

**Part 1 General****1.1 Summary**

- .1 Unless otherwise indicated, follow the guidelines below when planning for Scope of Work for Audio-Video Installation. These guidelines are not intended to restrict or replace professional judgment.
- .2 Depending on the project, the AV Contractor may only be contracted for equipment installation. In such instances McGill University, or another AV Contractor, will produce the AV design. For projects of that type, section 27 40 01 (Scope of Work for Audio-Video Design) is not applicable to the AV Contractor mandated to carry out the installation, and only the requirements outlined in this section apply.

**Part 2 Scope of Work for Audio-Video Installation****2.1 AV Installation Requirements**

- .1 The AV Contractor shall remove all existing AV equipment and coordinate its return to McGill University in accordance with the instructions in the AV design documents, on a per project basis.
- .2 The AV Contractor shall procure and install all audio, video, and control equipment, as specified in the AV design documents/drawings.
- .3 The AV Contractor shall supply, install, and terminate all audio, video, and control cable, and shall include termination of any custom fabricated cabling; ensuring that cabling meets the standardized products and practices referenced in sections **27 40 01** and **27 40 02** of the AV standards.
- .4 If a podium is required, as indicated in the project AV design and Architectural drawings, the AV Contractor shall coordinate with the General Contractor as necessary. (See the podium construction requirements in section **27 41 01**; **Part 13**, section **27 41 02**; **part 7** and Division 12 section **12 50 10** of the McGill Building design standards for more information)
- .5 Prior to ordering the equipment specified in the AV design documents, the AV Contractor shall provide shop drawings for each piece of equipment, for review and approval by IT Infrastructure and Information Security – Audiovisual Services (IIS-AVS).
- .6 The AV Contractor shall not install any AV equipment as part of their mandate if the installation site is not suitably clean, or otherwise ready to accept the equipment. (I.e., The site should be free of dust from the construction phase of the project.) If the site is not clean, the AV Contractor shall immediately notify the Project Manager in writing, with IIS-AVS in copy.
- .7 The AV Contractor shall coordinate onsite with representatives of other professions or trades (architects, electricians, etc.) to determine if any changes to electrical service and/or conduits may be necessary to perform the proper installation of AV equipment and/or infrastructure. The AV Contractor must report any discrepancies between the supplied installation drawings and requirements for installation onsite (based on site conditions) to IIS-AVS as soon as possible.

- .8 The AV Contractor shall secure projectors, monitors, document cameras and any other valuable equipment with security device kits as indicated in the design drawings, and as per section **27 41 02; Part 5** (Security) of the AV standards. These kits shall be **Kensington 64425S – Desktop & Peripherals Locking Kit 2.0 – Supervisor Keyed**.
- .9 When required, the AV Contractor shall program the automation system (Crestron), such that the requirements listed in McGill's '**IT Needs Assessment**' document and in section **27 41 03** of the AV standards are met; subject to approval by IIS-AVS. **Note:** As per section **27 01 40; Part 2.2** on some projects, McGill may produce some or all the Crestron programming.
- .10 The AV Contractor shall provide snapshots of all user interface pages for the automation system (Crestron) developed by them directly, to IIS-AVS for approval prior to implementation in the programming.
- .11 The AV Contractor shall program the Digital Signal Processing (DSP) unit(s), where applicable, such that the requirements specified in the '**IT Needs Assessment**' document and the system schematics are met, on a per project basis.
- .12 The AV Contractor is responsible for ensuring that all installed equipment has been updated with the most recent firmware.
- .13 IIS-AVS shall provide the AV Contractor with an "**IP table**" document indicating which IP addresses/CNAMES and network jacks to use with each piece of equipment requiring network service. The AV contractor shall connect and configure the equipment in accordance with the information provided therein.
- .14 The AV Contractor shall apply McGill Asset tags (provided by IIS-AVS) to each piece of audio, video, and control equipment in the system. This Asset tag information is to be recorded in the "**IP table**" document and returned to IIS-AVS as part of the end of project deliverables (see section **27 40 02, Part 2.1.19**)
- .15 The AV Contractor shall apply unique identification labels (provided by the AV Contractor) on both ends of each audio, video, network, and control cable making up the system. These cable labels shall correspond with the labeling as indicated on the AV system schematics, as referenced in section **27 40 02, Part 2.1.19** of the AV standards. The AV Contractor shall use labels that properly adhere to the cable (For example: **RHINO Flexible Nylon ½, sku 18490**)
- .16 The AV Contractor shall test the AV system equipment and programming and shall complete and return the "AV System Inspection sheet" provided by IIS-AVS (or found within the tender documents), as a means of indicating that the room is conformant to the University's standards and is ready for inspection by IIS-AVS.
- .17 Once IIS-AVS has performed an inspection of the AV system, a report will be produced by IIS-AVS listing any deficiencies requiring correction. The AV Contractor shall correct all listed deficiencies and shall return an updated version of the deficiency report to IIS-AVS, listing in writing the corrective actions undertaken, on a per item basis. Upon receipt of the updated deficiency reports, IIS-AVS will verify that all deficiencies have been resolved to its satisfaction. The AV Contractor shall return to correct any remaining deficiencies until IIS-AVS indicates that all deficiencies have been resolved.
- .18 Unless otherwise specified, the AV Contractor shall provide of a minimum warranty of 12 months (1 year) on all types of delivered services, including labour.

