

Guidelines for Re-opening Teaching at MIT

This memo provides details on available learning spaces at MIT for in-person teaching, illustrates campus sectors, and provides a short list of principles for their use. The aim is to communicate available options for hands-on-campus learning for Fall 2020 onward. The appendix contains an illustrative example of apportioning the campus into sectors of learning spaces, and examples of realigning teaching spaces into common sectors.

Inventory of MIT Learning Spaces

The attached spreadsheet (MasterLearningSpaceInventory_20200507_ForDistribution.xlsx) contains a sortable table of all available learning spaces for teaching for the Fall of 2020. Each of the spaces was categorized in terms of room type and COVID adjusted capacity. The COVID capacity was estimated using different social distancing calculations based on the room layout and fixtures. The table below summarizes the available learning space inventory. Note that we do not expect the XS spaces to be used for teaching. The XL spaces may be able to be used, but the upper limit of students in one location should not exceed 50. That limit is not absolute, but based on prior guidance during ramp down.

Room Type	XS	S	M	L	XL	Total Rooms
Classroom	18	147	6	1		172
Classroom_Fixed		5	27	20	3	55
Other		3	5	9	5	22
Seminar_Fixed		9				9
Special	1	18	7	5	2	33
Teaching Lab	17	42	8	5		72
Total Rooms	36	224	53	40	10	363

Room Type	XS	S	M	L	XL	Total Seats
Classroom	33	742	91	21		887
Classroom_Fixed		49	430	619	229	1327
Other		21	76	322	379	798
Seminar_Fixed		47				47
Special	2	117	95	163	112	489
Teaching Lab	24	233	118	118		493
Total Seats	59	1209	810	1243	720	4041

Table 1. Summary of available learning spaces by room type.

The class size categories are:

XS = 2 or fewer students

S = 3 to 10 students

M = 11 to 20 students

L = 21 to 50 students

XL = more than 50 students

The room types are:

Classroom = traditional flat room with moveable tables and chairs

Classroom_Fixed = tiered auditoriums or classrooms with fixed furniture

Other = non-traditional learning spaces (e.g., Samberg 6th floor)

Seminar_Fixed = small seminar rooms with large unmoveable table

Special = studios, shops, music practice areas, etc.

Teaching_Lab = spaces designed for specific educational uses (e.g., chemistry, etc.)

Campus Sectors

The campus has been divided into sectors that roughly match academic departments. These sectors are intended to allow departments to schedule and plan courses for their own students in order to minimize student and instructor movement across campus and to avoid crowding in entrances. Also, keeping people in a sector allows for better monitoring and contact tracing.

