

UNIVERSITY OF TORONTO

ADDENDUM 1 – SUMMARY OF REVISIONS TO CONSULTANT ISSUED ARCHITECTURAL SPECIFICATIONS

33 URSULA FRANKLIN – MATH OFFICE RENOVATION

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TORONTO, ONTARIO
UNIVERSITY PROJECT NUMBER: P164-24-165

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**CONSULTANT:
UNIVERSITY, PLANNING, DESIGN AND CONSTRUCTION –
DESIGN AND ENGINEERING**

Part 1 General

1.1 ADDENDUM FORM

- .1 This Addendum forms part of the Contract Documents and modifies the Bidding Documents dated April 22, 2026 as previously issued, with amendments and additions noted below.
- .2 This addendum summary consists of:
 - .1 Addendum 1 Summary pages
 - .2 Attached specification sections and revisions to specification changes as listed in 1.2
CHANGES TO THE CONSULTANT'S ARCHITECTURAL SPECIFICATIONS

1.2 CHANGES TO THE CONSULTANT'S ARCHITECTURAL SPECIFICATIONS

- .1 Delete Section 00 01 10 - Table of Contents, dated April 22, 2026, and replace with Section 00 01 10 - Table of Contents, dated May 6, 2026. Corrections to page count per Section.
- .2 Delete Section 06 41 11 - Architectural Cabinetwork, dated April 22, 2026, and replace with Section 06 41 11 - Architectural Cabinetwork, dated May 6, 2026.
- .3 Delete Section 09 51 13 - Acoustic Panel Ceilings, dated April 22, 2026, and replace with Section 09 51 13 - Acoustic Panel Ceilings, dated May 6, 2026.
- .4 Delete Section 09 65 10 - Resilient Flooring, dated April 22, 2026, and replace with Section 09 65 10 - Resilient Flooring, dated May 6, 2026.

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Part 1 General

1.1 SECTION INCLUDES

- .1 Custom shop fabricated lower Servery Cabinets units with doors, drawers, shelves, cabinet hardware.
- .2 Custom shop fabricated upper Servery Cabinets units with doors, shelves, cabinet hardware.
- .3 Cabinet finishes: exposed surfaces finished with high pressure decorative laminate finishes and concealed and semi-exposed surfaces with melamine finishes.
- .4 Custom shop fabricated upper Cabinet units with doors and cabinet hardware to mount over existing electrical panels. Cabinets and doors with high pressure decorative laminate finishes and concealed and semi-exposed surfaces with melamine finishes.
- .5 Countertops:
 - .1 Servery Cabinet units with solid surface countertops as specified in Section 06 62 00 - Simulated Stone Fabrications.
- .6 Replace existing Reception countertop with new countertop with high pressure decorative laminate finish.
- .7 At Reception counter, provide new MDF side and header jamb trim with paint finish.
- .8 Replace existing window sills with new window sills with high pressure decorative laminate finish.
- .9 Provide wall mounted plywood shelf with concealed shelf support and high-pressure decorative laminate finish.
- .10 Provide wood infill curb at bottom of washroom doors which are scheduled to be locked with inoperable hardware. Infill curb will be constructed with solid lumber with finished face of solid wood plywood with grade A veneer suitable for opaque paint.

1.2 RELATED SECTIONS

- .1 Section 06 10 53 Miscellaneous Rough Carpentry: Grounds and support framing.
- .2 Section 06 62 00 - Simulated Stone Fabrications
- .3 Section 07 92 00 - Joint Sealants
- .4 Section 09 21 16 - Gypsum Board Assemblies
- .5 Section 09 65 10 - Resilient Flooring
- .6 Section 09 68 13 - Tile Carpeting
- .7 Section 09 91 10 – Painting
- .8 Section 10 11 00 - Visual Display Surfaces
- .9 Mechanical Division: Plumbing fixtures.
- .10 Electrical Division – Power wiring and signal cabling for appliances
- .11 Section 27 41 00 – Audio-Video Systems
- .12 Section 27 41 01 – Audio-Video Systems - Owner's Statement of Requirements

1.3 REFERENCES

- .1 ASTM A153/A153M-09 - Standard Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware.
- .2 BHMA A156.9-2010 - Cabinet Hardware.
- .3 CAN/ULC-S102-10 Standard Method of Test for Surface Burning Characteristics of Building Materials and Assemblies.
- .4 CAN/CSA-O80 Series-08 (R2012) - Wood Preservation.
- .5 NAAWS North American Architectural Woodwork Standards – Edition 3.1, 2017 as amended.
- .6 NEMA LD3-2005 - High Pressure Decorative Laminates (HPDL).
- .7 NPA A208.1-2009 - Particleboard.
- .8 NPA A208.2-2009 - Medium Density Fiberboard (MDF) for Interior Applications.

1.4 ADMINISTRATIVE REQUIREMENTS

- .1 Section 01 30 00: Project management and coordination procedures.
- .2 Pre-installation Meetings: Convene one (1) week weeks before starting work of this section.

1.5 SUBMITTALS FOR REVIEW

- .1 Section 01 30 00: Submission procedures.
- .2 Shop Drawings: Indicate materials, component profiles and elevations, assembly methods, joint details, fastening methods, accessory listings, hardware location and schedule of finishes.
- .3 Product Data: Provide data for hardware accessories.
- .4 Samples:
 - .1 Submit two (2), 150 x 150 mm size samples, illustrating high pressure plastic laminate cabinet finish.
 - .2 Submit two (2), 150 x 150 mm size samples, illustrating countertop finish.
 - .3 Submit two (2) samples of drawer pulls hinges, illustrating hardware finish.

1.6 CLOSEOUT SUBMITTALS

- .1 Section 01 78 10 and section 01 92 00: Submission procedures.

