

FINISH SCHEDULE LEGEND			
	CODE		
FLOOR	RSH1	Resilient Sheet Flooring, Forbo, Eternal Wood, Colour: White Pine; or equal	
	RST	Rubber Stair Treads, Johnsonite, Colour: TBD; or equal	
	CONC	Concrete Floor, polished	
	RB1	Rubber Base, Johnsonite, Color: TBD; or equal	
BASE	WDB	100mm Wood base	Paint Finish (Paint in with wall)
	PLY	19mm Plywood Sheets	backer boards in electrical room; painted w/ intumescent paint
WALLS	CONCBL	Concrete block, painted	
	PT1	Dulux, Colour: Winter Bird; or equal	Typical Wall Color
	PT2	Dulux, Colour: Roma Haze; or equal	Typical Wall color in wrs
	PT3	Dulux, Colour: Mansard Stone; or equal	Metal door frames + accent walls where indicated by architect
	PT4	Dulux, Colour: Obsidian Glass; or equal	Accent walls where indicated by architect
	PT5	Dulux, Colour: Olde Hunter; or equal	Accent walls where indicated by architect
	WD	19mm White Maple, stained/painted	Millwork - stained; Window trims and sills - paint finish (paint in with wall)
MISC	SS1	Corian, Colour: White Jasmine; or equal	WR countertops
	QTZ1	Quartz, Colour: Storm Grey; or equal	Information desk countertops
	TP	Solid phenolic toilet partitions, Colour: slate; or equal	
	ST1	Interior grade stain, clear	Millwork
	ST2	Interior grade stain, Colour: TBD	Millwork accents + doors
	AT1	Armstrong Dune Square lay-in, Size: 610x610x16; or equal	White
	T&G	Tongue and groove wood boards, clear pine	Paint Finish (tbd)
CEILING	PT7	Paint, Ceiling White	
	SID	Fraser Wood Siding, Colour: Hickory S-T; or equal	
	WDSL	Pressure treated 2x2 wood slats, stained to match SID	
EXTERIOR	MR	Vicwest, SuperVic Metal Roofing , Colour: Dark Green; or equal	
	ST3	Exterior Stain, White	To stain exterior wood columns & ext wood railings
	DE	Exterior Wood Decking	

Room No.	Room Name	Floor			Base			Walls			Ceiling		
		Resilient Sheet	Conc	Rubber	Rubber Base	Wood	No Base	Gypsum Board PT	Concrete Block	Unfinished	Gypsum Board PT	Wood	
Basement													
100	Corridor		●		RB1			PT1			PT7		
101	Storage		●		RB1			PT1		●	PT7		* Concrete foundation walls
102	Unassigned		●		RB1			PT1		●	PT7		* Concrete foundation walls
103	Electrical		●		RB1			PT1			PT7		
104	Mechanical		●		RB1			PT1			PT7		
107	Unassigned		●		RB1			PT1		●	PT7		* Concrete foundation walls
Main Floor													
200	Stair			RST	RB1			PT1			PT7		
201	Assembly	RSH1				WDB		PT1/PT 4/PT5			PT7	T&G	
202	Gift Shop	RSH1				WDB		PT1/PT4			PT7		
203	Office	RSH1				WDB		PT1/PT4			PT7		
204	Staff WR		●				●		PT1/PT3		PT7		
205	Mens WR		●				●		PT2/PT5		PT7		
206	Womens WR		●				●		PT2/PT6		PT7		
207	JAN		●				●		PT1		PT7		
208	Corridor		●				●	PT2	PT2		PT7		
*NOTE:													
1. All exterior walls on the basement level can remain unfinished foundation walls													
2. Door finish note: All doors and frames requiring PT finish are to be spray painted in a controlled environment. Protect doors and frames from damage of finish during installation on site													

