

# BIM – Drawing Productions

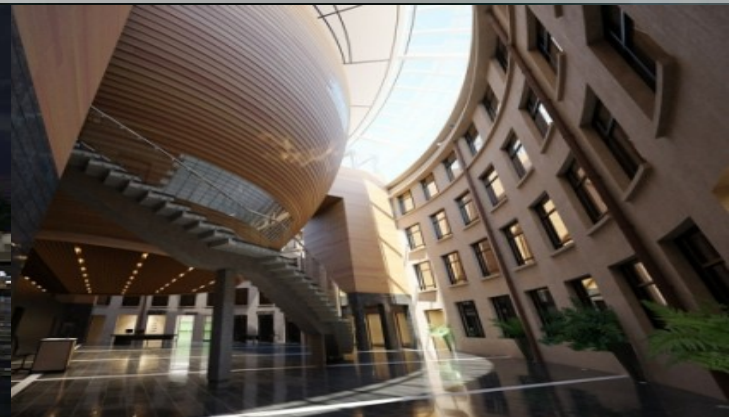
David Fung

*Registered Architect, HKIA  
Managing Director, A.C.I.D.  
HKIBIM Vice Chairman  
HKUSPACE Department of Architecture, Adjunct Lecturer*

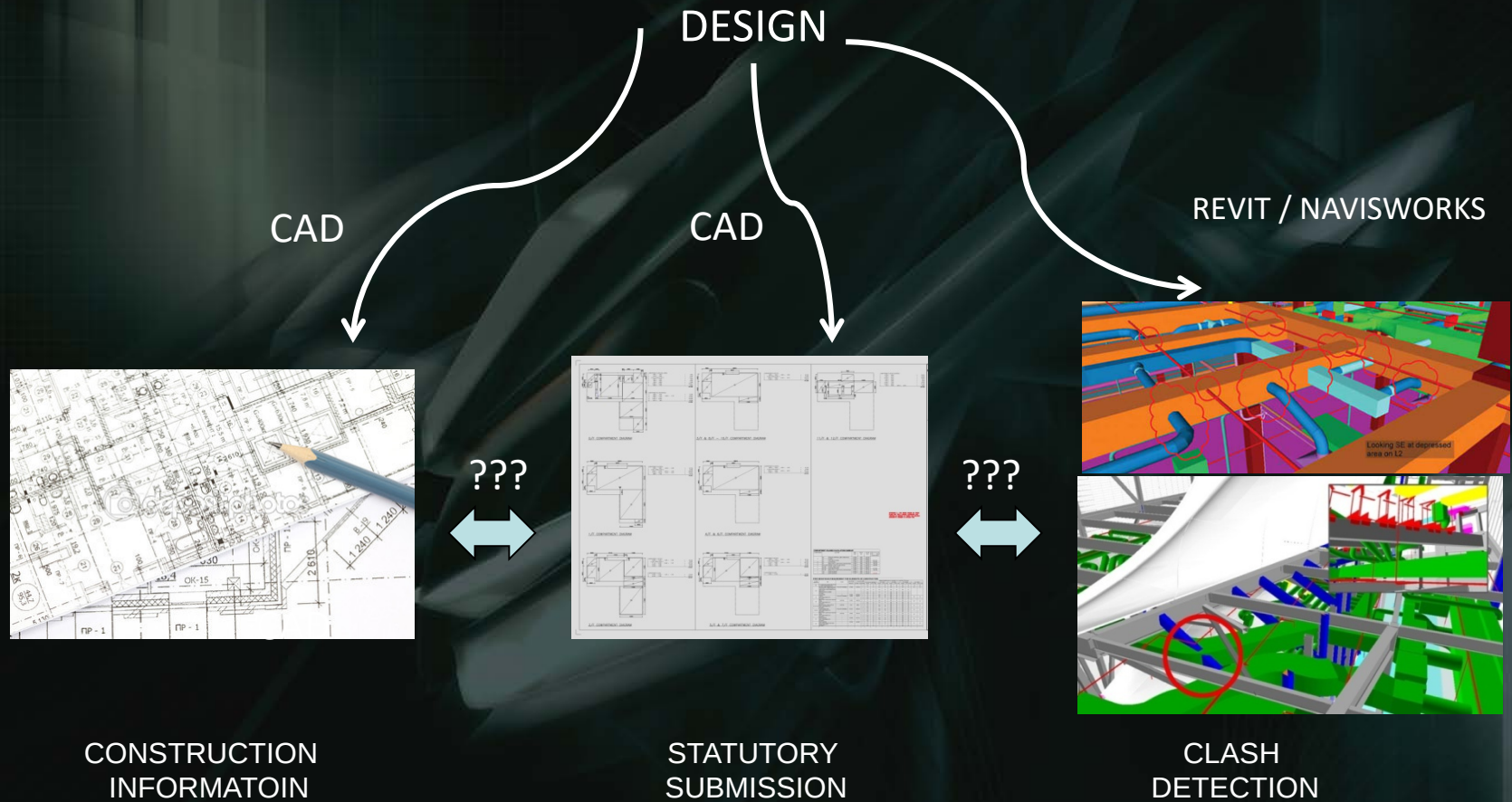
# Fake BIM

M + ?

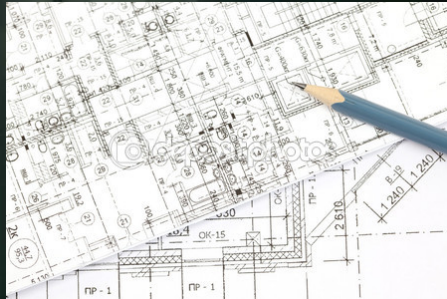
JUST 3D MODEL – NOT BIM



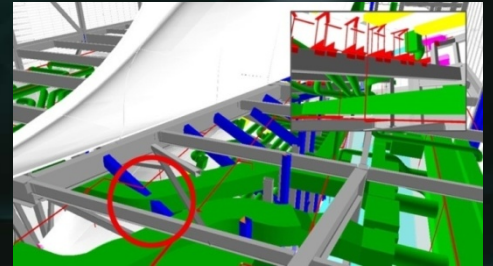
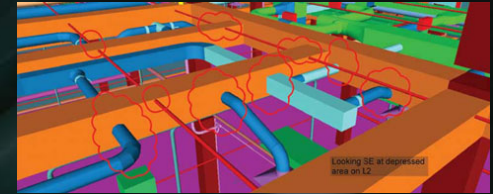
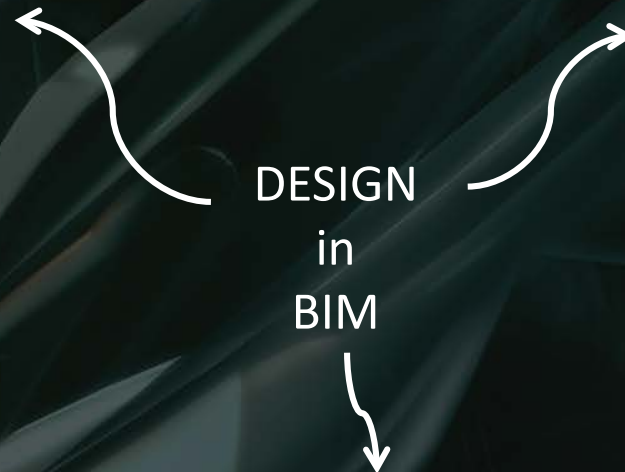
# HALF BIM



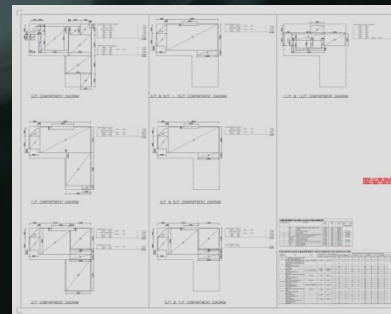
# REAL BIM



CONSTRUCTION  
INFORMATOIN



CLASH  
DETECTION

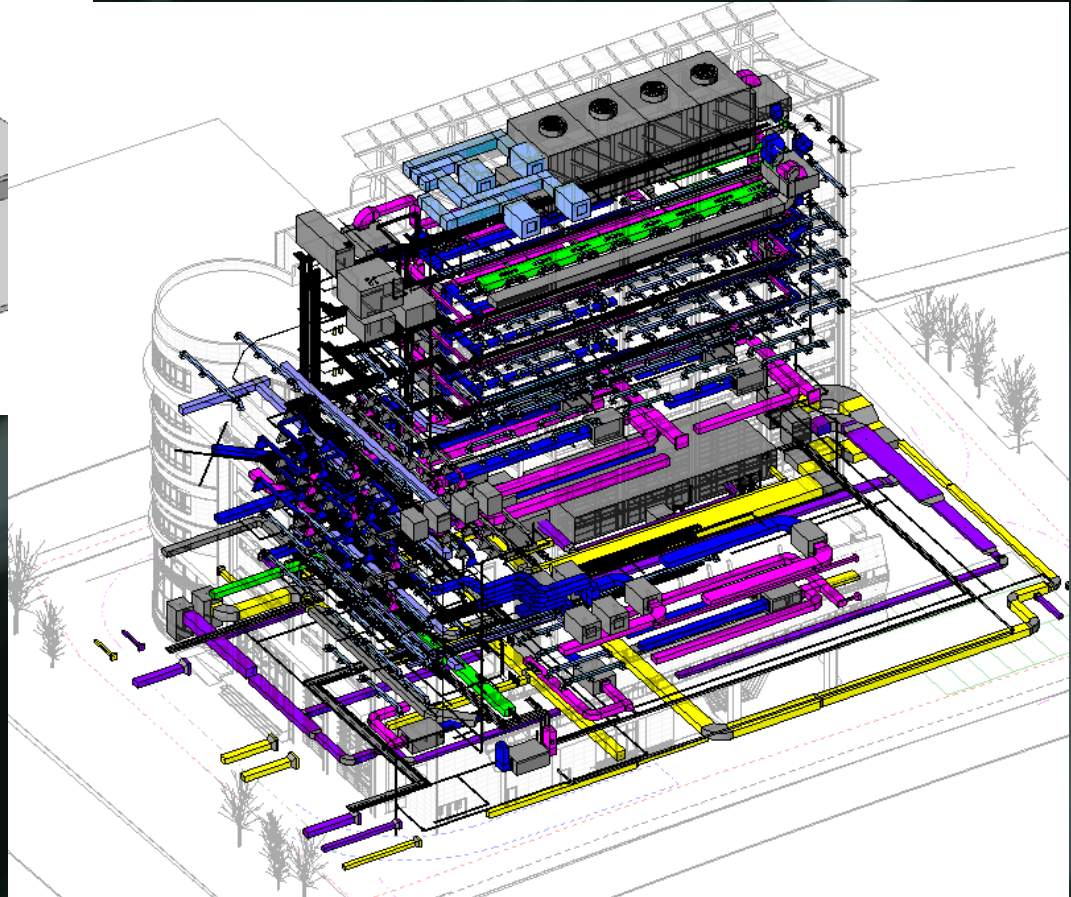
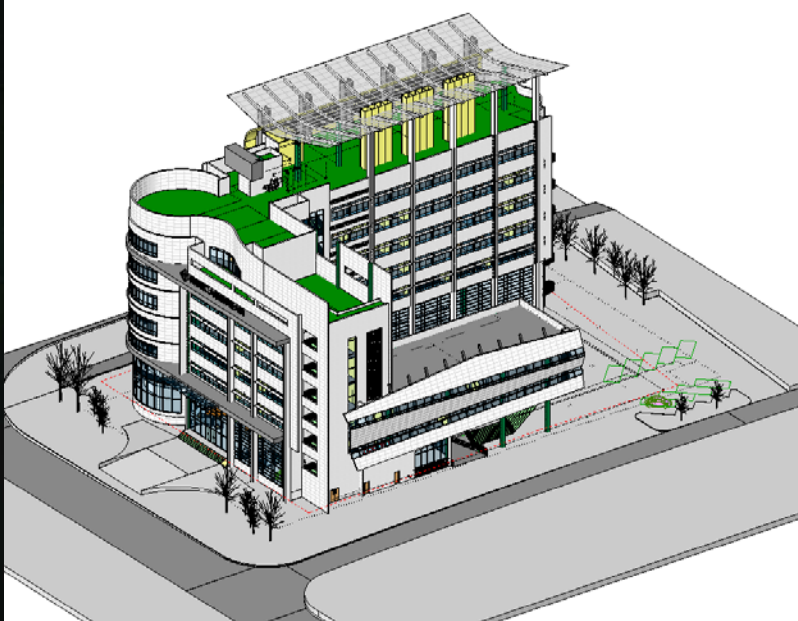


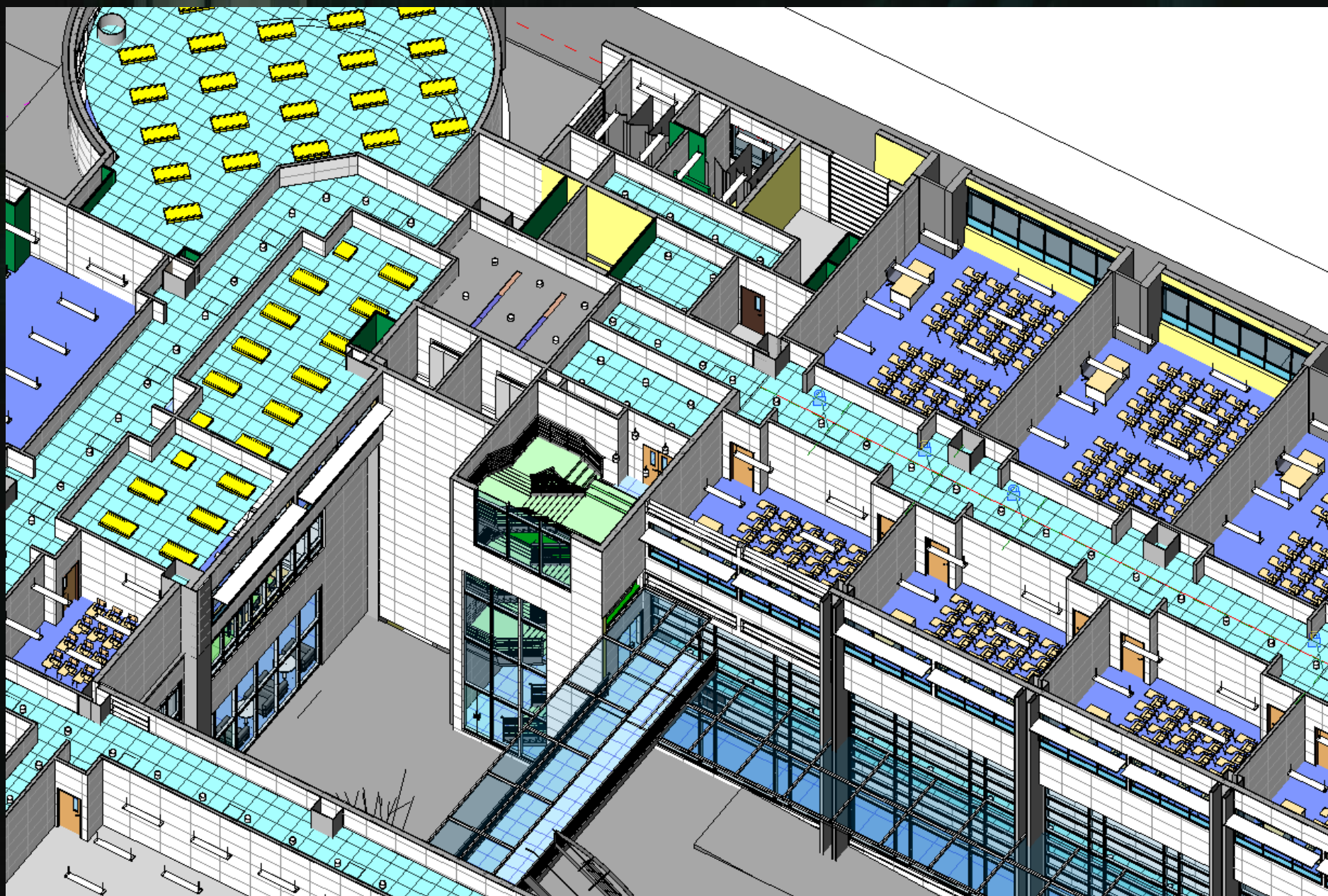
STATUTORY  
SUBMISSION

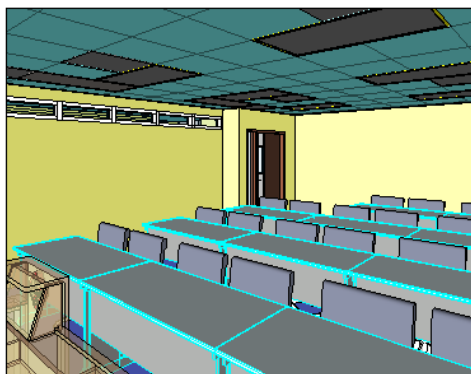


# CO-ORDINATION / COLLABORATION

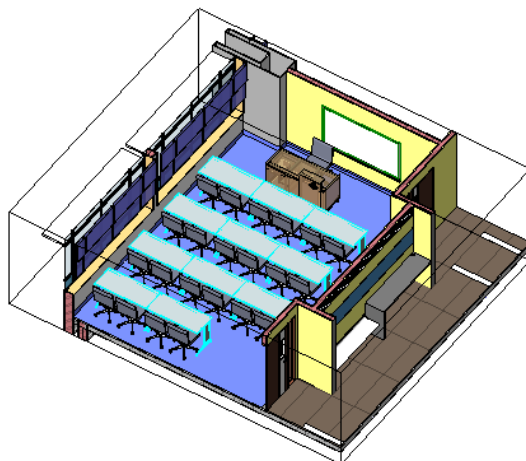
Work Flow – Establish BIM Models



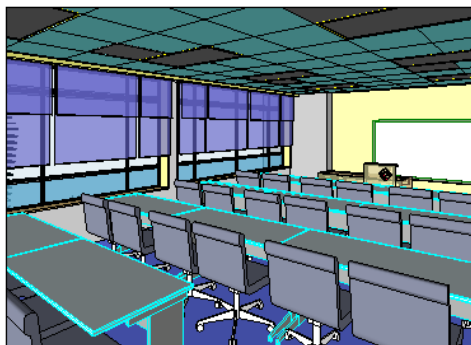




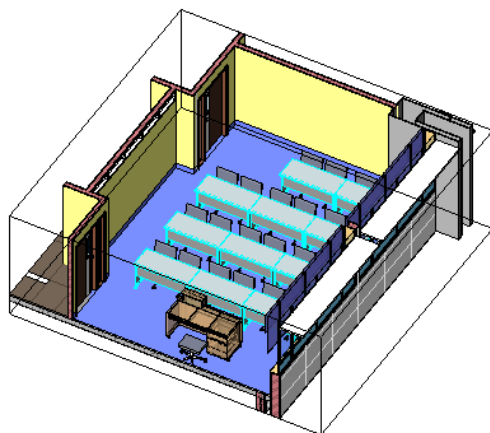
6 行政人员培训室立体示意图2



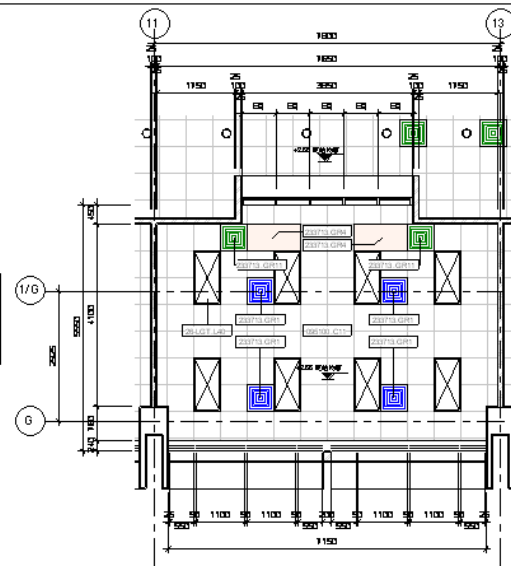
4 行政人员培训室立体剖面示意图2



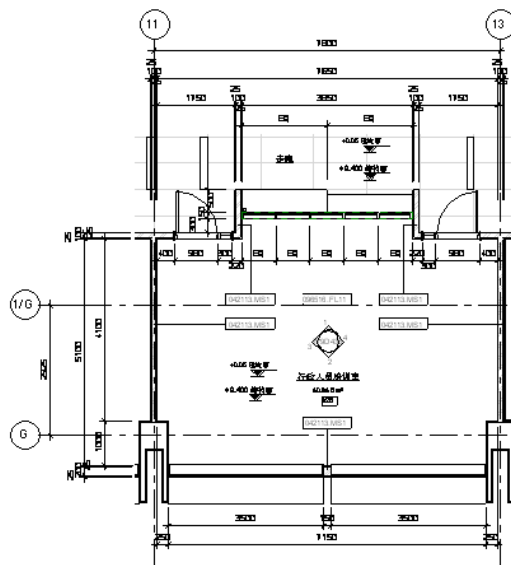
5 行政人员培训室立体示意图1



3 行政人员培训室立体剖面示意图1

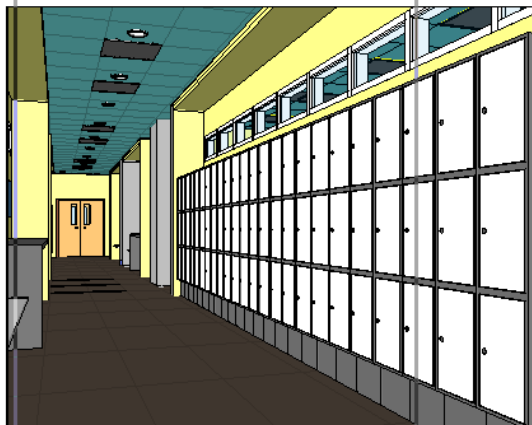


2 行政人员培训室天花平面图(高楼三层) 1:50

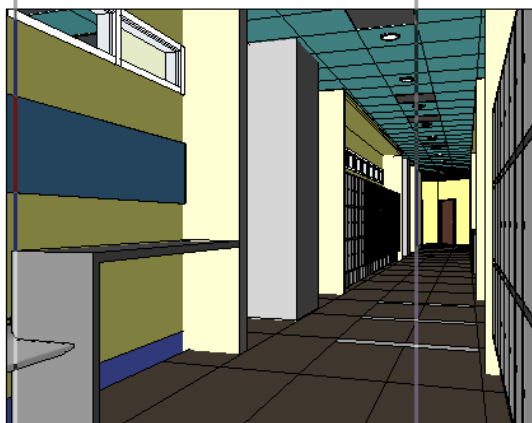


1 行政人员培训室平面图(高楼三层) 1  
1:50

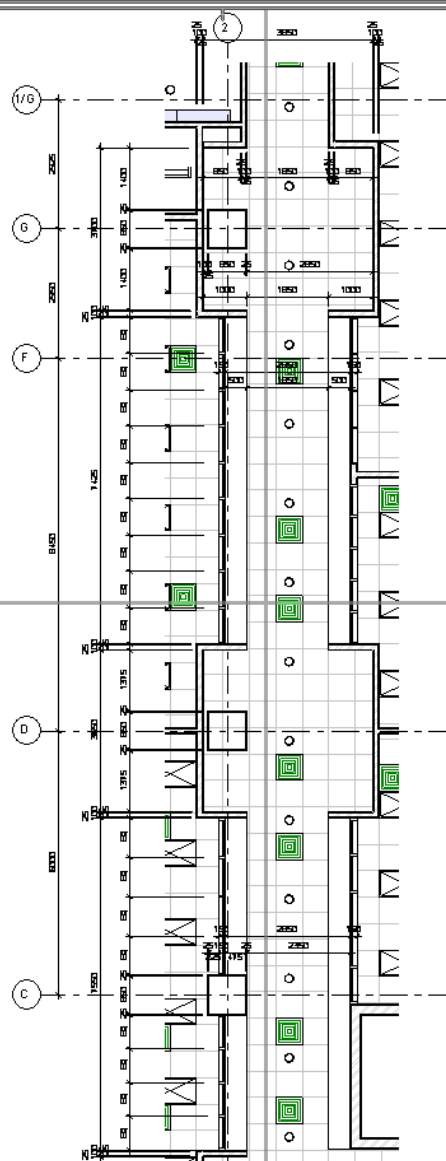
[illegible]



