

APPENDIX 3D

SOUND TRANSMISSION RATINGS

1. DEFINITIONS

In this Appendix, in addition to the definitions set out in Schedule 1 of this Agreement:

“**dBA**” is a weighted sound pressure level within a space adjusted based on human hearing systems (e.g. less sensitive to low frequencies);

“**Distributed UBC Conference Rooms**” means the team conference rooms for UBC use identified in the Clinical Specification with the following reference numbers: HCU Ref 42, NU Ref 42, ICU Ref 36, NICU Ref 25, HDCU Ref 42, Lab Ref 18 and General Administration Ref 42;

“**NC**” means: Noise Criteria. NC is a single number rating that is sensitive to the relative loudness within a given space; and

“**STC**” means: Sound Transmission Class. STC is a single number that is an indication of a partition’s ability to block sound. The higher the STC, the higher is the sound transmission loss. For instance: loud speech can be understood fairly well through an STC 30 wall but should not be audible through a STC 60 wall.

2. NOISE TRANSMISSION RATINGS

Project Co will:

- (a) provide wall and floor assemblies with STC ratings in accordance with Table 1 below. For the UBC Videoconference Rooms, refer to Appendix 3B [UBC Videoconference Room Specifications];
- (b) where possible, provide buffer zones (e.g. corridors) between noise sensitive areas (e.g. video-conferencing, meeting rooms and offices) and noisy areas (e.g. service areas and lounges);
- (c) where possible, avoid vertical adjacencies between noisy and noise sensitive areas;
- (d) in order to achieve the required level of speech privacy (speech privacy for confidentiality is critical), extend the STC rated assembly full-height from floor to the underside of structure above for all walls and partitions required to have an STC rating of 50 or higher per Table 1 below. If such a wall or partition cannot extend full height, provide an alternate system and provide an acoustic consultant’s report verifying that the required level of speech privacy will be achieved with the proposed design;
- (e) if doors or interior windows are located in a wall required to have an STC rating of 50 per Table 1 below, provide:
 - (1) doors that are STC 28 - 30 minimum and have an area of no more than 20% of the entire partition;

- (2) windows that are STC 28 - 30 minimum and have an area of no more than 20% of the entire partition; and
- (3) windows and doors located together that are STC 28 - 30 minimum and have a combined area of no more than 20% of the entire partition;
- (f) provide demountable partitions for General Administration that are STC 37 minimum (refer to Section 6.15 of Schedule 3 [Design and Construction Specifications]); and
- (g) provide moveable partitions (where identified in the Clinical Specification) that are STC 41 minimum.

Table 1 – STC Ratings of Demising Walls

Adjacency combination		STC - Walls	STC - Floors
Patient Room	Patient Room	45	50
Patient Room	Corridor	45	50
Patient Rooms	Public Space/Administrative Space/Therapy Room	50	50
NICU Patient Rooms	Corridor	45	50
NICU Patient Rooms	Procedure Room	50	50
NICU Patient Rooms	NICU Patient Rooms	45	50
Exam Room/Clinical Skills Room	Exam Room/Clinical Skills Room	45	50
Exam or Interview Room	Corridor	45	50
Exam or Interview Room	Public Space, administrative Space	50	50
Exam or Interview Room	Service Areas	50	50
Exam or Interview Room	Meeting Room	50	50
Exam or Interview Room	Staff Lounges	55	50
Procedure Room	Corridor	45	50
Procedure Room	Procedure Room	50	50
Procedure Room	Patient Care Areas, Administrative areas, public space	50	50
Meeting Room	Corridor	45	50
Meeting Room	Public Space	50	50
Meeting Room	Meeting Room	50	50
Education Rooms	Public Space	50	50
Education Rooms	Education Rooms	50	50
Education Rooms	Corridor	50	50
Washroom	Any space	45	50
Video-Conferencing Room	Any space	50	50
Distributed UBC Conference Rooms	Any Room or Space	55	50

Public Space	Staff lounges	45	50
Office	Office	45	50
Office	Corridor	45	50
Staff Lounges	Public Space	50	50
Staff Lounges	Corridor	50	50
Locker Rooms	Public Space	45	50
Locker Rooms	Corridor	45	50
On Call Rooms	Public Space	50	50
On Call Rooms	Meeting Rooms	50	50
On Call Rooms	Corridor	50	50
Service Rooms	Any occupied space	55	50

Table 1 - Notes:

- (a) "Public Space" includes lobbies, waiting rooms, reception areas, and similar spaces.
- (b) "Service Areas" include, elevators, elevator machine rooms, laundries, garages, maintenance rooms, mechanical and boiler rooms and similar spaces.

3. NOISE CRITERIA WITHIN VARIOUS SPACES

Project Co will

- (a) in undertaking the design of the Facility, evaluate the expected noise from all mechanical systems in the Facility (using one rating system; either NC or dBA); and
- (b) design and construct the Facility so that noise from the mechanical systems does not exceed the noise level specified in Table 2 below within the room or space identified.

Table 2 - Noise Criteria - Rating Within Various Spaces

Room Type	NC	dBA
Exam room/ Interview Room	30-35	35-40
Multiple occupant patient care areas	35-45	40-50
Procedure rooms	30-35	35-40
Corridors and public spaces	35-45	40-50
Testing/research lab, minimal speech	45-55	50-60
Research lab, extensive speech	40-50	45-55
Group teaching lab	35-45	40-50
Offices	30-40	35-45
Conference/meeting rooms	25-35	30-40
Video conferencing rooms	25 (max)	30 (max)
Patient rooms	30-40	35-40
NICU rooms	25-35	30-40
On Call Rooms	30-40	30-40