## PART 1 - GENERAL

### 1.1 REFERENCES

- .1 Aluminum Association (AA)
    - .1 AA DAF 45-03(R2009), Designation System for Aluminum Finishes.
  - .2 ASTM International
    - .1 ASTM C 475-02(2007), Standard Specification for Joint Compound and Joint Tape for Finishing Gypsum Board.
    - .2 ASTM C 514-04(2009e1), Standard Specification for Nails for the Application of Gypsum Board.
    - .3 ASTM C 557-03(2009e1), Standard Specification for Adhesives for Fastening Gypsum Wallboard to Wood Framing.
    - .4 ASTM C 840-08, Standard Specification for Application and Finishing of Gypsum Board.
    - .5 ASTM C 954-07, Standard Specification for Steel Drill Screws for the Application of Gypsum Panel Products or Metal Plaster Bases to Steel Studs From 0.033 in. (0.84 mm) to 0.112 in. (2.84 mm) in Thickness.
    - .6 ASTM C 1002-07, Standard Specification for Steel Self-Piercing Tapping Screws for the Application of Gypsum Panel Products or Metal Plaster Bases to Wood Studs or Steel Studs.
    - .7 ASTM C 1047-09, Standard Specification for Accessories for Gypsum Wallboard and Gypsum Veneer Base.
    - .8 ASTM C 1280-99, Standard Specification for Application of Gypsum Sheathing.
    - .9 ASTM C 1177/C 1177M-08, Standard Specification for Glass Mat Gypsum Substrate for Use as Sheathing.
    - .10 ASTM C 1178/C 1178M-08, Standard Specification for Glass Mat Water-Resistant Gypsum Backing Board.
    - .11 ASTM C 1396/C 1396M-09a, Standard Specification for Gypsum Wallboard.
  - .3 Association of the Wall and Ceilings Industries International (AWCI)
    - .1 AWCI Levels of Gypsum Board Finish-97.
  - .4 Canadian General Standards Board (CGSB)
    - .1 CAN/CGSB-51.34-M86(R1988), Vapour Barrier, Polyethylene Sheet for Use in Building Construction.
    - .2 CAN/CGSB-71.25-M88, Adhesive, for Bonding Drywall to Wood Framing and Metal Studs.
  - .5 Green Seal Environmental Standards (GS)
    - .1 GS-11-2008, 2nd Edition, Paints and Coatings.
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- .6 South Coast Air Quality Management District (SCAQMD), California State, Regulation XI. Source Specific Standards
  - .1 SCAQMD Rule 1113-A2007, Architectural Coatings.
  - .2 SCAQMD Rule 1168-A2005, Adhesives and Sealants Applications.
- .7 Underwriters' Laboratories of Canada (ULC)
  - .1 CAN/ULC-S102-07, Standard Method of Test of Surface Burning Characteristics of Building Materials and Assemblies.

## 1.2 ACTION AND INFORMATIONAL SUBMITTALS

- .1 Submit in accordance with Section 01 33 00 - Submittal Procedures.
- .2 Product Data:
  - .1 Submit manufacturer's instructions, printed product literature and data sheets for gypsum board assemblies and include product characteristics, performance criteria, physical size, finish and limitations.

## 1.3 DELIVERY, STORAGE AND HANDLING

- .1 Deliver, store and handle materials in accordance with Section 01 61 00 - Common Product Requirements and with manufacturer's written instructions.
  - .2 Delivery and Acceptance Requirements: deliver materials to site in original factory packaging, labelled with manufacturer's name and address.
  - .3 Storage and Handling Requirements:
    - .1 Store gypsum board assemblies materials level indoors and in dry location and in accordance with manufacturer's recommendations in clean, dry, well-ventilated area.
    - .2 Store and protect gypsum board assemblies from nicks, scratches, and blemishes.
    - .3 Protect from weather, elements and damage from construction operations.
    - .4 Handle gypsum boards to prevent damage to edges, ends or surfaces.
    - .5 Protect prefinished aluminum surfaces with wrapping or strippable coating. Do not use adhesive papers or sprayed coatings which bond when exposed to sunlight or weather.
    - .6 Replace defective or damaged materials with new.
  - .4 Packaging Waste Management: remove for reuse and return by manufacturer of pallets, crates, padding, and packaging materials as specified in accordance with Section 01 74 22 - Construction/Demolition Waste Management and Disposal.
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#### 1.4 AMBIENT CONDITIONS

- .1 Maintain temperature 10 degrees C minimum, 21 degrees C maximum for 48 hours prior to and during application of gypsum boards and joint treatment, and for 48 hours minimum after completion of joint treatment.
- .2 Apply board and joint treatment to dry, frost free surfaces.
- .3 Ventilation: ventilate building spaces as required to remove excess moisture that would prevent drying of joint treatment material immediately after its application.

### PART 2 - PRODUCTS

#### 2.1 MATERIALS

- .1 Standard board: to ASTM C 1396/C 1396M regular, 16 mm thick and Type X, 16 mm thick, 1200 mm wide x maximum practical length, ends square cut, edges bevelled.
  - .2 Water-resistant board: to ASTM C 1396/C 1396M regular, 16 mm thick and Type X, 16 mm thick, 1200 mm wide x maximum practical length.
  - .3 Glass mat water-resistant gypsum backing board: to ASTM C 1178/C 1178M, 16 mm thick, 1200 mm wide x maximum practical length.
  - .4 Metal furring runners, hangers, tie wires, inserts, anchors: to.
  - .5 Drywall furring channels: 0.5 mm core thickness galvanized steel channels for screw attachment of gypsum board.
  - .6 Resilient clips drywall furring: 0.5 mm base steel thickness galvanized steel for resilient attachment of gypsum board.
  - .7 Nails: to ASTM C 514.
  - .8 Steel drill screws: to ASTM C 1002.
  - .9 Stud adhesive: to CAN/CGSB-71.25 ASTM C 557.
  - .10 Laminating compound: as recommended by manufacturer, asbestos-free.
  - .11 Casing beads, corner beads, control joints and edge trim: to ASTM C 1047, PVC or Zinc, 0.5 mm base thickness, perforated flanges, one piece length per location.
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- .12 Cornice cap: 12.7 mm deep x partition width, of 1.6 mm base thickness galvanized sheet steel, prime painted extruded aluminum, minimum 2.5 mm thick, clear anodized. Include splice plates for joints.
- .13 Shadow mould: 35 mm high, snap-on trim, of 0.6 mm base steel thickness galvanized sheet pre-finished in satin enamel extruded PVC plastic, white colour.
- .14 Sealants: in accordance with Section 07 92 00 - Joint Sealants.
  - .1 VOC limit 250 g/L maximum to SCAQMD Rule 1168.
  - .2 Acoustic sealant: in accordance with Section 07 92 00 - Joint Sealants.
- .15 Polyethylene: to CAN/CGSB-51.34, Type 2.
- .16 Insulating strip: rubberized, moisture resistant, 3 mm thick closed cell neoprene strip, 12 mm wide, with self sticking permanent adhesive on one face, lengths as required.
- .17 Joint compound: to ASTM C 475, asbestos-free.

