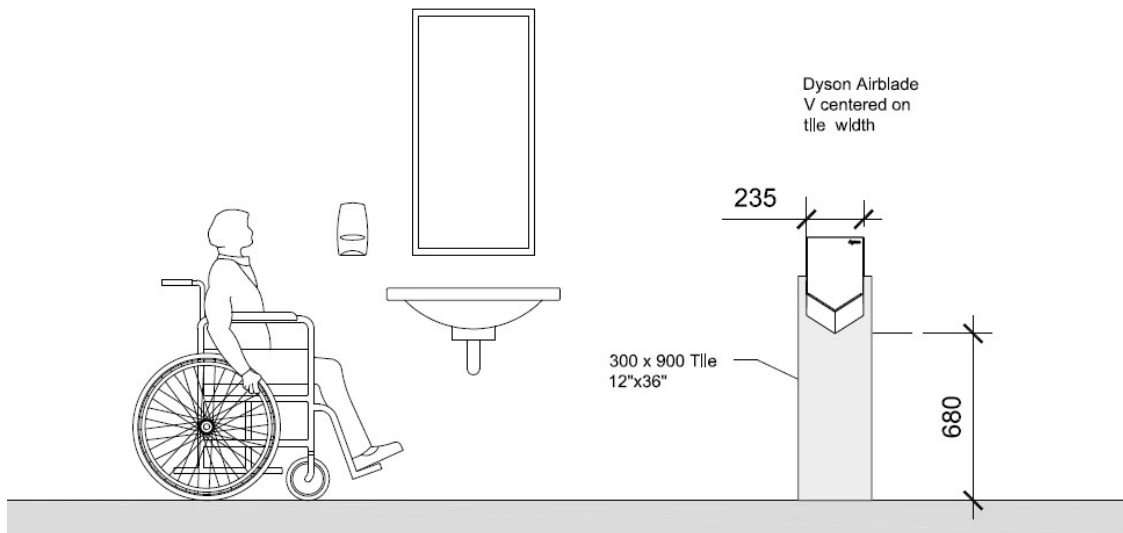


09 30 00 TILING

09 30 01 GENERAL

Ceramic Tiling

1. Ceramic tile types:
 - i. Flooring tile: slip-resistant, non-glazed porcelain.
 - ii. Wall tile: glazed porcelain.
2. Tile size: between 200x200 and 400x400 to minimize amount of grout lines and facilitate floor slope to drain. Other sizes (i.e. 100x200, 100x400, etc.) are acceptable for base and accent colour band applications. Small mosaic tiles are not acceptable in any application.
3. Grout: stain and/or acid resistant, where required. Avoid light coloured grout.
4. Wet spaces:
 - i. Preferred: tiling of entire wall surface.
 - ii. Acceptable (constrained budget): partial tiling, extended as follows:
 - a. Horizontally min. 200mm past the edge of showers and tubs.
 - b. Vertically to min. height of 1800mm in washrooms and 2000mm at showers/tubs.
5. Hand Dryers
 - i. Refer to sketch immediately following this section for placement of tile around hand dryers.
 - ii. Tile to be a minimum of 300mm X 900mm. Only a single large format tile will be accepted, grout joints will not be accepted.



09 34 00 WATERPROOFING-MEMBRANE TILING

Waterproofing Membrane Ceramic Tiling

1. Showers:

- i. Concrete board or waterproof drywall will not be accepted as a waterproofing material.
- ii. Use a waterproofing membrane system from a single manufacturer that includes drain, shower pan and wall components.
- iii. Concrete or waterproof drywall is an acceptable substrate but must have the waterproof membrane system applied overtop.
- iv. Waterproofing system connection details shall create a continuous waterproof barrier and direct all water to drain.

