

## Singapore International School (Hong Kong) Secondary School Campus

The Singapore International School in Hong Kong (HKSIS) was established in 1995, as the only overseas school funded by the Ministry of Education, Singapore. In 2007, a disused public school building ( former Shue Yan Secondary School ) next to the HKSIS campus was made available for the expansion of HKSIS to enable it to include a secondary school and pre-university curriculum to its program offering. This project involves the adaptive re-use and partial rebuilding of an existing school infrastructure in the hilly terrain of Hong Kong island - transforming an almost 30-year old utilitarian and non-descript public school facility into a unique learning environment for the Singapore International School – a memorable place imbued with rich experiential qualities which nurture and inspire.

The project is about 'making connections' at different levels – physical connections between the old and new structures as well as between the existing primary school and its expansion of the secondary school wing into this new facility, visual connections to the surrounding mountainous landscape , social connections within the school as well as between the school and its community. The architectural form and expressions are a result of careful resolution of these issues and the spaces created celebrate the notion of Community and Connectivity.

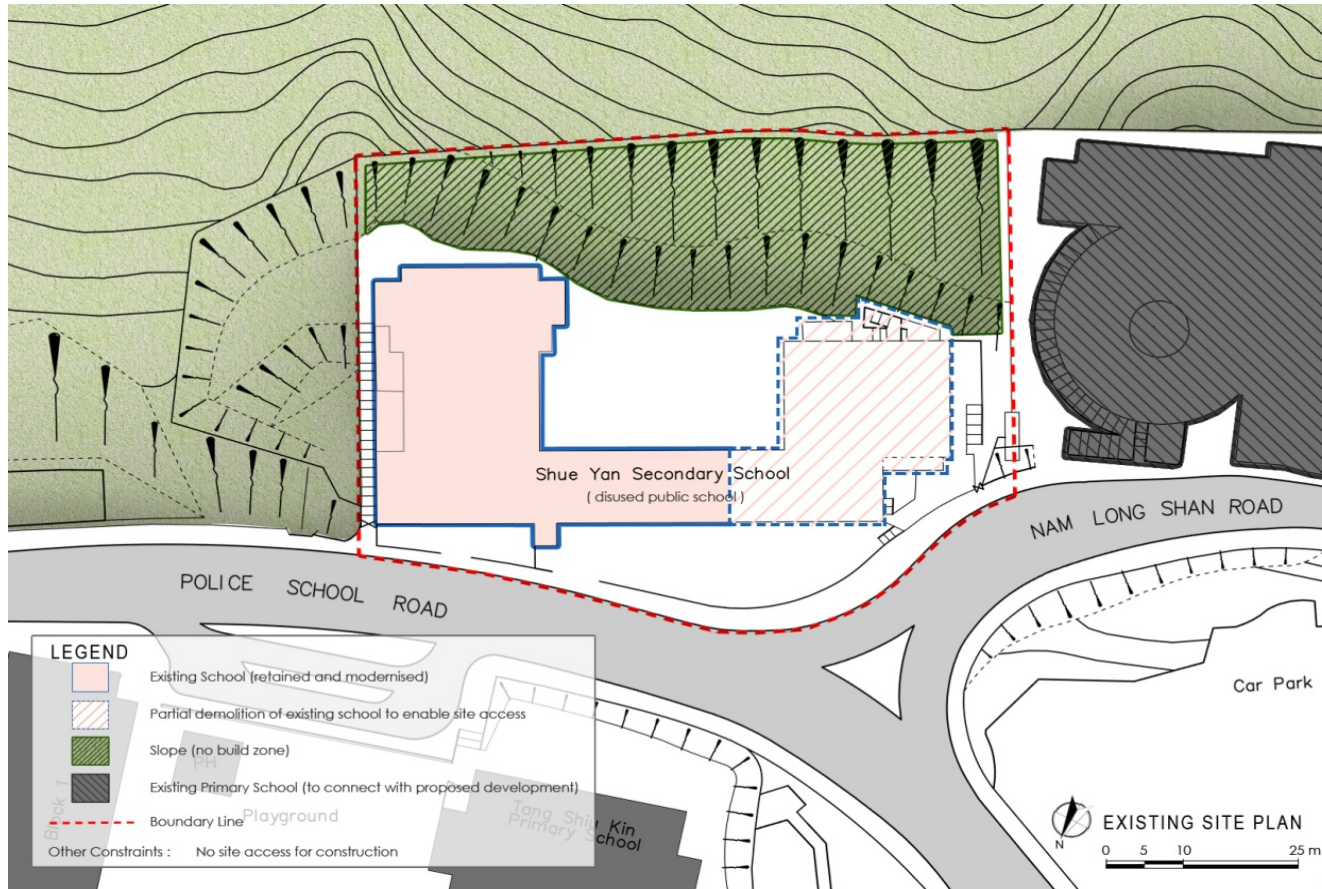
## MAIN EXTERIOR VIEW



The new secondary school wing seen against the mountaineous backdrop



## A CHALLENGING SITE



The plot was only 0.4Ha. One-third of the site had a steep slope, leaving a very limited buildable zone. There was a 41m level difference between the top of the existing HKSIS and the roof level of the disused school building, creating a big challenge, in terms of physical connectivity between both campuses. The site is surrounded by steep terrain, with vehicular access only along Northern edge. The existing buildings had to be retained, and integrated into the design. The design not only overcame the numerous challenges, but turned these obstacles into design opportunities, synthesizing the various unique site elements into a bespoke design which reflects the needs and aspirations of the school.



## BUILDING COMMUNITY

### THE CENTRAL ATRIUM: the 'community heart'

The design consciously avoided a stratified learning environment with mere stacking of facilities. The planning focused on creating a high-rise school typology which celebrates the notion of Connectivity and Community. A Central Atrium forms the community heart of the school, which provides visual connectivity and transparency across all levels of the school. Open staircases strategically located within the central atrium encourage their use, providing opportunities for chance encounters and social interactions, to foster a strong sense of belonging and community within the school.