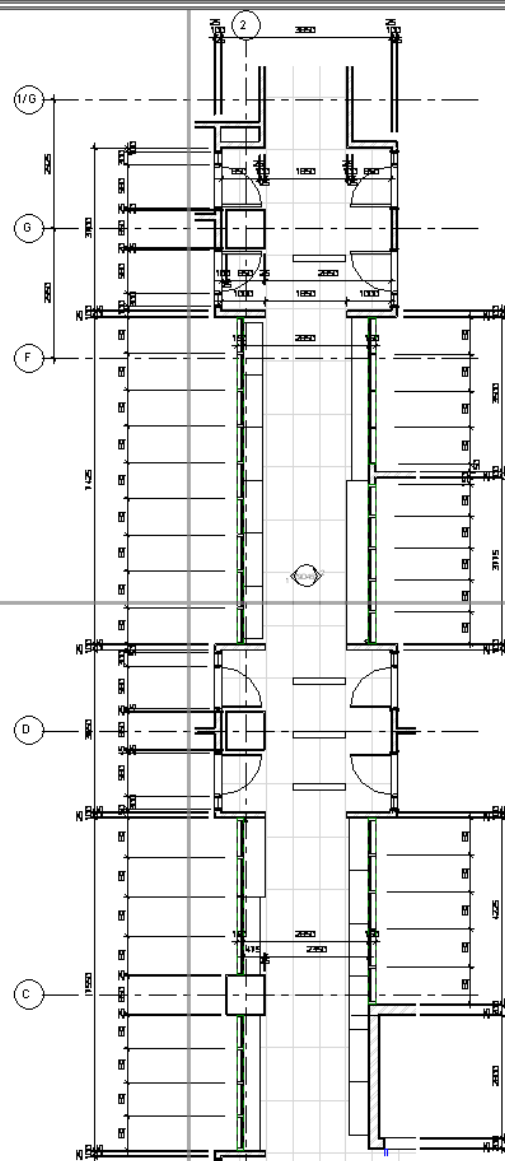
4 走廊立体示意图(低楼三至四层)2



3 走廊立体示意图(低楼三至四层)1

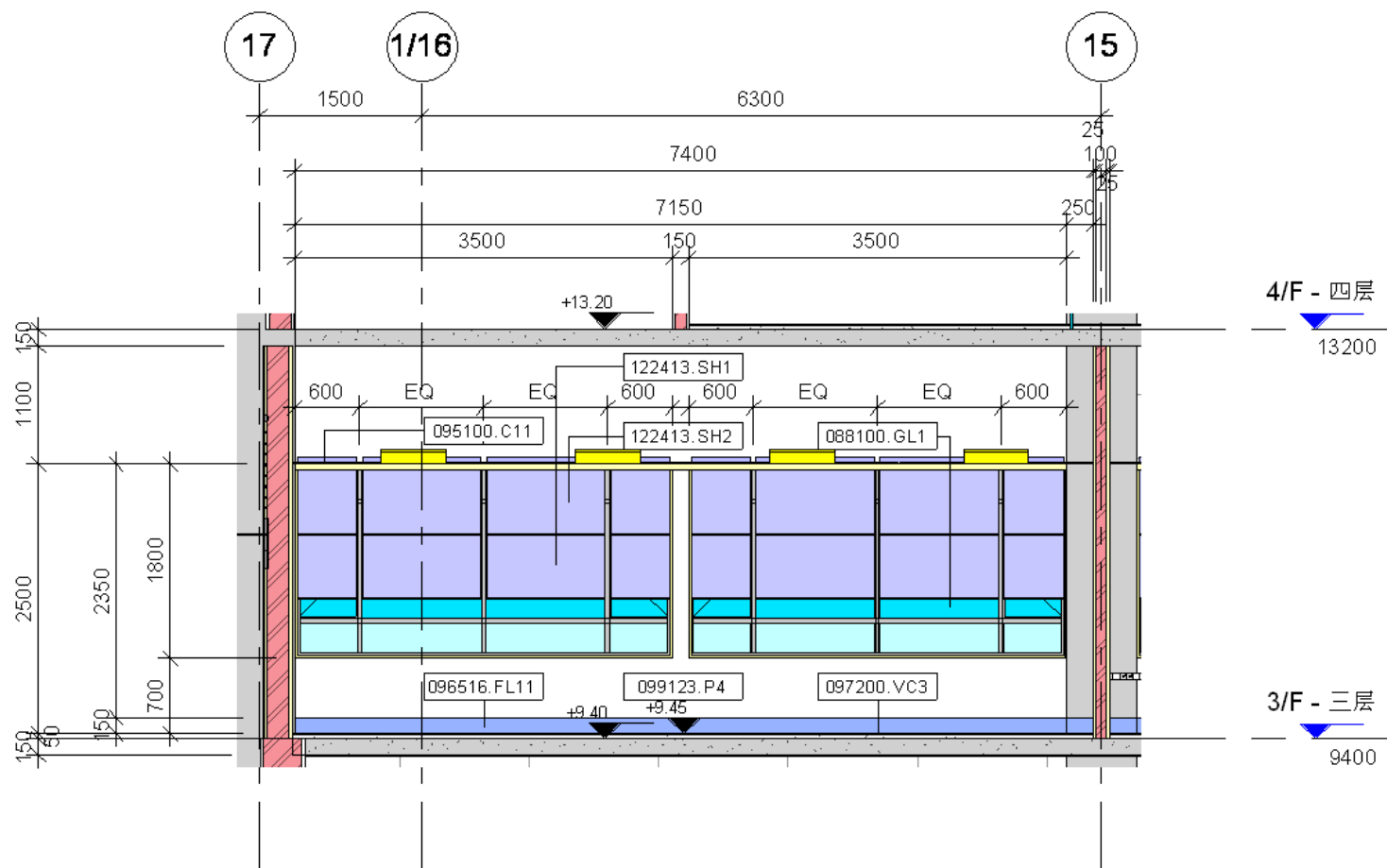


2 走廊天花平面图(低楼三至四层)



① 走廊平面图(低楼三至四层)  
1:50

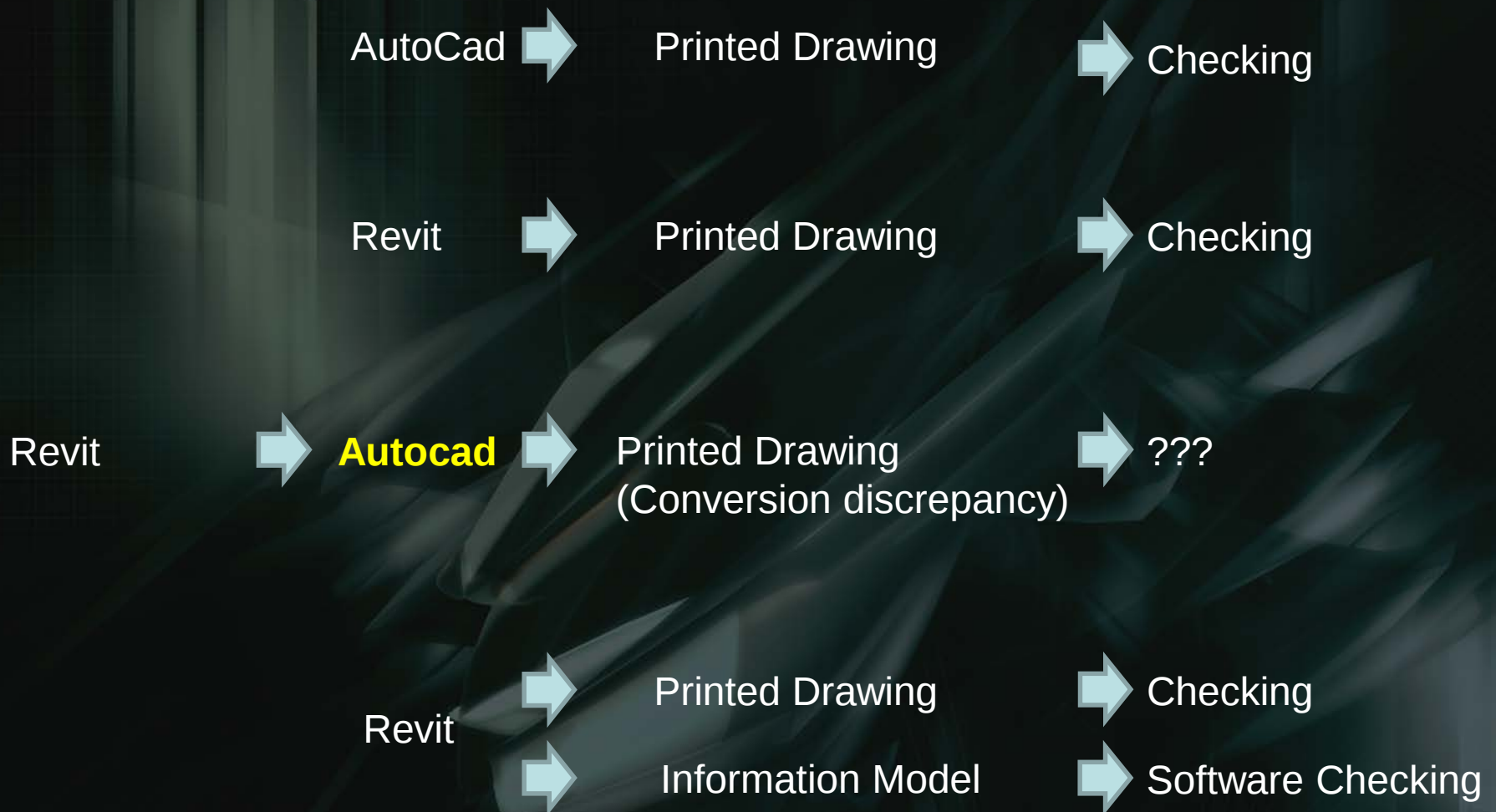
[illegible]



2

行政人员培训室立面图(高楼三层)6

1:50



# GOVERNMENT SUBMISSION IN HONG KONG

## Purpose:

To demonstrate a development complies with statutory requirement and seek government approval using BIM

## Applicable Development:

Applied to new building & alteration and addition works in Hong Kong

## Content of Submission:

Plans, sections, elevations, calculations and other relevant documents

# TODAY'S TOPIC: ANOTHER WAY TO PREPARE THE CALCULATION FOR GOVERNMENT SUBMISSION

An area based calculation

convert areas into following figures through  
checking of regulations & codes of practice:

plot ratio

room capacity

fire compartment

sanitary fitment provision etc.

site coverage

width of escape route

fire resisting period

# COMMON WAY:

## STEP 2: CHECKING OF REGULATIONS & CODES

| Height of building in metres     | Domestic buildings       |              |              |              |              |              | Non-domestic buildings   |              |              |              |              |              |
|----------------------------------|--------------------------|--------------|--------------|--------------|--------------|--------------|--------------------------|--------------|--------------|--------------|--------------|--------------|
|                                  | Percentage site coverage |              |              | Plot ratio   |              |              | Percentage site coverage |              |              | Plot ratio   |              |              |
|                                  | Class A site             | Class B site | Class C site | Class A site | Class B site | Class C site | Class A site             | Class B site | Class C site | Class A site | Class B site | Class C site |
| Not exceeding 15 m               | 66.6                     | 75           | 80           | 3.3          | 3.75         | 4.0          | 100                      | 100          | 100          | 5            | 5            | 5            |
| Over 15 m but not exceeding 18 m | 60                       | 67           | 72           | 3.6          | 4.0          | 4.3          | 97.5                     | 97.5         | 97.5         | 5.8          | 5.8          | 5.8          |
| Over 18 m but not exceeding 21 m | 56                       | 62           | 67           | 3.9          | 4.3          | 4.7          | 95                       | 95           | 95           | 6.7          | 6.7          | 6.7          |
| Over 21 m but not exceeding 24 m | 52                       | 58           | 63           | 4.2          | 4.6          | 5.0          | 92                       | 92           | 92           | 7.4          | 7.4          | 7.4          |
| Over 24 m but not exceeding 27 m | 49                       | 55           | 59           | 4.4          | 4.9          | 5.3          | 89                       | 90           | 90           | 8.0          | 8.1          | 8.1          |
| Over 27 m but not exceeding 30 m | 46                       | 52           | 55           | 4.6          | 5.2          | 5.5          | 85                       | 87           | 88           | 8.5          | 8.7          | 8.8          |
| Over 30 m but not exceeding 36 m | 42                       | 47.5         | 50           | 5.0          | 5.7          | 6.0          | 80                       | 82.5         | 85           | 9.5          | 9.9          | 10.2         |
| Over 36 m but not exceeding 43 m | 39                       | 44           | 47           | 5.4          | 6.1          | 6.5          | 75                       | 77.5         | 80           | 10.5         | 10.8         | 11.2         |
| Over 43 m but not exceeding 49 m | 37                       | 41           | 44           | 5.9          | 6.5          | 7.0          | 69                       | 72.5         | 75           | 11.0         | 11.6         | 12.0         |
| Over 49 m but not exceeding 55 m | 35                       | 39           | 42           | 6.3          | 7.0          | 7.5          | 64                       | 67.5         | 70           | 11.5         | 12.1         | 12.6         |
| Over 55 m but not exceeding 61 m | 34                       | 38           | 41           | 6.8          | 7.6          | 8.0          | 60                       | 62.5         | 65           | 12.2         | 12.5         | 13.0         |
| Over 61 m                        | 33.33                    | 37.5         | 40           | 8.0          | 9.0          | 10.0         | 60                       | 62.5         | 65           | 15           | 15           | 15           |

(L.N. 294 of 1976)

| Table 1                                                                                                                                                            |                                                                    |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------|
| Intended use of storey                                                                                                                                             | Factor representing usable floor area in m <sup>2</sup> per person |
| (a) Assembly halls, auditoria and stadia without seating or with movable seating                                                                                   | 0.5                                                                |
| (b) Areas accessible to the public in viewing galleries, banking halls, betting centres and places where public service counters are provided                      | 0.5                                                                |
| (c) Dance halls (calculated on dancing area), disco and reception area for restaurant                                                                              | 0.75                                                               |
| (d) Restaurants (calculated on dining area), dining area, lounges, committee rooms, conference rooms, meeting rooms, common rooms, function room and waiting rooms | 1                                                                  |
| (e) Kitchens attached to restaurants                                                                                                                               | 4.5                                                                |
| (f) Museums, exhibition halls, tradenants and display areas                                                                                                        | 2                                                                  |
| (g) Supermarkets, showrooms, jewellery and goldsmith shops, pawn shops and money changers                                                                          | 2                                                                  |
| (h) Shopping arcades, department stores and shopping areas                                                                                                         |                                                                    |
| - basement, G/F, 1/F & 2/F                                                                                                                                         | 3                                                                  |
| - 3/F & above                                                                                                                                                      | 4.5                                                                |
| (i) Offices                                                                                                                                                        | 9                                                                  |
| (j) Tenement houses, barracks, dormitories, and self-contained flats comprising a single room or having the main living area subdivided by rooms                   | 3                                                                  |
| (k) Self-contained flats with corridor or balcony access having five or more flats on each floor served by each staircase                                          | 4.5                                                                |
| (l) Flats not covered by (j) or (k)                                                                                                                                | 9                                                                  |
| (m) Flatted factories                                                                                                                                              | 4.5                                                                |
| (n) Warehouses, godowns and storage areas                                                                                                                          | 30                                                                 |
| (o) Classrooms of school not covered by Education Ordinance and other lecture rooms, library and study rooms                                                       | 2                                                                  |

Table 2

Table showing minimum number of exit doors from a room, or exit routes from a storey, and required minimum width thereof

| Capacity of room or storey | Min. No. of exit doors (from room) or exit routes (from storey) | Min. Total Width of                                  |             | Min. Width of each |            |
|----------------------------|-----------------------------------------------------------------|------------------------------------------------------|-------------|--------------------|------------|
|                            |                                                                 | exit doors                                           | exit routes | exit door          | exit route |
| 4 - 30                     | 1                                                               |                                                      |             | 750 mm             | 1050 mm    |
| 31 - 200                   | 2                                                               | 1750 mm                                              | 2100 mm     | 850 mm             | 1050 mm    |
| 201 - 300                  | 2                                                               | 2500 mm                                              | 2500 mm     | 1050 mm            | 1050 mm    |
| 301 - 500                  | 2                                                               | 3000 mm                                              | 3000 mm     | 1050 mm            | 1050 mm    |
| 501 - 750                  | 3                                                               | 4500 mm                                              | 4500 mm     | 1200 mm            | 1200 mm    |
| 751 - 1000                 | 4                                                               | 6000 mm                                              | 6000 mm     | 1200 mm            | 1200 mm    |
| 1001 - 1250                | 5                                                               | 7500 mm                                              | 7500 mm     | 1350 mm            | 1350 mm    |
| 1251 - 1500                | 6                                                               | 9000 mm                                              | 9000 mm     | 1350 mm            | 1350 mm    |
| over 1500                  | 7 or such greater number as the Building Authority may require  | to be calculated at the rate of 300mm per 50 persons |             | 1500 mm            | 1500 mm    |

-22-

Table 5 : Discharge Value of a Staircase in a Non-sprinklered Building

| No. of Storey served       | Width of Staircase      |                         |                         |                         |                         |                         |                         |
|----------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|
|                            | 1050mm but under 1200mm | 1200mm but under 1350mm | 1350mm but under 1500mm | 1500mm but under 1600mm | 1600mm but under 1700mm | 1700mm but under 1800mm | 1800mm but under 1900mm |
| 1                          | 210                     | 240                     | 270                     | 300                     | 320                     | 340                     | 360                     |
| 2                          | 242                     | 278                     | 315                     | 351                     | 377                     | 402                     | 428                     |
| 3                          | 274                     | 316                     | 360                     | 402                     | 434                     | 464                     | 496                     |
| 4                          | 306                     | 354                     | 405                     | 453                     | 491                     | 526                     | 564                     |
| 5                          | 338                     | 392                     | 450                     | 504                     | 548                     | 588                     | 632                     |
| 6                          | 370                     | 430                     | 495                     | 555                     | 605                     | 650                     | 700                     |
| 7                          | 402                     | 468                     | 540                     | 606                     | 662                     | 712                     | 768                     |
| 8                          | 434                     | 506                     | 585                     | 657                     | 719                     | 774                     | 836                     |
| 9                          | 466                     | 544                     | 630                     | 708                     | 776                     | 836                     | 904                     |
| 10                         | 498                     | 582                     | 675                     | 759                     | 833                     | 898                     | 972                     |
| Each additional storey add | 32                      | 38                      | 45                      | 51                      | 57                      | 62                      | 68                      |

TABLE A

WALLS CONSTRUCTED WHOLLY OF NON-COMBUSTIBLE MATERIALS

| Construction and Materials                                                                                                                   | Minimum thickness in mm (excluding plaster) for period of |        |       |
|----------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------|--------|-------|
|                                                                                                                                              | 4 hrs.                                                    | 2 hrs. | 1 hr. |
| <b>SOLID CONSTRUCTION</b>                                                                                                                    |                                                           |        |       |
| Solid bricks of clay, concrete or sand lime without plaster                                                                                  | 225                                                       | 225*   | 100   |
| Reinforced concrete -                                                                                                                        |                                                           |        |       |
| (a) containing not less than 1 per cent of vertical reinforcement                                                                            | 180                                                       | 100    | 75    |
| Concrete cover to main reinforcement                                                                                                         | 25                                                        | 25     | 15    |
| (b) containing less than 1 per cent of vertical reinforcement                                                                                | 240                                                       | 160    | 120   |
| Concrete cover to main reinforcement                                                                                                         | 25                                                        | 25     | 25    |
| <b>HOLLOW BLOCK CONSTRUCTION</b>                                                                                                             |                                                           |        |       |
| Clay blocks (outer web not less than 13 mm thick) of 2 cells not less than 50 per cent solid finished with 13 mm gypsum plaster on each side |                                                           | 100    | 100   |
| Concrete blocks of one cell in wall thickness not less than 50 per cent solid finished with 13 mm gypsum plaster on each side                |                                                           |        | 190   |

\* Where finished with 13 mm gypsum plaster on each side, the thickness may be reduced to 100 mm.

# COMMON WAY: STEP 2: CHECKING OF REGULATIONS & CODES



# COMMON WAY: PROJECT EXAMPLE

## PLATE RATIO & MIN. COVERAGE CALCULATION

### 1 SITE COVERAGE

Site = CLASS 'B' SITE  
Site Area = 803.5 sqm  
Main Street Level = 3.000  
Height of Building = 58.500 - 3.000 = 55.500 (Over 40m but not exceeding 50m)  
Site Coverage Provided over 15m (40 to 100) = 67.5%  
Site Coverage Provided over 15m (100 to 150) = 67.4% - 67.7%

For Non-Domestic Area (GF - 10F)  
Site Coverage Provided over 15m (40 to 100) = 67.5%  
Building Planning Regulations  
Site Coverage Provided over 15m (100 to 150) = 67.4% - 67.7%

For Domestic Area (11F - 12F)  
Site Coverage Provided over 15m (40 to 100) = 67.5%  
Building Planning Regulations  
Site Coverage Provided over 15m (100 to 150) = 67.4% - 67.7%

### 2 FLOORMIN

Permitted Domestic Plot Ratio = 7  
Under First Schedule of BPP  
Permitted Non-Domestic Plot Ratio = 121  
Under First Schedule of BPP  
GF A of Domestic Part = 660.821 sqm  
Actual P.A. of Domestic Part = 67.5%  
Permissible P.A. for Non-Domestic Part = 12.0%  
GF A of Non-Domestic Part = 620.001 sqm  
Actual P.A. of Non-Domestic Part = 62.0% - 62.3%

### GROSS FLOOR AREA CALCULATION

| FLOOR                           | GFA      |
|---------------------------------|----------|
| GROUND FLOOR                    | 111.324  |
| 1ST FLOOR                       | 60.225   |
| 2ND FLOOR                       | 60.225   |
| 3RD FLOOR                       | 60.225   |
| 4TH FLOOR                       | 60.225   |
| 5TH FLOOR                       | 60.225   |
| 6TH FLOOR                       | 60.225   |
| 7TH FLOOR                       | 60.225   |
| 8TH FLOOR                       | 60.225   |
| 9TH FLOOR                       | 60.225   |
| 10TH FLOOR                      | 60.225   |
| 11TH FLOOR                      | 60.225   |
| 12TH FLOOR                      | 60.225   |
| TOTAL GFA FOR NON-DOMESTIC AREA | 620.001  |
| TOTAL GFA FOR DOMESTIC AREA     | 660.821  |
| TOTAL GFA FOR SITE              | 1280.822 |

### REFUSE STORAGE AND MATERIAL RECOVERY CHAMBER CALCULATION

TOTAL GFA FOR NON-DOMESTIC PART = 620.001 sqm  
REFUSE STORAGE AND MATERIAL RECOVERY CHAMBER REQUIRED = 4.824 sqm  
REFUSE STORAGE AND MATERIAL RECOVERY CHAMBER PROVIDED = 4.824 sqm  
REFUSE STORAGE AND MATERIAL RECOVERY CHAMBER PROVIDED = 4.824 sqm  
REFUSE STORAGE AND MATERIAL RECOVERY CHAMBER PROVIDED = 4.824 sqm

### REFUSE STORAGE AND MATERIAL RECOVERY CHAMBER DIAGRAM

### PRESCRIBED WINDOW AREA CALCULATION

#### PRESCRIBED WINDOW AREA PROVIDED FOR DIFFERENT TYPES OF WINDOWS

| WINDOW TYPE               | AREA (sqm) |
|---------------------------|------------|
| 1. WINDOW WITH GLASS AREA | 1.900      |
| 2. WINDOW WITH GLASS AREA | 2.484      |
| 3. WINDOW WITH GLASS AREA | 3.524      |
| 4. WINDOW WITH GLASS AREA | 1.478      |
| 5. WINDOW WITH GLASS AREA | 10.820     |
| 6. WINDOW WITH GLASS AREA | 1.367      |

#### OPENABLE WINDOW AREA PROVIDED FOR DIFFERENT TYPES OF WINDOWS

| WINDOW TYPE               | AREA (sqm) |
|---------------------------|------------|
| 1. WINDOW WITH GLASS AREA | 1.361      |
| 2. WINDOW WITH GLASS AREA | 1.922      |
| 3. WINDOW WITH GLASS AREA | 2.484      |
| 4. WINDOW WITH GLASS AREA | 3.524      |
| 5. WINDOW WITH GLASS AREA | 1.478      |
| 6. WINDOW WITH GLASS AREA | 1.367      |

### WINDOW AREA CALCULATION FOR CRITICAL AREA

#### CRITICAL AREA

#### CRITICAL AREA

#### CRITICAL AREA

#### CRITICAL AREA

#### CRITICAL AREA

#### CRITICAL AREA

#### CRITICAL AREA

#### CRITICAL AREA

#### CRITICAL AREA

#### CRITICAL AREA

#### CRITICAL AREA

#### CRITICAL AREA

#### CRITICAL AREA

#### CRITICAL AREA

#### CRITICAL AREA

#### CRITICAL AREA

#### CRITICAL AREA

#### CRITICAL AREA

#### CRITICAL AREA

#### CRITICAL AREA

#### CRITICAL AREA

#### CRITICAL AREA

#### CRITICAL AREA

#### CRITICAL AREA

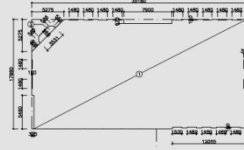
#### CRITICAL AREA

#### CRITICAL AREA

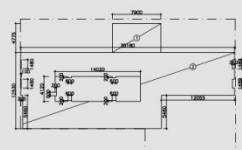
#### CRITICAL AREA

#### CRITICAL AREA

#### CRITICAL AREA



SITE COVERAGE DIAGRAM (FOR NON-DOMESTIC AREA)



SITE COVERAGE DIAGRAM (FOR DOMESTIC AREA)