09 50 00 CEILINGS

09 51 23 ACOUSTIC TILE CEILINGS

1. Gypsum panels are preferred; acoustic tiles are acceptable alternatives:
 - i. Acoustic Tile:
 - ii. Mineral fibre panel, medium texture white.
 - iii. Noise Reduction Coefficient (NRC) designation of 0.70 typical (0.55 minimum).
 - iv. Ceiling Attenuation Class (CAC rating 0 (35 minimum).
 - v. Light Reflectance (LR) of minimum 0.84.
 - vi. No Formaldehyde products will be accepted
 - vii. Products – Preferred:
 - a. Armstrong – School Zone Fissured, 19mm thick, no added formaldehyde.
 - b. CGC – Radar ClimaPlus high NRC.
 - viii. Products – Acceptable (with budget constraints and if not in conflict with LEED certification):
 - a. Armstrong Fine Fissured, 16mm thick.
 - b. CGC – RDAR ClimaPlus.
 - c. Armstrong Dune.
2. Wet Labs- When acoustic tiles are used in wet lab applications materials shall confirm with the Canadian Biosafety Standard Level 2 environment requirements. Specifically materials shall be cleanable and non-absorbent.
3. Provide self-adhesive color coded dots 6mm in diameter to delineate ceiling access for plumbing, electrical, HVAC controls etc.

09 53 00 ACOUSTICAL CEILING SUSPENSION ASSEMBLIES

09 53 23 METAL ACOUSTICAL CEILING SUSPENSION ASSEMBLIES

1. Provide adequate access to utilities above suspended ceilings. Ventilate ceiling spaces as required.
2. Metal T-bar suspension systems and acoustic tile units:
 - i. Prefinished baked enamel; white.
 - ii. Typical: 610x1220mm grid with 15/16" reveal.
 - iii. Custom: only where necessary to match existing layout or areas designed for enhanced architectural appeal, 610x610mm grid; regular or square lay-in; white, or other system to suit application.
 - iv. Duty: intermediate for typical ceiling tile (mineral fibre. Heavy duty for wood or GWB panels.).
 - v. Products: Armstrong Prelude; Donn; approved equivalent.

09 54 00 SPECIALTY CEILINGS

1. Specify water resistant and washable ceiling surfaces in high humidity spaces (food preparation, showers, washrooms, etc.).
2. Provide mould resistant and anti-microbial treated products where suitable such as high moisture locations, food service areas, etc.

09 60 00 FLOORING

09 60 01 GENERAL FLOORING SELECTION CONSIDERATIONS & STANDARDS

The University has standardized flooring finishes by building across campus. This information is contained in the Building Finishes Standard and provides details on flooring product by manufacturer, type, pattern and colour and is available upon request from FMGT Manager Interior Modification Services.

Flooring standards are to be maintained for each building. If a flooring product is discontinued or not identified in the Building Finishes Standard consultant must coordinate with FMGT Manager Interior Modification Services in order to change or add new product to the Building Finishes Standard.

1. Carpet Tile (Refer to Section 09 68 00 Carpeting)
 - i. Classrooms
 - ii. Lecture Halls
 - iii. Computer Labs
 - iv. Seminar Rooms
 - v. Office Spaces
 - vi. Housing – Corridors
 - vii. Meeting and Conference Rooms
 - viii. Library
2. Ceramic Tile (Refer to Section 09 30 00 Tiling)
 - i. Lobbies and Entryways (extend minimum 10m from entrances)
 - ii. Washrooms, Change Rooms and Shower Rooms w/waterproof membranes (slip retardant)
 - iii. Food Service Spaces – Cafeteria and Kitchens (slip retardant)
 - iv. Corridors - areas directly under water bottle stations or water fountains – transition strips to be aluminum
3. Linoleum (Refer to Section 09 65 Resilient Flooring)
 - i. Corridors (dry areas only)
 - ii. Classrooms (dry areas only)
 - iii. Library (dry areas only)
4. Sheet Vinyl (Refer to Section 09 65 00 Resilient Flooring)
 - i. Washrooms, Change Rooms and Shower Rooms (small) w/flash coving (slip retardant)
 - ii. Laboratories (dry, wet and/or chemical exposure) w/flash coving – consider all laboratories to be wet with chemical exposure (slip retardant)
 - iii. Janitorial / Utility (wet and chemical exposure) w/flash coving (slip retardant)
 - iv. Lounges (slip retardant)
 - v. Food Service Spaces – Cafeteria (slip retardant)
 - vi. Corridors - areas directly under water bottle stations or water fountains – transition strips to be aluminum (slip retardant)
 - vii. Ramps (slip retardant)
 - viii. Heavy traffic areas (slip retardant)
5. Acoustic Vinyl Plank
 - i. Housing – Dorms, Corridors & Lounges
 - ii. Lounges
 - iii. Library
 - iv. Corridors
 - v. Office Spaces

