

SUNNYBROOK HEALTH SCIENCES CENTRE SHSC OR3 & OR4 LEAD INSTALLATION

RFT NO. CW22886

ADDENDUM 01-R1

Issued: March 17, 2025

1.0 GENERAL

This Addendum is issued in accordance with Section 4 – Addenda and amends the original Request For Tender (RFT) and associated documents as set out below. The revisions shall become part of the RFT documents and change the original RFT documents only in the manner and extent stated.

This Addendum shall be attached to the above noted **RFT** and shall form an integral part of the **RFT**. The contents of this Addendum shall be brought to the attention of all concerned.

2.0 DOCUMENTATION ISSUED UNDER THIS ADDENDUM:

- 2.1 Addendum No. 01 – R1 (Revision 1) updates the document issued as part of Addendum No. 01.**
- 2.2 Addendum 01-R1 - SHSC OR3 & OR4 Lead Installation (22 pages)**

3.0 QUESTIONS AND ANSWERS

- 3.1 The following questions pertaining to the *Request for Tender* have been received from the Respondents and the following answers are being provided to all Respondents.**

Refer to Addendum No. 01 – R1

End of Addendum No. 01-R1

The bid requirements, contract requirements, specifications, schedules and drawings for

**Sunnybrook Health Sciences Centre
OR 3 & 4 Lead Installation**

are amended as follows:

This Addendum is issued prior to Bid due date to revise the Bid/Contract Documents and as such is part of the Contract Documents; value of all items shall be included in Bid. After acceptance of Bid, claims for costs will not be considered by reason of failure by Bidder to have read Addenda.

SPECIFICATIONS

1.1 REVISED SPECIFICATIONS

- .1 The following revised specifications issued with this addendum supersede previously issued specifications of the same title and number
 - .1 Section No. 00 01 10_R1, Table of Contents
 - .2 Section No. 01 35 33_R1, Infection Control Procedures

1.2 NEW SPECIFICATIONS

- .1 Add the following new specifications issued with this Addendum.
 - .1 Section No. 10 26 23, Protective Wall Covering

DRAWINGS

1.3 REVISED DRAWINGS

- .1 The following Drawings are revised and re-issued with this addendum. Revisions are shown in bubbled areas on drawings. The following descriptions of revisions are for convenience only and do not define or limit the extent of actual revisions indicated on drawings:
 - .1 Drawing No. A01-0 R1
 - .1 Deleted duplicate information.
 - .2 Drawing No. A20-02 R1
 - .1 Clarification on wall protection.

DOCUMENTS

1.4 NEW DOCUMENTS

- .1 The following Addenda, prepared by engineering disciplines, are issued with NORR Addendum No. 1
 - .1 Electrical Addendum No. E-1

.2 The following companies attended the bidders site visit

- Maystar General Contractors Inc.
- P&C General Contracting Ltd.
- Elite Construction Management Inc.
- MJ Dixon Construction Limited
- BDA Inc.
- HN Construction Limited
- REA Construction Ltd.
- Dineen Construction Corporation

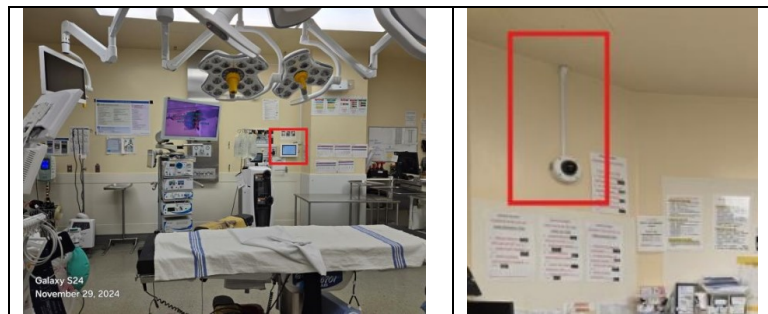
- English and Mould Mechanical Systems Ltd.
- Black & McDonald Ltd.
- RPG Electric
- Ontario Electrical Construction Company Limited
- Danik Electrical Construction Company Limited
- Guild Electric Limited
- Pipe All Plumbing & Heating Limited
- Canadian Tech Air Systems Inc.
- Nutemp Mechanical Systems Ltd.

MINUTES OF BIDDER SITE VISIT

1.5 MINUTES OF BIDDER SITE VISIT

.1 The following information addresses questions that were identified on site during the mandatory site visit and provides clarification or additional information:

- .1 It was noted that, as indicated in the bid documents, all drawings and specifications are to be read as a set and not as individual pages. All information included in the set is part of the construction contract. General contractors, mechanical and electrical subcontractors should read and understand the complete bid documents.
- .2 All areas of work were reviewed during the site visit.
- .3 OR3, Blood box (screen and 4 cameras always recording and monitoring the room) is always operational and should be removed and reinstalled for Lead lining installation.



- .4 Demolition to be done after hours to avoid disruptions to the exiting hospital. The renovation can be done during regular working hours and noise should be controlled since is an active OR space.
- .5 Refer to the enclosed sign-up sheet for list of attendants

QUESTIONS AND ANSWERS

1.6 QUESTIONS AND ANSWERS

- .1 Q. Please clarify the height of deck
 - .1 4340mm finish floor to u/s of structure.
- .2 Q. Please clarify is existing walls to be demolished contains any lead.
 - .1 Not that we are aware of.
- .3 Q. A note on drawing A01-05 calls for existing studs in walls to receive lead are to be doubled up. Please clarify the size of existing studs.
 - .1 Existing information is not complete, according to our drawings is a combination of 2x4 and 2x6" studs depending on the wall. This needs to be verified on site during construction.
- .4 Q. Please clarify size of stud for wall type G1-2AB-3
 - .1 Refer to metal stud partition assembly notes in drawing A01-05
- .5 Q. note 7 on A20-02 calls to patch ceiling and paint white, but note does not appear on drawings. Please clarify extent of ceiling patching and painting.
 - .1 The existing ceilings are to remain. Just basic patching and painting. During the site visit all contractors were able to see the ceilings.
- .6 Q. Please clarify extend of flooring. note 9 on A20-01 calls for removal of self cove epoxy base and 300mm away from wall. Note 8 on A20-02 calls for patch & repair of floor and provide new epoxy to match existing that points to entire floor area for both OR3 & OR4.
 - .1 The 300mm removal is for ease of transition when installing the new self cove base. Both For both OR 3 and 4, the entire floor is to be patched, new epoxy flooring including top coat applied and make look new.
- .7 Q. Please clarify flooring type to match for new Storage Room M2500.1
 - .1 Sheet vinyl with self-cove, color and type to match existing in the same room.
- .8 Q. Drawing A20-01 note 3 calls for removal of wall protection. Please clarify if new wall protection is required, and if so, please specify all wall protection items required.
 - .1 Refer to note 4 in drawing A20-02R1 and specification section 10 26 23. All walls in OR 3 and 4 to receive new wall protection, full height to u/s of ceiling.