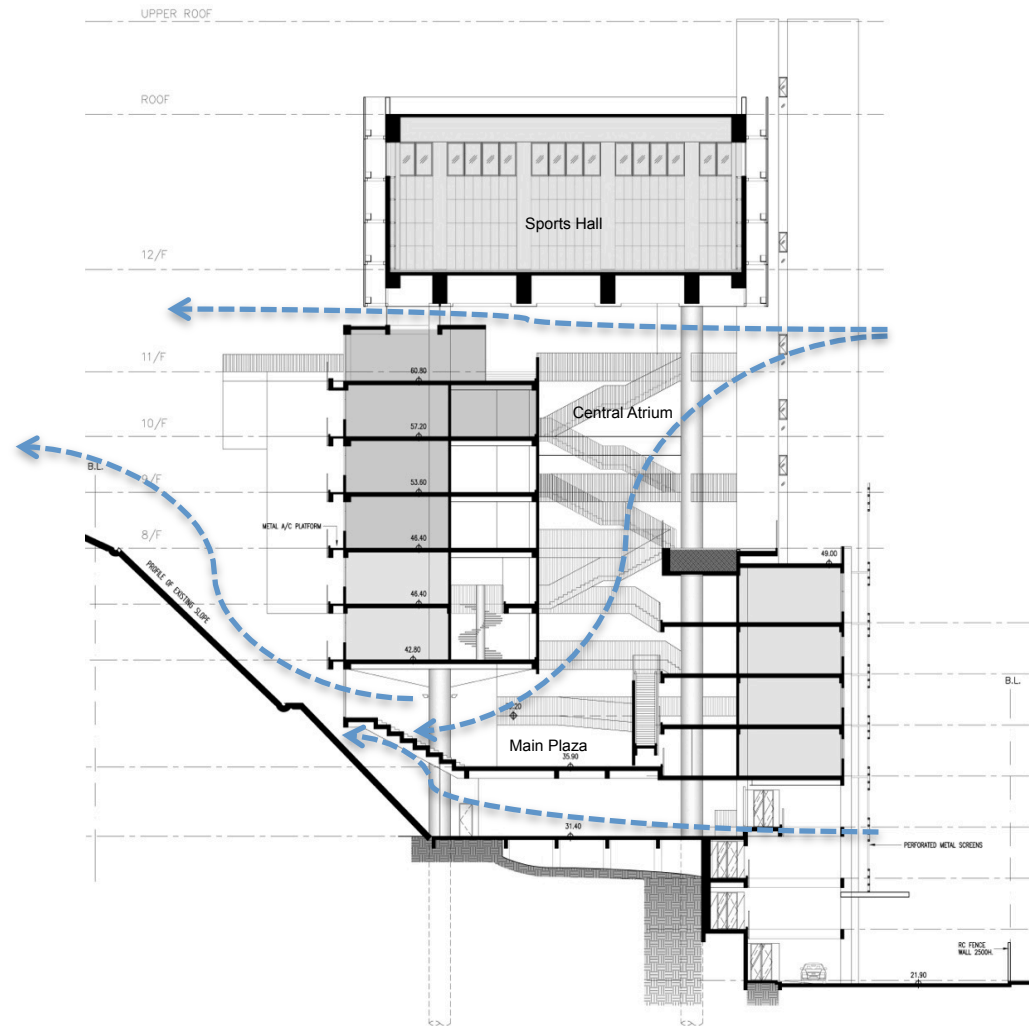
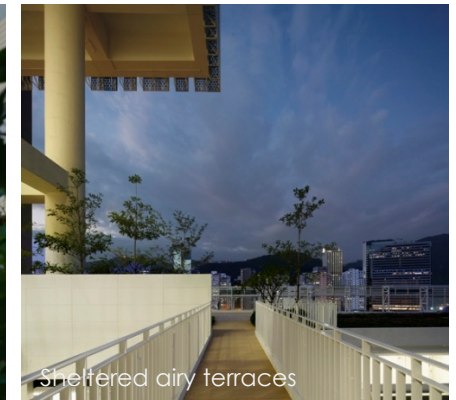
## A VIBRANT LEARNING ENVIRONMENT



The existing classrooms which are 'strung' along narrow corridors are transformed into modern learning spaces with adjoining thinktanks, small discussion corners etc (by extending the existing corridor space) to promote small group discussion and to support a variety of learning styles.

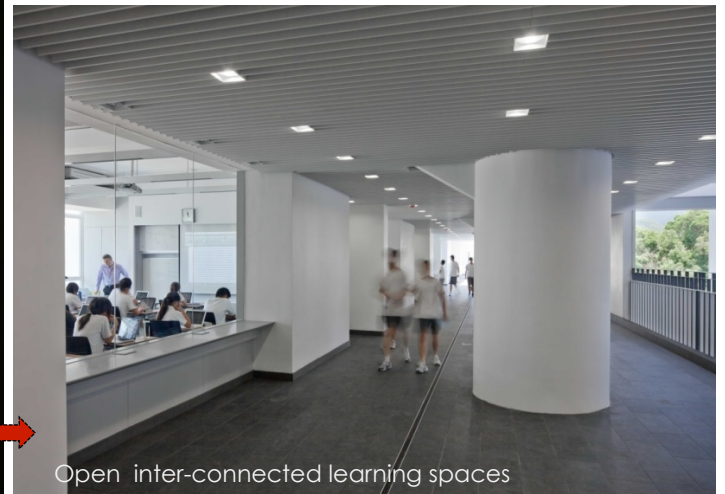
## A SUSTAINABLE DESIGN

The scheme aims to achieve a climate-responsive and ecologically-sensitive design. The Central Atrium forms the main open space linking through all the 'teaching' floors of the school, introducing day lighting and natural ventilation to the various interior spaces. The 'floating volume – Sports Zone' hovering above forms a natural canopy over the Main Plaza, enabling the space to become an all-weather social space. The new façade to the existing North Block is conceived as a 'sun-filter', providing visual connectivity to the surrounding landscape whilst cutting out unwanted heat radiation. Vertical green walls are introduced at strategic locations, providing good shading whilst at the same time, introducing greenery into the urban school environment. Other strategies eg green roofs, solar collectors etc are currently being explored for the school.





## TRANSFORMATION INTO CREATIVE SPACES



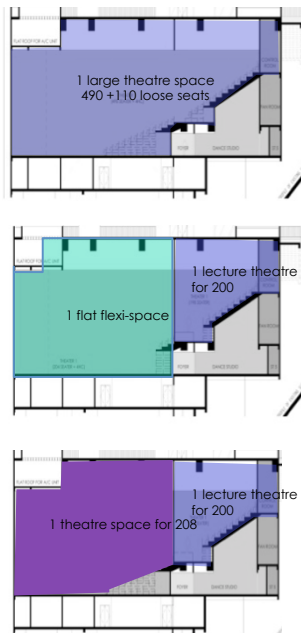
## PLANNING PROCESS: engaging the school and local community

ACTIVITY	DATE
<b>Kick-Off Meeting (MKPL, local consultant team, school management and educators, project management team )</b> <ul style="list-style-type: none"> <li>•Site Analysis and Understanding of site challenges and context</li> <li>•Clarification of key learning goals, culture and unique qualities of HKSIS.</li> <li>•Visioning exercise with school to define key qualities and expectations of new school campus</li> <li>•Rethinking the Brief – discussion on trends in educational planning, review of user program, adjacency relationships of key spaces etc</li> </ul>	04-05 Dec 07
<b>Feasibility Study of Site Options</b> <ul style="list-style-type: none"> <li>•Technical study of site options ( Option 1: Retain entire existing school building, Option 2: Refurbishment , partial demolition and rebuilding, Option 3: Total rebuilding )</li> </ul>	06 Dec 07 – 11 Jan 08
<b>Work Session with HKSIS and local team</b> <ul style="list-style-type: none"> <li>•Exploration of preliminary design ideas and review of the 3 site options</li> <li>•Presentation to HKSIS Board of Governors on brief, program , design goals and site options</li> </ul>	17-18 Jan 08
<b>Brief Development and Design Refinement</b> <ul style="list-style-type: none"> <li>•Benchmarking study carried out jointly by MKPL and HKSIS ( to determine space standards in other international schools in Hong Kong )</li> <li>•Development of Site Option 2 ie Refurbishment, partial demolition and rebuilding as the preferred option for the project</li> <li>•Justifications and Traffic Impact Analysis to Education Development Bureau (EDB) to request permission for partial demolition of existing Shue Yan School building to enable site access</li> </ul>	18 Jan – 26 Feb 08 26 Feb 08-19 Mar 08
<b>Concept Design Review</b> Concept design presented to HKSIS Management Team, Heads of Departments and staff, to get feedback and input. Work session with subject heads to clarify functional requirements. Presentation to Board of Governors for concept design approval	10-11 July 08
<b>Detailed Review of Key Facilities with Heads of Department</b> <ul style="list-style-type: none"> <li>•Review of Arts Cluster, Science and Sports facilities</li> <li>•Review of Flexible Furniture and mock-ups</li> </ul>	25 July 08
<b>Worksession on Sustainable Design Features with HKSIS and local consultants</b>	01-02 Dec 08
<b>Engagement with local community and Local District Council</b> Public forum/discussion on school development. Residents raised concern over potential blocking of views of mountainous landscape. School building height was lowered to address these concerns	Jan 09
<b>Project Briefing to School Community</b> Different briefing sessions organized for Parent Groups, Primary School and Secondary School students respectively	21-22 May 09
<b>Worksession on Interior Design of key spaces with HKSIS</b>	08 Jan 2010



