1080 Architecture Planning + Interiors

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Addendum 01

Project: **Interior Renovations**
319 1st Avenue
Meadow Lake, Saskatchewan

Date: **Oct. 3, 2018**
Project #: 18-01

The following information supplements and/or supersedes the bid documents issued on September 19, 2018.

This Addendum forms part of the contract documents and is to be read, interpreted, and co-ordinated with all other parts. The cost of all contained herein is to be included in the contract sum. The following revisions supersede the information contained in the original drawings and specifications issued for the above-named project to the extent referenced and shall become part thereof. Acknowledge receipt of this Addendum by inserting its number and date on the Tender Form. Failure to do so may subject the Bidder to disqualification.

ARCHITECTURAL

Specifications:

Section 09 65 16 - Resilient Sheet Flooring

1.0 Clause 2.01.1.2 - Revise thickness to read 2.5mm.

Section 10 51 13 - Metal Lockers

1.0 Clause 2.02 - Revise title to read "Surface Mounted Handgun Lockers - Room 117".

Drawings:

Drawings A-1 & A-2:

1.0 Clarification: Storage lockers are indicated on Plan 3/A-1, in "Special Storage Locker Symbol Legend" on Drawing A-1, and interior elevations on Drawing A-2.

MECHANICAL

Drawing M-1:

1.0 Grilles and Diffusers: Clarification - Design is performance based, alternate manufacturers are acceptable if products meet the requirements of Section 21 05 01 - Common Work Results - Mechanical, Clause 1.16 Alternate Materials & Equipment.

ELECTRICAL

Specifications:

Section 27 00 00 – Communication Requirements

1.0 Add Section 27 00 00 - Communication Requirements in its entirety. **(Attached: 6 pages)**

Part 1 General

1.1 GENERAL REQUIREMENTS

.1 The General Conditions of Contract, Division 01 General Requirements and all Addenda thereto form an integral part of and must be read in conjunction with the requirements of this Section.

.2 Cooperate and coordinate with the requirements of other units of work specified in other Sections.

1.2 REFERENCES AND CODES

.1 The Electrical Contractor shall be bound by industry standards, as interpreted by the Consultant, whether or not specifically referenced in this document. Comply with Electrical Protection Act and rules and regulations made pursuant thereto, including the 2012 Canadian Electrical Code. Also, comply with applicable standards of the following:

.1 CSA C22.1-2012, Canadian Electrical Code, Part 1.

.2 Electrical and Electronic Manufacturers Association of Canada (EEMAC).

.3 National Electrical Manufacturers Association (NEMA).

.4 National Building Code 2010 (NBC 2010)

.5 National Fire Protection Association (NFPA)

.6 Institute of Electrical and Electronic Engineers (IEEE).

.2 Canadian Standards Association, (CSA International)

.1 CSA-T529, Telecommunications Cabling Systems in Commercial Buildings (Adopted ANSI/EIA TIA 568A with modifications).

.2 CSA-C22.2 No. 214, Communications Cables (Bi-national Standard, with UL 444).

.3 CAN/CSA-C22.2 No. 182.4, Plugs, Receptacles, and Connectors for Communication Systems.

.3 Telecommunications Industry Association (TIA)

.1 TIA/EIA/ANSI – 568B.1/2/3 latest revision Commercial Building Telecommunications Cabling Standards for Telecommunications Pathways and Spaces;

.2 TIA/EIA/ANSI – 515000 Generic Specification for Optical Fibre and Cable Splices

.3 TIA-568-C.0 Generic Telecommunications Cabling for Customer Premises;

.4 TIA-568-C Series Commercial Building Telecommunications Cabling Standard;

.5 TIA/EIA-569 Commercial Building Standard for Telecommunications Pathway and Spaces;

.6 TIA/EIA-606 The Administration Standard for the Telecommunications Infrastructure of Commercial Building;

.7 TIA/EIA-607-A Commercial Building Ground (Earthing) and Bonding Requirements for Telecommunications;

.8 Category 6A system and testing as released by TIA/EIA/ANSI – latest revision

.9 TIA/EIA T568-A UTP wiring/pinout

.4 The structured communication wiring system shall comply with Treasury Boards Information Technology Standard for wiring as described in the TBITS 6.9 document. TBITS 6.9 – Profile for the Telecommunications Wiring System in Government Owned and Leased Buildings – Technical Specifications) shall be as per Information and Technology Standards:

http://www.tbs-sct.gc.ca/it-ti/itp-pti/its-nit-eng.asp

1.3 SHOP DRAWINGS AND PRODUCT DATA

.1 Submit shop drawings in accordance with:

.1 Section 01 33 00 - Submittal Procedures

.2 Section 26 05 01 – Common Work Results

1.4 PRODUCT APPROVALS

.1 Manufacturers' and model numbers named in these specifications indicate an acceptable technical standard of performance and are not intended to be exclusive. Products submitted as alternates must result in a control system that meets or exceeds all technical performance criteria as described.