- .9 Q. Door schedule call for wall protection and bumper rails to match existing on both sides of double doors to OR3 & OR4. Please specify wall protection and bumper rails. Please also specify corner guard CG-1 noted on outside corner of new Storage Room M2500.1
- .1 Refer to specification section 10 26 23 issued with this addendum. Colour of door protection to match existing (grey).
- .10 Q. Please advise height of lead shield : 2400 mm AFF or to the underside of the deck
- .1 See note 1 under General Shielding requirements drawing A01-05
- .11 Q. What thickness of lead shielding - 1/32". 1/16" or 1/8" drawing A01-05 and detail PB-1 Lead Shielding w/1 layer and spec does not mention
- .1 See note 1 under General Shielding requirements drawing A01-05. For door Lead thickness refer to note 2 in the same drawing under door and frame general notes. Glazing shielding requirements in the same page under Door and Frame types X-Ray protective glass or lead glass.

End of Addendum No.1

NORR
175 Bloor Street East
North Tower, 15th floor,
Toronto, Ontario M4W 3R8

**ADDENDA
00 91 13**

Electrical Addendum No.: E-01

The information listed below is to form part of the Contract Documents. All associated costs are to be included in the Bid Price shown on the Bid Form. Acknowledgment of this Addendum, by number, is to be shown in the space provided on the Bid Form.

1 ELECTRICAL QUESTIONS

Please see list of questions from an electrical subcontractor.

Q: Please clarify which IPC panel the four new outlets at OR3 & OR4 will be connected. Dwg E-1, dwg notes 21 & 31 calls to existing IPC 38/48 but on the layout calls to new IPC-OR3/OR4.

Answer:

Note 31 will be deleted, new Receptacles are to be fed from the new IPS-3B/ 4B

Q: Dwg E-1, dwg note 14. Please clarify & provide details for the newer devices that will replace existing Line Isolation Monitors

Answer:

Note #14 will be revised to state “Four existing Line Isolation Monitors (the existing monitors, which are manufactured by Square D, must be removed and re-installed as required for the new work)”

Q: Dwg E-1, dwg notes 8 & 15. Please clarify & provide details for the new wiring to be installed concealed in conduit

Answer:

For Bidding purposes assume the wiring for the Black Box components consists of 1 @ Coax RG-59U and one ‘Cat 6’ UTP in 1” conduit.

Q: Please confirm the existing clock vendor to decommission/recommission the clocks.

Answer:

Existing Clocks are Primex

Q: There are receptacles shown for C-ARM#1/C-ARM#2 in circuit schematic for IPC ‘OR-3’ & ‘OR-4’ on Detail#3/E-2, kindly confirm the location of these receptacles on the power drawings as well on E-1. Also, please confirm the new receptacles(Note#21) shown on E-1 are fed by the existing IPC-3B, IPC-4B as per Note#31 or are they fed by the new IPC Panels(‘OR3’, ‘OR-4’) as per the circuit listed on the receptacle.

Answer:

Receptacles are shown on Drawing E-1 with Drawing Note #21. Confirmed receptacles are fed from the new IPC’s

Q: On Detail#2/E-2, we see 1 cat-6 cable from each outlet but as per the legend, it is a duplex data jack with 2 cables in each outlet so please confirm the number of CAT-6 cables.

Answer:

Legend is incorrect, there is only one Cable per Outlets as shown on the Schematic

Q: Please confirm both the Operating rooms (OR-3, OR-4), storage rooms M2500.1, M2500 can be accessed during regular hours and at the same time. Also, can we run the feeders/conduits to hub room/panels shown on Detail#1/E200 during regular hours?

Answer:

Working hours must comply with the Conditions of the Contract. However, confirm that any work in the Sterile Core related to running Feeders/ Conduits MUST be outside of normal working hours and MUST be coordinated with the Hospital

Q: Please confirm only corridor work/noisy work is to be performed after-hours.

Answer:

Confirmed

Q: Please confirm the part numbers of the line isolation monitors to be replaced as Schneider Service may need it to quote.

Answer:

Note #14 will be revised to state "Four existing Line Isolation Monitors (the existing monitors, which are manufactured by Square D, must be removed and re-installed as required for the new work)"

Q: Please confirm if LP-18-2A-EC will power the emergency circuit for electrically operated door(Note#27).

Answer:

Confirmed

Q: Please confirm if LP-18-2A-EC will power the emergency circuit for electrically operated door(Note#27).

Answer:

Confirmed

Q: During our site visit it was established that on drwg. E-2 drawing notes #6 & #7, there isn't any room for the new 2 x 40a 2p breakers, please advise.

Answer:

Bid the Project as shown on the Drawings, ie providing new breakers/ feeders as shown. Any lack of breaker space will be resolved on site

Q: On drawing E-2 detail #2, there are 8 x Cat#6 cables indicated for the articulating arms, however there isn't any cable shown for the 2 new wall outlets, with that in mind is there not a total of 12 x Cat#6 cables required?

Answer:

The Schematic on Drawing E-2 is wrong, there should be two Data Outlets in the Articulating Arms, one in each OR and two wall outlets, one in each OR. Totals are correct

Q: On drwg E-2 detail #3 we have to feed 2 new receptacles in "C" arm #1 & #2, for both OR # 3 & #4, are these receptacles already installed in the "C" arms & all we have to do is connect our wiring in the junction box in the ceiling?

Answer:

The new receptacles are for a new C Arm Xray Equipment and ARE NOT installed in the Articulating Arms. The receptacles fore the C Arm are wall mounted as shown on Drawing E-1

Q: On drwg E-2 detail #1 drawing note #2, are these data outlets already installed in the “C” arms and we make connections in the junction box in the ceiling?

Answer:

Please note the Contractor will need to install the Data Jack in a space available in the Articulating Arm and “fish” the new Cat 6 Cable thru an existing wiring channel in the Articulating Arm

Q: I don't see any Nurse Call mentioned nor is there a spec or VoR, please advise.

Answer:

There is no new Nurse Call

Q: On drawing E-1 drawing note #28, is the remote button supplied by us & if so is there a spec?

Answer:

The actual button IS NOT by Electrical, only the noted outlet and wiring

Q: On drawing E-1 drawing note #26 is there a spec for the motion sensing light switch?

Answer:

1 All ceiling mounted occupancy sensors to be ultrasonic, equal to Watt Stopper WT or UT-300 series. Ceiling sensors shall be sized for the particular room controlled, with sufficient coverage area to permit site adjustment to particular occupancy patterns and room layouts. Sensors to be integrated such that they can provide both on/off switching or off-only switching. All sensors shall be directly compatible with the power and auxiliary relay packs described above and shall wire directly to the relays without any auxiliary components or devices above the ceiling. Sensitivity and time delay adjustments shall be readily accessible to the user with LED indication of sensed movement to simplify set up. User adjustable time delay shall be from 30 seconds to 30 minutes.