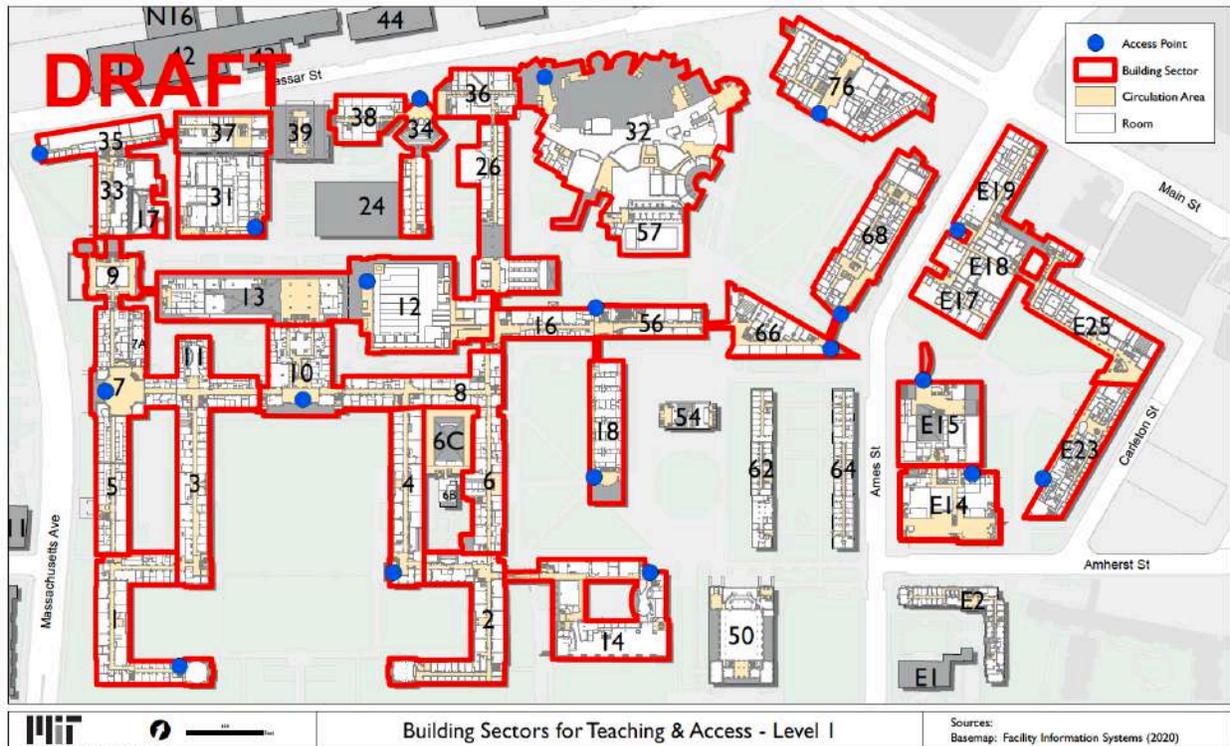


Table 2. Illustrative example of the campus sector map. Primary access points are shown.

Principles for Learning Space Use Planning

It is clearly each department's role to determine what, how, when, and where to teach. Here are some principles that DSU's might want to consider when developing their teaching plans for the fall.

1. The overall objective is to deliver educational excellence for students.
2. The health of faculty and staff is just as important as student health and should be included in both campus travel and space cleaning considerations.
3. Try to minimize required student and instructor movement across campus.
4. Consider minimizing the amount of on campus teaching by employing both on-line and in-person approaches for each class.
5. Try to minimize number of visits per day and reduce the number of visits per week to teaching sectors.
6. Consider scheduling classes to be in close proximity to each other within the same sector so that students do not need to move between sectors.
7. Try to stagger entry/exit times for students to minimize congestion and bottlenecks.

Appendix

Learning Space Map & Inventory for Two Teaching Sectors

Example of various learning spaces within two teaching sectors.