## PLANNING PROCESS: ideas exploration

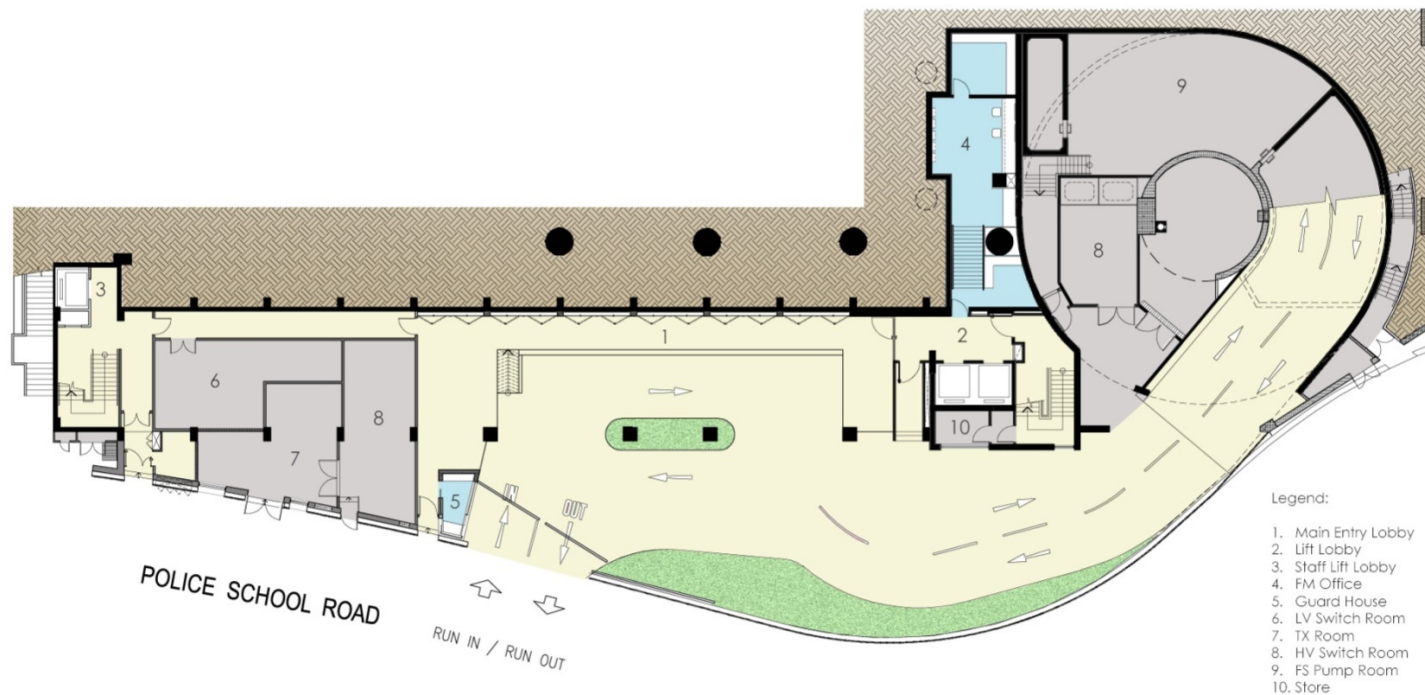
Fitting an extensive program in a severely constrained site and context was quite a challenge. The design process included extensive discussions and exploration of Innovative strategies with the school team to ensure optimization and creative use of teaching spaces. Careful study of functional adjacencies and overlap of uses were considered, blurring the boundaries between circulation-program space, inside-outside and formal-informal zones to ensure every space on campus is fully optimized for learning. The design went through many rounds of adjustments and changes, in response to different constraints and challenges ( site, authority requirements, budgetary considerations etc ). Despite the many changes, the key focus was to ensure integrity of the design ideas and realisation of the school's vision and project goals.



Options for Multi-use in Auditorium



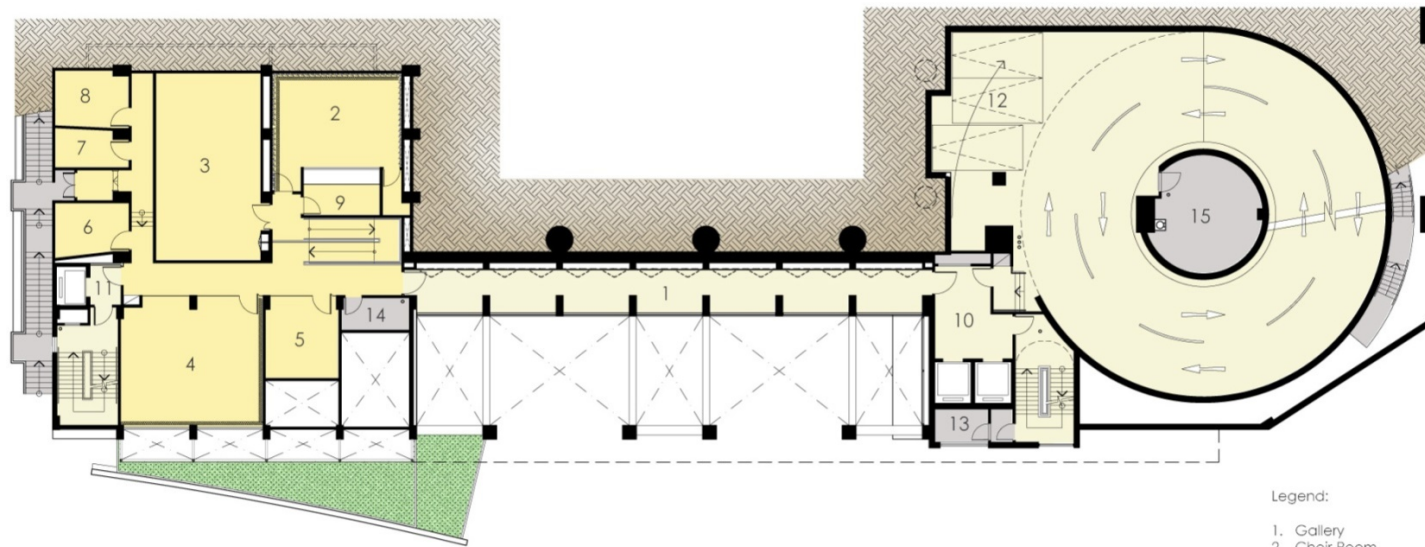
Space overlap studies to optimise use of space



GROUND FLOOR PLAN (LEV. 22.100)



