



# MUHC Redevelopment Project Volume 3

Functional and Technical Program

*April 2008*



**Centre universitaire de santé McGill  
McGill University Health Centre**

*Les meilleurs soins pour la vie  
The Best Care for Life*



#### 4.4.4

### Mountain Campus





**MUHC REDEVELOPMENT PROJECT  
SPACE TABLE SUMMARY - APRIL 2008**

**4.4.4.0 Mountain Campus**

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<b>Total:</b>	<b>21,956</b>	<b>32,638</b>	<b>37,565</b>
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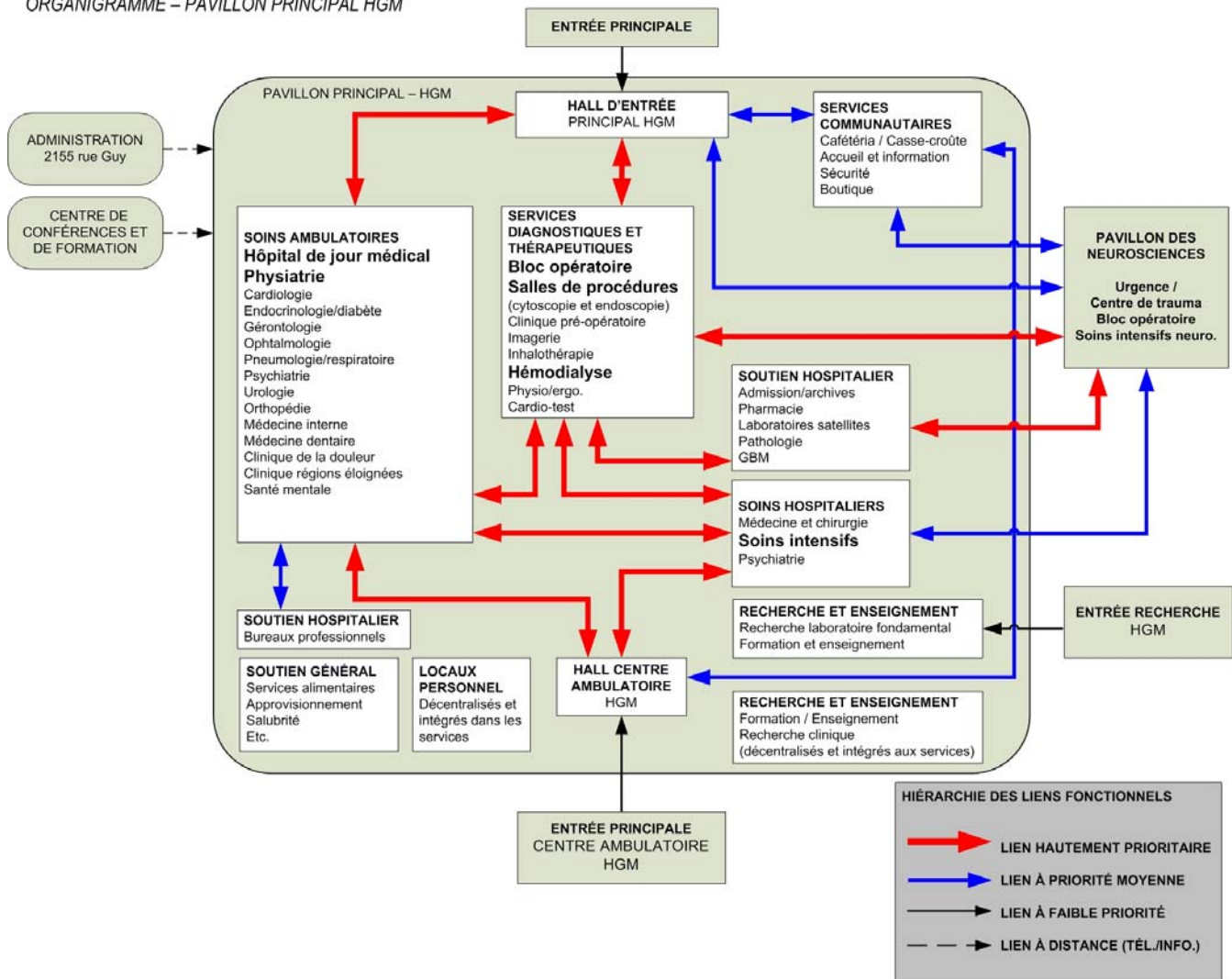
<b>Functional Unit</b>	<b>TNSM</b>	<b>DGSM</b>	<b>BGSM</b>
Mountain Campus - Inpatient Care	7,149	10,724	12,332
Neuro Pavilion - Inpatient Care	4,321	6,482	7,454
Mountain Campus - Ambulatory Services	2,618	3,927	4,516
Neuro Pavilion - Ambulatory Services	1,257	1,809	2,111
Mountain Campus - Diagnostic and Treatment	1,272	1,971	2,267
Neuro Pavilion - Diagnostic and Treatment	3,103	4,634	5,330
Mountain / Neuro - Clinical Support Services	775	1,047	1,204
Mountain Campus - General Support Services	926	1,296	1,490
Neuro Pavilion - Administration	535	749	861



4.4.4.1 MOUNTAIN CAMPUS

The following chart provides an overview of functional relationships at the Mountain Campus.

ORGANIGRAMME – PAVILLON PRINCIPAL HGM





**4.4.1.1 INPATIENT CARE**

**.1 ADULT SURGICAL/MEDICAL Units – PROTOTYPE**

The transformation of the Mountain Campus will take place in two manners: (1) redevelopment project, 2) capital investments.

A total of 332 beds are planned for the Mountain Campus (90 beds for the Neuro pavilion and 242 beds for the main pavilion). An overhaul of floors 13-16 is planned as part of the redevelopment project. Renovation work on the other floors (4, 9, 11 and 12) has already been completed (e.g. Intensive Care Unit on the 9th floor) or is ongoing, in accordance with the MUHC Capital Development Plan.

The table below illustrates the distribution of planned beds.

Floor	C	D	E	Notes
16	Geriatrics	Geriatrics	Geriatrics	28 beds + support spaces
15	Internal Medicine	Internal Medicine	General Internal Medicine	36 beds
14	General Surgery	General Surgery	General Surgery	36 beds
13	Orthopedic Surgery/Trauma	Orthopedic Surgery/Trauma	Orthopedic Surgery/Trauma	36 beds
12	Internal Medicine	Medicine/Surgery	Medicine/Surgery	21 beds Specialized support spaces and beds
11	Short-stay Unit	Coronary Critical Care Unit	Day hospital	19 beds
9	n/a	Medical/Surgical ICU	Medical/Surgical ICU	24 beds

Floor	A	B	Notes
4	Psychiatry	Psychiatry	42 beds



## SCOPE OF SERVICES

The medical/surgical inpatient care units provide continuing high quality care to general medical and surgical patients who require inpatient care or continuing observation and treatment and meet inpatient admission criteria.

### Hours of Operation

- 24/7, 365 days a year

### Typical Patient Care Unit Sizer

- Medicine/Surgery – 36 beds divided into three groups of 12 bed pods (care units on floors 13 and 15 will be renovated based on this 36-bed model).
- Geriatrics – 28 beds divided into two groups of 12 beds plus 4 beds, with specialized support areas.

### Single to Double Bed Ratio

- Medical/Surgical – 100% single
- Geriatrics – 100% single

### Percentage of negative-pressure rooms

- Medical/Surgical inpatient units – 10%

### Percentage of positive-pressure rooms

- One room per inpatient unit

## ORGANIZATION AND CONFIGURATION

### Guiding Principles

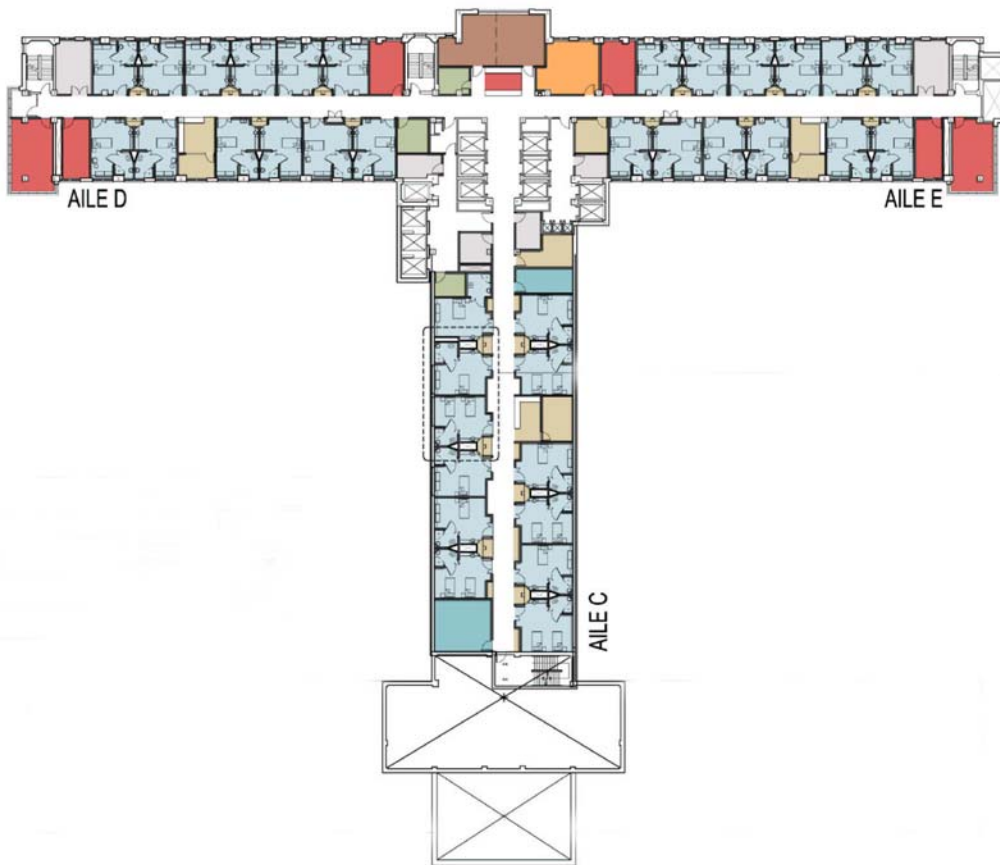
- 1) Providers will be as close to the patient as possible to prevent the isolation of patients.
- 2) Services/personnel supporting the providers will be located as close as possible to the providers, including information system access.
- 3) Charts/patient information, some supplies, and pharmaceuticals may be kept close to the patient room and not removed during the patient's stay.
- 4) Facilities and services will:
  - a) Be as flexible as possible to minimize patient transfers
  - b) Support the concept of multiple caregiver functions working as a single team
  - c) Support disease prevention and wellness
  - d) Minimize opportunities for medication/other errors
  - e) Accommodate families as much as possible and encourage patient/family independence
  - f) Support education and teaching of patients and family
  - g) Support staff training and continuing education



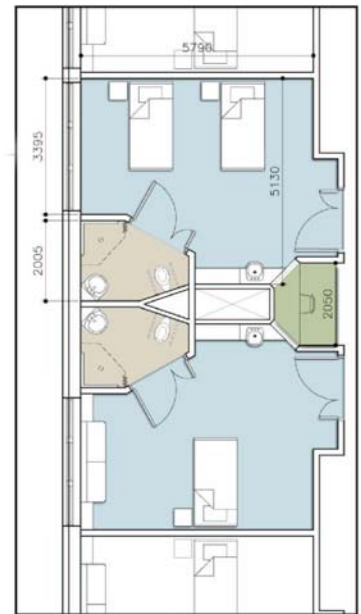


- h) Support the health professionals education mission and research mission of the MUHC
- i) Support a clean, quiet environment
- j) Support patient confidentiality

Diagram: C, D and E wings – Proposed inpatient unit layout



[D WING, E WING, C WING]



CHAMBRE TYPE - AILE C

[TYPICAL ROOM – C WING]



Inpatient Unit – Main Pavilion – Typical rooms layout proposed



Zone distincte

- travail personnel
- famille / patient

Accès

- dégagements pour aidant et fauteuil adapté
- dégagements recommandés par l'ASSTSAS

Visibilité

- personnel versus le patient
- famille versus le patient

Environnement

- vue pour le patient
- vue pour la famille

Distinct Zones for:

- staff
- patient and family

Access

- for care providers and wheelchairs
- based on ASSTSAS recommendations

Visibility

- staff → patient
- family → patient

Environment

- patient's view
- family's view





### Space Drivers

#### **Key Room Projections – Patient Beds and Rooms**

Medicine/Surgery – 36 rooms divided into three groups of 12 rooms. However, to meet transition plan requirements, two-bed rooms are planned in the future extension above the existing C wing. These double rooms will then be converted to larger single rooms able to accommodate family members as well as and sophisticated equipment. This organization of the care units:

- Meets the critical mass for the distribution of support equipment and materials
- Flexible nursing staffing model

#### **Prototypical Unit Staffing**

Obtaining approximate staffing levels will provide a basis for defining space requirements within the inpatient units. The unit has been conceived to support a range of nurse-to-patient ratios, depending upon specific patient mix, future redesign of the MUHC care model and potential future budget constraints.





**FUNCTIONAL AND OPERATIONAL GUIDELINES**

**FUNCTIONAL CONFIGURATION**

Supportive Space Element	Inside room Bedside	Outside the rooms (12 beds)	Group support (12 beds)	Care unit (36 beds)
Call Rooms f				1
Clean Utility			1	
Crash Cart Alcove (varies upon on unit configuration)				1
Consultation Room (multipurpose)			3	
Decentralized Caregiver support stations			3	
Dictation/work area (multipurpose)			3	
Education: storage				1
Education: workspace (multipurpose)				1
Film reading/PACs station (multipurpose)				1
Food Service Cart Alcove				1
Hand-washing Station	2	2 (corr.)	1 (station)	80
Housekeeping Closet				1
Linen Cart – Alcove			2	6
Major Equipment Storage (stretchers, wheelchairs, beds, etc.)				3
Material Cart area			1	3
Material Transport Station/Pneumatic Tube				3
Medication Room/Automated Dispensing			1	3
Monitoring station (specialty support space)				
Multipurpose/Family Consult/Report Room (20 persons)				1
Nourishment Area				1
Office, Head Nurse				1
Office, Clinical Pharmacist				
Office, Assistant Head Nurse				1
Office, Medical Director				
Office/Workspace, Clerical				



Supportive Space Element	Inside the room	Outside the rooms (6 beds)	Group support (12 beds)	Care unit (36 beds)
Office, Shared (Social Worker, Nutritionist, etc.)			1	3
Public Toilets				2
Secure Patient Storage Space	1			
Soiled Utilities			1	1
Staff Lockers				1
Staff Lounge				2
Staff Toilets				2
Toilet /Shower	1			36
Therapeutic Bath/Shower				2
Trash/Soiled Linen Chute Rooms				3
Unit Secretary				1
Working Collections (Reference Materials)				1

**PATIENTS/FAMILIES/VISITORS ARRIVAL AND WAYFINDING**

**RECEPTION, REGISTRATION AND WAITING**

- Patients and families amenities:
  - Snacks/nourishment available for family members
  - References/Health education resources (computer/internet, video, written materials)
  - Secure electronic access to computer-based patient records.
- All visitors coming to the patient care unit shall arrive at a central greeting/reception area prior to passing any patient care spaces. This area could be a separate reception area or at the central nursing station.
- Waiting areas will be made comfortable for families and visitors needing to leave the patient's room.

**PATIENT CARE AND DIRECT SUPPORT**

- Patient room changes/transfers will be minimized. The level of care will adapt to the acuity of the patient moving from “critical care step-down” to discharge level of care without changing room whenever possible. The design and capabilities of patient room will be flexible. This may include providing ventilator and telemetry capabilities in the general acute care rooms. Staffing adjustments will be required to meet the variable levels of care.
- Inboard toilets are preferred for patient rooms, but must be configured such that patient visibility from the entrance of the room is possible. It is essential that the head of the patient bed be easily visible from the doorway.
- Family members/caregivers will be provided an opportunity to “room in” with patients to support their care. Space has been provided for a “family zone” in each room.
- Patient/family services include:
  - Televisions with VCR/movies and games on demand
  - Radios/CD/tape players
  - Computer stations/laptop hook-up
  - Daybeds or rooming-in recliners provided for family members or other patient guests





- Storage for patient's belongings (e.g. closet, drawers with locks)
- Food service availability
- Telephones (at each bed)
- Caregiver support space will consist of a central communication space and decentralized stations that permit work and charting to occur closer to patient rooms.
- Handwashing stations will be located inside each patient room as well as centrally in each pod of 10-12 beds (one per caregiver support station and one per 6 beds).
- All materials in patient rooms and other patient care areas should be 6"-8" off the floor or easily moveable for cleaning purposes.
- Higher acuity patients will be located in the rooms directly across from the Caregiver Support Stations, therefore, additional visualization (e.g., inside windows) should be considered.
- Ostomy nurses require dedicated offices adjacent to an exam room with an interior-accessed toilet aggregated together on the inpatient units. These exam rooms will have storage space along one wall for ostomy bags, dressings, etc.

### **BUILDING SYSTEMS: LIGHTING, PLUMBING, HEATING AND VENTILATION**

- Each room will have its own heating and ventilation controls.
- There will be separate lighting zones for patients and caregivers so that lights may be turned on for patient care purposes without disturbing patients.
- Task-oriented lighting will be provided to enable procedures to be performed in patient rooms.

### **COMMUNICATIONS AND INFORMATION SYSTEMS**

- Information (e.g., patient demographics, orders, results, clinical documentation, etc.) will be input, transmitted, and retrieved electronically whenever possible, as information is made available online.
- Appropriate electronic information will be accessible through fixed and/or wireless devices in multiple locations, including the patient room, all caregiver workspaces, and at central clerical/support locations.
- Technology should enable staff to move freely while still having access to the required information and telecommunications systems (e.g., wireless telephone system access for the unit clerk to enable additional job functions to be performed while maintaining responsibility for answering phones).
- Each bed will have a nurse call system linked directly from the patient bed to the communication centre.
- Patient rooms should be wired to easily accommodate future technologies.
- Every patient room should have access to the Internet.
- Accommodations for the hearing impaired, such as TDD access, will be available in all patient rooms and on all TVs in lounges and waiting areas. Appropriate accommodations will also be made for the visually impaired.
- Attention will be paid to the securing patient information, especially as it relates to computers in patient rooms and on the patient care units.
- Until MUHC achieves a fully paperless environment, records available by hard copy only will be delivered to the unit by medical records staff as needed.

### **SUPPORT STAFF OFFICES**

- Care teams will meet in the inpatient units to discuss cases.
- Students and staff have easy access to reference materials on the unit.
- Non-caregiver support staff will be centrally located on the unit.
- Full size lockers for the storage of coats, boots, etc... will be located in/adjacent to the patient care units. Z lockers may be used for the most efficient use of space.





- Each clinical teaching unit (CTU) or other major patient care areas may have up to 20 students and should include the convenient access to the following:
  - Conference rooms with access to appropriate information systems.
    - One per 36 beds accommodating 16 people. This rooms should be “fully wired” for teaching aids, Internet access, multimedia projection, etc...
  - Storage space for teaching materials.
  - Three to four small teaching/interview rooms (accommodating 4-6 people). One room may need to include a one-way mirror in some specialty areas.
  - Alcoves in the hallways for charting that are out of the flow of traffic. These alcoves may have seating, but do not require doors.
  - Work areas for house staff and nursing students with access to appropriate information systems at the CTU central caregiver work area.
  - Small lockers for house staff valuables on the patient care units. Larger lockers for winter coats, boot, books, etc... can be located elsewhere, but preferably nearby.
  
- Patient rooms will be sufficiently large to accommodate 2-4 residents/students.

### **MATERIALS SUPPLY, LOGISTICS AND STORAGE**

- PatientTransport
  - Patients will be transported to and from other departments in the hospital by hospital transport staff.
  - Patient and staff elevators should provide easy access to the Critical Care and Acute Inpatient Units from the Emergency Department and the ORs/Procedure Centre.
  - Patient and public vertical transportation and access to the unit should be separated to the greatest degree possible.
  - Staff/Materials/Patient and public transportation should be separated.
  
- Materials,
  - Supplies and Linen
    - Equipment and linens must be kept on carts for each group of 12 beds.
  - General waste, recyclables, soiled linen, biohazardous waste and soiled supplies will be removed from the patient rooms by housekeeping to a staging area for disposal.
  - Food services personnel will deliver meal trays to the units in carts. An appropriate individual from the patient care team will distribute meals to the bedside. Trays will be returned to the cart by unit staff for pick-up by Food Service staff.
  - Equipment storage will be provided on the unit Central Sterile will pick-up soiled equipment and return the cleaned equipment to the unit.
  - Storage space for bedpans and related disposal equipment will be provided within each cluster (12 beds).
  - First-dose medications and narcotics will be available in automated dispensing units.
  - Under-counter storage for nurse pharmaceutical carts will also be provided.
  - Handwashing facilities will be located in the medication room.
  - A bar code based automated supply management, charge capture, and patient document tracking system should be investigated. Ideally, the system would utilize bar coding or some similar technology to identify patient, supply, (including medication) and printed forms or reports pertaining to the patient. Materials will move to and from the inpatient units on separate service elevators and corridors to the greatest degree possible.
  - Specialty beds will be stored in a central location at the base o the elevator tower for easy transport.





**SPECIAL EQUIPMENT/SPACE REQUIREMENTS**

Service	Space Requirement
Geriatrics	<ul style="list-style-type: none"><li>▪ Rehabilitation gymnasium</li><li>▪ ADL area- kitchen, bedroom, and bathroom (shared with Medicine)</li><li>▪ Office - Multidisciplinary</li><li>▪ Office - Rehabilitation</li><li>▪ Office - Clinical Research</li></ul>



**McGILL UNIVERSITY HEALTH CENTER SPACE TABLE  
APRIL 2008**

**Mountain Campus  
Mountain Campus - Inpatient Care**

Activity Zone	Room	Net*	#	Tnet*	F1*	DGSM*	F*	BGSM*	Notes
		<b>321</b>		<b>7,149</b>		<b>10,724</b>		<b>12,332</b>	<b>Group Total</b>
<b>4.4.4.1.1-01</b>	<b>Mountain Campus - Inpatient Unit - 36 beds modules (3)</b>					<b>8,183</b>		<b>9,411</b>	
<b>Staff Working Area</b>			<b>100</b>	<b>1,437</b>		<b>2,156</b>		<b>2,479</b>	<b>RDS #</b>
29100.09	Central Caregiver Station/Reception	12.5	3	37.5	1.500	56.3	1.150	64.7	
29100.10	Office Head Nurse	11.0	3	33.0	1.500	49.5	1.150	56.9	
29100.11	Office Assistant Head Nurse	10.3	3	30.9	1.500	46.4	1.150	53.3	
29100.12	Storage - Office supplies and files	10.3	3	30.9	1.500	46.4	1.150	53.3	includes PACS(3.6m2), and printer (3.7m2)
29100.13	Decentralized Caregiver Station Wing C	16.7	3	50.1	1.500	75.2	1.150	86.4	incl 3 pharmacy cabinets, 3 sinks, 3 PCs, 3 printers, 3 dictaphones
29100.14	Office	8.5	3	25.5	1.500	38.3	1.150	44.0	
29100.15	Multipurpose room	10.2	3	30.6	1.500	45.9	1.150	52.8	
29100.16	Decentralized Caregiver Station Wing D	19.0	3	57.0	1.500	85.5	1.150	98.3	
29100.17	Office	8.0	3	24.0	1.500	36.0	1.150	41.4	
29100.18	Multipurpose room	10.6	3	31.8	1.500	47.7	1.150	54.9	
29100.19	Decentralized Caregiver Station Wing E	15.6	3	46.8	1.500	70.2	1.150	80.7	
29100.20	Office	6.1	3	18.3	1.500	27.5	1.150	31.6	
29100.21	Multipurpose room	9.2	3	27.6	1.500	41.4	1.150	47.6	
29100.22	Multipurpose Room	32.0	3	96.0	1.500	144.0	1.150	165.6	
29100.23	Clean Utility Storage Room Wing C	15.4	3	46.2	1.500	69.3	1.150	79.7	
29100.24	Clean Utility Storage Room Wing D	12.7	3	38.1	1.500	57.2	1.150	65.7	
29100.25	Clean Utility Storage Room Wing E	13.4	3	40.2	1.500	60.3	1.150	69.3	
29100.26	Central Soiled Storage (Linen Chute)	9.1	3	27.3	1.500	41.0	1.150	47.1	
29100.27	Soiled Utility Storage Room Wing C	9.1	3	27.3	1.500	41.0	1.150	47.1	
29100.28	Soiled Utility Storage Room Wing D	4.9	3	14.7	1.500	22.1	1.150	25.4	
29100.29	Soiled Utility Storage Room Wing E	4.2	3	12.6	1.500	18.9	1.150	21.7	
29100.30	Bathroom	20.3	3	60.9	1.500	91.4	1.150	105.1	
29100.31	Shower	14.4	3	43.2	1.500	64.8	1.150	74.5	
29100.32	Cuisine	25.3	3	75.9	1.500	113.9	1.150	130.9	includes food cart 1/36 lits
29100.33	Crash Cart (1/36 beds)	1.4	3	4.2	1.500	6.3	1.150	7.2	
29100.34	Storage - Rolling Stock	26.0	3	78.0	1.500	117.0	1.150	134.6	
29100.35	Housekeeping Closet	8.7	3	26.1	1.500	39.2	1.150	45.0	
29100.36	Antichamber Elevator services - 1	24.8	3	74.4	1.500	111.6	1.150	128.3	

\*Légend: NET (Net surface area), # (number of rooms), T.NET (Total net surface area), SBS (departemental gross square meters), BGSM (building gross square meters)

F1= departemental gross surface area ratio, F=(F2\*F3)=building gross surface area ratio, F3 is non existant for the Mountain Campus

4/16/2008 MUHC Redevelopment Project - Revision of the Functional and Technical Program

Space Table Page 1 of 4

RDS = Room Data Sheet / Fiche technique

Activity Zone	Room	Net*	#	Tnet*	F1*	DGSM*	F*	BGSM*	Notes	RDS #
29100.37	Antichamber Elevator services - 2	29.5	3	88.5	1.500	132.8	1.150	152.7		
29100.38	Nurses Lounge	28.7	3	86.1	1.500	129.2	1.150	148.5		
29100.39	Staff Room	37.6	3	112.8	1.500	169.2	1.150	194.6	incl kitchen, table and toilet lockers	
29100.40	Unisex - Toilet - Handicapped	3.6	3	10.8	1.500	16.2	1.150	18.6	in corridor E	
29100.51	Storage - Recycling	7.5	4	30.0	1.500	45.0	1.150	51.8		
<b>Public Area</b>			<b>9</b>	<b>21</b>		<b>31</b>		<b>36</b>		<b>RDS #</b>
29100.01	Water Cooler	1.4	3	4.2	1.500	6.3	1.150	7.2	In centralized station sector	
29100.02	Public Phone - Alcove	0.9	3	2.7	1.500	4.1	1.150	4.7	In centralized station sector	
29100.03	Washroom	4.6	3	13.8	1.500	20.7	1.150	23.8	In centralized station sector	
<b>Teaching integrated to unit</b>			<b>9</b>	<b>344</b>		<b>515</b>		<b>593</b>		<b>RDS #</b>
29100.41	Teaching / Conference Room	49.5	3	148.5	1.500	222.8	1.150	256.2		
29100.45	Resident MDs Room - 4 PCs	57.0	3	171.0	1.500	256.5	1.150	295.0	incl kitchen, 4 computer station, shower, toilet	
29100.46	Office Teaching	8.0	3	24.0	1.500	36.0	1.150	41.4		
<b>Support Area</b>			<b>12</b>	<b>338</b>		<b>507</b>		<b>583</b>		<b>RDS #</b>
29100.47	Mechanical Room Wing D	49.2	3	147.6	1.500	221.4	1.150	254.6		
29100.48	Mechanical Room Wing E	48.0	3	144.0	1.500	216.0	1.150	248.4		
29100.49	Electrical Room	8.5	3	25.5	1.500	38.3	1.150	44.0		
29100.50	Telecom Room	7.0	3	21.0	1.500	31.5	1.150	36.2		
<b>Patient Treatment</b>			<b>114</b>	<b>3,316</b>		<b>4,974</b>		<b>5,720</b>		<b>RDS #</b>
29100.04	Patient Room/Private (D)	25.0	33	825.0	1.500	1,237.5	1.150	1,423.1	Renovation wings D and E, incl bathroom of 4.5 m2	
29100.05	Patient Room/Private (E)	25.0	39	975.0	1.500	1,462.5	1.150	1,681.9	Renovation wings D and E, incl bathroom of 4.5 m2	
29100.06	Patient Room/Private type C	33.9	36	1,220.4	1.500	1,830.6	1.150	2,105.2	Wing C expansion - temp double occ. incl bathroom of 3.6 m2	
29100.07	Family Room - Mountain Side	47.7	3	143.1	1.500	214.7	1.150	246.8		
29100.08	Family Room - City Side	50.8	3	152.4	1.500	228.6	1.150	262.9	Wing C expansion/incl circulation access issue	

\*Légend: NET (Net surface area), # (number of rooms), T.NET (Total net surface area), SBS (departemental gross square meters), BGSM (building gross square meters)

F1= departemental gross surface area ratio, F=(F2\*F3)=building gross surface area ratio, F3 is non existant for the Mountain Campus

4/16/2008 MUHC Redevelopment Project - Revision of the Functional and Technical Program