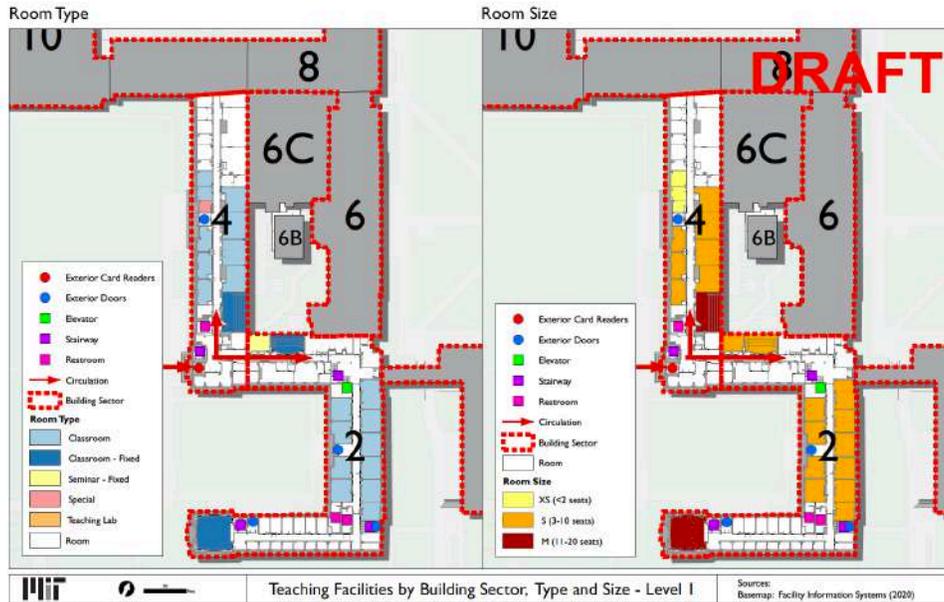


Figure 1. Level 1 learning spaces within teaching sectors in buildings 2 & 4

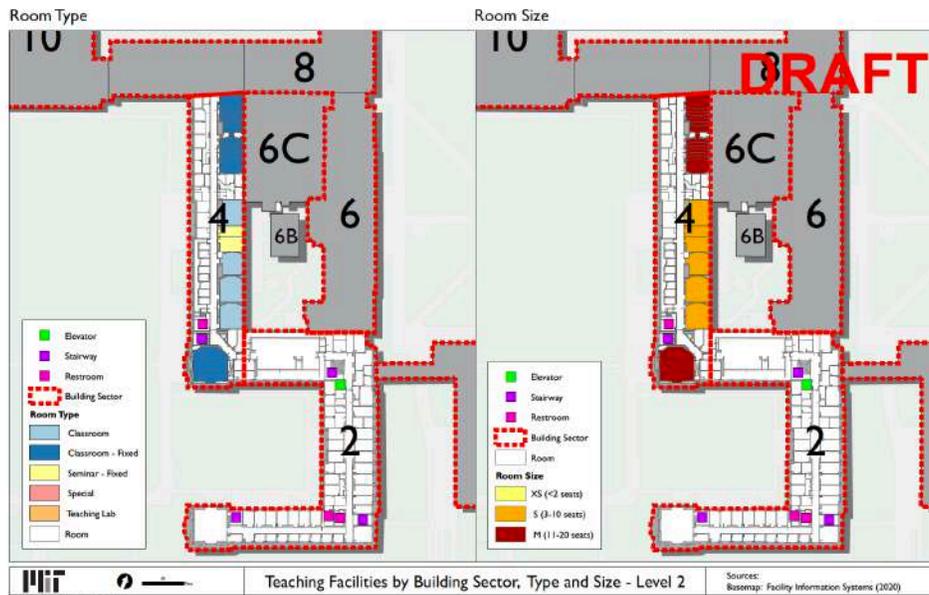


Figure 2. Level 2 learning spaces within teaching sectors in buildings 2 & 4

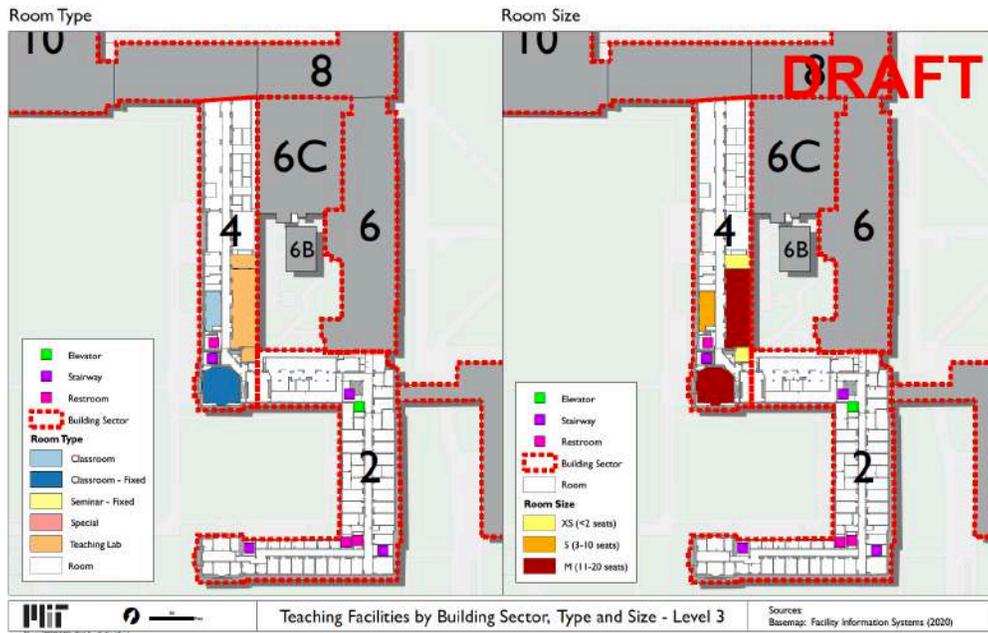


Figure 3. Level 3 learning spaces within teaching sectors in buildings 2 & 4

COVID Learning Space Inventory							COVID Size Criteria		Area per Student by Room Types	
As of: 7-May-20							XS	≤2	120	
Total Spaces: 363							S	3-10	80	Classroom_Fixed
COVID Capacity: 4,041							M	11-20	160	Teaching Lab
Note: Filter/sorting works - all numbers are fixed							L	21-50	160	Special
							XL	>50	160	Seminar_Fixed
									160	Other
Room	Bldg	PRE-COVID Seating Capacity	Area (sq ft)	Comments / Furniture Type	OWNER / Organisation	Room Type	COVID Size Category	COVID Seating Capacity		
2-103	2	16	520	Fixed seminar table	REGISTRAR	Seminar_Fixed	S	6		
2-105	2	59	823	Fixed Modern Tablet Armchairs	REGISTRAR	Classroom_Fixed	S	10		
2-131	2	34	758	Modern Tables & Chairs	REGISTRAR	Classroom	S	6		
2-132	2	32	615	Modern Tables & Chairs	REGISTRAR	Classroom	S	5		
2-135	2	32	610	Modern Tables & Chairs	REGISTRAR	Classroom	S	5		
2-136	2	26	569	Modern Tables & Chairs	REGISTRAR	Classroom	S	4		
2-139	2	32	628	Modern Tables & Chairs	REGISTRAR	Classroom	S	5		
2-142	2	26	568	Modern Tables & Chairs	REGISTRAR	Classroom	S	4		
2-143	2	32	608	Modern Tables & Chairs	REGISTRAR	Classroom	S	5		
2-146	2	24	600	Modern Tables & Chairs	REGISTRAR	Classroom	S	5		
2-147	2	32	610	Modern Tables & Chairs	REGISTRAR	Classroom	S	5		
2-151	2	18	478	Modern Tables & Chairs	REGISTRAR	Classroom	S	3		
2-190	2	134	1,628	Fixed Modern Tablet Armchairs	REGISTRAR	Classroom_Fixed	M	20		