1.7 QUALITY ASSURANCE

- .1 Perform work to NAAWS, Custom quality.
- .2 Perform cabinet construction to NAAWS, Custom quality.
- .3 Perform cabinet construction to NAAWS as follows:
 - .1 Millwork Items: Served Cabinets in: Counter, Upper and Lower Cabinets, Shelves, Drawers and Door Fronts Construction: Custom Grade.
 - .2 Millwork Items in Reception area.
 - .1 Wall Panels coordinated with custom sized Visual Display Boards with writable/erasable surfaces coordinated with custom sized Visual Display Boards with writable/erasable surfaces
 - .2 Infill Wall Panel coordinated with new wood door and re-used glazed sidelite

- .4 Fabricator Qualifications: Company in good standing with AWMAC and specializing in fabricating Products specified in this section with minimum five (5) years documented experience.
- .5 Installer Qualifications: Company specializing in performing the work of this section with minimum five (5) years documented experience and approved by the manufacturer.
- .6 Fire retardant Treated Wood: Marked with certification mark authorized by the Canadian Wood Preservers Bureau (CWPB) indicating producer, fire retardant type, retention and Use Category (UC).

1.8 MOCK-UP

- .1 Section 01 40 00: Requirements for mock-up.
- .2 Provide mock-up of one full size credenza cabinet which includes solid surface countertop fitments, and cabinet hardware.
- .3 Locate where directed by Consultant.
- .4 Approved mock-up may remain as part of the Work.

1.9 DELIVERY, STORAGE, AND PROTECTION

- .1 Transport, handle, store, and protect products.
- .2 Protect units from moisture damage as specified in NAAWS.

1.10 SITE CONDITIONS

- .1 Ambient Conditions:
 - .1 During and after installation of work of this section, maintain the same temperature and humidity conditions in building spaces as will occur after occupancy as specified in Section 2 of NAAWS Standard.

1.11 WARRANTY

- .1 Correct defective Work within a two (2) year period after Date of Substantial Performance.

Part 2 Products

2.1 LUMBER MATERIALS

- .1 Lumber: To the requirements of NAAWS, grade specified.
- .2 Concealed Hardwood Lumber: Poplar/Maple/Birch, plain sawn, maximum moisture content of 6%; with vertical grain, of quality suitable for opaque finish.
- .3 Softwood Lumber: pine species, clear, plain sawn, maximum moisture content of 6% ; with vertical flat grain, of quality suitable for transparent finish.

2.2 SHEET MATERIALS

- .1 Sheet Materials: To the requirements of NAAWS, grade specified.
- .2 Softwood Plywood for Countertop at wet counters: Wood Veneer Core Fir species, plain sawn; of exterior grade quality, wood veneer facing Fir species plain sawn, Grade B G2S of quality suitable for support backing of solid surface countertop, surface knots filled with wood plugs.

- .3 Softwood Plywood for Countertop at dry counters, cabinet shelves. Wood Veneer Core Poplar species, plain sawn, wood veneer facing Poplar species plain sawn, Grade B G2S of quality suitable for opaque high pressure plastic laminate finish, surface knots filled with wood plugs.
- .4 Softwood Plywood for facing wood infill curbs at washroom door undercuts. Wood Veneer Core Poplar species, plain sawn, wood veneer facing Poplar species plain sawn, Grade A G1S of quality suitable for opaque paint finish.
- .5 Particleboard Core: NPA A208.1; composed of wood chips, medium density, moisture resistant, Class 1 fire retardant; of grade to suit application; sanded faces suitable for opaque high pressure plastic laminate finish.
- .6 Moisture resistant MDF.
- .7 Solid Surfaces: As specified in Section 06 62 00 - Simulated Stone Fabrications

2.3 LAMINATE MATERIALS

- .1 High Pressure Decorative Laminate: High pressure laminate, General Purpose, 1.02 mm (0.04 inch) thick; printed pattern colour range, with matte textured finish.
- .2 High Pressure Decorative Laminate Types:
 - .1 Plastic Laminate for Millwork Items MW01, MW02, MW03, MW04, MW05, MW06: Servery Base Cabinets, Upper Cabinets, and Microwave Cabinet and Shelf, exposed surfaces:
 - .1 Cabinets, Doors, Drawer Fronts, and Microwave Cabinet and Shelf:
 - .1 Manufacturer: Wilsonart Premium laminate
 - .2 Colour: Linen D427K-01
 - .3 Finish: High glossy or fingerprint resistant
 - .3 High Pressure Decorative Laminate Types:
 - .1 Plastic Laminate for Millwork Item **MW07** Cabinet to cover electrical panels Upper Cabinets, exposed surfaces:
 - .1 Cabinets, Doors:
 - .1 **Manufacturer: Wilsonart Premium laminate**
 - .2 **Colour: Linen D427K-01**
 - .3 **Finish: High glossy or fingerprint resistant**
 - .4 High Pressure Decorative Laminate Types:
 - .1 Plastic Laminate for Millwork Item Reception Countertop, exposed surfaces:
 - .1 Countertop:
 - .1 Manufacturer: As selected by Consultant.
 - .2 Colour: As selected by Consultant.
 - .3 Finish: As selected by Consultant.
 - .5 High Pressure Decorative Laminate Types:
 - .1 Plastic Laminate for new Window Sills , exposed surfaces:
 - .1 Window Sills:
 - .1 Manufacturer: As selected by Consultant.
 - .2 Colour: As selected by Consultant.
 - .3 Finish: As selected by Consultant.

- .6 High Pressure Decorative Laminate Types:
 - .1 Plastic Laminate for Wall Mounted Shelf in Women's Washroom 2040, exposed surfaces:
 - .1 Window Sills:
 - .1 Manufacturer: As selected by Consultant.
 - .2 Colour: As selected by Consultant.
 - .3 Finish: As selected by Consultant.