Space Table Page 2 of 4

RDS = Room Data Sheet / Fiche technique



Activity Zone	Room	Net*	#	Tnet*	F1*	DGSM*	F*	BGSM*	Notes
<b>4.4.4.1.1-02 Mountain Campus - Inpatient Unit - 28 bed module</b>									
			<b>77</b>	<b>1,694</b>		<b>2,540</b>		<b>2,921</b>	
<b>Staff Working Area</b>			<b>32</b>	<b>469</b>		<b>704</b>		<b>809</b>	<b>RDS #</b>
29200.09	Poste de soins central/accueil	12.5	1	12.5	1.500	18.8	1.150	21.6	
29200.10	Office Head Nurse	11.0	1	11.0	1.500	16.5	1.150	19.0	
29200.11	Office Assistant Head Nurse	10.3	1	10.3	1.500	15.5	1.150	17.8	
29200.12	Storage - Office supplies and files	10.3	1	10.3	1.500	15.5	1.150	17.8	includes PACS (3.6m2), and printer (3.7m2)
29200.13	Postes de soins décentralisés Aile C	16.7	1	16.7	1.500	25.1	1.150	28.8	incl 3 pharmacy cabinets, 3 sinks, 3 PCs, 3 printers, 3 dictaphones
29200.14	Office	8.5	1	8.5	1.500	12.8	1.150	14.7	
29200.15	Multipurpose room	10.2	1	10.2	1.500	15.3	1.150	17.6	
29200.16	Postes de soins décentralisés Aile D	19.0	1	19.0	1.500	28.5	1.150	32.8	
29200.17	Office	8.0	1	8.0	1.500	12.0	1.150	13.8	
29200.18	Multipurpose Room	10.6	1	10.6	1.500	15.9	1.150	18.3	
29200.19	Postes de soins décentralisés Aile E	15.6	1	15.6	1.500	23.4	1.150	26.9	
29200.20	Office	6.1	1	6.1	1.500	9.2	1.150	10.5	
29200.21	Multipurpose Room	9.2	1	9.2	1.500	13.8	1.150	15.9	
29200.22	Multipurpose Room	32.0	1	32.0	1.500	48.0	1.150	55.2	
29200.23	Clean Utility Storage Room Wing C	15.4	1	15.4	1.500	23.1	1.150	26.6	
29200.24	Clean Utility Storage Room Wing D	12.7	1	12.7	1.500	19.1	1.150	21.9	
29200.25	Clean Utility Storage Room Wing E	13.4	1	13.4	1.500	20.1	1.150	23.1	
29200.26	Central Soiled Storage (Linen Chute)	9.1	1	9.1	1.500	13.7	1.150	15.7	
29200.27	Soiled Utility Storage Room Wing C	9.1	1	9.1	1.500	13.7	1.150	15.7	
29200.28	Soiled Utility Storage Room Wing D	4.9	1	4.9	1.500	7.4	1.150	8.5	
29200.29	Soiled Utility Storage Room Wing E	4.2	1	4.2	1.500	6.3	1.150	7.2	
29200.30	Bathroom	20.3	1	20.3	1.500	30.5	1.150	35.0	
29200.31	Shower	14.4	1	14.4	1.500	21.6	1.150	24.8	
29200.32	Cuisine	25.3	1	25.3	1.500	38.0	1.150	43.6	includes food cart 1/36 beds
29200.33	Chariot urgence médicale (1/36 lits)	1.4	1	1.4	1.500	2.1	1.150	2.4	
29200.34	Storage - Rolling Stock	26.0	1	26.0	1.500	39.0	1.150	44.9	
29200.35	Housekeeping Closet	8.7	1	8.7	1.500	13.1	1.150	15.0	
29200.36	Antichamber Elevator services - 1	24.8	1	24.8	1.500	37.2	1.150	42.8	
29200.37	Antichamber Elevator services - 2	29.5	1	29.5	1.500	44.3	1.150	50.9	
29200.38	Nurses Lounge	28.7	1	28.7	1.500	43.1	1.150	49.5	
29200.39	Staff Room	37.6	1	37.6	1.500	56.4	1.150	64.9	incl kitchen, table and washroom, lockers in corridor E
29200.40	Unisex - Toilet - Handicapped	3.6	1	3.6	1.500	5.4	1.150	6.2	
<b>Public Area</b>			<b>3</b>	<b>7</b>		<b>10</b>		<b>12</b>	<b>RDS #</b>
29200.01	Water Cooler	1.4	1	1.4	1.500	2.1	1.150	2.4	centralized station sector
29200.02	Public Phone - Alcove	0.9	1	0.9	1.500	1.4	1.150	1.6	centralized station sector
29200.03	Washroom	4.6	1	4.6	1.500	6.9	1.150	7.9	centralized station sector

\*Légend: NET (Net surface area), # (number of rooms), T.NET (Total net surface area), SBS (departemental gross square meters), BGSM (building gross square meters)

F1= departemental gross surface area ratio, F=(F2\*F3)=building gross surface area ratio, F3 is non existant for the Mountain Campus

4/16/2008 MUHC Redevelopment Project - Revision of the Functional and Technical Program

Space Table Page 3 of 4

RDS = Room Data Sheet / Fiche technique

Activity Zone	Room	Net*	#	Tnet*	F1*	DGSM*	F*	BGSM*	Notes	RDS #
<b>Teaching integrated to unit</b>			<b>3</b>	<b>115</b>		<b>172</b>		<b>198</b>		
29200.41	Teaching / Conference Room	49.5	1	49.5	1.500	74.3	1.150	85.4		
29200.45	Resident MDs Room - 4 PCs	57.0	1	57.0	1.500	85.5	1.150	98.3	incl kitchen, 4 computer station, shower, toilet	
29200.46	Office Teaching	8.0	1	8.0	1.500	12.0	1.150	13.8		
<b>Support Area</b>			<b>4</b>	<b>113</b>		<b>169</b>		<b>194</b>		
29200.47	Mechanical Room Wing D	49.2	1	49.2	1.500	73.8	1.150	84.9		
29200.48	Mechanical Room Wing E	48.0	1	48.0	1.500	72.0	1.150	82.8		
29200.49	Electric Room	8.5	1	8.5	1.500	12.8	1.150	14.7		
29200.50	Telecom Room	7.0	1	7.0	1.500	10.5	1.150	12.1		
<b>Specialised Support Area</b>			<b>5</b>	<b>85</b>		<b>128</b>		<b>147</b>		
29200.51	Gymnasium	30.0	1	30.0	1.500	45.0	1.150	51.8		
29200.52	Normal Living Zone	28.0	1	28.0	1.500	42.0	1.150	48.3		
29200.53	Office - Rehabilitation	9.0	1	9.0	1.500	13.5	1.150	15.5		
29200.54	Office - Multidisciplinary	9.0	1	9.0	1.500	13.5	1.150	15.5		
29200.55	Office - Clinical Research	9.0	1	9.0	1.500	13.5	1.150	15.5		
<b>Patient Treatment</b>			<b>30</b>	<b>905</b>		<b>1,358</b>		<b>1,562</b>		
29200.04	Patient Room/Private type A (D+E North) incl Bathroom/Shower	25.0	12	300.0	1.500	450.0	1.150	517.5	Wing D renovation, incl bathroom/shower	
29200.05	Patient Room/Private type B (D+E South) incl Bathroom/Shower	25.0	4	100.0	1.500	150.0	1.150	172.5	Wing E renovation, incl bathroom/shower	
29200.06	Patient Room/Private type C (C) incl Bathroom/Shower	33.9	12	406.8	1.500	610.2	1.150	701.7	Wing C expansion - temp double occ. incl bathroom and shower	
29200.07	Family Room - Mountain Side	47.7	1	47.7	1.500	71.6	1.150	82.3		
29200.08	Family Room - City Side	50.8	1	50.8	1.500	76.2	1.150	87.6	Wing C expansion /incl circulation	

\*Légend: NET (Net surface area), # (number of rooms), T.NET (Total net surface area), SBS (departemental gross square meters), BGSM (building gross square meters)

F1= departemental gross surface area ratio, F=(F2\*F3)=building gross surface area ratio, F3 is non existant for the Mountain Campus

4/16/2008 MUHC Redevelopment Project - Revision of the Functional and Technical Program

Space Table Page 4 of 4

RDS = Room Data Sheet / Fiche technique



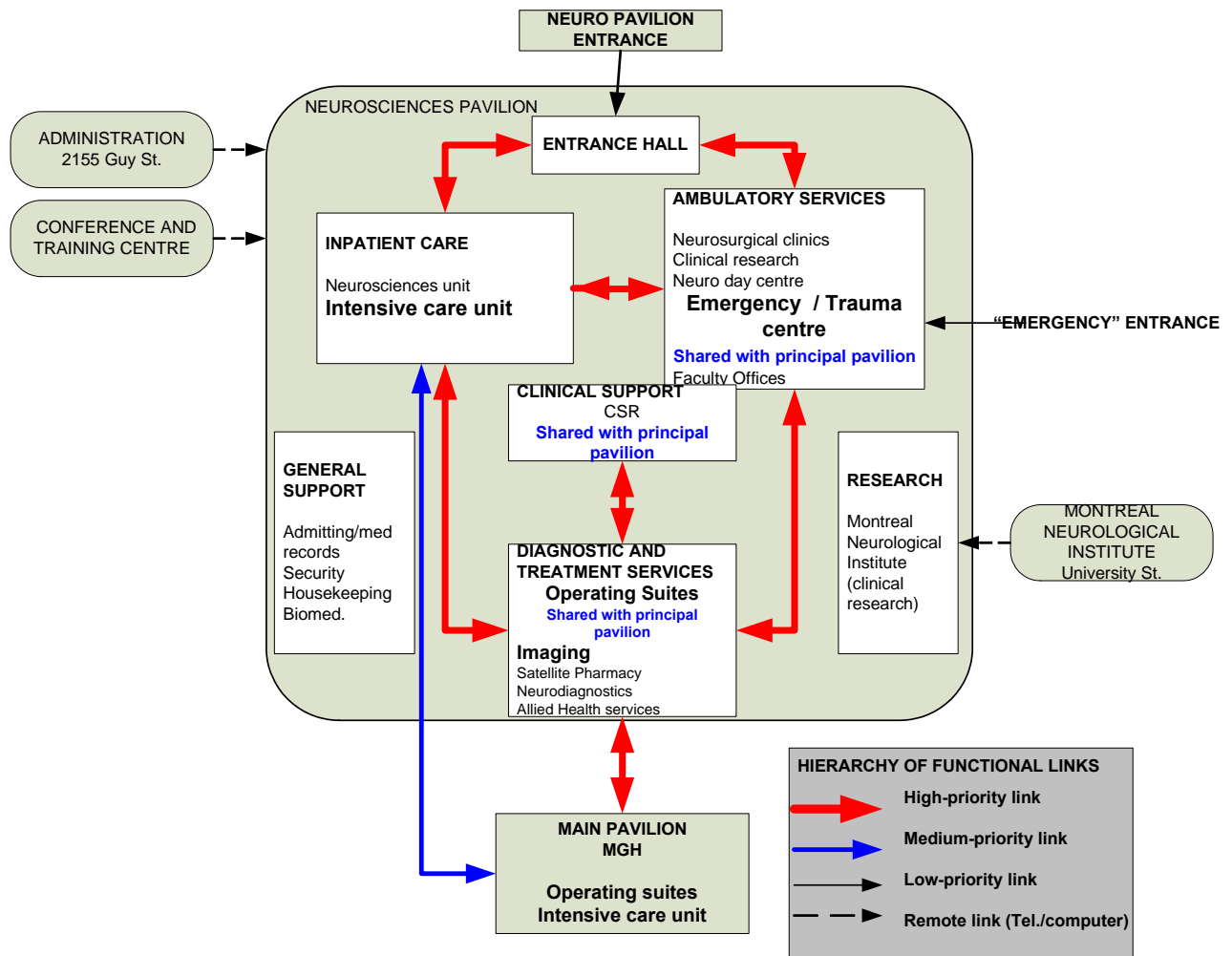
# MUHC REDEVELOPMENT PROJECT

## MOUNTAIN CAMPUS | INPATIENT SERVICES

### 4.4.4.2 MOUNTAIN CAMPUS – NEW BUILDING

#### INTRODUCTION

*SCHEMATIC – NEUROSCIENCES PAVILION*



The Montreal Neurological Institute and Hospital boasts an international reputation for excellence and innovation. The MUHC plans to integrate into its Mountain Campus mission some of the activities of the Montreal Neurological Institute and Hospital, and thereby consolidate its offer of complete care and services. The addition of this major component will result in the construction of a new pavilion along the eastern border of the campus. It will also present an opportunity to overhaul the entire campus structure, as well as construct modern technical platforms free of the constraints and limitations imposed by the dimensions and characteristics of the existing buildings on campus.

It is important to note that the implementation of the MUHC’s ED/trauma centre on the Mountain Campus sets the size criteria for the new technical platform and, accordingly, the dimensions for the base of the new pavilion. This base must be connected to the E wing of the main pavilion in such a way as to provide



access to the related functions in the pavilion and throughout the department. This approach also allows for certain support services to be located in the base.

The planning guidelines are to:

- Implement the MNH's preferred pavilion strategy and create a dedicated entrance.
- Ensure the strong presence and visibility of the Montreal Neurological Institute and Hospital.
- Establish a synergy with the existing campus.
- Take advantage of the new pavilion to create work partnerships and to integrate the new Mountain Campus technical platforms into the base.
- Ensure the operating suites/ED on the Mountain Campus have a direct functional link between the existing buildings and the new pavilion, in order to meet the ED surface area requirements and to take advantage of the benefits of the new operating room facilities located on the 8th floor.

One of the solutions is to:

Create a new home for the Montreal Neurological Institute and Hospital, while maintaining its link to the rest of the campus through both the atrium and the functional links to floors 5, 6, 7, 8 and 9.

Main components of the new technical platforms:

- Neuro-diagnostic services
- Neuro medical imaging
- Neuro operating suite (6 rooms): 5 for major surgeries, 1 for minor surgeries
- General operating suite (8 rooms, serving the existing building): 6 general rooms and 2 ultra-specialized rooms
- Emergency department and Trauma centre – Mountain Campus
- Central sterilization reprocessing services
- Clinical support services

Programming for the **Emergency department** meets the same planning criteria as for the Glen Campus, and the new MSSS standards. As mentioned previously, the decision to integrate the ED within the base of the new pavilion will enable the development of more flexible infrastructures (due to the square design of the base) and structural designs. The Emergency department will serve the entire Mountain Campus, including the existing buildings and the new pavilion.

Neurosciences **ambulatory services** will be located on the 7th floor and will be directly linked to the pavilion's entrance lobby, so as to facilitate user access and orientation.

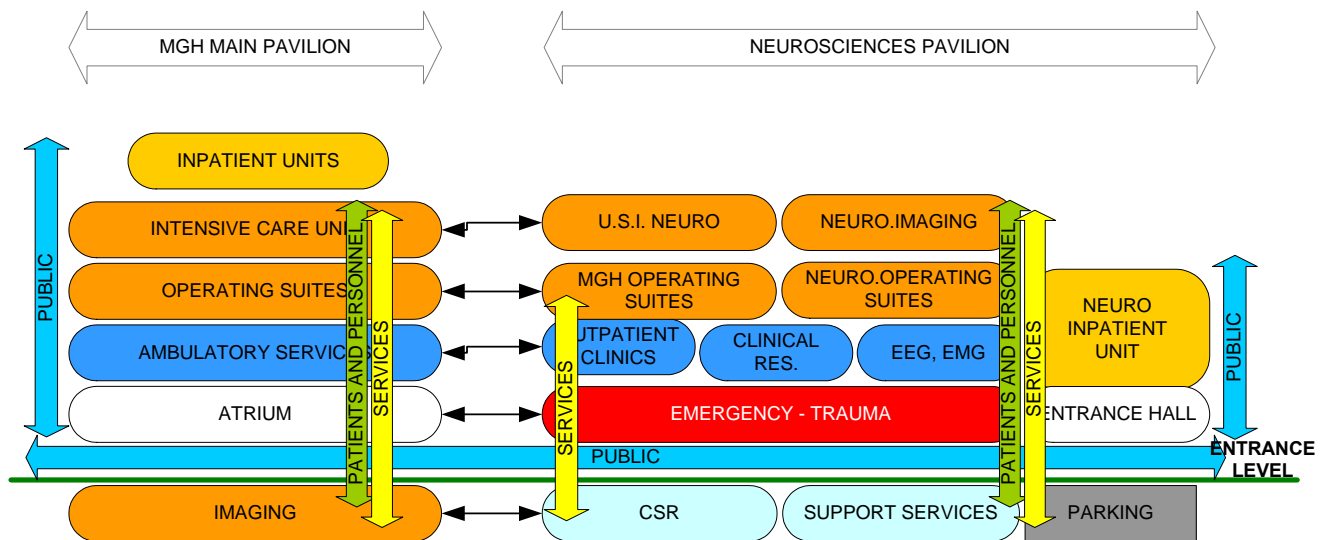
Note that the new building will have two separate **operating suites**. The first will be developed within the existing functional continuity of the main pavilion, thereby completing the recently built facilities, and the second will be dedicated more specifically to Neurosurgery. Both these suites will be served by a central sterilization reprocessing service.

Programming for the **inpatient unit** is based on the same organizing principles as the proposed expansion of the main pavilion and the plans for the units on the Glen Campus. However, and in accordance with the MNH's mission, 3 units of 26 beds, including a reception area for the rehabilitation facilities, are being planned (instead of the current 36-bed care units). This structure is more in line with the clinical programming/structure sought by the various Neurosciences healthcare workers. A 12-bed unit is also being planned for the Neuro ICU.

**Clinical Research** is an important component of the organization.



## MOUNTAIN CAMPUS INPATIENT SERVICES



### .1 Inpatient care

#### NEUROLOGICAL/NEUROSURGICAL CARE FOR ADULTS – PROTOTYPE

##### SCOPE OF SERVICES

The medical/surgical inpatient care units provide continuous quality care for adult Neurology/Neurosurgery patients who require observation/treatment and meet admission criteria.

The medical/surgical inpatient units will be served by the clinical research unit (ambulatory area) where patients enrolled in clinical research protocols can receive continuous care.

The inpatient unit also includes sleep laboratories for inpatients and ambulatory patients (in EEG), and the necessary support area.

- Work schedule
  - 24/7, 365 days/year
- Size of a typical inpatient unit
  - Neurology/Neurosurgery – 3 units of 26 beds
  - Meets the critical mass for the distribution of support materials and equipment
  - Flexible nursing staffing model
- Proportion of single beds – 100%
- Proportion of negative-pressure rooms – 10%

##### GUIDING PRINCIPLES

- Care providers will be located as close as possible to patients to prevent patient isolation.
- Staff and care provider support services, including computer systems, will be located as close as possible to the workers.
- Patient files and other patient information, certain supplies and drugs can be stored near the patient's room until the patient is discharged.



- Facilities and services will have the following characteristics:
  - Be as flexible as possible to minimize patient transfers
  - Support the concept of multiple roles for care providers working in teams
  - Support disease prevention and wellness
  - Minimize the risk of drug errors or other errors
  - Make the families feel as welcome as possible, and facilitate the independence of patients and their families
  - Support training and information for patients and families
  - Support continuing training and education for staff
  - Support the teaching and research (clinical, in relation to fundamental research) mission of the MUHC's healthcare professionals
  - Ensure a clean and calm environment
  - Ensure patient confidentiality

### Current and projected beds

Field/Service	Current	Projected
3NE Epilepsy (Monitoring), Acute Care	20	18
3S Neurology, CVA	15	8
4S Neurosurgery	27	26
MGH 14th Neurotrauma, CVA	35	26
ICU	8	12
<b>TOTAL</b>	<b>105</b>	<b>90</b>

### Key room projections – Beds and rooms

Neurology/Neurosurgery – 3 units of 26 beds

- Meets the critical mass for the distribution of support materials and equipment
- Flexible nursing staffing model

### Typical staff per unit

- The approximate composition of the staff will help define spatial needs within the inpatient units. The units are designed to support a certain number of nurse/patient ratios, based on the specific distribution of patients, the new design of the MUHC care model and future budget constraints.



**FUNCTIONAL AND OPERATIONAL GUIDELINES**

Support rooms	Inside the rooms	Outside the rooms (5-6 beds)	Group support (10-12 beds)	Care unit (26 beds)	Multi-floor support
Rooms for on-call staff				√	
Data entry computer (between 2 rooms or outside each room)		√			
Clean utility			√		
Area for crash carts (depending on unit configuration)				√	√
Consultation room (multipurpose)			√		
Decentralized support stations for care providers			√		
Dictation/work area (multipurpose)			√		
Education: storage				√	
Education: work area (multipurpose)			√		
Medical image viewing station (multipurpose)				√	
Food cart area				√	
Sink	√				
Housekeeping closet				√	
Isolation anti-room (if required)	√				
Linen cart area			√		
Large equipment storage (stretchers, wheelchairs, beds, etc.)				√	
Supply cart area		√			
Supply transport station/pneumatic tube				√	
Medication rooms/automated dispensary			√		
Monitoring station (specialized support area)				√	
Multipurpose/family consultation/report room				√	
Food area				√	
Office, nurse manager				√	
Office, clinical pharmacist				√	



MOUNTAIN CAMPUS |  
NEURO PAVILION

Support rooms	Inside the rooms	Outside the rooms (5-6 beds)	Support group (10-12 beds)	Care unit (26 beds)	Multi-floor support
Office, assistant head nurse				√	
Office, medical director				√	
Office/workstation, staff				√	
Patient/family support	√				
Waiting room/cafeteria				√	
Public washrooms			√		
Research support				√	
Storage for patient's personal effects	√				
Soiled materials drop-off			√		
Staff lockers				√ (large lockers)	
Staff lounge				√	
Staff washrooms			√		
Supplies (daily/basic)	√				
Supplies (routine/special)			√	√	
Washroom/shower	√				
Rooms for soiled linen/waste			√		
Unit secretary				√	
Work documents (reference materials)					√







## ARRIVAL AND WAYFINDING OF PATIENTS, FAMILIES AND VISITORS

- An easy-to-understand signage and way finding system will be used.

## RECEPTION, ADMISSION AND WAITING AREAS

- Services for patients and families:
  - Snacks/food available for families
  - Health-related information and references (computer/Internet, video, printouts)
  - Secure electronic access to patient files
- All visitors arrive at the inpatient unit from a waiting room/central reception area before proceeding to the care areas. This room can be a separate reception room or be located at the central nursing station.
- Waiting rooms will be sufficiently comfortable for families and visitors who cannot stay in the patients' rooms.
- The multipurpose consultation room will include couches and chairs instead of a large conference table, to accommodate anxious families who need peace and quiet. Tables will also be available.

## PATIENT CARE AND DIRECT SUPPORT

- Room changes and transfers will be minimized. The type of care will be adapted to the acuity of the patient's condition (from "highly critical" to "authorized for discharge") without, insofar as possible, changing rooms. Room design and infrastructure will be flexible. For example, regular rooms could include a ventilator and telemetry equipment. Staffing adjustments will be necessary to provide the various types of care required.
- Rooms will be equipped with washrooms, but designed so that the patient is otherwise visible from the entrance to the room. The head of the bed must also be visible from the entrance.
- Family members or caregivers can sleep in the patient's room in order to participate in the patient's care. Each room will include a family area.
- Services for patients and families include:
  - Televisions with DVD/movies and games on request
  - Radios/CD and cassette players
  - Computer terminals/outlets for laptops
  - Daybeds or recliners for family members or other guests
  - Storage for patients' personal effects (e.g. closet, drawers with locks)
  - Meal service
  - Telephones (at each bed)
- The care provider support area will feature a central communication post and satellite stations, enabling work to be done as close as possible to the rooms.
- Sinks will be installed in each patient room.
- For housekeeping purposes, all equipment in the rooms and care areas must be 6-8 inches off the ground or be easily moveable.
- Isolation rooms will be located and designed to accommodate Nuclear Medicine patients who present a risk of radioactive contamination for the other patients (e.g. rooms isolated from surrounding rooms, easy to clean and decontaminate).
- Electrophysiological and visual monitoring of epileptic patients is essential.
- Neuropsychological tests will be performed in patient rooms whenever possible.
- Telemetry monitoring (EEG) will be available in areas reserved for families, in common rooms, TV lounges and the dining room so as to promote mobility and socialization.
- Two rooms must be equipped to serve as sleep laboratory rooms. These rooms must be located in EEG for ambulatory patients.



### **BUILDING SYSTEMS: LIGHTING, PLUMBING, HEATING AND VENTILATION**

- Each room will have its own heating and ventilation controls.
- Separate lighting areas are planned for patients and care providers to ensure light for the care provider without disturbing the patient.
- The Traumatic Brain Injury unit must be equipped with door locks for patient safety.
- Lighting must allow staff to perform procedures in the rooms.

### **COMMUNICATIONS AND INFORMATION SYSTEMS**

- Insofar as it is available online, all information (patient's contact information, instructions, results, clinical information, etc.) will be entered, transmitted and retrieved electronically.
- Relevant electronic information will be accessible through portable or fixed machines, at several locations, including the patient's room, care providers' workstations, and central and administrative support stations.
- The technology must allow staff to move about while maintaining access to information and the telecommunications systems (e.g. access to a cordless telephone for the unit manager, allowing him/her to perform certain activities without losing telephone reception).
- Each bed will be equipped with a nurse call system connected to the communications centre.
- Rooms must include the wiring necessary for emerging leading-edge technologies.
- Internet access must be available in each room.
- Assistance for hearing impaired patients, such as TDD, will be available in all rooms and on all televisions in the rest and waiting areas. Assistance for visually impaired patients is also being planned.
- Confidentiality of patient information will be ensured, especially on computers in patient rooms and in the inpatient units.
- Diagrammatic instructions regarding the IT system will be distributed at the first meeting. Refer to Task Force 5 reports for more information.
- While waiting for the MUHC to be completely computerized, paper reports will be provided to the unit only by Medical Records staff, as needed.

### **SUPPORT STAFF ROOMS**

- Care provider teams will meet in the inpatient units to discuss cases.
- Students and staff have easy access to reference documents in the unit.
- Non-care provider support staff will be centralized on the unit.
- Lockers for coats, boots, etc. will be located near or inside the inpatient units. To maximize the use of space, lockers laid out in a Z formation can be used.
- Each clinical teaching unit and all other major patient treatment areas can accommodate up to 20 students and must provide easy access to the following rooms:
  - Meeting room with appropriate computer access for 20-30 people for group sessions, morning reports, ad hoc meetings and teaching sessions, etc. This room must be fully equipped with the connections needed for teaching equipment, Internet access, multimedia projections, etc.
  - Storage room for teaching materials.
  - Alcoves in the hallways for performing data entry without disturbing circulation. These alcoves may include a seat but do not require a door.
  - Work areas for regular staff and nursing students with access to appropriate computer systems in the central care providers' work area on the clinical teaching units.
  - On-call duty rooms for residents and students who meet the conditions of the residents' collective agreement regarding staffing, washrooms, etc. (2 on-call duty rooms per clinical teaching unit).
  - Small lockers for personal items on the inpatient units. Large lockers for winter coats, boots, books, etc. can be located elsewhere, preferably nearby.
- Patient rooms will be sufficiently large to accommodate 2-4 residents/students for teaching purposes.



## MATERIALS SUPPLIES, LOGISTICS AND STORAGE

- **Patient transfers**
  - A hospital team will oversee patient transfers between the different units.
  - Elevators for patients and staff must allow easy access to Intensive Care and the acute care units from Emergency and the interventional platform, including the operating suite.
  - Insofar as possible, patient and visitor elevators must be separate.
  - Staff, material and patient flow must be separate from that of visitor flow.
  
- **Materials, logistics and storage**
  - Equipment and linens must be kept on carts for each 13-bed module.
  - Waste, recyclable materials, soiled linens, hazardous biological waste and soiled supplies must be removed from the rooms by housekeeping staff and taken to a transit area for disposal.
  - Food services staff will deliver meal trays to the units on carts. A member of the care team will distribute the meals to the rooms. Used trays will be removed and placed on carts by the unit staff and returned to food services staff.
  - Equipment will be stored on the unit. Central sterilization reprocessing services will take soiled instruments and return cleaned instruments to the unit.
  - A storage space for basins and other disposable materials will be planned for each 13-bed module.
  - First-dose narcotics and drugs will be available in automated drug dispensing units.
  - Under-counter storage space will be planned for pharmaceutical carts.
  - Sinks will be installed in the medication room.
  - An automated barcode-based management system for supplies, admissions data entry and patient documentation tracking must be planned. Ideally, this system would use barcodes or similar technology to identify patients, supplies (including medications) and patient-related forms/reports. Insofar as possible, separate service elevators and corridors will be used to receive and return supplies.





## SPECIALIZED ROOMS AND EQUIPMENT

Service	Rooms required	Size (m <sup>2</sup> n)
Epilepsy	Private rooms with monitored beds	23.2
EEG/EMG	Test rooms	20.4
Neurology, strokes	Private rooms	23.2
Surgery	Private rooms and transition beds	23.2
Neuro-trauma	Private rooms	23.2
Intensive Care	Private rooms	23.2

### Adjacencies required

Note: The list of key adjacencies below is not exhaustive; it can be completed in the future.

- The Traumatic Brain Injury services must be located near the Trauma unit.
- Vascular services must be adjacent/easily accessible to Radiology., in the event satellite services are not available.
- Epilepsy patients must have easy access to Nuclear Medicine.
- The epilepsy inpatient and ambulatory services must be adjacent.
- Telemetry and ambulatory EEG services must share the space with inpatient services and must be located near the Neurology units.



## .2 INTENSIVE CARE UNIT

### SCOPE OF SERVICES

The ICU provides constant observation, treatment and specialized nursing care to adult patients with a potentially life-threatening neurological condition.

**Schedule:** 24/7, 365 days/year

#### Size of a typical intensive care unit

- ICU – 12 beds divided into 12 single rooms
  - Meets the critical mass required for the distribution of support materials and equipment
  - Flexible nursing staffing model

**Proportion of single rooms** – 100 %

#### Proportion of negative-pressure rooms

- Most rooms in the ICU will have negative-pressure capacity
- A negative-pressure room will be planned for each ICU to protect staff and meet occupational health and safety standards for using nitrogen monoxide

### GUIDELINES

- Care providers will be located as close as possible to the patients to prevent patient isolation.
- Staff and care provider support services, including computer systems, will be located as close as possible to the care providers.
- Patient files and other patient information, as well as certain supplies and drugs can be stored near the patient's room until the patient is discharged.
- Facilities and services will have the following characteristics:
  - Be as flexible as possible to minimize patient transfers
  - Support the concept of multiple roles for care providers working in teams
  - Support disease prevention and wellness
  - Minimize the risk of drug errors and other errors
  - Make the families feel as welcome as possible, and facilitate the autonomy of patients and their families
  - Support training and information for patients and families
  - Support continuing training and education of staff
  - Support the teaching and research (clinical, in relation to basic research) mission of the MNH's health professionals
  - Ensure a clean and calm environment
  - Ensure patient confidentiality



## SPACE DRIVERS

### Estimate of room requirements – patient rooms and beds

- ICU – 12 beds distributed in 12 single rooms
  - Meets the critical mass required for the distribution of support materials and equipment
  - Flexible nursing staffing model

### ICU staff

- Estimated staffing needs enable the determination of spatial needs for inpatient units. The unit's design takes into account a certain nurse/patient ratio, based on the grouping of certain patients, changes made to the MUHC's care unit model and possible related budget constraints.

## FUNCTIONAL AND OPERATIONAL GUIDELINES

### FUNCTIONAL CONFIGURATION

Support rooms	Inside the rooms	Outside the rooms (6 beds)	Care unit (12 beds)
Decentralized support stations for care providers		√	
Computer for updating files	√		
Storage and preparation room for sterile materials (easily accessible from all beds)			√
Alcove for crash carts		√ (medical/surgical)	
Dictation/work area (multipurpose)			√
Work area for teaching (multipurpose)		√	
Consultation room for families (accommodates 10 people)			√
Family room			√
PACS workstation (multipurpose)			√
Alcove for food services carts			√
Sink area	√	√	√
Closet for housekeeping services			√
Isolation anti-chamber (if applicable)	√		
Alcove for linen cart			√
Alcove for equipment cart		√	
Material transport station/pneumatic tube			√
Medication room/automated dispensary system			√
Monitoring station		√ (epilepsy)	√
Multipurpose/family consultation/report writing room			√
Snack area			√
Nurses' lounge (2 per unit)			√
Office, head nurse			√
Patient/family support rooms	√		
Phlebotomy	√		
Onsite tests		√	
Reception area			√
Research support			√



Support rooms	Inside the rooms	Outside the rooms (6 beds)	Care unit (12 beds)
Drop-off for soiled materials (easily accessible from the beds)			√
Specialized treatments (PT/dialysis/others)			√
Staff washrooms			√
Supplies (per day/basic)	√		
Supplies (routine/special)		√	√
Blood gas	√		
Unit secretary			√

## ARRIVAL AND WAYFINDING OF PATIENTS, FAMILIES AND VISITORS

### RECEPTION, ADMISSION AND WAITING AREAS

- Reception facilities for patients and families:
  - Family and visitor relaxation area with television, couches, etc.
  - Snacks for families (microwave supplied)
  - Health-related information and references (computerized files, videos, printouts)
  - Lockers in which staff members can store their personal items before going to the unit
  - Comfortable consultation room that can accommodate approximately 10 people
  - Secure area for electronic patient files
  - Rest areas for families
- Visitors heading to the ICU or an inpatient unit must first go through the reception area, which will be set up at the care providers' central support station.
- Furthermore, families will have access to a sink area, located at the entrance to each unit.