Q: On drawing E-1 drawing note #14, is there a spec for the 8 x new replacement Lims?

Answer:

Note #14 will be revised to state “Four existing Line Isolation Monitors (the existing monitors, which are manufactured by Square D, must be removed and re-installed as required for the new work)”

Q: On drawing E-1 drawing notes #6, & #12 are the companies involved with these gases responsible for anything to do with the back boxes & we just take care of the 120v circuit feeding them?

Answer:

Electrical Scope related to the Medical Gas Panels is strictly to disconnect and re-connect the 120 volt circuit.

Q: Since the OR's have drywall ceilings the GC's should figure on removing a lot of the ceilings along the perimeter walls where we have to access the source of the various conduits that need to be removed & reinstalled.

Answer:

Please relay that to the GC's if you think it is required

Q: Do any VoR' s for the black box (note #8) or clocks (note #17 & #18) need to be involved with the re & re of their devices, please advise.

Answer:

No

Q: In the 2 attachments there are questions from “Bender” regarding the IPC panels & remote LIM’s.

Answer:

Note #14 will be revised to state “Four existing Line Isolation Monitors (the existing monitors, which are manufactured by Square D, must be removed and re-installed as required for the new work)”

2 ELECTRICAL DRAWINGS

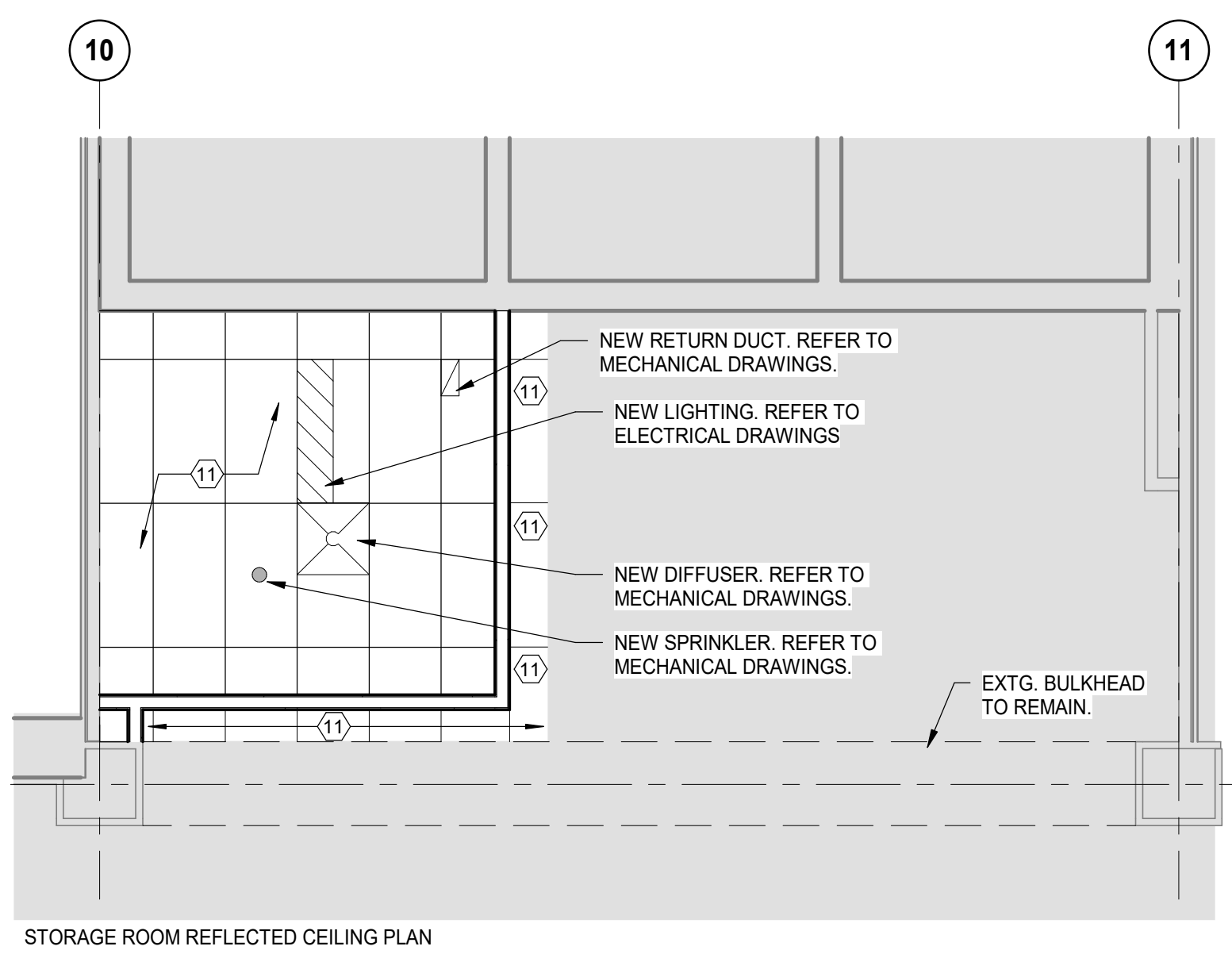
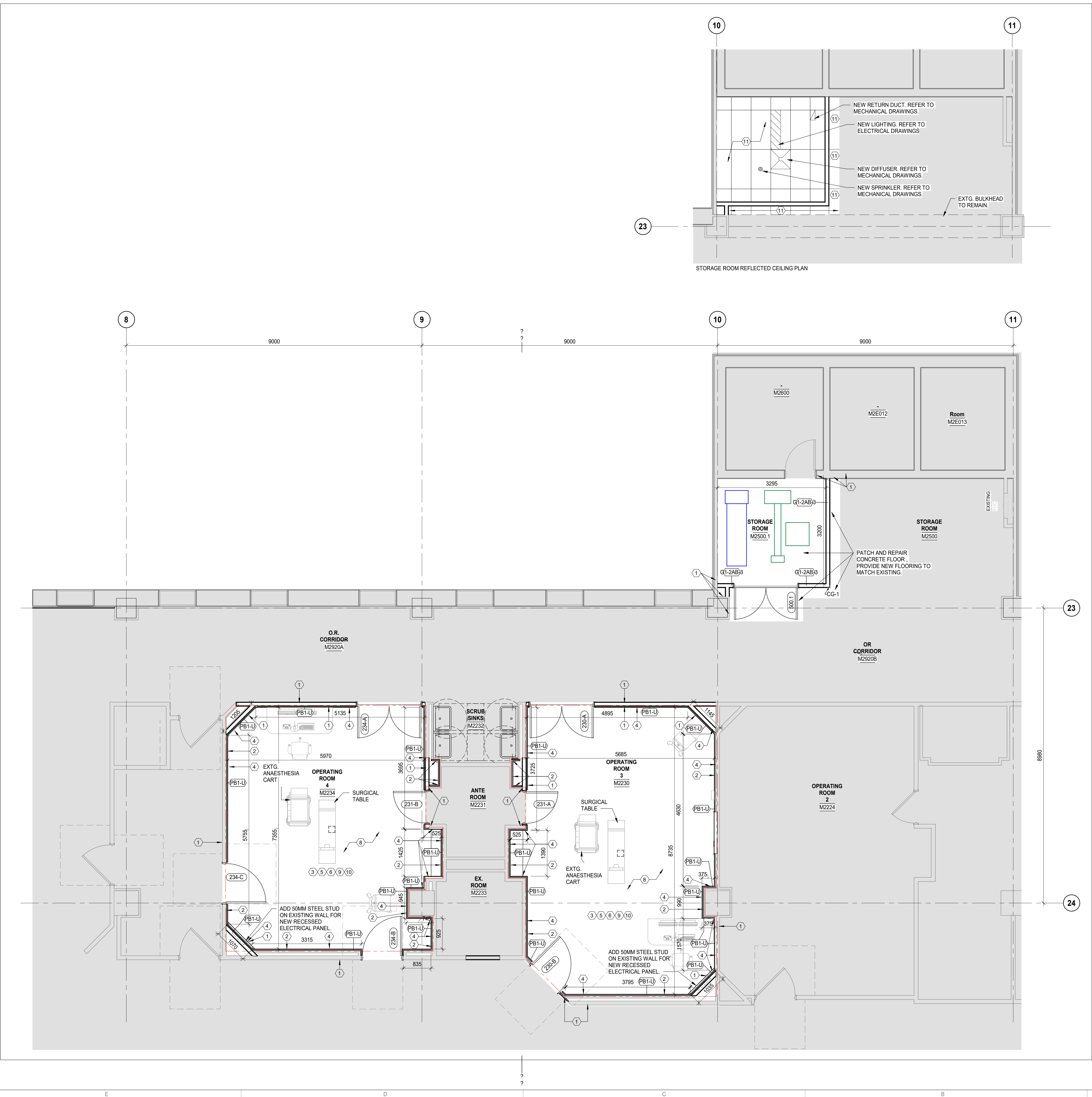
.1 Reference Drawing E-1, Level 2 – OR #3 & OR #4 – Lead Lining of the Walls (not re-issued):