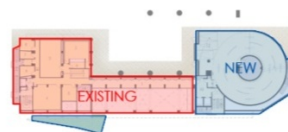


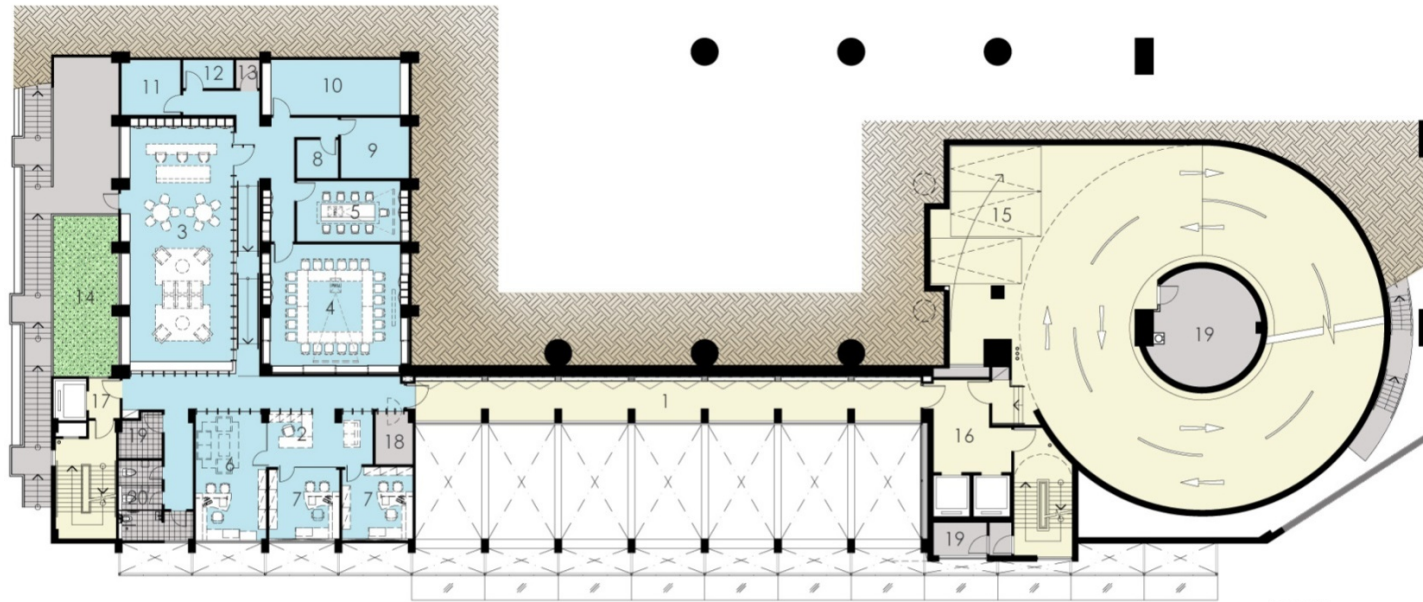


Legend:

1. Gallery
2. Choir Room
3. Music Room 1
4. Music Room 2
5. Music Room 3
6. Practice Room 1
7. Practice Room 2
8. Practice Room 3
9. Recording Room
10. Lift Lobby
11. Staff Lift Lobby
12. Carpark
13. Store
14. Electrical Room
15. TBE Room

FIRST FLOOR PLAN (LEV. 25.400)

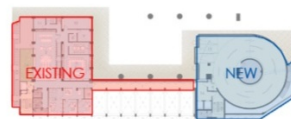




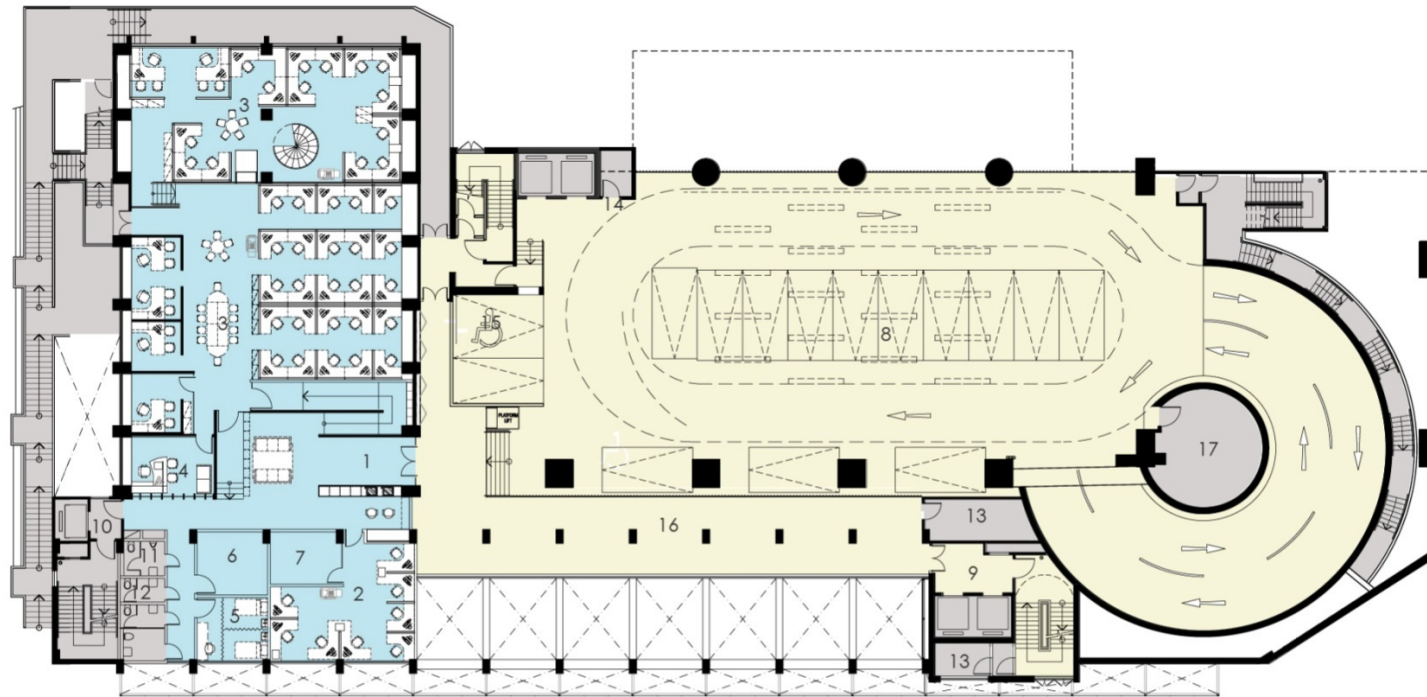
Legend:

1. Gallery
2. Secretary
3. Staff Lounge / Resource
4. Conference Room
5. Meeting Room
6. Principal's Suite
7. Vice Principal's Suite
8. ICT / AVA Room
9. Server Room
10. ICT Workshop
11. Strong Room
12. Printing Room
13. Cleaner's Room
14. Green Roof
15. Carpark
16. Lift Lobby
17. Staff Lift Lobby
18. Electrical Room
19. Store
20. Staff Toilet

2ND FLOOR PLAN (LEV. 28.700)







3RD FLOOR PLAN (LEV. 32.000)



Legend:

1. Administration Lobby
2. General Administration Office
3. Staff & HOD's Office
4. Vice Principal's Suite
5. Sick Bay
6. Printing Store / Office Equip't.
7. Storage
8. Arrival Hall
9. Lift Lobby
10. Staff Lift Lobby
11. Staff Pantry
12. Staff Toilet
13. Store
14. Electrical Room
15. Loading / Unloading Bay
16. Gallery
17. Refuse Room



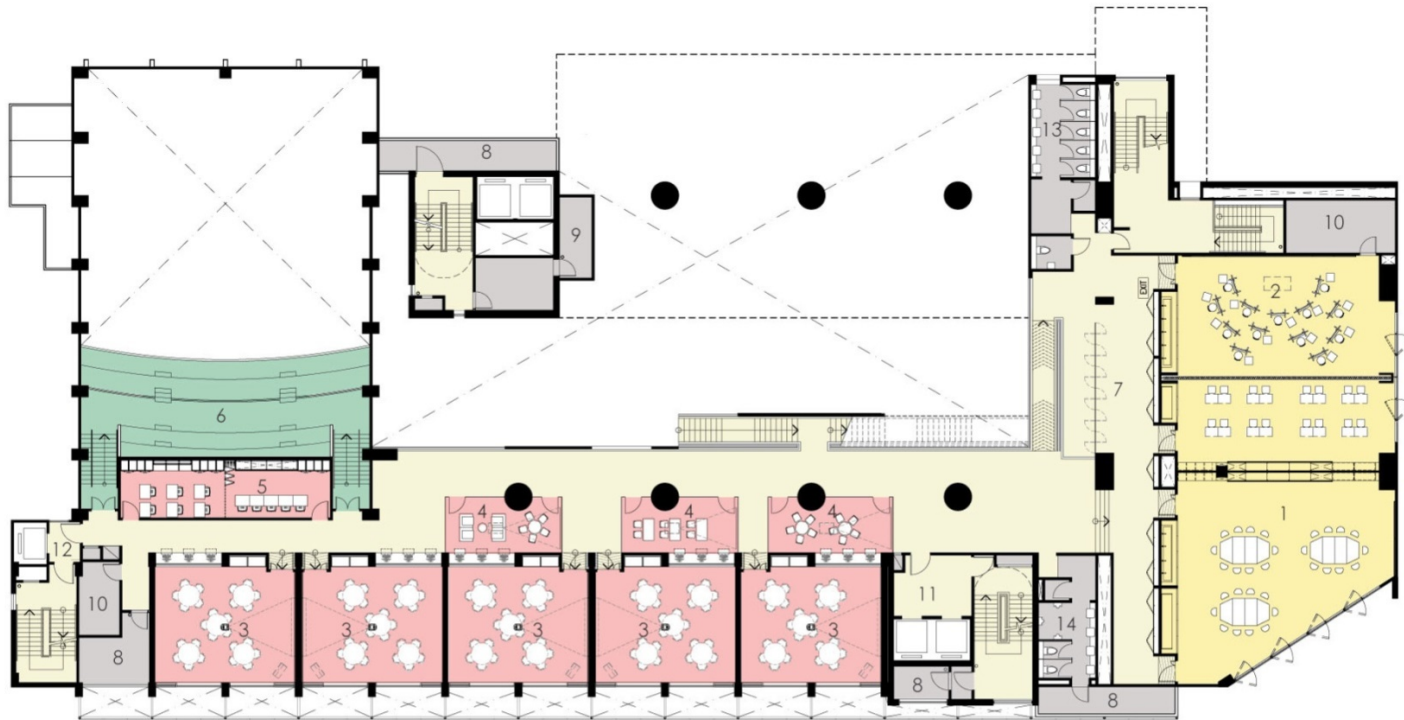
Legend:

- 1. Plaza
- 1a. Amphitheater
- 2. Library
- 3. Cafeteria
- 4. Kitchen & Server
- 5. Secondary Classroom
- 6. Think Tank
- 7. Student's Lockers
- 8. Lift Lobby
- 9. Staff Lift Lobby
- 10. Outdoor Kiosk
- 11. Male Toilet
- 12. Female Toilet
- 13. A/C Platform / Plant Room
- 14. Electrical Room
- 15. Store

4TH FLOOR PLAN (LEV. 35.300)





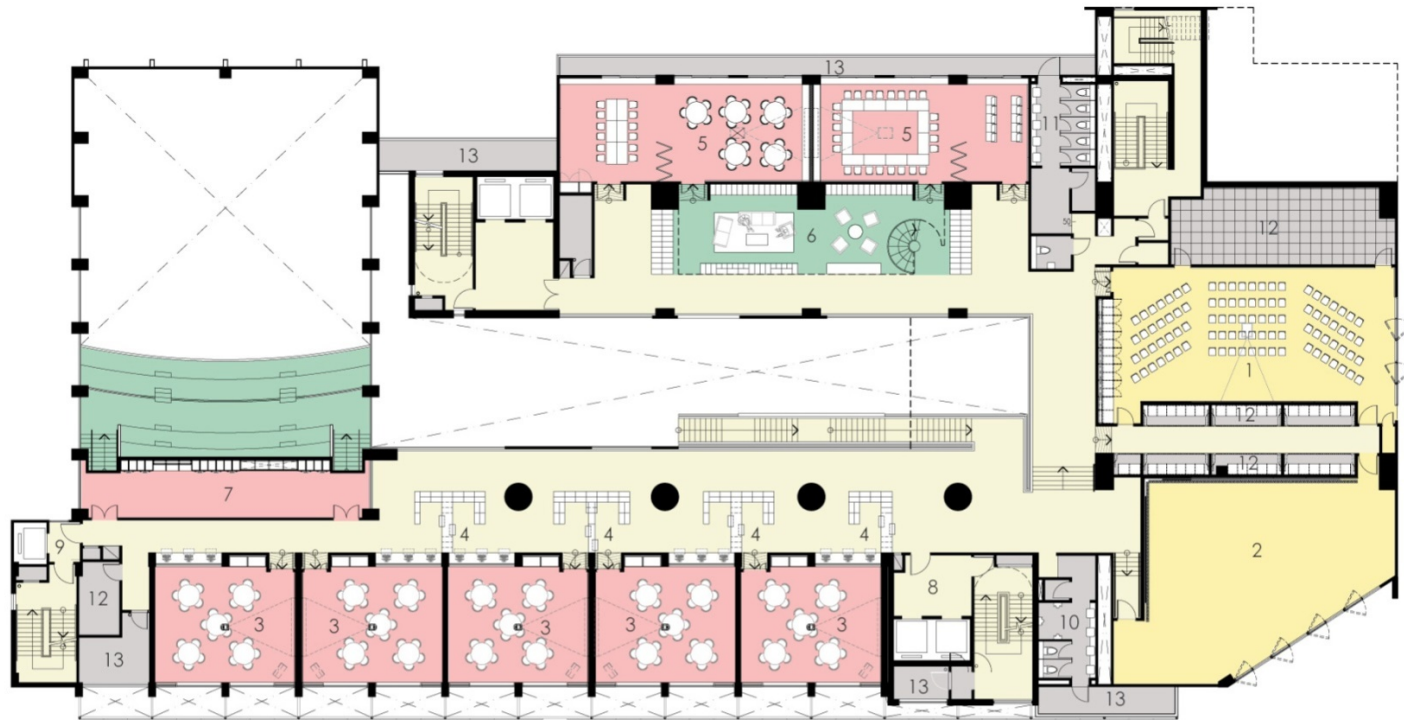


Legend:

1. Art Studio
2. Flexible Studio
3. Secondary Classroom
4. Think Tank
5. Small Group Teaching
6. Study Area
7. Gallery
8. A/C Platform / Plant Room
9. Electrical Room
10. Store
11. Lift Lobby
12. Staff Lift Lobby
13. Female Toilet
14. Male Toilet

5TH FLOOR PLAN (LEV. 38.600)





Legend:

1. Seminar Room
2. Dance Room
3. Secondary Classroom
4. Student's Lockers
5. Pre-U Classroom
6. Student Lounge
7. Small Group Teaching
8. Lift Lobby
9. Staff Lift Lobby
10. Male Toilet
11. Female Toilet
12. Storage
13. A/C Platform / Plant Room
14. Electrical Room

6TH FLOOR PLAN (LEV. 41.900)







Legend:

1. Auditorium
2. Secondary Classroom
3. Pre-U Classroom
4. Student's Lockers
5. Auditorium Foyer
6. Lift Lobby
7. Staff Lift Lobby
8. Electrical Room
9. A/C Platform / Plant Room
10. Female Toilet

7TH FLOOR PLAN (LEV. 45.200)





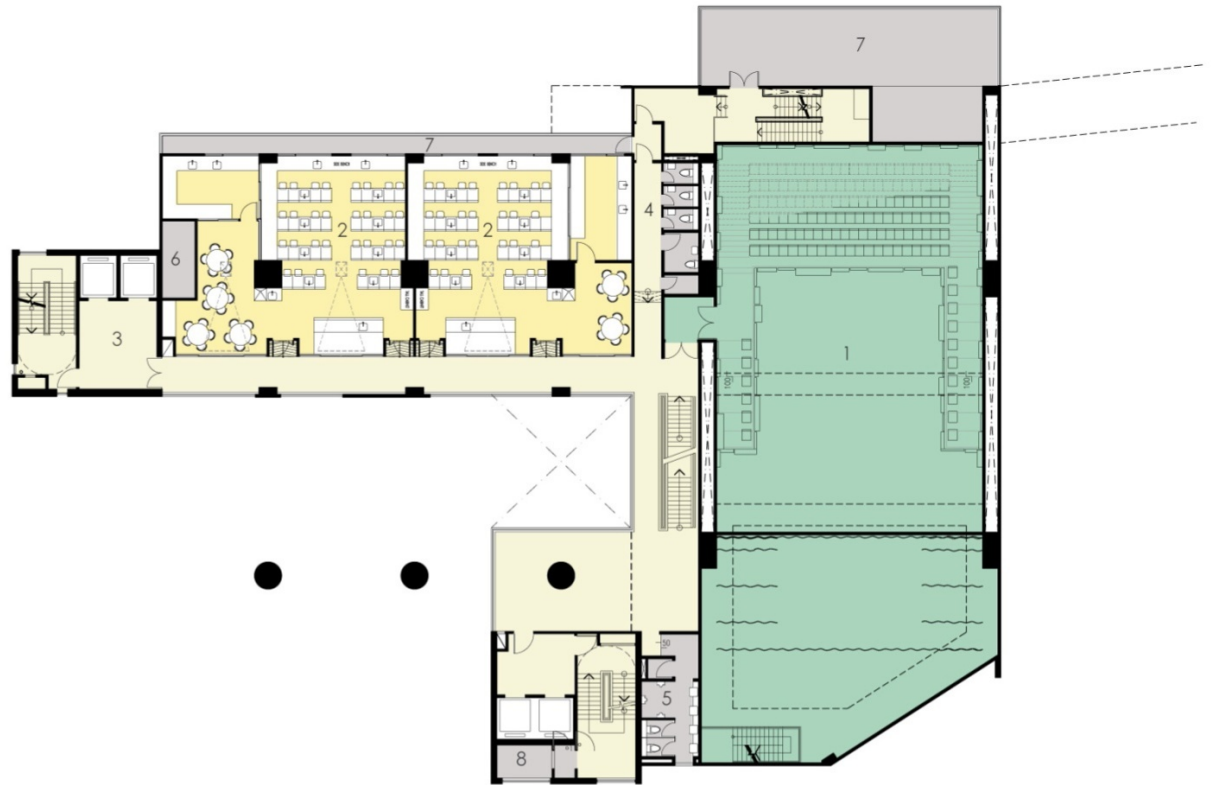
Legend:

1. Auditorium
2. Science Garden
3. Junior / Super Lab.
4. Lift Lobby
5. male Toilet
6. Female Toilet
7. A/C Platform / Plant Room
8. Store
9. Electrical Room
10. Lift Machine Room

8TH FLOOR PLAN (LEV. 50.000)





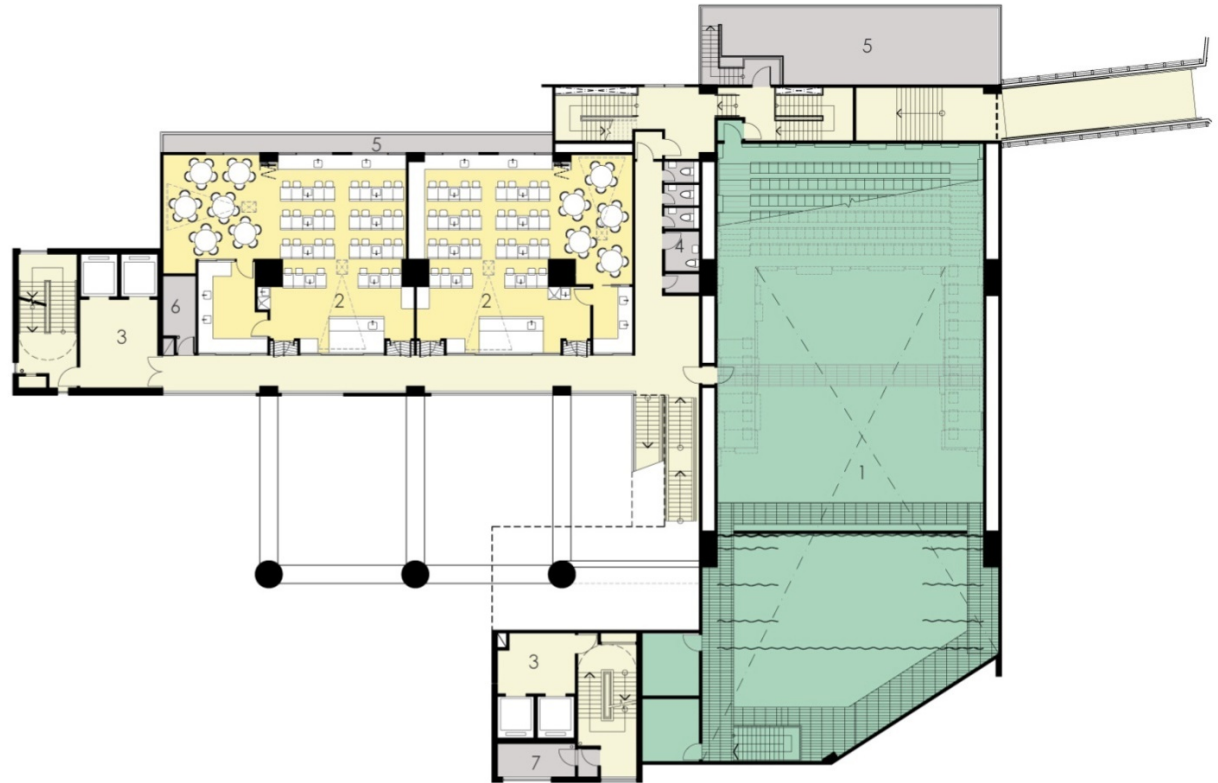


Legend:

1. Auditorium
2. Physics & Biology Lab.
3. Lift Lobby
4. Female Toilet
5. male Toilet
6. Electrical Room
7. A/C Platform / Plant Room
8. Store

9TH FLOOR PLAN (LEV. 53.600)

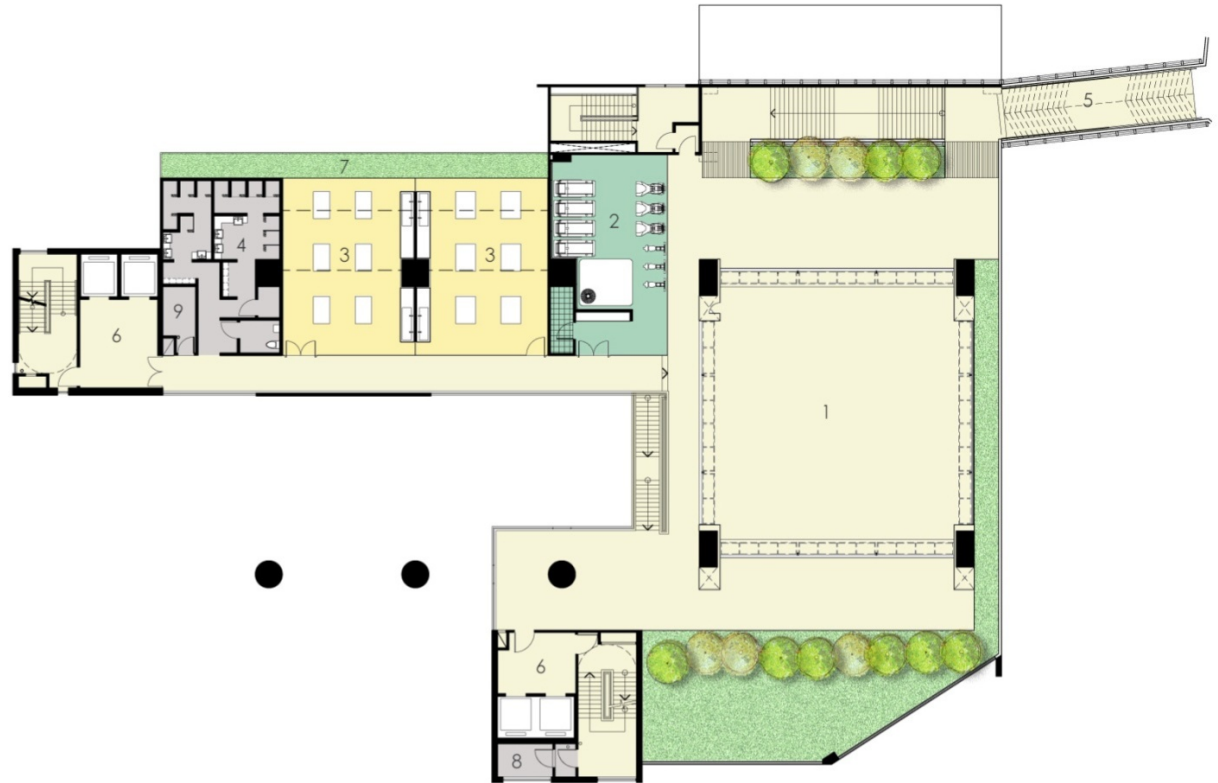




- Legend:
- 1. Auditorium
  - 2. Chemistry Lab.
  - 3. Lift Lobby
  - 4. Toilet
  - 5. A/C Platform / Plant Room
  - 6. Electrical Room
  - 7. Store

10TH FLOOR PLAN (LEV. 57.200)





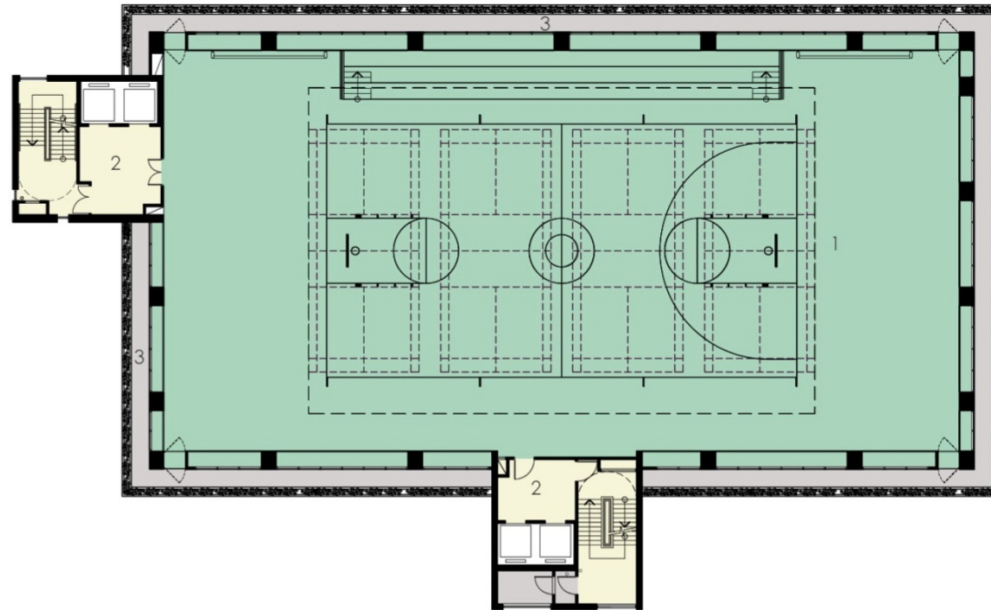
Legend:

- 1. Orientation Square
- 2. Gymnasium
- 3. Design & Technology
- 4. Male & Female Changing Room
- 5. Link Bridge
- 6. Lift Lobby
- 7. A/C Platform / Plant Room
- 8. Store Room
- 9. Electrical Room

11TH FLOOR PLAN (LEV. 60.800)