2.4 HARDWARE: MILLWORK ITEMS

- .1 Hardware: BHMA A156.9.
- .2 Shelf Rests: Formed steel channels and rests, cut for fitted rests spaced at 25 mm (1 inch) centres; chrome finish. Model No. 255 or 256; chrome finish by Knappe & Vogt Canada Inc., or other manufacturer acceptable to the Consultant. Standards at 6" from top and bottom.
- .3 Shelf Brackets: Formed steel brackets, formed for attachment with lugs; chrome finish. One support per 12" length of standard
- .4 Drawer and Door Pulls by Richelieu:
 - .1 Cabinets **MW01, MW02, MW03, MW04, MW05, MW06 and MW07**: Lower and Upper Cabinet Door Pulls, Cabinet Drawer Pulls: Modern Metal Pull – **2363, 128 mm centre to centre, Matte Black finish.**
- .5 Cabinet Locks for Cabinets MW01, MW02, MW03, MW04, MW05, MW06: Deadbolt Rim Lock type, having zinc die cast body with minimum 1-1/4" (32mm) throw and Nickel-plated, Cat. No. 232.25.610 by Häfele Canada Inc., or other manufacturer acceptable to the Consultant. Provide offset cams where required. Provide two keys per lock. Locks shall be keyed alike in grouping for each cabinet location group, as directed later to meet the Consultant requirements.
- .6 Cabinet Locks for Cabinets **MW07** covering existing electrical panels: Deadbolt Cabinet Lock 700LC by Olympus Lock, US26D finish, cylinder length 1-3/8", Standard Function (key removable when locked or unlocked), compatible with Medeco Cylinders, with through-bolt hardware: ETS1 through-bolt plate, ETS1-PL trim pull and ETST1 template, complete with spacers and strike plate (Note: use of spacers and strikes depends on application and cabinet material thickness).
- .7 Drawer Slides: Soft close, Self-closing, full extension, side mounting, zinc coated, steel ball bearing, minimum 100 lb. rated, by Knappe & Vogt Canada Inc., Julius Blum Canada Ltd, Hettich or other manufacturer acceptable to the Consultant.
- .8 Upper and lower cabinets: Hinges: Spring hinges: 110 degree opening, nickel plated self-closing, soft closing steel hinge with zinc die cast screwed on cup by ., Julius Blum Canada Ltd, Hettich., or other manufacturer acceptable to the Consultant. Provide minimum of two (2) hinges per door and for doors over 3' - 0" in height provide one (1) additional hinges for every 12" in additional height. Provide heavy-duty hinges for 1-3/8" thick cabinet doors.
- .9 Press-In Plastic Bumpers: 59042011 by Richelieu, provide 2 per door and provide additional silencers for doors over 3'-0" in height.
- .10 Furniture bolts: Surface mounted, steel furniture bolts for screw mounting on inside of cabinet doors having "nickel plated" finish, and sized to suit cabinet door sizes, Cat. No. 251.10.703 by Häfele Canada Inc., or other manufacturer acceptable to the Consultant.
- .11 Base Cabinet Leveling Legs & Kickplate Support:
 - .1 Cabinet Leveling Legs: Richelieu Steel Leveler with Head - 345102G

- .2 Leveler Clip: Richelieu Product number 226301, Material ABS
- .3 Kickplate core 19 mm solid core plywood
- .12 Concealed shelf support brackets for wall mounted shelves:
 - .1 Triade Rails mounted onto furred drywall with wood blocking: Product Number 1622410
 - .2 Triade Mounting Brackets: Product Number 1621512G.
 - .3 Mounting Hardware for Triade profile.

2.5 WOOD TREATMENT

- .1 Fire Retardant: CAN/CSA-O80 Series, chemically treated and pressure impregnated; capable of providing a maximum flame spread/smoke development rating of 150, to CAN/ULC-S102 and in compliance to Ontario Building Code.

2.6 SHOP TREATMENT OF WOOD MATERIALS

- .1 Shop brush apply wood materials requiring concealed wood blocking to ULC fire rating preservatives in compliance with Ontario Building Code
- .2 Provide ULC approved identification on fire retardant treated material.
- .3 Deliver fire retardant treated materials cut to required sizes. Minimize field cutting.

2.7 MILWORK ITEMS MW01, MW02, MW03, MW04, MW05, MW06, AND MW07: PLASTIC LAMINATE CASEWORK AT KITCHENETTES, SCANNING ROOMS AND PHOTOCOPY ROOMS – BASE CABINETS, UPPERCABINETS AND WALL MOUNTED CABINETS TO COVER ELECTRICAL PANELS

- .1 Cabinet Construction:
 - .1 Flush overlay
 - .2 Cabinet gables, backs, doors, drawer fronts, drawer sides, bottoms, valances and adjustable shelves: particle board core.
 - .3 Cabinet top: solid wood veneer core marine grade plywood, Grade B G2S of quality suitable for backing support of solid surface countertop, surface knots filled with wood plugs.
- .2 Base Cabinet Leveling Legs, Kickplate Support and Kickplate:
 - .1 Cabinet Leveling Legs: Richelieu Steel Leveler with Head - 345102G
 - .2 Leveler Clip: Richelieu Product number 226301, Material ABS
 - .3 Cabinet Kick Plate:
 - .1 Solid lumber core
 - .2 Vinyl base finish by Section 09 65 10
- .3 Exterior Exposed Surfaces:
 - .1 Doors and Drawer Fronts: High pressure decorative laminate.
 - .2 Edges: High pressure decorative laminate .
 - .3 Base Cabinet Gable sides exposed on exterior face, High pressure decorative laminate
 - .4 Upper Cabinet gable sides exposed on exterior face, High pressure decorative laminate
 - .5 Countertop Finish:
 - .1 Solid Surface Countertop as specified in Section 06 62 00 - Simulated Stone Fabrications, adhered to plywood countertop backing.

- .6 Backsplash:
 - .1 Solid Surface wall mounted backsplash panel as specified in Section 06 62 00 - Simulated Stone Fabrications. Backsplash height is from top of Solid Surface Countertop up to underside of upper cabinets as shown on Drawings.