- .1 Revise Note #14 to state “Four existing Line Isolation Monitors (the existing monitors, which are manufactured by Square D) must be removed and re-installed as required for the new work”
- .2 Delete Drawing Note #31, the new Receptacles are to be electrically fed from IPC-3B/ 4B as per Note #21
- .3 Add, to both Notes #8 & #15: “For Bidding purposes assume the wiring for the Black Box Components consists of 1 @ Coax RG-59U and one ‘Cat 6’ UTP in 1” conduit.”
- .4 On the Legend, revise the Symbol for the typical Data Jack to read “1 @ RJ-45 Jack in Single Gang Box”

.2 Reference Drawing E-2, Network Cabling Plan & Schematic (not re-issued):

- .1 On Detail 2/ E2, the Data Schematic, note that one set of two Data Jacks are in the Articulating Arms in each OR but the second set, shown on the Drawing to also be in the Articulating Arms, are to be on the walls as shown on the Plans

End



LEGEND:

	EXISTING TO REMAIN		EXISTING DOORS TO REMAIN
	EXISTING TO REMAIN		DASHED LINE DENOTES THE SCOPE OF DEMOLITION WORK
	NEW 1.6MM LEAD LINING FROM FLOOR TO 2130MM (7') A.F.F.		

- CONSTRUCTION NOTES:**
- PATCH, REPAIR AND PAINT TO MATCH EXISTING WALL AFFECTED BY DEMOLITION/RENOVATION.
 - PREP NEW GYPSUM BOARD WALL SURFACES TO RECEIVE M&E EQUIPMENT UPON COMPLETION OF LEAD INSTALLATION.
 - PATCH AND REPAIR EXISTING FLOORING IN THE ENTIRE OR 3 AND 4. SELF-GRAVE BASE TO EXTEND 150mm UP THE WALL.
 - PROVIDE NEW WALL PROTECTION TO ALL WALLS INSIDE OR3 AND OR4. FULL HEIGHT.
 - NURSE CHARTING STATION WITH MONITOR/KEYBOARD TRAY ON ADJUSTABLE WALL BRACKET TO BE REINSTALLED UPON COMPLETION OF LEAD INSTALLATION.
 - ALL EXISTING ITEMS INCLUDING BUT NOT LIMITED TO THE WORKSTATIONS, SURGICAL INSTRUMENT CART, ANAESTHESIA CART, SURGICAL TABLE &... TO BE STORED AND PROTECTED AND MOVED BACK TO OR ROOMS 3&4 AFTER RENOVATION.
 - EXISTING CEILING TO BE PATCHED AND PAINTED WHITE.
 - PATCH AND REPAIR CONCRETE FLOOR, PROVIDE NEW EPOXY COATING TO MATCH EXISTING.
 - NURSE CHARTING STATION WITH MONITOR/KEYBOARD TRAY ON ADJUSTABLE WALL BRACKET TO BE REINSTALLED UPON COMPLETION OF LEAD INSTALLATION WORK.
 - EXISTING M&E EQUIPMENT REMOVE AND REINSTALL. TYPICAL FOR ALL.
 - REMOVE EXISTING CEILING FOR THE INSTALLATION OF NEW WALLS. PROVIDE NEW CEILING TO MATCH EXISTING CEILING.

DATE	ISSUED FOR	REV
04-03-2025	ISSUED FOR TENDER & PERMIT	1
10-03-2025	ADDENDUM 1	2

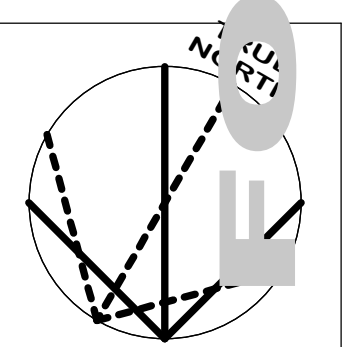
This drawing has been prepared solely for the use of Sunnybrook Health Science Centre and there are no representations of any kind made by NORR to any party with whom NORR has not entered into a contract.

This drawing shall not be used for construction purposes until the seal appearing hereon is signed and dated by the Architect or Engineer.