### PATIENT CARE AND DIRECT SUPPORT

- Movement of patients within the ICU will be minimized. Examinations and treatments will be conducted, insofar as possible, at the patient's bedside.
- An alcove with seats for families will be set up in patients' rooms.
- Extended family members will be divided between the relaxation area, waiting area and lounges.
- Patient/family services include:
  - Televisions with DVD/movies and games on request
  - Radios/CDs and cassette players
  - Computer terminals/outlets for laptops
  - Daybeds or recliners for family members or other guests
  - Storage for patients' personal items
  - Meal service
- Some rooms will be equipped with a glass wall to allow staff to monitor patients. In compliance with code, negative and positive pressures will be taken into account. Curtains and blinds will be made available to patients wanting privacy.
- In compliance with the new code, it will be impossible to self-regulate negative and positive pressures.
- Every effort will be made to minimize the compulsory transfer of patients.
- Every effort will be made to ensure care providers can observe patients from their support station.
- All patient rooms should get direct sunlight.
- Areas reserved for patient care will be set up in a comforting environment. Art therapy will also help create the desired atmosphere.
- Noise reduction, or even sound insulation, should also be considered (e.g. insulating the ice machine).



- All intensive care rooms will be designed to ensure that hemodialysis can be done in the room and that continuous venovenous hemodialysis equipment can be installed.
- ICUs will be connected to alarm-monitoring stations, to which different specialties will assign specific uses. The use of visual alerts will help minimize noise.
- Sink areas will be available inside each patient room and at the centre of groups of beds.
- For housekeeping purposes, all equipment in the rooms and care areas must be 6-8 in. off the ground or be easily moveable.

### **BUILDING SYSTEMS: LIGHTING, ELECTRICITY, PLUMBING, HEATING AND VENTILATION**

- Patient rooms must be equipped with lighting systems and switches for echocardiograms, x-rays and other examinations.

### **COMMUNICATIONS AND INFORMATION SYSTEMS**

- Insofar as it is available online, all information (patient's contact information, care instructions, results, clinical information, etc.) will be entered, transmitted and retrieved electronically.
- Relevant electronic information will be accessible through portable or fixed machines, at several locations, including the patient's room, care providers' workstations, and central and administrative support stations.
- The technology must allow staff to move about while maintaining access to information and the telecommunications systems (e.g. access to a cordless telephone for the unit manager, allowing him/her to perform certain activities without losing telephone reception).
- Each bed will be equipped with a nurse call system connected to the communications centre.
- Rooms must include the wiring necessary for new leading-edge technologies.
- Internet access must be available in each room.
- Assistance for hearing impaired patients, such as TDD, will be available in all rooms and on all televisions in the lounges and waiting areas. Assistance for visually impaired patients is also being planned.
- Confidentiality of information will be ensured, especially on computers in patient rooms and in the patient care units.
- While waiting for the MUHC to be completely computerized, paper reports will be provided to the unit only by Medical Records staff, as needed.

### **SUPPORT STAFF ROOMS**

- Healthcare teams meet in the inpatient units to discuss cases.
- Students and staff have easy access to reference documents in the unit.
- Non-care provider support staff will be centralized in the unit.
- Lockers for coats, boots, etc. will be located near the patient care units. To maximize use of space, lockers laid out in a Z formation can be used.

### **MATERIALS SUPPLIES, LOGISTICS AND STORAGE**

- **Patient transfers**
  - A hospital team will handle patient transfers between the different units.
  - Elevators for patients and staff must allow easy access to the Intensive Care and inpatient units from Emergency and the interventional platform, including the operating rooms.
  - Insofar as possible, patient and visitor elevators must be separate.
  - Staff, material and patient circulation must be separate from that of visitor circulation.
- **Materials, logistics and storage**
  - Equipment and linens must be kept on carts in each module.







- Waste, recyclable materials, soiled linens, hazardous biological waste and soiled supplies must be removed from the rooms by housekeeping staff and taken to a transit area for disposal.
- Food services staff will deliver meal trays to the units on carts. A member of the care team will distribute the meals to the rooms. Used trays will be removed and placed on carts by the unit staff and returned to the food services staff.
- Equipment will be stored on the unit. Central sterilization reprocessing services will take soiled equipment and return cleaned equipment to the unit.
- A storage space for basins and other disposable materials will be planned for each specialized ICU sector.
- First-dose medication and drugs will be available in automated drug dispensing units.
- Under-counter storage space will be planned for pharmaceutical carts.
- Sinks will be installed in the medication room.
- An automated barcode-based management system for supplies, admissions data entry and patient documentation tracking must be planned. Ideally, this system would use barcodes or similar technology to identify patients, supplies (including medications) and patient-related forms/reports. Insofar as possible, separate service elevators and corridors will be used to receive and return supplies.
- In order to be sterilized, calibrated and then stored, ventilators (and other similar equipment) must be stored in rooms reserved for soiled materials and for sterilized equipment, respectively. These facilities will require oxygen, medical gases, etc.
- Nitrogen monoxide cylinders, auxiliary equipment and heliox cylinders should be stored within the ICU, specifically in tank in a negative-pressure storage room. The Commission de santé et de la sécurité au travail (CSST) will be responsible for making the appropriate recommendations.

### SPECIFIC ROOMS AND EQUIPMENT

Orbital arms will be used rather than wall systems or power columns. Each one could include oxygen (4) and air (4) connections, as well as suction systems (8).

Services	Spatial needs
Medicine/Surgery	Storage space for rehabilitation
ICU	Storage space for rehabilitation Radiology room

- Each storage space for respiratory therapy (sterilized and soiled materials) will be equipped with 3 air connections, 3 oxygen connections, 8 plugs and 2 suction systems. In addition, each space will include a sink for the sterilization and calibration of all mechanical ventilators.

### ADJACENCIES REQUIRED

- Note: The list of key adjacencies below is non-exhaustive and will be completed in the future.
- Respiratory therapy must be located near the ICU (either on the same floor or adjacent).
- The satellite pharmacy must be set up in an area adjacent to the ICU to facilitate access.
- A CT-scanner will be installed nearby to minimize the transfer of ICU inpatients.
- The ICU must be set up near the fluoroscopy rooms located in the diagnosis and treatment areas.



**McGILL UNIVERSITY HEALTH CENTER SPACE TABLE  
APRIL 2008**

**Mountain Campus  
Neuro Pavilion - Inpatient Care**

Activity Zone	Room	Net*	#	Tnet*	F1*	DGSM*	F*	BGSM*	Notes
		<b>293</b>		<b>4,321</b>		<b>6,482</b>		<b>7,454</b>	<b>Group Total</b>
<b>4.4.4.2.1.1-01</b>	<b>Neuro - Epilepsy Unit (Incl. Monitored Beds Shared with Neuro/Stroke)</b>		<b>84</b>	<b>1,077</b>		<b>1,616</b>		<b>1,859</b>	
<b>Teaching</b>			<b>6</b>	<b>91</b>		<b>136</b>		<b>157</b>	<b>RDS #</b>
21100.28	Conference - Multimedia Room (15)	30.0	1	30.0	1.500	45.0	1.150	51.7	
21110.19	Intern's Workroom	9.0	4	36.0	1.500	54.0	1.150	62.1	
21110.20	Conference Room (10)	25.0	1	25.0	1.500	37.5	1.150	43.1	
<b>Research</b>			<b>3</b>	<b>27</b>		<b>41</b>		<b>47</b>	<b>RDS #</b>
21100.29	Office - EEG	9.0	3	27.0	1.500	40.5	1.150	46.6	
<b>Inpatient Unit</b>			<b>75</b>	<b>959</b>		<b>1,439</b>		<b>1,655</b>	<b>RDS #</b>
21100.01	Private Room With Shower / Tub	25.0	16	400.0	1.500	600.0	1.150	690.0	
21100.02	Clean Room Utility	11.3	4	45.3	1.500	68.0	1.150	78.2	
21100.03	Dirty Room Utility	15.4	4	61.7	1.500	92.5	1.150	106.4	
21100.04	Office	9.3	8	74.3	1.500	111.5	1.150	128.2	Head Nurse, Ass. Head Nurse, NE Epilepsy & Epilepsy Coord., CNS, EEG MD workroom, 3 Neuropsych
21100.05	Workstation - Secretary	3.7	2	7.4	1.500	11.1	1.150	12.8	
21100.06	Computer Viewing Room	7.0	4	28.0	1.500	41.9	1.150	48.2	
21100.07	PACS	9.0	1	9.0	1.500	13.5	1.150	15.5	
21100.08	Bathroom	18.6	2	37.2	1.500	55.7	1.150	64.1	
21100.09	Public Toilet	4.0	2	8.0	1.500	12.0	1.150	13.8	
21100.10	Family Lounge	15.0	2	30.0	1.500	45.0	1.150	51.8	
21100.11	Family Consult Room	15.0	1	15.0	1.500	22.5	1.150	25.9	
21100.12	Kitchenette for Family	11.0	1	11.0	1.500	16.5	1.150	19.0	
21100.13	Nursing Station Satellite (2)	3.7	2	7.4	1.500	11.1	1.150	12.8	
21100.14	Nursing Station (8)	25.0	1	25.0	1.500	37.5	1.150	43.1	
21100.15	Medication Room	7.5	2	15.0	1.500	22.5	1.150	25.9	
21100.16	Staff Lockers (Men)	7.0	1	7.0	1.500	10.5	1.150	12.1	
21100.17	Staff Lockers (Women)	14.0	1	14.0	1.500	21.0	1.150	24.2	
21100.18	On Call Room	15.0	1	15.0	1.500	22.5	1.150	25.9	
21100.19	Kitchenette	11.0	1	11.0	1.500	16.5	1.150	19.0	
21100.20	Staff Lounge	15.0	1	15.0	1.500	22.5	1.150	25.9	
21100.21	Staff Toilet	4.0	2	8.0	1.500	12.0	1.150	13.8	
21100.22	Rolling Material Storage	22.0	1	22.0	1.500	33.0	1.150	37.9	
21100.23	Respiratory Therapy Storage	8.0	1	8.0	1.500	12.0	1.150	13.8	
21100.24	Linen - Alcove	3.0	4	12.0	1.500	18.0	1.150	20.7	

\*Légend: NET (Net surface area), # (number of rooms), T.NET (Total net surface area), SBS (departemental gross square meters), BGSM (building gross square meters)

F1= departemental gross surface area ratio, F=(F2\*F3)=building gross surface area ratio, F3 is non existant for the Mountain Campus

4/16/2008 MUHC Redevelopment Project - Revision of the Functional and Technical Program

Space Table Page 1 of 4

RDS = Room Data Sheet / Fiche technique

Activity Zone	Room	Net*	#	Tnet*	F1*	DGSM*	F*	BGSM*	Notes
21100.25	Cart - Alcove	3.0	4	12.0	1.500	18.0	1.150	20.7	
21100.26	Sterilization Storage	10.0	2	20.0	1.500	30.0	1.150	34.5	
21100.27	Storage Room	10.3	4	41.2	1.500	61.9	1.150	71.2	
<b>4.4.4.2.1.1-02 Neurology Incl. Stroke (Shared with Epilepsy Unit)</b>			<b>19</b>	<b>309</b>		<b>463</b>		<b>532</b>	
<b>Inpatient Unit</b>			<b>19</b>	<b>309</b>		<b>463</b>		<b>532</b>	<b>RDS #</b>
21200.01	Private Room with Shower/Tub	25.0	7	175.0	1.500	262.5	1.150	301.9	
21200.02	Office	9.3	2	18.6	1.500	27.9	1.150	32.1	
21200.03	Office - CNS	9.3	1	9.3	1.500	14.0	1.150	16.0	
21200.04	Isolation Room	25.0	3	75.0	1.500	112.5	1.150	129.4	
21200.05	Isolation Ante Room	7.0	3	21.0	1.500	31.5	1.150	36.2	
21200.06	Isolation Toilet	3.3	3	9.8	1.500	14.6	1.150	16.8	
<b>4.4.4.2.1.1-03 Neurosurgery Incl. Intermediate Care Unit</b>			<b>70</b>	<b>1,100</b>		<b>1,650</b>		<b>1,898</b>	
<b>Inpatient Unit</b>			<b>70</b>	<b>1,100</b>		<b>1,650</b>		<b>1,898</b>	<b>RDS #</b>
21300.01	Private Room whit shower / tub	25.0	23	575.0	1.500	862.5	1.150	991.9	
21300.02	Clean Room Utility	11.3	3	33.9	1.500	50.9	1.150	58.5	
21300.03	Dirty Room Utility	15.4	3	46.2	1.500	69.3	1.150	79.7	
21300.04	Office	9.3	4	37.2	1.500	55.8	1.150	64.2	Nursing Educator, Head Nurse, 2 AHN shared, & CNS
21300.05	Med. CSR, Room	15.0	2	30.0	1.500	45.0	1.150	51.8	
21300.06	Bathroom	18.6	2	37.2	1.500	55.8	1.150	64.2	
21300.07	Family Lounge	15.0	1	15.0	1.500	22.5	1.150	25.9	
21300.08	Family Consult Room	15.0	1	15.0	1.500	22.5	1.150	25.9	
21300.09	Kitchenette For Family	11.0	1	11.0	1.500	16.5	1.150	19.0	
21300.10	Public Toilet	4.0	2	8.0	1.500	12.0	1.150	13.8	
21300.11	Isolation Room	25.0	3	75.0	1.500	112.5	1.150	129.4	
21300.12	Isolation Ante Room	7.0	3	21.0	1.500	31.5	1.150	36.2	
21300.13	Isolation Toilet	3.3	3	9.8	1.500	14.6	1.150	16.8	
21300.14	Conference/Multimedia (15)	20.4	1	20.4	1.500	30.6	1.150	35.2	
21300.15	Nursing Station Satellite (2)	3.7	2	7.4	1.500	11.1	1.150	12.8	
21300.16	Nursing Station (8)	25.0	1	25.0	1.500	37.5	1.150	43.1	
21300.17	Medication Room	11.0	1	11.0	1.500	16.5	1.150	19.0	
21300.18	Staff Lockers (Men)	7.0	1	7.0	1.500	10.5	1.150	12.1	
21300.19	Staff Lockers (Women)	14.0	1	14.0	1.500	21.0	1.150	24.2	
21300.20	On Call Room	15.0	1	15.0	1.500	22.5	1.150	25.9	
21300.21	Kitchenette	11.0	1	11.0	1.500	16.5	1.150	19.0	
21300.22	Staff Lounge	15.0	1	15.0	1.500	22.5	1.150	25.9	
21300.23	Staff Toilet	4.0	2	8.0	1.500	12.0	1.150	13.8	
21300.24	Rolling Material Storage	22.0	1	22.0	1.500	33.0	1.150	38.0	
21300.25	Respiratory Therapy Storage	8.0	1	8.0	1.500	12.0	1.150	13.8	
21300.26	Linen - Alcove	3.0	2	6.0	1.500	9.0	1.150	10.4	
21300.27	Cart - Alcove	3.0	2	6.0	1.500	9.0	1.150	10.4	
21300.28	Sterilization Storage	10.0	1	10.0	1.500	15.0	1.150	17.3	

\*Légend: NET (Net surface area), # (number of rooms), T.NET (Total net surface area), SBS (departemental gross square meters), BGSM (building gross square meters)

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RDS = Room Data Sheet / Fiche technique

Activity Zone	Room	Net*	#	Tnet*	F1*	DGSM*	F*	BGSM*	Notes
<b>4.4.4.2.1.1-04 Neuro - Trauma and Stroke</b>			<b>73</b>	<b>1,124</b>		<b>1,687</b>		<b>1,940</b>	
<b>Inpatient Unit</b>			<b>73</b>	<b>1,124</b>		<b>1,687</b>		<b>1,940</b>	<b>RDS #</b>
21400.01	Private Room With Shower / Tub	25.0	23	575.0	1.500	862.5	1.150	991.9	
21400.02	Clean Room Utility	11.3	4	45.2	1.500	67.8	1.150	78.0	
21400.03	Dirty Room Utility	15.4	4	61.6	1.500	92.4	1.150	106.3	
21400.04	Office	9.3	4	37.2	1.500	55.8	1.150	64.2	
21400.05	Bathroom	18.6	2	37.2	1.500	55.8	1.150	64.2	
21400.06	Family Consult Room	15.0	1	15.0	1.500	22.5	1.150	25.9	
21400.07	Staff Toilet	4.0	3	12.0	1.500	18.0	1.150	20.7	
21400.08	Public Toilet	4.0	2	8.0	1.500	12.0	1.150	13.8	
21400.09	Family Lounge	15.0	1	15.0	1.500	22.5	1.150	25.9	
21400.10	Kitchenette For Family	11.0	1	11.0	1.500	16.5	1.150	19.0	
21400.11	Nursing Station satellite (2)	3.7	2	7.4	1.500	11.1	1.150	12.8	
21400.12	Nursing Station (8)	25.0	1	25.0	1.500	37.5	1.150	43.1	
21400.13	Medication Room	11.0	2	22.0	1.500	33.0	1.150	38.0	
21400.14	Staff Lockers (Men)	7.0	1	7.0	1.500	10.5	1.150	12.1	
21400.15	Staff Lockers (Women)	14.0	1	14.0	1.500	21.0	1.150	24.2	
21400.16	Kitchenette	11.0	1	11.0	1.500	16.5	1.150	19.0	
21400.17	Staff Lounge	15.0	1	15.0	1.500	22.5	1.150	25.9	
21400.18	Sleep Room for staff	9.0	1	9.0	1.500	13.5	1.150	15.5	
21400.19	Sleep Room for staff	9.0	1	9.0	1.500	13.5	1.150	15.5	
21400.20	Rolling Material Storage	22.0	1	22.0	1.500	33.0	1.150	38.0	
21400.21	Respiratory Therapy Storage	8.0	1	8.0	1.500	12.0	1.150	13.8	
21400.22	Linen - Alcove	3.0	2	6.0	1.500	9.0	1.150	10.4	
21400.23	Cart - Alcove	3.0	2	6.0	1.500	9.0	1.150	10.4	
21400.24	Sterilization Storage	10.0	1	10.0	1.500	15.0	1.150	17.3	
21400.25	Conference/Multimedia (15)	30.0	1	30.0	1.500	45.0	1.150	51.8	
21400.26	Isolation Room	25.0	3	75.0	1.500	112.5	1.150	129.4	
21400.27	Isolation Ante Room	7.0	3	21.0	1.500	31.5	1.150	36.2	
21400.28	Isolation Toilet	3.3	3	9.8	1.500	14.6	1.150	16.8	

\*Légend: NET (Net surface area), # (number of rooms), T.NET (Total net surface area), SBS (departemental gross square meters), BGSM (building gross square meters)

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RDS = Room Data Sheet / Fiche technique

Activity Zone	Room	Net*	#	Tnet*	F1*	DGSM*	F*	BGSM*	Notes
<b>4.4.4.2.1.2</b>	<b>Neuro - Intensive Care Unit</b>		<b>47</b>	<b>711</b>		<b>1,066</b>		<b>1,226</b>	
<b>Clinic Administrator</b>			<b>6</b>	<b>67</b>		<b>100</b>		<b>115</b>	<b>RDS #</b>
21500.17	Office - Head Nurse	9.3	1	9.3	1.500	14.0	1.150	16.0	
21500.18	Office - Assistant Head Nurse	9.3	1	9.3	1.500	14.0	1.150	16.0	
21500.19	Office - CNS	9.3	1	9.3	1.500	14.0	1.150	16.0	
21500.20	Assistant Administrator Office	9.3	1	9.3	1.500	14.0	1.150	16.0	
21500.21	Conference/Multimedia Room (10)	20.4	1	20.4	1.500	30.6	1.150	35.2	
21500.22	Intern's Office	9.3	1	9.3	1.500	14.0	1.150	16.0	
<b>Reception</b>			<b>3</b>	<b>17</b>		<b>26</b>		<b>29</b>	<b>RDS #</b>
21500.01	Reception (integ. to nursing station)	11.0	1	11.0	1.500	16.5	1.150	19.0	
21500.02	Pneumatic Tube	1.5	1	1.5	1.500	2.3	1.150	2.6	
21500.03	Public Toilet	4.5	1	4.5	1.500	6.8	1.150	7.8	
<b>Intensive Care Unit 12 beds</b>			<b>24</b>	<b>474</b>		<b>711</b>		<b>818</b>	<b>RDS #</b>
21500.04	Universal 1 Bedroom	28.5	12	342.0	1.500	513.0	1.150	590.0	Includes Universal Access Washrooms
21500.05	Nursing Station (10)	40.0	1	40.0	1.500	60.0	1.150	69.0	
21500.06	Alcove - crash cart	1.0	1	1.0	1.500	1.5	1.150	1.7	
21500.07	Oncall Room	12.0	1	12.0	1.500	18.0	1.150	20.7	
21500.08	Medication Room	12.0	1	12.0	1.500	18.0	1.150	20.7	
21500.09	Clean Room Utility	9.0	1	9.0	1.500	13.5	1.150	15.5	
21500.10	Dirty Room Utility	9.0	1	9.0	1.500	13.5	1.150	15.5	
21500.11	Linen Room	8.0	1	8.0	1.500	12.0	1.150	13.8	
21500.12	Storage	5.0	1	5.0	1.500	7.5	1.150	8.6	
21500.13	Rolling Stock Storage	12.5	1	12.5	1.500	18.8	1.150	21.6	
21500.14	Staff Toilet	2.5	1	2.5	1.500	3.8	1.150	4.3	
21500.15	Staff Lockers (Men)	7.0	1	7.0	1.500	10.5	1.150	12.1	
21500.16	Staff Lockers (Women)	14.0	1	14.0	1.500	21.0	1.150	24.2	
<b>Support Space</b>			<b>9</b>	<b>111</b>		<b>167</b>		<b>191</b>	<b>RDS #</b>
21500.23	Respiratory Therapy Room	15.0	1	15.0	1.500	22.5	1.150	25.9	
21500.24	Respiratory Therapy Storage	15.0	1	15.0	1.500	22.5	1.150	25.9	
21500.25	Procedure Room	11.0	1	11.0	1.500	16.5	1.150	19.0	
21500.26	PACS Room	11.0	1	11.0	1.500	16.5	1.150	19.0	
21500.27	Stat Lab	11.0	1	11.0	1.500	16.5	1.150	19.0	
21500.28	Bathroom (Therapeutic)	20.0	1	20.0	1.500	30.0	1.150	34.5	
21500.29	Equipment Storage	8.0	1	8.0	1.500	12.0	1.150	13.8	
21500.30	Medical Imaging Device Storage	8.0	1	8.0	1.500	12.0	1.150	13.8	
21500.31	Storage	12.0	1	12.0	1.500	18.0	1.150	20.7	
<b>Staff Suite</b>			<b>5</b>	<b>42</b>		<b>63</b>		<b>72</b>	<b>RDS #</b>
21500.32	Staff Lounge	18.0	1	18.0	1.500	27.0	1.150	31.1	
21500.33	Staff toilet	2.5	1	2.5	1.500	3.8	1.150	4.3	
21500.34	Sleeping Room for staff	9.0	1	9.0	1.500	13.5	1.150	15.5	
21500.35	Staff Lockers	5.0	1	5.0	1.500	7.5	1.150	8.6	
21500.36	Kitchenette	7.5	1	7.5	1.500	11.3	1.150	12.9	

\*Légend: NET (Net surface area), # (number of rooms), T.NET (Total net surface area), SBS (departemental gross square meters), BGSM (building gross square meters)

F1= departemental gross surface area ratio, F=(F2\*F3)=building gross surface area ratio, F3 is non existant for the Mountain Campus

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Space Table Page 4 of 4

RDS = Room Data Sheet / Fiche technique



**4.4.4.2.2 AMBULATORY SERVICES**

**.1 NEUROSURGERY CLINICS/NEURO DAY CENTRE**

**OVERVIEW**

Each department is described in detail below. Approximately two groups of exam rooms will be required for clinics in this specialty. The expected volume of visits and the need for exam rooms are indicated below. The additional space requirements for the clinical research unit and the day hospital are described in the space table (in the section provided for this purpose).

**CLINICS**

Specialty	Visits projected for 2010-2015	Projected number of exam/treatment rooms
<b>Neurology and neurosurgery</b>	<b>9,874</b>	<b>21</b>
Neuro-trauma	2,083	3
Neurosurgery	5,035	6
Day Centre	2,756	12

**SCOPE OF SERVICES**

The Neurosciences clinics determine and provide the diagnostic/treatment services to adult patients with chronic neurological disorders who require assessment and continuous management and/or surgery. The type of clinics, number of clinics (half-days) and projected staff are as follows:

- Chronic pain and back problems (2 physicians every day) (this clinic will be part of the MGH's Chronic Pain Program—no space is planned for this clinic in the new building).
- Neurosurgery (11 physicians to cover 2.5 clinics/week in several services, particularly vascular, spinal cord, peripheral nerve, epilepsy and functional neurosurgery, and who need 6 exam rooms).
- Neuro Day Centre (12 treatment rooms, 10 sessions/week)
- Neuro-trauma (2 physicians requiring 3 examination rooms)

In most clinics, services are provided by multidisciplinary teams comprised of physicians, Clinical Nurse Specialists and other health professionals such as physiotherapists, occupational therapists, speech language pathologists, respiratory therapists, dietitians, psychologists and social workers, according to the needs of the patient population.

The multidisciplinary professionals working at the clinic only on specific days, e.g. physiotherapists, occupational therapists, social workers, speech language pathologists, will use the planned consultation rooms/space and space within the team work room. Residents will also use this team work room during clinics.

Research is an integral part of the ambulatory clinical activities, and many patients participate in clinical trials (see Clinical Research Unit section below). The Clinical

Research Unit currently provides services to approximately 2,200 patients per year. This volume should increase in future, as a result of the increasing number of professionals and industry-sponsored studies. Research visits normally entail 4-5 hours of examinations and tests. Tests are usually performed in the exam room, but can also take place in specially designated rooms.

### **CHARACTERISTICS AND SPECIAL NEEDS**

- All areas must be adequately equipped and designed to accommodate patients with mobility problems.
- One procedure room per module is required for nerve blocks and other minor surgeries.

### **KEY ADJACENCIES**

- Neuro Day Centre and Clinical Research Unit (module)
- Rehabilitation services
- Phlebotomy

### **OPERATIONAL GUIDELINES**

- Two exam rooms per physician are recommended.
- Patient movements vary according to the clinic. Normally, one or more physicians and a nurse see the patient in the exam room. In many clinics, residents and fellows also participate in the examination.
- Visits, particularly in the multidisciplinary clinics, are longer (at least one hour) and can last up to 3-5 hours. Specialized nurse-clinicians actively participate in patient education at the beginning and during follow-up visits; nurses in the medical/surgical clinics receive 20-30 calls/day from patients.

## **CLINICAL RESEARCH UNIT**

### **SCOPE OF SERVICES**

The Clinical Research Unit (CRU) participates in the design, execution, interpretation and communication of clinical research studies. A satellite clinical research unit will be located on the Mountain Campus, where CRU staff will conduct clinical trials. Furthermore, many clinicians coordinate their own clinical research, which is not currently included in the statistics but will be integrated in the CRU in the future. A major expansion of the clinical research program is expected, particularly with respect to industry-sponsored studies.

Research nurses and coordinators are often in contact with the patients to encourage them to participate in a study, and to conduct functional studies and follow-ups; accordingly, it is essential that this unit be located close to the ambulatory clinics and the Neuro Day Centre.

The Clinical Research Unit supports the clinical research efforts of the MNI, by coordinating patient participation in clinical research studies, and ensuring appropriate documentation of studies and compliance with regulations. The activities include patient records management for the duration of each research project; compliance with reporting requirements and regulations; patient interviews and preparation of findings; management of supplies and medications related to the clinical trials; and the collection, processing and storage of specimens.



### **Operational guidelines**

The Clinical Research Unit will accommodate administration and patient treatment functions. Most of the staff work areas are cubicles with partitions providing visual and acoustic privacy. This type of configuration promotes the effective use of space, while taking into account staff fluctuations that could occur following changes in the number and scope of research projects.

### **Characteristics/special requirements**

In addition to work areas for staff, spaces must be planned for storage and for project auditors. Dense storage is required in this sector, for protocols and other research documents. Security and patient confidentiality must be taken into account during the storage of files and throughout the unit.

### **Key adjacencies**

- Neurosurgery ambulatory clinics
- Neuro Day Centre

## **NEURO DAY CENTRE**

Intravenous therapies for patients with neuromuscular diseases and multiple sclerosis will be performed at the Neuro Day Centre, as well as the monitoring/follow-up of patients who have undergone a lumbar puncture, muscle/nerve biopsy or any other procedure. The day centre will also accommodate clinical and drug trials. Drugs will be ordered weekly, and some will be prepared on the unit.

## **CHARACTERISTICS AND SPECIALIZED NEEDS**

Twelve treatment areas are required. Two must be private rooms, and the others must be semi-private; there must also be three partitioned units that can be monitored from the care providers' workstation.

The additional needs include:

- Consultation room for teaching patients and families
- Procedure room
- Staff workstations
- Office for one Clinical Nurse Specialist

## **KEY ADJACENCIES**

- Neurosurgery clinics
- Rehabilitation services
- Phlebotomy
- Clinical Research Unit

## **.2 EMERGENCY**





## SCOPE OF SERVICES

The adult Emergency Department (adult ED) on the Mountain Campus will provide a full range of services, 24/7, to adult patients seeking the following care:

- **Emergency Care** – Unscheduled assessment and treatment of patients with acute and/or potentially life-threatening or limb-threatening conditions that require immediate attention and medical decision-making (e.g., traumatic injuries, severe or sudden onset illnesses).
- **Urgent Care** – Unscheduled assessment and treatment of patients with non-life threatening conditions.
- **Emergency Behavioural Care** – Requiring isolation or detoxification while awaiting hospital admission or the decision that admission is not necessary.
- **Hazardous Material Exposure** – Decontamination following chemical products or other hazardous substances, and post-intoxication stabilization.

The Emergency Department will serve the entire Mountain Campus, including the existing building and the new building.

The ED on the Mountain Campus will develop expertise dictated in part by the campus's mission, i.e. trauma, neurosciences, orthopedic surgery and mental health.

Special attention will be paid to planning in order to meet the needs of elderly patients.