- .4 Semi-Exposed Surfaces: thermo fused laminate:
 - .1 Cabinet Interior side surfaces: thermo fused laminate
 - .2 Shelves: : Edge banded, thermo fused laminate.
 - .3 Drawer Sides and Backs: Edge banded, thermo fused laminate.
 - .4 Drawer Bottoms: Edge banded, thermo fused laminate.
- .5 Semi-Exposed Surfaces: thermo fused laminate:
 - .1 Cabinet Interior side surfaces: thermo fused laminate
 - .2 Shelves: : Edge banded, thermo fused laminate.
 - .3 Drawer Sides and Backs: Edge banded, thermo fused laminate.
 - .4 Drawer Bottoms: Edge banded, thermo fused laminate.

2.8 MILWORK ITEMS: SOLID SURFACE COUNTERTOPS AND COUNTER BACKSPLASH

- .1 Comply with NAAWS Quality Standards, Custom grade requirements for counter construction supplemented as follows:
- .2 Base cabinet countertops shall be constructed of 19 mm marine grade plywood Grade B finished both sides. Seal edges to protect against moisture.
- .3 Solid Surface finish as detailed on Drawings and specified in Section 06 62 00 - Simulated Stone Fabrications.

2.9 MILWORK ITEM: RECEPTION COUNTER - PLASTIC LAMINATE FINISH

- .1 Countertop Construction:
 - .1 Plywood core.
- .2 Exterior Exposed Surfaces:
 - .1 Plastic laminate finish.
 - .2 Edge banded with plastic laminate finish to match panel face finish.

2.10 MILWORK ITEM: RECEPTION COUNTER JAMB SURROUND - PAINT FINISH

- .1 Jamb construction:
 - .1 Comply with NAAWS Quality Standards, Custom grade requirements for counter construction supplemented as follows:
 - .2 Moisture resistant MDF jamb trim, length, width and configuration as shown on Drawings.
 - .3 Finish: smooth exposed surfaces and edges, sanded ready for opaque paint finish by Section 09 91 10 - Painting.

2.11 MILWORK ITEM: NEW WINDOW SILLS - PLASTIC LAMINATE FINISH

- .1 Window Sill Construction:
 - .1 Plywood core.

- .2 Exterior Exposed Surfaces:
 - .1 Plastic laminate finish.
 - .2 Edge banded with plastic laminate finish to match panel face finish.

2.12 MILWORK ITEM: WALL MOUNTED SHELF IN WOMEN'S WASHROOM RM 2040

- .1 Shelf construction as detailed: 19 mm thick solid wood veneer core grade plywood, Grade B G2S of quality suitable for backing support for high pressure decorative laminate finish, surface knots filled with wood plugs.
- .2 Concealed shell support hardware as specified.
- .2 Shelf Finish: high pressure decorative laminate finish with edge banding:

2.13 MILWORK ITEM: WOOD INFILL CURBS UNDER WASHROOM DOOR UNDERCUTS WHERE DOORS ARE SCHEDULED TO BE LOCKED AND INOPERABLE

- .1 Provide wood infill curb at bottom of washroom doors which are scheduled to be locked with inoperable hardware. Infill curb will be constructed with solid lumber with finished face of solid wood plywood with grade A veneer suitable for opaque paint.

2.14 FABRICATION

- .1 Shop prepare and identify components for matching during site assembly.
- .2 Shop assemble casework for delivery to site in units easily handled and to permit passage through building openings.
- .3 When necessary to cut and fit on site, provide materials with ample allowance for site cutting and scribing.
- .4 Apply plastic laminate finish and wood veneer finish in full uninterrupted sheets consistent with manufactured sizes. Fit corners and joints hairline.
- .5 Apply laminate backing sheet to reverse side of laminate finished surfaces.
- .6 Fabricate Kitchenette countertop surfaces pressure glued to plywood core without visible joints. Provide cutouts for plumbing fixtures, inserts, appliances, outlet boxes and fixtures and fittings. Verify locations of cutouts from on-site dimensions. Seal cut edges.

Part 3 Execution

3.1 EXAMINATION

- .1 Verify existing conditions before starting work.
- .2 Verify adequacy of backing and support framing.
- .3 Verify location and sizes of utility rough-in associated with work of this section.

3.2 INSTALLATION

- .1 Install Work to NAAWS, Custom Grade.
- .2 Set and secure casework in place; rigid, plumb, and level.
- .3 Use fixture attachments in concealed locations for wall mounted components.
- .4 Use concealed joint fasteners to align and secure adjoining cabinet units and counter tops.

- .5 Carefully scribe casework abutting other components, with maximum gaps of 1 mm (1/32 inch). Do not use additional overlay trim for this purpose.
- .6 Secure cabinets bases to floor using appropriate angles and anchorages.
- .7 Countersink anchorage devices at exposed locations. Conceal with solid wood plugs of species to match surrounding wood; finish flush with surrounding surfaces.

3.3 ADJUSTING

- .1 Test installed work for rigidity and ability to support loads.
- .2 Adjust moving or operating parts to function smoothly and correctly.

3.4 CLEANING

- .1 Cleaning installed work.
- .2 Clean casework, counters, shelves, hardware, fittings, and fixtures.

END OF SECTION

Part 1 General

1.1 SECTION INCLUDES

- .1 Suspended metal grid ceiling system and perimeter trim.
- .2 Lay-in Acoustic tile.
- .3 Acoustic tile glued in place

1.2 RELATED SECTIONS

- .1 Section 09 21 16 - Gypsum Board Assemblies: partition system.
- .2 Mechanical Division - Fire Suppression: Sprinkler heads in ceiling system.
- .3 Mechanical Division - Heating, Ventilating, and Air-Conditioning (HVAC): Air diffusion devices in ceiling system.
- .4 Electrical Division – Electrical : Light fixtures in ceiling system.
- .5 Electrical Division – Fire alarm components in ceiling system.

