

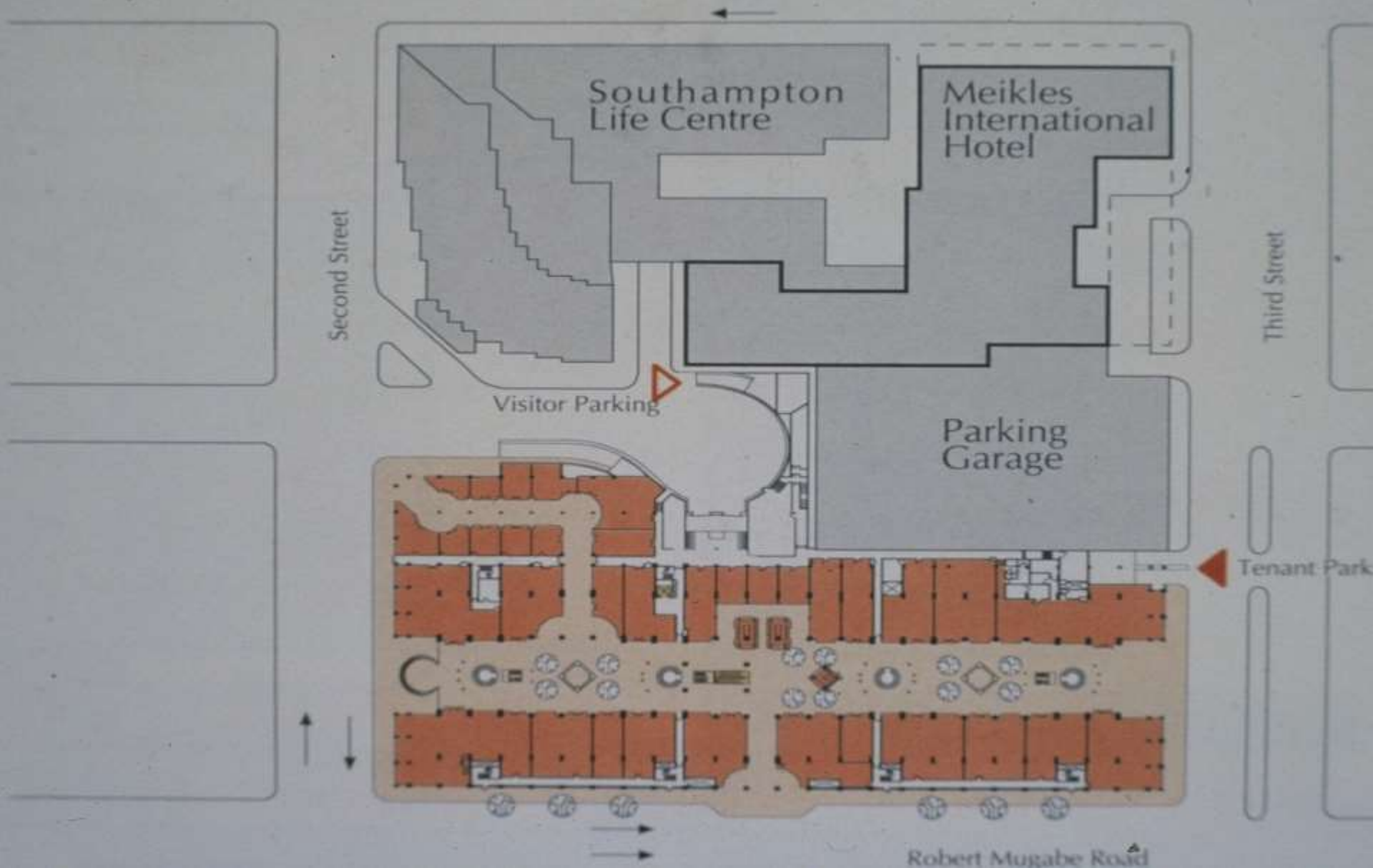
EASTGATE HOUSING proposal



CAN EASTGATE BE ADAPTED ?