4-144	4	16	323	Modern Tables & Chairs (seminar table)	REGISTRAR	Classroom	XS	2		
4-145	4	40	768	Modern Tables & Chairs	REGISTRAR	Classroom	S	6		
4-146	4	16	282	Modern Tables & Chairs (seminar table)	REGISTRAR	Classroom	XS	2		
4-148	4	6	205	Modern Tables & Chairs (music)	REGISTRAR	Special	XS	2		
4-149	4	50	873	Modern Tables & Chairs	REGISTRAR	Classroom	S	7		
4-152	4	20	439	Modern Tablet Armchairs	REGISTRAR	Classroom	S	3		
4-153	4	48	850	Modern Tables & Chairs	REGISTRAR	Classroom	S	7		
4-158	4	20	495	Modern Tablet Armchairs	REGISTRAR	Classroom	S	4		
4-159	4	40	782	Modern Tables & Chairs	REGISTRAR	Classroom	S	6		
4-162	4	20	488	Modern Tablet Armchairs	REGISTRAR	Classroom	S	4		
4-163	4	81	1,276	Fixed Modern Tablet Armchairs	REGISTRAR	Classroom_Fixed	M	15		
4-231	4	57	1,226	Fixed Modern Tables & Chairs	REGISTRAR	Classroom_Fixed	M	15		
4-237	4	80	1,178	Fixed Modern Tablet Armchairs	REGISTRAR	Classroom_Fixed	M	14		
4-249	4	45	838	Modern Tablet Armchairs	REGISTRAR	Classroom	S	6		
4-251	4	12	400	Fixed seminar table	REGISTRAR	Seminar_Fixed	S	5		
4-253	4	22	488	Fixed seminar table	REGISTRAR	Seminar_Fixed	S	6		
4-257	4	35	658	Modern Tablet Armchairs	REGISTRAR	Classroom	S	5		
4-261	4	40	832	Modern Tables & Chairs	REGISTRAR	Classroom	S	6		
4-265	4	40	829	Modern Tables & Chairs	REGISTRAR	Classroom	S	6		
4-270	4	115	1,603	Fixed Modern Tablet Armchairs	REGISTRAR	Classroom_Fixed	M	20		
4-361	4		2,464	Physics Undergraduate Teaching Lab	PHYSICS	Teaching Lab	M	15		
4-361A	4		435	Physics Undergraduate Teaching Lab	PHYSICS	Teaching Lab	XS	2		
4-361B	4		266	Physics Undergraduate Teaching Lab	PHYSICS	Teaching Lab	XS	1		
4-364	4	30	713	Modern Tablet Armchairs	REGISTRAR	Classroom	S	5		
4-370	4	115	1,630	Fixed Modern Tablet Armchairs	REGISTRAR	Classroom_Fixed	M	20		