1.3 REFERENCES

- .1 ASTM C635/C635M-13a - Standard Specification for the Manufacture, Performance, and Testing of Metal Suspension Systems for Acoustical Tile and Lay-in Panel Ceilings.
- .2 ASTM C636/C636M-13 - Standard Practice for Installation of Metal Ceiling Suspension Systems for Acoustical Tile and Lay-In Panels.
- .3 ASTM E1264-08e1 - Standard Classification of Acoustical Ceiling Products.
- .4 ULC-FR-14 - Fire Resistance Directory (2014 Edition).

1.4 PERFORMANCE REQUIREMENTS

- .1 Suspension System: Maximum deflection of 1:240 for acoustic ceiling system including integral mechanical and electrical components.

1.5 ADMINISTRATIVE REQUIREMENTS

- .1 Section 01 30 00: Project management and coordination procedures.
- .2 Sequencing:
 - .1 Sequence work to ensure acoustic ceilings are not installed until dust generating activities have terminated, and overhead work is completed, tested, and approved.
 - .2 Install acoustic units after interior wet work is dry.

1.6 SUBMITTALS FOR REVIEW

- .1 Section 01 30 00: Submission procedures.
- .2 Product Data: Provide data on metal grid system components, acoustic units.
- .3 Shop Drawings: Indicate grid layout and related dimensioning, junctions with other work or ceiling finishes, interrelation of mechanical and electrical items related to system.
- .4 Samples:

- .1 Submit two (2) samples, full size, illustrating material and finish of acoustic units.

1.7 CLOSEOUT SUBMITTALS

- .1 Section 01 78 39 and section 01 92 00: Submission procedures.
- .2 Sustainable Design Closeout Documentation: .

1.8 MAINTENANCE MATERIAL SUBMITTALS

- .1 Section 01 78 39 and section 01 92 00: Maintenance and extra material requirements.
- .2 Extra Stock Materials: Provide 5% of acoustical panels installed, and 2% of ceiling grid systems to Owner.

1.9 QUALITY ASSURANCE

- .1 Products of This Section: Manufactured to ISO 9000 certification requirements.
- .2 Conform to AWCCBC requirements.
- .3 Grid Manufacturer Qualifications: Company specializing in manufacturing the Products specified in this section with minimum three (3) years documented experience.
- .4 Acoustic Unit Manufacturer Qualifications: Company specializing in manufacturing the Products specified in this section with minimum three (3) years documented experience.

1.10 REGULATORY REQUIREMENTS

- .1 Conform to applicable code for fire rated assembly combustibility requirements for materials.

1.11 SITE CONDITIONS

- .1 Ambient Conditions:
 - .1 Maintain uniform temperature of minimum 16 degrees C (60 degrees F), and maximum humidity of 40% prior to, during, and after acoustic unit installation.

Part 2 Products

2.1 SUSPENSION SYSTEM - MATERIALS

- .1 Non-fire Rated Grid: ASTM C635/C635M, Suspension System:
 - .1 Ceiling Type C1: Suspension Grid System:
 - .1 15/16" Prelude exposed grid system by: Armstrong.
 - .2 Ceiling Type C2: Suspension Grid System:
 - .1 15/16" Prelude exposed grid system by: Armstrong.
 - .3 Ceiling Type C3: Suspension Grid System:
 - .1 Existing suspended gypsum board to remain and where gypsum board is cut and removed, patch and make good gypsum board ceiling ready to receive glued on acoustic tile.
 - .4 Ceiling Type C3A: Suspension Grid System:
 - .1 New Hat Cannels to match existing, on existing metal ceiling structure, with new 19 mm Gypsum Board finish.
 - .5 Ceiling Type C4: Suspension Grid System:

- .1 Existing suspended gypsum board to remain and where gypsum board is cut and removed, patch and make good gypsum board ceiling ready to receive glued on acoustic tile.
- .2 weight of lighting fixtures, etc. anchored to O.W.S.J.'s or slab above with expansion shields.
- .3 Main tee: double web design with a rectangular bulb, with 25mm (1") exposed flange with a rolled cap, cross tee holes at 150mm (6") o.c. and integral reversible splice.
- .4 Cross tee: double web design with a rectangular bulb with 25mm (1") exposed flange with a rolled cap; web extending to form a positive interlock between cross tee webs with the lower flange extended and offset.
- .5 Wall mounting: angle shape with a 19mm (3/4") exposed face. Moulding to be crimped at site with a tool to accept 'T' section and intersection.
- .6 Grid Finish: Colour White.
- .7 Accessories: Stabilizer bars clips splices perimeter moldings hold down clips required for suspended grid system.
- .8 Support Channels and Hangers: Galvanized Primed steel; size and type to suit application,

2.2 ACOUSTIC UNIT MATERIALS

- .1 Acoustic Tile: ASTM E1264, conforming to the following:
 - .1 Ceiling Type C1: Acoustic Lay-In Panels:
 - .1 Armstrong Fissured Medium Texture Tile, Square Lay-in Item No. 755, 24' x 48" x 5/8"
 - .2 Lay the 24" x 48" ceiling tile into a suspended grid
 - .2 Ceiling Type C2: Acoustic Lay-In Panels:
 - .1 Armstrong Fissured Medium Texture Tile, Square Lay-in Item No. 756, 24' x 24" x 5/8"
 - .2 Lay the 24" x 24" ceiling tile into a suspended grid
 - .3 Ceiling Type C3: Existing Gypsum board ceiling:
 - .1 Match existing 305 mm x 305 mm x 19 mm (12" x 12" x 3/4") incombustible mineral fibre, fissured texture, adhered to suspended gypsum board ceiling, using Henry 237 AcoustiGum Acoustical Ceiling Tile Adhesive. Acoustic Tile, white factory-painted exposed surface: Armstrong Fine Fissured Tile Concealed, Item No. 746, 12' x 12" x 5/8"
 - .4 Ceiling Type C3A: Suspension Grid System:
 - .1 New Hat Cannels to match existing, on existing metal ceiling structure, with new 19 mm Gypsum Board finish.
 - .5 Ceiling Type C4: Acoustic Panels Glued to suspended Gypsum board ceiling:
 - .1 To match existing 305 mm x 305 mm x 19 mm (12" x 12" x 3/4") incombustible mineral fibre, fissured texture, adhered to suspended gypsum board ceiling, Provide new white factory-painted exposed surface: Armstrong Fissured Medium Texture Tile, Square Lay-in Item No. 756, 24' x 24" x 5/8"
 - .1 Existing suspended gypsum board to remain and where gypsum board is cut and removed, patch and make good gypsum board ceiling ready to receive glued on acoustic tile.