Patients under age 18 will receive emergency treatment in the pediatric Emergency Department (pediatric ED), located next to the adult Emergency Department on the Glen site.

On entering the ED, all patients will be triaged according to the Canadian Triage and Acuity Scale (CTAS) used by Emergency departments, as follows:

- I Trauma and Resuscitation – Immediate attention – 4 areas (including at least 1 negative pressure area)
- II Very urgent – To be seen within 15 minutes
- III Urgent – To be seen within 30 minutes
- IV Less urgent – To be seen within 60 minutes
- V Non-urgent – To be seen within 120 minutes

Certain patients may be fast-tracked to accelerate their treatment and discharge. These are patients who do not require an in-depth medical examination or intervention (e.g. prescriptions, quick treatment and evaluation, and short follow-up visits).

A heated, sheltered (garage-type) entrance will be built for the arrival of ambulatory patients.

A heated, sheltered parking area will be built for ambulances to drop off patients. After taking the patients into Emergency, ambulances can park in a nearby parking lot so that staff can complete the formalities with the patient. The drop-off area will therefore be vacated for another ambulance. Ideally, the Emergency department ambulance parking lot should be separate from that intended for receiving, transporting or transferring



patients requiring non-emergency admission, laboratory tests or treatment, and those being discharged.

A Short Stay Unit (SSU) will be set up in the inpatient units (main building) to facilitate short-stay admissions, and will cater to adult patients requiring nursing support or a procedure lasting an average of 48 hours.

## ORGANIZATION AND CONFIGURATION

The MSSS completed the new Guide de gestion de l'urgence (emergency management guide) in September 2006. This guide aims to optimize facilities based on new realities. Various remodeling and expansion projects currently underway apply these new recommendations in whole or in part.

This review is motivated mainly by a concern for controlling infections. As such, waiting rooms will be partitioned and stretchers separated to better control risks of contagion. The impacts on programming mostly concern the planning principles and certain spaces that have been adjusted based on this new approach.

The FTP takes into account the Cadre de reference normatif (November 2006) and the Guide de performance CHU, proposed by the CHQ, in cooperation with the MSSS.

### Key adjacencies

- The key adjacencies (at street level or with rapid elevator access) will be the following:
  - Intensive Care Units
  - Surgery
  - Coronary Care Unit
  - Short Stay Unit (SSU)
  - Diagnostic Radiology, CT-scan, Ultrasound

### General planning principles

- The department must provide adapted treatment areas for medical/surgical and psychiatric evaluation and treatment of adults (all ages, including a large number of elderly patients).
- Appropriate spaces must be planned for families, such as sufficiently large waiting rooms and snack areas.
- It is very important to consider patient confidentiality in the design of the reception area, triage area and other sectors of the Emergency department.
- Acuity criteria and average length of stay could be used to differentiate the major treatment sectors (e.g. area for stretchers, ambulatory area). Exam rooms can be organized in modules or clusters based on these criteria. However, surface areas should be identical for all exam and treatment rooms in each sector in order to optimize the use of ED space.
- Except for Psychiatry, all exam and treatment rooms will include the same equipment so as to efficiently and flexibly respond to the variations in patient volume and flow. At least 50% of stretchers must have monitoring equipment, but ideally, all treatment areas should be equipped for vital sign monitoring, and enable the supply of oxygen, medical gases and suction treatments.
- The degree of patient isolation will vary according to acuity. The emergency treatment sectors will have a very high level of visual and auditory isolation, while



there will be less isolation in the spaces dedicated to the most critical cases (which require staff to continually monitor the patient). The design of these various levels of care must respect the patient's privacy and dignity.

- Isolation measures corresponding to minimum standards will be planned for all areas.
- Provisions must be made for two types of “secure” exam rooms for the psychiatric sector: one intended for patients presenting with potentially dangerous symptoms or behaviours, the other for consultations (office-type environment).
- The Emergency department should be equipped with an identifiable security system, as well as a security station at the public entrance, so that the registration desk, the triage area, waiting room, ambulatory entrance and ambulance entrance can be monitored.
- The waiting areas must be configured in three ways: public waiting room close to the ambulatory entrance; private waiting rooms for patients’ families, separated from the public (they could also be used as quiet rooms, consultation rooms or even to isolate potentially infectious cases); and complementary waiting areas where the family and patients would wait for results, etc.
- The Short Stay Unit (SSU) for short-term medical/surgical care must be located outside of the Emergency department, on the inpatient wards.
- Patients not in critical condition should be transferred to and from ambulance areas outside of the ED itself (e.g. transfers to other hospitals, direct hospital admissions, transport to Neonatology).
- A clearly marked, easily accessible space for parking wheelchairs will be provided at each entrance.
- A heated, sheltered entrance (garage-type) will be built for the arrival of ambulatory patients.
- A heated, sheltered parking area will be built for ambulances to drop off patients. After taking the patients into Emergency, ambulances can park in a nearby parking lot so that staff can complete the formalities with the patient.

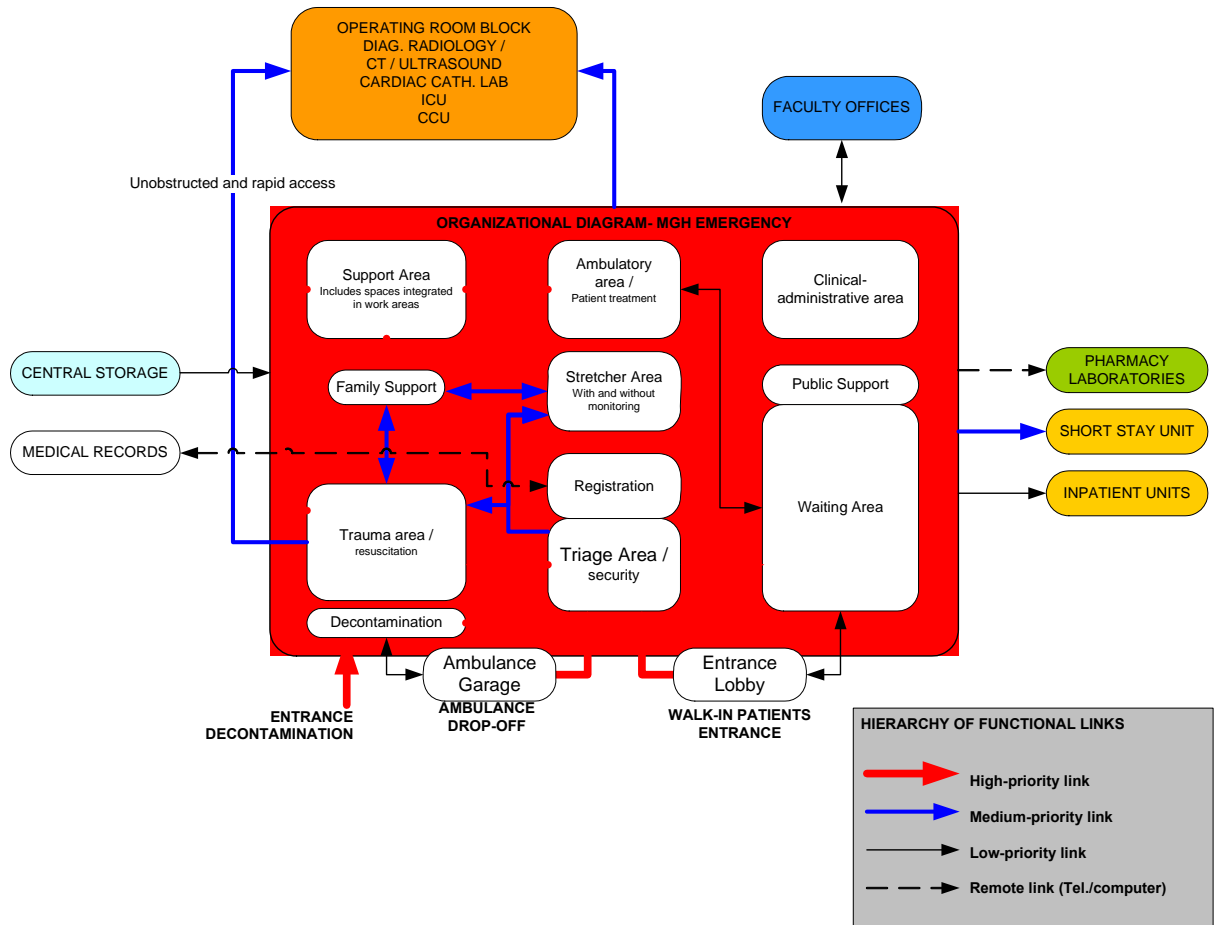
### Operating hours

- 24/7, 365 days/year





## NEURO PAVILION | AMBULATORY SERVICES



## SPACE DRIVERS

### Current and projected volumes

- Based on planned lengths of stay (8 hours for outpatients on stretchers and 12 hours for inpatients on stretchers), the expected volume for the Mountain Campus is 36,736 visits, which would create the need for 38 treatment spaces for adult stretcher patients. This figure does not include the five trauma/resuscitation rooms (2 for trauma, 2 for resuscitation, and 1 flex).
- The following table indicates the current volume and projected number of stretchers according to the CCNU (Centre de coordination nationale des urgences) formula, and recommendations by the MSSS and the Agence de la santé et des services sociaux de Montréal.



**Current and projected volumes, and number of stretchers planned**

<b>Number of stretchers</b>	<b>MGH</b>
Total visits 2005-2006	35,902
Patients from Montreal (83% of the total)	29,799
2.8% increase in patients from Montreal	30,633
100% of Cat. 4 & 5 patients from outside the area (17% of total) no increase	6,103
<b>Subtotal 1</b>	<b>36,736</b>
Admitted patients 2005-2006	5,814
Admitted patients (projected) 16%	5,878
Non-admitted patients (projected)	30,859
Stretcher patients (65% of total) according to the CCNU	23,879
<b>Subtotal 2</b>	<b>23,879</b>
Stretcher patients – non-admitted	18,625
Stretcher hours/year, 8-hour ALOS (2010)	149,003
Stretcher hours/day	408
<b>Stretchers required for outpatients</b>	<b>17.0</b>
Stretcher patients - admitted (22% of patients on stretchers)	5,253
Stretcher hours/year, 12-hour ALOS (2010)	63,040
Stretcher hours/day	173
<b>Stretchers required for admitted patients</b>	<b>7.2</b>
<b>Subtotal 3</b>	<b>24.2</b>
Daily peak periods (30% added to subtotal 3)	7.3
<b>Subtotal 4</b>	<b>31.5</b>
90th percentile	77
2005-2006 average per 24 hours (CCNU multiplication factor)	1.2
<b>GRAND TOTAL number of stretchers required</b>	<b>38</b>

- During the review of ED patient volumes, it was noted that, in the future, patients needing primary care could be encouraged to use community health services. Accordingly, following discussions with the Agence de Montréal and the MSSS, despite the historical trend of 2% annual increases (10% over five years), the applied growth percentage is 2.8% for clientele from the Montreal area (the average percentage for Emergency departments in Region 06 teaching hospitals).
- No growth is forecasted for the clientele from Laval, Montérégie or other regions of Quebec. This approach considers a certain decrease in category 4 and 5 patients from these areas. This potential decrease in patient visits would allow staff to treat a larger number of patients who really need emergency services in the currently planned space.
- According to CCNU recommendations, the percentage of stretcher patients remains unchanged.



### Planned number of treatment rooms

- The room allocation (indicated above) must include one isolation room (negative pressure) per module of 8-10 stretchers, equipped with a specialized washroom and airlock.
- The allocation and distribution of rooms will also be based on the following essential principles, set out in the Guide de gestion de l'urgence (September 2006), published by the Ministère de la Santé et des Services sociaux du Québec:
- Wide, well-lit spaces that are functional, even during busy times.
- Accessibility and safety for staff and patients.
- Proximity to diagnostic services (radiology and laboratory) and the critical care units (operating suite, coronary unit, intensive care), or easy access to these services and units.
- Ability of the rooms to be transformed according to future needs.
- Emphasis on comfort and confidentiality.
- Versatility of spaces.
- Visibility of patients and proximity to staff.
- Circulation control within the Emergency department and restricted access to the trauma-resuscitation area.
- Elimination of treatment areas in the corridors.
- Rooms reserved exclusively for emergency medicine cases.

### Spaces dedicated to staff

- In the ED, specialized staff/patient ratios vary between 1/1, 1/3 and 1/5-6, depending on the shift and the patient's condition.
- The number of staff (total and peak period) determines the number of workstations, lockers, lounges and offices needed in the Emergency department. Workstations must be distributed throughout the ED, but offices, lockers and lounges can be located on the floor above or below, with direct access to the ED by stairwell.
- The ED will be staffed 24/7 by physicians and nurses. A staff sleeping area will be located away from the locker rooms/lounges, in order to allow staff members to rest during their breaks.
- The presence of volunteers, should be presumed and planned for insofar as possible. They will be considered part of the care team, working alongside regular staff in reception, waiting rooms and patient care areas.
- Administration offices will be located near the Emergency department, but not inside it. These offices could be grouped with the locker rooms/lounges, and with meeting spaces for the clinical department.



### Offices

- physicians (department head, faculty, trauma, emergency medicine, ambulatory care physicians, toxicologists, chief resident, fellows, research director, research nurses, director of the residency program, student coordinator)
- nursing staff (director, administrative technician, assistant director, head nurse, clinical nurse specialists, nursing educators)

### Workstations

- executive secretary, administrative support, non-GFT faculty, residents, medical secretary

## FUNCTIONAL AND OPERATIONAL GUIDELINES

### ARRIVAL OF THE PATIENT, FAMILY OR VISITOR – WAYFINDING

- Access to the site and parking – separate entrances must be provided for patients arriving by ambulance and those arriving by their own means.
- Ambulance entrance – an indoor drop-off area will be planned; it must be sufficiently high to allow access for emergency vehicles. It will be separate from the ambulatory (walk-in) entrance. The ambulance entrance must not be visible from the main ambulatory entrance or the waiting rooms. Separate parking (long-term) must be planned for emergency vehicles and reserved parking (short-term) for ambulances, police and other emergency vehicles.
- Short-term street-level parking must be planned for families and visitors, as well as long-term parking in a structured parking lot. The department and entrances must be accessible to people with disabilities. Entrances must be equipped with heaters and airtight doors to prevent drafts in the reception area.
- Floor grates will be installed at the entrances to minimize dirt tracked into the facility.
- Clearly identified security stations will be set up near the entrance, in the waiting room and at the reception area.
- The public corridor to and from the rest of the medical centre must circumvent the ED treatment area.
- Patients and visitors will require convenient, clearly marked access to taxis and public transit from the ED.
- **Wayfinding**
  - It will be necessary to plan for signage and visual indicators enabling patients and families to quickly find their way to the appropriate triage sector. Other sectors of the Health Centre will also be clearly indicated and will help prevent ambulatory circulation from having to pass through the ED.
  - Upon entering, walk-in patients will immediately go to a reception area for triage and registration; they will then be directed to the appropriate sector for treatment or to a waiting area.
  - Patients in critical condition arriving by ambulance will be immediately taken to the “very urgent” treatment sector. The patients themselves or a family member will provide the information necessary for admission while in the treatment areas, or before admission or discharge.



- **Other issues regarding exterior access**
  - Outdoor support for ambulance services – an area designated for washing vehicles, including a holding tank and suitable equipment, should be easily accessible to ambulance staff and police.
  - Storage lockers for temporary storage of equipment and backboards used for carrying immobilized patients must be installed in a protected area outside of the department.
  - A decontamination unit will be located close to the ambulance entrance and will have its own entrance to the ED. A separate holding tank must be planned for isolating contaminated water. This space must include a shower for patients and facilities for stripping and washing down patients and staff.

### RECEPTION, ADMISSION AND WAITING AREA

- It will be necessary to plan for signage and visual indicators near the entrances enabling patients and families to quickly find their way to the triage sector.
- Clear signage and landmarks will encourage "spontaneous triage" in the direction of the ambulatory walk-in clinics.
- The physical and psychosocial needs of a significant population of geriatric patients must be taken into account during the design of the entrance to the department. All areas must be easily accessible.
- Fully automated registration stations for patients and family members must be located next to the triage station. These stations must provide patients and family members easy on-line access to information needed for self-registration, as well as to treatment information.
- A bedside registration service will be planned for patients requiring extremely urgent treatment.
- Separate waiting areas will be planned to isolate patients presenting with potentially contagious symptoms.
- The waiting area must be comfortable and welcoming, and feature natural lighting. Chairs and sealed aquariums will be arranged to create a warmer atmosphere. Computers with Internet access, video games or other forms of entertainment will be available to patients.
- A café-type area, including vending machines or counters selling food and other items, will be set up near the waiting rooms.
- The waiting room will include a health information/education booth and brochure racks.
- A special waiting room inside the treatment area will be reserved for patients awaiting test or x-ray results, so that these patients will not need to return to the main waiting room.
- Circulation control stations will limit access to the treatment area from the public areas.
- Consultation services and quiet rooms will be made available to the families. These rooms must be sufficiently large to accommodate a stretcher, several family members, interpreters and staff.

### DIRECT PATIENT CARE AND SUPPORT

- **Triage**
  - The triage station will be the first point of contact between patients and staff. Patients who so require will be taken immediately to the treatment areas.
  - The triage process must take place in an area that is separate from but next to the admissions office.





- . The possibility of monitoring all waiting areas from the triage station and the registration office must be considered. A security station will also be visible from the waiting room.
- . Each triage area must be able to accommodate a stretcher or a wheelchair, family members, an interpreter, etc.
- . Trauma and resuscitation rooms must be designed similarly and include the following: articulated examination lights, medical gases, electrical outlets, viewing screens and x-ray equipment. The latter will be suspended from the trauma room ceiling to free up space around the patient (360°) and to comply with provincial licensing authority requirements.
- **Trauma and Resuscitation Area**
  - . These areas should be adjacent so as to form a single care module comprising appropriate equipment and staff support areas.
  - . The trauma area will have suspended digital radiology equipment.
  - . At least one negative-pressure room must be planned.
  - . Nursing stations must have an unobstructed view of the trauma treatment rooms.
  - . A special alcove must be planned for gowns and gloves.
  - . The trauma and resuscitation rooms will include storage for the most frequently used instruments. A storage area specifically reserved for the treatment of traumas will be located near this sector.
  - . This room will include a sink for fashioning plaster casts.
  - . The trauma rooms will have a work/note-taking area or an electrical outlet for computers, in addition to the workstations located immediately outside the sector.
  - . A satellite imaging unit for ultrasounds and general radiology, including a CT-scan reserved exclusively for ED patients, will be located nearby.
- **Areas reserved for stretchers and patient treatment**
  - . All treatment rooms will be private, i.e. three walls and a sliding glass door.
  - . All treatment areas must be sufficiently large to accommodate the equipment and supplies needed to diagnose and treat patients as quickly as possible.
  - . All treatment areas and patient rooms must be sufficiently large to enable families and companions to stay with the patient as long as possible during diagnosis and treatment.
  - . The areas reserved for stretchers and patient care will be divided into modules of 8-10 rooms to increase the efficiency of healthcare delivery. The modules can be assigned to patients with special needs (e.g. ambulatory, geriatrics) or to patients with varying levels of trauma severity.
  - . The rooms in each module will be connected to enable free circulation of staff, equipment and supplies.
  - . Special exam rooms will be grouped together in a separate module located along the perimeter of the other modules.
  - . Each module will include nursing stations, equipped with an adequate number of computers.
    - One of the modules will be assigned to treat patients with psychiatric/behavioural disorders. There will be four interview rooms, two security/isolation rooms, a small 8-person waiting room, a washroom with shower and a workstation for the nursing staff. This module will be set up to allow the examination and washing of patients, and will be located away



from the other departments to guarantee visual and acoustic insulation, as well as patient security.

- Automated dispensers for basic medications and a pneumatic tube system will be planned to ensure rapid access to medications. The prompt return of drug orders will be required.
- Access to the pneumatic tube system will be planned in each main treatment area to guarantee fast delivery of samples to the laboratories for analysis. Blood samples will be collected by the laboratory staff and processed by high-volume testing equipment. Waiting times for results will be 15 minutes for single samples, and 60 minutes for all other analyses.
- Offices will be planned for social services and pastoral staff, either in the private treatment areas or in the public consultation areas shared by the ED team.
- Overall, the department will be designed to respect patients' privacy while enabling constant monitoring by clinicians.
- Immediate access to a complete range of imaging services, including general radiology and CT-scan, will be planned.
- Washrooms for patients presenting with diarrhea should be planned for reasons of infection prevention.

#### **BUILDING SYSTEMS: LIGHTING, PLUMBING, ELECTRICITY, HEATING AND VENTILATION**

- Sinks will be installed in all of the unit's general work areas, as well as in each treatment stall.
- The HVAC systems must be able to anticipate the additional heat load emitted by the monitors installed in every treatment area, the monitors in the communication and PACS network, and the additional computer terminals. All of this equipment could have an effect on air conditioning in the department.
- Each treatment sector must be provided with piped oxygen, a low-pressure environment and medical gases.
- All treatment sectors will have a full range of electrical outlets and emergency power systems.
- The trauma rooms must be lead-lined to accommodate x-ray services.
- Natural lighting (continuous spectrum) will be optimized wherever possible.
- In the corridors and patient rooms, all lighting must be indirect, insofar as possible.
- The observation beds will have direct/indirect lighting, as well as lighting above the bed for examinations. These various lights must be controlled separately, and the patient must be able to easily control them from his/her bed.
- The treatment areas and their various zones will be grouped on the HVAC control panels.

#### **COMMUNICATION AND INFORMATION SYSTEMS**

- Access to the information system must be provided in all treatment rooms, at all care providers' stations and in all department work sectors. It must be possible to connect to Medical Records, diagnostic services, the pharmacy, scheduling, Admissions, Food Services and social services, and to other similar services, according to needs and server availability.
- It must be possible to send and retrieve data electronically whenever possible, as they become available online.
- Medical Records will provide the unit with a paper copy of the record only if needed.



- Vital sign monitors will be provided at each patient station in the ED. The monitors must be networked to enable their display at the central station.
- All treatment areas will require several access points to the PACS.
- All intensive care areas will require ceiling-mounted examination lights. Monitoring screens in these areas must be networked to display vital signs at the central station.

### **STAFF SUPPORT AREAS**

- Within the ED, it will be necessary to plan for sufficiently large spaces for team meetings, activity reports and conferences, thereby enabling the department to fulfill its teaching mission.
- Staff support areas (lounges, lockers) will be located out of view of patients and visitors, and will be shared by ED staff and physicians.
- Staff washrooms will be located throughout the ED.
- Private offices for the sector administrator and director must be planned.
- Faculty offices will be located near the ED.

### **MATERIAL SUPPLIES, LOGISTICS AND STORAGE**

- Linens will be distributed using a system of supply carts from the Central Supply. ED or Housekeeping staff will place soiled linens in the rooms allocated for this purpose.
- The Materials Management department will distribute the materials and monitor supply levels and expiry dates. As needed, it will post the supply date in each supply room. Large-volume supplies will be delivered directly to the nurses' stations in the treatment rooms.
- Housekeeping equipment and cleaning materials storage rooms will be distributed throughout the ED in order to facilitate cleaning operations.
- Housekeeping staff will remove the general and recyclable waste from the cleaning rooms. ED staff will place the trays of used instruments in the soiled utility rooms for collection by Central Sterilization Processing staff.
- Hazardous biological waste will be packed in an appropriate bag by department staff. It will be removed by Housekeeping when the container is full or as scheduled.
- Food Services staff will provide snacks to the department in case patients need to be fed, their condition permitting.

### **SPECIAL EQUIPMENT REQUIRED**

- The treatment rooms will require lighting for procedures, permanently fixed to the ceiling or a wall. Procedure lamps should be installed in each treatment area to make the latter multifunctional. This will help reduce the number of patients needing to be transferred.
- The decontamination area should be accessible from outside to ensure that the contaminated ambulance does not enter the garage.
- A decontamination shower should be located close to the ambulance entrance. It must provide hot and cold running water and include a contaminated water holding tank. This lockable room must have a separate outdoor entrance and a direct indoor entrance from the treatment area.
- The stroke program must have ready access to computer-assisted CT-scans and common x-ray equipment in the ED. This program must also have convenient access to a biplane neuroangiography system.





## NEURO PAVILION | AMBULATORY SERVICES

- All areas will require access to the PACS.
- Monitoring screens in stretcher areas must be networked to display vital signs at the central station. These areas will also be equipped with an examination light.
- A nurse call system must be located in each treatment area.



### .3 FACULTY OFFICES

#### OVERVIEW AND OPERATIONAL GUIDELINES

##### SCOPE OF SERVICES

This functional program focuses on the rooms that will serve as offices and related support for faculty, residents and post-doctoral interns, as well as their associated administrative and office staff.

**Spaces for faculty offices are found in the space tables in the following sections:**

##### 4.4.4.2.2.1 Neurosurgery clinics/Neuro Day Centre

##### 4.4.4.2.2.2 Emergency

#### ORGANIZATION AND CONFIGURATION

The grouping of physicians' offices by department is preferred in order to minimize departmental fragmentation and maximize opportunities for collaboration. The majority of faculty offices will be part of office groups located close to (but not inside or adjacent to) the clinical units. The departments/divisions whose faculty must be immediately and directly available in the clinical units are exceptions. These departments/divisions include Anesthesia, Emergency, Intensive Care and Radiology. In addition, faculty in Psychiatry and Mental Health will share offices with Clinical Services.

In general, all department offices should be located in rooms organized and built to serve as offices. Each department's offices should be located so as to permit practical access to clinical areas where faculty spend most of their time. Each department has its own needs; for certain departments (e.g. Neurosurgery), access to operating rooms and inpatient units is the top priority, whereas other departments have a greater need for access to ambulatory care. A table indicating the adjacencies preferred by the departments and the largest divisions appears below.

The groups of department offices can be located close to ambulatory care, but not inside the clinical module. In this way, interruptions of physicians during clinical activities are minimized and the patient's environment is improved. Faculty offices will not be used as examination rooms and, in general, patients will not visit them.

A limited number of offices will be available inside the intensive care units and the diagnostic and treatment sector for certain teacher-clinicians who spend most of their time there. The assignment will be made on an individual basis and is indicated in the functional programs of these modules.

#### SPACE DRIVERS

This section presents the information used to define the number and type of key rooms (e.g. diagnostics, treatments, beds) required according to the forecasted volume and proposed operational framework. The operational framework describes the staffing needs used to determine the capacity of the workrooms, equipment and offices, as applicable.





- The most important determinant for the faculty offices program is the total number of medical staff and associated support staff.

### **Administrative and support staff**

The work area for the administrative and secretarial staff is determined based on the lists of positions submitted by each department.

## **GUIDELINES FOR ROOM ALLOCATION**

The offices and work areas for teacher-clinicians, residents and post-doctoral fellows and their administrative staff will be allocated according to consistent standards and policies. The MUHC space utilization policy sets the general guidelines as follows:

- No more than one office per teacher-clinician (double offices require special approval from the room design committee).
- An office will be made available to geographic full-time (GFT) staff.
- Non-GFT staff and part-time staff will share offices.
- More detailed standards, indicated below, have been developed to guide the programming effort. They include the allocation of offices to faculty who work full-time at the MUHC. The space standards pertain to offices and workstations. A workstation is defined as an open area, for secretarial and office staff, which includes a desk, a computer terminal and some storage for files. Visual and acoustic privacy could be achieved using mobile partitions, if necessary. Residents will have smaller workstations in the form of cubicles. Some workstations could be shared, as indicated below. The size of the work area (e.g. the number of workstations in a specific space) will be determined in the architectural design.

### **Standards for teaching staff offices**

- GFTU/GFTH: Office
- Non-GFT, mandate > 75%: Office
- Non-GFT, mandate of 50-75%: Shared office (2 per office)
- Non-GFT, mandate < 50%: Shared workstation (1 per 4 physicians)

### **Standards for residents'/post-doctoral fellows' offices**

- Residents R1-R5: Shared workstation in the academic office (1 workstation per 4 residents)
- Post-doctoral fellows: Shared office (2 per office) – post-doctoral fellows are similar to “assistant professors” and can spend 75% of their time in the department
- Chief resident: Office (1 per department)

### **Standards for administrative and clerical staff offices**

#### **Administrative staff** (e.g. administration clerk)

- Budget clerk, coordinators: Office
- Executive secretary: Office
- Administrative technician: Workstation
- Secretarial and clerical staff: Workstation

The size of the rooms allocated to the various job categories is indicated in the following table:



**Standards for faculty administrative offices (to be revised according to the standardization guide)**

Room	Ft <sup>2</sup>	Comments
Office, Department director	140	
Office, Assistant director/division head	120	
Office, Staff/Physician	100	
Office, Staff/Physician, non-GFT	100	Shared by 2 unless the mandate is > 75%
Office, chief resident	90	
Office, post-doctoral interns	100	Minimum 100 ft <sup>2</sup> (net) (office shared by 2 post-doctoral fellows)
Workstation, residents	40	Shared workroom
Office, administrator	90-100	
Office, coordinator	90	
Office, executive secretary	90	
Workstation, administrative technician	80	Includes space for files
Workstation, university secretary	80	Includes space for files
Workstation, medical secretary	80	Includes space for files
Workstation, office work	60	
Workstation, receptionist	60	
<b>Shared support</b>		
Waiting room	15	1 chair per 5 physicians/admin.; minimum of 4 chairs
Conference room, small	180	Chairs: 8-10
Conference room, large	280	Chairs: 12-15
Conference room, department	500	Chairs: 25-30
Office equipment, standard	100	Fax machine, photocopier, printer, mail slots, office supplies
Office equipment, large	140	For departments/divisions with > 20 physicians/admin.
Storage, department files	50	4 x 42-in. lateral filing cabinets; number of units allocated according to the department's storage needs
Staff lounge/kitchenette	120	5-6 people with kitchenette
Washroom	50	1 per 20 people
Locker room	20	



## COMPLEMENTARY INFORMATION

This section presents the performance criteria for the design of the unit and its constituent spaces. The operational guidelines take into account patient circulation, both leading to the unit and moving around within it, as well as campus-wide needs for systems and support spaces (e.g. drug storage, urgent pharmacy deliveries).

The spatial relationships with the auxiliary support spaces described in other programs are also mentioned (e.g. spaces for inter-department lounges, meal areas for auxiliary employees, and conference and teaching spaces).

## RECEPTION, REGISTRATION AND WAITING AREA

- The faculty administrative offices should be arranged so that they share common support services (e.g. reception, waiting area, support facilities). The reception should be close to the office of the department/division head.
- The waiting areas should be designed to ensure the privacy of visitors and staff (e.g. chairs are not directly beside the receptionist's office).

## BUILDING SYSTEMS: LIGHTING, PLUMBING, ELECTRICITY, HEATING AND VENTILATION

- The faculty administrative offices have no special needs in terms of heating and lighting.

## COMMUNICATION AND INFORMATION SYSTEMS

- Networks will be created that will provide electronic links to the office and remote worksites other than assigned offices.
- Computer teleconferencing services will be installed in all management offices, professionals' offices and conference rooms.
- Communication between McGill University and the MUHC will be integrated.
- Lounges for visiting professors will provide access to clinical databases, etc., with appropriate security parameters.