6. Poured Epoxy
 - i. Commercial Kitchens
 - ii. Washrooms, Showers and Change Rooms
 - iii. Laboratories
7. Polished Concrete / Terrazzo
 - i. Lobbies and Entryways
 - ii. Corridors
8. Hardened and Sealed Concrete
 - i. Mechanical, Electrical and Service Spaces
 - ii. Janitorial / Utility
 - iii. Engineering Laboratories, Testing Spaces
 - iv. Equipment Rooms
 - v. Trades Shops

Matting

1. Walk-off Entry Mats
 - i. Institutional Grade
 - ii. Extend min. 4m from entrances on slip-resistant surfaces and 6m on slippery floors.
 - a. Matting shall be installed on flush floor; mat wells (depressions) are not acceptable.
 - b. Acceptable products: min. 7.94mm thick; nylon polypropylene; vinyl backed, heavy edged and containing min. 30% recycled material:
 1. 3M Normafd 8850, or approved equivalent

09 65 00 RESILIENT FLOORING

Sheet Linoleum 2.5mm thick – Resilient Sheet Flooring

1. Applicable areas: dry areas
2. Acceptable products or approved equivalent:
 - i. Marmoleum Real – by Forbo Flooring Systems.
 - ii. Linoleum Harmonium XF – by Tarkett / Johnsonite.

Sheet Vinyl – V1

1. Applicable areas: wet areas
2. Acceptable products or approved equivalent:
 - i. Tarkett iQ Optima or Granit (2.0mm homogenous).
 - ii. Armstrong – Connection Corlon, wearing surface: minimum 1.27 mm.
 - iii. Tarkett – Contract Plus, 2.0 Homogenous with PUR surface treatment.

Sheet Vinyl – V2 – Slip Retardant and Chemical Resistant

1. Applicable areas: wet and where chemical resistance is required
2. Acceptable products or approved equivalent:
 - i. Tarkett iQ Optima (GOOD chemical resistance).
 - ii. Tarkett Acczent – Glass or Steel – (EXCELLENT chemical resistance).

Sheet Vinyl – V3 – Slip Retardant

1. Applicable areas: wet areas
2. Acceptable products or approved equivalent:
 - i. Washrooms: Tarkett Safe-T Sheet.
 - ii. Food service, ramps, heavy traffic areas: Altro Designer 25.
 - iii. Showers: Tarkett Granit Multisafe and Altro Marine 20 – by Altro Floors
 - iv. Locker and Change Rooms: Tarkett Safe-T Sheet

Epoxy With Integrated Coved Base – Slip Retardant and Chemical Resistant

1. Applicable areas: wet areas and where chemical resistance is required

Rubber Wall Base

1. Rubber wall base is standard unless flash coving, tile or epoxy flooring has been indicated. Rubber wall base to be 101.6mm (4”).
2. Acceptable products or approved equivalent:
 - i. Johnsonite

Rubber Stair Treads, Stringers and Landings

1. Stair treads with integrated riser and contrasting inserts for the visually impaired. To be flexible rubber, with wire reinforced nose. Stringers to be rubber and match colour of treads and riser. Landings to be rubber and match pattern and colour of treads and riser. Transitions to carpet tile, resilient vinyl, tile, concrete, terrazzo, linoleum or other flooring types with rubber stair landings and/or treads must provide a transition strip that deals with the variance in thicknesses on a case by case basis.
2. Acceptable product or approved equivalent:
 - i. Johnsonite

Seams

1. Heated, welded, threaded in colour to match flooring.
2. Net Fit installation requires prior approval from owner (Proof of Certified Installers Required)
3. Guarantee –Five years on labour and materials

Transition and Reducer Strips

1. Transitions between carpet tile and resilient or plank vinyl can be Net Fit where there height is equal and product lines match.
2. Reducer strips: provide at all exposed edges of flooring materials. Where flooring terminates in a door opening, center reducer under door.
3. Transition strip preference is aluminum with rubber and vinyl an acceptable alternate.