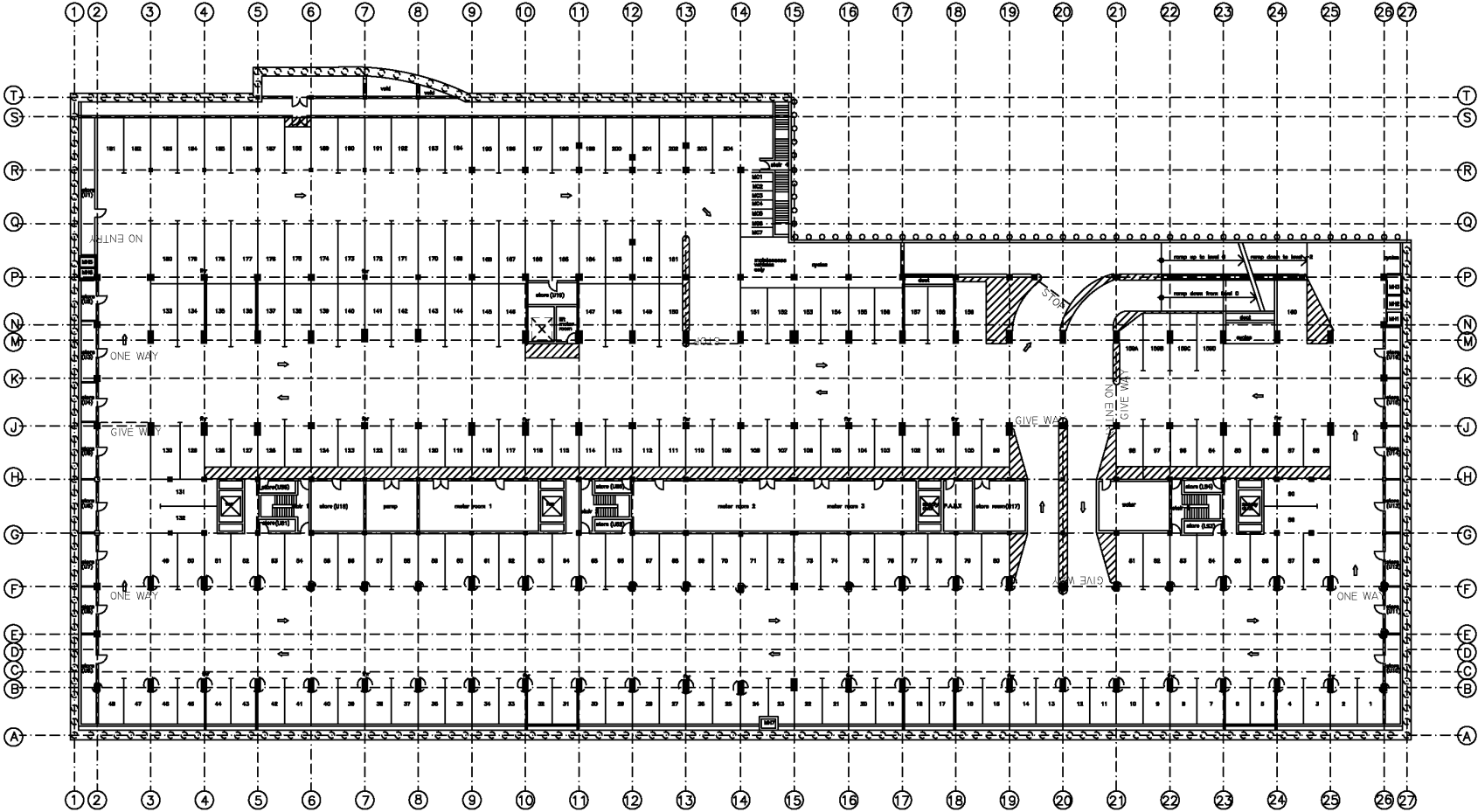
Eastgate is not full occupied as an office block because the market has changed.

- The following proposal offers the alternative of conversion to apartments on level 7 floors without interfering with the office functions of floors above or below this level.