## OFFICES/SUPPORT ROOMS

- Department offices will share a reception area, waiting room and support staff. The offices of the department and division heads should be close to related support services, including the reception area and waiting room, the administration clerk and budget clerk, and the department secretary.
- The chief resident's office will be located close to the department/division head's office.





**McGILL UNIVERSITY HEALTH CENTER SPACE TABLE  
APRIL 2008**

**Mountain Campus  
Neuro Pavilion - Ambulatory Services**

Activity Zone	Room	Net*	#	Tnet*	F1*	DGSM*	F*	BGSM*	Notes
		434		3,875		5,736		6,627	Group Total
<b>4.4.4.2.2.1-01</b>	<b>Neuro - Day Hospital</b>		<b>39</b>	<b>481</b>		<b>698</b>		<b>802</b>	
<b>Day Center</b>			<b>39</b>	<b>481</b>		<b>698</b>		<b>802</b>	RDS #
23100.01	Reception Areas (2)	15.5	1	15.5	1.450	22.5	1.150	25.8	
23100.02	Nursing station satellite (4)	25.8	2	51.6	1.450	74.8	1.150	86.0	
23100.03	Secretary Office	9.3	1	9.3	1.450	13.5	1.150	15.5	
23100.04	Clean Room Utility	11.3	2	22.6	1.450	32.8	1.150	37.7	
23100.05	Dirty Room Utility	15.4	2	30.8	1.450	44.7	1.150	51.4	
23100.06	Waiting Room	46.5	1	46.5	1.450	67.4	1.150	77.5	
23100.07	Public toilet	4.1	2	8.2	1.450	11.9	1.150	13.7	
23100.08	Dressing Room	3.1	3	9.3	1.450	13.5	1.150	15.5	
23100.09	Examination / Treatment Room	11.0	12	132.0	1.450	191.4	1.150	220.1	
23100.10	Meeting Room	11.4	1	11.4	1.450	16.5	1.150	19.0	
23100.11	Medical Records Rooms	8.3	1	8.3	1.450	12.0	1.150	13.8	
23100.12	Public toilet / universal	6.2	2	12.4	1.450	18.0	1.150	20.7	
23100.13	Storage	8.3	1	8.3	1.450	12.0	1.150	13.8	
23100.14	Staff toilet	2.6	1	2.6	1.450	3.8	1.150	4.3	
23100.15	Chief Office	9.3	1	9.3	1.450	13.5	1.150	15.5	
23100.16	Nursing Work Station (Shared 8)	41.3	1	41.3	1.450	59.9	1.150	68.9	
23100.17	Resident - Office	9.3	1	9.3	1.450	13.5	1.150	15.5	
23100.18	Staff lounge	11.4	1	11.4	1.450	16.5	1.150	19.0	
23100.19	Kitchenette	11.4	1	11.4	1.450	16.5	1.150	19.0	
23100.20	Conference/Multimedia (10)	20.4	1	20.4	1.450	29.6	1.150	34.0	
23100.21	Office CNS	9.3	1	9.3	1.450	13.5	1.150	15.5	

\*Légend: NET (Net surface area), # (number of rooms), T.NET (Total net surface area), SBS (departemental gross square meters), BGSM (building gross square meters)

F1= departemental gross surface area ratio, F=(F2\*F3)=building gross surface area ratio, F3 is non existant for the Mountain Campus

Activity Zone	Room	Net*	#	Tnet*	F1*	DGSM*	F*	BGSM*	Notes
<b>4.4.4.2.2.1-02 Neurosurgery Clinic</b>			<b>48</b>	<b>489</b>		<b>709</b>		<b>816</b>	
<b>Neurosurgery Clinic</b>			<b>48</b>	<b>489</b>		<b>709</b>		<b>816</b>	<b>RDS #</b>
23200.01	Reception Areas (2)	7.2	1	7.2	1.450	10.4	1.150	12.0	
23200.02	Administrative Secretaries	9.3	2	18.6	1.450	27.0	1.150	31.0	
23200.03	Waiting Room	46.5	1	46.5	1.450	67.4	1.150	77.5	
23200.04	Specialized Examination Room	11.0	9	99.0	1.450	143.6	1.150	165.1	
23200.05	Clean Room Utility	9.3	1	9.3	1.450	13.5	1.150	15.5	
23200.06	Dirty Room Utility	9.3	1	9.3	1.450	13.5	1.150	15.5	
23200.07	Meeting Room	11.4	1	11.4	1.450	16.5	1.150	19.0	
23200.08	Medical Records Rooms	8.3	1	8.3	1.450	12.0	1.150	13.8	
23200.09	Public toilet / universal	6.2	4	24.8	1.450	36.0	1.150	41.4	
23200.10	Storage	15.5	1	15.5	1.450	22.5	1.150	25.8	
23200.11	Staff toilet	2.6	1	2.6	1.450	3.8	1.150	4.3	
23200.12	Professional - Office	9.3	12	111.6	1.450	161.8	1.150	186.1	
23200.13	Secretary Office	9.3	10	93.0	1.450	134.9	1.150	155.1	
23200.14	Residents' Office	9.3	1	9.3	1.450	13.5	1.150	15.5	
23200.15	Staff Lounge	11.4	1	11.4	1.450	16.5	1.150	19.0	
23200.16	Conference / Multimedia (15)	11.4	1	11.4	1.450	16.5	1.150	19.0	
<b>4.4.4.2.2.1-03 Neuro - Clinical Research Unit</b>			<b>33</b>	<b>287</b>		<b>402</b>		<b>493</b>	
<b>Clinical Research Unit - Treatment Area</b>			<b>15</b>	<b>164</b>		<b>229</b>		<b>290</b>	<b>RDS #</b>
23200.27	Workstation - Clerical	5.6	1	5.6	1.400	7.8	1.265	9.9	
23200.28	Office Manager	9.3	1	9.3	1.400	13.0	1.265	16.5	
23200.29	Storage File	16.7	1	16.7	1.400	23.4	1.265	29.6	High density filing
23200.30	Exam /Interview Room	11.0	12	132.0	1.400	184.8	1.265	233.8	
<b>Clinical Research Unit - Research - Staff Work</b>			<b>13</b>	<b>87</b>		<b>122</b>		<b>141</b>	<b>RDS #</b>
23200.31	Workstation - Research	5.6	11	61.3	1.400	85.8	1.150	98.7	
23200.32	Storage	9.3	1	9.3	1.400	13.0	1.150	15.0	study supplies, workroom
23200.33	Storage File	16.7	1	16.7	1.400	23.4	1.150	26.9	High density filing
<b>Clinical Research Unit - Staff Support</b>			<b>5</b>	<b>36</b>		<b>50</b>		<b>63</b>	<b>RDS #</b>
23200.22	Lockers	1.9	1	1.9	1.400	2.6	1.150	3.0	Purse or Box Lockers
23200.23	Toilet - Staff	2.5	1	2.5	1.400	3.5	1.150	4.0	
23200.24	Storage Coats	1.9	1	1.9	1.400	2.6	1.150	3.0	
23200.25	Office Utility - Large	13.0	1	13.0	1.400	18.2	1.265	23.0	fax, copier, printers etc
23200.26	Conference - small	16.7	1	16.7	1.400	23.4	1.265	29.6	

\*Légend: NET (Net surface area), # (number of rooms), T.NET (Total net surface area), SBS (departemental gross square meters), BGSM (building gross square meters)

F1= departemental gross surface area ratio, F=(F2\*F3)=building gross surface area ratio, F3 is non existant for the Mountain Campus

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RDS = Room Data Sheet / Fiche technique

Activity Zone	Room	Net*	#	Tnet*	F1*	DGSM*	F*	BGSM*	Notes
<b>4.4.4.2.2.2-01 Mountain Campus - Emergency - Reception and Triage Area</b>									
			<b>29</b>	<b>270</b>		<b>405</b>		<b>466</b>	
<b>Admission</b>			<b>5</b>	<b>30</b>		<b>44</b>		<b>51</b>	<b>RDS #</b>
23400.25	Office	8.4	1	8.4	1.500	12.6	1.150	14.5	Supervisor (Registration)
23400.26	Workstation: Registration	5.5	2	11.0	1.500	16.5	1.150	19.0	
23400.27	Utility / Filing	4.6	1	4.6	1.500	6.9	1.150	7.9	
23400.28	Work space	5.6	1	5.6	1.500	8.4	1.150	9.7	
<b>Triage/Reception Area</b>			<b>15</b>	<b>46</b>		<b>69</b>		<b>79</b>	<b>RDS #</b>
23400.100	Vending Machine	2.0	4	8.0	1.500	12.0	1.150	13.8	
23400.101	Water Cooler	1.4	1	1.4	1.500	2.1	1.150	2.4	
23400.102	Breastfeeding Room	7.5	1	7.5	1.500	11.3	1.150	12.9	Closed room
23400.103	Washroom - Public	8.0	2	16.0	1.500	24.0	1.150	27.6	
23400.94	Stretcher Holding	3.5	1	3.5	1.500	5.3	1.150	6.0	
23400.95	Adressograph	1.4	1	1.4	1.500	2.1	1.150	2.4	
23400.96	Safe	2.8	1	2.8	1.500	4.2	1.150	4.8	
23400.97	Files Alcove	2.1	1	2.1	1.500	3.2	1.150	3.6	
23400.98	Embosser Smart Card	1.4	1	1.4	1.500	2.1	1.150	2.4	
23400.99	Telephone (Alcove)	0.9	2	1.8	1.500	2.7	1.150	3.1	
<b>Entrance</b>			<b>2</b>	<b>26</b>		<b>39</b>		<b>45</b>	<b>RDS #</b>
23400.83	Ambulatory Lobby	18.6	1	18.6	1.500	27.9	1.150	32.1	
23400.87	Security	7.5	1	7.5	1.500	11.3	1.150	12.9	
<b>Triage / Waiting Room</b>			<b>7</b>	<b>169</b>		<b>253</b>		<b>291</b>	<b>RDS #</b>
23400.20	Triage	12.0	2	24.0	1.500	36.0	1.150	41.4	
23400.21	Reception	5.5	1	5.5	1.500	8.3	1.150	9.5	
23400.22	Toilet - Public	4.5	2	9.0	1.500	13.5	1.150	15.5	
23400.23	Waiting Room	111.5	1	111.5	1.500	167.3	1.150	192.3	1.7m <sup>2</sup> /pers.
23400.24	Waiting Room - Isolation	18.6	1	18.6	1.500	27.9	1.150	32.1	1.9m <sup>2</sup> /pers.
<b>4.4.4.2.2.2-02 Mountain Campus - Emergency - Ambulance Area</b>									
			<b>12</b>	<b>402</b>		<b>602</b>		<b>693</b>	
<b>Aire des ambulances</b>			<b>1</b>	<b>11</b>		<b>17</b>		<b>19</b>	<b>RDS #</b>
23400.104	Room for detainees	11.0	1	11.0	1.500	16.5	1.150	19.0	
<b>Entrance</b>			<b>5</b>	<b>43</b>		<b>64</b>		<b>73</b>	<b>RDS #</b>
23400.84	Security and disaster room	7.4	1	7.4	1.500	11.1	1.150	12.8	
23400.85	Storage for Disaster	9.0	1	9.0	1.500	13.5	1.150	15.5	
23400.86	Decontamination storage	2.8	1	2.8	1.500	4.2	1.150	4.8	
23400.88	Shower decontamination	21.4	1	21.4	1.500	32.1	1.150	36.9	
23400.89	Changing cubicles - decontamination	1.9	1	1.9	1.500	2.9	1.150	3.3	
<b>Ambulance Parking</b>			<b>6</b>	<b>348</b>		<b>522</b>		<b>600</b>	<b>RDS #</b>
23400.92	SAS	8.0	1	8.0	1.500	12.0	1.150	13.8	
23400.93	Ambulance Parking	68.0	5	340.0	1.500	510.0	1.150	586.5	

\*Légend: NET (Net surface area), # (number of rooms), T.NET (Total net surface area), SBS (departemental gross square meters), BGSM (building gross square meters)

F1= departemental gross surface area ratio, F=(F2\*F3)=building gross surface area ratio, F3 is non existant for the Mountain Campus

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RDS = Room Data Sheet / Fiche technique

Activity Zone	Room	Net*	#	Tnet*	F1*	DGSM*	F*	BGSM*	Notes
<b>4.4.4.2.2.2-03 Mountain Campus - Emergency - Trauma/Resuscitation Area</b>									
			<b>17</b>	<b>215</b>		<b>323</b>		<b>372</b>	
<b>Trauma Area</b>			<b>6</b>	<b>152</b>		<b>228</b>		<b>262</b>	<b>RDS #</b>
23400.01	Trauma : Stretcher	30.0	2	60.0	1.500	90.0	1.150	103.5	
23400.02	Resuscitation : Stretcher	30.0	2	60.0	1.500	90.0	1.150	103.5	
23400.03	Flexible : Stretcher	30.0	1	30.0	1.500	45.0	1.150	51.8	
23400.04	Alcove ultrasound	1.9	1	1.9	1.500	2.9	1.150	3.3	
<b>Nursing Station</b>			<b>4</b>	<b>22</b>		<b>33</b>		<b>38</b>	<b>RDS #</b>
23400.54	Workstation trauma	5.5	4	22.0	1.500	33.0	1.150	38.0	
<b>Unit Support</b>			<b>7</b>	<b>42</b>		<b>62</b>		<b>72</b>	<b>RDS #</b>
23400.105	Medication (alcove)	3.5	1	3.5	1.500	5.3	1.150	6.0	
23400.61	Linen Alcove	1.9	1	1.9	1.500	2.9	1.150	3.3	1/module + trauma area
23400.64	Medication Room	7.4	1	7.4	1.500	11.1	1.150	12.8	
23400.65	Equipment Storage	9.3	1	9.3	1.500	14.0	1.150	16.0	
23400.67	Crash Cart Alcove	1.4	1	1.4	1.500	2.1	1.150	2.4	1/module + trauma area
23400.70	Clean Supply Room	9.0	1	9.0	1.500	13.5	1.150	15.5	
23400.71	Dirty Storage Room	9.0	1	9.0	1.500	13.5	1.150	15.5	
<b>4.4.4.2.2.2-04 Mountain Campus - Emergency - Stretcher Area</b>									
			<b>88</b>	<b>624</b>		<b>937</b>		<b>1,077</b>	
<b>Stretcher Area</b>			<b>21</b>	<b>107</b>		<b>160</b>		<b>184</b>	<b>RDS #</b>
23400.106	Medication Alcove	3.5	5	17.5	1.500	26.3	1.150	30.2	1/module
23400.107	Food Cart Storage	1.9	4	7.6	1.500	11.4	1.150	13.1	1/module
23400.108	Microscope	0.9	4	3.6	1.500	5.4	1.150	6.2	shared between modules
23400.110	Treatment: Isolation Stretcher	15.5	4	62.0	1.500	93.0	1.150	107.0	1/module of stretchers including specialised washroom (4.5m <sup>2</sup> )
23400.111	Treatment: Isolation Stretcher	4.0	4	16.0	1.500	24.0	1.150	27.6	
<b>Stretcher with Monitoring</b>			<b>41</b>	<b>406</b>		<b>608</b>		<b>699</b>	<b>RDS #</b>
23400.05	Treatment : stretcher	11.0	34	374.0	1.500	561.0	1.150	645.2	Half of the stretchers with monitoring
23400.06	Washroom	4.5	7	31.5	1.500	47.3	1.150	54.3	
<b>Entrance</b>			<b>4</b>	<b>14</b>		<b>21</b>		<b>24</b>	<b>RDS #</b>
23400.109	Respiratory Therapy Room	3.5	4	14.0	1.500	21.0	1.150	24.2	
<b>Nursing Station</b>			<b>8</b>	<b>30</b>		<b>46</b>		<b>52</b>	<b>RDS #</b>
23400.53	Central Station (Ambulatory/Stretcher)	3.8	8	30.4	1.500	45.6	1.150	52.4	2/module
<b>Unit Support</b>			<b>14</b>	<b>68</b>		<b>102</b>		<b>117</b>	<b>RDS #</b>
23400.61	Linen Alcove	1.9	4	7.6	1.500	11.4	1.150	13.1	1/module + trauma area
23400.65	Equipment Storage	9.3	2	18.6	1.500	27.9	1.150	32.1	
23400.67	Crash Cart Alcove	1.4	4	5.6	1.500	8.4	1.150	9.7	1/module + trauma area
23400.70	Clean Storage Room	9.0	2	18.0	1.500	27.0	1.150	31.1	
23400.71	Dirty Storage Room	9.0	2	18.0	1.500	27.0	1.150	31.1	

\*Légend: NET (Net surface area), # (number of rooms), T.NET (Total net surface area), SBS (departemental gross square meters), BGSM (building gross square meters)

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RDS = Room Data Sheet / Fiche technique

Activity Zone	Room	Net*	#	Tnet*	F1*	DGSM*	F*	BGSM*	Notes
<b>4.4.4.2.2.2-05 Mountain Campus - Emergency - Ambulatory Area</b>									
			<b>39</b>	<b>353</b>		<b>530</b>		<b>609</b>	
<b>Ambulatory area</b>			<b>18</b>	<b>194</b>		<b>290</b>		<b>334</b>	<b>RDS #</b>
23400.10	Exam : gynecology	16.5	1	16.5	1.500	24.8	1.150	28.5	Includes Toilet and Shower (5.5m²) shared between modules
23400.108	Microscope	0.9	2	1.8	1.500	2.7	1.150	3.1	
23400.11	Exam : ENT	11.0	1	11.0	1.500	16.5	1.150	19.0	
23400.112	Medication Alcove	3.5	1	3.5	1.500	5.3	1.150	6.0	
23400.113	Food Cart Storage	1.9	2	3.8	1.500	5.7	1.150	6.6	
23400.12	Plaster Room	18.0	1	18.0	1.500	27.0	1.150	31.1	
23400.13	Minor surgery Room	23.0	1	23.0	1.500	34.5	1.150	39.7	
23400.14	General Exam Room	11.0	8	88.0	1.500	132.0	1.150	151.8	
23400.15	Recovery Room	27.9	1	27.9	1.500	41.9	1.150	48.1	
<b>Stretcher without Monitoring</b>			<b>1</b>	<b>6</b>		<b>8</b>		<b>9</b>	
23400.09	Toilet with Shower	5.5	1	5.5	1.500	8.3	1.150	9.5	
<b>Entrance</b>			<b>1</b>	<b>19</b>		<b>28</b>		<b>32</b>	<b>RDS #</b>
23400.83	Ambulatory Lobby	18.6	1	18.6	1.500	27.9	1.150	32.1	
<b>Nursing Station</b>			<b>4</b>	<b>15</b>		<b>23</b>		<b>26</b>	<b>RDS #</b>
23400.53	Central Station (Ambulatory/Stretcher)	3.8	4	15.2	1.500	22.8	1.150	26.2	2/module
<b>Psychiatry</b>			<b>8</b>	<b>87</b>		<b>130</b>		<b>149</b>	<b>RDS #</b>
23400.16	Interview Room-Psychiatry	11.0	4	44.0	1.500	66.0	1.150	75.9	
23400.17	Treatment Room - Psychiatry	11.0	2	22.0	1.500	33.0	1.150	38.0	
23400.18	Waiting / transition Room - Psychiatry	16.7	1	16.7	1.500	25.1	1.150	28.8	"1.9m²/seat
23400.19	Nursing Station - Psychiatry	3.8	1	3.8	1.500	5.7	1.150	6.6	
<b>Unit Support</b>			<b>7</b>	<b>34</b>		<b>51</b>		<b>58</b>	<b>RDS #</b>
23400.61	Linen Alcove	1.9	2	3.8	1.500	5.7	1.150	6.6	1/module + trauma area
23400.65	Equipment Storage	9.3	1	9.3	1.500	14.0	1.150	16.0	
23400.67	Crash Cart Alcove	1.4	2	2.8	1.500	4.2	1.150	4.8	1/module + trauma area
23400.70	Clean Supply Room	9.0	1	9.0	1.500	13.5	1.150	15.5	
23400.71	Dirty Supply Room	9.0	1	9.0	1.500	13.5	1.150	15.5	
<b>4.4.4.2.2.2-06 Mountain Campus - Emergency - Family Support Area</b>									
			<b>5</b>	<b>47</b>		<b>71</b>		<b>81</b>	
<b>Unit Support</b>			<b>2</b>	<b>15</b>		<b>22</b>		<b>26</b>	<b>RDS #</b>
23400.63	Kitchen	7.4	2	14.8	1.500	22.2	1.150	25.5	
<b>Patient Support</b>			<b>3</b>	<b>32</b>		<b>49</b>		<b>56</b>	<b>RDS #</b>
23400.117	"Discharge" Lounge	12.0	1	12.0	1.500	18.0	1.150	20.7	
23400.72	Family Room	11.1	1	11.1	1.500	16.7	1.150	19.1	
23400.73	Consultation Room - Family	9.3	1	9.3	1.500	14.0	1.150	16.0	
<b>4.4.4.2.2.2-07 Mountain Campus - Emergency - Storage</b>									
			<b>20</b>	<b>74</b>		<b>111</b>		<b>128</b>	
<b>Entrance</b>			<b>14</b>	<b>18</b>		<b>27</b>		<b>31</b>	<b>RDS #</b>
23400.90	Stretcher Alcove	2.3	4	9.2	1.500	13.8	1.150	15.9	Vestibule
23400.91	Storage - Wheelchairs	0.9	10	9.0	1.500	13.5	1.150	15.5	vestibule
<b>Unit Support</b>			<b>6</b>	<b>56</b>		<b>84</b>		<b>96</b>	<b>RDS #</b>
23400.62	Storage	9.3	6	55.8	1.500	83.7	1.150	96.3	1/module

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RDS = Room Data Sheet / Fiche technique

Activity Zone	Room	Net*	#	Tnet*	F1*	DGSM*	F*	BGSM*	Notes
<b>4.4.4.2.2.2-08 Mountain Campus - Emergency - Clinical/Administrative</b>									
			<b>22</b>	<b>221</b>		<b>332</b>		<b>382</b>	
<b>Administration - Clinical</b>			<b>9</b>	<b>121</b>		<b>181</b>		<b>208</b>	<b>RDS #</b>
23400.29	Office : Department Head	13.0	1	13.0	1.500	19.5	1.150	22.4	
23400.30	Office - Manager	11.1	1	11.1	1.500	16.7	1.150	19.1	
23400.31	Office - Doctors	9.3	3	27.9	1.500	41.9	1.150	48.1	
23400.32	Office - Shared Quality Ass	11.1	1	11.1	1.500	16.7	1.150	19.1	
23400.33	Office - Secretary	9.3	1	9.3	1.500	14.0	1.150	16.0	
23400.34	Office trauma and TTL	11.1	1	11.1	1.500	16.7	1.150	19.1	
23400.35	Conference Room	37.2	1	37.2	1.500	55.8	1.150	64.2	
<b>Administration - Nursing and Multidisciplinary</b>			<b>1</b>	<b>11</b>		<b>17</b>		<b>19</b>	<b>RDS #</b>
23400.43	Office - Social Worker	11.1	1	11.1	1.500	16.7	1.150	19.1	
<b>Administration - Nursing and Multidisciplinary</b>			<b>6</b>	<b>67</b>		<b>100</b>		<b>115</b>	<b>RDS #</b>
23400.38	Office -Nursing Administration	11.1	1	11.1	1.500	16.7	1.150	19.1	
23400.39	Office - Head Nurse	11.1	1	11.1	1.500	16.7	1.150	19.1	
23400.40	Office - Nurse	13.0	1	13.0	1.500	19.5	1.150	22.4	
23400.41	Office - Admin. Tech	9.3	1	9.3	1.500	14.0	1.150	16.0	
23400.42	Office - CNS/NCE	11.1	1	11.1	1.500	16.7	1.150	19.1	
23400.44	Office - Geriatric Liaison	11.1	1	11.1	1.500	16.7	1.150	19.1	
<b>Nursing Station</b>			<b>6</b>	<b>23</b>		<b>34</b>		<b>39</b>	<b>RDS #</b>
23400.55	PACS	3.8	6	22.8	1.500	34.2	1.150	39.3	1/module
<b>4.4.4.2.2.2-09 Mountain Campus - Emergency - Teaching, Research</b>									
			<b>8</b>	<b>91</b>		<b>137</b>		<b>157</b>	
<b>Administration - Teaching</b>			<b>4</b>	<b>37</b>		<b>56</b>		<b>64</b>	<b>RDS #</b>
23400.49	Office - Director of Residents	9.3	1	9.3	1.500	14.0	1.150	16.0	
23400.50	Office - Students Coordinator	9.3	1	9.3	1.500	14.0	1.150	16.0	
23400.51	Resident Office	9.3	1	9.3	1.500	14.0	1.150	16.0	
23400.52	Office - Resident Secretary	9.3	1	9.3	1.500	14.0	1.150	16.0	
<b>Administration - Research</b>			<b>4</b>	<b>54</b>		<b>81</b>		<b>93</b>	<b>RDS #</b>
23400.45	Office - Research Director	11.1	1	11.1	1.500	16.7	1.150	19.1	
23400.46	Office - Nurse	11.1	1	11.1	1.500	16.7	1.150	19.1	
23400.47	Office - General Research	13.0	1	13.0	1.500	19.5	1.150	22.4	
23400.48	Conference Room	18.6	1	18.6	1.500	27.9	1.150	32.1	
<b>4.4.4.2.2.2-10 Mountain Campus - Emergency - Staff Support</b>									
			<b>12</b>	<b>107</b>		<b>160</b>		<b>184</b>	
<b>Administration - Clinical</b>			<b>2</b>	<b>12</b>		<b>17</b>		<b>20</b>	<b>RDS #</b>
23400.36	On-Call Room (Trauma)	7.0	1	7.0	1.500	10.5	1.150	12.1	
23400.37	Toilet - Staff	4.5	1	4.5	1.500	6.8	1.150	7.8	
<b>Staff - Support</b>			<b>10</b>	<b>95</b>		<b>143</b>		<b>164</b>	<b>RDS #</b>
23400.115	Staff Washroom	2.5	5	12.5	1.500	18.8	1.150	21.6	
23400.56	Lockers Female	25.1	1	25.1	1.500	37.7	1.150	43.3	0.4m <sup>2</sup> /locker
23400.57	Lockers Male	11.1	1	11.1	1.500	16.7	1.150	19.1	0.4m <sup>2</sup> /locker
23400.58	Staff Lounge	37.2	1	37.2	1.500	55.8	1.150	64.2	2m <sup>2</sup> per pers.
23400.59	Staff Washroom	4.5	1	4.5	1.500	6.8	1.150	7.8	
23400.60	Staff Shower	4.6	1	4.6	1.500	6.9	1.150	7.9	

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RDS = Room Data Sheet / Fiche technique

Activity Zone	Room	Net*	#	Tnet*	F1*	DGSM*	F*	BGSM*	Notes
<b>4.4.4.2.2.2-11 Mountain Campus - Emergency - Support</b>									
			<b>52</b>	<b>62</b>		<b>93</b>		<b>107</b>	
<b>Unit Support</b>			<b>52</b>	<b>62</b>		<b>93</b>		<b>107</b>	<b>RDS #</b>
23400.116	Sink - Handwashing	0.9	46	41.4	1.500	62.1	1.150	71.4	
23400.68	Housekeeping Closet	7.4	2	14.8	1.500	22.2	1.150	25.5	
23400.69	Pneumatic Tube	1.4	4	5.6	1.500	8.4	1.150	9.7	
<b>4.4.4.2.2.2-12 Mountain Campus - Emergency - Medical Imaging</b>									
			<b>10</b>	<b>152</b>		<b>227</b>		<b>262</b>	
<b>Medical Imaging</b>			<b>8</b>	<b>146</b>		<b>219</b>		<b>252</b>	<b>RDS #</b>
23400.75	Diagnostic Radiology (Large)	29.7	1	29.7	1.500	44.6	1.150	51.2	
23400.76	PACS and Reading Room	7.4	1	7.4	1.500	11.1	1.150	12.8	
23400.77	Orbix (alcove)	7.4	1	7.4	1.500	11.1	1.150	12.8	
23400.78	CT Scan	48.1	1	48.1	1.500	72.2	1.150	83.0	
23400.79	Control Room/Workarea	13.9	1	13.9	1.500	20.9	1.150	24.0	
23400.80	Control Room : CT Scan	13.9	1	13.9	1.500	20.9	1.150	24.0	
23400.81	Equipment Room	7.0	1	7.0	1.500	10.5	1.150	12.1	
23400.82	Reception and Multipurpose Room	18.6	1	18.6	1.500	27.9	1.150	32.1	
<b>Unit Support</b>			<b>2</b>	<b>6</b>		<b>8</b>		<b>10</b>	<b>RDS #</b>
23400.66	Mobile X-Ray Alcove	2.8	2	5.6	1.500	8.4	1.150	9.7	

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#### **4.4.4.2.3 DIAGNOSTIC AND TREATMENT SERVICES**

##### **.1 OPERATING SUITE**

###### **SCOPE OF SERVICES**

The operating suite will be the primary site of emergency and elective interventional procedures for patients. In addition to conventional surgical procedures, the operating suite will be the site for minimally invasive procedures using image enhancement.

Issues to be addressed as part of the delivery model for operating rooms include:

- Flow of patients, staff and materials between the various sections of the suite;
- Integration of ancillary and support services, including the blood bank, surgical pathology, diagnostic imaging, CSR and surgical planning;
- Communication and information system requirements;
- Staff support space requirements;
- Clinical training of medical and ancillary providers;

The provisions for areas designated for consultations, amenities and family waiting rooms will be covered in the planning of perioperative care services.

###### **ORGANIZATION AND CONFIGURATION**

- A single, “zoned” platform for interventional services is preferred. In this model, all interventional services are located on one floor, but with designated areas for specific services. This allows for sharing of technological and support resources while accommodating the distinct operational requirements of each service.
- No recovery room is planned for the Neurosciences operating suite since the Neurology ICU can also serve as a recovery room. This is the preferred method of functioning since it ensures adequate service and an appropriate number of physicians on-call in ICU.
- All adult procedures requiring conscious sedation or general anaesthesia will be scheduled within one of the procedural units on the Interventional Platform. (four induction rooms are planned by perioperative services).
- The operating suites planned for the new MNH intervention services will be of two different sizes: 56.8 m<sup>2</sup> and 76.4 m<sup>2</sup>. These different sizes have been proposed with the goal of providing rooms that are sufficiently large to accommodate the integration of image-guided surgical equipment as procedures involving these techniques are developed.
- The Neuroangiography Room will be contiguous with the Neurosurgical Operating Suite and associated peri-operative support in a distinct section of the Interventional Platform dedicated to the Neuro. This will consolidate the specialized resources in a single area to serve all Interventional Procedures.
- Each operating suite will be built and equipped in the same way, except for the specialized operating suites. This satisfies the planned use, which requires that all operating rooms be available at all times to any specialty. Some services will almost always use a specific room, due to the number of procedures or the scheduling/prioritization of surgeries. This room will nonetheless remain available at all times to other specialist surgeons. In general, the outcome of such planning shows that the fact of assigning blocks of each module to a group of specialties







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improves staff efficiency and makes better use of equipment and the distribution of materials.