09 68 00 CARPETING

Carpet – General

Carpet tile is the preferred carpet product used on campus. Broadloom is not acceptable.

The University has standardized carpet tile by building across campus. This information is contained in the Building Finishes Standard and provides details on carpet tile product by manufacturer, type, pattern and colour and is available upon request from FMGT Manager Interior Modification Services.

Carpet tile standards are to be maintained for each building. If a flooring product is discontinued or not identified in the Building Finishes Standard consultant must coordinate with FMGT Manager Interior Modification Services in order to change or add new product to the Building Finishes Standard.

09 70 00 WALL FINISHES

09 72 00 WALL COVERINGS

Vinyl wall coverings and wallpaper are not acceptable.

09 90 00 PAINTING AND COATING**09 91 00 PAINTING**

1. The design of all paint and coating systems, surface preparation and maintenance shall be in accordance with the Master Painter's Institute (MPI) – Architectural Painting Specification Manual (Latest Edition) for new surfaces, and the MPI Maintenance Repainting Manual (Latest Edition) for re-painting and previously un-coated surfaces.
2. For projects that contain both new and existing surfaces, specify both new and existing systems as necessary (i.e. INT 9.2B (new) and RIN 9.2B).
3. For existing surfaces, DSD values shall be evaluated and specified by the Consultant. Alternately, specify minimum system requirements (including prep, priming, sealing, etc.) as described by the MPI standard.
4. All paint systems shall be MPI "premium grade". Other materials such as linseed oil, shellac, thinners, solvents, etc. shall be the highest quality product of an MPI listed manufacturer.
5. Approved Paint Manufacturers as per MPI approved products listings:
 - i. Preferred: General Paint, Cloverdale Paints
 - ii. Acceptable: Benjamin Moore, Pratt and Lambert

09 91 13 EXTERIOR PAINTING

Metal Fabrications

1. Marine grade system, such as epoxy coat and aliphatic urethane topcoat.
2. Typical gloss level: semi-gloss for miscellaneous metals.

09 91 23 INTERIOR PAINTING

Interior Walls and Ceilings

1. All areas: latex, MPI gloss level 3 "eggshell like".
2. Laundry rooms, public wash / shower / bathrooms / prep areas: washable latex G5 (semi-gloss) finish.
3. Public change / wash / shower rooms and "clean" or "sanitary" areas such as food preparation and laboratory areas: epoxy (tile-like) MPI gloss level 5 (semi-gloss) finish.
4. Custodial closets:
 - i. Throughout: washable latex MPI gloss level 5 (semi-gloss).
 - ii. Behind and adjacent to floor sink: epoxy (tile-like) G5 (semi-gloss) finish. Extend:
 - a. Horizontally min. 200mm past the edge of floor sinks.
 - b. Vertically to min. height of 900mm.
5. Colours:
 - i. Student Family Housing only: Cloverdale 937-2W. Formula: B-3 C-25 I-0.05.
 - ii. Academic Buildings: Confirm with FMGT Project Officer.
 - c. Old standard – only to match existing: 937-2W

d. New standard – typical: 8443 – Cloverdale

Doors, Frames, Trim and Sills

1. MPI gloss level 5 (semi-gloss) finish.

09 97 13 EXTERIOR STEEL COATINGS

1. Typical finishes for exposed (outdoor) metal fabrications:
 - i. Hot-dip galvanized.
 - ii. Stainless steel.
 - iii. Clear anodized aluminum.
2. Where painted assemblies are required, use durable factory finish (preferred), or a marine grade system:
 - i. Electrostatic painting.
 - ii. Factory pre-painted process.
 - iii. Epoxy coat and aliphatic urethane topcoat, marine grade system. For increased durability, consider galvanized steel for painted assemblies.