Project Component
Key Plan

Consultants

Survey:	
Civil:	
Architecture:	NORR
Structural:	HHA
Mechanical:	HHA
Electrical:	HHA
Interiors:	HHA
Landscape:	



Seal(s)

NORR

NORR OFFICE ADDRESS
norr.com

Project Manager	G. LECMAN	Drawn	A. DUDNYKOVA
Project Leader	F. PANICLI	Checked	G. LECMAN

Client
Sunnybrook Health Science Centre
 2075 Bayview Ave, North York, ON M4N 3M5

Project
SHSC - OR3 & OR4 Lead Installation

2075 Bayview Ave, North York, ON M4N 3M5

Drawing Title
LEVEL 2 OVERALL CONSTRUCTIONS FLOOR PLAN

Scale	As indicated
Project No.	HS1024-0008
Drawing No.	A20-02 R1

PRELIMINARY - NOT FOR CONSTRUCTION

Number	Title	Date	Pages
Project Manual For Sunnybrook Health Sciences Centre OR 3 & 4 Lead Installation			
SPECIFICATIONS			
Division 00 – Procurement and Contracting Requirements			
	Title Page		1
00 01 07	Professional Certification and Seals	04 Mar 2025	1
00 01 10_R1	Table of Contents	04-12 Mar 2025	2
00 21 13	Mandatory Instructions to Bidders		19
00 41 13	Bid Form	04 Mar 2025	3
00 70 00	Conditions of Contract	04 Mar 2025	1
00 73 00	Supplementary Conditions to CCDC 2 2020		34
Division 01 - General Requirements			
01 00 00	General Requirements	04 Mar 2025	23
01 25 13	Product Substitution Procedures	04 Mar 2025	4
01 31 00	Project Management and Co-ordination	04 Mar 2025	3
01 32 16	Construction Schedules	04 Mar 2025	4
01 35 33_R1	Infection Control Procedures	04-12 Mar 2025	5
01 74 00	Cleaning	04 Mar 2025	2
Division 02 – Existing Conditions			
02 41 19	Selective Demolition	04 Mar 2025	5
Division 05 – Metals			
05 50 00	Metal Fabrications	04 Mar 2025	8
Division 06 – Wood, Plastics and Composites			
06 10 00	Rough Carpentry	04 Mar 2025	2
Division 07 - Thermal and Moisture Protection			
07 84 00	Fire Stopping and Smoke Seals	04 Mar 2025	7
07 92 00	Joint Sealants	04 Mar 2025	7
Division 08 - Openings			
08 11 13	Hollow Metal Doors and Frames	04 Mar 2025	7
08 71 00	Hardware	04 Mar 2025	9
---	Hardware Schedule	26 Feb 2025	13
Division 09 - Finishes			
09 21 16	Gypsum Board Assemblies	04 Mar 2025	11
09 51 00	Acoustical Ceilings	04 Mar 2025	3

Number	Title	Date	Pages
09 67 23	Resinous Flooring	04 Mar 2025	8
09 91 00	Painting	04 Mar 2025	9
Division 10 – Specialties			
10 26 23	Protective Wall Coverings	12 Mar 2025	4
Division 13 – Special Construction			
13 49 00	Radiation Protection	04 Mar 2025	9
Division 20 - Mechanical			
---	Mechanical Specifications	04 Mar 2025	255
Division 26 Electrical			
---	Electrical Specifications	04 Mar 2025	124
Appendices			
Appendix A1	Sunnybrook's Contractor Safety Policies		59
End of Table of Contents			

1 **SUMMARY OF WORK**

- 1.1 Provide staff, Subcontractor, Suppliers, and own forces with training in infection prevention and control procedures. Design and implement training seminar by an environmental consultant with healthcare experience and whose educational program has been approved by the Owner. Acceptable firms are but not necessary limited to the following:
- .1 Maple Environmental (Kyle Prosser, 905-601-6301).
 - .2 Safetech Environmental Ltd. (Romeo Milano, Tel: 905-624-2722).
 - .3 Golder Associates (Jason McGonigle, Tel 905-723-2727 Ext. 256).
- 1.2 Directly engage and enter into a contract with the approved environmental consultant. Coordinate with the environmental consultant and include in the Contract Price the required number of training sessions to adequately cover the duration of the Project.
- 1.3 Prior to commencement and during the course of the Work, as required, promptly provide the Owner with written confirmation of such training by way of a certificate issued by the environmental consultant.
- 1.4 Owner's Infection Prevention Control Services (IPCS) will investigate and advise on the risks of organisms that exist in the Project area. The goal will be to determine any infectious risks where possible and eliminate infection risks associated with construction activities in order to protect patients and staff occupying this building.
- 1.5 During the course of the Work, IPCS will assess the risks related to the Project utilizing the Risk Assessment and Preventive Measures Checklist (Appendix I). The determination of risk will guide the need for barriers during the Project. The Owner will communicate the assessment to the Contractor and advise on any additional measures to protect functional areas of the hospital.
- 1.6 Inspection of on-going infection control procedures shall be undertaken on a regular basis by the Owner's infection control representative and the Contractor. The Owner's monitoring checklist is found in Appendix II.
- 1.7 IPCS may stipulate changes in protocols and barrier configurations if required to ensure the safety of the patients and the clinical environments. Barriers and hoarding are shown on the Drawings diagrammatically and as intent only. IPCS and Contractor to review on site barrier requirements. Construct barriers as per final instruction on site by the Owner at no additional cost to the Owner.
- 1.8 Definitions:
- .1 Final cleaning is defined as; post construction cleaning as provided by the Owner's workforce or Owner's contracted cleaning service
- 1.9 Construction Personnel: Protective clothing is to be removed when exiting through patient areas or vacuumed when exiting through other areas as categorized by IPCS as specified in Appendix "I". Construction personnel will not pass through clinical areas of the hospital without approval from the IPCS or Owner.
- .1 Daily outer garments must be clean and maintained at all times.
 - .2 Daily footwear will be maintained clean and dust free at all times.
 - .3 Daily protective headgear will be maintained clean and dust free at all times.
 - .4 Hospital identification will be worn and displayed in a manner visible to any individual or passer-by.