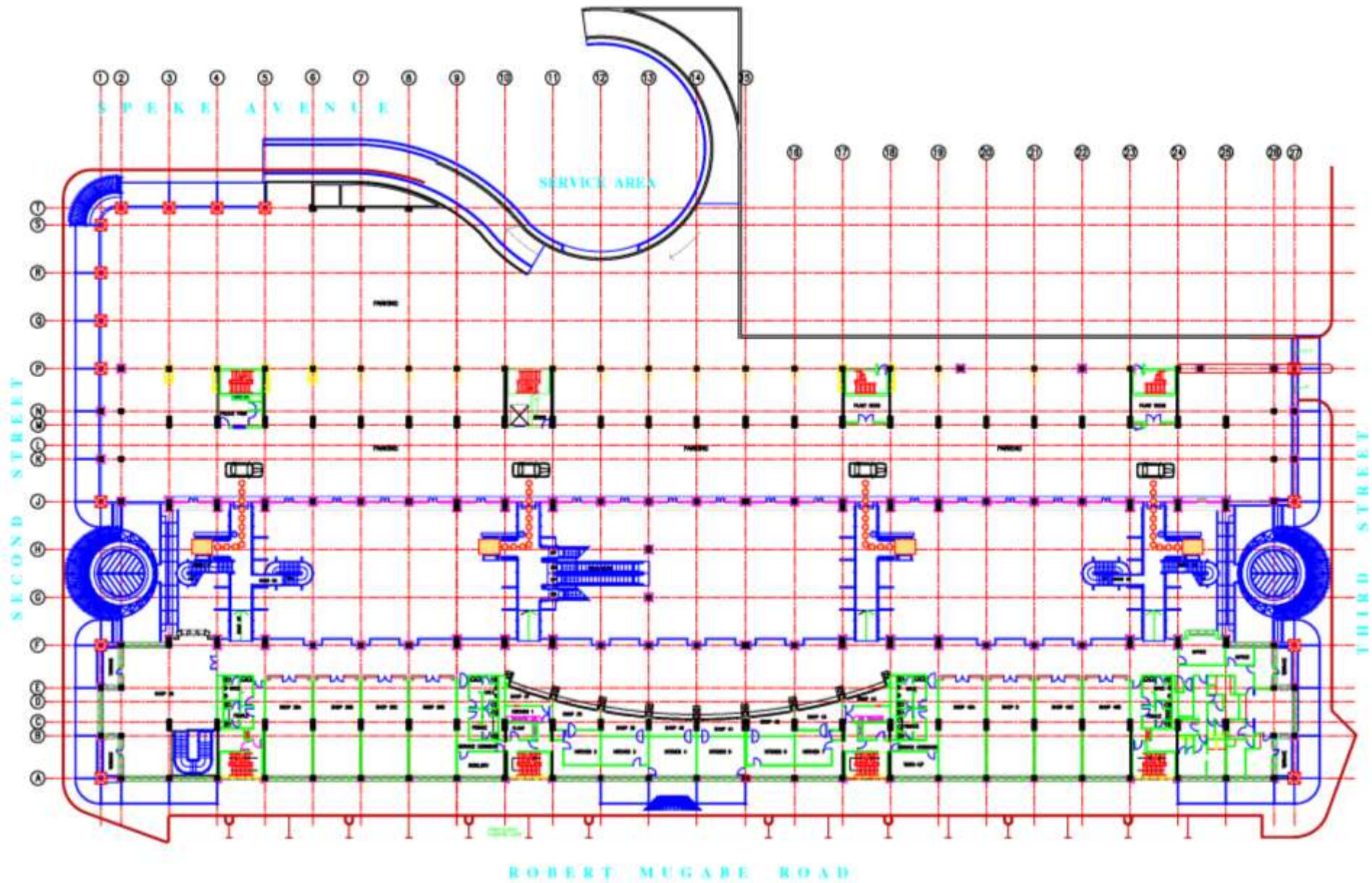
ACCESS and SECURITY

These two streets were purchased from council in exchange for the atrium which had to remain open 24/7 for public access. In order to start accommodation we would have to look at night duty and weekend services in addition to 8/5 offices hours as at present. Visitors would have to use the public car park on level 1. Is this OK for 24/7 access??