### PART 3 - EXECUTION

#### 3.1 EXAMINATION

- .1 Verification of Conditions: verify conditions of substrates previously installed under other Sections or Contracts are acceptable for gypsum board assemblies installation in accordance with manufacturer's written instructions.
  - .1 Visually inspect substrate in presence of Departmental Representative .
  - .2 Inform Departmental Representative of unacceptable conditions immediately upon discovery.
  - .3 Proceed with installation only after unacceptable conditions have been remedied and after receipt of written approval to proceed from Departmental Representative.

#### 3.2 ERECTION

- .1 Do application and finishing of gypsum board to ASTM C 840 except where specified otherwise.
  - .2 Do application of gypsum sheathing to ASTM C 1280.
  - .3 Erect hangers and runner channels for suspended gypsum board ceilings to ASTM C 840 except where specified otherwise.
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- .4 Support light fixtures by providing additional ceiling suspension hangers within 150 mm of each corner and at maximum 600 mm around perimeter of fixture.
- .5 Install work level to tolerance of 1:1200.
- .6 Frame with furring channels, perimeter of openings for access panels, light fixtures, diffusers and grilles,.
- .7 Install 19 x 64 mm furring channels parallel to, and at exact locations of steel stud partition header track.
- .8 Furr for gypsum board faced vertical bulkheads within and at termination of ceilings.
- .9 Furr above suspended ceilings for gypsum board fire and sound stops and to form plenum areas as indicated.
- .10 Install wall furring for gypsum board wall finishes to ASTM C 840, except where specified otherwise.
- .11 Furr openings and around built-in equipment, cabinets, access panels,, on four sides. Extend furring into reveals. Check clearances with equipment suppliers.
- .12 Furr duct shafts, beams, columns, pipes and exposed services where indicated.
- .13 Erect drywall resilient furring transversely across studs and joists , spaced maximum 600 mm on centre and not more than 150 mm from ceiling/wall juncture. Secure to each support with 38 mm common nail 25 mm drywall screw.
- .14 Install 150 mm continuous strip of 12.7 mm gypsum board along base of partitions where resilient furring installed.

### 3.3 APPLICATION

- .1 Apply gypsum board after bucks, anchors, blocking, sound attenuation, electrical and mechanical work have been approved.
  - .2 Apply single or double layer gypsum board to metal furring or framing using screw fastenersstud for first layer, screw fasteners for second layer. Maximum spacing of screws 300 mm on centre.
    - .1 Single-Layer Application:
      - .1 Apply gypsum board on ceilings prior to application of walls to ASTM C 840.
      - .2 Apply gypsum board vertically or horizontally, providing sheet lengths that will minimize end joints.
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- .2 Double-Layer Application:
    - .1 Install gypsum board for base layer and exposed gypsum board for face layer.
    - .2 Apply base layer to ceilings prior to base layer application on walls; apply face layers in same sequence. Offset joints between layers at least 250 mm.
    - .3 Apply base layers at right angles to supports unless otherwise indicated.
    - .4 Apply base layer on walls and face layers vertically with joints of base layer over supports and face layer joints offset at least 250 mm with base layer joints.
  - .3 Apply single or double layer gypsum board to concrete, concrete block surfaces, where indicated, using laminating adhesive.
    - .1 Comply with gypsum board manufacturer's recommendations.
    - .2 Brace or fasten gypsum board until fastening adhesive has set.
    - .3 Mechanically fasten gypsum board at top and bottom of each sheet.
  - .4 Apply water-resistant gypsum board where wall tiles coating to be applied and adjacent to slop sinks janitors closets. Apply water-resistant sealant to edges, ends, cut-outs which expose gypsum core and to fastener heads. Do not apply joint treatment on areas to receive tile finish.
  - .5 Apply 12 mm diameter bead of acoustic sealant continuously around periphery of each face of partitioning to seal gypsum board/structure junction where partitions abut fixed building components. Seal full perimeter of cut-outs around electrical boxes, ducts,, in partitions where perimeter sealed with acoustic sealant.
  - .6 Apply board using stud adhesive on furring or framing laminating adhesive on base layer of gypsum board.
  - .7 Install ceiling boards in direction that will minimize number of end-butt joints. Stagger end joints at least 250 mm.
  - .8 Install gypsum board on walls vertically to avoid end-butt joints. At stairwells and similar high walls, install boards horizontally with end joints staggered over studs, except where local codes or fire-rated assemblies require vertical application.
  - .9 Install gypsum board with face side out.
  - .10 Do not install damaged or damp boards.
  - .11 Locate edge or end joints over supports. Stagger vertical joints over different studs on opposite sides of wall.
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### 3.4        INSTALLATION