09 97 23 CONCRETE AND MASONRY COATINGS

Exposed Architectural Concrete

1. Anti-graffiti coat

10 10 00 INFORMATION SPECIALTIES

10 11 00 VISUAL DISPLAY UNITS

Area of Use

1. All lecture halls, classrooms and labs shall be equipped with Chalkboard Slider Units – black surface. Offices and boardrooms shall be equipped magnetic whiteboards, confirm overall strategy with Facilities Management.

Perimeter Trim and Fastening

1. Perimeter trim: extruded anodized aluminum channel, 1.5mm thick material, fitted around panels with closed mitred corners. Single layer, fixed units fastening to wall preparation as follows:
 - i. Offices / corridors – surface mounted fasteners: pre-punch perimeter trim at 610 o.c.
 - ii. Classrooms / boardrooms – concealed clip fasteners: back fasten trim to backing sheet.

Dimensions

1. Use Standard Board Sizes
2. Chalkboards and Marker-boards (Whiteboards) follow the following table where applicable:

Fixed & Slider Panel Widths (mm)	Slider Panel Height (mm)		Overall Slider Unit Height (mm)	Fixed Panel Height (mm)
1220; 1830 or 2440	1070		1220	1220

Installation

1. Install slider and fixed units, 1220mm high boards with bottom edge of at 915 above finished floor.

Products

1. In renovations match existing blackboard and whiteboard products.
2. Chalkboards and Marker-boards (Whiteboards):
 - i. Facing sheet: 2 coats fired vitreous porcelain enamel on 24 gauge steel.
 - ii. Chalkboards: porcelain enamel, colour BLACK.
 - iii. Magnetic Marker-boards (Whiteboards): porcelain enamel, magnetic, colour WHITE.
 - iv. Core material: 12.5mm high density, moisture resistant fibreboard; free of tar material.
 - v. Provide trays of extruded aluminum, not less than 64mm wide, with ends polished and bevelled.
 - vi. Horizontal 2-tracks top hung chalkboard sliders (3 layers: 2 sliders + fixed back panel). Maximize the length of sliders, within the overall chalkboard unit, to minimize vertical seams; do not exceed 2400 lengths, to prevent heavy panels and difficulty of operation.

10 14 00 SIGNAGE

10 14 01 SIGNAGE DESIGN STANDARDS, SPECIFICATIONS AND DETAILS

1. When additional signage is required by code (for example automatic door caution stickers) install so that the signage is centered on the door with the top at 1448mm.
2. Interior and exterior wayfinding signage design standards, specifications and details documents are available as follows:
3. Interior Wayfinding Signage and Safety and Information Signage Design Standards' document can be viewed and downloaded at:

<http://www.uvic.ca/facilities/assets/docs/standards/Signage%20Standards/2016%2004%2013%20Interior%20Wayfinding,%20Safety%20and%20Info%20Signage%20-%20Design%20Guidelines.pdf>

4. Interior Wayfinding Signage and Safety and Information Signage Specifications and Details' document can be viewed and downloaded at:

<http://www.uvic.ca/facilities/assets/docs/standards/Signage%20Standards/2016%2004%2013%20Interior%20Wayfinding,%20Safety%20and%20Info%20Signage%20-%20Specification%20and%20Details.pdf>

5. 'Exterior Wayfinding Signage and Safety and Information Signage Design Standards' document can be viewed and downloaded at:

<http://www.uvic.ca/facilities/assets/docs/standards/Signage%20Standards/3extwayfinding-designstandards.pdf>

6. 'Exterior Wayfinding Signage and Safety and Information Signage Specifications and Details' document can be viewed and downloaded at:

<http://www.uvic.ca/facilities/assets/docs/standards/Signage%20Standards/5extwayfinding-specsanddetls-fullpkg.pdf>

