

Part 1 General**1.1 General Instructions**

- .1 These instructions add information to all articles of contracts with Consultants.
- .2 For each project, “*McGill University Facilities Management and Ancillary Services*” assigns a Project Manager. All communication with the University, through all the phases of the project, will be done through the Project Manager.
- .3 The floor plans of University buildings are available in AutoCAD format. Mechanical and electrical plans, when available, are, most often, in pdf format. These plans are for reference and general planning only. On-site inspections and validations are always required.
- .4 At the beginning of a project, all Consultants must obtain the most up to date AutoCAD floor plans from the University. It is not acceptable to use plans that the Consultants might have from previous projects.
- .5 Room numbering must be coordinated with Michele Marier (michele.marier@mcgill.ca) from Campus Planning and Development office (CPDO). The Consultants cannot create their own room numbers.
- .6 The Project Manager must pre-approve all work which will require extra cost.
- .7 Each Consultant shall confirm that their design plans and specifications are in conformity with “McGill Building Design Standards” by completing the “Design Standards Conformity Form” available online and submit variance requests for any deviation from the standards. (See section 00 10 00 Introduction)
- .8 The McGill project number should appear on all documents, and in all correspondences. The title of the project on all documentation should always be the one given by the Project Manager at the beginning of the project. The Consultants must ensure that the project title is identical on all documentation for every discipline.
- .9 In the event of a change to the plan asked for by the client, the Project Manager must be notified, in writing, before obtaining permission to continue.
- .10 When further investigations are required on-site (exploratory openings, electrical tracing, etc.), the following procedures should be followed:
 - .1 Consult existing drawings and specifications to make sure that the needed information is not to be found on them.
 - .2 Locate the site at which work must be done.
 - .3 Inform the Project Manager, by way of email, the requirements of the project.
- .11 In reference to the section 02 80 00 Hazardous materials, if the presence of hazardous materials (asbestos, lead, etc.) is suspected on-site, a request for further investigation must be sent by way of e-mail, to the Project Manager.

1.2 Participants

- .1 Participants:
 - .1 Owner: McGill University (Royal Institution for the Advancement of Learning).
 - .2 Project Manager: the official representative of the owner. The directives given by the project manager have the same value as the ones given by the owner unless otherwise specified by the owner.

- .3 Client: member of the research, teaching, or administrative staff of the University, main recipient of the project's benefits.
- .4 Consultant: expert advisor hired by the Owner.
- .5 Other McGill stakeholders to be consulted during the design phase of a project: Building Operations, Utilities and Energy Management, Fire Prevention Office (FPO), Security Services, Parking Services, Environmental Health & Safety (EHS), Buildings and Grounds, and Design Services.

1.3 Useful Addresses

- .1 Telephone numbers and mailing addresses for McGill staff:
<http://www.mcgill.ca/directory>
- .2 Interactive map of Downtown campus:
<http://www.mcgill.ca/maps>
- .3 Access to floor plans for McGill buildings in AutoCAD format:
Contact Mr. Ian Tattersfield, by sending email request to ian.tattersfield@mcgill.ca at the Campus Planning and Development office (CPDO).
Process will change in January 2023: Access to floor plans will be directly from eSpace McGill (Archidata)
- .4 Research pertaining to archives:
Contact Design Services by sending email request to infodesignservices@mcgill.ca at the office of Facilities Management and Ancillary Services.
Process will change in January 2023: Access to archive plans will be directly from eSpace McGill (Archidata)
- .5 Consultants and contractor contracts:
Contact the Office Process Manager, Ms. Sophie Brosseau, by sending email request to sophie.brosseau@mcgill.ca, at the office of Facilities Management and Ancillary Services.

1.4 Codes

- .1 Code analysis performed for a project should appear on documents, as a reference for the owner.
- .2 The Consultants are responsible to ensure that the applicable building or other Codes are respected, as well as the McGill Design Standards.
- .3 The building occupancy classification as per Quebec Construction Code shall be listed on drawings, as part of the Code analysis performed for a project.

1.5 Protected Buildings and Spaces

- .1 Some University buildings have been identified as buildings requiring historic preservation. The Consultants must ask the Project Manager for the list of protected Buildings and Spaces. Heritage assessments of some buildings are also available to inform on the architectural elements of significance.
- .2 Any proposed alterations on a protected building and/or a "Protected area" on McGill master plans, shall be presented to the DRC, Design Review Committee.