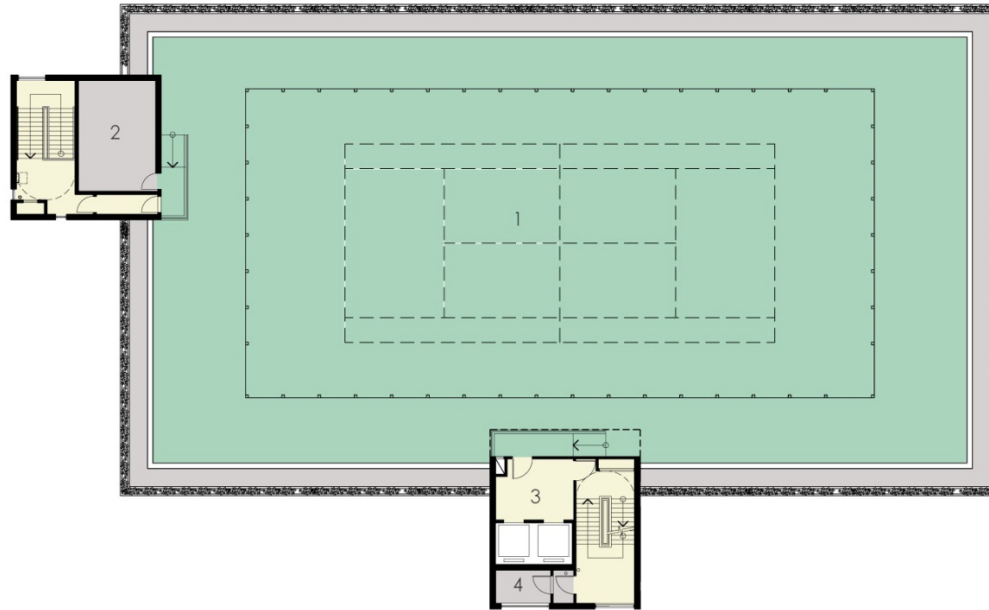




- Legend:
- 1. Sport Hall
  - 2. Lift Lobby
  - 3. Maintenance Platform

12TH FLOOR PLAN (LEV. 68.000)





- Legend:
- 1. Multi-purpose Court
  - 2. Lift Motor Room
  - 3. Lift Lobby
  - 4. Store Room

ROOF PLAN (LEV. 78.000)



## PROJECT DATA

<b>Submitting Firm:</b>	<b>MKPL Architects Pte Ltd</b>
Project Role:	Design Architect
Project Contact:	Pit Li Phan
Title:	Senior Consultant
Address:	150 Cecil Street #12-00 Singapore 069543
City, State or Province, Country	Singapore
Phone:	+ 65 6223 4633
<b>Joint Partner:</b>	<b>WMKY Ltd</b>
Project Role:	Local Architect
Project Contact:	Helen Y L Leung
Title:	Associate
Address:	33/F Hopewell Centre, 183 Queen's Road East, Wanchai
City, State or Province, Country	Hong Kong
Phone:	852 2528 4993
<b>Construction Firm:</b>	<b>Cheung Kee Fung Construction Co. Ltd</b>
Project Role:	Main Contractor
Project Contact:	-
Title:	-
Address:	G/F Lower Kentucky Industrial Building, 57-61 Lei Muk Road Kwai Chung
City, State or Province, Country	New Territories, Hong Kong
Phone:	852-2337 5069



## PROJECT DATA

Project Name	Singapore International School (Hong Kong) Secondary School Campus
City:	2 Police School Road, Aberdeen
State:	Hong Kong
District Name:	-
Occupancy Date:	August 2011
Grades Housed:	Secondary Year Level 1,2,3,4 and Pre-University Level 1 and 2
Capacity (Students):	600 students
Site Size:	4552 m2
Gross Area:	23000 m2
Per Occupants (pupil):	Approx 16m2 net area per pupil
Gross/Net (Please indicate):	Approx 2.3
Design and Build?	No
If Yes, Total Cost:	-
If No, Site Development:	HK\$ 34 million
Building Construction:	HK\$ 202 million
Fixed Equipment:	HK\$ 3 million
Others:	HK\$ 11 million
Total:	HK\$ 250 million

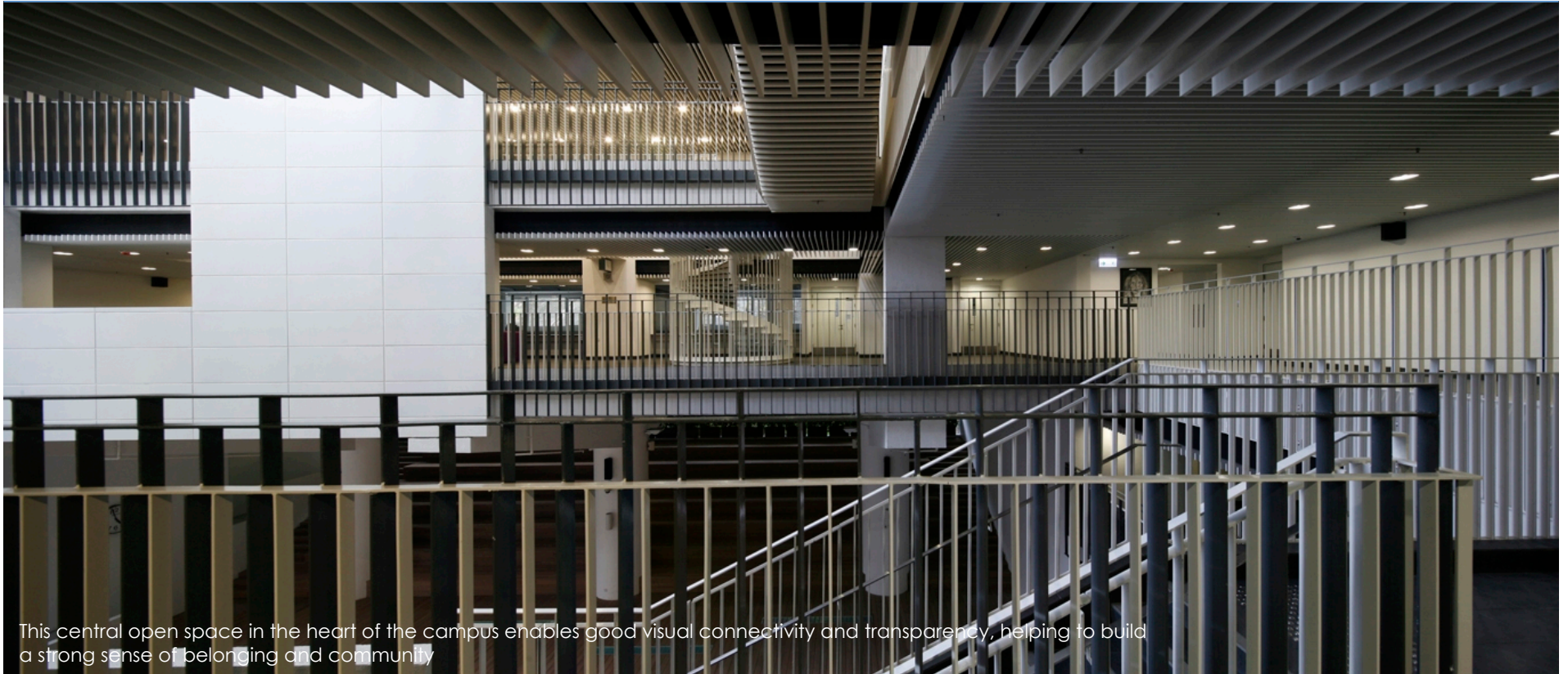
## ‘A VERTICAL PROMENADE’



Movement through the various floors are carefully orchestrated, with strategic placement of staircases, linkways and bridges to form a 'Vertical Promenade' which celebrates student life and activity within the campus.



## OPENNESS AND VISUAL TRANSPARENCY



This central open space in the heart of the campus enables good visual connectivity and transparency, helping to build a strong sense of belonging and community



## A NEW AUDITORIUM



Use of retractable seats provide flexibility in the Auditorium, enabling multiple settings to support a variety of different uses



## A NEW SPORTS HALL







RE-PURPOSING CIRCULATION SPACE TO SUPPORT THE NEW LEARNING