3.3 **EXCAVATION**
- .1 Individual shrubs:  
excavate planting holes 300 mm deep and at least twice as wide as the rootball.
  - .2 Small trees (up to .30 m):  
excavate holes 450 mm deep with diameter of 300 mm greater than root spread or root ball.
  - .3 Large trees:  
excavate to depth of 500 mm with width of 750 mm greater than diameter of root ball. In heavy soils, increasing planting holes by 50 mm for each 100 mm of root ball diameter.
- 3.4 **PLANTING**
- .1 Plant trees and shrubs vertically with roots placed straight out in hole. Orient plant material to give best appearance.
  - .2 Place plant material to depth equal to depth they were originally growing in nursery.
  - .3 With balled and burlapped root balls, loosen burlap and cut away minimum top 1/3 without disturbing root ball. Do not pull burlap or rope from under root ball. With

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container stock, remove entire container without disturbing root ball. Non-biodegradable wrappings must be removed.

- .4 Tamp planting soil around root system in layers of 150 mm eliminating air voids. Frozen or saturated planting soil is unacceptable. When 1/3 of planting soil has been placed, fill hole with water. After water has completely penetrated into soil, complete backfilling with mixture of planting soil, peatmoss and 1:4:2 slow release fertilizer.
- .5 Build 100 mm deep saucer around outer edge of hole to assist with maintenance watering.
- .6 When planting is completed, give surface of planting saucer dressing of 1:2:2 fertilizer at rate of 12 kg/100 m.2 Mix fertilizer thoroughly with top layer of planting soil and water in well.

3.5 **TREE SUPPORT**

- .1 Tree support is shown on planting details.

3.6 **PRUNING**

- .1 Prune trees and shrubs after planting where damage has occurred during shipping or planting. Postpone pruning, of those trees where heavy bleeding may occur, until in full leaf. Employ clean sharp tools and make cuts flush with main branch, smooth and sloping as to prevent accumulation of water. Remove projecting stubs on trunks or main branches. Remove dead and injured branches and branches that rub causing damage to bark, without changing the plants natural shape. Do not damage lead branches or remove smaller twigs along main branches.

3.7 **MULCHING**

- .1 Obtain approval of planting material installations before mulch is applied. Loosen soil in planting beds and pits and remove debris and weeds. Spread mulch to a minimum thickness of 100 mm. Mulch material susceptible to blowing must be moistened down and mixed with topsoil before applying or will not be acceptable.
- .2 Mulch material sample must be provided to the landscape consultant for approval prior to the successful contractor shipping the material to the site.

3.8 **MAINTENANCE**

- .1 Water twice a week for first 4 weeks and then sufficiently thereafter to maintain optimum growing conditions (assumed to be once every two weeks thereafter from June through to September). Ensure adequate moisture in root zone at freeze-up.
- .2 Spray plants to combat pests and diseases, as required. Do not use DDT or sprays prohibited by Agriculture Canada.
- .3 Keep stakes and guy wires in proper repair.
- .4 Provide adequate protection against winter damage including damage caused by rodents.
- .5 Maintain plant material from date of planting up to end of warranty period.
- .6 Remove trunk wrapping, guy wires and tree stakes at end of warranty period.

3.9

**ACCEPTANCE**

- .1 Trees, shrubs and ground covers must be healthy and in a vigorous growing condition at the time the final inspection review for the landscape components of the project is requested.
- .2 Trees, shrubs and ground covers planted in the fall will be evaluated for final acceptance in the following spring one month after start of growing season.