1.6 Construction Documents

- .1 Construction Document Production
 - .1 The Revit software, 2020 (or greater), must be used by all professionals on university projects.
- .2 BIM (Building information modeling)
 - .1 Facilities management will gradually integrate BIM into projects, starting with its major projects. The university's minimum BIM requirements are in annex to these standards. Compliance with its requirements must be assessed at the start of each project with the Director of Design Services.
- .3 As-built Documentation from professionals
 - .1 At the end of the project, professionals shall submit the following:
 - .1 Revit file: federated model (.rvt), of maximum 1Gb
 - .2 PDF files: one binder per discipline
 - .3 Specifications as PDF files: one binder per discipline.
 - .2 The documents' name must be identified as such:
McGill building#_Project#_discipline. For example: *101_22-345_Architecture*
- .4 Minimum Drawing Requirements
 - .1 Drawing units must be metric.
 - .2 All plans should be on standard drawing sizes. Other drawing sizes require the approval of the Project Manager. It is the responsibility of the Architect to determine the size of drawings and coordinate with other Consultants.
 - .3 Symbols/references:
 - .1 Include complete index to drawings on 1st or 2nd sheet of the entire set. When sheets are added or deleted during the course of construction, final Record drawing set shall have the index updated to reflect the final documents.
 - .2 Where a portion of a plan or elevation appears on a sheet, a key plan shall be provided in the lower right portion of the drawing area to show the location of that portion relative to the whole.
 - .3 Cross-reference all plans, elevations, sections, and details as applicable.
 - .4 Equipment and structural load capacities shall be listed on structural drawings.
 - .5 Drawings shall clearly distinguish between existing, new, and replacement work.
 - .4 Title Block Content
 - .1 Identify the Project Title and project number on each documents concerning the project.
 - .2 Sheet title shall be as descriptive as possible, shall always be unique within the drawing set.
 - .3 When submitting to the University any sheet with information not previously submitted, a note shall be included on one of the issuance lines on the title block, indicating purpose of submittal and date. This applies to design review and contract issuances as well as addenda, bulletins, etc. All such notations of issue shall remain on each sheet. In addition to the note on the issuance line, sheets, which have already been released for bids, shall have changes clearly delineated, by "clouding" or similar means.

- .4 The title block, located at the lower right corner of the sheet shall contain the following information:
 - .1 McGill University building name and building number in parenthesis.
 - .1 Building numbers may be obtained by accessing the following link: <https://www.mcgill.ca/campusplanning/maps>
 - .2 Ex: Bronfman building (102).
 - .2 McGill University project number
 - .3 Project title
 - .4 Sheet title
 - .5 All plans and specifications shall be sealed and signed by the Architect and/or Engineer responsible for the work, as required by law.
- .5 Specifications
- .1 The general requirements (Division 1) and technical portions (Divisions 2 through 32) of the specifications may be included on drawings, or in book form. Generally, projects with anticipated construction costs of more than 1 million dollars are required to take the project manual approach. Consult with Project Manager.
 - .2 Specification Standard: The University recommends compliance with the principles and practices outlined in the NMS Manual of Practice.
 - .3 Use the current version NMS Section numbers and titles for organizing Documents and specifications within Project Manuals. Comply with guidelines for contents of each Division and Section of the specifications.
- .6 Language of Documents
- .1 Plans and specifications must be written in French. The minutes of design meeting must be written in English. The minutes of construction meeting must be written in French.
 - .2 Eliminate the term "by others" from drawings and specifications. If work is not part of the Contract, say so directly using (N.I.C.) or similar instructions.
- .7 McGill University Standard General Conditions
- .1 The University maintains its own Standard General Conditions. Obtain a copy of this document and make sure the specification writer is fully familiar with it.
 - .2 During the design phase, coordinate with the Project Manager if some supplemental conditions are applicable.
- 1.7 Coordination**
- .1 General:
 - .1 All work in ceiling spaces, mechanical rooms, reflected ceiling plans, etc. shall be coordinated to provide maximum accessibility. Consider additional drawing sections or extraordinary construction measures to assure this. Pay particular attention to this when the user and/or other design staff have consciously decided to install mechanical equipment in marginally accessible locations.
 - .2 Keep maximum height under ceilings: new ceilings should not be lower than existing ceilings. Efforts have to be made by all parties to coordinate services over ceilings in order to maximise space and not lower ceilings uselessly.
 - .2 Drawing Requirements:

- .1 The Architect/Engineer must place notes on the drawings, as appropriate, directing the Contractors to coordinate all work to allow free access to mechanical and electrical equipment for servicing. Drawings must include access to panels, doors, service entrances, etc. existing or new. Architectural plans must incorporate access panels and other mechanical equipment that will appear as a finish product in the space. The removal of other components such as light fixtures in order to service any equipment shall be discouraged. The specifications should require that the General Contractor, for major renovation and new construction projects, submit the coordination drawings. These drawings shall clearly show the priority by trade required to assure access to the equipment and devices in the ceiling cavity. Of particular importance is the free access to all variable volume boxes, reheat coils and their controls—including free and easy removal of the entire box. Nothing shall be located beneath these devices. (Fire protection or other piping is to be offset around the device footprint, etc.) The Architect/Engineer must witness the construction to assure that the required accessibility is achieved.