### SCHEDULE OF PERSONS FOR MEANS OF ESCAPE

#### PERSONS FOR MEANS OF ESCAPE

#### PERSONS FOR MEANS OF ESCAPE

#### PERSONS FOR MEANS OF ESCAPE

#### PERSONS FOR MEANS OF ESCAPE

#### PERSONS FOR MEANS OF ESCAPE

#### PERSONS FOR MEANS OF ESCAPE

#### PERSONS FOR MEANS OF ESCAPE

#### PERSONS FOR MEANS OF ESCAPE

#### PERSONS FOR MEANS OF ESCAPE

#### PERSONS FOR MEANS OF ESCAPE

#### PERSONS FOR MEANS OF ESCAPE

#### PERSONS FOR MEANS OF ESCAPE

#### PERSONS FOR MEANS OF ESCAPE

#### PERSONS FOR MEANS OF ESCAPE

#### PERSONS FOR MEANS OF ESCAPE

#### PERSONS FOR MEANS OF ESCAPE

#### PERSONS FOR MEANS OF ESCAPE

#### PERSONS FOR MEANS OF ESCAPE

#### PERSONS FOR MEANS OF ESCAPE

#### PERSONS FOR MEANS OF ESCAPE

#### PERSONS FOR MEANS OF ESCAPE

#### PERSONS FOR MEANS OF ESCAPE

#### PERSONS FOR MEANS OF ESCAPE

#### PERSONS FOR MEANS OF ESCAPE

#### PERSONS FOR MEANS OF ESCAPE

#### PERSONS FOR MEANS OF ESCAPE

#### PERSONS FOR MEANS OF ESCAPE

#### PERSONS FOR MEANS OF ESCAPE

#### PERSONS FOR MEANS OF ESCAPE

#### PERSONS FOR MEANS OF ESCAPE

#### PERSONS FOR MEANS OF ESCAPE

#### PERSONS FOR MEANS OF ESCAPE

#### PERSONS FOR MEANS OF ESCAPE

#### PERSONS FOR MEANS OF ESCAPE

#### PERSONS FOR MEANS OF ESCAPE

#### PERSONS FOR MEANS OF ESCAPE

#### PERSONS FOR MEANS OF ESCAPE

#### PERSONS FOR MEANS OF ESCAPE

#### PERSONS FOR MEANS OF ESCAPE

#### PERSONS FOR MEANS OF ESCAPE

#### PERSONS FOR MEANS OF ESCAPE

#### PERSONS FOR MEANS OF ESCAPE

#### PERSONS FOR MEANS OF ESCAPE

#### PERSONS FOR MEANS OF ESCAPE

#### PERSONS FOR MEANS OF ESCAPE

#### PERSONS FOR MEANS OF ESCAPE

#### PERSONS FOR MEANS OF ESCAPE

#### PERSONS FOR MEANS OF ESCAPE

#### PERSONS FOR MEANS OF ESCAPE

#### PERSONS FOR MEANS OF ESCAPE

#### PERSONS FOR MEANS OF ESCAPE

#### PERSONS FOR MEANS OF ESCAPE

#### PERSONS FOR MEANS OF ESCAPE

#### PERSONS FOR MEANS OF ESCAPE

#### PERSONS FOR MEANS OF ESCAPE

#### PERSONS FOR MEANS OF ESCAPE

#### PERSONS FOR MEANS OF ESCAPE

#### PERSONS FOR MEANS OF ESCAPE

#### PERSONS FOR MEANS OF ESCAPE

#### PERSONS FOR MEANS OF ESCAPE

#### PERSONS FOR MEANS OF ESCAPE

#### PERSONS FOR MEANS OF ESCAPE

#### PERSONS FOR MEANS OF ESCAPE

#### PERSONS FOR MEANS OF ESCAPE

#### PERSONS FOR MEANS OF ESCAPE

#### PERSONS FOR MEANS OF ESCAPE

#### PERSONS FOR MEANS OF ESCAPE

#### PERSONS FOR MEANS OF ESCAPE

#### PERSONS FOR MEANS OF ESCAPE

#### PERSONS FOR MEANS OF ESCAPE

### SCHEDULE OF PERSONS FOR MEANS OF ESCAPE

#### PERSONS FOR MEANS OF ESCAPE

#### PERSONS FOR MEANS OF ESCAPE

#### PERSONS FOR MEANS OF ESCAPE

#### PERSONS FOR MEANS OF ESCAPE

#### PERSONS FOR MEANS OF ESCAPE

#### PERSONS FOR MEANS OF ESCAPE

#### PERSONS FOR MEANS OF ESCAPE

#### PERSONS FOR MEANS OF ESCAPE

#### PERSONS FOR MEANS OF ESCAPE

#### PERSONS FOR MEANS OF ESCAPE

#### PERSONS FOR MEANS OF ESCAPE

#### PERSONS FOR MEANS OF ESCAPE

#### PERSONS FOR MEANS OF ESCAPE

#### PERSONS FOR MEANS OF ESCAPE

#### PERSONS FOR MEANS OF ESCAPE

#### PERSONS FOR MEANS OF ESCAPE

#### PERSONS FOR MEANS OF ESCAPE

#### PERSONS FOR MEANS OF ESCAPE

#### PERSONS FOR MEANS OF ESCAPE

#### PERSONS FOR MEANS OF ESCAPE

#### PERSONS FOR MEANS OF ESCAPE

#### PERSONS FOR MEANS OF ESCAPE

#### PERSONS FOR MEANS OF ESCAPE

#### PERSONS FOR MEANS OF ESCAPE

#### PERSONS FOR MEANS OF ESCAPE

#### PERSONS FOR MEANS OF ESCAPE

#### PERSONS FOR MEANS OF ESCAPE

#### PERSONS FOR MEANS OF ESCAPE

#### PERSONS FOR MEANS OF ESCAPE

#### PERSONS FOR MEANS OF ESCAPE

#### PERSONS FOR MEANS OF ESCAPE

#### PERSONS FOR MEANS OF ESCAPE

#### PERSONS FOR MEANS OF ESCAPE

#### PERSONS FOR MEANS OF ESCAPE

#### PERSONS FOR MEANS OF ESCAPE

#### PERSONS FOR MEANS OF ESCAPE

#### PERSONS FOR MEANS OF ESCAPE

#### PERSONS FOR MEANS OF ESCAPE

#### PERSONS FOR MEANS OF ESCAPE

#### PERSONS FOR MEANS OF ESCAPE

#### PERSONS FOR MEANS OF ESCAPE

#### PERSONS FOR MEANS OF ESCAPE

#### PERSONS FOR MEANS OF ESCAPE

#### PERSONS FOR MEANS OF ESCAPE

#### PERSONS FOR MEANS OF ESCAPE

#### PERSONS FOR MEANS OF ESCAPE

#### PERSONS FOR MEANS OF ESCAPE

#### PERSONS FOR MEANS OF ESCAPE

#### PERSONS FOR MEANS OF ESCAPE

#### PERSONS FOR MEANS OF ESCAPE

#### PERSONS FOR MEANS OF ESCAPE

#### PERSONS FOR MEANS OF ESCAPE

#### PERSONS FOR MEANS OF ESCAPE

#### PERSONS FOR MEANS OF ESCAPE

#### PERSONS FOR MEANS OF ESCAPE

#### PERSONS FOR MEANS OF ESCAPE

#### PERSONS FOR MEANS OF ESCAPE

#### PERSONS FOR MEANS OF ESCAPE

#### PERSONS FOR MEANS OF ESCAPE

#### PERSONS FOR MEANS OF ESCAPE

#### PERSONS FOR MEANS OF ESCAPE

#### PERSONS FOR MEANS OF ESCAPE

#### PERSONS FOR MEANS OF ESCAPE

#### PERSONS FOR MEANS OF ESCAPE

#### PERSONS FOR MEANS OF ESCAPE

#### PERSONS FOR MEANS OF ESCAPE

#### PERSONS FOR MEANS OF ESCAPE

#### PERSONS FOR MEANS OF ESCAPE

#### PERSONS FOR MEANS OF ESCAPE

#### PERSONS FOR MEANS OF ESCAPE

### SCHEDULE OF PERSONS FOR MEANS OF ESCAPE

#### PERSONS FOR MEANS OF ESCAPE

#### PERSONS FOR MEANS OF ESCAPE

#### PERSONS FOR MEANS OF ESCAPE

#### PERSONS FOR MEANS OF ESCAPE

#### PERSONS FOR MEANS OF ESCAPE

#### PERSONS FOR MEANS OF ESCAPE

#### PERSONS FOR MEANS OF ESCAPE

#### PERSONS FOR MEANS OF ESCAPE

#### PERSONS FOR MEANS OF ESCAPE

#### PERSONS FOR MEANS OF ESCAPE

#### PERSONS FOR MEANS OF ESCAPE

#### PERSONS FOR MEANS OF ESCAPE

#### PERSONS FOR MEANS OF ESCAPE

#### PERSONS FOR MEANS OF ESCAPE

#### PERSONS FOR MEANS OF ESCAPE

#### PERSONS FOR MEANS OF ESCAPE

#### PERSONS FOR MEANS OF ESCAPE

#### PERSONS FOR MEANS OF ESCAPE

#### PERSONS FOR MEANS OF ESCAPE

#### PERSONS FOR MEANS OF ESCAPE

#### PERSONS FOR MEANS OF ESCAPE

#### PERSONS FOR MEANS OF ESCAPE

#### PERSONS FOR MEANS OF ESCAPE

#### PERSONS FOR MEANS OF ESCAPE

#### PERSONS FOR MEANS OF ESCAPE

#### PERSONS FOR MEANS OF ESCAPE

#### PERSONS FOR MEANS OF ESCAPE

#### PERSONS FOR MEANS OF ESCAPE

#### PERSONS FOR MEANS OF ESCAPE

#### PERSONS FOR MEANS OF ESCAPE

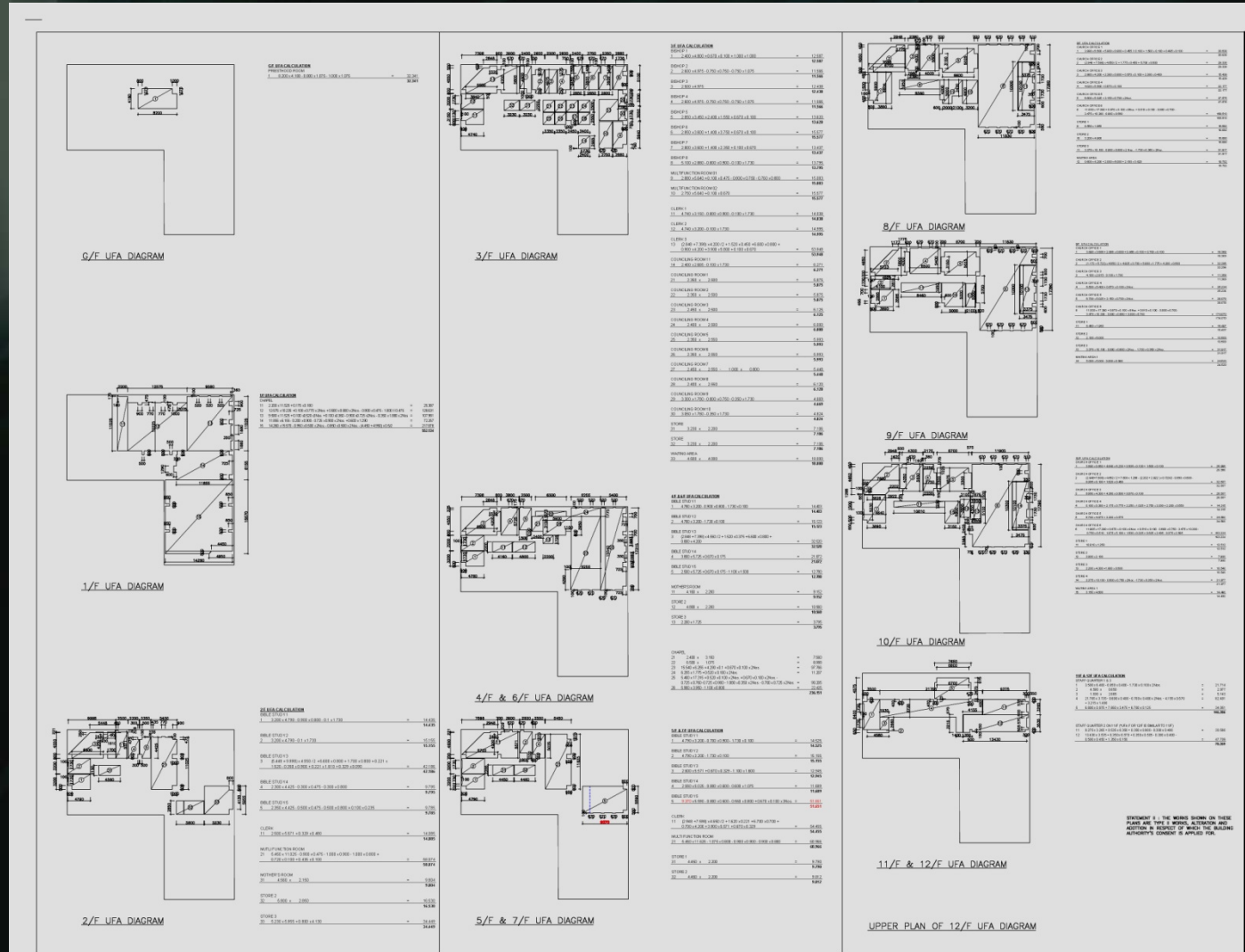
#### PERSONS FOR MEANS OF ESCAPE

#### PERSONS FOR MEANS OF ESCAPE

#### PERSONS FOR MEANS OF ESCAPE

#### PERSONS FOR MEANS OF ESCAPE

# COMMON WAY: PROJECT EXAMPLE



# COMMON WAY: STEP 1: CALCULATE AREA

Outline area



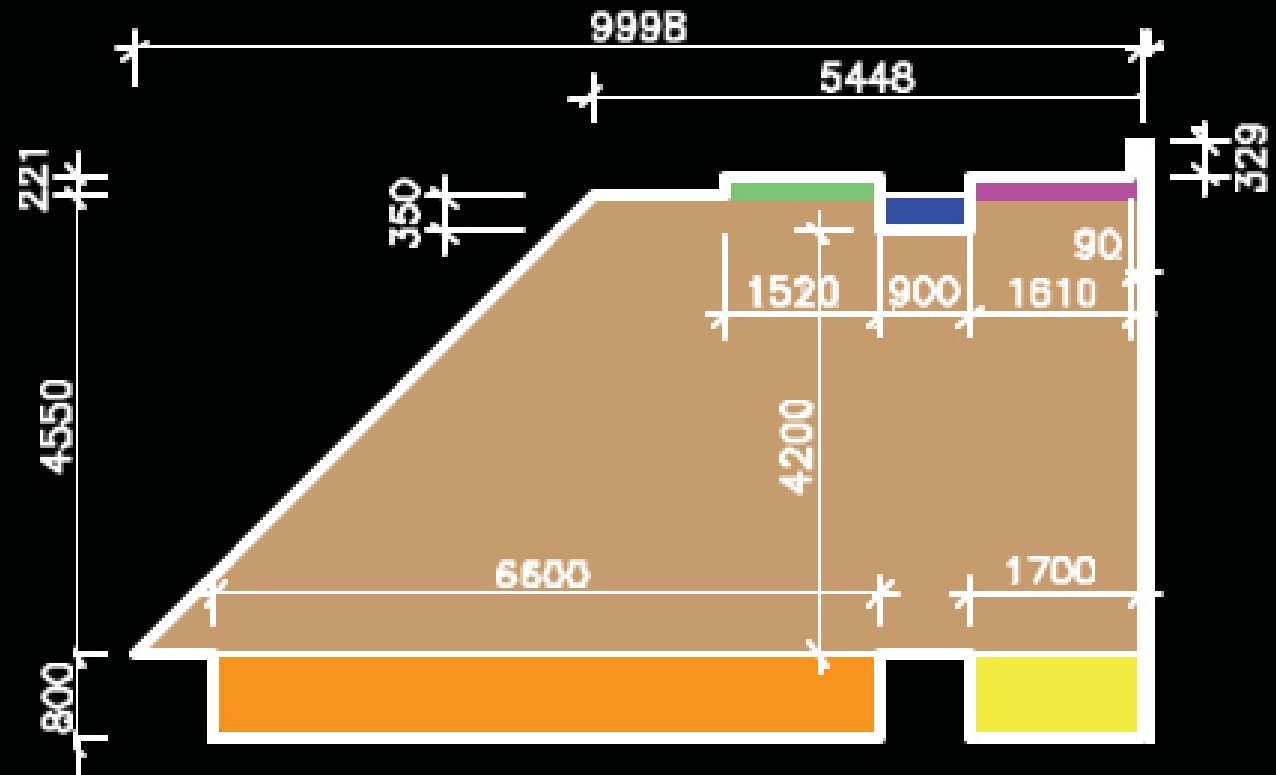
# COMMON WAY: STEP 1: CALCULATE AREA

Subdivide area into simple geometry such as rectangle, triangle, circle, etc.



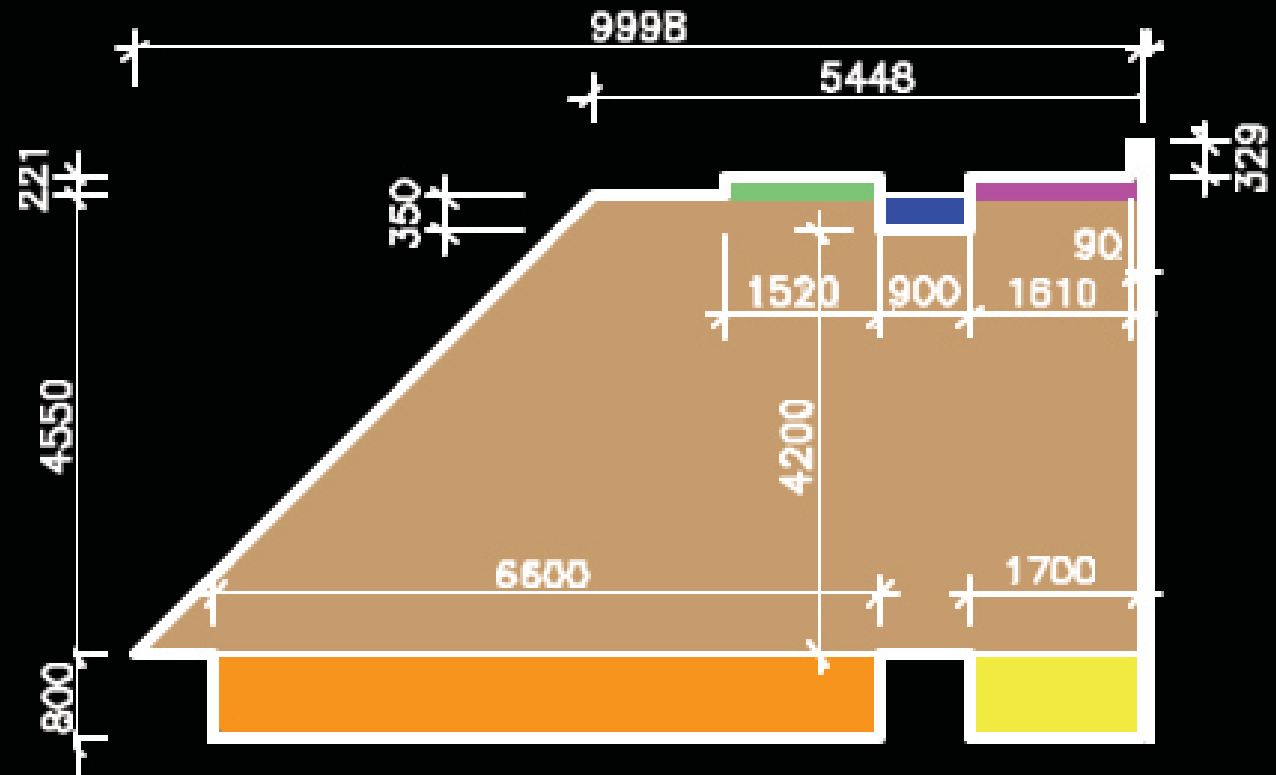
# COMMON WAY: STEP 1: CALCULATE AREA

Measure dimension



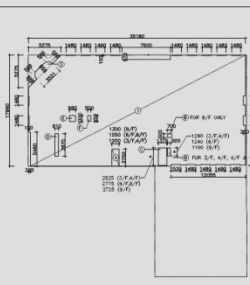
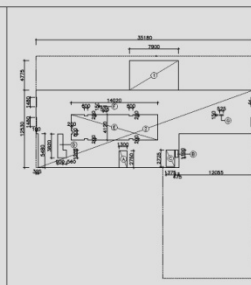
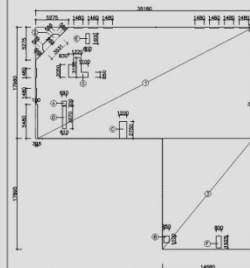
# COMMON WAY: STEP 1: CALCULATE AREA

Calculate area by applying geometric formula

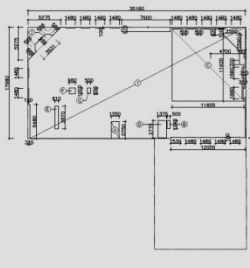
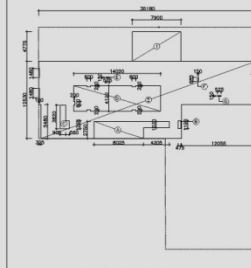


$$(5.448+9.998) \times 4.550 / 2 + 6.600 \times 0.800 + 1.700 \times 0.800 + 0.221 \times 1.520 - 0.350 \times 0.900 + 0.221 \times 1.610 + 0.329 \times 0.090 = 42.186$$

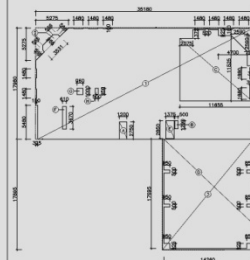
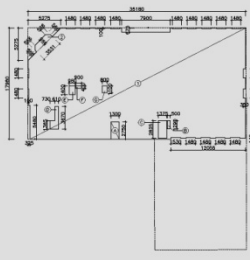
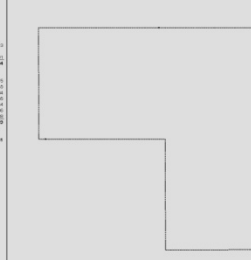


[illegible][illegible][illegible][illegible]

| 1/2 OF A CALCULATION |                                                     |   |
|----------------------|-----------------------------------------------------|---|
| ADD                  |                                                     |   |
| 1                    | 00 1000 + 17 1000 = 0 1700 (17 - 10 0000 = 0 0000)  | 0 |
| 2                    | 1 0000 + 0 1000 = 1 0000 (0 0000 + 0 0000 = 0 0000) | 0 |
| 3                    | 1 0000 + 0 0000 = 1 0000 (0 0000 + 0 0000 = 0 0000) | 0 |
| 4                    | 1 0000 + 17 0000 = 1 170000                         | 0 |
| 5                    | 0 0000 + 0 0000 = 0 0000                            | 0 |
| 6                    | 0 0000 + 1 0000 = 1 0000                            | 0 |
| 7                    | 1 0000 + 1 0000 = 2 0000                            | 0 |
| 8                    | 0 0000 + 1 0000 = 1 0000                            | 0 |
| 9                    | 1 0000 + 0 0000 = 1 0000                            | 0 |
| 10                   | 0 0000 + 0 0000 = 0 0000                            | 0 |
| 11                   | 0 0000 + 1 0000 = 1 0000                            | 0 |
| 12                   | 1 0000 + 0 0000 = 1 0000                            | 0 |
| 13                   | 0 0000 + 0 0000 = 0 0000                            | 0 |
| 14                   | 0 0000 + 1 0000 = 1 0000                            | 0 |
| 15                   | 1 0000 + 0 0000 = 1 0000                            | 0 |
| 16                   | 0 0000 + 0 0000 = 0 0000                            | 0 |
| 17                   | 0 0000 + 1 0000 = 1 0000                            | 0 |
| 18                   | 1 0000 + 1 0000 = 2 0000                            | 0 |
| 19                   | 0 0000 + 0 0000 = 0 0000                            | 0 |
| 20                   | 0 0000 + 1 0000 = 1 0000                            | 0 |
| 21                   | 1 0000 + 0 0000 = 1 0000                            | 0 |
| 22                   | 0 0000 + 0 0000 = 0 0000                            | 0 |
| 23                   | 0 0000 + 1 0000 = 1 0000                            | 0 |
| 24                   | 1 0000 + 1 0000 = 2 0000                            | 0 |
| 25                   | 0 0000 + 0 0000 = 0 0000                            | 0 |
| 26                   | 0 0000 + 1 0000 = 1 0000                            | 0 |
| 27                   | 1 0000 + 0 0000 = 1 0000                            | 0 |
| 28                   | 0 0000 + 0 0000 = 0 0000                            | 0 |
| 29                   | 0 0000 + 1 0000 = 1 0000                            | 0 |
| 30                   | 1 0000 + 1 0000 = 2 0000                            | 0 |
| 31                   | 0 0000 + 0 0000 = 0 0000                            | 0 |
| 32                   | 0 0000 + 1 0000 = 1 0000                            | 0 |
| 33                   | 1 0000 + 0 0000 = 1 0000                            | 0 |
| 34                   | 0 0000 + 0 0000 = 0 0000                            | 0 |
| 35                   | 0 0000 + 1 0000 = 1 0000                            | 0 |
| 36                   | 1 0000 + 1 0000 = 2 0000                            | 0 |
| 37                   | 0 0000 + 0 0000 = 0 0000                            | 0 |
| 38                   | 0 0000 + 1 0000 = 1 0000                            | 0 |
| 39                   | 1 0000 + 0 0000 = 1 0000                            | 0 |
| 40                   | 0 0000 + 0 0000 = 0 0000                            | 0 |
| 41                   | 0 0000 + 1 0000 = 1 0000                            | 0 |
| 42                   | 1 0000 + 1 0000 = 2 0000                            | 0 |
| 43                   | 0 0000 + 0 0000 = 0 0000                            | 0 |
| 44                   | 0 0000 + 1 0000 = 1 0000                            | 0 |
| 45                   | 1 0000 + 0 0000 = 1 0000                            | 0 |
| 46                   | 0 0000 + 0 0000 = 0 0000                            | 0 |
| 47                   | 0 0000 + 1 0000 = 1 0000                            | 0 |
| 48                   | 1 0000 + 1 0000 = 2 0000                            | 0 |
| 49                   | 0 0000 + 0 0000 = 0 0000                            | 0 |
| 50                   | 0 0000 + 1 0000 = 1 0000                            | 0 |
| 51                   | 1 0000 + 0 0000 = 1 0000                            | 0 |
| 52                   | 0 0000 + 0 0000 = 0 0000                            | 0 |
| 53                   | 0 0000 + 1 0000 = 1 0000                            | 0 |
| 54                   | 1 0000 + 1 0000 = 2 0000                            | 0 |
| 55                   | 0 0000 + 0 0000 = 0 0000                            | 0 |
| 56                   | 0 0000 + 1 0000 = 1 0000                            | 0 |
| 57                   | 1 0000 + 0 0000 = 1 0000                            | 0 |
| 58                   | 0 0000 + 0 0000 = 0 0000                            | 0 |
| 59                   | 0 0000 + 1 0000 = 1 0000                            | 0 |
| 60                   | 1 0000 + 1 0000 = 2 0000                            | 0 |
| 61                   | 0 0000 + 0 0000 = 0 0000                            | 0 |
| 62                   | 0 0000 + 1 0000 = 1 0000                            | 0 |
| 63                   | 1 0000 + 0 0000 = 1 0000                            | 0 |
| 64                   | 0 0000 + 0 0000 = 0 0000                            | 0 |
| 65                   | 0 0000 + 1 0000 = 1 0000                            | 0 |
| 66                   | 1 0000 + 1 0000 = 2 0000                            | 0 |
| 67                   | 0 0000 + 0 0000 = 0 0000                            | 0 |
| 68                   | 0 0000 + 1 0000 = 1 0000                            | 0 |
| 69                   | 1 0000 + 0 0000 = 1 0000                            | 0 |
| 70                   | 0 0000 + 0 0000 = 0 0000                            | 0 |
| 71                   | 0 0000 + 1 0000 = 1 0000                            | 0 |
| 72                   | 1 0000 + 1 0000 = 2 0000                            | 0 |
| 73                   | 0 0000 + 0 0000 = 0 0000                            | 0 |
| 74                   | 0 0000 + 1 0000 = 1 0000                            | 0 |
| 75                   | 1 0000 + 0 0000 = 1 0000                            | 0 |
| 76                   | 0 0000 + 0 0000 = 0 0000                            | 0 |
| 77                   | 0 0000 + 1 0000 = 1 0000                            | 0 |
| 78                   | 1 0000 + 1 0000 = 2 0000                            | 0 |
| 79                   | 0 0000 + 0 0000 = 0 0000                            | 0 |
| 80                   | 0 0                                                 |   |

[illegible]

| 10% MPA CALCULATOR |            |             |           |
|--------------------|------------|-------------|-----------|
| 1                  | 1000.00    | 4.71%       | 0         |
| 2                  | 24,100.00  | 0.00%       | 12,050.00 |
| 3                  | 24,100.00  | 2.25%       | 5,422.50  |
| DEDUCT:            |            |             |           |
| 4                  | 8,828.50   | 2.75%       | -2,427.84 |
| 5                  | 8,828.50   | 1.10%       | -971.14   |
| 6                  | 8,828.50   | 3.85%       | -3,398.81 |
| 7                  | 14,271.50  | 1.20%       | -1,712.58 |
| 8                  | 14,271.50  | 0.00%       | 0.00      |
| 9                  | 14,271.50  | 0.00%       | 0.00      |
| 10                 | 8,828.50   | 0.00%       | 0.00      |
| TOTAL DEDUCT 10%   |            |             |           |
|                    | - 8,828.50 | - 88,828.50 |           |

[illegible][illegible]

UPPER PART OF 12/F GFA DIAGRAM

STATEMENT B : THE WORKS SHOWN ON THESE PLANS ARE TYPE B WORKS, ALTERATION AND ADDITION IN RESPECT OF WHICH THE BUILDING AUTHORITY'S CONSENT IS APPLIED FOR.