- .1    Erect accessories straight, plumb or level, rigid and at proper plane. Use full length pieces where practical. Make joints tight, accurately aligned and rigidly secured. Mitre and fit corners accurately, free from rough edges. Secure at 150 mm on centre using contact adhesive for full length.
  - .2    Install casing beads around perimeter of suspended ceilings.
  - .3    Install casing beads where gypsum board butts against surfaces having no trim concealing junction and where indicated. Seal joints with sealant.
  - .4    Install insulating strips continuously at edges of gypsum board and casing beads abutting metal window and exterior door frames, to provide thermal break.
  - .5    Install shadow mould at gypsum board/ceiling juncture as indicated. Minimize joints; use corner pieces and splicers.
  - .6    Construct control joints of preformed units two back-to-back casing beads set in gypsum board facing and supported independently on both sides of joint.
  - .7    Provide continuous polyethylene dust barrier behind and across control joints.
  - .8    Locate control joints at approximate 10 m spacing on long corridor runs and at approximate 15 m spacing on ceilings.
  - .9    Install control joints straight and true.
  - .10   Construct expansion joints as detailed, at building expansion and construction joints. Provide continuous dust barrier.
  - .11   Install expansion joint straight and true.
  - .12   Install cornice cap where gypsum board partitions do not extend to ceiling.
  - .13   Fit cornice cap over partition, secure to partition track with two rows of sheet metal screws staggered at 300 mm on centre.
  - .14   Splice corners and intersections together and secure to each member with 3 screws.
  - .15   Install access doors to electrical and mechanical fixtures specified in respective sections.
    - .1    Rigidly secure frames to furring or framing systems.
  - .16   Finish face panel joints and internal angles with joint system consisting of joint compound, joint tape and taping compound
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installed according to manufacturer's directions and feathered out onto panel faces.

- .17 Gypsum Board Finish: finish gypsum board walls and ceilings to following levels in accordance with AWCI Levels of Gypsum Board Finish:
  - .1 Levels of finish:
    - .1 Level 4: embed tape for joints and interior angles in joint compound and apply three separate coats of joint compound over joints, angles, fastener heads and accessories; surfaces smooth and free of tool marks and ridges.
- .18 Finish corner beads, control joints and trim as required with two coats of joint compound and one coat of taping compound, feathered out onto panel faces.
- .19 Fill screw head depressions with joint and taping compounds to bring flush with adjacent surface of gypsum board so as to be invisible after surface finish is completed.
- .20 Sand lightly to remove burred edges and other imperfections. Avoid sanding adjacent surface of board.
- .21 Completed installation to be smooth, level or plumb, free from waves and other defects and ready for surface finish.
- .22 Apply one coat of white primer sealer over surface to be textured. When dry apply textured finish in accordance with manufacturer's instructions.
- .23 Mix joint compound slightly thinner than for joint taping.
- .24 Apply thin coat to entire surface using trowel or drywall broad knife to fill surface texture differences, variations or tool marks.
- .25 Allow skim coat to dry completely.
- .26 Remove ridges by light sanding or wiping with damp cloth.

### 3.5 CLEANING

- .1 Progress Cleaning: clean in accordance with Section 01 74 11 - Cleaning.
    - .1 Leave Work area clean at end of each day.
    - .2 Final Cleaning: upon completion remove surplus materials, rubbish, tools and equipment in accordance with Section 01 74 11 - Cleaning.
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- .2 Waste Management: separate waste materials for reuse and recycling in accordance with Section 01 74 22 - Construction/Demolition Waste Management and Disposal.
  - .1 Remove recycling containers and bins from site and dispose of materials at appropriate facility.

### 3.6 PROTECTION

- .1 Protect installed products and components from damage during construction.
- .2 Repair damage to adjacent materials caused by gypsum board assemblies installation.

## PART 1 - GENERAL

### 1.1 REFERENCES

- .1 American Society for Testing and Materials International (ASTM)
  - .1 ASTM F 1303-04, Standard Specification for Sheet Vinyl Floor Covering with Backing.
- .2 Health Canada/Workplace Hazardous Materials Information System (WHMIS)
  - .1 Material Safety Data Sheets (MSDS).

### 1.2 ACTION AND INFORMATIONAL SUBMITTALS

- .1 Provide submittals in accordance with Section 01 33 00 - Submittal Procedures.
- .2 Provide product data in accordance with Section 01 33 00 - Submittal Procedures.
- .3 Provide samples in accordance with Section 01 33 00 - Submittal Procedures.
  - .1 Submit duplicate 300 x 300 mm sample pieces of sheet material, 300 mm long base, treads,.
- .4 Closeout Submittals:
  - .1 Provide maintenance data for resilient flooring for incorporation into manual specified in Section 01 78 00 - Closeout Submittals.

### 1.3 DELIVERY, STORAGE AND HANDLING

- .1 Deliver, store and handle materials in accordance with Section 01 61 00 - Common Product Requirements.
- .2 Waste Management and Disposal:
  - .1 Separate waste materials for reuse and recycling in accordance with Section 01 74 22 - Construction/Demolition Waste Management and Disposal.