- 1.10 Protective Clothing when travelling through secured Operating Zones of the Hospital - Disposable Microporous Cleanroom Coveralls, Polypropylene Hair nets and Seamless polyethylene coated Boot covers**
- .1 Contractor to provide hospital-grade Protective Clothing comprising of disposable coveralls that include but are not limited to full body gowns, boot covers, safety hair nets and polyethene gloves for all construction personnel and visitors.**
 - .2 Protective Clothing is required at all times when entering the OR zones or exiting from the Contractor's hoarded work areas prior to leaving hospital premises.**
 - .3 All Protective Clothing shall be stored in a secured self-ventilated unit within close proximity to the Operating Room Main Nursing station entrance or as indicated by Owner. The Contractor shall provide and keep on hand adequately stocked quantities of disposable Protective Clothing for the duration of construction. Provide separate storage compartment for collection of soiled disposable coveralls, boot covers, hair nets when exiting the floor area from the OR zone.**
 - .4 Change Protective Clothing frequently and dispose immediately after every use or if they are ripped and not serviceable.**
 - .5 Arrange with the Owner an area to store Contractor's Protective Clothing / PPE.**
 - .6 Prior to admittance into the Operating zones, all workers and Specialty Equipment vendors shall check-in with their Security identification badges at the Main OR Nursing Station before being fully gowned-up in protective coveralls. Upon inspection and approval by SHSC Nursing staff, Contractors may proceed through the Operating zones using the designated travel routes to the construction area as shown on drawings.**
 - .7 Adequate space to allow workers to remove disposable protective coveralls, gloves, hair nets, boot covers shall be allocated within the Contractor's hoarded dust-down vestibule. Soiled disposable PPE articles shall be placed in large plastic garbage collection bag and stored in a neat manner to not impede on foot traffic.**
 - .8 Storage of clean disposable protective coveralls, gloves, hair nets, boot covers shall also be stored in the Contractor's hoarded zone and made readily available for all workers when leaving the work site. Provide means and methods to prevent cross-contamination of clean and soiled disposable PPE attire.**
 - .9 Disposable PPE shall be removed from the construction zone by the Contractor daily or as often as needed to suit requirements of hospital IP&C and Risk.**
 - .10 All construction personnel leaving or exiting the work site at any given time of the day shall put on all required protective coveralls within the hoarded dust-down vestibule. Workers shall exercise and take appropriate steps to ensure compliance with CSA Z317.13-17 in conjunction with hospital dust contamination control and safety procedures prior to travelling through designated corridors within the OR zone.**
 - .4.11 Proper use of the disposable coveralls, boot covers, hair nets, gloves and use of sticky mats shall be followed at all times for all workers without exception. At no time shall workers are permitted to leave the construction area wearing regular construction PPE garments and footwear.**
- 4.101.11 Transportation of Equipment/Supplies:** Prior to commencement of the Work, IPCS and the Project team and the Contractor will establish paths and procedure for the transportation of clean/sterile supplies, equipment and construction materials, including the removal of construction debris. Additional information as indicated.

4.141.12 Surveillance: IPCS personnel will enhance surveillance as appropriate. Field review of the Work will be conducted on a regular basis with the Contractor as necessary.

2 REFERENCES

2.1 Canadian Standards Association (CSA Group):

- .1 CAN/CSA-Z317.2, Special requirements for heating, ventilation, and air-conditioning (HVAC) systems in health care facilities.
- .2 CAN/CSA-Z317.13, Infection control during construction, renovation, and maintenance of health care facilities.

3 WORK COVERED UNDER THIS CONTRACT

3.1 Any and all infection control procedures described in this Section and all such means, materials and methods that are required to contain and prevent Work environments from spreading infection to the adjacent Hospital environment.

3.2 Means, materials and methods include but are not limited to temporary hoardings and barriers, enclosures, containment capsules, vessels, and other air tight assemblies constructed to contain airborne particulate generated by the Work from/out of Hospital areas adjacent and outside the Work area. The employment of mobile HEPA filtered recirculation units will be required in Work areas such as inpatient areas, laboratories and other risk areas identified by the Owner or IPCS and also to maintain negative air pressure in general Work area(s) relative adjacent Hospital areas.

4 PRE-CONSTRUCTION

4.1 At Contract start-up meeting, at meetings convened prior to the start of the Work, at pre-installation meetings, and at regular progress meetings, review infection prevention and control procedures. The Owner's infection control representative will attend such meetings. Subjects to be reviewed include, but are not limited to, the following:

- .1 General information on infection prevention measures are articulated in accordance with CAN/CSA-Z317.13.
- .2 Project and/or phases are subjected to preventative measures assessment and categorization in accordance with CAN/CSA-Z317.13.
- .3 Schedule mandatory infection control training for all construction trade staff. Only those trade staff that have successfully completed mandatory infection control training are permitted to work at Sunnybrook Health Sciences. Trade staff without documented infection control training will be disqualified from the job site. Delays attributed to non-documented staff will be at the cost and responsibility of the Contractor.
- .4 General information on infection prevention measures is articulated.
- .5 Patient populations that may be at risk are identified.
- .6 Prevention measures for essential services (e.g. water, ventilation systems, electricity) that may be disrupted are provided.
- .7 Integrity of the facility's exterior structure, spatial separations, ventilation and water supplies for any penetrations and infection control problems are reviewed and assessed daily to ensure all services that supply clinical areas are provided.
- .8 Measures to control dust and routes to safely remove construction debris must be outlined and altered as necessary to protect all clinical areas and patients of the hospital. Traffic routes shall be in accordance with cited CSA standard or requirements of the Owner whichever is more stringent.

- .9 Traffic patterns for construction workers and supply delivery routes for construction materials will be established to minimize risks to patients, staff and visitors per the Owner's requirements and as indicated.
 - .10 Identify all critical areas of the ventilation system to ensure protection of the system from construction dust and debris including the need for increased filter changes during construction.
 - .11 Properly seal penetrations to mitigate dust and moisture travel between clinical areas and construction site including the need to close down dampers temporarily to reduce circulation of contaminated air or fumes is assessed.
 - .12 The systems can provide the correct air exchange rates and pressure relationships in critical areas near construction activity.
 - .13 Properly adjust exhaust and supply air flow in the construction area to ensure "negative pressure" gradient between construction (negative) and clinical (positive) areas.
 - .14 Properly protect all exterior air intakes as necessary to ensure optimal incoming "fresh air".
 - .15 Criteria of inspections by Owner's infection control representative.
 - .16 Ceiling/Wall/Floor Access permits requirements prior to opening concealed spaces.
- 4.2 Vacuum cleaners:
- .1 Vacuums shall be commercial grade complete with HEPA filters.
 - .2 HEPA filter shall be changed as recommended by the manufacturer or required by use. Maintain a filter change log at the Place of the Work, available for review by the Consultant
- 5 **CONSTRUCTION**
- 5.1 Breaches in infection prevention containment measures, as outlined in Appendix I or as prescribed by CAN/CSA-Z317.13 or by the IPCS where negative outcome (s) that may place staff and/or patients of the Owner's facilities at risk will result in "stop" construction orders to the Contractor by IPCS.
 - 5.2 Construction area and all related traffic routes shall be maintained in an "acceptable" state of cleanliness as specified by the IPCS during the project without exception.
 - 5.3 Cleaning will be provided as categorized by IPCS as specified in Appendix I. The Place of the Work must also be cleaned prior to and at completion of work as follows:
 - .1 Undertaken by Contractor and included in the Contract Price:
 - .1 Construction cleaning prior to reopening a supply air duct during construction.
 - .2 Construction cleaning completed prior to the removal of any containment barriers.
 - .3 Construction cleaning completed after the removal of any barrier.
 - .4 Construction cleaning immediately after completion of minor work performed after the removal of barriers.
 - .2 Undertaken by Owner and not included in Contract Price:
 - .1 Final cleaning by Environmental Services must be completed prior to occupancy.
 - 5.4 Construction Cleaning is defined as the complete removal of "daily" construction debris, dust containment and mitigation measures during construction activities. Measures to contain and mitigate dust during construction activities include but are not limited to, daily

vacuuming of the work area with a HEPA filtered vacuum device, wet mopping, wrapping and/or bagging of debris, using vacuum equipped tools, etc. Area is to be inspected and approved as clean by IPCS.