.2 Products proposed as alternatives to those specified, shall only be considered if submitted for approval no later than 15 working days before tender close. Submit alternates, for approval, as one complete listing. Provide complete product specification sheets with request for approval.

.3 The Bidder must provide a complete list of primary system products offered with their bid.

1.5 SYSTEM DESCRIPTION

.1 The data and voice cable installation, shall include all cable, connectors, patch panels, patch cords, racks, BIX blocks, etc., as specified and shown on the drawings

.2 The cabling system shall meet or exceed the minimum characteristics as outlined TIA Standards Category 6A. In addition, the testing method and parameters shall be as per the TIA recommendations.

.3 The cabling installer shall be a Belden Certified System Vender installing Belden components. Once completed, the installation must be a Belden Certified System. The data system and components shall be guaranteed for a period of twenty (20) years from the date of installation against defects in materials and workmanship.

1.6 SUBMITTALS

.1 Submit product data in accordance with Section 01 33 00 - Submittal Procedures and 26 05 01 – Common Work Results, Electrical.

.2 Submit shop drawings for review prior to ordering equipment. Shop drawings shall include but not be limited to, photocopies of accredited installers, cabling, hardware and components, patch cords, tester information, and labeling.

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.3 Submit manufacturer's certification documentation that guarantees installation techniques, cable and cabling components and carry a minimum 20 year certification from the manufacturer for the capability to support gigabit applications such as 1000 Base-T, 622MB/s and 2.4 Gb/s ATM and work case channel performance based on the values indicated. The term channel performance incorporates manufacturer certified patch cords.

.4 Upon request and at no cost, the contractor shall provide a manufacturer's technical representative to conduct an onsite visit to ensure complete technical compliance.

.5 The manufacturer's certification must guarantee that design or installation negligence on the part of the certified contractor will not negate or void any portion of the certified system. The manufacturer must guarantee that all material, components and labour are covered for the full certification period. It must also guarantee that in the event a contractor is no longer in business, the full certification remains valid.

1.7 CONTRACTOR QUALIFICATIONS

.1 The Installer (Firm and Employees) conducting the installation shall have full working knowledge of cabling low voltage applications such as, but not limited to data/voice communications cabling systems. The Installer shall have at least five years of continuous recent experience on similar projects. The Installer shall hold recent, up-to-date licenses, certifications and training certificates in the area the project is located and for the equipment to be installed. The Installer shall:

.1 Provide references of the type of installation provided for this specification;

.2 Be a Belden Certified System Vendor.

.3 Have a knowledge of all applicable Telecommunication standards such as but not limited to CSA, TIA/EIA, IEEEE and ANSI;

.4 Have a experience in the installation of pathways and support for horizontal and backbone cabling;

.5 Be experienced in the installation and testing of telecommunication network cabling system, including the use of light meter and OTDR.

.6 Provide proof of being a manufacturer certified installer for all cable network components being installed such as but not limited to cables, connectors and end termination equipment. The use of non-manufacture certified installer is not permitted.

1.8 PROJECT CLOSEOUT

.1 Submit product data in accordance with Section 01 33 00 - Submittal Procedures and 26 05 01 – Common Work Results, Electrical.

.2 Operating and Maintenance Manuals at project closeout shall include

.1 List of cables, hardware and components;

.2 Copies of approved shop drawings;

.3 Record drawings.

.4 Warranty certification from the Manufacturer

.5 Receipts that include the listing of spare parts, materials and supplies, including patch cables and equipment cords.

.6 Test and verification reports (may be submitted on CD Disk inserted in an appropriate envelope page in the manual).

Part 2 Products

2.1 COMMUNICATION CABLES, PATHWAYS AND TERMINATION BLOCKS

.1 Refer to Section 27 05 14 - Communication Cables Inside Buildings

.2 Refer to Section 27 05 28 – Pathways for Communications Systems

.3 Refer to Section 27 11 19 – Communications Termination Blocks

Part 3 Execution

3.1 FIELD QUALITY CONTROL

.1 Perform tests in accordance with Section 26 05 01 - Common Work Results - Electrical.

.2 The communications cabling system and testing shall comply with the following standards. All standards shall be as per the latest revision at the time of tendering this project.