### 1.4 AMBIENT CONDITIONS

- .1 Maintain air temperature and structural base temperature at flooring installation area above 20 degrees for 48 hours before, during and 48 hours after installation.
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## 1.5 MAINTENANCE

- .1 Extra Materials:
  - .1 Provide extra materials of resilient sheet flooring and adhesives in accordance with Section 01 78 00 - Closeout Submittals.
  - .2 Provide 2 m<sup>2</sup> of each colour, pattern and type flooring material required for project for maintenance use.
  - .3 Extra materials one piece and from same production run as installed materials.
  - .4 Identify each roll of sheet flooring and each container of adhesive.
  - .5 Deliver to Departmental Representative, upon completion of the work of this section.
  - .6 Store where directed by Departmental Representative.

## PART 2 - PRODUCTS

### 2.1 MATERIALS

- .1 Heterogeneous Sheet Vinyl Wood-lock flooring to ISO 10582 EN 649.
  - .2 Sheet vinyl with backing : to ASTM F 1303, commercial.
    - .1 Roll width 2m and roll length 25m.
    - .2 Backing: 300 mm PVC backing.
    - .3 Pattern: smooth.
    - .4 Texture: printed to simulate wood.
    - .5 Colour: To be determined and selected by Consultant.
    - .6 Thickness: 2.0 mm.
    - .7 Slip Resistance: R10.
  - .3 Resilient base: continuous, top set, complete with premoulded end stops and external corners:
    - .1 Type: rubber.
    - .2 Style: straight .
    - .3 Thickness: 3.17 mm.
    - .4 Height: 101.6 mm.
    - .5 Lengths: cut lengths minimum 2400 mm.
    - .6 Colour: To be determined and selected by the Consultant.
  - .4 Resilient stair tread: rubber, 30 mm vertical face, square nose, full tread deep, 5mm thick, smooth surface with 2" carborundum strips solid pattern, colour to be determined and as selected by the Consultant.
  - .5 Resilient stair riser: top set rubber, 3.2 mm thick, full riser height, solid pattern, colour to be determined and as selected by the Consultant.
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- .6 Primers and adhesives: of types recommended by resilient flooring manufacturer for specific material on applicable substrate, above, on or below grade.
  - .1 Rubber floor adhesives:
    - .1 Adhesive: maximum VOC limit 60 g/L to SCAQMD Rule 1168.
- .7 Sub-floor filler and leveller: as recommended by flooring manufacturer for use with their product.
- .8 Metal edge strips:
  - .1 Aluminum extruded, smooth, mill finish polished stainless steel with lip to extend under floor finish, shoulder flush with top of adjacent floor finish.
- .9 External corner protectors: type recommended by flooring manufacturer.
- .10 Edging to floor penetrations: type recommended by flooring manufacturer.
- .11 Sealer and wax: type recommended by resilient flooring material manufacturer for material type and location.

### PART 3 - EXECUTION

#### 3.1 MANUFACTURER'S INSTRUCTIONS

- .1 Compliance: comply with manufacturer's written recommendations or specifications, including product technical bulletins, handling, storage and installation instructions, and datasheets.

#### 3.2 SITE VERIFICATION OF CONDITIONS

- .1 Ensure concrete floors are clean and dry by using test methods recommended by flooring manufacturer.

#### 3.3 PREPARATION

- .1 Clean floor and apply filler; trowel and float to leave smooth, flat hard surface. Prohibit traffic until filler cured and dry.
  - .2 Remove sub-floor ridges and bumps. Fill low spots, cracks, joints, holes and other defects with sub-floor filler.
  - .3 Prime plywood sub-floor to resilient flooring manufacturer's printed instructions.
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#### 3.4 APPLICATION: FLOORING

- .1 Provide high ventilation rate, with maximum outside air, during installation, and for 48 hours after installation. If possible, vent directly to outside. Do not let contaminated air recirculate through district or whole building air distribution system. Maintain extra ventilation for at least one month following building occupation.
- .2 Apply adhesive uniformly using recommended trowel. Do not spread more adhesive than can be covered by flooring before initial set takes place.
- .3 Lay flooring with seams parallel to building lines to produce a minimum number of seams. Border widths minimum 1/3 width of full material.
- .4 As installation progresses, and after installation roll flooring with 45 kg minimum roller to ensure full adhesion.
- .5 Cut flooring around fixed objects.
- .6 Install feature strips and floor markings where indicated. Fit joints tightly.
- .7 Install flooring in pan type floor access covers. Maintain floor pattern.
- .8 Continue flooring over areas which will be under built-in furniture.
- .9 Continue flooring through areas to receive movable type partitions without interrupting floor pattern.
- .10 Terminate flooring at centreline of door in openings where adjacent floor finish or colour is dissimilar.
- .11 Install metal edge strips at unprotected or exposed edges where flooring terminates.