- .3 Permits:
 - .1 Any design work that affects the landscape, the exterior envelope of a building, the addition of new or modification of existing openings, or changes to the type, finish or color of exterior materials (including roofs), must also comply with *City of Montreal* regulations. As the McGill campus is mostly located within the 'Site patrimonial du Mont-Royal', approval may also be required from the "Division du Patrimoine de la Ville de Montréal" and the *Ministry of Culture of Quebec*. While there is no set guideline for what is or is not permitted, the choices and decisions on design and materials must be made in the context of the building in question and its immediate context. When a project involves such an intervention, the architectural proposal must first be presented to the internal Design Review committee (DRC). If the proposal is favorable, a follow-up will then be done with the city (and the MCC, if applicable), for a preliminary opinion before applying for a construction permit. This is to be coordinated with the Director from Design Services. Unless there is a zoning element affected, there is no need to consult with *Campus Planning and Development Office*.
 - .2 The Project manager is responsible for applying for the building permit. A procurement letter shall be signed by the Director from Design Services to accompany the building permit request.

- 1.8 Space data collection**
 - .1 In order to keep the inventory of spaces up to date, architectural plans of projects, issued for "construction", in CAD or Revit file, shall be shared to the Space Data Administrator, michele.marier@mcgill.ca with the Project Manager in cc.
 - .2 The information required: Plans of each modified space (room, area or floor) showing the new layout and including fixed furniture and modular furniture (if available). Plans must also reflect whether there has been a change of department (faculty) / use (function) /occupancy for the room. If layer names are not obvious, please supply a layer legend table. If provided in Autocad format, Xrefs must be attached, and embedded software should be removed. If provided in Revit format, only the architectural model is to be shared.

Part 2 Additional Documentation Requirements**2.1 Indoor Air Quality Management Plan**

- .1 In order to minimize the indoor air quality problems associated with construction, outline measures for an indoor air quality (IAQ) management plan. The plan must aim to reduce the creation and propagation of pollutants during the construction and preoccupancy phases of the project. It must address all applicable measures of the Sheet Metal and Air Conditioning National Contractors Association (SMACNA) IAQ Guidelines for Occupied Buildings under Construction, 2nd edition, 2007. Refer to the IAQ Management Plan Guidelines in McGill's LEED Documentation Guide. See 01 56 00 Temporary Barriers and Enclosures.
- .2 Integrate the applicable SMACNA control measures into the project's drawings and specifications.
 - .1 For Architects:
 - .1 Consider the implications on design decisions, HVAC equipment, and finishing materials.
 - .2 Specify that an IAQ plan must be developed and implemented by the General Contractor. The General Contractor must provide documentation and photographs as proof of conformity.
 - .3 Specify requirements to protect materials stored on site.
 - .4 Specify methods of containment for construction pollutants.
 - .5 Specify methods to prevent contamination of completed or occupied areas.
 - .6 Specify the order of installation such that high pollutant emitting materials are installed first and highly absorptive materials installed last.
 - .2 For Engineers:
 - .1 In consultation with McGill's HVAC Manager, determine whether a permanent HVAC system will be used during construction. If not, specify temporary measures.
 - .2 Specify measures to protect ductwork and mechanical equipment.
 - .3 Specify the filters to be used, minimum MERV 8 during construction, and MERV 13 post construction.

**2.2 Waste Management**

- .1 Specify that the General Contractor must create and implement a Waste Management Plan. See 01 74 19 Waste Management and Disposal.

**2.3 Construction Activity Pollution Prevention**

- .1 In order to reduce construction pollution, an erosion and sedimentation control (ESC) plan must be developed and implemented for all construction activities. The plan must follow the EPA's 2012 Construction General Permit. Refer to the ESC Plan Guidelines in McGill's LEED Documentation Guide. See 01 56 00 Temporary Barriers and Enclosures.
- .2 The Professional must specify in the project's drawings and specifications:
 - .1 Implementation is the responsibility of the General Contractor. The General Contractor must provide documentation and photographs as proof of conformity.
 - .2 The installation of perimeter controls.
 - .3 Measures to minimize sediment track-out onto off-site areas.
 - .4 Measures to reduce discharges from materials stored on site.

- .5 The preservation of topsoil.
- .6 The protection of storm drain inlets.
- .7 Measures for soil stabilization.
- .8 Prevent disturbance of steep slopes.

END OF SECTION