# COMMON WAY: HOW LONG DOES IT TAKE?

Previous Submission Involves

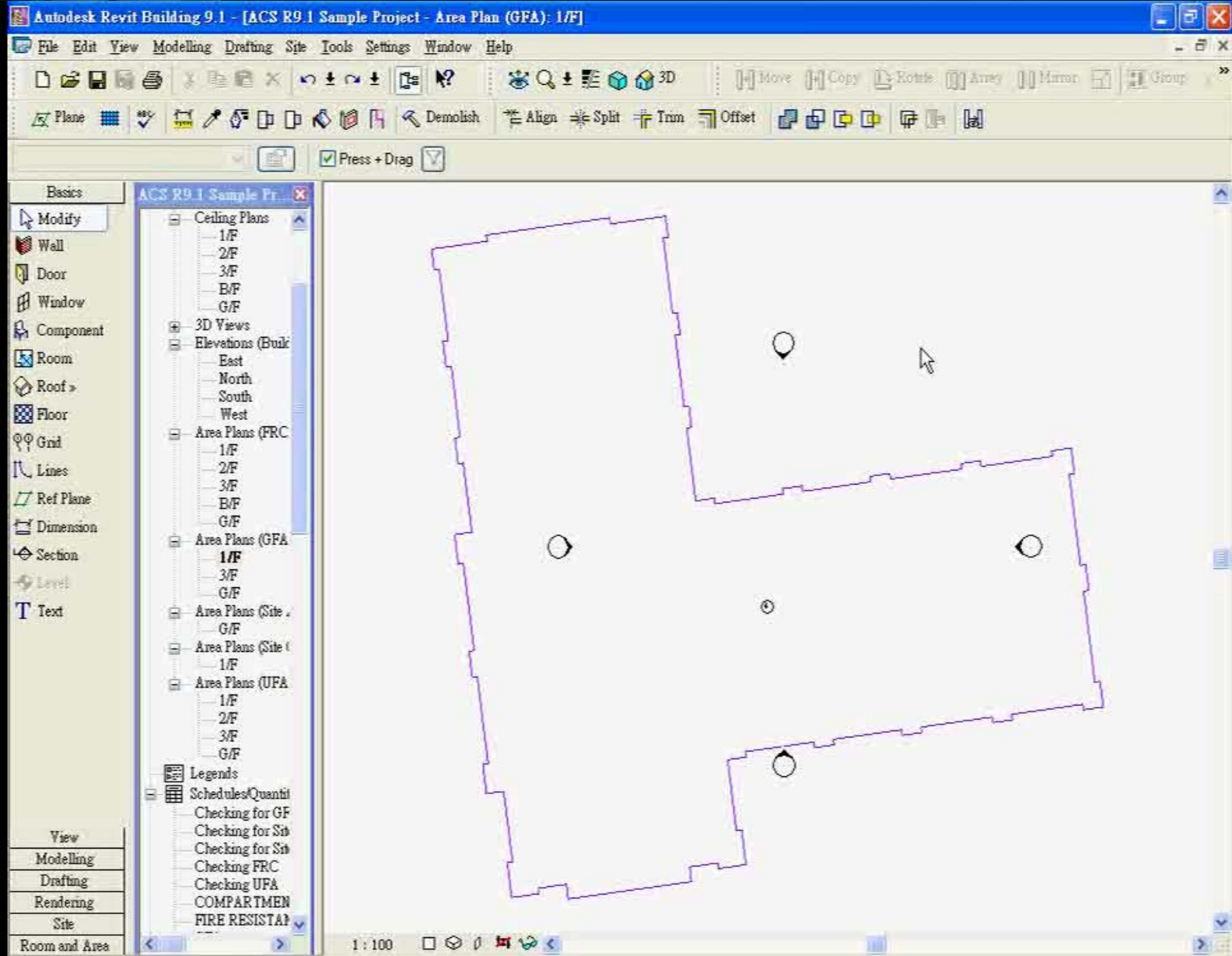
- ~1200 raw data
- ~1700 mathematical operations
- ~1000 statutory checking
- ~5000 data input

Require 2 weeks to complete

a step by step calculation: any change in layout will affect the calculation significantly

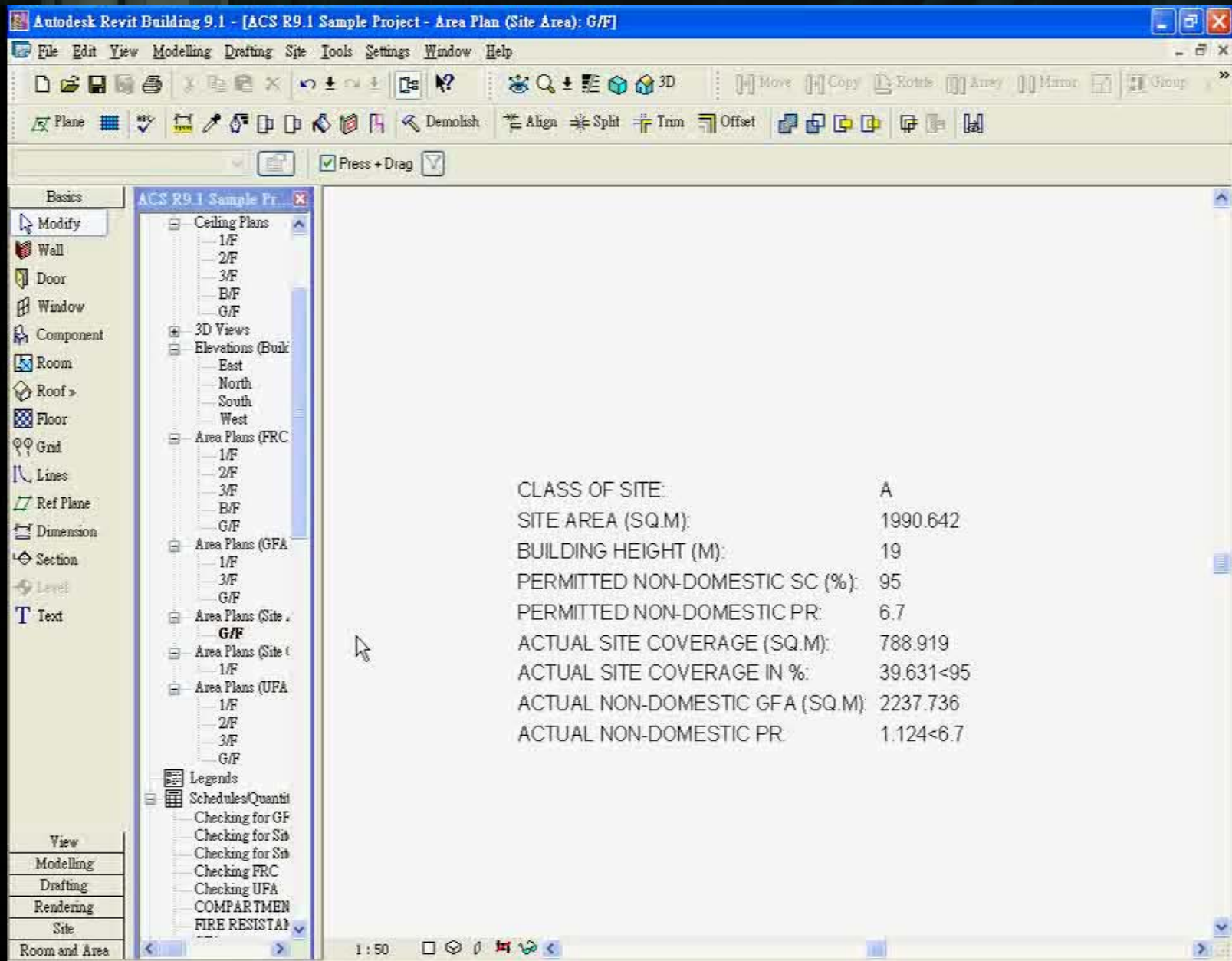
Takes another 1 week in average for every amendment submission

# BIM method: GFA CALCULATION

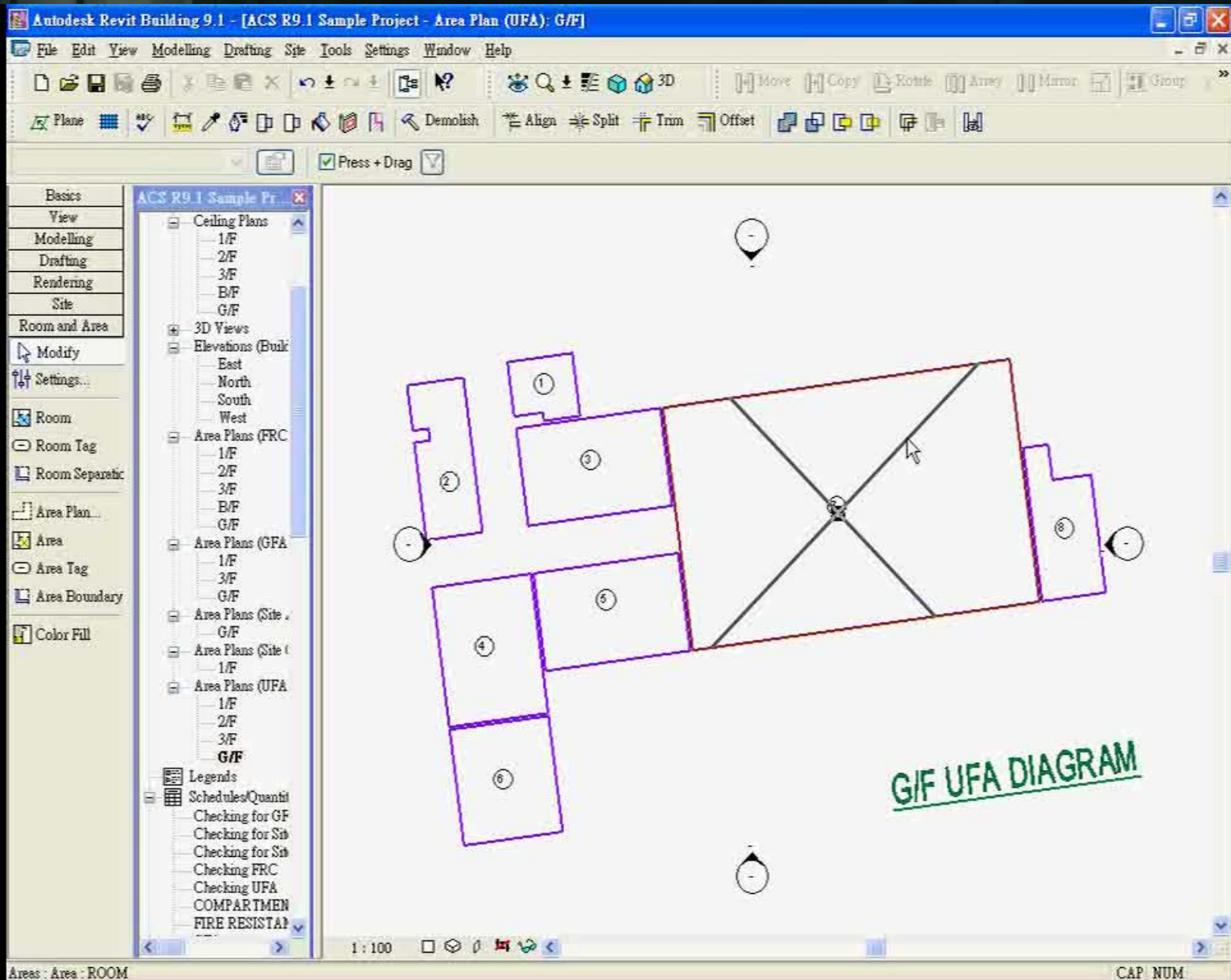


Click to select, TAB for alternates, CTRL adds, SHIFT unselects.

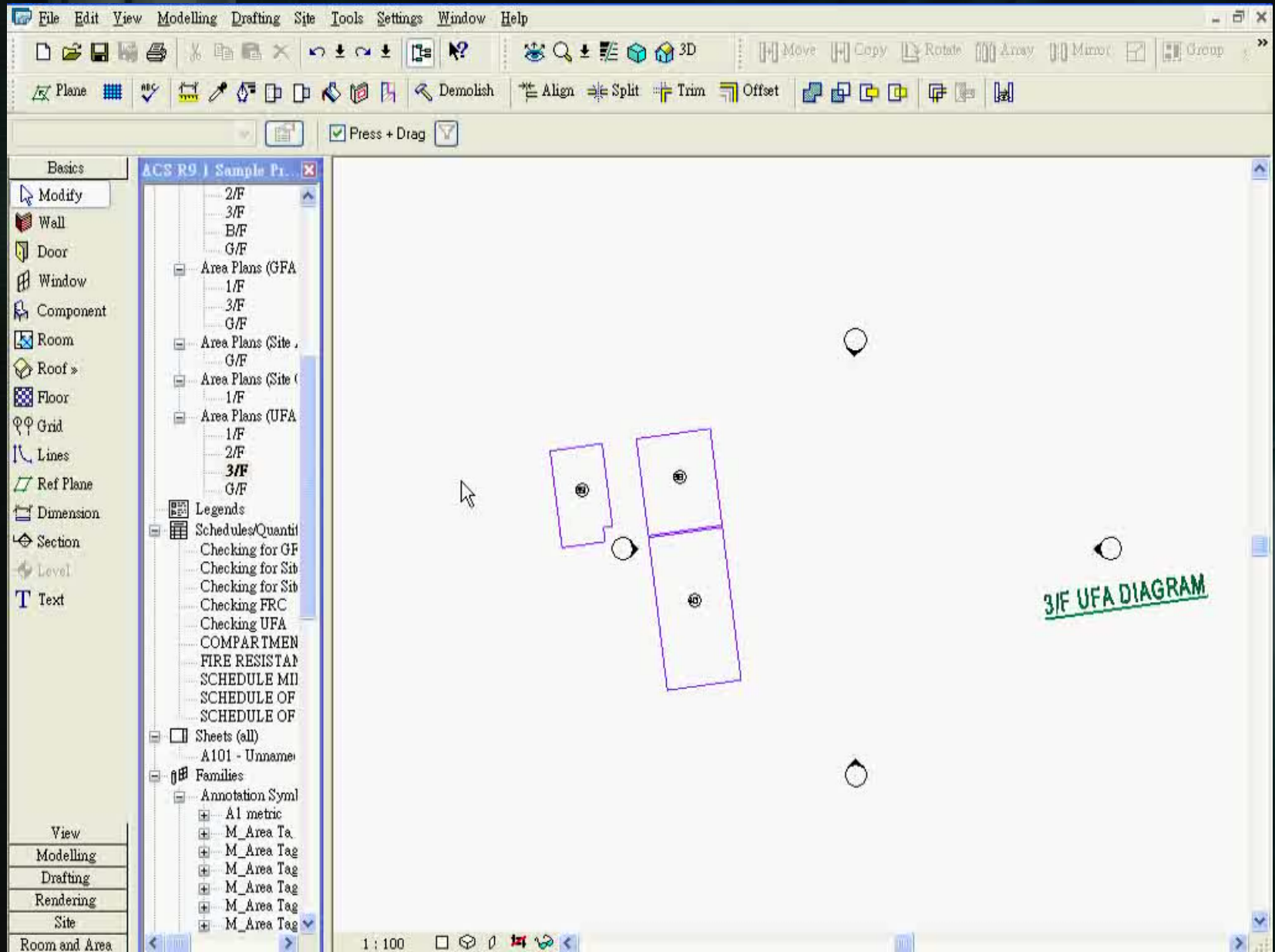
# BIM method: GFA CALCULATION



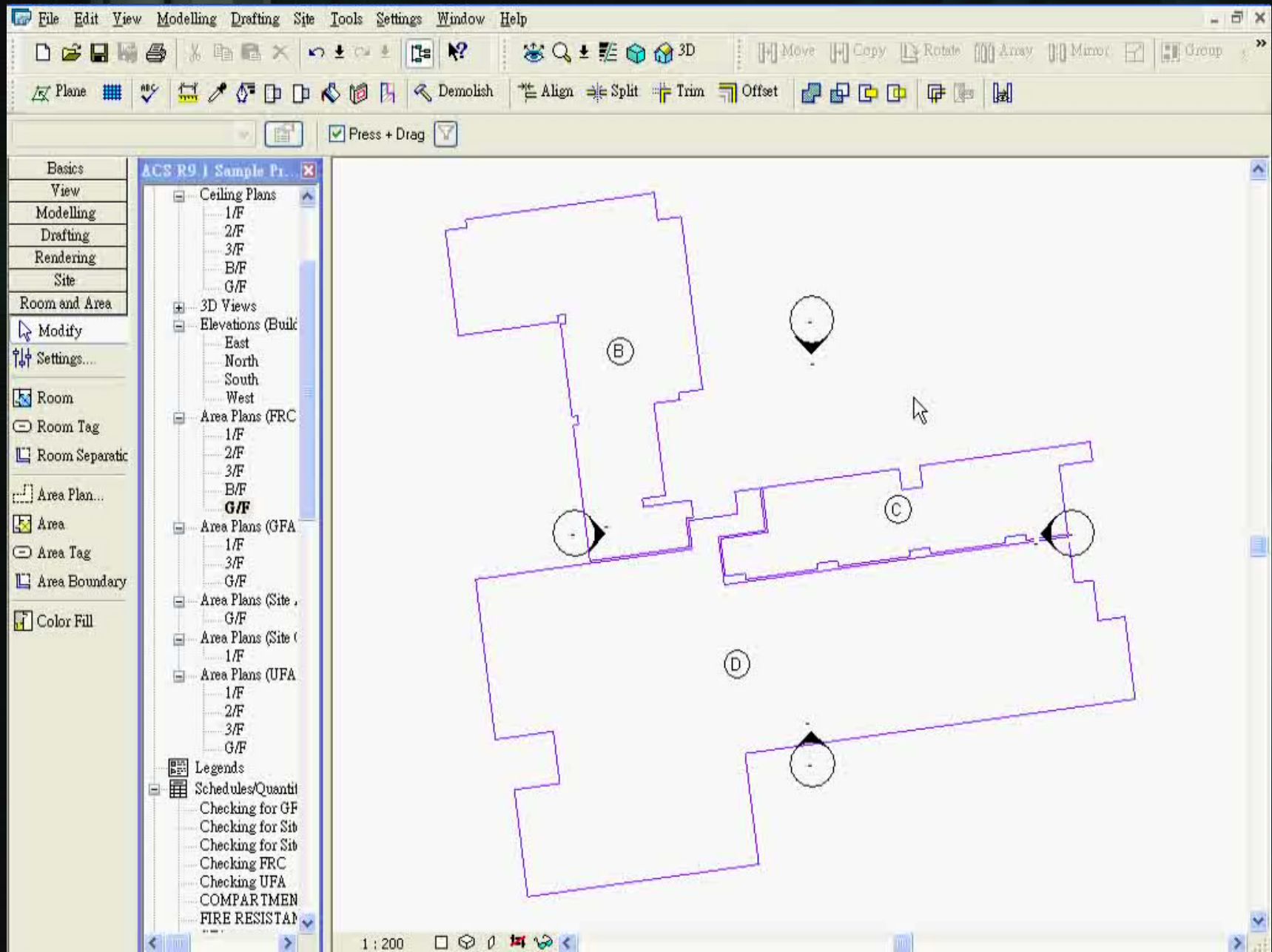
# MEANS OF ESCAPE & SANITARY FITMENT PROVISION



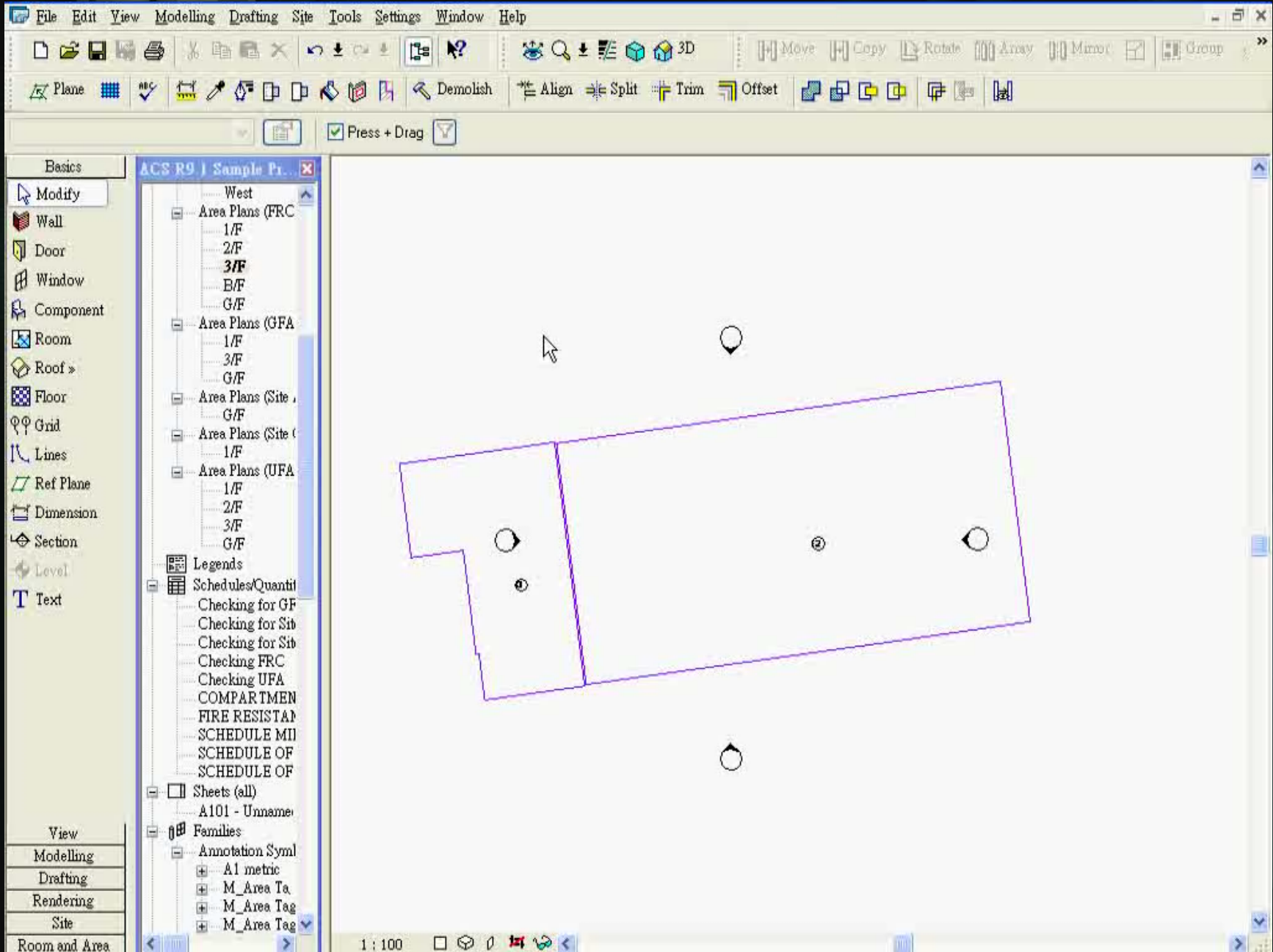
# MEANS OF ESCAPE & SANITARY FITMENT PROVISION