#### 3.5 APPLICATION: BASE

- .1 Lay out base to keep number of joints at minimum.
  - .2 Clean substrate and prime with one coat of adhesive.
  - .3 Apply adhesive to back of base.
  - .4 Set base against wall and floor surfaces tightly by using 3 kg hand roller.
  - .5 Install straight and level to variation of 1:1000.
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- .6 Scribe and fit to door frames and other obstructions. Use premoulded end pieces at flush door frames.
- .7 Cope internal corners. Use premoulded corner units for right angle external corners. Use formed straight base material for external corners of other angles.
- .8 Use toeless type base where floor finish will be carpet, coved type elsewhere.
- .9 Install toeless type base before installation of carpet on floors.
- .10 Heat weld base in accordance with manufacturer's printed instructions.

### 3.6 FIELD QUALITY CONTROL

- .1 Manufacturer's Field Services:
  - .1 Provide manufacturer's field services consisting of product use recommendations and periodic site visits for inspection of product installation in accordance with manufacturer's instructions.

### 3.7 CLEANING

- .1 Proceed in accordance with Section 01 74 11 - Cleaning.
- .2 Remove excess adhesive from floor, base and wall surfaces without damage.
- .3 Clean, seal and wax floor and base surface to flooring manufacturer's printed instructions.

### 3.8 PROTECTION

- .1 Protect new floors from time of final set of adhesive until final inspection.
- .2 Prohibit traffic on floor for 48 hours after installation.
- .3 Use only water-based coating for linoleum.

## PART 1 - GENERAL

### 1.1 RELATED REQUIREMENTS

- .1 Section 02 81 01 - Hazardous Materials
- .2 Section 05 50 00 - Metal Fabrications.
- .3 Section 06 10 00 - Rough Carpentry.
- .4 Section 06 40 00 - Architectural Woodwork.
- .5 section 07 92 00 - Joint Sealants.
- .6 Section 08 54 13 - Fibreglass Awning and Fixed Windows.

### 1.2 REFERENCES

- .1 Canada Green Building Council (CaGBC)
- .2 Green Seal Environmental Standards (GS)
  - .1 GS-11-2008, 2nd Edition, Paints and Coatings.
- .3 Health Canada/Workplace Hazardous Materials Information System (WHMIS)
  - .1 Material Safety Data Sheets (MSDS).
- .4 The Master Painters Institute (MPI)
  - .1 Architectural Painting Specification Manual - current edition.
  - .2 Maintenance Repainting Manual - current edition.
- .5 South Coast Air Quality Management District (SCAQMD), California State, Regulation XI. Source Specific Standards
  - .1 SCAQMD Rule 1113-A2007, Architectural Coatings.

### 1.3 ACTION AND INFORMATIONAL SUBMITTALS

- .1 Submit in accordance with Section 01 33 00 - Submittal Procedures.
  - .2 Product Data:
    - .1 Submit manufacturer's instructions, printed product literature and data sheets for paint and coating products and include product characteristics, performance criteria, physical size, finish and limitations.
    - .2 Submit 2 copies of WHMIS MSDS in accordance with Section 01 35 29 - Health and Safety Requirements 01 35 43 - Environmental Procedures.
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- .3 Samples:
  - .1 Submit for review and acceptance of each unit.
  - .2 Samples will be returned for inclusion into work.
  - .3 Submit duplicate 200 x 300 mm sample panels of each paint stain clear coating special finish with specified paint or coating in colours, gloss/sheen and textures required to MPI Painting Specification Manual standards.
- .4 Certificates: submit product certificates signed by manufacturer certifying materials comply with specified performance characteristics and criteria and physical requirements.

#### 1.4 DELIVERY, STORAGE AND HANDLING

- .1 Deliver, store and handle materials in accordance with Section 01 61 00 - Common Product Requirements and with manufacturer's written instructions.
  - .2 Delivery and Acceptance Requirements: deliver materials to site in original factory packaging, labelled with manufacturer's name and address.
  - .3 Storage and Handling Requirements:
    - .1 Provide and maintain dry, temperature controlled, secure storage.
    - .2 Store painting materials and supplies away from heat generating devices.
    - .3 Store materials and equipment in well ventilated area within temperature as recommended by manufacturer.
  - .4 Fire Safety Requirements:
    - .1 Supply 1 9 kg Type ABC dry chemical fire extinguisher adjacent to storage area.
    - .2 Store oily rags, waste products, empty containers and materials subject to spontaneous combustion in ULC approved, sealed containers and remove from site on a daily basis.
    - .3 Handle, store, use and dispose of flammable and combustible materials in accordance with National Fire Code of Canada requirements.
  - .5 Packaging Waste Management: remove for reuse and return by manufacturer of pallets, crates, padding, and packaging materials as specified in accordance with Section 01 74 22 - Construction/Demolition Waste Management and Disposal.
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## 1.5 SITE CONDITIONS

- .1 Heating, Ventilation and Lighting:
  - .1 Ventilate enclosed spaces.
  - .2 Co-ordinate use of existing ventilation system with Departmental Representative and ensure its operation during and after application of paint as required.
  - .3 Provide minimum lighting level of 323 Lux on surfaces to be painted.
- .2 Temperature, Humidity and Substrate Moisture Content Levels:
  - .1 Apply paint finishes when ambient air and substrate temperatures at location of installation can be satisfactorily maintained during application and drying process, within MPI and paint manufacturer's prescribed limits.
  - .2 Test concrete, masonry and plaster surfaces for alkalinity as required.
  - .3 Apply paint to adequately prepared surfaces, when moisture content is below paint manufacturer's prescribed limits.
- .3 Additional application requirements:
  - .1 Apply paint finish in areas where dust is no longer being generated by related construction operations or when wind or ventilation conditions are such that airborne particles will not affect quality of finished surface.
  - .2 Apply paint in occupied facilities during silent hours only. Schedule operations to approval of Departmental Representative such that painted surfaces will have dried and cured sufficiently before occupants are affected.