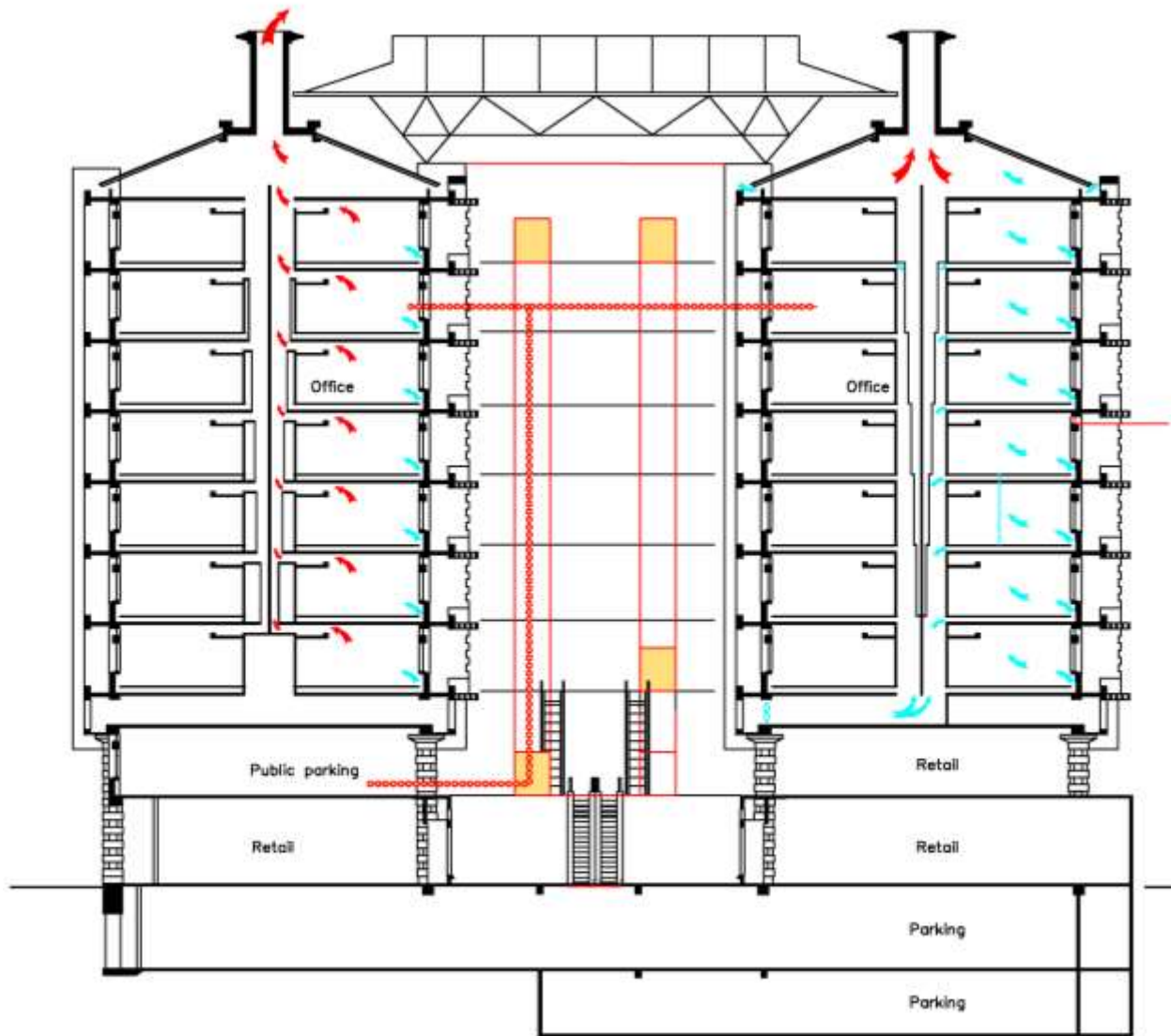


- **ACCESS and SECURITY**

- 32 inmates of level 7 apartments would have safe parking in the basement.
- The fact that they would then have to walk up to the street level before catching the escalator up to level 2 or up to level 1 to catch a lift, solves the security problems which would arise if the lifts when down to basement level.