- Recognizing that technologies will evolve and change, a central premise for planning is the flexible, adaptable configuration of the interventional platform. To position the MUHC for competitive, state-of-the-art interventional practice, the platform infrastructure must have the capacity for continuous innovation and adaptation. Rooms must be of sufficient size to accommodate future technologies and support a variety of patient care, educational, logistical and communications functions.
- Each operating suite will be built and equipped in the same way, so as to maximize the use of each room, at any time and by every service.
- Circulation within the Operating Room will address the separation of sterile, clean and contaminated traffic flow. Traffic between these areas will be subject to infection control protocol including wearing protective clothing including shoe and head covers or complete containment of soiled material during transport. Functional areas within the OR are generally described as follows.
- **Sterile area**
  - Operating suites;
  - Module Sterile Core for sterile supply storage
  - Sub-sterile rooms:
    - Service area equipped with flash sterilizer and warming cabinet,
    - Sinks should be available directly outside these rooms
    - Lobby of vertical access from CSR.
- **Clean area**
  - Operating suite corridor, with controlled access from:
    - Staff lockers and changing rooms,
    - Operating suite control room,
    - Pre-operative holding,
    - PACU
  - Operating Room Unit Support including staff in appropriate attire from: Anaesthesia, Biomedical Engineering, MMS, Imaging, Perfusion, Respiratory Therapy, Surgical Pathology and Housekeeping.
  - Designated conference/work areas subject to certain activity restrictions including food service and the review of Infection Control
- **Unrestricted area of the operating suite**
  - Staff lockers and changing rooms;
  - Lounge
- **Vestibule area**
  - Area inside the entrance to the surgical suite separating the corridors of the surgical suite from those of the facility. Generally this accommodates limited access for personnel to make deliveries and check schedules at the Control Centre.

Other planning assumptions will affect the configuration of this area.

- Use of surgical case carts supported by a computerized record of individual instrument preferences.
- Functional imaging capabilities available throughout the operating suite.
- It will be necessary to define the location of the Pathology satellite units (one for the general operating suite and one for the Neurosciences operating suite), comprising a frozen section laboratory inside the operating suite. The laboratory will be





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equipped with appropriate equipment for processing most specimens on site; it will be adequately equipped and staffed for personal or electronic consultation.

- Sterilization equipment within each module for dropped/contaminated instruments.

The recommendations below have been validated:

- All intervention services at the MNH will be located in a single area (insofar as possible);
- There will be a direct vertical adjacency with CSR;
- Interventional neuroradiology contiguous with neurosurgical operating suite.
- Anaesthesia faculty offices either horizontally or vertically adjacent to the Operating Suite.

### SPACE DRIVERS

Neuro pavilion	Volumes	Procedure hours	Operating suites
Neuro 2004-2005	1,841	3.57	4
Neuro projected	2,190	4.2	6
MGH projected	4,578	2.85	8
<b>TOTAL forecasted</b>			<b>14</b>

#### Forecasted key rooms

Operating suite	Rooms required
Major surgeries (Neuro)	5
Minor surgeries (Neuro)	1
General surgery (MGH)	4
Orthopedic (MGH)	2
Trauma (MGH)	2

### FUNCTIONAL AND OPERATIONAL FRAMEWORK

#### ARRIVAL AND ENTRY

- Special considerations shall provide for the required sterile environmental conditions of the Operating Suite including, controlled access via functional flow arrangement, demarcation lines, and graphic/physical barriers.
- Access to the interventional platform should be controlled with adequate security measures.





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- Elevators for service and patient movement should be separated from visitor traffic.
- With few exceptions, patients will enter the Operating Room only through the Perioperative Services Unit.
- Direct access by a dedicated elevator bank between high acuity areas including Emergency and specific ICU units should be available.
- Clinical and support staff will enter and leave the sterile area of the Interventional Surgery Suite through gender-specific change rooms where clean surgical garments will be available to authorized personnel.

### RECEPTION, REGISTRATION AND WAITING AREA

- A front desk must be available at the entrance to the Suite for access of clinical staff who are not dressed to enter the restricted zone. On-line scheduling should be available at this desk.
- Staff at this control point will have access to monitor banks for viewing continuous schedule updates and video feed from individual Operating Rooms. This information including emergency cases should be visually accessible throughout the non-public areas of the Interventional Platform and available to authorized personnel in offices and at workstations. In addition staff should be able to visually observe clinical staff and patient access points to the sterile zone.
- One or more administrative substations with a pneumatic tube station, a pharmaceutical ADM, image-processing equipment may be considered for the Operating Suite.

### PATIENT CARE AND DIRECT SUPPORT

- Each operating room will be a minimum of 55.7 m<sup>2</sup> with a standard equipment complement including overhead lighting, monitors, medical gas and power outlets.
- Installation of image enhancement or other fixed equipment will increase the area requirement in a specified number of rooms to meet the needs of the technology, equipment, and staff. All rooms, where possible, will be designed to be generic.
- It is a fundamental design requirement that the room be planned to accommodate the free movement of personnel, equipment and supplies within the operating room. Attention should be directed in all cases to integrating electronic and other services into the infrastructure of the Operating Room to reduce unnecessary clutter.
- The OR should be zoned to accommodate fixed and circulating work zones.
- Operating Rooms will be equipped with appropriately sized monitor screens located for full visibility for image-guided procedures. Consideration should be given to communications systems and controls that will accommodate the surgeon's requirements to view multiple images from a single position in the room.
- Cabinets for a minimal stock of general supplies may be considered. Alcoves for rolling modular stock carts should be available in each room.
- Modules of 4 to 6 operating rooms around a sterile core room with standardized supply carts developed to support specific operations in that module are recommended.
- A workstation should be available in or adjacent to each module to accommodate dictation, supply order and data entry.
- Areas should be available immediately outside each OR, pair of rooms or module for:
  - Scrub sinks and related supplies
  - Flash Sterilization (1:2 rooms)
  - Warming Cabinets for Blanket & IV Fluids





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- Stretcher storage for the patient in the Operating Room.
- Staging of Case Carts for the next procedure.
- Decentralized storage alcoves should be planned for large pieces of mobile equipment such as C-arms, portable monitoring units that are not required in each room. A portion of the storage area available in these alcoves will be allocated to anaesthesia equipment.
  - Rooms reserved for reading/displaying digital images, surgical case planning and review;
  - Each room in which x-rays are taken must be equipped with a computer station with a radiology information system (RIS) so that the technologist can record examination data and use of the equipment, and enter the steps in the procedure. This area should also be equipped with an RIS/PACS station;
  - Rooms for appropriate imaging processing equipment including a quality control viewing station.
- Other ancillary, support and storage space required to support the designated speciality units (Neurosurgery) will be developed to address the specific requirements of :
  - Anaesthesia workroom(s) with appropriate equipment and supply storage at the module level
  - Medication support – automated dispensing machines have been proposed for anaesthesia carts in addition to the anaesthesia workroom.
  - Perfusion and RBC Salvage workroom
  - Biomedical engineering, including space for information technology and imaging support and a control studio for minimally invasive surgery
  - Surgical pathology processing and specimen review area with the capacity to respond to all surgical specialties

### STAFF SUPPORT AND TEACHING SPACES

- Clinical and support staff will enter the sterile area through a changing facility with lockers.
- All operating room and PACU personnel including physicians, full-time residents and fellows, nurses, and other ancillary professionals (anaesthesia technicians, perfusionists, imaging technicians) and support personnel (PCA and Materials Management Staff) will require a full size locker large enough for outdoor and street clothing. Full-time personnel (> 0.7 FTE) will be assigned a locker. Part-time personnel (< 0.7 & > 0.5) will be assigned use of a shared locker. Approximately 10% of the lockers should be designated for day use and available to other personnel, students and visitors.
- Locker rooms require strict security and should be directly contiguous with the Operating Rooms.
- Showers, toilets, area for the distribution of surgical uniforms, head and shoe covers and linen and trash bins for the collection of discarded surgical clothing should be included within the locker facility. A separate workroom with phones, computers, fax, etc. should be available for the use of the surgical, anaesthesia staff, residents and fellows in the clean zone.
- A small number of staff conference and in-service education rooms should be available for teaching and staff groups working within the Clean Zone of the Suite.
- Lounge area with food service, refrigerators, and vending machines, is required for surgeons, anaesthesiologists and clinical personnel working in the Operating





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Rooms. Access to this lounge must be controlled to respect separation of the restricted corridors of the Surgical Suite.

- Offices will be required within the OR Suite for:
  - Administrative and supervisory nursing support
  - Scheduling coordinators for all interventional services
  - Anaesthesia and respiratory supervisors and coordinators
  - Designated Materials Management staff
- Generally, dedicated staff offices on the Interventional Platform will be limited. Shared office space will be available for coordinators and clinical education.
- The anaesthesia physicians requested study areas/'ready' room at designated points within the Operating Suite contingent on layout. The proximity of the faculty offices for this unit should be considered to determine the priority of this requirement.
- On call accommodation should include a bed, desk with chair and a lounge chair. Windows were requested for all on-call rooms.

### PATIENT MOVEMENT, MATERIALS SUPPLY, LOGISTICS, AND STORAGE

- The hospital transportation team will be responsible for patient transport to the OR.
- Elevators and doors to operating/procedure rooms should be sized to accommodate patients in beds with traction, ventilators and other life support systems.
- A comprehensive case cart system with centralization of OR supply functions is proposed. This will hinge on a highly efficient, well-organized CSR and supply system. Use of information technology will be essential to development of a strong relationship between the staff in the OR and that of the direct service departments.
- A sterile core(s) is planned to support all operating and procedure rooms on the interventional floor. Specialized supplies required by the operating rooms in that module will be available in this core. Strict infection control recommends that access to this area be limited. If access to the area is not restricted, additional measures to maintain the integrity of the sterile stock in the core will be required.
- Dedicated clean elevator(s) from the CSR located directly below or above the Interventional Platform will provide access through a vestibule to the sterile core of each module. This elevator also allows personnel to quickly deliver additional instruments or other material during a procedure.
- In addition to the sterile core, an MMS satellite team will supplement the main CSR production area on the Interventional Platform. Their primary responsibilities and functional requirements are:
  - Storage and stocking of Anaesthesia supplies
  - Storage and stocking of perfusion supplies
  - Equipment evaluation and inspection of leased instrument sets.
  - Work area for the MMS staff responsible for Interventional Services.
- An established par level inventory of Anaesthesia supplies will be available within the Anaesthesia workroom, supported by additional material received and stored by the Materials Management Service for the Operating Suite.
- This area will be responsible for supply breakout and will require a trash/recycling holding area within the allocated space.
- Storage of stretchers for the OR currently managed by the MMS satellite team should be transferred with other transport equipment to the MUHC Transport Team.





## NEURO PAVILION| DIAGNOSTIC AND TREATMENT SERVICES

- The storage of rolling stock, including stretchers and wheelchairs for the MUHC will fall within the responsibility of the Patient Transport Team. This group will maintain and move all rolling transport equipment through the facility. Discussion between this group and the MMS team responsible for maintenance of a back-up inventory of stretchers in the OR will continue.
- The Case Cart Holding will be the site for collection of soiled material, trash and linen for disposal. Trash and linen will be removed and disposed of in the Holding Room. Instruments and trays in case carts will be transported to the soiled receiving area of decontamination within CSR via a dedicated soiled elevator.
- Housekeeping staff should be allocated a dedicated supply storage area within the Clean Zone.
- Storage for the issue and collection of gowns, masks and shoe covers are required at all access and egress points from the sterile zone.

### **BUILDING SYSTEMS: HVAC, PLUMBING, ELECTRICITY AND LIGHTING**

- Generally the design should address the need and selection of compatible systems in the selection of operating room equipment and building materials and systems.
- Special considerations shall provide for electrical hazard control, emergency power, radiological exposure hazard control, aseptic environmental characteristics and a waste gas exhaust system within each operating room.
- Each operating/procedure room should have independent temperature, humidity and lighting controls. An ambient temperature of 20 +/- 1 degree and specific humidity levels are required in the Operating Room. Ventilation should be designed to minimize air velocity greater than 1m/sec around the anaesthesiologist's workstation.
- Sufficient gas and power outlets should be available at multiple sites in each operating room.
- Compressed gases will be available to operate surgical tools.
- Individually controlled built in music/stereo systems will be provided in operating/procedure rooms.
- Sufficient ambient and task lighting will be installed in each staff work area.
- Design features to reduce the level of ambient noise in the Operating Room will be implemented whenever possible.
- Natural light shall be maximized wherever possible.
- Overhead fixtures in patient corridors and bedrooms should be indirect, wherever possible.

### **COMMUNICATION AND INFORMATION SYSTEMS**

- Systems for tracking the status of all OR-related activities should be considered. Such systems may include:
  - A patient locator system that tracks the progress of each patient from initial entry to departure from the surgical suite.
  - An automated system for tracking the status of each OR so that rooms can be immediately serviced as they open.
- Telecommunications and networked computer systems will be pervasive throughout the operating suite. Each operating room should be equipped for ubiquitous "in and out" audio and visual communications to support:
  - On-screen communication and ongoing monitoring of activity in all operating rooms to multiple sites within and beyond the surgical suite
  - Remote observation of surgical procedures for didactic purposes
  - Pathology results viewing and consultation





## NEURO PAVILION | DIAGNOSTIC AND TREATMENT SVICES

- Central reading and/or remote display of digital images originating in the operating rooms
- A hands-free telephone should be at the operating and anaesthesiologist's position in each room.
- Multiple access points for telecommunications instruments, networked computer terminals, and mobile computing equipment are required in the OR groups and in the individual operating rooms. Networked information terminals should link operating/procedure rooms to the anaesthesiology workroom, blood bank, surgical pathology, and the control room.
- All telecommunications planning must integrate the use of the selected technologies to circumvent potential interference with medical diagnostic and monitoring equipment.
- Construction of the infrastructure in the Operating Area should emphasize maximum flexibility to expand and link to new information technology in the future.

### SPECIAL EQUIPMENT REQUIREMENTS

- A security system with sensors and alarms will monitor patient care equipment.
- Maximum use of ceiling space (e.g., "tracks" for equipment) and minimal use of floor space and walls is recommended.
- The ability to conduct audiology and neurological tests intra-operatively will be required in all rooms.
- The use of Intra-operative Imaging Equipment in the Operating Suite will have an impact on the selection and use of other electronic and monitoring equipment in the Room itself and the immediate area. Appropriate protection must be provided in the CT-scan and angiography rooms. The MRI room will require appropriate protection against magnetic/electric fields. Informed equipment selection must be implemented to maintain an environment that is conducive to all forms of electronic monitoring common in today's interventional procedures.
- A minimum of one operating room (MIS room) must be equipped/designed for use of lasers.





## **.2 NEURODIAGNOSTICS**

### **SCOPE OF SERVICES (SEE THE INPATIENT CARE SPACE TABLE)**

This group will define the functional and spatial needs for the Neurodiagnostics departments as well as for the non-invasive diagnostic services that perform electrophysiological tests, including electroencephalograms (EEG) (routine tests, sleep studies, patient monitoring), EMG and evoked potentials (EP).

The Neurodiagnostics team conducts routine studies on inpatients and ambulatory patients in the neurodiagnostics laboratory, intraoperatively and in the intensive and acute care units.

The department plans to open a neurological sleep laboratory for epilepsy and sleep disorders, and which will be a component of the Neurology unit. This department will work closely with the inpatient unit.

Functions to be addressed as part of this service delivery model include:

1. EEG studies: routine, sleep (sleep latency studies, polysomnography, any other sleep recordings), and prolonged (ICU portable recordings, bedside portable EEGs, electrical stimulations inpatients with intracranial electrodes, and back-average cortical studies). This does not include outpatient telemetry (e.g., prolonged video/audio/EEG recordings) and overnight polysomnography which should be performed in the Monitoring Unit (see below). It may, however, eventually include ambulatory home EEG monitoring.
2. EMG studies (electromyograms, nerve conduction studies, single fiber. F waves, H-reflex, blink reflex, duration analysis, sympathetic skin response, transmission studies, botox injection, bulbo-cavernosus reflex). With the EMG evaluation there is also a detailed neurological examination.
3. Autonomic Nervous System studies (Quantify Sensory Testing, thermal threshold, vibration threshold, tilt-table test).
4. Evoked potential (somatosensory, visual and auditory).

### **ORGANIZATION AND CONFIGURATION**

- Electrophysiological testing is primarily conducted in a controlled environment.
- The unit will be developed according to the premises established in the Master Program discussion:
  - To promote efficient care delivery and a positive patient experience.
  - To accommodate education and research activities within the practice setting.
  - To locate EEG, EMG and evoked potential equipment in two separate laboratories, one devoted to adult and one to paediatric considering each of the laboratories adjacency requirements.
  - To plan lab area in order to be appropriately wired, staffed and spaced for future technological changes and new telemedicine installations.



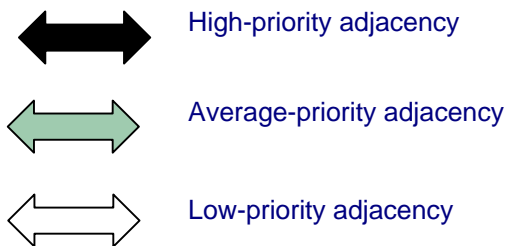
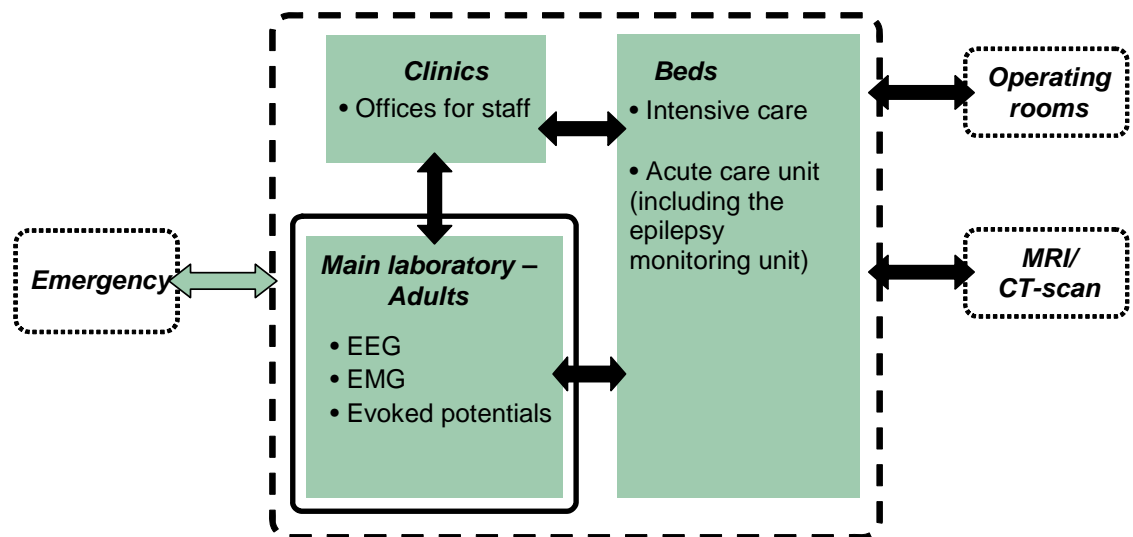




## NEURO PAVILION | DIAGNOSTIC AND TREATMENT SERVICES

- To plan lab in order to accommodate future overlapping between clinical and research activities, such as imaging techniques: EEG-FMRI, Diffusion-MRI, MEG and other imaging studies (e.g., SPECT, PET).
- Key adjacencies reviewed in the same discussion include:
  - Locating the academic offices and technical workstations of the Clinical Neurology Staff with the Neuro-Diagnostics Laboratory.
  - Providing exam/consultation rooms within the lab to accommodate PT-OT assessment, speech, dietetics, social services, psychiatrists and research.
  - Providing protected beds for outpatient, inpatient and epilepsy monitoring with adequate access to nurses and technicians.

### Neuro-Diagnostics Adjacencies





## NEURO PAVILION | DIAGNOSTIC AND TREATMENT SERVICES

### FUNCTIONAL AND OPERATIONAL GUIDELINES

#### ARRIVAL AND WAY-FINDING

- The entrances to the neuro-diagnostics labs should be convenient to the front entrance but located in an area that is off of the main traffic circulation to provide a quiet setting.
- Two different access points could be provided for each neuro-diagnostic lab to accommodate inpatient and outpatient distinct flow patterns.
- The units should be located to facilitate the key adjacencies discussed in the preceding section.
- On entering the building, good bilingual signage and clear circulation will direct patients to the appropriate service areas.
- 

#### RECEPTION, REGISTRATION AND WAITING

- Seating in waiting areas should be comfortable, durable, and accessible to those with limited mobility. The waiting room should provide some privacy and separation for small family groups.
- Reception staff will have visual access to the outpatient waiting area, control patient entry to the testing area, and have direct access to the patient care staff.
- The inpatient waiting area requires visual supervision by a member of the care team and should be separate from outpatient waiting.
- The staff member responsible for check-in will verify demographic information and update any information in the Computer-based Patient Record, inform the clinical staff of the patient's arrival, and assemble records, films and additional material for the medical practitioners.
- A staff member will escort the patient and family from the waiting area to the examination room.
- Follow-up tests/procedures may be scheduled with the receptionist prior to departure.

#### PATIENT CARE AND DIRECT SUPPORT

- Changing areas and waiting rooms for patients in hospital gowns will be separated from general waiting rooms and provide visual privacy for these patients.
- Provide sound attenuation in all examination and testing rooms. In particular, a sound barrier must be provided between testing rooms, waiting area and preparation room.
- The central workstation for technicians and other members of the care team will have visual access to all parts of the neuro-diagnostics lab.
- A teaching/workroom should be available for case conferences and in-service education.
- Space for EEG review stations for staff and fellows and space for LAN servers

#### DESIGN CONSIDERATIONS FOR LIGHTING, PLUMBING, HEATING AND VENTILATION AND OTHER BUILDING SYSTEMS

- Consideration should be given to providing natural light especially in public areas of the Medical Centre.





## NEURO PAVILION | DIAGNOSTIC AND TREATMENT SERVICES

- A handwashing sink and small cabinet or shelving unit will be available for clinical staff in all testing rooms. A hair-washing sink will be available for patients.
- Each EEG monitoring room (telemetry + day monitoring) will be equipped with video camera, special consideration should be taken for lighting of the room, ideally having a north facing window, and ceiling lighting appropriate for day and night video recordings.
- Provide oxygen, vacuum and compressed air delivery systems in each testing room.
- Good ventilation in preparation room area and in individual testing room where chemical products are used.
- Appropriate ambient and task lighting will be installed in each testing room.
- Overhead lighting in any areas where patients are prone should be indirect.
- Selection of lamp types for patient testing areas should be reviewed with the clinical staff to assess any potential effect on patient brain activity.
- Special attention must be given to the electrical requirements for this area. Proper shielding of wiring should be provided to avoid potential electrical interference and noise abatement.
- Interior of surfaces should be durable and protected from possible damage by chair legs, stretchers, wheelchairs and other rolling equipment.
- Appropriate security system for entire laboratory.

### COMMUNICATION AND INFORMATION SYSTEMS

- Each testing room will have the power and telecommunication ports to accommodate electronic record review and updating by the appropriate members of the care team.
- EEG lab will be part of a local area network with their own server.
- Each testing room must have intercom.
- All patient rooms/testing areas should include an emergency call button to the caregiver support/tech station and doctor's reading room.
- A remote viewing station of the outpatient monitoring should take place in the examination room, in order to keep constant contact with them.

### STAFF SUPPORT SPACE

- Staff will be provided a secure space for personal belongings within a reasonable distance of their primary workspace.
- The ergonomic requirements of staff members working with multiple pieces of electronic equipment in the recording and archiving of electronic data should be reviewed.

### MATERIALS SUPPLY, LOGISTICS, AND STORAGE

- Neuro-diagnostic lab staff will determine storage requirements within each examination space. Staff in the unit will distribute supplies to these areas from a central storage room.
- Responsibility for maintaining supply levels in the central storage room of the practice area will be coordinated with Materials Management.
- Trash will be collected from the practice cluster by housekeeping staff on a regular schedule.





## NEURO PAVILION | DIAGNOSTIC AND TREATMENT SERVICES

### SPECIAL EQUIPMENT REQUIREMENTS

- Special attention must be given to the electrical requirements for this area as well as potential electrical interference and noise abatement.
- EEG and evoked potential data from the surgical suites should be capable of being reviewed remotely and in real-time by a neurologist or other physician in the Neuro-Diagnostic department.





### **.3 IMAGING**

#### **SCOPE OF SERVICES**

Diagnostic Imaging at the MNH will offer both inpatients and ambulatory patients a single service that groups all other services, even though some may be decentralized and offered at various locations. Upon arrival, ambulatory patients will immediately have access to Diagnostic Imaging, where admissions staff will register them. A satellite imaging unit is planned. The following services will be offered:

- CT-scan
- Fluoroscopy
- Ultrasound
- Biplanar angiography
- MRI

#### **ARRIVAL AND WAY-FINDING**

- The entrance to outpatient areas should be designed so that a patient coming to the department is greeted by a receptionist and directed appropriately. Staff should enter and leave the department by an entrance other than that used by patients. Located in or near the entrance should be:
  - Reception
  - Communications Centre (scheduling, registration)
  - Public waiting
  - Public toilets
  - Dressing room cubicles
  - Dressing room (accessible)
  - Patient Information Centre
  - Patient lockers
- The procedure rooms should be located so that the high volume rooms are nearest the outpatient entrance and reception, so that the volume of patient movement within the department is minimized.
- Patient movement between inpatient units and Diagnostic Imaging should occur via non-public corridors and dedicated inpatient/staff elevators.

#### **RECEPTION, REGISTRATION AND WAITING**

- A separate holding/prep area for inpatient waiting will be developed within Diagnostic Imaging. This area should be proximate to the inpatient elevator and in a location clearly visible from staff areas.
- Some Diagnostic Imaging patients change into a gown for an imaging test. A private gowned waiting room, visually segregated from public areas and segregated by gender, should be provided. This area will be off limits to all except staff and gowned patients. Patient belongings should be secured while they are being treated in the Diagnostic Imaging.
- Evaluate using lockers with plastic keys that patients can keep with them that will not interfere with imaging tests.
- Changing rooms and gowned waiting should be visually shielded from all public areas and gowned patient travel should be minimized. Patients should have





## NEURO PAVILION | DIAGNOSTIC AND TREATMENT SERVICES

handicapped-accessible private space for changing. Access to toilets for gowned patients without re-entering public spaces should be provided.

### DIRECT CARE AND DIRECT SUPPORT

- Diagnostic Imaging room design requirements include:
  - Ceiling: minimum heights, floor to deck clearance, and structural systems for mounting equipment
  - Proper shielding for radiation protection and to minimize scattered radiation
  - Non-ferrous telemetry monitoring should be provided in the MRI testing room
  - Medical gases and suction
  - Adequate shelving for positioning sponges, “immobilizing devices and filters”
  - Sink/hand-washing area
  - Lead apron racks
  - Countertop work area
  - Storage area for accessories and linen
  - Ceiling mounted IV racks
- Design room access (door swings, hallways) with a minimum of turns to allow easy stretcher and ICU bed access. Rooms may have leaded doors split into 1/3 and 2/3 hinged parts.
- Medical air, oxygen, and vacuum should be included in all therapeutic and diagnostic areas (two outlets each). These outlets should be in close proximity to the testing equipment.
- A scavenging system for anesthesia gasses must be provided in those rooms where anaesthesia services will be provided.
- A nurse call system, activated in all patient toilets and changing booths, with a console in the tech work area (or some other monitoring location), should be provided.
- All diagnostic rooms should have emergency call buttons.
- Induction rooms should be provided in close proximity to those modalities that frequently accommodate patients under general anesthesia.
- A patient prep/holding/recovery area should be provided for those patients that receive nursing care prior to and following testing. Each patient bay requires medical gasses and vacuum.
- This prep/holding/recovery area should be vertically adjacent to the prep/holding/recovery unit on the procedural platform to allow supervising staff to cover both units. At the scheduled closing time of this unit, patients will be consolidated in the main recovery area on the interventional platform. Comfortable, convenient, confidential patient transport must be provided. Patients requiring longer-term recovery should also be transferred to the main prep/holding/recovery area as needed.

### BUILDING SYSTEMS: HVAC, PLUMBING, ELECTRICITY AND LIGHTING

- All Diagnostic Imaging testing rooms should have indirect, dimmable lighting. Both fluorescent and incandescent lighting be provided in all testing rooms and control rooms, on separate switches.
- Reading rooms, tech work areas, conference rooms, and any other area that would have traditionally contained a radiology viewbox must have adequate HVAC to support additional PC monitors and/or PACS monitors. PACS monitors generate high heat loads.





## NEURO PAVILION | DIAGNOSTIC AND TREATMENT SERVICES

- Maximize natural light wherever possible. Natural light in exam rooms should be considered a positive.
- Include additional electrical outlets. Confer with users on which outlets should be connected with emergency power during design development.
- All handwashing sinks should have infrared sensor controlled faucets.
- All modalities require positive pressure.

### COMMUNICATION AND INFORMATION SYSTEMS

- Information Flow – PACS: Digital imaging is anticipated in the near future. Universal access for data and image retrieval will be critical throughout the department and the facility. Conversion to a filmless PACS system should be considered inevitable, and the design of the hospital should take the following into account:
  - Data from both the PACS system and the radiologists' reports should be available to networked stations throughout the facility (including the physicians' offices). Dedicated PACS terminals (ultra-high resolution) are not necessary outside Diagnostic Imaging, the Emergency Department, surgery, and intensive care; high quality PC monitors provide adequate resolution for most applications.
  - The hospital network infrastructure should allow connectivity of imaging devices like c-arms and other imaging devices used in the ORs to be connected through physical or wireless means to the PACS system for image acquisition and viewing.
- A zoned overhead paging system should be provided.
- Consider access to dictation system in every exam room.

### SUPPORT STAFF SPACE

- Radiologist offices should be in the imaging zone of the department and away from direct patient sight lines.
- Staff lounges and other staff spaces should also be located away from patient sight lines.
- Reading rooms should have sound attenuation to control sound.

### SUPPLIES, LOGISTICS AND MATERIALS STORAGE

- There should be effective, convenient flow of materials from procedure rooms to processing, sorting, viewing, and filing areas. The inpatient/staff/materials corridor must be separate from the main public circulation corridor and should not pass through the outpatient entrance to the department.
- Incoming and outgoing films should be delivered directly to and taken from the department by courier.





## NEURO PAVILION | DIAGNOSTIC AND TREATMENT SERVICES

### SPECIAL EQUIPMENT REQUIREMENTS

- Emergency Power and UPS systems must be provided throughout the department. Consult with the users to determine which types of equipment require what level of protection.

### .4 SATELLITE PHARMACY

The Neuro operating suite will be served by a satellite pharmacy. The central pharmacy will be located in the main building on the Mountain Campus.