- .2 Score the 24' x 24" ceiling tile vertically and horizontally to visually show the tile divided into 4 equal sized 12" x 12" areas that match the existing appearance of the existing 12" x 12" tile.
- .3 Glue the 24' x 24" ceiling tile onto the suspended gypsum board ceiling using Henry 237 AcoustiGum Acoustical Ceiling Tile Adhesive. Install the tile so that the tile joints line up with the existing tile joints and that the directional fissure also lines up with fissure pattern of the existing tile.

Part 3 Execution

3.1 EXAMINATION

- .1 Section 01 70 00: Verify existing conditions before starting work.
- .2 Verify that layout of hangers will not interfere with other work.

3.2 INSTALLATION - LAY-IN GRID SUSPENSION SYSTEM

- .1 Install suspension system to ASTM C636/C636M and manufacturer's written instructions, and as supplemented in this section.
- .2 Install system to ASTM E580/E580M.
- .3 Install system capable of supporting imposed loads to a deflection of 1/240 maximum.
- .4 Lay out system to a balanced grid design with edge units no less than 50% of acoustic unit size.
- .5 Locate system on room axis according to reflected plan.
- .6 Install after major above ceiling work is complete. Coordinate the location of hangers with other work.
- .7 Provide hanger clips during steel deck erection. Provide additional hangers and inserts as required.
- .8 Hang suspension system independent of walls, columns, ducts, pipes and conduit. Where carrying members are spliced, avoid visible displacement of face plane of adjacent members.
- .9 Where ducts or other equipment prevent the regular spacing of hangers, reinforce the nearest affected hangers related carrying channels to span the extra distance.
- .10 Do not support components on main runners or cross runners if weight causes total dead load to exceed deflection capability. Support fixture loads by supplementary hangers located within 150 mm (6 inches) of each corner; or support components independently.
- .11 Do not eccentrically load system, or produce rotation of runners.
- .12 Perimeter Molding:
 - .1 Install edge molding at intersection of ceiling and vertical surfaces with continuous gasket into bed of acoustic sealant.
 - .2 Use longest practical lengths.
 - .3 Mitre corners.
 - .4 Provide molding concealed molding at junctions with other interruptions.
- .13 Form expansion joints as detailed. Form to accommodate plus or minus 25 mm (1 inch) movement. Maintain visual closure.

- .14 Install light fixture boxes constructed of gypsum board acoustic panel above light fixtures to UL ULC-FR assembly requirements and light fixture ventilation requirements.

3.3 INSTALLATION - ACOUSTIC UNITS

- .1 Install acoustic units to manufacturer's written instructions.
- .2 Fit acoustic units in place, free from damaged edges or other defects detrimental to appearance and function.
- .3 Lay directional patterned units as indicated on Drawings. Fit border trim neatly against abutting surfaces.
- .4 Install units after above ceiling work is complete.
- .5 Install acoustic units level, in uniform plane, and free from twist, warp, and dents.
- .6 Cutting Acoustic Units:
 - .1 Cut to fit irregular grid and perimeter edge trim.
- .7 Where bullnose concrete block corners round obstructions occur, provide preformed closures to match perimeter molding.
- .8 Lay acoustic insulation for a distance of 1 200 mm (48 inches) either side of acoustic partitions as indicated.
- .9 Install hold-down clips to retain panels tight to grid system within 6 m (20 ft) of an exterior door.

3.4 ERECTION TOLERANCES

- .1 Maximum Variation from Flat and Level Surface: 3 mm in 3 m (1/8 inch in 10 ft).
- .2 Maximum Variation from Plumb of Grid Members Caused by Eccentric Loads: 2 degrees.

3.5 SCHEDULE

- .1 Refer to Room Finish Schedule and as specified in this Section.

END OF SECTION

Part 1 General

1.1 SECTION INCLUDES

- .1 Resilient vinyl sheet flooring.
- .2 Resilient vinyl composite tile flooring.
- .3 Resilient vinyl base.
- .4 Resilient vinyl transitions accessories

1.2 RELATED SECTIONS

- .1 Section 03 54 00 - Self-leveling Underlayment
- .2 Section 06 41 11 - Architectural Cabinetwork
- .3 Section 08 11 13 - Standard Metal Doors, Frames and Sidelites
- .4 Section 09 21 16 - Gypsum Board Assemblies: Wall materials to receive application of base.
- .5 Section 09 68 13 - Tile Carpeting

1.3 REFERENCES

- .1 ASTM E84-15a - Standard Test Method for Surface Burning Characteristics of Building Materials.
- .2 ASTM F1066-04(2014) e1 - Standard Specification for Vinyl Composition Floor Tile.
- .3 ASTM F1861-08(2012)e1 - Standard Specification for Resilient Wall Base.
- .4 ASTM F1913-04(2014) - Standard Specification for Vinyl Sheet Floor Covering Without Backing.
- .5 CAN/ULC-S102.2-10 - Standard Method of Test for Surface Burning Characteristics of Flooring, Floor Coverings and Miscellaneous Materials and Assemblies.
- .6 ISO 10581 Homogeneous vinyl floor covering

1.4 SUBMITTALS FOR REVIEW

- .1 Section 01 30 00: Submission procedures.
- .2 Product Data: Provide data on specified products, describing physical and performance characteristics; sizes, patterns and colours available.
- .3 Shop Drawings: Indicate seaming plan, borders and patterns.
- .4 Samples:
 - .1 Submit two (2) samples, 300 x 300 mm in size illustrating colour and pattern for each floor material for each colour specified.
 - .2 Submit two (2) 300 mm long samples of base and transition strip material for each colour specified.