.1 TIA/EIA/ANSI – 568B.1/2/3 latest revision

.2 Category 6A system and testing as released by TIA/EIA/ANSI – latest revision

.3 TIA/EIA T568-A UTP wiring/pinout

.4 BICSI, TDMM Telecommunications Distribution Methods Manual (latest edition)

.5 CAN/CSA-T529-M91

.6 CAN/CSA-T530-M90

.7 CAN/CSA-T527-94, EIA/TIA-607

.8 CAN/CSA-T528-93, EIA/TIA-606

.9 EIA/TIA-TSB 40-A

.10 EIA/TIA-TSB 67

.11 EIA/TIA-569

.12 EIA/TIA-606

.3 The total installation shall be completed by the cable Installer who is certified by the manufacturer for Category 6A cable installations. The Installer shall submit photocopies of accreditation certificates with the shop drawings. Submit testing method and tester with shop drawings.

.4 The contractor shall submit the verified test result on each cable, connector, and connection for the total installation, including back-bone and horizontal cabling. The model number and manufacturer of the Category 6A cable shall be documented. The type of tester used for testing the Category 6A cabling must also be documented.

.5 Test results shall be evaluated by the test equipment using the most up-to-date criteria from the TIA/EIA Standard. This information shall be supplied in electronic format.

.1 Room number of installation

.2 Wall plate ID

.3 Test Results with an identification of type of test used and whether the result was PASS or FAIL

.6 Category 6A cable tests shall provide results for the following tests:

.1 Near End Crosstalk (NEXT)

.2 Attenuation

.3 Ambient Noise

.4 Attenuation to Crosstalk Ration (ACR)

.5 Far End Crosstalk (FEXT)

.7 Provide with maintenance manuals, a marked set of prints illustrating the network drop name for each drop location. No other as-built information shall be provided on these prints unless it relates to the data or voice network.

.8 The consultant will spot test this testing following test completion. Contractor shall provide the testing technician for (2) hours, and the completed test charts, for spot check verifications.

3.2 GROUNDING AND BONDING FOR COMMUNICATION SYSTEM

.1 Bonding Backbone shall consist of green jacketed stranded copper conductors and insulated ground bars.

.2 Install a #6 AWG insulated ground connection directly to each equipment rack in LAN Rooms. Each ground connection shall be terminated at the existing building ground system.

.3 Bus bars shall be an insulated pre-drilled, electro tin plated copper busbar, minimum 6mm thigh x 100mm wide x 305mm long (or length that is determined by the number of required connections including space for additional bond connections). Mount up 300mm above finished floor near the equipment rack location.

.4 Aluminum wires, clamps or terminal connectors will not be accepted for grounding and bonding.

.5 Terminations to the telecommunication ground bus bars shall be installed without splices where possible. If splices are necessary, they shall be as few as possible. Use irreversible compression-type connectors, exothermic welding, or equivalent. The connection to the ground bus bar shall be done using 2-hole compression connectors.

3.3 WARRANTY

.1 Testing and certification of the building network distribution cable installation shall be by the Installer and shall include the provision of a full Manufacturer's and Vendor's Warranty covering performance, products and installation. The Warranties shall cover the full repair and/or replacement of any component failing or failure to meet the design requirements within

one (1) year. Warranties shall be delivered to the Project Manager with the Testing and Certification documentation.

.2 Within ten (10) days after testing, the Installer shall submit the cable test results, and a marked up record drawing(s) of the as-built cable network. The record drawing(s) shall include the cable/jack identification at the outlet locations.

.3 The contractor must make available to the Owner a local service department of a duly authorized distributor of the equipment manufacturer, which shall stock the manufacturer's standard parts. The service department shall have at least one factory trained repair technician available to the Owner on 24 hours' notice.

.4 Provide during the warranty period, all service, maintenance, parts, etc., required for normal operation of the systems, such that Owner needs not purchase additional maintenance agreement or contracts

3.4 VERIFICATION

.1 Perform tests in accordance with:

.1 Section 26 05 01 - Common Works Results - Electrical

.2 The entire installation shall be performed under the supervision of the manufacturer. Upon completion of the installation, the manufacturer shall check and test the entire system. Certification of all tests shall be submitted in writing to the Consultant and shall certify the following:

.1 That the system is complete in accordance with this specification

.2 That the system is installed in accordance with the manufacturer's best recommendations

.3 During the certification tests, the contractor shall provide one (1) electrician and (1) helper to assist the manufacturer's representative. The contractor shall also provide any required equipment such as ladders, scaffolding, etc.

3.5 TRAINING

.1 Perform training in accordance with:

.1 Section 26 05 01 - Common Works Results – Electrical

.2 Written documentation bearing name and signature of Owner's personnel who received the above instructions shall be included in the operating instructions and service manuals.

END OF SECTION