### .5 ALLIED HEALTH SERVICES

Satellite services will be in place to meet the allied health needs of MNH patients in the following departments:

- Physiotherapy
- Occupational Therapy
- Speech Language Pathology
- Audiology
- Respiratory Therapy
- Neuropsychology
- Clinical Nutrition
- Social Services
- Pastoral Services





**McGILL UNIVERSITY HEALTH CENTER SPACE TABLE  
APRIL 2008**

**Mountain Campus  
Neuro Pavilion - Diagnostic and Treatment**

Activity Zone	Room	Net*	#	Tnet*	F1*	DGSM*	F*	BGSM*	Notes
		<b>246</b>		<b>4,375</b>		<b>6,606</b>		<b>7,597</b>	<b>Group Total</b>
<b>4.4.4.2.3.1-01</b>	<b>Neuro - Operating Room Block</b>		<b>42</b>	<b>1,034</b>		<b>1,602</b>		<b>1,842</b>	
<b>Operating Rooms</b>			<b>42</b>	<b>1,034</b>		<b>1,602</b>		<b>1,842</b>	<b>RDS #</b>
24010.01	Operating Room (minor)	56.8	1	56.8	1.550	88.0	1.150	101.2	
24010.02	Operating Room (major)	76.4	5	382.0	1.550	592.1	1.150	680.9	
24010.03	Scrub	45.4	3	136.2	1.550	211.1	1.150	242.8	
24010.04	Semisterile Zone	45.4	1	45.4	1.550	70.4	1.150	80.9	
24010.05	Urgente Sterilization (Flash)	6.2	1	6.2	1.550	9.6	1.150	11.1	
24010.06	Alcove - crash cart	6.2	4	24.8	1.550	38.4	1.150	44.2	
24010.07	First-decontamination Dirty Utility	6.2	2	12.4	1.550	19.2	1.150	22.1	
24010.08	Control Desk	6.2	2	12.4	1.550	19.2	1.150	22.1	
24010.09	Biomedical Engineer Support	10.3	2	20.6	1.550	31.9	1.150	36.7	
24010.10	Sterile Material Storage	30.9	1	30.9	1.550	47.9	1.150	55.1	
24010.11	Heavy Equipement Storage	41.2	1	41.2	1.550	63.9	1.150	73.4	
24010.12	Sterile Casing Storage	51.6	1	51.6	1.550	80.0	1.150	92.0	
24010.13	Professional Entrance Zone	9.3	1	9.3	1.550	14.4	1.150	16.6	
24010.14	Pneumatic	1.6	1	1.6	1.550	2.5	1.150	2.9	
24010.15	Lockers (Nurse)	10.0	2	20.0	1.550	31.0	1.150	35.7	
24010.16	Lockers (Physician)	10.0	2	20.0	1.550	31.0	1.150	35.7	
24010.17	Neuronavigation	46.5	1	46.5	1.550	72.1	1.150	82.9	
24010.18	Kitchenettes	11.4	1	11.4	1.550	17.7	1.150	20.3	
24010.19	Lounge (staff)	15.0	1	15.0	1.550	23.3	1.150	26.7	
24010.20	Physicians workroom	15.0	1	15.0	1.550	23.3	1.150	26.7	
24010.21	Office OR Material Management	9.3	1	9.3	1.550	14.4	1.150	16.6	
24010.22	Nurse specialized Office (Shared )	8.4	2	16.8	1.550	26.0	1.150	29.9	
24010.23	Surgical Pathology Office	9.3	1	9.3	1.550	14.4	1.150	16.6	
24010.24	Surgical Pathology Laboratory	18.6	1	18.6	1.550	28.8	1.150	33.2	
24010.25	Shower	5.6	2	11.2	1.550	17.4	1.150	20.0	
24010.25	Resident Room	9.0	1	9.0	1.550	14.0	1.150	16.0	

\*Légend: NET (Net surface area), # (number of rooms), T.NET (Total net surface area), SBS (departemental gross square meters), BGSM (building gross square meters)

F1= departemental gross surface area ratio, F=(F2\*F3)=building gross surface area ratio, F3 is non existant for the Mountain Campus

4/16/2008 MUHC Redevelopment Project - Revision of the Functional and Technical Program

Space Table Page 1 of 6

RDS = Room Data Sheet / Fiche technique

Activity Zone	Room	Net*	#	Tnet*	F1*	DGSM*	F*	BGSM*	Notes
<b>4.4.4.2.3.1-02 Mountain Campus - Operating Room Block (8 rooms) - Surgical Mission</b>									
			<b>11</b>	<b>185</b>		<b>287</b>		<b>330</b>	
<b>Perioperative services: reception area</b>			<b>4</b>	<b>59</b>		<b>91</b>		<b>105</b>	<b>RDS #</b>
24020.01	Reception area	15.0	1	15.0	1.550	23.2	1.150	26.7	
24020.02	Waiting area - 6 stretchers	27.0	1	27.0	1.550	41.9	1.150	48.2	
24020.03	Transfer zone	12.0	1	12.0	1.550	18.6	1.150	21.4	
24020.04	Conveyor and pneumatic	5.0	1	5.0	1.550	7.8	1.150	8.9	
<b>Perioperative services : recovery room</b>			<b>7</b>	<b>126</b>		<b>196</b>		<b>225</b>	<b>RDS #</b>
24020.05	Recovery room - 8 stretchers ( 7 stretchers + 1 induction)	76.0	1	76.0	1.550	117.8	1.150	135.5	
24020.06	Isolation room	10.5	1	10.5	1.550	16.3	1.150	18.7	
24020.07	Recovery room monitoring station	10.3	1	10.3	1.550	16.0	1.150	18.4	
24020.08	Family room	15.0	1	15.0	1.550	23.3	1.150	26.7	
24020.09	Laundry alcove	2.5	1	2.5	1.550	3.9	1.150	4.5	
24020.10	Clean supplies - alcove	6.0	1	6.0	1.550	9.3	1.150	10.7	
24020.11	Dirty Supplies	6.0	1	6.0	1.550	9.4	1.150	10.8	

\*Légend: NET (Net surface area), # (number of rooms), T.NET (Total net surface area), SBS (departemental gross square meters), BGSM (building gross square meters)

F1= departmental gross surface area ratio, F=(F2\*F3)=building gross surface area ratio, F3 is non existant for the Mountain Campus

4/16/2008 MUHC Redevelopment Project - Revision of the Functional and Technical Program

Space Table Page 2 of 6

RDS = Room Data Sheet / Fiche technique

Activity Zone	Room	Net*	#	Tnet*	F1*	DGSM*	F*	BGSM*	Notes
<b>4.4.4.2.3.1-03 Mountain Campus - Operating Room Block (8 rooms) - Surgical Mission</b>									
			<b>43</b>	<b>1,087</b>		<b>1,684</b>		<b>1,937</b>	
<b>Operating area - 8 operating rooms</b>			<b>43</b>	<b>1,087</b>		<b>1,684</b>		<b>1,937</b>	<b>RDS #</b>
24020.12	Secretariat (2 people)	13.0	1	13.0	1.550	20.2	1.150	23.2	
24020.13	Head Nurse Office	11.0	1	11.0	1.550	17.0	1.150	19.5	
24020.15	Chief of surgery office	13.9	1	13.9	1.550	21.6	1.150	24.8	
24020.16	Chief of anesthesia	13.9	1	13.9	1.550	21.6	1.150	24.8	
24020.17	General purpose office	11.0	3	33.0	1.550	51.2	1.150	58.8	
24020.18	Physician rest room-kitchenette	14.0	1	14.0	1.550	21.7	1.150	25.0	
24020.19	Staff rest room - kitchenette	14.0	1	14.0	1.550	21.7	1.150	25.0	
24020.20	On-call Room	7.0	1	7.0	1.550	10.8	1.150	12.4	
24020.21	Meeting/Dictation room	14.0	1	14.0	1.550	21.7	1.150	25.0	
24020.22	Staff room (toilet/shower)	4.0	1	4.0	1.550	6.2	1.150	7.1	
24020.23	Washroom	2.5	3	7.5	1.550	11.6	1.150	13.4	
24020.24	Housekeeping	4.0	1	4.0	1.550	6.2	1.150	7.1	
24020.25	Housekeeping Storage	8.0	1	8.0	1.550	12.4	1.150	14.2	
24020.26	locker/shower/balling - women	32.1	1	32.1	1.550	49.7	1.150	57.1	
24020.27	locker/shower/balling - women	18.0	1	18.0	1.550	27.9	1.150	32.1	
24020.28	General operating room	56.0	6	336.0	1.550	520.8	1.150	598.9	
24020.29	Ultraspecialized operating room	74.0	2	148.0	1.550	229.4	1.150	263.8	
24020.30	Plaster room	18.0	1	18.0	1.550	27.9	1.150	32.1	
24020.31	work station, brushing and sub-sterilization	166.7	1	166.7	1.550	258.3	1.150	297.1	
24020.32	Sterile depository	12.0	1	12.0	1.550	18.6	1.150	21.4	
24020.33	Soiled Cart waiting area	30.0	1	30.0	1.550	46.5	1.150	53.5	
24020.34	Clean cart assembly and reception	30.0	1	30.0	1.550	46.5	1.150	53.5	
24020.35	Anesthesia depository	24.0	1	24.0	1.550	37.2	1.150	42.7	
24020.36	Pharmacy depository	13.4	1	13.4	1.550	20.7	1.150	23.8	
24020.37	Orthopedics depository	13.4	1	13.4	1.550	20.7	1.150	23.8	
24020.38	Equipment reserves	26.7	1	26.7	1.550	41.3	1.150	47.5	
24020.39	Imaging depository	4.0	1	4.0	1.550	6.2	1.150	7.1	
24020.40	Pharmacy (alcove)	8.0	1	8.0	1.550	12.4	1.150	14.2	
24020.41	Linen alcove	3.3	1	3.3	1.550	5.2	1.150	6.0	
24020.42	Clean supplies alcove	8.9	1	8.9	1.550	13.8	1.150	15.9	
24020.43	Dirty supplies	8.9	1	8.9	1.550	13.8	1.150	15.9	
24020.44	Surgical Pathology Office	9.3	1	9.3	1.550	14.4	1.150	16.6	
24020.45	Surgical Pathology Laboratory	18.6	1	18.6	1.550	28.8	1.150	33.2	

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RDS = Room Data Sheet / Fiche technique

Activity Zone	Room	Net*	#	Tnet*	F1*	DGSM*	F*	BGSM*	Notes
<b>4.4.4.2.3.1-04 Neuro - Offices - Operating Room Block</b>			<b>14</b>	<b>140</b>		<b>217</b>		<b>250</b>	
<b>Anesthesia</b>			<b>14</b>	<b>140</b>		<b>217</b>		<b>250</b>	<b>RDS #</b>
24030.01	Department chief office	9.0	1	9.0	1.550	14.0	1.150	16.0	
24030.02	Secretary office	9.0	1	9.0	1.550	14.0	1.150	16.0	
24030.03	Department secretary office	9.0	1	9.0	1.550	14.0	1.150	16.0	
24030.04	Anesthesiologist office	9.0	6	54.0	1.550	83.7	1.150	96.3	
24030.05	Respiratory therapy office	9.0	1	9.0	1.550	14.0	1.150	16.0	
24030.06	Respiratory Therapy Staff Room	15.0	1	15.0	1.550	23.3	1.150	26.7	
24030.07	Clean Storage and Machine Set Up	14.9	1	14.9	1.550	23.1	1.150	26.6	
24030.08	Soiled Utility and Machine Cleaning	11.1	1	11.1	1.550	17.2	1.150	19.8	
24030.09	Resident On Call Room	9.0	1	9.0	1.550	14.0	1.150	16.0	
<b>4.4.4.2.3.2 Neuro - EEG/EMG</b>			<b>46</b>	<b>661</b>		<b>959</b>		<b>1,103</b>	
<b>EEG/EMG</b>			<b>46</b>	<b>661</b>		<b>959</b>		<b>1,103</b>	<b>RDS #</b>
21110.01	EEG/EMG Test Rooms	20.4	11	224.4	1.450	325.4	1.150	374.2	
21110.02	Telemetry Room	15.0	1	15.0	1.450	21.8	1.150	25.0	
21110.03	Reception Areas (2)	15.0	1	15.0	1.450	21.8	1.150	25.0	
21110.04	Medical Records Rooms	15.0	1	15.0	1.450	21.8	1.150	25.0	
21110.05	Sleep Laboratory	13.6	2	27.2	1.450	39.4	1.150	45.4	
21110.06	Special Test Room	27.9	1	27.9	1.450	40.5	1.150	46.5	
21110.07	Kitchenettes	10.3	2	20.6	1.450	29.9	1.150	34.4	
21110.08	Staff Lounge	15.0	1	15.0	1.450	21.8	1.150	25.0	
21110.09	Offices	9.3	7	65.1	1.450	94.4	1.150	108.6	
21110.10	EEG/EMG Interpretation Rooms	20.4	3	61.2	1.450	88.7	1.150	102.1	
21110.11	Washrooms	4.6	3	13.8	1.450	20.0	1.150	23.0	
21110.12	Autonomic Nervous System Labo.	17.8	1	17.8	1.450	25.8	1.150	29.7	
21110.13	Waiting Room	12.9	3	38.7	1.450	56.1	1.150	64.5	
21110.14	Changing Room	5.0	4	20.0	1.450	29.0	1.150	33.4	
21110.15	Storage Room	22.7	2	45.4	1.450	65.8	1.150	75.7	
21110.16	Conference Room (10)	25.8	1	25.8	1.450	37.4	1.150	43.0	
21110.17	Technician's Workroom	9.3	1	9.3	1.450	13.5	1.150	15.5	
21110.18	Staff Toilet	4.0	1	4.0	1.450	5.8	1.150	6.7	

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RDS = Room Data Sheet / Fiche technique

Activity Zone	Room	Net*	#	Tnet*	F1*	DGSM*	F*	BGSM*	Notes
<b>4.4.4.2.3.3</b>	<b>Neuro Pavilion - Imaging</b>		<b>27</b>	<b>589</b>		<b>913</b>		<b>1,050</b>	
<b>Neuroradiology</b>			<b>27</b>	<b>589</b>		<b>913</b>		<b>1,050</b>	<b>RDS #</b>
24040.01	Viewing Room	64.5	1	64.5	1.550	99.9	1.150	114.9	
24040.02	Reception / Nursing	17.6	1	17.6	1.550	27.3	1.150	31.4	
24040.03	Radiologist	9.3	4	37.2	1.550	57.7	1.150	66.3	
24040.04	Washroom	3.8	2	7.6	1.550	11.8	1.150	13.5	
24040.05	Waiting Area (12 to 15)	18.6	1	18.6	1.550	28.8	1.150	33.1	
24040.06	Storage / Secretary	28.2	1	28.2	1.550	43.8	1.150	50.3	
24040.07	Ultrasound	30.4	1	30.4	1.550	47.2	1.150	54.3	
24040.08	Reading Room PACS	20.9	1	20.9	1.550	32.3	1.150	37.2	
24040.09	Storage Room	1.7	1	1.7	1.550	2.6	1.150	3.0	
24040.10	MRI	69.7	1	69.7	1.550	108.0	1.150	124.2	
24040.11	Manager of Radiology	9.9	1	9.9	1.550	15.3	1.150	17.6	
24040.12	Washroom (Staff)	3.8	1	3.8	1.550	5.9	1.150	6.8	
24040.13	General Radiology	39.7	1	39.7	1.550	61.5	1.150	70.8	
24040.14	Lounge	17.9	1	17.9	1.550	27.7	1.150	31.9	
24040.15	Changing Room (Staff)	7.8	1	7.8	1.550	12.1	1.150	13.9	
24040.16	Preparation / Recovery Room	41.8	1	41.8	1.550	64.8	1.150	74.5	
24040.17	Assistant Chief Tech.	8.5	1	8.5	1.550	13.1	1.150	15.1	
24040.18	Waiting Area	16.6	1	16.6	1.550	25.7	1.150	29.6	
24040.19	C.T. Scanner	23.4	1	23.4	1.550	36.2	1.150	41.6	
24040.20	C.T. Control / Computer	7.2	1	7.2	1.550	11.1	1.150	12.8	
24040.21	C.T.Scan Computer Room	1.6	1	1.6	1.550	2.5	1.150	2.9	
24040.22	C.T. Scan Storage	21.8	1	21.8	1.550	33.7	1.150	38.8	
24040.23	Angiography	92.9	1	92.9	1.550	144.0	1.150	165.6	
<b>4.4.4.2.3.4</b>	<b>Neuro - Pharmacy (Satellite)</b>		<b>12</b>	<b>144</b>		<b>194</b>		<b>224</b>	
<b>Satellite Pharmacy</b>			<b>12</b>	<b>144</b>		<b>194</b>		<b>224</b>	<b>RDS #</b>
24050.01	Preparation Area	50.0	1	50.0	1.350	67.5	1.150	77.6	
24050.02	Production Area	10.0	1	10.0	1.350	13.5	1.150	15.5	
24050.03	Anteroom	5.0	1	5.0	1.350	6.8	1.150	7.8	
24050.04	Medication Reserve	20.0	1	20.0	1.350	27.0	1.150	31.1	
24050.05	Medication cart alcove (Wards)	5.0	4	20.0	1.350	27.0	1.150	31.1	
24050.06	Narcotic Storage	10.0	1	10.0	1.350	13.5	1.150	15.5	
24050.07	Material Storage	10.0	1	10.0	1.350	13.5	1.150	15.5	
24050.08	Instrument Washing / Preparation	10.0	1	10.0	1.350	13.5	1.150	15.5	
24050.09	Pharmacist Office	9.0	1	9.0	1.350	12.2	1.150	14.0	

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RDS = Room Data Sheet / Fiche technique

Activity Zone	Room	Net*	#	Tnet*	F1*	DGSM*	F*	BGSM*	Notes
<b>4.4.4.2.3.5</b>	<b>Neuro - Allied Health</b>		<b>51</b>	<b>535</b>		<b>749</b>		<b>862</b>	
<b>Occupational Therapy</b>			<b>10</b>	<b>90</b>		<b>126</b>		<b>145</b>	RDS #
25300.01	Office	9.0	10	90.0	1.400	126.0	1.150	144.9	
<b>Clinical Nutrition</b>			<b>4</b>	<b>36</b>		<b>50</b>		<b>58</b>	RDS #
25700.01	Office	9.0	3	27.0	1.400	37.8	1.150	43.5	
25700.02	Multipurpose Office	9.0	1	9.0	1.400	12.6	1.150	14.5	
<b>Speech Therapy</b>			<b>9</b>	<b>65</b>		<b>91</b>		<b>105</b>	RDS #
25500.01	Office	9.0	3	27.0	1.400	37.8	1.150	43.5	
25500.02	Multipurpose Office - Technicians	3.7	3	11.1	1.400	15.5	1.150	17.9	
25600.01	Office	9.0	3	27.0	1.400	37.8	1.150	43.5	
<b>Physiotherapy</b>			<b>3</b>	<b>27</b>		<b>38</b>		<b>43</b>	RDS #
25200.01	Office	9.0	1	9.0	1.400	12.6	1.150	14.5	
25200.02	Multipurpose Office	9.0	2	18.0	1.400	25.2	1.150	29.0	
<b>Rehabilitation</b>			<b>15</b>	<b>210</b>		<b>294</b>		<b>338</b>	RDS #
25100.01	Office - Surgical Pathology	9.0	2	18.0	1.400	25.2	1.150	29.0	
25100.02	Multipurpose Office	9.0	2	18.0	1.400	25.2	1.150	29.0	
26160.01	Office	9.0	1	9.0	1.400	12.6	1.150	14.5	
26160.02	Multipurpose Office	9.0	2	18.0	1.400	25.2	1.150	29.0	
26160.03	Storage	25.0	1	25.0	1.400	35.0	1.150	40.3	
26160.04	Gymnasium	75.0	1	75.0	1.400	105.0	1.150	120.8	
26160.05	Lockers	10.0	2	20.0	1.400	28.0	1.150	32.2	
26160.06	Washroom	4.5	2	9.0	1.400	12.6	1.150	14.5	
26160.07	Showers	9.0	2	18.0	1.400	25.2	1.150	29.0	
<b>Pastoral Care</b>			<b>2</b>	<b>29</b>		<b>41</b>		<b>47</b>	RDS #
26360.01	Multipurpose Office	9.0	1	9.0	1.400	12.6	1.150	14.5	
26360.02	Chapel (interconfessional)	20.0	1	20.0	1.400	28.0	1.150	32.2	
<b>Social Services</b>			<b>8</b>	<b>78</b>		<b>109</b>		<b>126</b>	RDS #
25400.01	Office	9.0	6	54.0	1.400	75.6	1.150	86.9	
25400.02	Multipurpose Office	9.0	1	9.0	1.400	12.6	1.150	14.5	
25400.03	Patient Room	15.0	1	15.0	1.400	21.0	1.150	24.2	

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RDS = Room Data Sheet / Fiche technique



#### 4.4.4.2.4 CLINICAL SUPPORT SERVICES

##### .1 CENTRAL STERILIZE REPROCESSING CENTRE

###### SCOPE OF SERVICES

The cleaning, packaging and sterilization of MNH/MGH surgical instruments and medical equipment will be assigned to CSR.

- 6 Neuro operating rooms in the Neuro pavillion
- 8 MGH operating rooms in the new building
- 3 MGH operating rooms

CSR will also be responsible for assembling and preparing carts for distribution to the surgical intervention platform, including recovery rooms.

###### TECHNICAL PLANNING

The space allocated to CSR will depend primarily on the unit equipment and the number of cleaning and sterilization stations required to clean and sterilize equipment, and the floor space required for receiving, unloading, preparing, reloading and distributing carts intended for the intervention platforms. The number of these interventions, and the quantity and size of these carts will have an impact on the overall space allocated to CSR.

Currently, the number of interventions is stabilizing and consequently, we can assume that the number of sterile linen/instrument packets required during these interventions will also stabilize.

CSR will not be granted a supplementary budget; however, by streamlining operations and consolidating two services into one, cost reductions should be achieved, particularly since the service will be located close to its principal client. However, the availability of an adequate number of staff to provide service 24/7 and thereby reduce equipment needs cannot be guaranteed.

###### ORGANIZATION AND CONFIGURATION

Within the master development plan, consideration must be given to the following needs:

- Situation and relationship of CSR with all intervention areas.
- Automated vertical transport.
- Delivery, preparation and collection of carts.
- Impact of the use of disposable vs. reusable linen packets.
- Use of appropriate sterilization techniques for cleaning tubing and flexible instruments.
- Effective communication between Materials Management, CSR, and the managers of the service and storage areas in the main operating room.
- The sterilization process for the intervention platform should be grouped and integrated into CSR. To optimize the use of equipment and trays in cases of invasive surgery, the intensive care units and Emergency will receive standardized equipment and specialized items (instead of being tailored to services or physicians).
- CSR will be vertically adjacent to the operating suites, and will include receiving soiled items, decontamination, sterilization, preparation of trays and carts, sterile storage, cart assembly areas and cart distribution.

## NEURO PAVILION | CLINICAL SUPPORT

- The design of CSR must take into account a sequential operating procedure, with quality control, handling rules and aseptic control imposed within the MNH-MGH. Sterile and contaminated materials must also be kept separate at all times.
- The rooms will be planned so that contaminated materials never come into contact with clean or sterile materials. Access to these two areas will be controlled to limit access to only authorized staff wearing regulation dress.
- Decontamination will include workstations and automated washing stations for transporting carts to the sterilization room. The sterilization process should be automated, using conveyors and other mechanical supports wherever possible.
- A computerized system for cart contents indicating individual preferences for instruments must be used for the operating rooms. Our objective is that at least 90% of carts are completed in CSR before delivery. A prorata system will be used for all other medical care sectors.
- For planning needs, it is estimated that the carts will be distributed in the following percentages: 33% in service or ready for delivery, 33% in preparation, and 33% in decontamination.
- The materials contained in the closed carts can circulate in non-contaminated areas of the intervention platform without compromising the sterility of the contents.
- Ideally, the CSR ordering and storage system will be integrated into that of Materials Management.
- The collection of soiled instruments, the distribution of sterile instruments in the rooms located outside the intervention platform, and the distribution and collection of larger equipment will be done by Transport staff. The staff assigned to Transport will be notified by computer.
- The CSR decontamination service will receive all contaminated items from the operating rooms, treatment rooms and throughout the hospital.
- The decontamination process and the washing of portable instruments, with the exception of wheelchairs, stretchers or any other wheeled equipment, will take place in CSR. After cleaning, the equipment will be moved to an area adjoining CSR to await collection and return to the care units, as required to keep inventory up to date in each department.

## FUNCTIONAL AND OPERATIONAL GUIDELINES

### ACCESS

- The CSR decontamination sector, accessible by elevator, will be located directly below the operating rooms to reduce storage of carts and emergency sterile packaging required in the operating room storage spaces. This will also reduce response time for urgent orders.
- The separation of sterile and contaminated items must be strictly respected and extend to access to, and circulation in, CSR.
- A distribution point must be planned for medical staff who will occasionally order instruments and materials.

### DECONTAMINATION AND WASHING

- Adequate space must be planned for a holding area for carts coming from the operating rooms, containing contaminated items.
- The staff working in this sector must enter and leave through an antechamber where they will put on protective over-garments.





## NEURO PAVILION | CLINICAL SUPPORT

- The decontamination area should have workstations for unloading carts and grouping contaminated instruments, decontamination, additional cleaning, and placing carts on the washing conveyors for transport to the sterilization area.
- Space available for storing detergents and for washer maintenance and service.
- Cleaning supplies closet in the decontamination room.
- All linens, medical supplies, emergency carts and equipment will be cleaned by Materials Management.
- The cart washer will only be used for surgery carts. A second cart washer will be installed in the treatment centre.

### ASSEMBLY, PROCESSING AND DISTRIBUTION

- This space will be used for the assembly of trays and instruments, sterilization of linen and equipment, preparation and sterilization of linen/instrument packages, assembly of carts, distribution and storage of clean and sterilized items, and preparation of carts.
- Assembly and sterilization must be as automated as possible, using conveyors and other mechanized systems, if available.
- A linen inspection room with a light table is necessary beside the assembly room. A storage space for linen packages should be integrated into the assembly and processing steps.
- An assembly area must be provided outside of the cart washing room. It is expected that up to 33% of carts could be located in CSR at any time.
- A carousel or sterile storage room with an assembly area should be available for storing intervention carts. Fixed shelving will be necessary with clearance at both ends and sufficient space in the aisles to enable carts to easily pass each other.
- The carts will be transported from sterile storage rooms in CSR to the assembly areas on the intervention platform by specially reserved elevators. Carts will therefore go directly to a sterile area or clean space, which will lead to other sterile spaces.
- All carts are closed by sealed metal doors, which enable them to circulate in clean areas of the intervention platform without danger of contamination.
- Access to sterile storage areas in the general storerooms will be restricted.
- Waste products from operating room procedures will not be returned in carts containing soiled waste.

### OFFICE SPACE AND SUPPORT STAFF

- A quiet atmosphere is required in the offices where clerical staff will be working, and where internal meetings or meetings with corporate representatives will take place.
- The offices must be accessible from the main circulation routes without having to enter restricted, clean or soiled areas.
- The supervisor and manager must have an office on-site.
- Two workstations will be available for clerical staff.

### BUILDING SYSTEMS: LIGHTING, PLUMBING, ELECTRICITY, HEATING AND VENTILATION

- The activities and equipment in CSR require specific environmental and mechanical specifications.
- Deionized water systems must be planned for the decontamination room.



## NEURO PAVILION | CLINICAL SUPPORT

- The allocated space must be located, planned and designed in order to limit damage to adjoining spaces caused by potential water leaks or a build-up of water vapour.
- The floors and walls must be waterproof and finished with non-organic materials.
- The HVAC system in CSR must be designed according to provincial/federal government control standards and norms, including:
  - Positive pressure, with a minimum of 6 air exchanges/hr. in the clean areas.
  - Negative pressure and 100% exhaust in the decontamination rooms.
  - Sufficiently powerful ventilation to reduce a build-up of water vapour.
  - Additional air filtration system in the linen inspection room to trap and hold dust.
  - The steam and ethylene oxide gas sterilization facilities are subject to strict and extensive regulations implemented by the environmental and employee safety managers. Accordingly, monitoring systems to detect leaks must be installed.
  - Equipment will use dedicated lines for electrical power, water, steam, drains and resurfacing systems.
- The work environment and lounges should receive natural light.
- Generators will be required to maintain certain mechanical equipment in operation, including:
  - Conveyor to the intervention platform sterilization area.
  - Gas sterilization equipment.

### COMMUNICATION AND INFORMATION SYSTEMS

- An automated information system will be used throughout the hospital to control the inventory, evaluate consumption, automate orders, etc.
- Computerized workstations, with special protection for the micro-environment created by the washing and sterilization instruments, will be necessary to maintain and manage instrument inventories and circulation.

### PATHOLOGY

#### SCOPE OF SERVICES

The only Pathology services that will be located in the new Neuro pavilion are the staff offices and support laboratories for the operating suite (operating suite – Neurosciences mission and operating suite – Surgery mission). All other services will be centralized at the main Pathology laboratory at the Montreal General Hospital.