- 5.5 Transportation of Equipment and Supplies: Prior to construction, IPCS, the Consultants, and the Contractor will establish delivery paths, time and procedures for the transportation of trade carts, equipment, materials, and "clean" install equipment. Movements and storage of equipment and supplies through the hospital may include but is not limited to:
- .1 Daily maintenance of all trade carts so that they are kept in a clean and dust free condition.
 - .2 Daily wipe down of all trade carts with an approved "hospital disinfectant".
 - .3 Trade or supply carts of raw wood are NOT permitted. Exterior wood must be sealed to sustained daily cleaning and disinfection.
 - .4 Washdown of all waste carts after the disposal of any wastes and before the cart returns to the hospital.
 - .5 Removal of all packaging material from "final install" equipment prior to delivery through the hospital. Contractor shall consult with the IPCS or designate on packaging necessary to protect devices prior to final install
 - .6 Packaging materials permitted onto the construction site must be removed daily or as generated, whichever is more frequent.
 - .7 Transportation of equipment, materials/supplies and wastes is NOT permitted between the hours of 07:00 and 21:00 hrs. Owner or designate may grant limited exceptions in writing.
 - .1 For Project- specific delivery hours refer to Section 01 00 00, General Requirements.
 - .8 Incoming construction material must be handled in accordance with CAN/CSA-Z317.13. Materials must be protected from moisture and dirt.
 - .9 Oversized "new install" equipment must be delivered in accordance with measures outlined by the IPCS or designate. Procedures may include but is not limited to additional cleaning of "new equipment", cleaning of the hoarding to permit clear passage into the work area followed by immediate reinstatement of the hoarding.
- 5.6 Surveillance: IPCS or designate will determine frequency of site reviews of the construction area. Site review may include but is not limited to assessing the area for cleanliness and dust mitigation, worker compliance with measures as outlined, hospital approved workers/trades, etc.
- .1 Security - site will have controlled access with appropriate signage to identify the area as a construction area and danger within.
 - .2 Security - access to site will be through a self-closing door that is locked at the conclusion of each day's activity. Keys to the site will be provided to the IPCS or the Owner.
 - .3 Contractor will conduct daily site reviews and document daily findings in a log book as specified by the IPCS or designate.
 - .4 Site cleaner will document frequency of cleaning as specified by the IPCS or designate.

- 5.7 Ventilation System and Negative Pressure Differential:
- .1 Areas where work is being undertaken shall be isolated from occupied areas of the hospital using dust tight partitions and enclosures as described above.
 - .2 The Place of the Work will be maintained under negative pressure at all times in relation to the occupied areas of the existing building to prevent dust and airborne pathogens from entering the occupied areas of the existing building.
 - .3 Negative pressure shall be achieved through the use of dedicated (window or otherwise) exhaust units or, if direct access cannot be achieved, by HEPA filtered recirculation units that transfer filtered air from the Place of the Work into the occupied areas. Exhaust points will be reviewed with the Owner and the Consultant to ensure that the exhaust air from the Place of the Work is not affecting pedestrian routes and is not re-entrained back into the existing building through fresh air intakes.
 - .4 Provide construction exhaust/HEPA units and remove at the completion of the Work.
 - .5 Air systems serving only the Place of the Work will be shut down and all supply, return and exhaust openings shall be sealed to prevent dust and construction debris from entering the air system. As a further precaution, the air system will be reviewed at the end of the Work to determine if cleaning is required.
 - .6 Supply and return air ducts entering the Place of the Work are to be fitted with a pre-filter unit and sealed within the Place of the Work near point of entry or exit prior to the start of disruptive activity to prevent dust and construction debris from entering the air system. As a further precaution, the air system will be reviewed at the end of the Work to determine if cleaning is required.
 - .7 During construction, the seal only on the supply air duct may be removed after demolition and clean-up to permit ventilation within the construction area provided no other means is available.
 - .8 Areas adversely affected by changes in air flows outside the construction areas are to be re-balanced to comfortable levels as advised by the Consultant.
 - .9 Main HVAC infrastructure shall be protected from contamination in accordance with CAN/CSA-Z317.2 and CAN/CSA-Z317.13.
- 5.8 Contractor shall:
- .1 When constructing the hoarding, install an electronic magnehelic gauge complete with recording capability and local audible alarm.
 - .2 Maintain a daily log for full duration of the construction and provide the data to the Consultant and Owner upon request.
- 5.9 Ensure that mandatory vacuuming and cleaning of Contractors and Subcontractors clothes is done, prior to leaving areas of the Work to prevent dispersion of dust.
- 5.10 Contractor to Provide their own mobile negative pressure enclosures in adequate numbers to align with the project schedule to do localized ceiling work. Use of Owner's mobile negative pressure enclosures is not permitted.
- End of Section

PART - 1 GENERAL

1.1 SUMMARY

.1 Section Includes:

.1 Labour, Products, equipment and services necessary to complete the work of this Section, including but not limited to:

.1 Wall coverings

.2 Crash Rails

1.2 QUALITY ASSURANCE

.1 Installer: Trained and approved by the manufacturer and having a minimum three years experience in the installation of the work described in this Section and can show evidence of satisfactory completion of projects of similar size, scope and type. If requested, provide letter of certification from manufacturer stating that installer is certified applicator of its products, and is familiar with proper procedures and installation requirements required by the manufacturer.

.2 Maintenance seminars: Provide, to the Owner, training seminars and recommendations on Product maintenance procedures.

.3 Pre-installation meeting: Two weeks prior to commencing work of this Section, arrange for manufacturer's technical representative to visit the site and review preparatory and installation procedures to be followed, conditions under which the work will be done, and inspect the surfaces to receive the work of this Section. Advise the Consultant of the date and time of the meeting.

.4 Source limitations: Obtain each type of product from a single manufacturer.

.5 Products: Provide like Products from same production run. Install Products in sequence from sequentially numbered dye lots.

1.3 SUBMITTALS

.1 Samples: Three 300 mm x 300 mm samples of each wall covering material.

.2 Maintenance data: Printed manufacturer's maintenance instructions giving specific warnings of maintenance practices of substances, which may stain or otherwise damage the wall coverings or handrails.

1.4 SAMPLE INSTALLATION

.1 Apply each type of covering to a sample area on the project and obtain the approval of the Consultant of such applications before proceeding. Locations of sample areas shall be as directed by the Consultant.