# FIRE RESISTING CONSTRUCTION



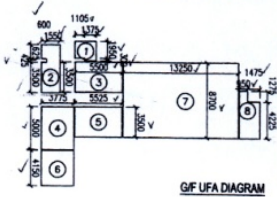
# FIRE RESISTING CONSTRUCTION



# UFA AND CAPACITY CALCULATIONS

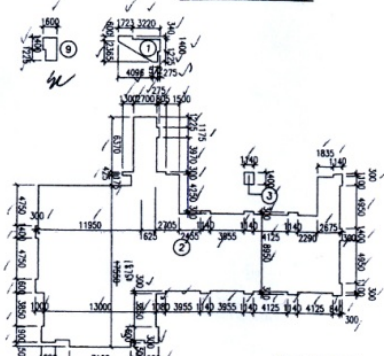
# GFA CALCULATIONS

# FRC CALCULATIONS



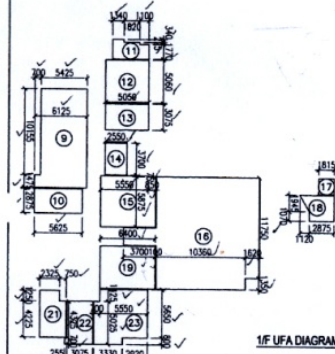
| USE             | USABLE FLOOR AREA | M/E PERMITTED DENSITY | CAPACITY |
|-----------------|-------------------|-----------------------|----------|
| 1 STORE         | 5,248.5           | 30                    | 1        |
| 2 MOTHER'S ROOM | 11,412.5          | 09                    | 3        |
| 3 CHURCH OFFICE | 19,250.0          | 09                    | 3        |
| 4 CHURCH OFFICE | 18,875.0          | 09                    | 3        |
| 5 CHURCH OFFICE | 19,337.5          | 09                    | 3        |
| 6 CHURCH OFFICE | 15,866.3          | 09                    | 2        |
| 7 BIBLE STUDY   | 115,275.0         | 02                    | 58       |
| 8 STORE         | 11,456.8          | 30                    | 1        |
|                 | 244,364.1         |                       | 73       |

G/F UFA DIAGRAM



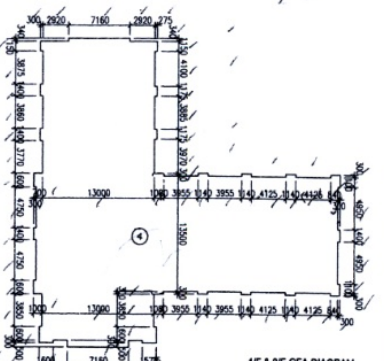
|          |                  |
|----------|------------------|
| 1        | 5,248.5          |
| 2        | 11,412.5         |
| 3        | 19,250.0         |
| 4        | 18,875.0         |
| 5        | 19,337.5         |
| 6        | 15,866.3         |
| 7        | 115,275.0        |
| 8        | 11,456.8         |
| <b>Σ</b> | <b>244,364.1</b> |

G/F GFA DIAGRAM



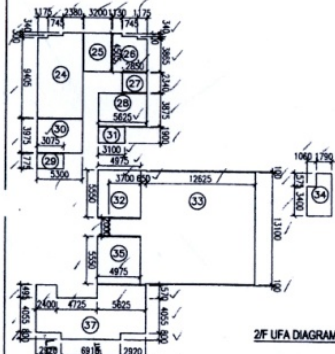
| USE              | USABLE FLOOR AREA | M/E PERMITTED DENSITY | CAPACITY |
|------------------|-------------------|-----------------------|----------|
| 9 CHURCH OFFICE  | 64,125.3          | 09                    | 8        |
| 10 BIBLE STUDY   | 16,171.8          | 02                    | 9        |
| 11 STORE         | 8,706.8           | 30                    | 1        |
| 12 BIBLE STUDY   | 25,553.0          | 02                    | 13       |
| 13 BIBLE STUDY   | 15,528.8          | 02                    | 8        |
| 14 MOTHER'S ROOM | 9,435.0           | 09                    | 2        |
| 15 STORE         | 38,016.3          | 30                    | 2        |
| 16 CHAPEL        | 163,546.0         | 0.50                  | 328      |
| 17 STORE         | 5,375.9           | 30                    | 1        |
| 18 STORE         | 9,757.3           | 30                    | 1        |
| 19 STORE         | 31,840.0          | 30                    | 2        |
| 21 BIBLE STUDY   | 15,898.1          | 02                    | 8        |
| 22 BIBLE STUDY   | 15,630.4          | 02                    | 8        |
| 23 STORE         | 36,979.0          | 30                    | 2        |
|                  | 453,543.8         |                       | 391      |

1/F UFA DIAGRAM



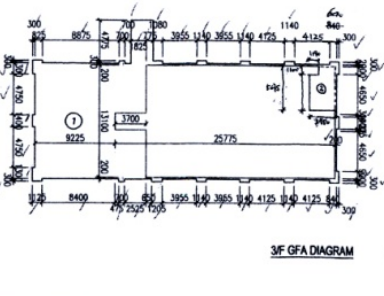
|          |                  |
|----------|------------------|
| 9        | 64,125.3         |
| 10       | 16,171.8         |
| 11       | 8,706.8          |
| 12       | 25,553.0         |
| 13       | 15,528.8         |
| 14       | 9,435.0          |
| 15       | 38,016.3         |
| 16       | 163,546.0        |
| 17       | 5,375.9          |
| 18       | 9,757.3          |
| 19       | 31,840.0         |
| 21       | 15,898.1         |
| 22       | 15,630.4         |
| 23       | 36,979.0         |
| <b>Σ</b> | <b>453,543.8</b> |

1/F & 2/F GFA DIAGRAM



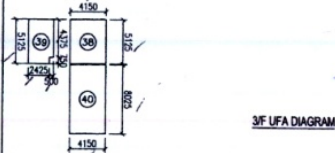
| USE            | USABLE FLOOR AREA | M/E PERMITTED DENSITY | CAPACITY |
|----------------|-------------------|-----------------------|----------|
| 24 BIBLE STUDY | 51,893.2          | 02                    | 26       |
| 25 BIBLE STUDY | 14,416.0          | 02                    | 8        |
| 26 BIBLE STUDY | 16,900.0          | 02                    | 9        |
| 27 STORE       | 8,689.0           | 30                    | 1        |
| 28 BIBLE STUDY | 21,798.6          | 02                    | 11       |
| 29 STORE       | 5,458.1           | 30                    | 1        |
| 30 BIBLE STUDY | 21,067.5          | 02                    | 11       |
| 31 STORE       | 5,890.0           | 30                    | 1        |
| 32 STORE       | 27,611.3          | 30                    | 1        |
| 33 CHAPEL      | 181,432.9         | 0.50                  | 363      |
| 34 STORE       | 12,509.3          | 30                    | 1        |
| 35 STORE       | 27,611.3          | 30                    | 1        |
| 37 BIBLE STUDY | 89,648.5          | 02                    | 35       |
|                | 442,123.8         |                       | 469      |

2/F UFA DIAGRAM



|          |                 |
|----------|-----------------|
| 38       | 21,268.8        |
| 39       | 14,615.6        |
| 40       | 33,303.8        |
| <b>Σ</b> | <b>69,188.2</b> |

3/F GFA DIAGRAM

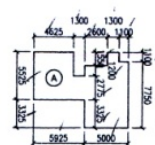


| USE            | USABLE FLOOR AREA | M/E PERMITTED DENSITY | CAPACITY |
|----------------|-------------------|-----------------------|----------|
| 38 BIBLE STUDY | 21,268.8          | 02                    | 11       |
| 39 STORE       | 14,615.6          | 30                    | 1        |
| 40 BIBLE STUDY | 33,303.8          | 02                    | 17       |
|                | 69,188.2          |                       | 29       |

3/F UFA DIAGRAM

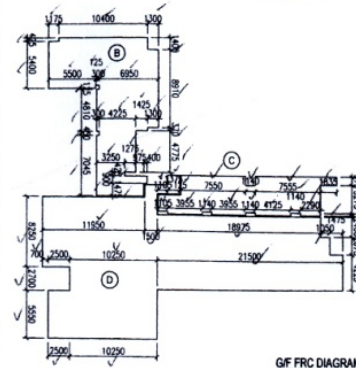
|                          |         |     |
|--------------------------|---------|-----|
| TOTAL UFA TOTAL CAPACITY | 124,442 | 962 |
|--------------------------|---------|-----|

# FRC CALCULATIONS



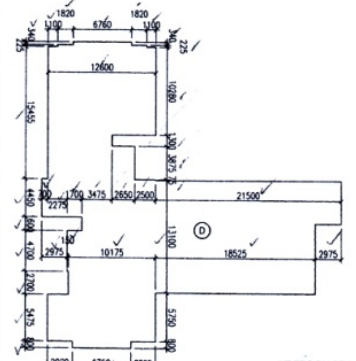
| COMPARTMENT | AREA (SQ.M) | HEIGHT (M) | VOLUME (CU.M) |
|-------------|-------------|------------|---------------|
| A           | 68.17       | 3          | 204.513       |

B/F FRC DIAGRAM



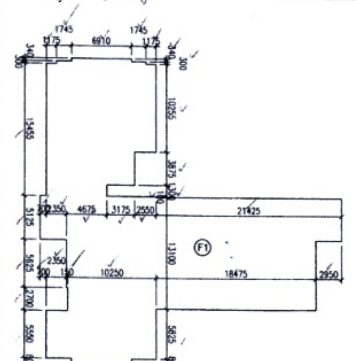
| COMPARTMENT | AREA (SQ.M) | HEIGHT (M) | VOLUME (CU.M) |
|-------------|-------------|------------|---------------|
| B           | 143.495     | 4.3        | 617.029       |
| C           | 78.954      | 4.3        | 338.502       |
| D           | 393.832     | 4.3        | 1693.478      |

G/F FRC DIAGRAM



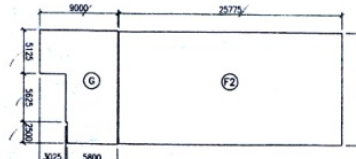
| COMPARTMENT | AREA (SQ.M) | HEIGHT (M) | VOLUME (CU.M) |
|-------------|-------------|------------|---------------|
| D           | 663.845     | 6.5        | 4314.993      |

1/F FRC DIAGRAM



| COMPARTMENT | AREA (SQ.M) | HEIGHT (M) | VOLUME (CU.M) |
|-------------|-------------|------------|---------------|
| F1          | 673.292     | 2.9        | 1952.547      |

2/F FRC DIAGRAM



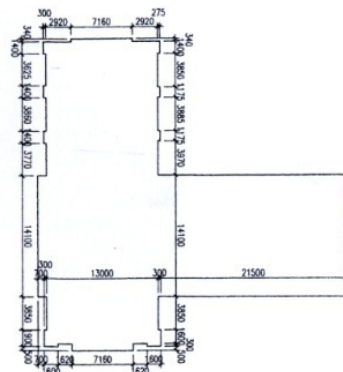
| COMPARTMENT | AREA (SQ.M) | HEIGHT (M) | VOLUME (CU.M) |
|-------------|-------------|------------|---------------|
| F2          | 337.652     | 4.6        | 1553.198      |
| G           | 94.234      | 4.6        | 433.478       |

3/F FRC DIAGRAM

Plan Approved  
  
 Philip M. S. Wong  
 Chief Building Surveyor  
 for BUILDING AUTHORITY  
 - 1 NOV 2005

### 1. UNDER BUILDING REGULATION

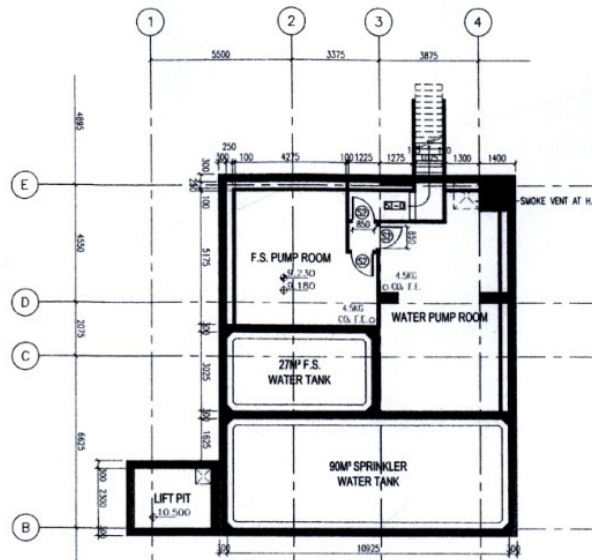
|                                                 |   |                          |
|-------------------------------------------------|---|--------------------------|
| B. AREA OF SITE (FROM LEASE)                    | = | 1990.6 s.m.              |
| PROPOSED USE OF SITE                            | = | NON-DOMESTIC             |
| MAIN STREET LEVEL                               | = | 12.000                   |
| BUILDING TOP LEVEL                              | = | 33.500 <sup>100</sup> mm |
| PROPOSED HEIGHT OF BUILDING                     | = | 21+00 <sup>100</sup> mm  |
| NON-DOMESTIC PERMITTED PERCENTAGE SITE COVERAGE | = | 95 %                     |
| NON-DOMESTIC PERMITTED PLOT RATIO               | = | 6.7                      |
| C. SITE COVERAGE                                | = | 788.919 s.m.             |
| THEREFORE SITE COVERAGE                         | = | 39.63 % < 95 %           |
| D. PLOT RATIO                                   | = |                          |
| PROPOSED NON-DOMESTIC GROSS FLOOR AREA          | = | 246.233 s.m.             |
| PROPOSED NON-DOMESTIC PLOT RATIO                | = |                          |
| 236.567 s.m. / 1990.6 s.m.                      | = | 1.01 < 6.7 (O.K.)        |



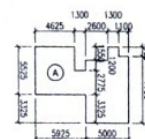
### SITE COVERAGE DIAGRAM

## 2. UNDER LEASE CONDITION

- |                                     |   |                                                  |
|-------------------------------------|---|--------------------------------------------------|
| A. PERMITTED USE OF SITE            | = | CHURCH TOGETHER WITH ANCILLARY CHURCH FACILITIES |
| PROPOSED USE OF SITE                | = | AS ABOVE                                         |
| B. GROSS FLOOR AREA :               |   |                                                  |
| MAXIMUM PERMISSIBLE GFA UNDER LEASE | = | 2,520 s.m.                                       |
| TOTAL GFA OF PROPOSED DEVELOPMENT   | = | 2,746.75 s.m.                                    |
| C. BUILDING HEIGHT :                |   |                                                  |
| MEAN FORMATION LEVEL OF SITE :      | = | 12.000                                           |
| BUILDING TOP LEVEL :                | = | 38.000 ft.                                       |
| BUILDING HEIGHT :                   | = | 26.00 m (ft.)                                    |
| D. SITE COVERAGE :                  |   |                                                  |
| MAXIMUM PERMISSIBLE SITE COVERAGE : | = | 40%                                              |
| PROPOSED SITE COVERAGE :            | = | 39.63% < 40% (O.K.)                              |
| E. PARKING SPACE :                  |   |                                                  |
| PARKING REQUIREMENT UNDER LEASE     | = | 14 CARPARKING SPACES AND 1 U/C BAY               |
| PROPOSED PARKING PROVISION          | = | SAME AS ABOVE                                    |



B/F PLAN, 1:100



| BASEMENT FLOOR AREA |                                                    |
|---------------------|----------------------------------------------------|
| FLOOR AREA (SQ.M)   | REQUIRED SMOKE VENT AREA 0.5% OF FLOOR AREA (SQ.M) |
| 68.171 < 150        | 341 (MIN 1M <sup>2</sup> - 1M <sup>2</sup> )       |

B/F FLOOR  
AREA DIAGRAM

| DISCHARGE VALUE CALCULATION IN SPRINKLERED BUILDING |                         |                                    |                 | ACTUAL NO. OF PERSON ABOVE GROUND |
|-----------------------------------------------------|-------------------------|------------------------------------|-----------------|-----------------------------------|
| STAIR                                               | WIDTH OF STAIR PROVIDED | NOS. OF STOREY SERVED ABOVE GROUND | DISCHARGE VALUE |                                   |
| ST-A                                                | 1300                    | 3                                  | 556             |                                   |
| ST-B                                                | 1050                    | 3                                  | 484             |                                   |
| ST-C                                                | 1175                    | 3                                  | 484             |                                   |
|                                                     |                         |                                    | 1524            | 588                               |

| SCHEDULE MINIMUM NUMBER & WIDTH OF EXIT DOOR & EXIT ROUTE, FROM EACH FLOOR |                            |                                                                 |                     |             |                    |             |            |             |           |            |      |  |
|----------------------------------------------------------------------------|----------------------------|-----------------------------------------------------------------|---------------------|-------------|--------------------|-------------|------------|-------------|-----------|------------|------|--|
| FLOOR                                                                      | CAPACITY OF ROOM OR STOREY | MIN. NO. OF EXIT DOORS (FROM ROOM) OR EXIT ROUTES (FROM STOREY) | MIN. TOTAL WIDTH OF |             | MIN. WIDTH OF EACH |             |            |             |           |            |      |  |
|                                                                            |                            |                                                                 | REQUIRED            |             | PROVIDED           |             | REQUIRED   |             | PROVIDED  |            |      |  |
|                                                                            |                            |                                                                 | EXIT DOORS          | EXIT ROUTES | EXIT DOORS         | EXIT ROUTES | EXIT DOORS | EXIT ROUTES | EXIT DOOR | EXIT ROUTE |      |  |
|                                                                            |                            |                                                                 | Minimum             | Maximum     |                    |             |            |             |           |            |      |  |
| 1/F                                                                        | 391                        | 2                                                               | 3                   | 3000        | 3000               | 3550        | 3575       | 1050        | 1050      | 1050       | 1050 |  |
| 2/F                                                                        | 469                        | 2                                                               | 3                   | 3000        | 3000               | 3550        | 3575       | 1050        | 1050      | 1050       | 1050 |  |
| 3/F                                                                        | 29                         | 2                                                               | 3                   | 1000        | 1200               | 1200        | 750        | 1050        | 1050      | 1050       | 1050 |  |

| SCHEDULE OF SANITARY FITMENTS PROVISIONS |                 |          |     |     |       |       |       |       |       |       |       |       |        |       |
|------------------------------------------|-----------------|----------|-----|-----|-------|-------|-------|-------|-------|-------|-------|-------|--------|-------|
| LOCATION                                 | USE             | CAPACITY |     |     | W.C.  |       |       |       | BASIN |       |       |       | URINAL |       |
|                                          |                 |          |     |     | M.    |       | F.    |       | M.    |       | F.    |       | M.     |       |
|                                          |                 | TOTAL    | M   | F   | REQ'D | PRO'D | REQ'D | PRO'D | REQ'D | PRO'D | REQ'D | PRO'D | REQ'D  | PRO'D |
| G/F-2/F                                  | OFFICE          | 19       | 13  | 6   | 1     | 1     | 1     | 1     | 1     | 1     | 1     | 1     | 1      | 1     |
| G/F-3/F                                  | PLACE OF PUBLIC | 943      | 472 | 471 | 5     | 3+30  | 7     | 10    | 5     | 7+30  | 5     | 8     | 10     | 11    |

| FIRE RESISTANCE REQUIREMENT FOR ELEMENTS OF CONSTRUCTION |                       |                    |           |                          |                |           |                |             |                |           |                |            |                |
|----------------------------------------------------------|-----------------------|--------------------|-----------|--------------------------|----------------|-----------|----------------|-------------|----------------|-----------|----------------|------------|----------------|
| COMPARTMENT                                              | CLASS                 | COMPARTMENT VOLUME | FRP REQ'D | R.C. WALL<br>→ 1/2" V.R. |                | R.C. SLAB |                | R.C. COLUMN |                | R.C. BEAM |                | R.C. STAIR |                |
|                                                          |                       |                    |           | THICK.                   | COVER TO STEEL | THICK.    | COVER TO STEEL | THICK.      | COVER TO STEEL | THICK.    | COVER TO STEEL | THICK.     | COVER TO STEEL |
| A                                                        | — (BASEMENT)          | 204.513            | 4         | 180                      | 25             | 170       | 45*            | 35          | 450            | 280       | 60*            | 170        | 55*            |
| B                                                        | 8 (PARKING)           | 817.029            | 1         | 75                       | 15             | 100       | 20             | 25          | 200            | 200       | 30             | 85         | 20             |
| C                                                        | 8 (PARKING)           | 339.502            | 1         | 75                       | 15             | 100       | 20             | 25          | 200            | 200       | 30             | 85         | 20             |
| D                                                        | 7 (PLACE OF ASSEMBLY) | 1693.478           | 1         | 75                       | 15             | 100       | 20             | 25          | 200            | 200       | 30             | 85         | 20             |
| E                                                        | 7 (PLACE OF ASSEMBLY) | 431.483            | 1         | 75                       | 15             | 100       | 20             | 25          | 200            | 200       | 30             | 85         | 20             |
| F (F1+F2)                                                | 7 (PLACE OF ASSEMBLY) | 3065.746           | 1         | 75                       | 15             | 100       | 20             | 25          | 200            | 200       | 30             | 85         | 20             |
| G                                                        | 7 (PLACE OF ASSEMBLY) | 433.476            | 1         | 75                       | 15             | 100       | 20             | 25          | 200            | 200       | 30             | 85         | 20             |
| DIFFERENT USES/ BETWEEN WALL/SLAB                        |                       |                    |           | 2                        | 100            | 25        | 125            | 25          | 300            | 200       | 40             | 125        | 35             |

### REFUSE STORAGE CALCULATION

$$UFS = 1202.442 \text{ s.m.} < 3,960 \text{ s.m.}$$

THEREFORE, STORAGE CHAMBER IS NOT REQUIRED ACCORDING TO B(RSCC)R, §3(3)

| SCHEDULE OF FUGING FOR MEANS OF ESCAPE |                |          |                     |             |            |             |            |            |                    |            |          |       |
|----------------------------------------|----------------|----------|---------------------|-------------|------------|-------------|------------|------------|--------------------|------------|----------|-------|
| CUT                                    | USE            | CAPACITY | MIN. TOTAL WIDTH OF |             | REQUIRED   |             | PROVIDED   |            | MIN. WIDTH OF EACH |            | PROVIDED |       |
|                                        |                |          | NO. OF EXIT DOORS   | EXIT ROUTES | EXIT DOORS | EXIT ROUTES | EXIT DOORS | EXIT ROUTE | EXIT DOORS         | EXIT ROUTE |          |       |
| 1                                      | STORE          | 1        | 1                   | -           | -          | 750         | 1050       | -          | -                  | 750        | 1050     |       |
| 2                                      | MITCHENER ROOM | 2        | 1                   | -           | -          | 750         | 1050       | -          | -                  | 750        | 1050     |       |
| 3                                      | CHURCH OFFICE  | 3        | 1                   | -           | -          | 750         | 1050       | -          | -                  | 750        | 1050     |       |
| 4                                      | CHURCH OFFICE  | 2        | 1                   | -           | -          | 750         | 1050       | -          | -                  | 750        | 1050     |       |
| 5                                      | CHURCH OFFICE  | 3        | 1                   | -           | -          | 750         | 1050       | -          | -                  | 750        | 1050     |       |
| 6                                      | BAR & STUD     | 2        | 2                   | 1/250       | 2          | 1/250       | 1/1050     | 2          | 1/250              | 1/1050     | 2        | 1/250 |
| 7                                      | STORE          | 1        | 1                   | -           | -          | 750         | 1050       | -          | -                  | 750        | 1050     |       |
| 8                                      | SALE           | 2        | 1/500               | 2           | 1/500      | 1/750       | 1/1050     | 2          | 1/500              | 1/750      | 1/1050   |       |