**McGILL UNIVERSITY HEALTH CENTER SPACE TABLE  
APRIL 2008**

**Mountain Campus  
Mountain / Neuro Campus - Clinical support services**

<b>Activity Zone</b>	<b>Room</b>	<b>Net*</b>	<b>#</b>	<b>Tnet*</b>	<b>F1*</b>	<b>DGSM*</b>	<b>F*</b>	<b>BGSM*</b>	<b>Notes</b>
			<b>31</b>	<b>775</b>		<b>1,047</b>		<b>1,204</b>	<b>Group Total</b>
<b>4.4.4.2.4.1</b>	<b>Neuro &amp; Mountain Campus - Sterilization</b>		<b>31</b>	<b>775</b>		<b>1,047</b>		<b>1,204</b>	
<b>Administrative Area</b>			<b>8</b>	<b>86</b>		<b>116</b>		<b>133</b>	<b>RDS #</b>
26280.01	Staff training	43.4	1	43.4	1.350	58.6	1.150	67.4	
26280.02	Kitchenette	2.7	1	2.7	1.350	3.6	1.150	4.2	
26280.03	Supervisor office	9.8	1	9.8	1.350	13.2	1.150	15.2	
26280.04	Waiting Room	3.3	1	3.3	1.350	4.5	1.150	5.1	
26280.05	Manager office	11.1	1	11.1	1.350	15.0	1.150	17.2	
26280.06	Work station : clerical	5.6	2	11.1	1.350	15.0	1.150	17.2	
26280.07	Small office supplies office	4.3	1	4.3	1.350	5.8	1.150	6.7	
<b>Equipment Assembly</b>			<b>1</b>	<b>46</b>		<b>61</b>		<b>71</b>	<b>RDS #</b>
26280.08	Equipment assembly	45.5	1	45.5	1.350	61.4	1.150	70.6	
<b>Decontamination</b>			<b>7</b>	<b>233</b>		<b>315</b>		<b>362</b>	<b>RDS #</b>
26280.09	Receiving	30.4	1	30.4	1.350	41.0	1.150	47.2	
26280.10	Storage: cleaning products	6.5	1	6.5	1.350	8.8	1.150	10.1	
26280.11	Dispatching, garbage, preparation	75.8	1	75.8	1.350	102.3	1.150	117.7	
26280.12	Detergent room	8.6	1	8.6	1.350	11.6	1.150	13.4	
26280.13	Equipment cleaners	68.3	1	68.3	1.350	92.2	1.150	106.0	
26280.14	Scope cleaning	35.2	1	35.2	1.350	47.5	1.150	54.6	
26280.15	Storage space: Housekeeping	8.6	1	8.6	1.350	11.6	1.150	13.4	
<b>Storage</b>			<b>4</b>	<b>186</b>		<b>251</b>		<b>288</b>	<b>RDS #</b>
26280.19	Cart assembly	56.9	1	56.9	1.350	76.8	1.150	88.3	(
26280.20	Distributor	6.5	1	6.5	1.350	8.8	1.150	10.1	
26280.21	Sterile storage	113.7	1	113.7	1.350	153.5	1.150	176.5	
26280.22	Storage space : housekeeping	8.6	1	8.6	1.350	11.6	1.150	13.4	
<b>Preparation and storage</b>			<b>6</b>	<b>174</b>		<b>235</b>		<b>270</b>	<b>RDS #</b>
26280.23	Laundry reception	19.5	1	19.5	1.350	26.3	1.150	30.3	
26280.24	Disposable products storage	21.7	1	21.7	1.350	29.3	1.150	33.7	
26280.25	Instrument assembly/packaging	53.1	1	53.1	1.350	71.7	1.150	82.4	
26280.26	Sterilization terminal - loading	37.9	1	37.9	1.350	51.2	1.150	58.8	
26280.27	Other sterilizers	22.8	1	22.8	1.350	30.8	1.150	35.4	
26280.28	Clean scope assembly	19.0	1	19.0	1.350	25.7	1.150	29.5	
<b>Staff Support</b>			<b>5</b>	<b>51</b>		<b>69</b>		<b>79</b>	<b>RDS #</b>
26280.16	Toilet with shower	5.6	3	16.8	1.350	22.7	1.150	26.1	
26280.17	Staff lockers	11.4	1	11.4	1.350	15.4	1.150	17.7	

\*Légend: NET (Net surface area), # (number of rooms), T.NET (Total net surface area), SBS (departemental gross square meters), BGSM (building gross square meters)

F1= departmental gross surface area ratio, F=(F2\*F3)=building gross surface area ratio, F3 is non existant for the Mountain Campus

4/16/2008 MUHC Redevelopment Project - Revision of the Functional and Technical Program

Space Table Page 1 of 2

RDS = Room Data Sheet / Fiche technique

<b>Activity Zone</b>	<b>Room</b>	<b>Net*</b>	<b>#</b>	<b>Tnet*</b>	<b>F1*</b>	<b>DGSM*</b>	<b>F*</b>	<b>BGSM*</b>	<b>Notes</b>
26280.18	Staff lockers	22.8	1	22.8	1.350	30.8	1.150	35.4	

\*Légend: NET (Net surface area), # (number of rooms), T.NET (Total net surface area), SBS (departemental gross square meters), BGSM (building gross square meters)

F1= departmental gross surface area ratio, F=(F2\*F3)=building gross surface area ratio, F3 is non existant for the Mountain Campus

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Space Table Page 2 of 2

RDS = Room Data Sheet / Fiche technique



#### 4.4.4.2.5 GENERAL SUPPORT SERVICES

##### .1 ADMISSIONS AND MEDICAL RECORDS

#### OVERVIEW AND OPERATIONAL GUIDELINES

##### SCOPE OF SERVICES

- Medical Records will be centralized at the MGH. A satellite Admissions unit will be located at the MNH (an office and a 6-person waiting room) to encourage direct contact with patients. The clerk in this unit must continue to report to the Admissions department in order to ensure the quality and accuracy of information collected.
- Bed management and other Admissions functions will remain centralized.

The Admissions/Registration department prepares and confirms admissions and outpatient registrations. The clerks assigned to this department ensure:

- Collection and registration of accurate information on the patient's identity.
- Confirmation of eligibility for hospitalization insurance (RAMQ, proof of citizenship or landed immigrant status) related to:
  - Patient admissions
  - Bed management and updating of current patient lists
  - Outpatient registration
  - Patient admissions/registration in Emergency
  - Preoperative registration (including by telephone and pre-registration by Internet)
  - Admissions and waiting list management

##### SPACE DRIVERS – ADMISSIONS

###### Projected key rooms for the satellite unit

One 6-person waiting room and an office

##### COMMUNICATION AND INFORMATION SYSTEMS

- All Admissions staff, wherever their workstations may be, will have access to the required information networks.
- The necessary technology must be used to decentralize the Admissions department and improve customer service and patient satisfaction.
- The decentralization of admissions/registration stations will require hospital-wide access to the registration, admissions/discharge/transfer and appointment management systems.

##### AUXILIARY STAFF ROOMS

- The decentralized Admissions staff can use the auxiliary spaces (lounges, washrooms, etc.) in departments where they are located.

##### SUPPLIES, LOGISTICS AND STORAGE

- The decentralized Admissions staff will use the same carts and systems as the departments in which they are located.





## NEURO PAVILION | GENERAL SUPPORT SERVICES

### SPECIAL MATERIALS

- Space will be provided, as necessary, for the addressing and embossing machines (or smart card readers) in the admissions/registration areas. See the space table to determine exact locations.





## **.2 ENVIRO-HOUSEKEEPING**

### **OVERVIEW AND OPERATIONAL GUIDELINES**

#### **SCOPE OF SERVICES**

Enviro-housekeeping is responsible for maintaining a clean and hygienic environment in the hospital, in compliance with the policies and standards relating to each space. The Enviro-housekeeping department is also responsible for restocking and maintaining sufficient reserves of cleaning products for its own use and for restricted use by other departments, as needed. This department also manages the processing of all waste, including hazardous waste, and the hospital recycling program, but is not responsible for processing radioactive or chemical waste. However, a specialized Enviro-housekeeping team will be responsible for the transport and storage of radioactive and chemical waste.

#### **ORGANIZATION AND CONFIGURATION**

Unlike most support services, the majority of the Enviro-housekeeping department's work is decentralized, performed in the inpatient and ambulatory care sectors and in the public spaces. In order to meet the needs of these decentralized workers regarding access to materials and equipment, the Enviro-housekeeping department must have access to Enviro-housekeeping satellites, from which designated staff are assigned to their respective work areas.

The main production area will accommodate temporary storage areas, waste and recyclable materials storage areas, and the main administrative centre, and will enable access to the loading docks. The staff in the main production area will service the support areas and public spaces. A satellite production area will be located at the Neuro.





## SPACE DRIVERS

A satellite Enviro-housekeeping unit will serve the new Neuro pavilion. The following spaces will be integrated:

- An office for the manager
- A multipurpose office
- Two closets for storing equipment and materials on each floor. A regular Enviro-housekeeping closet on each floor, containing:
  - an Enviro-housekeeping cart
  - two mops
  - a polishing machine
  - a vacuum
  - a buffing machine
  - supply of cleaning products
  - consumables (paper towels, hand soap, etc.)
  - automated disinfectant distribution systems
- Alcoves/closets for recycling (on each floor)

## PROPOSED OPERATING HOURS

- The department will remain in operation 24/7, with certain tasks being transferred from the day schedule to the evening and night schedules.





### **.3 SECURITY AND EMERGENCY MEASURES**

#### **OVERVIEW AND OPERATIONAL FRAMEWORK**

##### **SCOPE OF SERVICES**

Security services and emergency measures ensure the security of patients, families, staff, grounds, parking lots and MNH property. The Security service is present in the highly visible key locations (e.g. Emergency and main entrances) and uses closed-circuit television monitors and an alarm system. Security staff patrol the campus, buildings and parking structures.

Security staff also operate the lost-and-found service on the campus and issue personal identity cards.

The Security service maintains and operates the emergency control centre through its emergency measures function, which responds to all emergency code situations and helps control the situation according to the appropriate protocols.

It has not yet been determined whether the Security service will be responsible for the distribution/management of lockers and personal identity cards at the MNH.

##### **ORGANIZATION AND CONFIGURATION**

The main Security operations sector should be located close to Emergency; the satellites should be located in high-flow patient areas close to the main entrance and other major entrances. The main Security and Emergency Measures offices already in place at the Montreal General Hospital will serve as the control centre for the entire Mountain Campus.

##### **SPACE DRIVERS FOR THE SATELLITE UNIT IN THE NEW PAVILION**

###### **Rooms required for staff**

- 2 offices for staff
  - 1 for the Director of Hospital Services
  - 1 multipurpose office
- 1 reception office
- 1 control room (with camera system)



#### **.4 RADIATION SAFETY/INFECTION PREVENTION AND CONTROL/ OCCUPATIONAL HEALTH AND SAFETY**

##### **ORGANIZATION AND CONFIGURATION**

The MNH will use Radiation Safety located at the MGH.

Infection Prevention and Control will be centralized at the MGH, except for one office planned at the MNH.





## **.5 BIOMEDICAL EQUIPMENT CONTROL SERVICE (BIOMEDICAL ENGINEERING)**

### **OVERVIEW AND OPERATIONAL FRAMEWORK**

#### **SCOPE OF SERVICES**

The main responsibility of the Biomedical Equipment Control service is to ensure the safety and good working order of materials used for clinical care. The service provides in-house services for most medical equipment, specifically maintenance and training. The maintenance services include an initial check before a new instrument is used, scheduled maintenance for each instrument, the necessary repairs in case of malfunction, and keeping of a maintenance log. The Biomedical Equipment Control service manages the outsourcing of maintenance work on certain major diagnostic instruments.

The Biomedical Equipment Control service works closely with manufacturers to conduct beta tests on new equipment. The service works with clinicians in selecting new biomedical materials, and evaluating their operation and safe use.

The service collaborates in research and teaching activities by focusing on new biomedical equipment or by adapting existing materials on request. Its staff also participate in homecare services by teaching the correct use of machines and by inspecting those designed for use at home.

The service is responsible for risk management in case of accidents involving biomedical equipment, and teaches staff and students the proper use of this equipment.

#### **ORGANIZATION AND CONFIGURATION**

This service will be centralized at the MGH, except for one satellite unit planned at the Neuro.

#### **SPACE DRIVERS**

##### **Projected key rooms for the satellite unit – Biomedical Equipment Control service**

- Office for staff
- Workstation
- Library
- Technical workshop



## **.6 TRANSPORT AND POSTAL SERVICES**

### **TRANSPORT**

Patient Transport: Internal Transport provides services 24/7 to ensure patients receive effective, efficient, comfortable and secure transit to their destinations throughout the campus.

Materials Transport: Functionally, Materials Transport will provide services 24/7 with efficient, secure transport of materials to the assigned destinations throughout the facilities. For the purposes of this document, the types of materials to be transported include:

- Laboratory specimens
- Non-narcotic medications
- Food (from the main kitchen to the satellite kitchens)
- Medical records
- Biomedical equipment
- Supplies and linen carts
- Oxygen cylinders
- Soiled materials/trays from CSR and distribution of medical supplies/materials
- Waste or recyclables

### **SPACE DRIVERS**

**Projected key rooms for the satellite unit – Patient Transport Service**

- Multipurpose office for staff
- Waiting room for staff

### **POSTAL SERVICES**

Postal Services will offer post office services to patients, employees and other individuals at the MNH. This service will also handle the sorting and distribution of all mail arriving from outside the hospital. Postal Services also prepares the outgoing mail and bills departments for the appropriate postal charges.

### **FUNCTIONAL AND OPERATIONAL PRINCIPLES**

The MNH will be equipped with a multipurpose office and a six-person waiting room, and will use the main transport and postal services at the MGH.





## .7 OTHER GENERAL SUPPORT SERVICES

Other general support spaces are included in the space table; however, they are only satellite units for services already present at the MGH, and therefore no functional descriptions have been added. These services are:

- Residents' quarters
- Linen distribution services (storage spaces are planned on the care units and in the operating suite)
- Coffee/auxiliary services/volunteers (a coffee shop, a multipurpose office and a room for volunteers are planned)
- Lockers
- Mechanical room
- Maintenance department, an office for managers, a multipurpose office, a conference room, a technical library, a records room, two workshops and a kitchenette are planned)
- Telecommunications department and Information Services

Other general support spaces for the following services will be centralized at the MGH and will be shared with the MNH:

- Morgue
- Library
- Radiation Safety
- Medical Records
- Courier/Printing Services



**McGILL UNIVERSITY HEALTH CENTER SPACE TABLE  
APRIL 2008**

**Mountain Campus  
Neuro Pavilion - General support services**

<b>Activity Zone</b>	<b>Room</b>	<b>Net*</b>	<b>#</b>	<b>Tnet*</b>	<b>F1*</b>	<b>DGSM*</b>	<b>F*</b>	<b>BGSM*</b>	<b>Notes</b>
			<b>76</b>	<b>926</b>		<b>1,296</b>		<b>1,490</b>	<b>Group Total</b>
<b>4.4.4.2.5</b>	<b>Neuro Pavilion - General Support</b>		<b>76</b>	<b>926</b>		<b>1,296</b>		<b>1,490</b>	
<b>Admissions</b>			<b>2</b>	<b>24</b>		<b>34</b>		<b>39</b>	<b>RDS #</b>
26350.01	Multipurpose Office	9.0	1	9.0	1.400	12.6	1.150	14.5	
26350.02	Waiting room ( 6 peoples )	15.0	1	15.0	1.400	21.0	1.150	24.2	
<b>Volunteers</b>			<b>3</b>	<b>45</b>		<b>63</b>		<b>72</b>	<b>RDS #</b>
26310.01	Multipurpose Office	9.0	1	9.0	1.400	12.6	1.150	14.5	
26310.02	Lockers (15 peoples)	11.0	1	11.0	1.400	15.4	1.150	17.7	
26310.03	Coffee Shop	25.0	1	25.0	1.400	35.0	1.150	40.3	
<b>Linen Services</b>			<b>2</b>	<b>40</b>		<b>56</b>		<b>64</b>	<b>RDS #</b>
26290.01	Linen Services	15.0	1	15.0	1.400	21.0	1.150	24.2	
26290.02	Linen Services	25.0	1	25.0	1.400	35.0	1.150	40.3	
<b>Lockers</b>			<b>2</b>	<b>64</b>		<b>90</b>		<b>103</b>	<b>RDS #</b>
26370.01	Men Lockers	32.0	1	32.0	1.400	44.8	1.150	51.5	
26370.02	Women Lockers	32.0	1	32.0	1.400	44.8	1.150	51.5	
<b>Infection Control</b>			<b>1</b>	<b>9</b>		<b>13</b>		<b>14</b>	<b>RDS #</b>
26110.01	Office	9.0	1	9.0	1.400	12.6	1.150	14.5	
<b>Housekeeping</b>			<b>26</b>	<b>203</b>		<b>284</b>		<b>327</b>	<b>RDS #</b>
26240.01	Manager Office	14.0	1	14.0	1.400	19.6	1.150	22.5	includes storage space
26240.02	Multipurpose Office	9.0	1	9.0	1.400	12.6	1.150	14.5	
26240.03	Storage (2 for every level)	7.5	16	120.0	1.400	168.0	1.150	193.2	
26240.04	Recycling Storage (2 for every level)	7.5	8	60.0	1.400	84.0	1.150	96.6	
<b>Biomedical Engineering</b>			<b>5</b>	<b>53</b>		<b>75</b>		<b>86</b>	<b>RDS #</b>
26230.01	Office and Lab - Technician	13.9	2	27.8	1.400	38.9	1.150	44.8	
26230.02	Office Utility, Standard	4.6	1	4.6	1.400	6.4	1.150	7.4	
26230.03	Technical Library	7.0	1	7.0	1.400	9.8	1.150	11.3	
26230.04	Technical Laboratory (dedicated)	13.9	1	13.9	1.400	19.5	1.150	22.4	
<b>Residents Quarters</b>			<b>6</b>	<b>75</b>		<b>104</b>		<b>120</b>	<b>RDS #</b>
26150.01	Resident Room	11.0	3	33.0	1.400	46.2	1.150	53.1	
26150.02	Lounge	20.0	1	20.0	1.400	28.0	1.150	32.2	
26150.03	Kitchenettes	15.0	1	15.0	1.400	21.0	1.150	24.2	
26150.04	Washrooms / Showers	6.5	1	6.5	1.400	9.1	1.150	10.5	
<b>Mechanical Room</b>			<b>1</b>	<b>126</b>		<b>177</b>		<b>203</b>	<b>RDS #</b>
26330.08	Mechanical Room	126.3	1	126.3	1.400	176.8	1.150	203.3	
<b>Security</b>			<b>5</b>	<b>48</b>		<b>67</b>		<b>77</b>	<b>RDS #</b>
26340.01	Manager Office	9.0	1	9.0	1.400	12.6	1.150	14.5	

\*Légend: NET (Net surface area), # (number of rooms), T.NET (Total net surface area), SBS (departemental gross square meters), BGSM (building gross square meters)

F1= departmental gross surface area ratio, F=(F2\*F3)=building gross surface area ratio, F3 is non existant for the Mountain Campus

4/16/2008 MUHC Redevelopment Project - Revision of the Functional and Technical Program

Space Table Page 1 of 2

RDS = Room Data Sheet / Fiche technique

Activity Zone	Room	Net*	#	Tnet*	F1*	DGSM*	F*	BGSM*	Notes
26340.02	Multipurpose Office	9.0	1	9.0	1.400	12.6	1.150	14.5	
26340.03	Open Area	10.0	1	10.0	1.400	14.0	1.150	16.1	
26340.04	Reception Desk	10.0	1	10.0	1.400	14.0	1.150	16.1	
26340.05	Control Desk (camera)	10.0	1	10.0	1.400	14.0	1.150	16.1	
<b>Building Services</b>			<b>8</b>	<b>117</b>		<b>164</b>		<b>188</b>	<b>RDS #</b>
26330.01	Manager Office	9.0	1	9.0	1.400	12.6	1.150	14.5	
26330.02	Multipurpose Office	9.0	1	9.0	1.400	12.6	1.150	14.5	
26330.03	Conference Room (10)	25.0	1	25.0	1.400	35.0	1.150	40.3	
26330.04	Technical Library	10.0	1	10.0	1.400	14.0	1.150	16.1	
26330.05	Plan Archives Room	9.0	1	9.0	1.400	12.6	1.150	14.5	
26330.06	Workshop (Carpentry)	20.0	1	20.0	1.400	28.0	1.150	32.2	
26330.07	Workshop (plumbing / electricity)	20.0	1	20.0	1.400	28.0	1.150	32.2	
26330.08	Kitchenette	15.0	1	15.0	1.400	21.0	1.150	24.2	
<b>Information Systems and Telecom</b>			<b>13</b>	<b>98</b>		<b>137</b>		<b>157</b>	<b>RDS #</b>
26250.01	Telecommunication	7.5	13	97.5	1.400	136.5	1.150	157.0	
<b>Patient Transport</b>			<b>2</b>	<b>24</b>		<b>34</b>		<b>39</b>	<b>RDS #</b>
26270.01	Multipurpose Office	9.0	1	9.0	1.400	12.6	1.150	14.5	
26270.02	Waiting Room	15.0	1	15.0	1.400	21.0	1.150	24.2	

\*Légend: NET (Net surface area), # (number of rooms), T.NET (Total net surface area), SBS (departmental gross square meters), BGSM (building gross square meters)

F1= departmental gross surface area ratio, F=(F2\*F3)=building gross surface area ratio, F3 is non existant for the Mountain Campus

4/16/2008 MUHC Redevelopment Project - Revision of the Functional and Technical Program

Space Table Page 2 of 2

RDS = Room Data Sheet / Fiche technique



### 4.4.4.2.6 RESEARCH

#### .1 MONTREAL NEUROLOGICAL INSTITUTE

##### SCOPE OF SERVICES

- A Clinical Research Unit will be located in the Neuro pavilion to support ambulatory clinic activities.

##### ORGANIZATION AND CONFIGURATION

- The MNI is a department of McGill University, affiliated with the MUHC through its historical and program-based integration at the MNH (jointly referred to as the Neuro).
- From the start, the Neuro was used for integrating clinical and fundamental research activities. This integration is possible in the current facilities because of its alternating inpatient floors and research floors. It also has its own animal facilities and a complete range of imaging facilities.
- The Neuro has developed its own culture and identity, which must be preserved in order to ensure public recognition of its work, recruitment and funding. A culture of research has also been fostered through the MNI's interdisciplinary teamwork approach to neurology-related issues. In many regards, the future MUHC will be based on the MNI model of integrated, interdisciplinary patient care.
- The challenge regarding the organization and configuration of the new MNI facilities lies in dividing up the space into optimal usage areas while preserving these aspects, and also preserving the MNI's identity and autonomy, and the Neuro's unique character.

##### SPACE DRIVERS

###### Clinical Research

Clinical research is an integral part of the Neuro's organization. Consequently, the diagnostic and clinical treatment spaces must be calculated and designed to accommodate staff and research equipment, as well as be large enough to support the specialized research, computer hardware and consultation needs defined as part of the clinical program. A Clinical Research Unit for clinical protocols will be set up on the ambulatory clinic floor.

###### Spaces reserved for employees (for services including administration)

The MNI will have its own administrative offices.

Below is a list of elements specific to the needs of the MNI that are not addressed by other sections of the functional program.

- Supplies, logistics and storage: the MNI's delivery and storage protocols must be developed within the MUHC's organizational framework.
- Special equipment: the MNI's imaging equipment will require specific environmental conditions that must be defined on a case-by-case basis.

See section 4.4.4.2.2.1-03 in the space table.







### 4.4.4.2.7 ADMINISTRATION

#### .1 ADMINISTRATIVE GROUP

### THE HUMAN RESOURCES AND FINANCE DEPARTMENTS WILL BE LOCATED OFF-SITE

#### SCOPE OF SERVICES

The following administrative offices and spaces will be located at the Neuro:

- Administration
- Division of Nursing
- Department of Professional Development of the Department of Nursing

#### ORGANIZATION AND CONFIGURATION

All Administration and Division of Nursing staff will be grouped in offices according to their functions and the need to interact regularly with patients and other staff. Administration-related functions that require little or no interaction with clinical staff or the public can use the shared administrative buildings located off-site.

#### FUNCTIONAL AND OPERATIONAL GUIDELINES

##### Reception, registration and waiting

- Offices should be situated such that equipment and regular support services (e.g. reception, waiting rooms, staff support facilities) can be readily shared.

##### Building systems: lighting, plumbing, heating and ventilation

- Conference rooms and offices should be separate and soundproof so as to ensure the confidentiality of patients, families and staff.
- Conference rooms should provide a calm, welcoming and professional environment, indirect lighting, and access to a telephone, as well as to the MUHC's information and administrative systems.
- Each workstation should be connected to the IT network.

##### Communication and information systems

- Create networks that will enable administrators to work away from the office but still be connected electronically.
- Install conference call services in all administrative and physicians' offices, as well as in conference rooms.
- Communication between McGill University and the MNH will be linked/integrated according to the IT strategic implementation plan.

#### Offices/support rooms

- Temporary and part-time staff, as well as visiting professors, will have access to reserved/shared rooms, each of which will have a desk, telephone and computer.
- Each group of offices will share a reception area, waiting room and support staff.

## DEPARTMENT OF PROFESSIONAL DEVELOPMENT OF THE DEPARTMENT OF NURSING

### MISSION, SCOPE OF SERVICES AND CLIENTELE PROFILE

The mission of the Department of Professional Development of the Department of Nursing (MUHC Neurosciences mission) is identical to that of the MUHC Department of Clinical and Professional Staff Development (DCPD). The DCPD has its own vision, which is to “Promote excellence in nursing practices by creating a continuous learning community” (DCPD Advisory Group, 2004). To achieve this, the department promotes creativity, evidence-based clinical practices, continuous learning and professional development.

### SERVICES

- Orientation program for the MNH’s nursing staff and patient attendants.
- Training sessions offered in ambulatory services and the inpatient units, and intended to assist nurses in reviewing/updating their knowledge and skill set.
- Case study meetings for nurses (approximately 4-6 times/year).
- Neuroscience Nursing Program – an 8-month graduate-level course offered to all nurses.
- Neuro-assessment workshops offered to nurses working in Montreal.
- One-on-one clinical teaching with new staff, tutors and students.
- Implementation of departmental priorities in order to promote evidence-based clinical practices, as well as new policies and procedures.
- Continuing professional development for nurses, patient attendants and unit coordinators.
- Training and supervision of Nursing interns from CEGEPs and universities.

### ORGANIZATION AND DELIVERY OF SERVICES

Neurosciences Nursing Professional Development Educators (NPDE) develop, implement and evaluate teaching programs based on the priorities established by the DCPD and the Neurosciences mission. Clinical Nursing internships are coordinated by the DCPD, but are supervised by the NPDEs.



Teaching and research staff – current, 5-year and 10-year projections

ACTIVITY	2004-2005			2010			2015		
	Week			Week			Week		
	Day	Evening	Night	Day	Evening	Night	Day	Evening	Night
<b>Teaching</b>									
NPDE (educator)	3			4			4 - 5		
Secretary	.5			1			1		
NNP coordinator	0			1			1		
<b>Research (as applicable)</b>									
Nurse/PhD researcher	0.2			1			1		

**SPECIAL NEEDS**

- 3 multimedia classrooms (40-60 people) for welcoming new staff members and for daily post-clinical nursing seminars.
- 1 multimedia conference room (80-100 people) for weekly teaching sessions, e.g. the Neuroscience Nursing Program (September-April), teaching sessions for the education of OR nurses, and monthly case study meetings.
- Interview rooms with one-way mirrors and audio/video recording equipment for teaching interviewing techniques to graduate students.
- Appropriate reserved spaces and technology for communicating with remote regions that are part of the McGill RUIS.
- Specialized equipment, including information and telecommunications technology.
- A skills-development laboratory and multimedia classrooms.



The Department of Professional Development of the Department of Nursing must have access to nursing databases, both locally (intranet) and on the Internet, from two separate locations:

- Inside or close to nursing stations for each service, and
- In a computer laboratory reserved for nurses, and comprising at least four computer stations.



**McGILL UNIVERSITY HEALTH CENTER SPACE TABLE  
APRIL 2008**

**Mountain Campus  
Neuro Pavilion - Administration**

Activity Zone	Room	Net*	#	Tnet*	F1*	DGSM*	F*	BGSM*	Notes
			<b>45</b>	<b>535</b>		<b>749</b>		<b>861</b>	<b>Group Total</b>
<b>4.4.4.2.7.1</b>	<b>Neuro - Administration</b>		<b>45</b>	<b>535</b>		<b>749</b>		<b>861</b>	
<b>General Administration</b>			<b>11</b>	<b>118</b>		<b>165</b>		<b>189</b>	<b>RDS #</b>
28200.03	Manager Office	9.0	4	36.0	1.400	50.4	1.150	58.0	
28200.04	Multipurpose Office	9.0	6	54.0	1.400	75.6	1.150	86.9	
28200.35	Conference Room Small	27.6	1	27.6	1.400	38.6	1.150	44.4	
<b>Nursing Associate Director</b>			<b>2</b>	<b>18</b>		<b>25</b>		<b>29</b>	<b>RDS #</b>
28200.01	Manager Office	9.0	1	9.0	1.400	12.6	1.150	14.5	
28200.02	Secretarial Support Office	9.0	1	9.0	1.400	12.6	1.150	14.5	
<b>Nursing Education and OPD Nursing Office</b>			<b>11</b>	<b>176</b>		<b>246</b>		<b>283</b>	<b>RDS #</b>
28120.01	Office	9.0	2	18.0	1.400	25.2	1.150	29.0	
28120.02	Shared Office	9.0	1	9.0	1.400	12.6	1.150	14.5	
28120.04	Learning Lab	15.0	1	15.0	1.400	21.0	1.150	24.2	
28120.05	Interviewing Room	9.0	3	27.0	1.400	37.8	1.150	43.5	
28120.06	Computer Lab (25)	32.5	1	32.5	1.400	45.5	1.150	52.3	
28120.07	Office shared CEGEP & McGill instructors	9.3	1	9.3	1.400	13.0	1.150	15.0	
28120.08	Storage Space - mannequins, etc.	9.3	1	9.3	1.400	13.0	1.150	15.0	
28120.36	Conference Room Large	55.7	1	55.7	1.400	78.0	1.150	89.7	
<b>Shared support</b>			<b>13</b>	<b>151</b>		<b>212</b>		<b>244</b>	<b>RDS #</b>
28200.05	Waiting Area	9.0	1	9.0	1.400	12.6	1.150	14.5	
28200.06	Conference Room, Small (8-10)	16.7	1	16.7	1.400	23.4	1.150	26.9	
28200.07	Office Utility, Standard	9.3	1	9.3	1.400	13.0	1.150	15.0	
28200.08	Office Utility, Large	13.0	1	13.0	1.400	18.2	1.150	20.9	
28200.09	Storage, Departement Files/Records	4.6	1	4.6	1.400	6.4	1.150	7.4	
28200.10	Staff Lounge/Kitchenette	11.1	1	11.1	1.400	15.5	1.150	17.9	
28200.11	Washroom	4.6	5	23.0	1.400	32.2	1.150	37.0	
28200.12	Coat Closet	9.0	1	9.0	1.400	12.6	1.150	14.5	
28200.34	Conference Room Large	55.7	1	55.7	1.400	78.0	1.150	89.7	
<b>Senior Nursing Admin Team</b>			<b>8</b>	<b>72</b>		<b>101</b>		<b>116</b>	<b>RDS #</b>
28100.01	Manager Office	9.0	2	18.0	1.400	25.2	1.150	29.0	Nurse practice consultant, Coordinator Amb. Services
28100.02	Multipurpose Office	9.0	3	27.0	1.400	37.8	1.150	43.5	Staffing clerck, payroll clerck, adm. Tech
28100.03	Manager Office	9.0	1	9.0	1.400	12.6	1.150	14.5	
28100.05	Manager Office	9.0	1	9.0	1.400	12.6	1.150	14.5	

\*Légend: NET (Net surface area), # (number of rooms), T.NET (Total net surface area), SBS (departemental gross square meters), BGSM (building gross square meters)

F1= departmental gross surface area ratio, F=(F2\*F3)=building gross surface area ratio, F3 is non existant for the Mountain Campus

4/17/2008 MUHC Redevelopment Project - Revision of the Functional and Technical Program

Space Table Page 1 of 2

RDS = Room Data Sheet / Fiche technique

<b>Activity Zone</b>	<b>Room</b>	<b>Net*</b>	<b>#</b>	<b>Tnet*</b>	<b>F1*</b>	<b>DGSM*</b>	<b>F*</b>	<b>BGSM*</b>	<b>Notes</b>
28100.06	Office - Secretary	9.0	1	9.0	1.400	12.6	1.150	14.5	

\*Légend: NET (Net surface area), # (number of rooms), T.NET (Total net surface area), SBS (departemental gross square meters), BGSM (building gross square meters)

F1= departmental gross surface area ratio, F=(F2\*F3)=building gross surface area ratio, F3 is non existant for the Mountain Campus

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Space Table Page 2 of 2

RDS = Room Data Sheet / Fiche technique