1.5 SUBMITTALS FOR INFORMATION

- .1 Section 01 30 00: Submission procedures.
- .2 Installation Data: Manufacturer's special installation requirements including special procedures, perimeter conditions requiring special attention .

1.6 CLOSEOUT SUBMITTALS

- .1 Section 01 78 39 and Section 01 92 00: Submission procedures.
- .2 Operation and Maintenance Data: Include maintenance procedures, recommended maintenance materials, and suggested schedule for cleaning, stripping, and re-waxing.

1.7 MAINTENANCE MATERIAL SUBMITTALS

- .1 Section 01 78 40: Maintenance and extra material requirements.
- .2 Extra Stock Materials to Turn Over to University:
 - .1 Provide half roll (20 m2) flooring sheet
 - .2 6100 Lin mm of base of each base and transition material specified.
 - .3 Leave 1 carton of tile for each 93 m2 (1000 sq ft) or less of each colour of vinyl tile installed, for University's future use. Label cartons as to contents and indicate areas where tiles were used.

1.8 QUALITY ASSURANCE

- .1 Manufacturer Qualifications: Company specializing in manufacturing the Products specified in this section with minimum five (5) years documented experience.
- .2 Installer Qualifications: Company specializing in performing the work of this section with minimum five (5) years documented experience and approved by the manufacturer.

1.9 REGULATORY REQUIREMENTS

- .1 Conform to applicable code for flame/smoke rating requirements to CAN/ULC-S102.2 .

1.10 DELIVERY, STORAGE, AND PROTECTION

- .1 Section 01 60 00: Transport, handle, store, and protect products.
- .2 Protect roll materials from damage by storing .

1.11 SITE CONDITIONS

- .1 Ambient Conditions:
 - .1 Store materials for three (3) days prior to installation in area of installation to achieve temperature stability.
 - .2 Maintain ambient temperature required by adhesive manufacturer three (3) days prior to, during, and twenty-four (24) hours after installation of materials.

1.12 WARRANTY

- .1 Provide the Vinyl Composite Tile Limited 5-year Warranty, starting on the date of Ready for Takeover.

- .2 Provide the Sheet Vinyl Flooring Limited 20-year Warranty, starting on the date of Ready for Takeover.

Part 2 Products

2.1 MANUFACTURERS – VINYL SHEET FLOORING

- .1 Tarkett; Product: IQ Eminent.
- .2 Substitutions: Refer to Section 01 60 00 .

2.2 MATERIALS - VINYL SHEET FLOORING

- .1 **RF1 Vinyl Sheet without Backing:**
 - .1 Meets performance standards of ASTM F1913, Standard Specification for Vinyl Sheet Floor Covering without Backing
 - .2 ISO 10581 Homogeneous vinyl floor covering.
 - .3 Binder content ISO 10581 Type I
 - .4 Commercial classification ISO 10874 34 Very Heavy
 - .1 **Tarkett; Product:**
 - .1 **IQ Eminent 819 Dark Grey CG**
 - .2 **Colour and pattern through total thickness.**

2.3 MATERIALS – VINYL COMPOSITE TILE WITH VINYL BASE

- .1 VCT1 Vinyl Composite Tile: Meets the performance requirements of ASTM F 1066, Standard Specification for Vinyl composition Tile, Class 2 (Through pattern) and Class 1 (Solid Colour).
 - .1 Tarkett; Product: Tarkett VCT II: 557 Shooting Star
 - .2 Total Thickness: 3 mm.
- .2 VCT2 Vinyl Composite Tile: : Meets the performance requirements of ASTM F 1066, Standard Specification for Vinyl composition Tile, Class 2 (Through pattern) and Class 1 (Solid Colour).
 - .1 Tarkett; Product: Tarkett VCT II, colour as selected by Consultant.
 - .2 Total Thickness: 3 mm.
- .3 VCT3 Vinyl Composite Tile: : Meets the performance requirements of ASTM F 1066, Standard Specification for Vinyl composition Tile, Class 2 (Through pattern) and Class 1 (Solid Colour).
 - .1 Tarkett; Product: Tarkett VCT II, colour as selected by Consultant.
 - .2 Total Thickness: 3 mm.
- .4 VCT4 Vinyl Composite Tile: : Meets the performance requirements of ASTM F 1066, Standard Specification for Vinyl composition Tile, Class 2 (Through pattern) and Class 1 (Solid Colour).
 - .1 Tarkett; Product: Tarkett VCT II, colour as selected by Consultant.
 - .2 Total Thickness: 3 mm.
- .5 VCT5 Vinyl Composite Tile: : Meets the performance requirements of ASTM F 1066, Standard Specification for Vinyl composition Tile, Class 2 (Through pattern) and Class 1 (Solid Colour).
 - .1 Tarkett; Product: Tarkett VCT II, colour as selected by Consultant.

- .2 Total Thickness: 3 mm.

2.4 MATERIALS – VINYL BASE

- .1 Manufacturers:
 - .1 Johnsonite; Product: Johnsonite Traditional Cove Wall Base TV:
 - .1 Height: 4" (102 mm)
 - .2 Thickness: 1/8" (3.175 mm)
 - .3 Colour: 63 Burnt Umber B
 - .2 Substitutions: Refer to Section 01 60 00.