## PART 2 - PRODUCTS

### 2.1 MATERIALS

- .1 Supply paint materials for paint systems from single manufacturer.
  - .2 Conform to latest MPI requirements for painting work including preparation and priming.
  - .3 Materials in accordance with MPI - Architectural Painting Specification Manual and MPI - Maintenance Repainting Manual "Approved Product" listing.
    - .1 Use MPI listed materials having E2 rating where indoor air quality requirements exist.
    - .2 Primer: VOC limit 100 g/L maximum to GS-11 SCAQMD Rule 1113.
    - .3 Paint: VOC limit 100 g/L maximum to GS-11 SCAQMD Rule 1113.
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- .4 Colours:
- .1 Submit proposed Colour Schedule to Departmental Representative for review.
  - .2 Base colour schedule on selection of 5 base colours and 3 accent colours.
- .5 Mixing and tinting:
- .1 Perform colour tinting operations prior to delivery of paint to site, in accordance with manufacturer's written recommendations. Obtain written approval from Departmental Representative for tinting of painting materials.
  - .2 Use and add thinner in accordance with paint manufacturer's recommendations.
    - .1 Do not use kerosene or similar organic solvents to thin water-based paints.
  - .3 Thin paint for spraying in accordance with paint manufacturer's written recommendations.
  - .4 Re-mix paint in containers prior to and during application to ensure break-up of lumps, complete dispersion of settled pigment, and colour and gloss uniformity.
- .6 Gloss/sheen ratings:
- .1 Paint gloss is defined as sheen rating of applied paint, in accordance with following values:

Gloss Level-Categor y	Gloss @ 60 degrees	Sheen @ 85 degrees
Gloss Level 1 - Matte Finish	Max. 5	Max. 10
Gloss Level 2 - Velvet	Max.10	10 to 35
Gloss Level 3 - Eggshell	10 to 25	10 to 35
Gloss Level 4 - Satin	20 to 35	min. 35
Gloss Level 5 - Semi-Gloss	35 to 70	
Gloss Level 6 - Gloss	70 to 85	
Gloss Level 7 - High Gloss	More than 85	

- .2 Gloss level ratings of painted surfaces as indicated.
- .7 Exterior painting:
- .1 Concrete Vertical Surfaces: (including horizontal soffits)
    - .1 EXT 3.1A - Latex finish.
  - .2 Concrete Masonry Units: smooth and split face block and brick
    - .1 EXT 4.2A - Latex finish.

- .3 Structural Steel and Metal Fabrications: columns, beams, joists and miscellaneous metal.
    - .1 EXT 5.1D - Alkyd finish.
  - .4 Galvanized Metal: high contact/high traffic areas (doors, frames, railings and handrails, etc.).
    - .1 EXT 5.3B - Alkyd finish.
  - .5 Dimension Lumber: columns, beams, exposed joists, underside of decking, siding, fencing, etc.
    - .1 EXT 6.2B - Waterborne solid colour stain finish.
    - .2 EXT 6.2C - Alkyd finish.
    - .3 EXT 6.2L - Semi-transparent stain finish.
  - .6 Dressed Lumber: doors, door and window frames, casings, battens, smooth facias, etc.
    - .1 EXT 6.3B - Alkyd finish do not use flat finish on doors.
    - .2 EXT 6.3C - Solid colour stain finish do not use in high contact areas or on doors.
    - .3 EXT 6.3D - Semi-transparent stain finish do not use on doors.
  - .7 .
  - .8 Interior painting:
    - .1 Concrete horizontal surfaces: floors.
      - .1 INT 3.2B - Alkyd floor enamel low gloss finish.
    - .2 Structural Steel and Metal Fabrications: columns, beams, joists and miscellaneous metal.
      - .1 INT 5.1E Alkyd - finish.
    - .3 Galvanized Metal: high contact/high traffic areas (doors, frames, railings and handrails, etc.).
      - .1 INT 5.3C - Alkyd finish (over cementitious primer).
    - .4 Dressed Lumber: doors, door and window frames, casings, mouldings, etc.:
      - .1 INT 6.3A - Latex finish.
      - .2 INT 6.3B - Alkyd finish.
      - .3 INT 6.3E - Polyurethane varnish finish (over stain).
      - .4 INT 6.3K - Polyurethane varnish finish.
    - .5 Plaster and gypsum board: gypsum wallboard, drywall, "sheet rock" type material, etc.
      - .1 INT 9.2A - Latex finish (over latex sealer).
      - .2 INT 9.2C - Alkyd finish (over latex sealer).
      - .3 INT 9.2M - Institutional low odour/low VOC insert gloss level finish.
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## PART 3 - EXECUTION

### 3.1 GENERAL

- .1 Compliance: comply with manufacturer's written recommendations or specifications, including product technical bulletins, handling, storage and installation instructions, and data sheets.
- .2 Perform preparation and operations for interior painting in accordance with MPI - Architectural Painting Specifications Manual and MPI - Maintenance Repainting Manual except where specified otherwise.