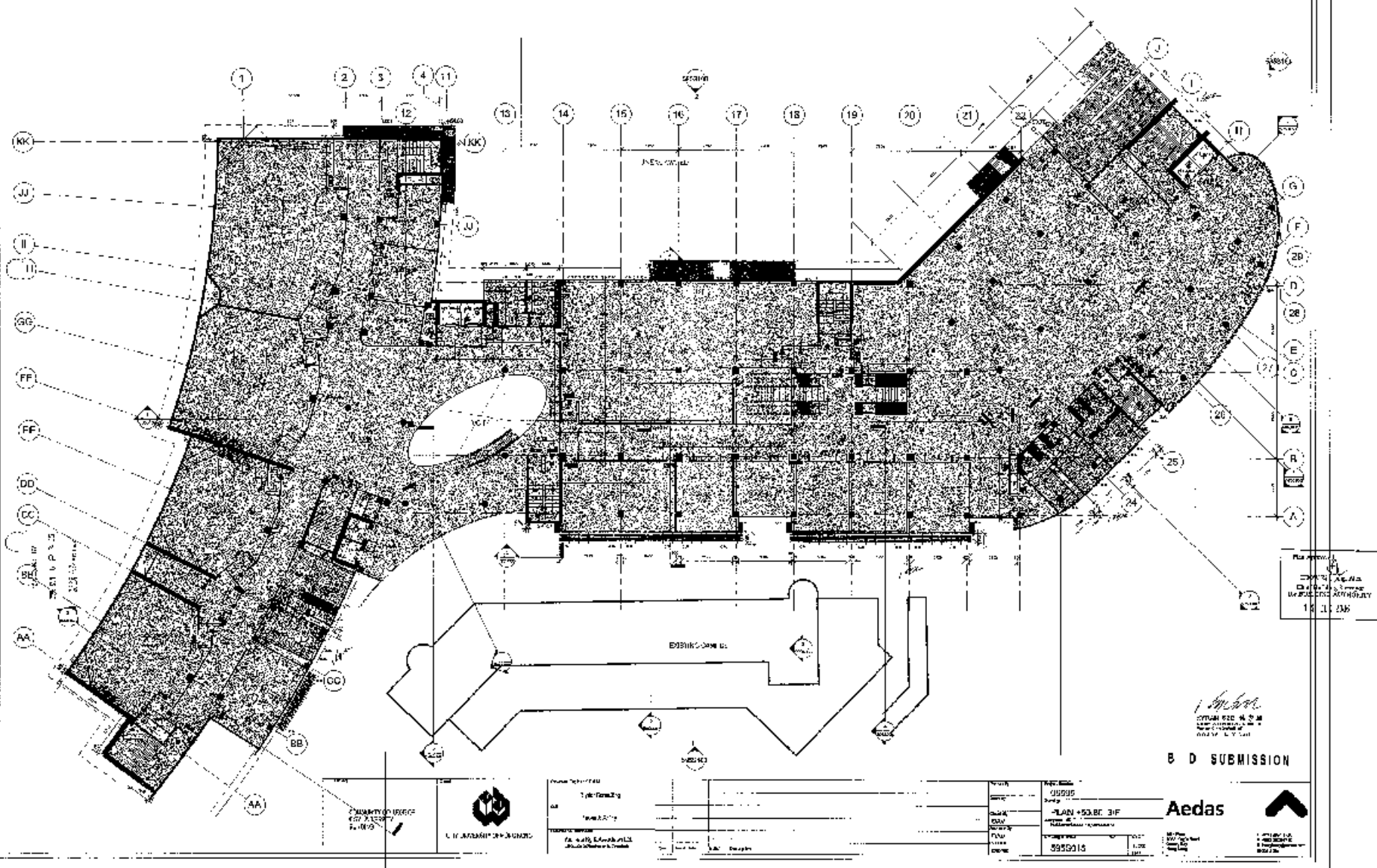
| SCHEDULE OF PERSONS FOR MEANS OF ESCAPE |              |          |                      |                                       |             |            |             |                                    |            |           |            |
|-----------------------------------------|--------------|----------|----------------------|---------------------------------------|-------------|------------|-------------|------------------------------------|------------|-----------|------------|
| 1/1                                     | USE          | CAPACITY | NO. NO. OF EXIT DOOR | MIN. TOTAL VOLUME OF REQUIRED PERSONS |             |            |             | MIN. WIDTH OF EACH REQUIRED PERSON |            |           |            |
|                                         |              |          |                      | EXIT DOORS                            | EXIT ROUTES | EXIT DOORS | EXIT ROUTES | EXIT DOOR                          | EXIT ROUTE | EXIT DOOR | EXIT ROUTE |
| 9                                       | CHIMNEY DOOR | 8        | -                    | -                                     | -           | -          | -           | -                                  | -          | -         | -          |
| 9                                       | CHIMNEY DOOR | 8        | -                    | -                                     | -           | -          | -           | -                                  | -          | -         | -          |
| 10                                      | STAIRS       | 1        | -                    | -                                     | -           | -          | -           | -                                  | -          | -         | -          |
| 11                                      | STAIRS       | 1        | -                    | -                                     | -           | -          | -           | -                                  | -          | -         | -          |
| 12                                      | STAIRS       | 1        | -                    | -                                     | -           | -          | -           | -                                  | -          | -         | -          |
| 13                                      | STAIRS       | 1        | -                    | -                                     | -           | -          | -           | -                                  | -          | -         | -          |
| 14                                      | STAIRS       | 1        | -                    | -                                     | -           | -          | -           | -                                  | -          | -         | -          |
| 15                                      | STAIRS       | 1        | -                    | -                                     | -           | -          | -           | -                                  | -          | -         | -          |
| 16                                      | STAIRS       | 1        | -                    | -                                     | -           | -          | -           | -                                  | -          | -         | -          |
| 17                                      | STAIRS       | 1        | -                    | -                                     | -           | -          | -           | -                                  | -          | -         | -          |
| 18                                      | STAIRS       | 1        | -                    | -                                     | -           | -          | -           | -                                  | -          | -         | -          |
| 19                                      | STAIRS       | 1        | -                    | -                                     | -           | -          | -           | -                                  | -          | -         | -          |
| 20                                      | STAIRS       | 1        | -                    | -                                     | -           | -          | -           | -                                  | -          | -         | -          |
| 21                                      | STAIRS       | 1        | -                    | -                                     | -           | -          | -           | -                                  | -          | -         | -          |
| 22                                      | STAIRS       | 1        | -                    | -                                     | -           | -          | -           | -                                  | -          | -         | -          |
| 23                                      | STAIRS       | 1        | -                    | -                                     | -           | -          | -           | -                                  | -          | -         | -          |
| 24                                      | STAIRS       | 1        | -                    | -                                     | -           | -          | -           | -                                  | -          | -         | -          |
| 25                                      | STAIRS       | 1        | -                    | -                                     | -           | -          | -           | -                                  | -          | -         | -          |
| 26                                      | STAIRS       | 1        | -                    | -                                     | -           | -          | -           | -                                  | -          | -         | -          |
| 27                                      | STAIRS       | 1        | -                    | -                                     | -           | -          | -           | -                                  | -          | -         | -          |
| 28                                      | STAIRS       | 1        | -                    | -                                     | -           | -          | -           | -                                  | -          | -         | -          |
| 29                                      | STAIRS       | 1        | -                    | -                                     | -           | -          | -           | -                                  | -          | -         | -          |
| 30                                      | STAIRS       | 1        | -                    | -                                     | -           | -          | -           | -                                  | -          | -         | -          |
| 31                                      | STAIRS       | 1        | -                    | -                                     | -           | -          | -           | -                                  | -          | -         | -          |
| 32                                      | STAIRS       | 1        | -                    | -                                     | -           | -          | -           | -                                  | -          | -         | -          |
| 33                                      | STAIRS       | 1        | -                    | -                                     | -           | -          | -           | -                                  | -          | -         | -          |
| 34                                      | STAIRS       | 1        | -                    | -                                     | -           | -          | -           | -                                  | -          | -         | -          |
| 35                                      | STAIRS       | 1        | -                    | -                                     | -           | -          | -           | -                                  | -          | -         | -          |
| 36                                      | STAIRS       | 1        | -                    | -                                     | -           | -          | -           | -                                  | -          | -         | -          |
| 37                                      | STAIRS       | 1        | -                    | -                                     | -           | -          | -           | -                                  | -          | -         | -          |
| 38                                      | STAIRS       | 1        | -                    | -                                     | -           | -          | -           | -                                  | -          | -         | -          |
| 39                                      | STAIRS       | 1        | -                    | -                                     | -           | -          | -           | -                                  | -          | -         | -          |
| 40                                      | STAIRS       | 1        | -                    | -                                     | -           | -          | -           | -                                  | -          | -         | -          |
| 41                                      | STAIRS       | 1        | -                    | -                                     | -           | -          | -           | -                                  | -          | -         | -          |
| 42                                      | STAIRS       | 1        | -                    | -                                     | -           | -          | -           | -                                  | -          | -         | -          |
| 43                                      | STAIRS       | 1        | -                    | -                                     | -           | -          | -           | -                                  | -          | -         | -          |
| 44                                      | STAIRS       | 1        | -                    | -                                     | -           | -          | -           | -                                  | -          | -         | -          |
| 45                                      | STAIRS       | 1        | -                    | -                                     | -           | -          | -           | -                                  | -          | -         | -          |
| 46                                      | STAIRS       | 1        | -                    | -                                     | -           | -          | -           | -                                  | -          | -         | -          |
| 47                                      | STAIRS       | 1        | -                    | -                                     | -           | -          | -           | -                                  | -          | -         | -          |
| 48                                      | STAIRS       | 1        | -                    | -                                     | -           | -          | -           | -                                  | -          | -         | -          |
| 49                                      | STAIRS       | 1        | -                    | -                                     | -           | -          | -           | -                                  | -          | -         | -          |
| 50                                      | STAIRS       | 1        | -                    | -                                     | -           | -          | -           | -                                  | -          | -         | -          |
| 51                                      | STAIRS       | 1        | -                    | -                                     | -           | -          | -           | -                                  | -          | -         | -          |
| 52                                      | STAIRS       | 1        | -                    | -                                     | -           | -          | -           | -                                  | -          | -         | -          |
| 53                                      | STAIRS       | 1        | -                    | -                                     | -           | -          | -           | -                                  | -          | -         | -          |

| SCHEDULE OF PERSONS FOR MEANS OF ESCAPE |             |          |                     |                      |             |            |            |                        |            |           |            |
|-----------------------------------------|-------------|----------|---------------------|----------------------|-------------|------------|------------|------------------------|------------|-----------|------------|
| 2/F                                     | USE         | CAPACITY | MIN NO OF EXIT DOOR | MIN TOTAL VERTICALLY |             |            |            | MIN VERTICALLY OF EACH |            |           |            |
|                                         |             |          |                     | REQUIRE              |             | PROVIDE    |            | REQUIRE                |            | PROVIDE   |            |
|                                         |             |          |                     | EXIT DOORS           | EXIT ROUTES | EXIT DOORS | EXIT ROUTE | EXIT DOOR              | EXIT ROUTE | EXIT DOOR | EXIT ROUTE |
| 24                                      | BIBLE STUDY | 20       | 1                   | -                    | -           | 750        | 1050       | 750                    | 1050       | 750       | 1050       |
| 25                                      | BIBLE STUDY | 1        | 1                   | -                    | -           | 750        | 1050       | 750                    | 1050       | 750       | 1050       |
| 26                                      | BIBLE STUDY | 9        | 1                   | -                    | -           | 750        | 1050       | 750                    | 1050       | 750       | 1050       |
| 27                                      | BIBLE STUDY | 1        | 1                   | -                    | -           | 750        | 1050       | 750                    | 1050       | 750       | 1050       |
| 28                                      | BIBLE STUDY | 1        | 1                   | -                    | -           | 750        | 1050       | 750                    | 1050       | 750       | 1050       |
| 29                                      | TELECOM     | 1        | 1                   | -                    | -           | 750        | 1050       | 750                    | 1050       | 750       | 1050       |
| 30                                      | BIBLE STUDY | 1        | 1                   | -                    | -           | 750        | 1050       | 750                    | 1050       | 750       | 1050       |
| 31                                      | STORAGE     | 1        | 1                   | -                    | -           | 750        | 1050       | 750                    | 1050       | 750       | 1050       |
| 32                                      | STORAGE     | 1        | 1                   | -                    | -           | 750        | 1050       | 750                    | 1050       | 750       | 1050       |
| 33                                      | STORAGE     | 263      | 1                   | 3000                 | 3000        | 750        | 1050       | 1050                   | 1050       | 1050      | 1250       |
| 34                                      | STORAGE     | 1        | 1                   | -                    | -           | 750        | 1050       | 750                    | 1050       | 750       | 1050       |
| 35                                      | STORAGE     | 1        | 1                   | -                    | -           | 750        | 1050       | 750                    | 1050       | 750       | 1050       |
| 36                                      | BIBLE STUDY | 25       | 8                   | 1750                 | 2250        | 1800       | 2250       | 850                    | 1050       | 900       | 1050       |

| SCHEDULE OF PERSONS FOR MEANS OF ESCAPE |             |          |                       |                     |             |             |             |             |             |                            |             |          |      |
|-----------------------------------------|-------------|----------|-----------------------|---------------------|-------------|-------------|-------------|-------------|-------------|----------------------------|-------------|----------|------|
| 3/F                                     | USE         | CAPACITY | MIN. NO. OF EXIT DOOR | MIN. TOTAL WIDTH OF |             |             |             |             |             | MIN. WIDTH OF EACH PROVIDE |             |          |      |
|                                         |             |          |                       | REQUIRED            |             |             | PROVIDED    |             |             | REQUIRED                   |             | PROVIDED |      |
|                                         |             |          |                       | EXIT ROUTES         | EXIT ROUTES | EXIT ROUTES | EXIT ROUTES | EXIT ROUTES | EXIT ROUTES | EXIT ROUTES                | EXIT ROUTES |          |      |
| 38                                      | BIBLE STUDY | 11       | 1                     | --                  | --          | 750         | 1050        | 750         | 1050        | 750                        | 1050        | 750      | 1050 |
| 39                                      | STORE       | 1        | 1                     | --                  | --          | 750         | 1050        | 750         | 1050        | 750                        | 1050        | 750      | 1050 |
| 40                                      | BIBLE STUDY | 29       | 1                     | --                  | --          | 750         | 1050        | 750         | 1050        | 750                        | 1050        | 750      | 1050 |

Plan Approved  
Philip K. S. WONG  
Chief Building Surveyor  
for BUILDING AUTHORITY  
1 NOV 2005

# STATUTORY SUBMISSION

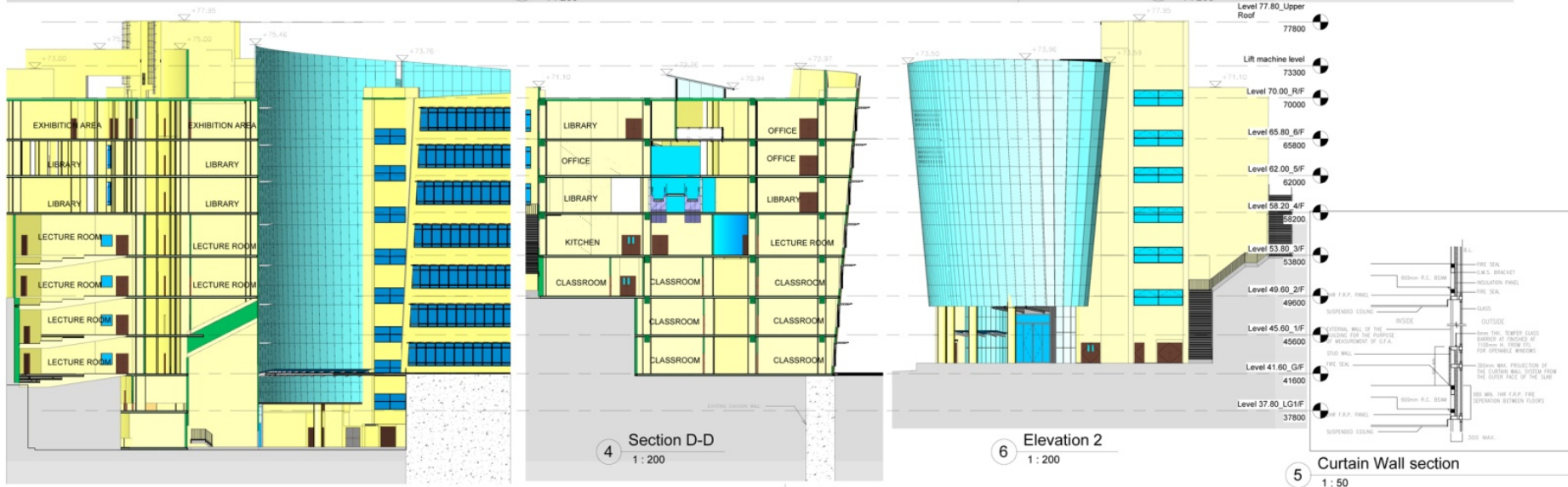
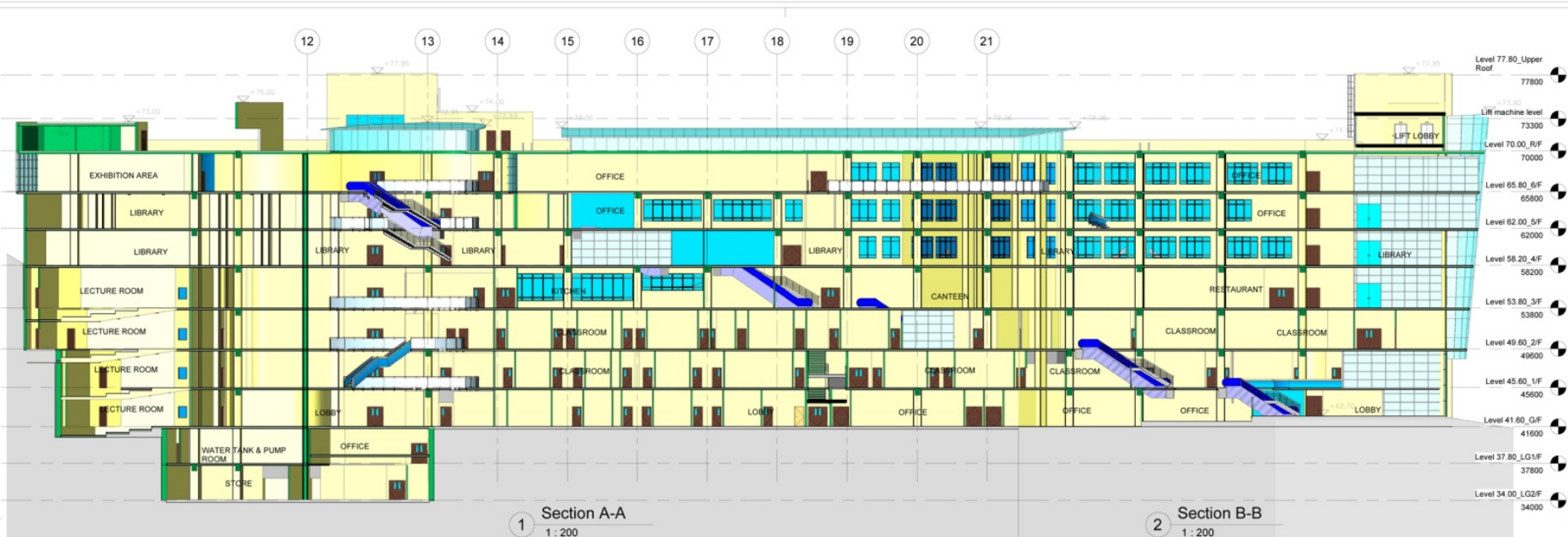


# EXAMPLE OF GOVERNMENT

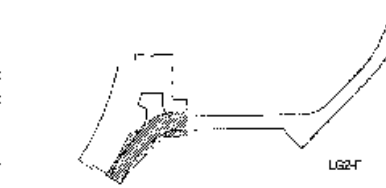


|                                                     |                                                                                                                         |                                         |      |            |         |             |  |  |             |                |                              |                                                                                       |                                                                           |                                                           |
|-----------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------|-----------------------------------------|------|------------|---------|-------------|--|--|-------------|----------------|------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------|-----------------------------------------------------------|
| Project                                             | Client                                                                                                                  | Structural Engineer C&M                 |      |            |         |             |  |  |             | Project Number | 05595                        |  | T +852 2861 1728<br>F +852 2529 6610<br>E hongkong@aedas.com<br>aedas.com |                                                           |
| COMMUNITY COLLEGE OF<br>CITY UNIVERSITY<br>BUILDING | <br><br>CITY UNIVERSITY OF HONG KONG | Hyder Consulting                        |      |            |         |             |  |  | Drawn By    |                |                              |                                                                                       |                                                                           |                                                           |
|                                                     |                                                                                                                         | C.S.                                    |      |            |         |             |  |  |             | Check By       | PLAN +45.60_1/F              |                                                                                       |                                                                           |                                                           |
|                                                     |                                                                                                                         | Levett & Bailey                         |      |            |         |             |  |  |             | DAV            |                              |                                                                                       |                                                                           |                                                           |
|                                                     | Landscape Consultant                                                                                                    | Kenneth Ng & Associates Ltd.            | -    | -          | -       | -           |  |  | Approved By | Computer File  | PROJECT\COMMON_000000000.dwg | Drawing Number                                                                        | 595S013                                                                   |                                                           |
|                                                     |                                                                                                                         | Landscape and Environmental Consultants | Rev. | Issue Date | Initial | Description |  |  | Plot Date   |                |                              | Scale                                                                                 | 1 : 200                                                                   | 19th Floor<br>1000 King's Road<br>Quarry Bay<br>Hong Kong |
|                                                     |                                                                                                                         |                                         |      |            |         |             |  |  | 02/10/08    |                |                              |                                                                                       |                                                                           |                                                           |

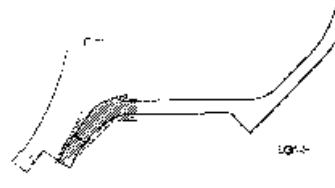
# EXAMPLE OF GOVERNMENT



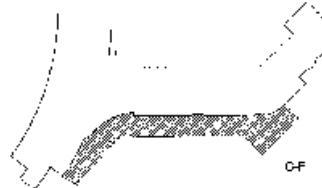
# STATUTORY SUBMISSION



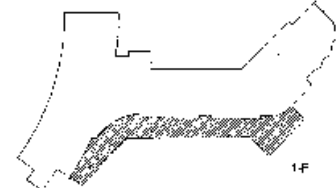
① EVA of Level 34.00\_LG2/F  
1:1000



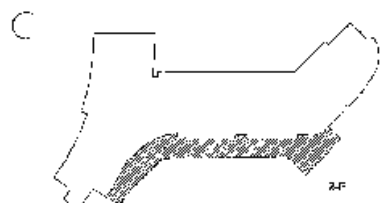
② EVA of Level 37.80\_LG1/F  
1:1000



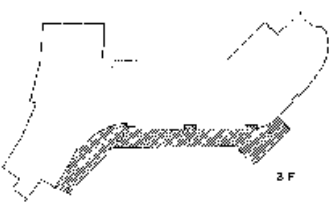
③ EVA of Level 41.60\_G/F  
1:1000



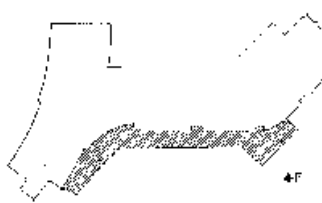
④ EVA of Level 45.60\_1/F  
1:1000



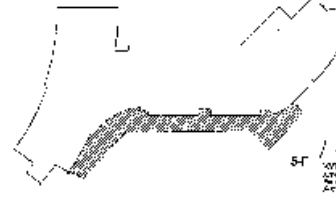
⑤ EVA of Level 49.80\_2/F  
1:1000



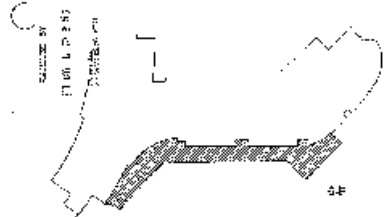
⑥ EVA of Level 53.80\_3/F  
1:1000



⑦ EVA of Level 58.20\_4/F  
1:1000



⑧ EVA of Level 62.00\_5/F  
1:1000



⑨ EVA of Level 65.80\_6/F  
1:1000

CALCULATION ON TOTAL LENGTH OF BUILDING FACADE TO BE SERVED BY EVA AND PERCENTAGE OF SUCH LENGTH OVER THE TOTAL LENGTH OF ALL THE PERIMETER WALLS OF THE BUILDING

| LEVEL | TYPE  | NO. | AREA (SQM) | PERIMETER (M) | PERCENTAGE (%) |
|-------|-------|-----|------------|---------------|----------------|
| LG2/F | LG2/F | 1   | 1000.00    | 1000.00       | 100.00         |
| LG1/F | LG1/F | 2   | 1000.00    | 1000.00       | 100.00         |
| G/F   | G/F   | 3   | 1000.00    | 1000.00       | 100.00         |
| 1/F   | 1/F   | 4   | 1000.00    | 1000.00       | 100.00         |
| 2/F   | 2/F   | 5   | 1000.00    | 1000.00       | 100.00         |
| 3/F   | 3/F   | 6   | 1000.00    | 1000.00       | 100.00         |
| 4/F   | 4/F   | 7   | 1000.00    | 1000.00       | 100.00         |
| 5/F   | 5/F   | 8   | 1000.00    | 1000.00       | 100.00         |
| 6/F   | 6/F   | 9   | 1000.00    | 1000.00       | 100.00         |
| TOTAL |       |     | 9000.00    | 9000.00       | 100.00         |

| LEVEL | TYPE  | NO. | AREA (SQM) | PERIMETER (M) | PERCENTAGE (%) |
|-------|-------|-----|------------|---------------|----------------|
| LG2/F | LG2/F | 1   | 1000.00    | 1000.00       | 100.00         |
| LG1/F | LG1/F | 2   | 1000.00    | 1000.00       | 100.00         |
| G/F   | G/F   | 3   | 1000.00    | 1000.00       | 100.00         |
| 1/F   | 1/F   | 4   | 1000.00    | 1000.00       | 100.00         |
| 2/F   | 2/F   | 5   | 1000.00    | 1000.00       | 100.00         |
| 3/F   | 3/F   | 6   | 1000.00    | 1000.00       | 100.00         |
| 4/F   | 4/F   | 7   | 1000.00    | 1000.00       | 100.00         |
| 5/F   | 5/F   | 8   | 1000.00    | 1000.00       | 100.00         |
| 6/F   | 6/F   | 9   | 1000.00    | 1000.00       | 100.00         |
| TOTAL |       |     | 9000.00    | 9000.00       | 100.00         |

| LEVEL | TYPE  | NO. | AREA (SQM) | PERIMETER (M) | PERCENTAGE (%) |
|-------|-------|-----|------------|---------------|----------------|
| LG2/F | LG2/F | 1   | 1000.00    | 1000.00       | 100.00         |
| LG1/F | LG1/F | 2   | 1000.00    | 1000.00       | 100.00         |
| G/F   | G/F   | 3   | 1000.00    | 1000.00       | 100.00         |
| 1/F   | 1/F   | 4   | 1000.00    | 1000.00       | 100.00         |
| 2/F   | 2/F   | 5   | 1000.00    | 1000.00       | 100.00         |
| 3/F   | 3/F   | 6   | 1000.00    | 1000.00       | 100.00         |
| 4/F   | 4/F   | 7   | 1000.00    | 1000.00       | 100.00         |
| 5/F   | 5/F   | 8   | 1000.00    | 1000.00       | 100.00         |
| 6/F   | 6/F   | 9   | 1000.00    | 1000.00       | 100.00         |
| TOTAL |       |     | 9000.00    | 9000.00       | 100.00         |

\*Hatch area represents the total length of the building facade served by the EVA

|                                |                                     |                          |                                |
|--------------------------------|-------------------------------------|--------------------------|--------------------------------|
| <p>DESIGNED BY</p> <p>DATE</p> | <p>PROJECT NAME</p> <p>LOCATION</p> | <p>SCALE</p> <p>DATE</p> | <p>APPROVED BY</p> <p>DATE</p> |
| <p>DESIGNED BY</p> <p>DATE</p> | <p>PROJECT NAME</p> <p>LOCATION</p> | <p>SCALE</p> <p>DATE</p> | <p>APPROVED BY</p> <p>DATE</p> |

THIS APPROVAL IS VALID FOR THE PERIOD OF 12 MONTHS FROM THE DATE OF ISSUANCE.