10 20 00 INTERIOR SPECIALTIES

10 21 00 COMPARTMENTS AND CUBICLES

1. Toilet Compartments
 - i. Shall be designed for heavy traffic, shall have superior durability, reparability and be scratch-resistant, dent-resistant, graffiti-resistant, moisture-resistant and impact-resistant. Use finishes that require minimal maintenance and allow easy graffiti removal.
 - ii. Design stalls size to allow adequate installation and functionality of all accessories.
2. Toilet Partition Types
 - i. All toilet partitions to be gap free with continuous hinges.
 - ii. Latches must be operable from the exterior in an emergency.
 - iii. Typical: Solid Colour Reinforced Composite (SCRC), solid phenolic, solid plastic or plastic laminate, to suit budget.
 - iv. Acceptable for non-public, limited budget projects or to match existing: powder coated steel.
3. Washroom Partitions: Floor mounted overhead braced
4. Urinal Partitions: Wall hung.
5. Each compartment to be complete with the following hardware:
 - i. Combination coat hook/door bumper. Locate at 915mm height on inside of stall door in accessible stalls.
 - ii. Combination stop/latch – with emergency lift feature.
 - iii. Non-removable self-closing hinges – with emergency lift feature.
 - iv. Door d-pulls on interior and exterior of stalls for accessible compartments.
 - v. Seat at dressing cubicles.

10 25 16 MODULAR SERVICE WALLS

1. Modular Wall Systems- Where space separation and building code requirements permit, consider modular demountable wall partition systems for all interior space division.
2. Selection of system to be based on long-term availability of components and finishes.
3. Partition System: demountable and relocate-able, unitized, non-progressive, extend in four directions at posts without disturbing other panels. Accommodate floor to ceiling height variations of up to 25mm.
4. Systems to be approved for installation in seismic areas. Installations shall include for all miscellaneous bracing to suit the seismic criteria.
5. System design to suit easy integration with furniture and case goods.
6. System to accommodate electrical outlets and switches on posts or in panels, and wiring in posts, base, cap or panels as necessary.
7. Preference should be given to GreenGuard certified products / systems.
8. Minimum STC rating of 40. Discuss sound attenuation requirements for each specific application.

9. Standard framing material: extruded aluminum or steel, clear anodized or powder coated finish.
10. Standard panel types: face mounted or glazed-in.
11. Standard panel materials: plain gypsum board (painted), pre-decorated gypsum board, wood panel, acoustic panel (fabric), steel or glass.
12. Doors and frames to be coordinated with Section 08 10 00 Doors and Frames.
13. Coordinate electrical and communications requirements and components with FMEL and University Systems (SYST) and as directed by FMGT.

10 26 13 CORNER GUARDS

1. Provide wall exterior corner guards, or other suitable means of protection at all exposed gypsum board corners susceptible to damage.
2. Minimum 1200mm above floor.

10 26 16 BUMPER RAILS

1. A chair rail shall be installed in all classrooms, meeting and boardrooms, waiting areas and any space that would require wall protection from furniture and/or other moving equipment.
2. Extent of coverage and height of installation to be reviewed with FMGT Interior Modification Services representative during design stage.
3. Product: 10" adhesive rubber strips, brushed silver color, suede texture.
4. Install bumper rail at 28" to the underside in rooms with table height tables and chairs. Install bumper rail at 35"-40"" to the underside in rooms with counter or bar height tables and chairs.

10 26 23 PROTECTIVE WALL COVERING

1. Janitorial Closets: Where a sink or water source is included in a janitorial closet ensure the surrounding walls are protected using a waterproof covering up to 42"

10 28 00 TOILET, BATH AND LAUNDRY ACCESSORIES

General

1. Each washroom on campus shall be provided with the accessories listed below. In order to maintain product consistency throughout the campus, alternates are not acceptable for these products.
2. All necessary surface/assembly preparation shall be described in the drawings and specifications.
3. Coordinate with FMGT for any items to be provided by the University.
4. Install paper towel, toilet roll and soap dispensers provided by the University.
5. Backing board to be installed to 4' above finished floor on walls adjacent to toilet, sink. Backing board to be installed to 8' above finished floor on a walls holding toilets or sinks.