### 3.2 EXAMINATION

- .1 Investigate existing substrates for problems related to proper and complete preparation of surfaces to be painted. Report to Departmental Representative damages, defects, unsatisfactory or unfavourable conditions before proceeding with work.
- .2 Conduct moisture testing of surfaces to be painted using properly calibrated electronic moisture meter, except test concrete floors for moisture using simple "cover patch test". Do not proceed with work until conditions fall within acceptable range as recommended by manufacturer.

### 3.3 PREPARATION

- .1 Protection of in-place conditions:
    - .1 Protect existing building surfaces and adjacent structures from paint spatters, markings and other damage by suitable non-staining covers or masking. If damaged, clean and restore surfaces as directed by Departmental Representative.
    - .2 Protect items that are permanently attached such as Fire Labels on doors and frames.
    - .3 Protect factory finished products and equipment.
  - .2 Surface Preparation:
    - .1 Remove electrical cover plates, light fixtures, surface hardware on doors, bath accessories and other surface mounted equipment, fittings and fastenings prior to undertaking painting operations. Identify and store items in secure location and re-installed after painting is completed.
    - .2 Move and cover furniture and portable equipment as necessary to carry out painting operations. Replace as painting operations progress.
    - .3 Place "WET PAINT" signs in occupied areas as painting operations progress. Signs to approval of Departmental Representative .
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- .4 Clean and prepare surfaces in accordance with MPI - Architectural Painting Specification Manual and MPI - Maintenance Repainting Manual specific requirements and coating manufacturer's recommendations.
- .5 Prevent contamination of cleaned surfaces by salts, acids, alkalis, other corrosive chemicals, grease, oil and solvents before prime coat is applied and between applications of remaining coats. Apply primer, paint, or pretreatment as soon as possible after cleaning and before deterioration occurs.
- .6 Where possible, prime non-exposed surfaces of new wood surfaces before installation. Use same primers as specified for exposed surfaces.
  - .1 Apply vinyl sealer to MPI #36 over knots, pitch, sap and resinous areas.
  - .2 Apply wood filler to nail holes and cracks.
  - .3 Tint filler to match stains for stained woodwork.
- .7 Sand and dust between coats as required to provide adequate adhesion for next coat and to remove defects visible from a distance up to 1000 mm.
- .8 Clean metal surfaces to be painted by removing rust, loose mill scale, welding slag, dirt, oil, grease and other foreign substances in accordance with MPI requirements.
- .9 Touch up of shop primers with primer as specified.

#### 3.4 APPLICATION

- .1 Paint only after prepared surfaces have been accepted by Departmental Representative.
  - .2 Use method of application approved by Departmental Representative.
    - .1 Conform to manufacturer's application recommendations.
  - .3 Apply coats of paint in continuous film of uniform thickness.
    - .1 Repaint thin spots or bare areas before next coat of paint is applied.
  - .4 Allow surfaces to dry and properly cure after cleaning and between subsequent coats for minimum time period as recommended by manufacturer.
  - .5 Sand and dust between coats to remove visible defects.
  - .6 Finish surfaces both above and below sight lines as specified for surrounding surfaces, including such surfaces as tops of interior cupboards and cabinets and projecting ledges.
  - .7 Finish inside of cupboards and cabinets as specified for outside surfaces.
  - .8 Finish closets and alcoves as specified for adjoining rooms.
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- .9 Finish top, bottom, edges and cutouts of doors after fitting as specified for door surfaces.
- .10 Mechanical/Electrical Equipment:
  - .1 Paint conduits, piping, hangers, ductwork and other mechanical and electrical equipment exposed in finished areas, to match adjacent surfaces, except as indicated.
  - .2 Do not paint over nameplates.
  - .3 Keep sprinkler heads free of paint.
  - .4 Paint fire protection piping red.
  - .5 Paint disconnect switches for fire alarm system and exit light systems in red enamel.
  - .6 Paint natural gas piping yellow.
  - .7 Paint both sides and edges of backboards for telephone and electrical equipment before installation.
    - .1 Leave equipment in original finish except for touch-up as required, and paint conduits, mounting accessories and other unfinished items.

### 3.5 CLEANING

- .1 Progress Cleaning: clean in accordance with Section 01 74 11 - Cleaning.
  - .1 Leave Work area clean at end of each day.
- .2 Final Cleaning: upon completion remove surplus materials, rubbish, tools and equipment in accordance with Section 01 74 11 - Cleaning.
- .3 Waste Management: separate waste materials for reuse and recycling in accordance with Section 01 74 22 - Construction/Demolition Waste Management and Disposal.
  - .1 Remove recycling containers and bins from site and dispose of materials at appropriate facility.
- .4 Place paint stains primer defined as hazardous or toxic waste, including tubes and containers, in containers or areas designated for hazardous waste.