2.5 ACCESSORIES

- .1 Subfloor Filler: type recommended by adhesive material manufacturer.
- .2 Primers and Adhesives: Waterproof; types recommended by flooring manufacturer.
 - .1 Manufacturer's Adhesives for Vinyl Composite Tile, **as recommended for existing floor substrate type and condition:**
 - .1 Tarkett 100 Clear Thin Spread Adhesive Porous & Non-porous Substrate: 250-300 sq. ft./gal.
 - .2 Tarkett 975 Two-Part Polyurethane Adhesive Porous & Non-porous Substrate: 225-250 sq. ft. per gallon
 - .3 Tarkett 996 Two-Part Epoxy Adhesive Porous & Non-porous Substrate: 225-250 sq. ft. per gallon
 - .4 Tarkett 901 SpraySmart Adhesive Coverage: Porous & Non-porous Substrate: 200 sq. ft. per container (1,200 sq. ft. per carton)
 - .2 Manufacturer's Adhesives for Sheet Vinyl Flooring, **as recommended for existing floor substrate type and condition:**
 - .1 Tarkett 925 Adhesive Coverage: Porous Substrate: 250-300 sq. ft./gal. Non-porous Substrate: 250-300 sq. ft. per gallon
 - .2 Tarkett 975 Two-Part Urethane Adhesive Coverage: Porous & Non-porous Substrate: 225-250 sq. ft. per gallon
 - .3 Tarkett 996 Two-Part Epoxy Adhesive Coverage: Porous & Non-porous Substrate: 225-250 sq. ft. per gallon
 - .4 Tarkett RollSmart Adhesive Coverage: Porous & Non-porous Substrate: 350 - 400 sq. ft. per gallon (3/8" Nap Paint Roller used with a paint tray)
 - .5 Tarkett Cold Weld Liquid Coverage: 175 – 200 lf. per. 4.5oz. tube
- .3 Edge Strips: Flooring material, colour as selected by Consultant:
 - .1 At floor finish transition strip between vinyl sheet flooring and carpet tile:
 - .1 Product: Johnsonite, CTA-XX-H.
 - .2 At floor finish transition strip between existing vinyl composite tile flooring and carpet tile:
 - .1 Product: Johnsonite, CTA-XX-H.
 - .3 At floor finish transition strip between vinyl composite tile flooring and vinyl composite tile flooring:
 - .1 Product: Johnsonite, CTA-XX-N.

- .4 Sealer and Wax: Types recommended by flooring manufacturer.

Part 3 Execution

3.1 EXAMINATION

- .1 Section 01 70 00: Verify existing conditions before starting work.
- .2 Verify concrete floors are dry to a maximum moisture content of 7%, and exhibit negative alkalinity, carbonization, or dusting.
- .3 Verify floor and lower wall surfaces are free of substances that may impair adhesion of new adhesive and finish materials.

3.2 PREPARATION

- .1 Remove sub-floor ridges and bumps. Fill minor or local low spots, cracks, joints, holes, and other defects with sub-floor filler to achieve smooth, flat, hard surface.
- .2 Prohibit traffic until filler is cured.
- .3 Vacuum clean substrate.
- .4 Apply primer to floor and base surfaces.

3.3 INSTALLATION - SHEET FLOORING

- .1 Install sheet flooring to manufacturer's written instructions.
- .2 Spread only enough adhesive to permit installation of materials before initial set.
- .3 Set flooring in place, press with heavy roller to attain full adhesion.
- .4 Lay flooring with joints and seams in accordance with seaming plan and to produce minimum number of seams.
- .5 Install sheet flooring parallel to length of room. Provide minimum of one third (1/3) full roll width. Double cut sheet; provide continuously heat welded seal.
- .6 Terminate flooring at centreline of door openings where adjacent floor finish is dissimilar.
- .7 Install edge strips at unprotected or exposed edges, and where flooring terminates.
 - .1 Secure resilient strips by adhesive.
- .8 Scribe flooring to walls, columns, cabinets, floor outlets, and other appurtenances to produce tight joints.
- .9 Install flooring in pan type floor access covers. Maintain floor pattern.
- .10 At movable partitions install flooring under partitions without interrupting floor pattern.
- .11 Install edge strips where indicated. Fit joints tightly.

3.4 INSTALLATION – VINYL COMPOSITE TILE FLOORING

- .1 Install tile flooring to manufacturer's written instructions.
- .2 Spread only enough adhesive to permit installation of materials before initial set.
- .3 Set flooring in place, press with heavy roller to attain full adhesion.

- .4 Lay flooring with joints and seams in accordance with seaming plan to produce minimum number of seams.
- .5 Install tile flooring parallel to length width of room. Provide minimum of one third (1/3) full roll width. Double cut sheet; provide continuously heat welded seal joint.
- .6 Terminate flooring at centreline of door openings where adjacent floor finish is dissimilar.
- .7 Install edge strips at unprotected or exposed edges, and where flooring terminates.
 - .1 Secure resilient strips by adhesive.
- .8 Scribe flooring to walls, columns, cabinets, floor outlets, and other appurtenances to produce tight joints.
- .9 Install feature strips and base where indicated. Fit joints tightly.

3.5 INSTALLATION - BASE

- .1 Fit joints tight and vertical. Maintain minimum measurement of 450 mm between joints.
- .2 Mitre internal corners. At external corners, 'V' cut back of base strip to 2/3 of its thickness and fold. At exposed ends, use premoulded units.
- .3 Install base on solid backing. Bond tight to wall and floor surfaces.
- .4 Scribe and fit to door frames and other interruptions.

3.6 CLEANING

- .1 Section 01 70 00: Cleaning installed work.
- .2 Remove access adhesive from floor, base, and wall surfaces without damage.
- .3 Clean, seal, and wax floor and base surfaces in accordance with manufacturer's written instructions.

3.7 PROTECTION OF FINISHED WORK

- .1 Section 01 70 00: Protecting installed work.
- .2 Prohibit traffic on floor finish for forty-eight (48) hours after installation.

3.8 SCHEDULES

- .1 Refer to Drawings for Room Finish Schedule, Flooring Finish Plan and Details.
- .2 Refer to Room Finish Schedule and Drawings for rooms to receive wall base types: resilient base.

END OF SECTION