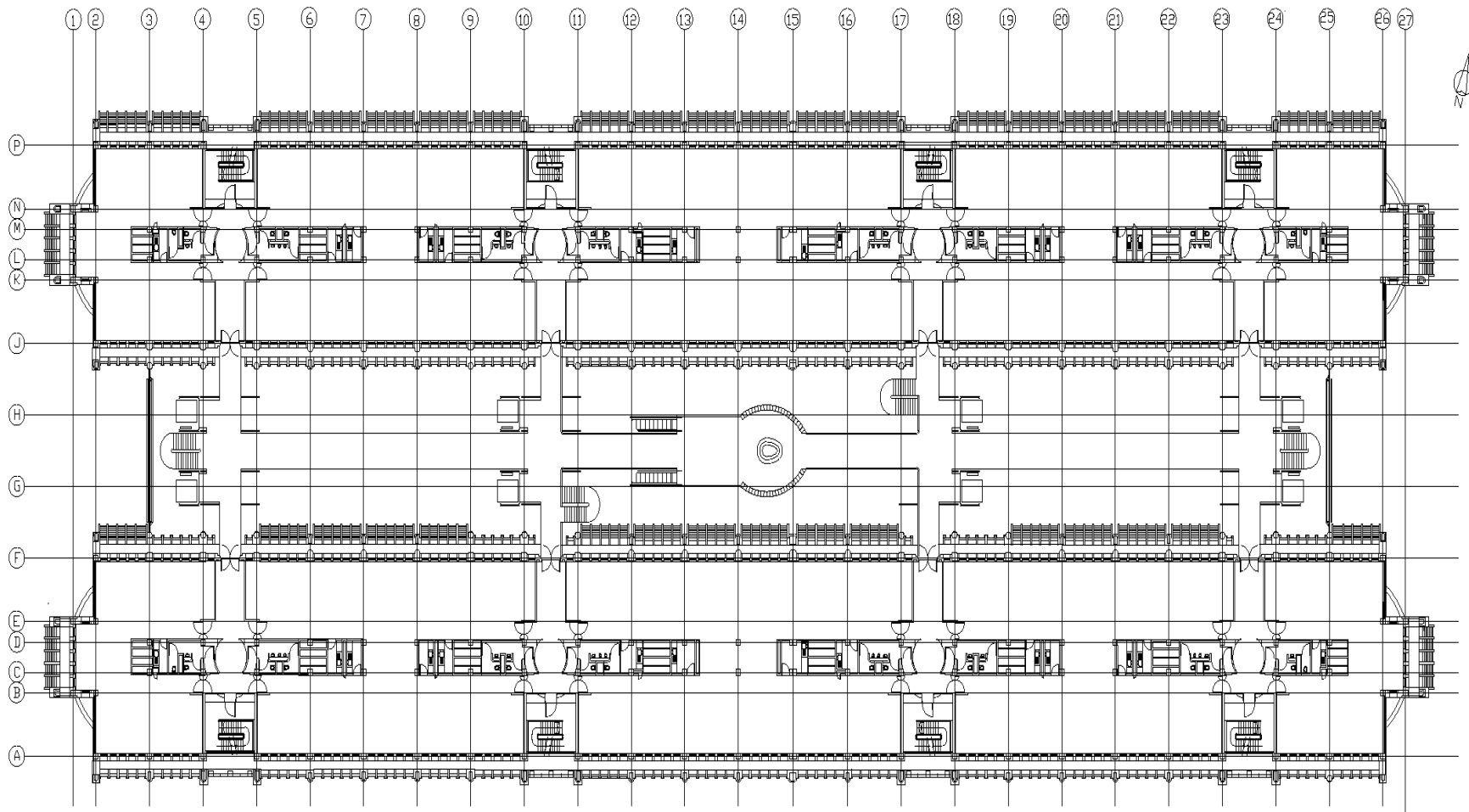


- Vehicular access to lifts from level 1



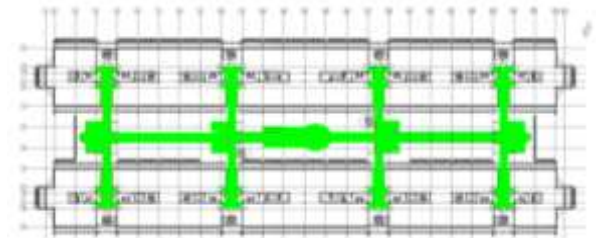
- **VERTICAL ACCESS**

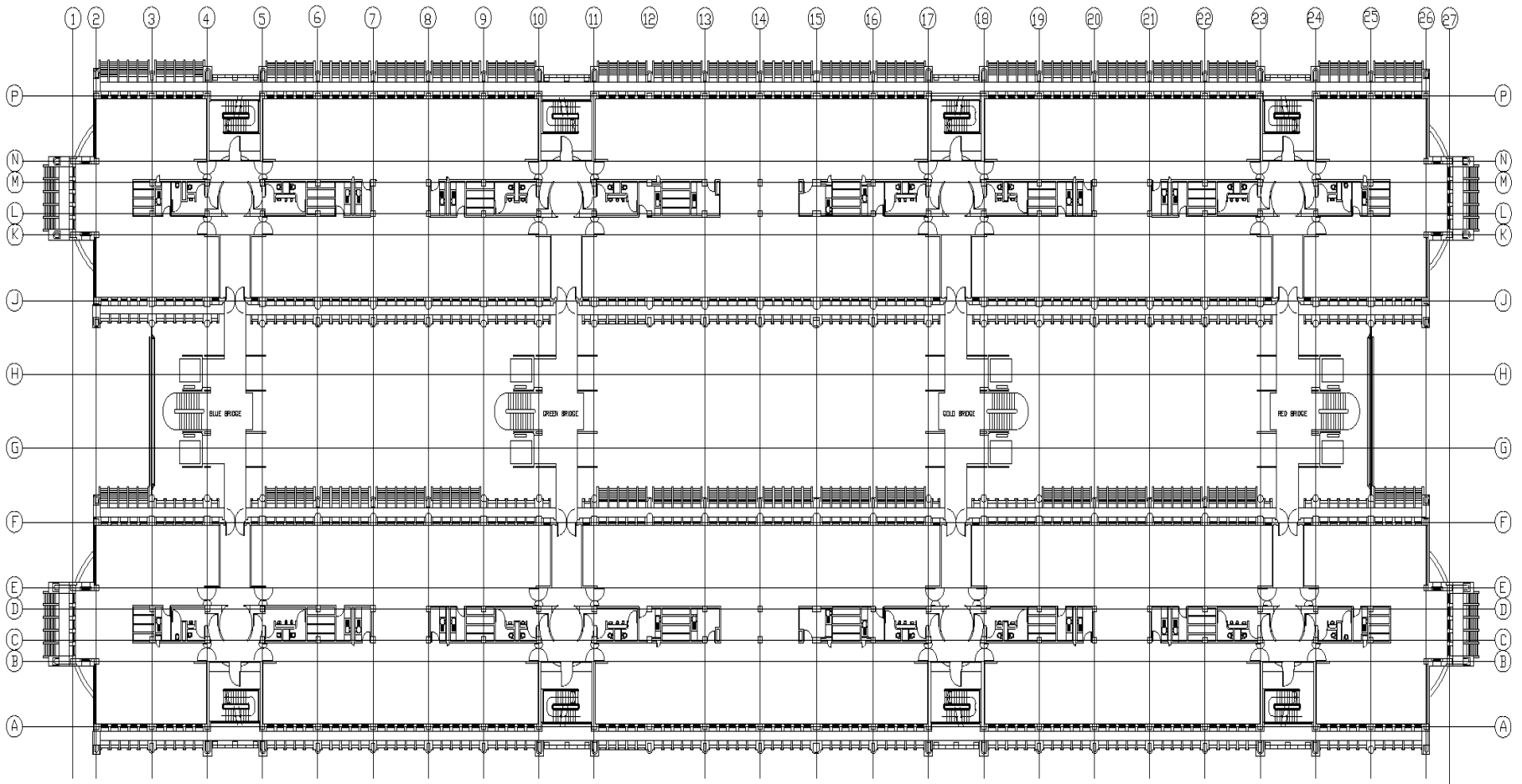
- Apartment tenants may complain about how to carry suitcases up stairs. In these cases delivery to level 1 where there is vehicular access to level 1 lifts.