Figure 4. Snapshot of the Master Learning Space Inventory spreadsheet for buildings 2 and 4.

Examples for Teaching

This example shows for students with Chemical Biology focus. In fall 2019, three classes were taught in rooms in two separate buildings (top chart) that can be consolidated into rooms within a single sector (bottom chart). This may also require schedule modification for those subject numbers, but this is anticipated as likely because only hands-on-campus segments of a given subject number need access the campus and other elements of that subject number may be managed by remote education.

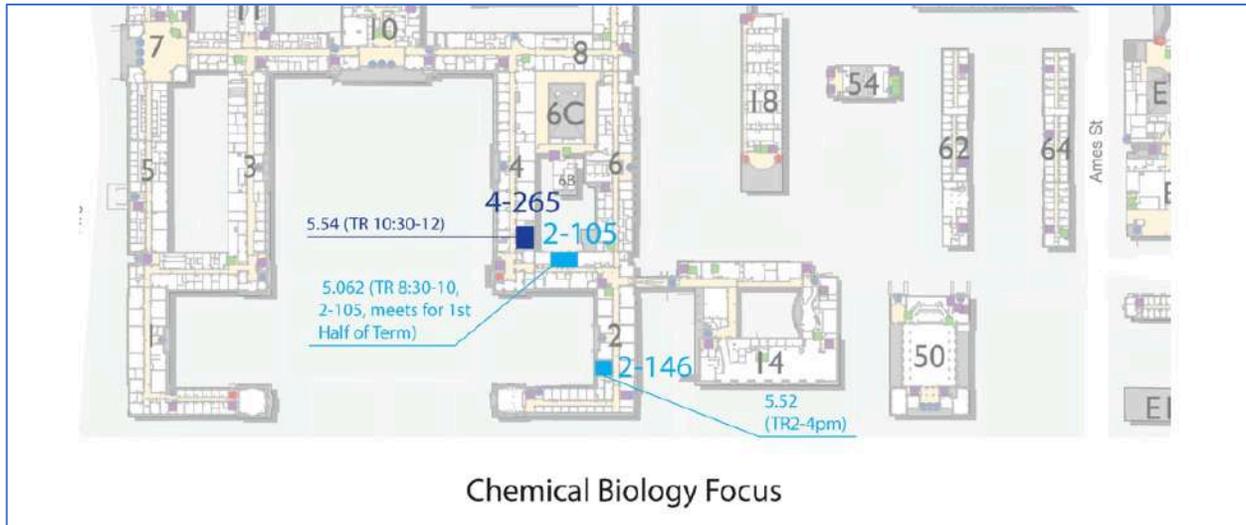


Figure 5. Three teaching locations as in Fall 2019. Note that they cross multiple sectors.