- .1 For projects managed by McGill Facilities, this warranty period shall begin upon the signing of provisional acceptance.
  - .2 For projects managed by IIS-AVS directly, this warranty period shall begin upon IIS-AVS's written confirmation that the installation is functional and has been completed to the University's satisfaction.
- .19 The Supplier shall deliver the following End of Project Deliverables prior to the definitive acceptance of the project:
- .1 'As-built' system schematics. (IIS-AVS will provide the AV Contractor with the construction drawings in modifiable format, VISIO or CAD, and the AV Contractor will update these with the as-built information and will return them to IIS-AVS.)
  - .2 The IP Table provided by IIS-AVS on a per project basis, completed by the AV Contractor, containing the following information for all AV equipment installed:
    - .1 Manufacturer
    - .2 Model number
    - .3 Serial number
    - .4 MAC address
    - .5 Unique McGill Asset Tag ID number
  - .3 'Uncompiled' Crestron programming code (Crestron patches) for any programs created by the AV Contractor, including the .rsd file.
  - .4 Digital Signal Processor (DSP) programming created by the AV Contractor, as applicable.
  - .5 Username/Password information for all equipment installed/configured by the AV Contractor.
  - .6 The AV Contractor shall provide all remote controls and documentation for equipment that is installed by them to IIS-AVS, as provided to them by the equipment manufacturers.
  - .7 The AV Contractor shall provide a document indicating the duration of the warranty they are extending to the installation, clearly indicating the starting date of the warranty.

### Part 3 Definitions

- .1 **AV Contractor:** An AV firm external to McGill University, qualified by IIS-AVS to procure and install AV equipment in the context of renovation projects on campus. These external partners may also be called upon to provide other services periodically (i.e., AV design, programming, technical support). AV Contractors may be mandated by IIS-AVS directly, or by a General Contractor in the context of construction projects managed by McGill Facilities, in which case they are referred to as the "AV Subcontractor".
- .2 **AVS:** *Audiovisual Services.* AVS, is one of the teams making up IT Infrastructure and Information Security (IIS), a unit within McGill's Information Technology Services (ITS). The Audiovisual Services portfolio provides professional AV services for new builds and renovation projects including AV project management, design and programming; and provides technical support for existing public classroom AV systems across campus. AVS is also referred to as **IIS-AVS**.

- .3 **IIS:** *IT Infrastructure and Information Security.* IIS is a division of McGill Information Technology Services (ITS) that encompasses 7 unique teams including, but not limited to, Audiovisual Services (AVS) and Telecommunications Infrastructures and Systems (TIS). IIS was formerly known as Network and Communication Services (NCS).
- .4 **ITS:** *Information Technology Services.* McGill IT Services (or ITS) serves McGill students, faculty, academic and administrative support staff, and alumni. It is composed of six units that work together to provide comprehensive IT services (including Wi-Fi, email, campus printing, software, and more) as well as client care (such as the IT Service Desk, IT Knowledge Base, and IT project management and delivery) to the McGill community. IT Infrastructure and Information Security (IIS) is one of the units within McGill ITS.
- .5 **TIS:** *Telecommunications Infrastructures and Systems.* TIS is one of the teams making up IT Infrastructure and Information Security (IIS), a unit within McGill's Information Technology Services (ITS). TIS installs and maintains physical network and physical security components across McGill's campus. TIS is also referred to as **IIS-TIS**.

#### Part 4 Related Technical Sections

The technical sections of the McGill Building Design and Technical Standards should be consulted with the current document, most notably (but not limited to) the following:

<u>Section Number</u>	<u>Title of Section</u>
12 50 10	Podiums
27 01 40	Operation and Maintenance of Audio-Video Communications
27 08 40	Commissioning of Audio-Video Communications
27 40 01	Scope of Work for Audio-Video Design
27 40 02	Scope of Work for Audio-Video Installation
27 41 01	Standard Audio-Video Products
27 41 02	Standard Audio-Video Installation Practices
27 41 03	Standard Audio-Video Automation System Implementation

**END OF SECTION**