Washroom Products

1. Paper Towel Dispensers – one dispenser for every three washbasins. Provided by the University.
2. Toilet Roll Dispensers – one dispenser for each W.C. Provided by the University.
3. Soap Dispensers – one dispenser for every two washbasins. Provided by the University.
4. Sanitary Napkin Disposal – one disposal for each W.C. in women’s and gender neutral washrooms.
 - i. 12.5”w x 10.75”h x 5”d
5. Grab Bars – Locate in each accessible toilet compartment:
 - i. One at 120°, 600mm (or 180°, 1200mm) and one at 180°, 450mm x 32mm dia. X min.
 - ii. 1.25mm wall tubing of 304 stainless steel, 76mm dia.
 - iii. Wall flanges, concealed screw attachment, flanges welded to tubular bar, provided with steel backing plates and all accessories.
 - iv. Knurl bar at area of hand grips.
 - v. Grab bar material and anchorage to withstand downward pull of 2.2 kN.

Classroom/Boardroom Products

1. Paper Towel Dispensers- If sink is provided in a classroom or boardroom install paper towel dispenser provided by the University
2. Waste bins- A waste bin will be provided by the university for each paper towel dispenser. See section 06 41 01 for details on cabinetry to accommodate waste bin.

10 70 00 EXTERIOR SPECIALTIES

10 73 16 CANOPIES

Bike and Motorcycle Canopy

1. UVic has developed standardized bicycle and motorcycle canopy structures. The number of bays and bay width may vary to suit site conditions. When necessary for site design, request canopy drawings from UVic representative.

11 50 00 EDUCATIONAL AND SCIENTIFIC EQUIPMENT

11 52 00 AUDIO-VISUAL EQUIPMENT

Audio-Visual System Infrastructure – System Description

1. Provide complete conduit system, including junction boxed and pull string for the installation of an audio-visual system in lecture theatres, classrooms and video conferencing rooms. The audio-visual systems will be provided by University of Victoria forces.
2. Provide 120 volt power for audio-visual systems and components as required and as indicated.
3. Lecture theatre audio-visual infrastructure shall include:
 - i. Conduit from lectern cabinets to central dimming controls for respective spaces.
 - ii. Conduit from lecture theatre control booth to lectern cabinet.
 - iii. Conduit from control booth to wall mounted and ceiling mounted speakers.
 - iv. Receptacle outlets at lectern cabinets, minimum 4 circuits and duplex receptacles.
 - v. Data outlets at lectern cabinets.
4. Classroom audio-visual infrastructure shall include:
 - i. Conduit from ceiling overhead projector to lectern at teaching position.
 - ii. Ceiling receptacles for overhead project.

11 53 13 LABORATORY FUME HOODS

Fume Hood – General

1. Design and install fume hoods to comply with recognized authorities (CSA, ASHRAE) as prescribed in Part of the BC Building Code. Perform risk assessment to determine if fume hood and/or cabinets (including bio safety) should be connected to emergency power.
2. Ductwork shall be stainless steel type 316 – 18 gauge minimum, 2B finish except No. 4 finish where in exposed occupied spaces and shall be suitable for the gas and/or vapours carried from source to exhaust fan. Strong corrosive fumes may attack stainless steel and other materials may need to be specified.
3. Ducts from fume hoods shall be routed to the roof of the building as directly as possible for discharge above the re-circulation cavity boundary of the structure.
4. Horizontal ducts shall be kept to a minimum and shall be graded up in direction of air flow.
5. Exhaust fans shall have interior surfaces in contact with the air stream coated with a chemical resistant coating.
6. Canvas or any other flexible connections are not acceptable on the discharge side of the fan.
7. Provide control handles on the exterior of the fume hood for all fume hood services.
8. New fume hoods shall have flow monitors/alarms as per CSA standards.
9. Avoid sound attenuators on fume hood exhaust fans. Select fans with lower sound level instead.