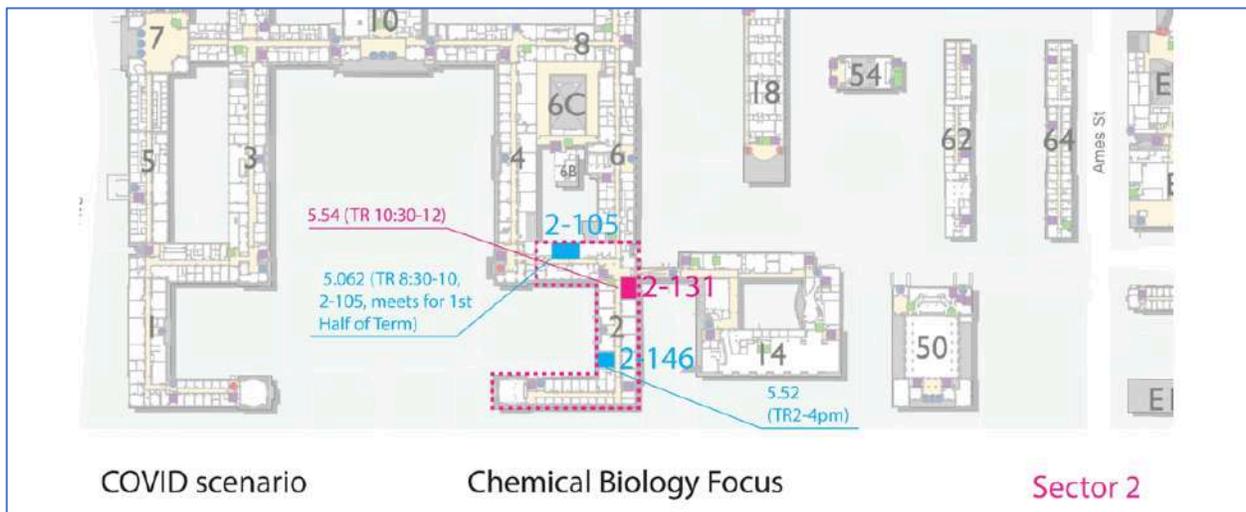


Figure 6. Recommended new learning spaces within teaching sector 2 adhering to COVID capacity limits.

Another example shows students with a Physical Chemistry focus. In fall 2019, three classes were taught in two different buildings (top chart) that can be consolidated into rooms within a single sector (bottom chart). This example would also include some scheduling modification for the learner to conduct those hands-on-campus elements during the same day of the week.