**Aedas**

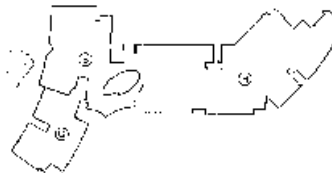
100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200

# STATUTORY SUBMISSION

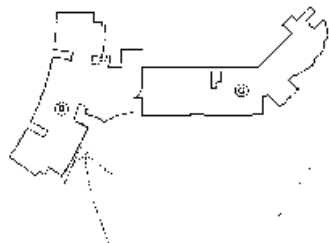
LG/F (+37.80) COMPARTMENT CALCULATION



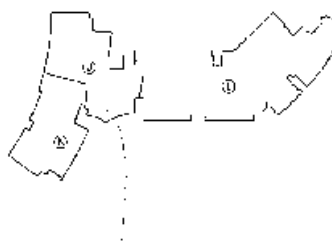
3/F (+53.80) COMPARTMENT CALCULATION



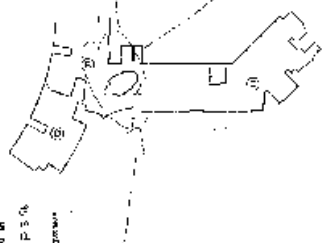
G/F (+41.80) COMPARTMENT CALCULATION



4/F (+58.20) COMPARTMENT CALCULATION



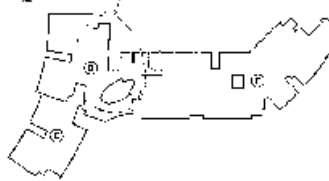
1/F (+49.80) COMPARTMENT CALCULATION



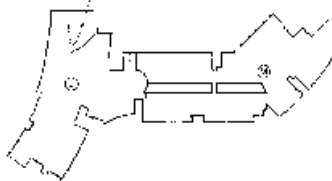
5/F (+62.00) COMPARTMENT CALCULATION



2/F (+55.80) COMPARTMENT CALCULATION



6/F (+65.80) COMPARTMENT CALCULATION



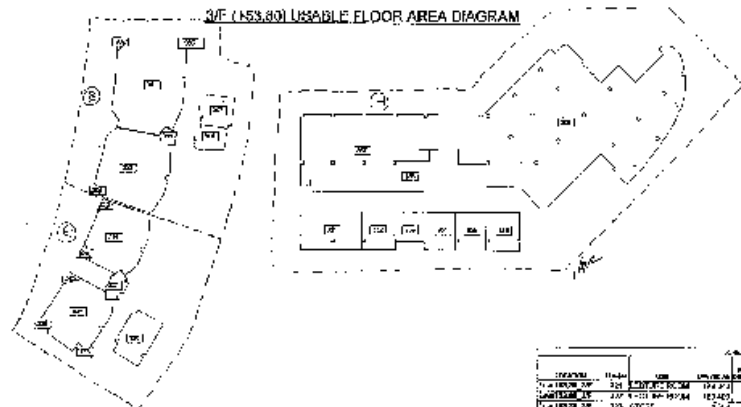
| COMPARTMENT NO. | FLOOR | AREA (sq.m) | PERIMETER (m) | VOLUME (cu.m) |
|-----------------|-------|-------------|---------------|---------------|
| 1               | LG/F  | 100.00      | 100.00        | 100.00        |
| 2               | LG/F  | 100.00      | 100.00        | 100.00        |
| 3               | LG/F  | 100.00      | 100.00        | 100.00        |
| 4               | LG/F  | 100.00      | 100.00        | 100.00        |
| 5               | LG/F  | 100.00      | 100.00        | 100.00        |
| 6               | LG/F  | 100.00      | 100.00        | 100.00        |
| 7               | LG/F  | 100.00      | 100.00        | 100.00        |
| 8               | LG/F  | 100.00      | 100.00        | 100.00        |
| 9               | LG/F  | 100.00      | 100.00        | 100.00        |
| 10              | LG/F  | 100.00      | 100.00        | 100.00        |
| 11              | LG/F  | 100.00      | 100.00        | 100.00        |
| 12              | LG/F  | 100.00      | 100.00        | 100.00        |
| 13              | LG/F  | 100.00      | 100.00        | 100.00        |
| 14              | LG/F  | 100.00      | 100.00        | 100.00        |
| 15              | LG/F  | 100.00      | 100.00        | 100.00        |
| 16              | LG/F  | 100.00      | 100.00        | 100.00        |
| 17              | LG/F  | 100.00      | 100.00        | 100.00        |
| 18              | LG/F  | 100.00      | 100.00        | 100.00        |
| 19              | LG/F  | 100.00      | 100.00        | 100.00        |
| 20              | LG/F  | 100.00      | 100.00        | 100.00        |
| 21              | LG/F  | 100.00      | 100.00        | 100.00        |
| 22              | LG/F  | 100.00      | 100.00        | 100.00        |
| 23              | LG/F  | 100.00      | 100.00        | 100.00        |
| 24              | LG/F  | 100.00      | 100.00        | 100.00        |
| 25              | LG/F  | 100.00      | 100.00        | 100.00        |
| 26              | LG/F  | 100.00      | 100.00        | 100.00        |
| 27              | LG/F  | 100.00      | 100.00        | 100.00        |
| 28              | LG/F  | 100.00      | 100.00        | 100.00        |
| 29              | LG/F  | 100.00      | 100.00        | 100.00        |
| 30              | LG/F  | 100.00      | 100.00        | 100.00        |
| 31              | LG/F  | 100.00      | 100.00        | 100.00        |
| 32              | LG/F  | 100.00      | 100.00        | 100.00        |
| 33              | LG/F  | 100.00      | 100.00        | 100.00        |
| 34              | LG/F  | 100.00      | 100.00        | 100.00        |
| 35              | LG/F  | 100.00      | 100.00        | 100.00        |
| 36              | LG/F  | 100.00      | 100.00        | 100.00        |
| 37              | LG/F  | 100.00      | 100.00        | 100.00        |
| 38              | LG/F  | 100.00      | 100.00        | 100.00        |
| 39              | LG/F  | 100.00      | 100.00        | 100.00        |
| 40              | LG/F  | 100.00      | 100.00        | 100.00        |
| 41              | LG/F  | 100.00      | 100.00        | 100.00        |
| 42              | LG/F  | 100.00      | 100.00        | 100.00        |
| 43              | LG/F  | 100.00      | 100.00        | 100.00        |
| 44              | LG/F  | 100.00      | 100.00        | 100.00        |
| 45              | LG/F  | 100.00      | 100.00        | 100.00        |
| 46              | LG/F  | 100.00      | 100.00        | 100.00        |
| 47              | LG/F  | 100.00      | 100.00        | 100.00        |
| 48              | LG/F  | 100.00      | 100.00        | 100.00        |
| 49              | LG/F  | 100.00      | 100.00        | 100.00        |
| 50              | LG/F  | 100.00      | 100.00        | 100.00        |
| 51              | LG/F  | 100.00      | 100.00        | 100.00        |
| 52              | LG/F  | 100.00      | 100.00        | 100.00        |
| 53              | LG/F  | 100.00      | 100.00        | 100.00        |
| 54              | LG/F  | 100.00      | 100.00        | 100.00        |
| 55              | LG/F  | 100.00      | 100.00        | 100.00        |
| 56              | LG/F  | 100.00      | 100.00        | 100.00        |
| 57              | LG/F  | 100.00      | 100.00        | 100.00        |
| 58              | LG/F  | 100.00      | 100.00        | 100.00        |
| 59              | LG/F  | 100.00      | 100.00        | 100.00        |
| 60              | LG/F  | 100.00      | 100.00        | 100.00        |
| 61              | LG/F  | 100.00      | 100.00        | 100.00        |
| 62              | LG/F  | 100.00      | 100.00        | 100.00        |
| 63              | LG/F  | 100.00      | 100.00        | 100.00        |
| 64              | LG/F  | 100.00      | 100.00        | 100.00        |
| 65              | LG/F  | 100.00      | 100.00        | 100.00        |
| 66              | LG/F  | 100.00      | 100.00        | 100.00        |
| 67              | LG/F  | 100.00      | 100.00        | 100.00        |
| 68              | LG/F  | 100.00      | 100.00        | 100.00        |
| 69              | LG/F  | 100.00      | 100.00        | 100.00        |
| 70              | LG/F  | 100.00      | 100.00        | 100.00        |
| 71              | LG/F  | 100.00      | 100.00        | 100.00        |
| 72              | LG/F  | 100.00      | 100.00        | 100.00        |
| 73              | LG/F  | 100.00      | 100.00        | 100.00        |
| 74              | LG/F  | 100.00      | 100.00        | 100.00        |
| 75              | LG/F  | 100.00      | 100.00        | 100.00        |
| 76              | LG/F  | 100.00      | 100.00        | 100.00        |
| 77              | LG/F  | 100.00      | 100.00        | 100.00        |
| 78              | LG/F  | 100.00      | 100.00        | 100.00        |
| 79              | LG/F  | 100.00      | 100.00        | 100.00        |
| 80              | LG/F  | 100.00      | 100.00        | 100.00        |
| 81              | LG/F  | 100.00      | 100.00        | 100.00        |
| 82              | LG/F  | 100.00      | 100.00        | 100.00        |
| 83              | LG/F  | 100.00      | 100.00        | 100.00        |
| 84              | LG/F  | 100.00      | 100.00        | 100.00        |
| 85              | LG/F  | 100.00      | 100.00        | 100.00        |
| 86              | LG/F  | 100.00      | 100.00        | 100.00        |
| 87              | LG/F  | 100.00      | 100.00        | 100.00        |
| 88              | LG/F  | 100.00      | 100.00        | 100.00        |
| 89              | LG/F  | 100.00      | 100.00        | 100.00        |
| 90              | LG/F  | 100.00      | 100.00        | 100.00        |
| 91              | LG/F  | 100.00      | 100.00        | 100.00        |
| 92              | LG/F  | 100.00      | 100.00        | 100.00        |
| 93              | LG/F  | 100.00      | 100.00        | 100.00        |
| 94              | LG/F  | 100.00      | 100.00        | 100.00        |
| 95              | LG/F  | 100.00      | 100.00        | 100.00        |
| 96              | LG/F  | 100.00      | 100.00        | 100.00        |
| 97              | LG/F  | 100.00      | 100.00        | 100.00        |
| 98              | LG/F  | 100.00      | 100.00        | 100.00        |
| 99              | LG/F  | 100.00      | 100.00        | 100.00        |
| 100             | LG/F  | 100.00      | 100.00        | 100.00        |

| Total Capacity of COCUB  |                 |          |        |                |
|--------------------------|-----------------|----------|--------|----------------|
| Location                 | Use             | Area     | Factor | Total Capacity |
| LG/F                     | Office          | 275.442  | 9      | 31             |
| G/F                      | Shop            | 54.208   | 3      | 19             |
| G/F                      | Office          | 412.253  | 9      | 41             |
| 3/F                      | Restaurant      | 142.254  | 1      | 143            |
| 3/F                      | Kitchen         | 481.136  | 4.5    | 107            |
| 5/F                      | Office          | 212.143  | 9      | 294            |
| 6/F                      | Office          | 2031.236 | 9      | 226            |
| 6/F                      | Restaurant      | 178.557  | 1      | 177            |
| 6/F                      | Kitchen         | 186.581  | 4.5    | 42             |
| 6/F                      | Exhibition hall | 704.274  | 2      | 353            |
| Total number of students |                 |          |        | 6000           |
| Total                    |                 |          |        | 848            |

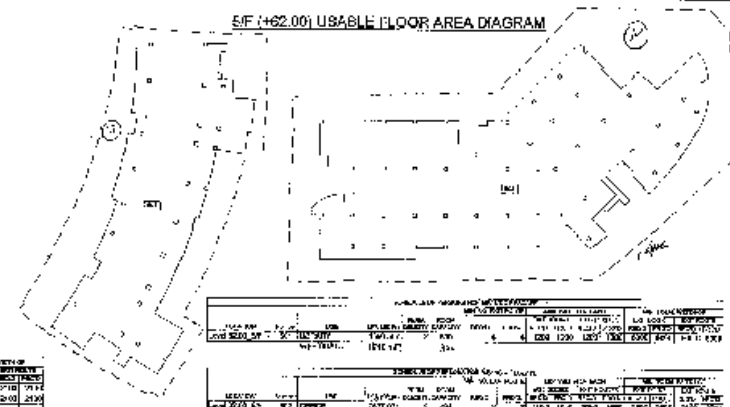
| SCHEDULE NUMBER & WIDTH OF EXITS IN EACH FLOOR |       |                   |       |                     |       |                     |       |                     |       |
|------------------------------------------------|-------|-------------------|-------|---------------------|-------|---------------------|-------|---------------------|-------|
| LOCATION                                       | FLOOR | MIN. NO. OF EXITS |       | MIN. WIDTH OF EXITS |       | MIN. WIDTH OF EXITS |       | MIN. WIDTH OF EXITS |       |
|                                                |       | REQD.             | PROV. | REQD.               | PROV. | REQD.               | PROV. | REQD.               | PROV. |
| LG/F                                           | 1     | 1                 | 1     | 1000                | 1000  | 1000                | 1000  | 1000                | 1000  |
| LG/F                                           | 2     | 2                 | 2     | 1000                | 1000  | 1000                | 1000  | 1000                | 1000  |
| LG/F                                           | 3     | 3                 | 3     | 1000                | 1000  | 1000                | 1000  | 1000                | 1000  |
| LG/F                                           | 4     | 4                 | 4     | 1000                | 1000  | 1000                | 1000  | 1000                | 1000  |
| LG/F                                           | 5     | 5                 | 5     | 1000                | 1000  | 1000                | 1000  | 1000                | 1000  |
| LG/F                                           | 6     | 6                 | 6     | 1000                | 1000  | 1000                | 1000  | 1000                | 1000  |
| LG/F                                           | 7     | 7                 | 7     | 1000                | 1000  | 1000                | 1000  | 1000                | 1000  |
| LG/F                                           | 8     | 8                 | 8     | 1000                | 1000  | 1000                | 1000  | 1000                | 1000  |
| LG/F                                           | 9     | 9                 | 9     | 1000                | 1000  | 1000                | 1000  | 1000                | 1000  |
| LG/F                                           | 10    | 10                | 10    | 1000                | 1000  | 1000                | 1000  | 1000                | 1000  |
| LG/F                                           | 11    | 11                | 11    | 1000                | 1000  | 1000                | 1000  | 1000                | 1000  |
| LG/F                                           | 12    | 12                | 12    | 1000                | 1000  | 1000                | 1000  | 1000                | 1000  |
| LG/F                                           | 13    | 13                | 13    | 1000                | 1000  | 1000                | 1000  | 1000                | 1000  |
| LG/F                                           | 14    | 14                | 14    | 1000                | 1000  | 1000                | 1000  | 1000                | 1000  |
| LG/F                                           | 15    | 15                | 15    | 1000                | 1000  | 1000                | 1000  | 1000                | 1000  |
| LG/F                                           | 16    | 16                | 16    | 1000                | 1000  | 1000                | 1000  | 1000                | 1000  |
| LG/F                                           | 17    | 17                | 17    | 1000                | 1000  | 1000                | 1000  | 1000                | 1000  |
| LG/F                                           | 18    | 18                | 18    | 1000                | 1000  | 1000                | 1000  | 1000                | 1000  |
| LG/F                                           | 19    | 19                | 19    | 1000                | 1000  | 1000                | 1000  | 1000                | 1000  |
| LG/F                                           | 20    | 20                | 20    | 1000                | 1000  | 1000                | 1000  | 1000                | 1000  |
| LG/F                                           | 21    | 21                | 21    | 1000                | 1000  | 1000                | 1000  | 1000                | 1000  |
| LG/F                                           | 22    | 22                | 22    | 1000                | 1000  | 1000                | 1000  | 1000                | 1000  |
| LG/F                                           | 23    | 23                | 23    | 1000                | 1000  | 1000                | 1000  | 1000                | 1000  |
| LG/F                                           | 24    | 24                | 24    | 1000                | 1000  | 1000                | 1000  | 1000                | 1000  |
| LG/F                                           | 25    | 25                | 25    | 1000                | 1000  | 1000                | 1000  | 1000                | 1000  |
| LG/F                                           | 26    | 26                | 26    | 1000                | 1000  | 1000                | 1000  | 1000                | 1000  |
| LG/F                                           | 27    | 27                | 27    | 1000                | 1000  | 1000                | 1000  | 1000                | 1000  |
| LG/F                                           | 28    | 28                | 28    | 1000                | 1000  | 1000                | 1000  | 1000                | 1000  |
| LG/F                                           | 29    | 29                | 29    | 1000                | 1000  | 1000                | 1000  | 1000                | 1000  |
| LG/F                                           | 30    | 30                | 30    | 1000                | 1000  | 1000                | 1000  | 1000                | 1000  |
| LG/F                                           | 31    | 31                | 31    | 1000                | 1000  | 1000                | 1000  | 1000                | 1000  |
| LG/F                                           | 32    | 32                | 32    | 1000                | 1000  | 1000                | 1000  | 1000                | 1000  |
| LG/F                                           | 33    | 33                | 33    | 1000                | 1000  | 1000                | 1000  | 1000                | 1000  |
| LG/F                                           | 34    | 34                | 34    | 1000                | 1000  | 1000                | 1000  | 1000                | 1000  |
| LG/F                                           | 35    | 35                | 35    | 1000                | 1000  | 1000                | 1000  | 1000                | 1000  |
| LG/F                                           | 36    | 36                | 36    | 1000                | 1000  | 1000                | 1000  | 1000                | 1000  |
| LG/F                                           | 37    | 37                | 37    | 1000                | 1000  | 1000                | 1000  | 1000                | 1000  |
| LG/F                                           | 38    | 38                | 38    | 1000                | 1000  | 1000                | 1000  | 1000                | 1000  |
| LG/F                                           | 39    | 39                | 39    | 1000                | 1000  | 1000                | 1000  | 1000                | 1000  |
| LG/F                                           | 40    | 40                | 40    | 1000                | 1000  | 1000                | 1000  | 1000                | 1000  |
| LG/F                                           | 41    | 41                | 41    | 1000                | 1000  | 1000                | 1000  | 1000                | 1000  |
| LG/F                                           | 42    | 42                | 42    | 1000                | 1000  | 1000                | 1000  | 1000                | 1000  |
| LG/F                                           | 43    | 43                | 43    | 1000                | 1000  | 1000                | 1000  | 1000                | 1000  |
| LG/F                                           | 44    | 44                | 44    | 1000                | 1000  | 1000                | 1000  | 1000                | 1000  |
| LG/F                                           | 45    | 45                | 45    | 1000                | 1000  | 1000                | 1000  | 1000                | 1000  |
| LG/F                                           | 46    | 46                | 46    | 1000                | 1000  | 1000                | 1000  | 1000                | 1000  |
| LG/F                                           | 47    | 47                | 47    | 1000                | 1000  | 1000                | 1000  | 1000                | 1000  |
| LG/F                                           | 48    | 48                | 48    | 1000                | 1000  | 1000                | 1000  | 1000                | 1000  |
| LG/F                                           | 49    | 49                | 49    | 1000                | 1000  | 1000                | 1000  | 1000                | 1000  |
| LG/F                                           | 50    | 50                | 50    | 1000                | 1000  | 1000                | 1000  | 1000                | 1000  |
| LG/F                                           | 51    | 51                | 51    | 1000                | 1000  | 1000                | 1000  | 1000                | 1000  |
| LG/F                                           | 52    | 52                | 52    | 1000                | 1000  | 1000                | 1000  | 1000                | 1000  |
| LG/F                                           | 53    | 53                | 53    | 1000                | 1000  | 1000                | 1000  | 1000                | 1000  |
| LG/F                                           | 54    | 54                | 54    | 1000                | 1000  | 1000                | 1000  | 1000                | 1000  |
| LG/F                                           | 55    | 55                | 55    | 1000                | 1000  | 1000                | 1000  | 1000                | 1000  |
| LG/F                                           | 56    | 56                | 56    | 1000                | 1000  | 1000                | 1000  | 1000                | 1000  |
| LG/F                                           | 57    | 57                | 57    | 1000                | 1000  | 1000                | 1000  | 1000                | 1000  |
| LG/F                                           | 58    | 58                | 58    | 1000                | 1000  | 1                   |       |                     |       |

# STATUTORY SUBMISSION

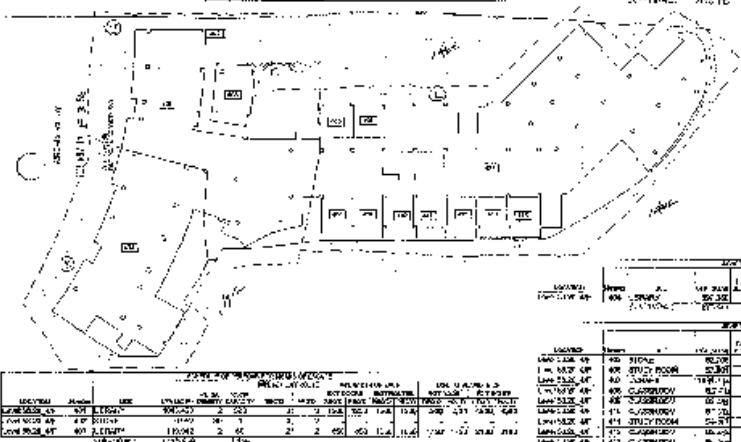
3/F (153.80) USABLE FLOOR AREA DIAGRAM



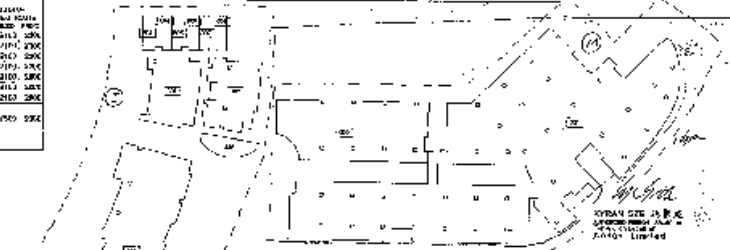
5/F (+62.00) USABLE FLOOR AREA DIAGRAM

[illegible]

4/F (+58.20) USABLE FLOOR AREA DIAGRAM

[illegible][illegible][illegible]