Laboratory Fume Hoods

1. Metal under-counter storage cabinets, when part of a fume hood unit, must have a removable access panel in back to permit servicing of the plumbing pipes.
2. Solvent/chemical storage cabinets which do not have removable back panels must be installed in a manner which will allow easy removal of cabinet. In this case, the fume hood must be supported independently of the storage cabinet below. Hang fume hood with threaded rod to raise and lower with turn buckle.

11 80 00 FACILITY MAINTENANCE AND OPERATION EQUIPMENT

11 80 01 EXTERIOR ACCESS FACILITIES

Rooftop Access

3. Provide Worksafe BC / OHS approved facilities to suit safe access to all roof areas for service and maintenance (i.e. fall restraint):
 - i. Parapet walls designed as guard elements (min. 1070mm height) are encouraged to serve as permanent fall restraint facilities.
 - ii. Where permanent fall restraint is not achievable, provide alternate means or procedures for providing temporary fall restraint as outlined in Worksafe BC part 11 and OHS Regulation.
 - iii. Where fall restraint facilities are not achievable, provide WorkSafeBC approved fall arrest systems.
 - iv. The Consultant shall provide a roof plan demonstrating the ability of designed fall arrest or fall restraint systems to collectively provide full access to all roof areas.

Exterior Wall Access

1. Provide Worksafe BC / OHS approved facilities to suit safe access to building exterior walls for routine cleaning and maintenance (i.e. window washing) personnel.
2. Design considerations shall assume suspension access (i.e. bosons chair) to all exterior windows shall be provided where safe access to the exterior of windows cannot be achieved from the interior.
3. Permanent exterior access facilities may consider capacity for swing stages or other larger access equipment.
4. Any system that spans or cantilevers over a parapet shall be provided with adequate designated bearing surfaces. Bearing on parapet flashings or similar surfaces that may be damaged is not acceptable.

12 20 00 WINDOW TREATMENTS

12 21 00 WINDOW BLINDS

Roller Blinds – Design Considerations

1. Provide roller blinds as follows:
 - i. Windows with high sun/heat exposure to receive 1% perforation roller blinds
 - ii. Windows with medium sun/heat exposure to receive 3% perforation roller blinds
 - iii. Windows with low sun/heat exposure to receive 3-5% perforation roller blinds
 - iv. Specialized rooms i.e. classrooms, research spaces or laboratories that require blackout blinds will be identified in design stage, ensure all blackout blinds are installed with side, top and bottom channels to eliminate light infiltration
 - v. Sunscreen and blackout shades combination: typical to exterior windows (installed in residential housing) of the spaces that require blackout shades, as described above.
 - vi. Operation:
 1. Typical: Metal bead chain and sprocket roller shade manually operated action with infinite positioning.
 2. Motorized blinds are only installed where manual operation is not feasible
2. Roller blinds do not require valances unless they are blackout
3. Blinds to come with 5 year warranty on labour and materials

Roller Shade System

1. Factory assembled unit including: extruded aluminum housing / cassette box closed on all sides, 2 end brackets, shade tube, extruded aluminum fascia and hem-bar, shade cloth guide and fabric. Local manufacturers are required.

Sunscreen Fabric

1. Dense shade cloth, suitable for clear low “E” glazing.
2. Composition: woven, vinyl coated fiberglass (64% vinyl / 36% fiberglass core yarn), halogen free, dimensionally stable, tensioned to keep the warp ends straight and minimize or eliminate weave distortion to keep the fabric flat.
3. Weight: min 470 g/m².
4. Thickness: minimum 0.48 mm.
5. UV Blockage: minimum 95%.
6. Openness factor to be selected by Consultant:
 - i. UVic standard: 1-5% open as outlined in the design consideration section above.
 - ii. Provide consistent product, colour and appearance for the entire building, irrespective of various different openness factors.
7. Colours: Where existing standard is encountered match that standard. Otherwise preferred colours are:
 - i. Oyster Pewter
 - ii. Oyster Pearl Gray