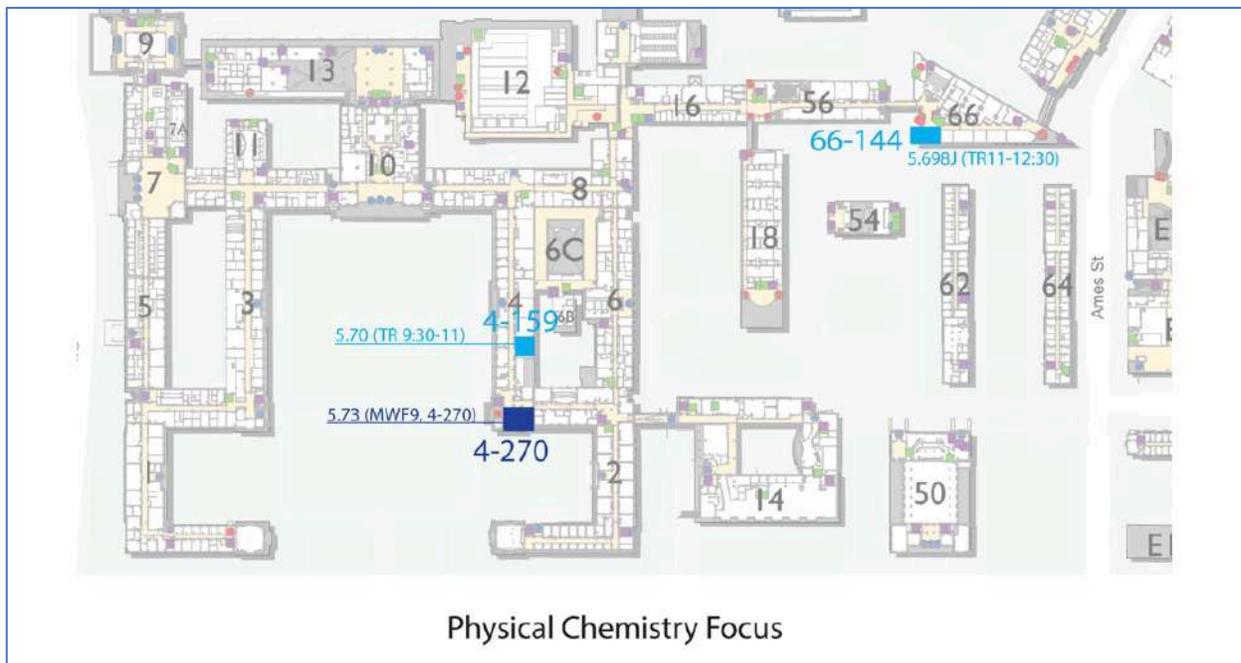


Figure 7. Three teaching locations as in Fall 2019. Note that they cross multiple buildings and sectors.

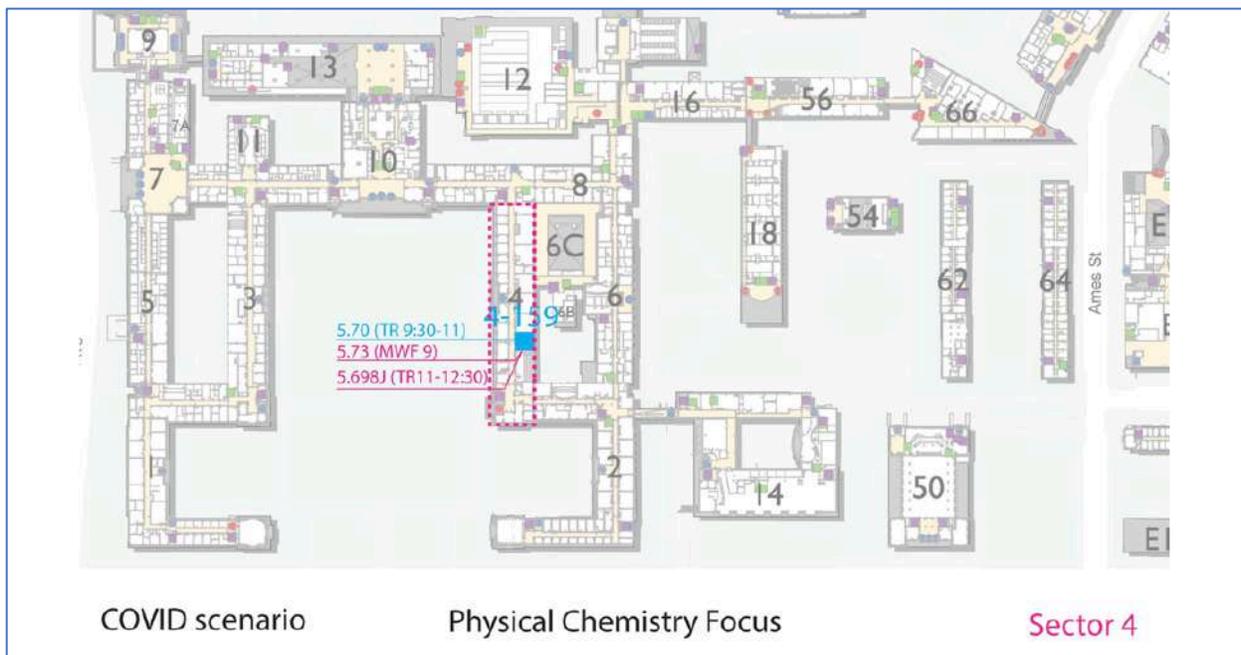


Figure 8. Recommended new learning spaces within teaching sector 4 adhering to COVID capacity limits.