G/F (+85.80) USABLE FLOOR AREA DIAGRAM



B D SUBMISSION

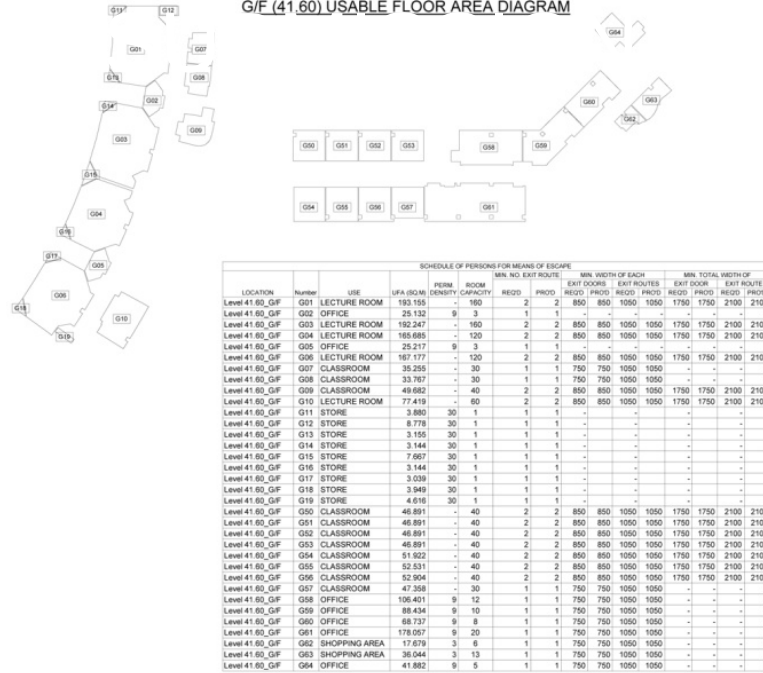
| GENERAL INFORMATION |      |     |     |          |             |          |     |             |        | PERSONAL INFORMATION |      |      |       |        |        |        |     |      |       | EMPLOYMENT INFORMATION |      |          |     |       |       |         |       |        |       | EDUCATION INFORMATION |      |     |      |      |  |       |  |      |  | MILITARY INFORMATION |  |          |  |     |  |      |  |       |  |         |  |       |  |      |  |       |  |      |  |      |  |     |  |      |  |      |  |      |  |      |  |       |  |       |  |        |  |      |  |     |  |      |  |       |  |      |  |      |  |          |  |     |  |      |  |       |  |         |  |       |  |      |  |       |  |      |  |      |  |     |  |      |  |
|---------------------|------|-----|-----|----------|-------------|----------|-----|-------------|--------|----------------------|------|------|-------|--------|--------|--------|-----|------|-------|------------------------|------|----------|-----|-------|-------|---------|-------|--------|-------|-----------------------|------|-----|------|------|--|-------|--|------|--|----------------------|--|----------|--|-----|--|------|--|-------|--|---------|--|-------|--|------|--|-------|--|------|--|------|--|-----|--|------|--|------|--|------|--|------|--|-------|--|-------|--|--------|--|------|--|-----|--|------|--|-------|--|------|--|------|--|----------|--|-----|--|------|--|-------|--|---------|--|-------|--|------|--|-------|--|------|--|------|--|-----|--|------|--|
| NAME                |      | DOB |     | SSN      |             | MARRIAGE |     | CITIZENSHIP |        | RACE                 |      | SEX  |       | HEIGHT |        | WEIGHT |     | HAIR |       | EYES                   |      | SKIN     |     | BLOOD |       | TOOTH   |       | FINGER |       | Palm                  |      | Ear |      | Nose |  | Mouth |  | Chin |  | Neck                 |  | Shoulder |  | Arm |  | Hand |  | Wrist |  | Forearm |  | Elbow |  | Knee |  | Ankle |  | Foot |  | Heel |  | Toe |  | Nail |  | Hair |  | Eyes |  | Skin |  | Blood |  | Tooth |  | Finger |  | Palm |  | Ear |  | Nose |  | Mouth |  | Chin |  | Neck |  | Shoulder |  | Arm |  | Hand |  | Wrist |  | Forearm |  | Elbow |  | Knee |  | Ankle |  | Foot |  | Heel |  | Toe |  | Nail |  |
| 1                   | NAME | DOB | SSN | MARRIAGE | CITIZENSHIP | RACE     | SEX | HEIGHT      | WEIGHT | HAIR                 | EYES | SKIN | BLOOD | TOOTH  | FINGER | Palm   | Ear | Nose | Mouth | Chin                   | Neck | Shoulder | Arm | Hand  | Wrist | Forearm | Elbow | Knee   | Ankle | Foot                  | Heel | Toe | Nail |      |  |       |  |      |  |                      |  |          |  |     |  |      |  |       |  |         |  |       |  |      |  |       |  |      |  |      |  |     |  |      |  |      |  |      |  |      |  |       |  |       |  |        |  |      |  |     |  |      |  |       |  |      |  |      |  |          |  |     |  |      |  |       |  |         |  |       |  |      |  |       |  |      |  |      |  |     |  |      |  |
| 1                   | NAME | DOB | SSN | MARRIAGE | CITIZENSHIP | RACE     | SEX | HEIGHT      | WEIGHT | HAIR                 | EYES | SKIN | BLOOD | TOOTH  | FINGER | Palm   | Ear | Nose | Mouth | Chin                   | Neck | Shoulder | Arm | Hand  | Wrist | Forearm | Elbow | Knee   | Ankle | Foot                  | Heel | Toe | Nail |      |  |       |  |      |  |                      |  |          |  |     |  |      |  |       |  |         |  |       |  |      |  |       |  |      |  |      |  |     |  |      |  |      |  |      |  |      |  |       |  |       |  |        |  |      |  |     |  |      |  |       |  |      |  |      |  |          |  |     |  |      |  |       |  |         |  |       |  |      |  |       |  |      |  |      |  |     |  |      |  |
| 1                   | NAME | DOB | SSN | MARRIAGE | CITIZENSHIP | RACE     | SEX | HEIGHT      | WEIGHT | HAIR                 | EYES | SKIN | BLOOD | TOOTH  | FINGER | Palm   | Ear | Nose | Mouth | Chin                   | Neck | Shoulder | Arm | Hand  | Wrist | Forearm | Elbow | Knee   | Ankle | Foot                  | Heel | Toe | Nail |      |  |       |  |      |  |                      |  |          |  |     |  |      |  |       |  |         |  |       |  |      |  |       |  |      |  |      |  |     |  |      |  |      |  |      |  |      |  |       |  |       |  |        |  |      |  |     |  |      |  |       |  |      |  |      |  |          |  |     |  |      |  |       |  |         |  |       |  |      |  |       |  |      |  |      |  |     |  |      |  |
| 1                   | NAME | DOB | SSN | MARRIAGE | CITIZENSHIP | RACE     | SEX | HEIGHT      | WEIGHT | HAIR                 | EYES | SKIN | BLOOD | TOOTH  | FINGER | Palm   | Ear | Nose | Mouth | Chin                   | Neck | Shoulder | Arm | Hand  | Wrist | Forearm | Elbow | Knee   | Ankle | Foot                  | Heel | Toe | Nail |      |  |       |  |      |  |                      |  |          |  |     |  |      |  |       |  |         |  |       |  |      |  |       |  |      |  |      |  |     |  |      |  |      |  |      |  |      |  |       |  |       |  |        |  |      |  |     |  |      |  |       |  |      |  |      |  |          |  |     |  |      |  |       |  |         |  |       |  |      |  |       |  |      |  |      |  |     |  |      |  |
| 1                   | NAME | DOB | SSN | MARRIAGE | CITIZENSHIP | RACE     | SEX | HEIGHT      | WEIGHT | HAIR                 | EYES | SKIN | BLOOD | TOOTH  | FINGER | Palm   | Ear | Nose | Mouth | Chin                   | Neck | Shoulder | Arm | Hand  | Wrist | Forearm | Elbow | Knee   | Ankle | Foot                  | Heel | Toe | Nail |      |  |       |  |      |  |                      |  |          |  |     |  |      |  |       |  |         |  |       |  |      |  |       |  |      |  |      |  |     |  |      |  |      |  |      |  |      |  |       |  |       |  |        |  |      |  |     |  |      |  |       |  |      |  |      |  |          |  |     |  |      |  |       |  |         |  |       |  |      |  |       |  |      |  |      |  |     |  |      |  |
| 1                   | NAME | DOB | SSN | MARRIAGE | CITIZENSHIP | RACE     | SEX | HEIGHT      | WEIGHT | HAIR                 | EYES | SKIN | BLOOD | TOOTH  | FINGER | Palm   | Ear | Nose | Mouth | Chin                   | Neck | Shoulder | Arm | Hand  | Wrist | Forearm | Elbow | Knee   | Ankle | Foot                  | Heel | Toe | Nail |      |  |       |  |      |  |                      |  |          |  |     |  |      |  |       |  |         |  |       |  |      |  |       |  |      |  |      |  |     |  |      |  |      |  |      |  |      |  |       |  |       |  |        |  |      |  |     |  |      |  |       |  |      |  |      |  |          |  |     |  |      |  |       |  |         |  |       |  |      |  |       |  |      |  |      |  |     |  |      |  |
| 1                   | NAME | DOB | SSN | MARRIAGE | CITIZENSHIP | RACE     | SEX | HEIGHT      | WEIGHT | HAIR                 | EYES | SKIN | BLOOD | TOOTH  | FINGER | Palm   | Ear | Nose | Mouth | Chin                   | Neck | Shoulder | Arm | Hand  | Wrist | Forearm | Elbow | Knee   | Ankle | Foot                  | Heel | Toe | Nail |      |  |       |  |      |  |                      |  |          |  |     |  |      |  |       |  |         |  |       |  |      |  |       |  |      |  |      |  |     |  |      |  |      |  |      |  |      |  |       |  |       |  |        |  |      |  |     |  |      |  |       |  |      |  |      |  |          |  |     |  |      |  |       |  |         |  |       |  |      |  |       |  |      |  |      |  |     |  |      |  |
| 1                   | NAME | DOB | SSN | MARRIAGE | CITIZENSHIP | RACE     | SEX | HEIGHT      | WEIGHT | HAIR                 | EYES | SKIN | BLOOD | TOOTH  | FINGER | Palm   | Ear | Nose | Mouth | Chin                   | Neck | Shoulder | Arm | Hand  | Wrist | Forearm | Elbow | Knee   | Ankle | Foot                  | Heel | Toe | Nail |      |  |       |  |      |  |                      |  |          |  |     |  |      |  |       |  |         |  |       |  |      |  |       |  |      |  |      |  |     |  |      |  |      |  |      |  |      |  |       |  |       |  |        |  |      |  |     |  |      |  |       |  |      |  |      |  |          |  |     |  |      |  |       |  |         |  |       |  |      |  |       |  |      |  |      |  |     |  |      |  |
| 1                   | NAME | DOB | SSN | MARRIAGE | CITIZENSHIP | RACE     | SEX | HEIGHT      | WEIGHT | HAIR                 | EYES | SKIN | BLOOD | TOOTH  | FINGER | Palm   | Ear | Nose | Mouth | Chin                   | Neck | Shoulder | Arm | Hand  | Wrist | Forearm | Elbow | Knee   | Ankle | Foot                  | Heel | Toe | Nail |      |  |       |  |      |  |                      |  |          |  |     |  |      |  |       |  |         |  |       |  |      |  |       |  |      |  |      |  |     |  |      |  |      |  |      |  |      |  |       |  |       |  |        |  |      |  |     |  |      |  |       |  |      |  |      |  |          |  |     |  |      |  |       |  |         |  |       |  |      |  |       |  |      |  |      |  |     |  |      |  |
| 1                   | NAME | DOB | SSN | MARRIAGE | CITIZENSHIP | RACE     | SEX | HEIGHT      | WEIGHT | HAIR                 | EYES | SKIN | BLOOD | TOOTH  | FINGER | Palm   | Ear | Nose | Mouth | Chin                   | Neck | Shoulder | Arm | Hand  | Wrist | Forearm | Elbow | Knee   | Ankle | Foot                  | Heel | Toe | Nail |      |  |       |  |      |  |                      |  |          |  |     |  |      |  |       |  |         |  |       |  |      |  |       |  |      |  |      |  |     |  |      |  |      |  |      |  |      |  |       |  |       |  |        |  |      |  |     |  |      |  |       |  |      |  |      |  |          |  |     |  |      |  |       |  |         |  |       |  |      |  |       |  |      |  |      |  |     |  |      |  |
| 1                   | NAME | DOB | SSN | MARRIAGE | CITIZENSHIP | RACE     | SEX | HEIGHT      | WEIGHT | HAIR                 | EYES | SKIN | BLOOD | TOOTH  | FINGER | Palm   | Ear | Nose | Mouth | Chin                   | Neck | Shoulder | Arm | Hand  | Wrist | Forearm | Elbow | Knee   | Ankle | Foot                  | Heel | Toe | Nail |      |  |       |  |      |  |                      |  |          |  |     |  |      |  |       |  |         |  |       |  |      |  |       |  |      |  |      |  |     |  |      |  |      |  |      |  |      |  |       |  |       |  |        |  |      |  |     |  |      |  |       |  |      |  |      |  |          |  |     |  |      |  |       |  |         |  |       |  |      |  |       |  |      |  |      |  |     |  |      |  |
| 1                   | NAME | DOB | SSN | MARRIAGE | CITIZENSHIP | RACE     | SEX | HEIGHT      | WEIGHT | HAIR                 | EYES | SKIN | BLOOD | TOOTH  | FINGER | Palm   | Ear | Nose | Mouth | Chin                   | Neck | Shoulder | Arm | Hand  | Wrist | Forearm | Elbow | Knee   | Ankle | Foot                  | Heel | Toe | Nail |      |  |       |  |      |  |                      |  |          |  |     |  |      |  |       |  |         |  |       |  |      |  |       |  |      |  |      |  |     |  |      |  |      |  |      |  |      |  |       |  |       |  |        |  |      |  |     |  |      |  |       |  |      |  |      |  |          |  |     |  |      |  |       |  |         |  |       |  |      |  |       |  |      |  |      |  |     |  |      |  |
| 1                   | NAME | DOB | SSN | MARRIAGE | CITIZENSHIP | RACE     | SEX | HEIGHT      | WEIGHT | HAIR                 | EYES | SKIN | BLOOD | TOOTH  | FINGER | Palm   | Ear | Nose | Mouth | Chin                   | Neck | Shoulder | Arm | Hand  | Wrist | Forearm | Elbow | Knee   | Ankle | Foot                  | He   |     |      |      |  |       |  |      |  |                      |  |          |  |     |  |      |  |       |  |         |  |       |  |      |  |       |  |      |  |      |  |     |  |      |  |      |  |      |  |      |  |       |  |       |  |        |  |      |  |     |  |      |  |       |  |      |  |      |  |          |  |     |  |      |  |       |  |         |  |       |  |      |  |       |  |      |  |      |  |     |  |      |  |

[illegible]

|                                                                                                                                                              |  |                                                                             |  |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------|--|-----------------------------------------------------------------------------|--|
|  UNIVERSITY OF TORONTO<br>2700 SPADINA AVENUE<br>TORONTO, ONTARIO M5S 1A5 |  | Date: _____<br>Time: _____<br>Location: _____                               |  |
| Name: _____<br>Address: _____<br>City: _____                                                                                                                 |  | Phone: _____<br>Fax: _____<br>E-mail: _____                                 |  |
| I am applying for: _____<br>I am currently: _____<br>I am interested in: _____                                                                               |  | I am currently: _____<br>I am interested in: _____<br>I am currently: _____ |  |

# EXAMPLE OF GOVERNMENT

G/F (41.60) USABLE FLOOR AREA DIAGRAM



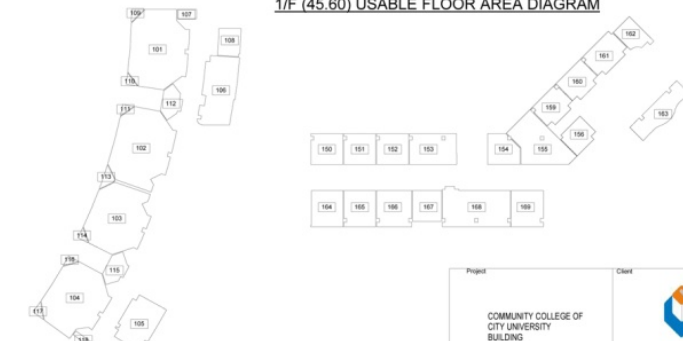
LG2/F (34.00) USABLE FLOOR AREA DIAGRAM

| LOCATION          | Number | USE   | UFA (SQ.M) | PERM DENSITY CAPACITY | ROOM | MIN. NO. EXIT ROUTE |      | MIN. WIDTH OF EACH |      | MIN. TOTAL WIDTH OF |      |
|-------------------|--------|-------|------------|-----------------------|------|---------------------|------|--------------------|------|---------------------|------|
|                   |        |       |            |                       |      | REGD                | PROG | REGD               | PROG | REGD                | PROG |
| Level 34.00_LG2/F | B21    | STORE | 187.805    | 30                    | 7    | 1                   | 1    | 750                | 750  | 1050                | 1050 |

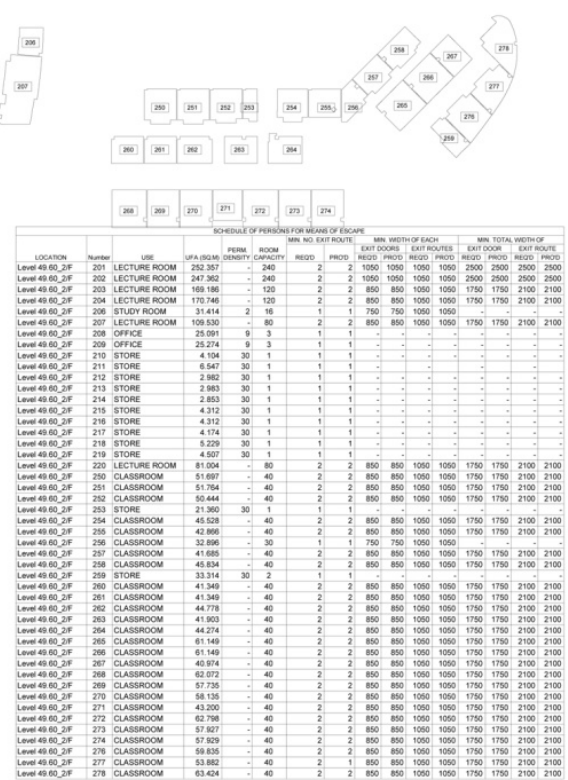
LG1/F (37.80) USABLE FLOOR AREA DIAGRAM

| LOCATION          | Number | USE    | UFA (SQ.M) | PERM DENSITY CAPACITY | ROOM | MIN. NO. EXIT ROUTE |      | MIN. WIDTH OF EACH |      | MIN. TOTAL WIDTH OF |      |
|-------------------|--------|--------|------------|-----------------------|------|---------------------|------|--------------------|------|---------------------|------|
|                   |        |        |            |                       |      | REGD                | PROG | REGD               | PROG | REGD                | PROG |
| Level 37.80_LG1/F | B11    | OFFICE | 293.119    | 9                     | 33   | 2                   | 2    | 850                | 850  | 1050                | 1050 |

1/F (45.60) USABLE FLOOR AREA DIAGRAM



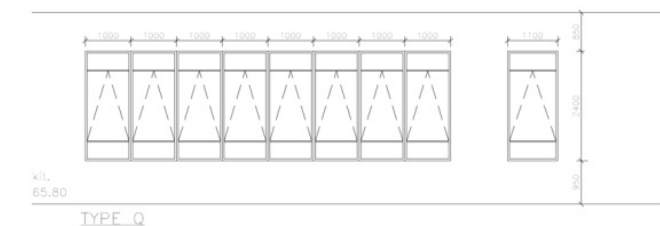
2/F (49.60) USABLE FLOOR AREA DIAGRAM



Technical drawing showing four window units (Type P) with dimensions and labels. The units are arranged in a row, separated by vertical lines. The dimensions are as follows:

- Unit 1 (leftmost): Width 6300, Height 1800. Label: TYPE P.
- Unit 2: Width 6300, Height 1800.
- Unit 3: Width 6300, Height 1800.
- Unit 4 (rightmost): Width 6300, Height 1800. Label: 14.

The drawing includes a scale bar at the bottom left indicating 53.80. The units are labeled with '16' and '15' above them, and '14' above the rightmost unit. The drawing is a technical representation of a window system, showing the frame, glass, and internal structure.



| Staircase No.                                                                      | No. of storey served | Width of Staircase (mm) | Discharge Value (Person) | Factor |
|------------------------------------------------------------------------------------|----------------------|-------------------------|--------------------------|--------|
| ST-01                                                                              | 6                    | 2400                    | 1480                     |        |
| ST-02                                                                              | 6                    | 1800                    | 1060                     |        |
| ST-03                                                                              | 4                    | 1800                    | 739                      | *0.8   |
| ST-04                                                                              | 8                    | 1800                    | 1196                     |        |
| ST-05                                                                              | 8                    | 1800                    | 1196                     |        |
| ST-06                                                                              | 8                    | 1800                    | 1196                     |        |
| ST-07                                                                              | 8                    | 2400                    | 1688                     |        |
| ST-08                                                                              | 2                    | 1800                    | 788                      |        |
| <b>Permitted discharge value</b>                                                   |                      |                         | <b>9175</b>              |        |
| Actual capacity of CCCUB                                                           |                      |                         | 8788                     |        |
| <b>Therefore, Permitted Discharge Value (Person) &gt; Actual Capacity (Person)</b> |                      |                         |                          |        |

| KITCHEN |                                 | GLAZED WINDOW AREA |             |        |                          |                        | OPENABLE WINDOW AREA |           |                          |                        |   |        |
|---------|---------------------------------|--------------------|-------------|--------|--------------------------|------------------------|----------------------|-----------|--------------------------|------------------------|---|--------|
| TYPE    | LOCATION                        | UFA (sq.m)         | TOTAL WIDTH | HEIGHT | PROVIDED (85% EFFECTIVE) | REQUIRED (1/16 of UFA) | TOTAL WIDTH          | HEIGHT    | PROVIDED (85% EFFECTIVE) | REQUIRED (1/16 of UFA) |   |        |
| P       | LEVEL +53.80 Grdline 14-18/C-D  | 472.540            | 12.600      | 2.850  | 30.524                   |                        | 12.600               | 2.030     | 21.741                   |                        |   |        |
|         |                                 |                    | 12.600      | 1.800  | 19.278                   |                        | 12.600               | 0.980     | 10.496                   |                        |   |        |
|         |                                 |                    | sub-total   |        | 49.802                   | >                      | 47.254               | sub-total |                          | 32.237                 | > | 29.534 |
| Q       | LEVEL +65.80 Grdline 2-11/HH-JJ | 182.511            | 9.100       | 2.400  | 18.564                   | >                      | 18.251               | 9.100     | 1.570                    | 12.144                 | > | 11.407 |

| OFFICE                                    | GLAZED WINDOW AREA |                  |            |                                  |                                | OPENABLE WINDOW AREA         |            |                                  |                                |  |
|-------------------------------------------|--------------------|------------------|------------|----------------------------------|--------------------------------|------------------------------|------------|----------------------------------|--------------------------------|--|
| LOCATION                                  | UFA (sq.m)         | TOTAL LENGTH (m) | HEIGHT (m) | PROVIDED (85% EFFECTIVE) (sq. m) | REQUIRED (1/10 of UFA) (sq. m) | TOTAL LENGTH (m)             | HEIGHT (m) | PROVIDED (85% EFFECTIVE) (sq. m) | REQUIRED (1/10 of UFA) (sq. m) |  |
| LEVEL +37.80 Grdline 12-13/A-C            | 293.119            | 13.380           | 3.800      | 43.217                           | > 29.3119                      | Application for modification |            |                                  |                                |  |
| LEVEL +41.60 Grdline 18-21/A-B            | 178.057            | 21.950           | 2.330      | 43.472                           | > 17.8057                      | 21.950                       | 1.520      | 28.359                           | > 11.129                       |  |
| LEVEL +62.00 Grdline 13-29/F-J            | 2615.380           | 43.900           | 2.440      | 91.049                           |                                |                              |            |                                  |                                |  |
|                                           |                    | 10.500           | 2.700      | 24.098                           |                                |                              |            |                                  |                                |  |
|                                           |                    | 46.300           | 2.250      | 88.549                           |                                |                              |            |                                  |                                |  |
| (curtain wall)                            |                    | 43.000           | 3.800      | 138.890                          |                                |                              |            |                                  |                                |  |
|                                           |                    | sub-total        |            | 342.585                          | > 261.538                      | Application for modification |            |                                  |                                |  |
| LEVEL +65.80 Grdline 13-18/F-H, 19-29/F-J | 2022.023           | 43.900           | 2.440      | 91.049                           |                                |                              |            |                                  |                                |  |
|                                           |                    | 10.500           | 2.700      | 24.098                           |                                |                              |            |                                  |                                |  |
|                                           |                    | 30.450           | 2.250      | 59.236                           |                                |                              |            |                                  |                                |  |
| (curtain wall)                            |                    | 43.000           | 3.800      | 138.890                          |                                |                              |            |                                  |                                |  |
|                                           |                    | sub-total        |            | 312.272                          | > 202.202                      | Application for modification |            |                                  |                                |  |

| OFFICE (CURTAIN WALL)           |             | OPENABLE WINDOW AREA |            |        |                                  |                                 |
|---------------------------------|-------------|----------------------|------------|--------|----------------------------------|---------------------------------|
| LOCATION                        | UFA (sq. m) | TOTAL LENGTH (m)     | HEIGHT (m) | NUMBER | PROVIDED (85% EFFECTIVE) (sq. m) | REQUIRED (1/100 of UFA) (sq. m) |
| LEVEL +37.80 Gridline 12-13/A-C | 293.119     | 1.115                | 0.900      | 12     | 10.236                           | > 2.931                         |
| LEVEL +62.00 Gridline 14-29/E-J | 2615.38     | 1.240                | 1.800      | 15     | 28.458                           | > 26.154                        |
| LEVEL +65.80 Gridline 14-29/E-J | 2022.023    | 1.240                | 1.800      | 15     | 28.458                           | > 20.220                        |

| SCHEDULE OF A/C PLANT ROOM AREA |                            |                                                        |                |         |                                                 |
|---------------------------------|----------------------------|--------------------------------------------------------|----------------|---------|-------------------------------------------------|
| LOCATION                        | LOCATION OF THE PLANT ROOM | TOTAL G.F.A. OF FLOOR WHERE THE PLANT ROOM IS SITUATED | TOTAL AHU AREA |         | PERCENTAGE OF AREA OF PAUPLANT RM AT EACH FLOOR |
|                                 |                            |                                                        |                |         |                                                 |
| G/F (+41.80)                    | GRID 1/I-HH                | 4511.267                                               | 24.369         | 87.164  | 1.93%                                           |
|                                 | GRID 2/C-C-DD              |                                                        | 24.479         |         |                                                 |
|                                 | GRID 22/A-BB               |                                                        | 38.116         |         |                                                 |
| 1/F (+45.60)                    | GRID 1/I-HH                | 4532.375                                               | 24.369         | 84.721  | 1.87%                                           |
|                                 | GRID 2/C-C-DD              |                                                        | 24.479         |         |                                                 |
|                                 | GRID 22/A-BB               |                                                        | 35.373         |         |                                                 |
|                                 | GRID 27/I                  |                                                        | 16.049         |         |                                                 |
|                                 | GRID 2/C-C-DD              |                                                        | 24.526         |         |                                                 |
| 2/F (+49.80)                    | GRID 1/I-HH                | 5235.757                                               | 33.390         | 112.816 | 2.15%                                           |
|                                 | GRID 22/A-BB               |                                                        | 38.851         |         |                                                 |
|                                 | GRID 23/F-E                |                                                        | 12.554         |         |                                                 |
|                                 | GRID 1/C-C-DD              |                                                        | 25.176         |         |                                                 |
|                                 | GRID 27/I-H                |                                                        | 29.857         |         |                                                 |
| 3/F (+53.80)                    | GRID 3/J-J                 | 5387.226                                               | 44.131         | 111.718 | 2.07%                                           |
|                                 | GRID 23/F-E                |                                                        | 19.303         |         |                                                 |
|                                 | GRID 3/J-J                 |                                                        | 25.384         |         |                                                 |
|                                 | GRID 22/A-BB               |                                                        | 25.716         |         |                                                 |
| 4/F (+58.20)                    | GRID 27/I                  | 5616.292                                               | 30.069         | 100.492 | 1.79%                                           |
|                                 | GRID 3/J-J                 |                                                        | 21.294         |         |                                                 |
|                                 | GRID 22/A-BB               |                                                        | 25.368         |         |                                                 |
|                                 | GRID 27/I                  |                                                        | 25.725         |         |                                                 |
| 5/F (+62.00)                    | GRID 22/A-BB               | 5548.517                                               | 29.845         | 102.232 | 1.84%                                           |
|                                 | GRID 3/J-J-KK              |                                                        | 17.823         |         |                                                 |
|                                 | GRID 22/A-B                |                                                        | 23.378         |         |                                                 |
|                                 | GRID 22/A-BB               |                                                        | 25.489         |         |                                                 |
| 6/F (+65.80)                    | GRID 27/I-H                | 5416.730                                               | 30.373         | 97.063  | 1.79%                                           |
|                                 | GRID 22/A-B                |                                                        | 23.378         |         |                                                 |

b) For girls - One pan for every 20 pupils

|                                                                                       |  |                                                                                                                                          |                                                                                                                                                                              |                                                                                       |                                                                                                                             |                                                            |                                                                        |                                                                                                                                                     |
|---------------------------------------------------------------------------------------|--|------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------|------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|
| For boys - Two urinals for every 30 pupils<br>For girls - One pan for every 20 pupils |  | Project<br>Client<br><br>CITY UNIVERSITY OF HONG KONG | Structural Engineer's E&M<br>Hyder Consulting<br>G.S.<br>Levett & Bailey<br>Landscape Consultant<br>Kenneth Ng & Associates Ltd.<br>Architects and Environmental Consultants | Design By<br>Draw By<br>Check By<br>DAV<br>Approved By<br>DAV<br>Plot Date<br>2014/05 | Project Number<br>05595<br>Drawing<br>Windows Calculation<br>Computer File<br>C:\ProgramData\Aedas\Aedas\05595\05595003.dwg | Drawing Number<br>DAV<br>595S803<br>Rev<br>Scale<br>1 : 50 | 18th Floor<br>1083 King's Road<br>Quarry Bay<br>Hong Kong<br>aedas.com | <br>T +852 2861 1128<br>F +852 2320 8419<br>hongkong@aedas.com |
|---------------------------------------------------------------------------------------|--|------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------|------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|