.2 Sample areas of wall covering shall be full height, as indicated on Drawings, and include one outside corner and one covering material joint.

.3 Sample areas of rail shall be full length, and include one outside corner, and one end cap.

.4 Promptly revise or replace coverings on sample areas at no additional cost to the Owner until approval of the Consultant is obtained. The approved sample area installations shall be the standard for acceptance of the remaining work.

1.5 **STORAGE**

- .1 Store materials with manufacturer's seals and labels intact. Store materials flat in clean, dry storage area at temperatures over 10 deg C and normal humidity.

1.6 **PROJECT CONDITIONS**

- .1 Environmental Limitations: Do not commence work until spaces are enclosed and weatherproof, wet work in spaces is complete and dry, work above ceilings is complete, and ambient temperature and humidity conditions are maintained at the levels indicated for Project when occupied for its intended use.
- .2 Lighting: Do not commence work until a lighting level of not less than 160 lux is provided on the surfaces to receive wall covering.
- .3 Ventilation: Provide continuous ventilation during installation and for not less than the time recommended by wall covering manufacturer for full drying or curing.

1.7 **EXTRA STOCK**

- .1 Provide minimum 5% of each type and colour of wall covering and handrail material in unopened packages, and accessories installed. Store the extra materials at locations as directed by the Owner. Extra stock shall be of same production run as installed materials.

PART - 2 PRODUCTS

2.1 **MANUFACTUERER**

- .1 Supply products indicated in this Section from a single source manufacturer to ensure like products.

2.2 **MATERIALS**

- .1 Protective Wall Covering: Impact resistant, extruded semi-rigid PVCu panel.
 - .1 Product: Altro White Rock.
 - .1 Colour: White.
 - .2 Height: full height unless indicated otherwise.
 - .2 Physical Characteristics:
 - .1 Fire and Smoke Development: Class A to CAN/ULC S102
 - .2 Impact Resistance: ≥ 200 psi to ASTM D5420.
 - .3 Density: 1.39 g/cm^3 to ISO 1183
 - .3 Products by other manufacturers similar in function, design, performance, and construction complying with requirements of this Section may be incorporated into the Work subject to Consultant's acceptance in accordance with Section 01 25 13 Product Substitution Procedures.
- .2 Heavy Duty Crash Rail: 6.4 mm thick, type 304 stainless steel, #4 finish to ASTM A276. Extended mount crash rail lengths to be supplied prefabricated with corners and end returns formed. End returns and corners shall not be separate pieces. All units pre-drilled. Mounting hardware shall be supplied by the manufacturer
 - .1 Product: Model ECR-20S Stainless Steel Crash Rail by Construction Specialties Inc.

- .3 Aluminum Retainers: Extruded aluminum retainers 6063-T6 alloy, nominal 0.62" thick. Minimum strength and durability properties as per ASTM B221. Supplied by manufacturer.
- .4 Fasteners: non corrosive and compatible with aluminium retainers supplied by manufacturer.
- .5 Adhesive: Mildew resistant, nonstaining, strippable adhesive, for use with specific wall covering and substrate application, as recommended in writing by wall covering manufacturer.
- .6 Primer/Sealer: Mildew resistant primer/sealer, and recommended in writing by wall covering manufacturer for intended substrate.

2.3 **ACCESSORIES**

- .1 Wall covering and rails manufacture to supply a packaged system, containing all materials needed to complete wall covering and crash rails design.
- .2 Supply all primers and adhesive required to install wall coverings, as per manufacturer's recommendations.

PART - 3 EXECUTION

3.1 **INSPECTION**

- .1 Examine areas, which are to receive the work of this Section and proceed only if conditions are satisfactory. Verify adequacy of support at substrate. Report unsuitable substrates. Commencement of work shall imply acceptance of conditions.
- .2 Substrates shall be smooth, dry, free of dust and dirt.

3.2 **PREPARATION**

- .1 Remove materials from packaging and acclimatize materials in the installation areas not less than 24 hours before installation.
- .2 Test surfaces for moisture and alkali content prior to application of materials. Moisture content shall be less than 4%. Neutralize and seal surfaces in accordance with manufacturer's directions.
- .3 Where substrate has been painted, apply a thin coat of adhesive over substrate and allow drying for one hour.
- .4 Comply with manufacturer's written instructions for surface preparation.
- .5 Clean substrates of substances that could impair wall covering's bond, including mold, mildew, oil, grease, incompatible primers, dirt, and dust.
- .6 Prepare substrates to achieve a smooth, dry, clean, structurally sound surface free of flaking, unsound coatings, cracks, and defects.
- .7 Remove hardware and hardware accessories, electrical plates and covers, light fixture trims, and similar items.

3.3 **INSTALLATION – WALL COVERINGS**

- .1 Apply materials in strict accordance with manufacturer's instructions and as specified; report discrepancies immediately to Consultant.

- .2 Install materials free from tears, ripples or air pockets. Horizontal joints in wall covering are not permitted except upon specific, written approval of the Consultant.
- .3 Take special care to prevent plaster particles, grit, dirt, or other extraneous matter from being imbedded beneath the wall covering.
- .4 Spread adhesive in a uniform coat to back of material and apply material to wall within time recommended by adhesive manufacturer. Thoroughly wash excessive adhesive off material and adjacent surfaces as application progresses.
- .5 On gypsum board construction, avoid scoring gypsum board face by using a metal strip cutting base.
- .6 Neatly and carefully trim around fixtures, door frames and the like, as indicated on Drawings.
- .7 Match adjacent panels for colour, pattern, texture and direction of nap where applicable. All panels shall be uniform in colour and texture. Remove material, which fails to match when applied, and replace with matching material.
- .8 Reinstall hardware and hardware accessories, electrical plates and covers, light fixture trims, and similar items.

3.4 **INSTALLATION – CRASH RAILS**

- .1 Apply materials in accordance with manufacturer's instructions.
- .2 Install aluminum crash rail retainer to platform bracket base with fasteners, supplied by the manufacturer.
- .3 Snap on crash rail cover overtop of retainer.
- .4 Install end caps and corners where required, and as shown on Drawings.
- .5 All covers shall be uniform in colour and texture. Remove material, which fails to match when applied, and replace with matching material.
- .6 Reinstall hardware and hardware accessories, electrical plates and covers, light fixture trims, and similar items, if removed to install handrail.

3.5 **PATCHING**

- .1 Perform cutting, fitting and patching of wall covering material as required to accommodate fixtures, railing brackets and other appurtenances occurring in surfaces to receive coverings. Maintain covering pattern regardless of position of appurtenances.

3.6 **CLEANING**

- .1 Immediately upon completion of installation, clean wall covering and accessories in accordance with manufacturers recommended cleaning method.
- .2 Remove surplus materials, and debris upon completion of work.

END OF SECTION