PLAN LEVEL 2

ACCESS and SECURITY; Once you up on the sky walk there are 4 lift cores serving the bridges above. These lead to lobbies in the north and south blocks to lobbies where each lobby has 4 doors. Thus level 7 would have 32 apartments accessed from the 4 bridge lifts cores.

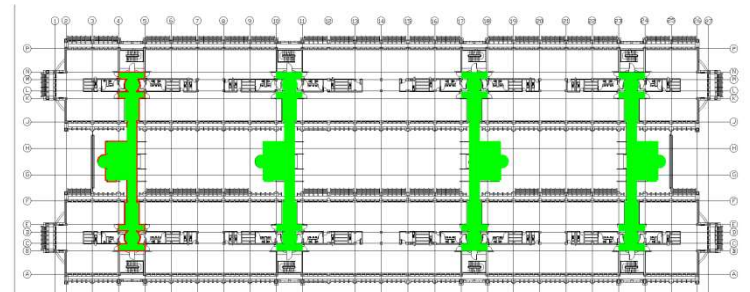




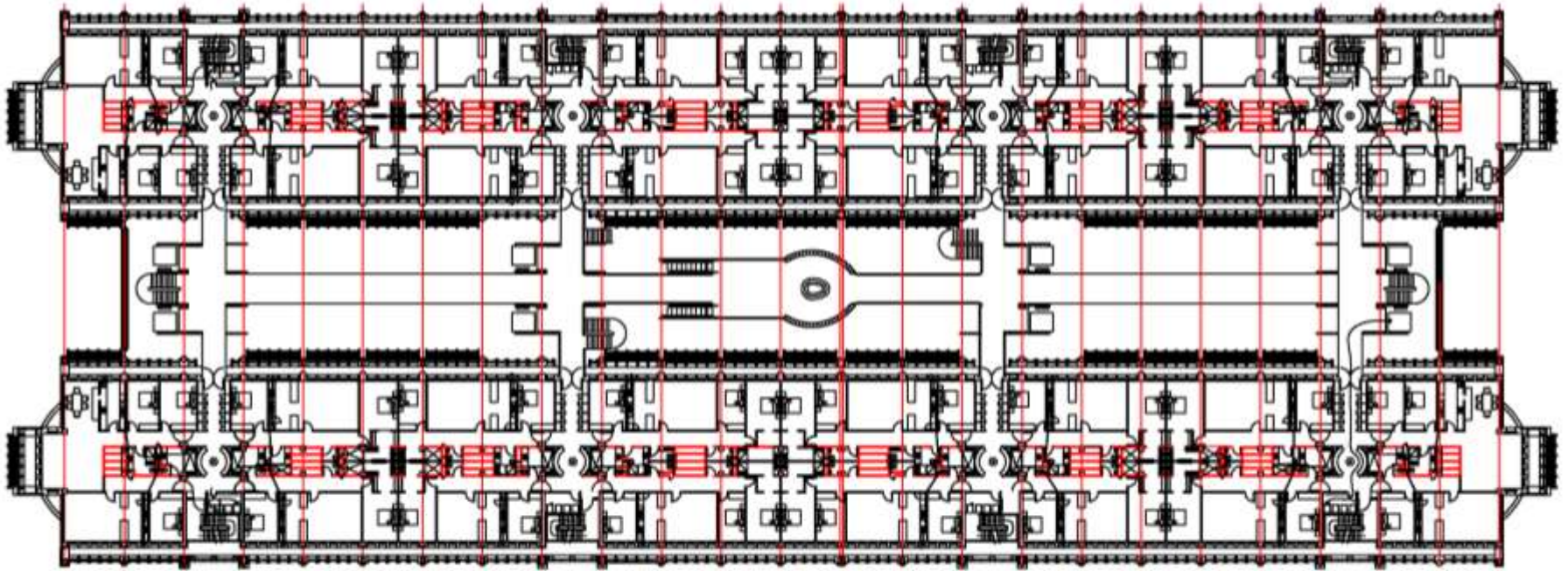
ACCESS and SECURITY PLAN OF LEVEL 3 TO 8

Each lobby serves 4 front doors to apartments. The logical subdivision to apartments is therefore 32 units on each level .

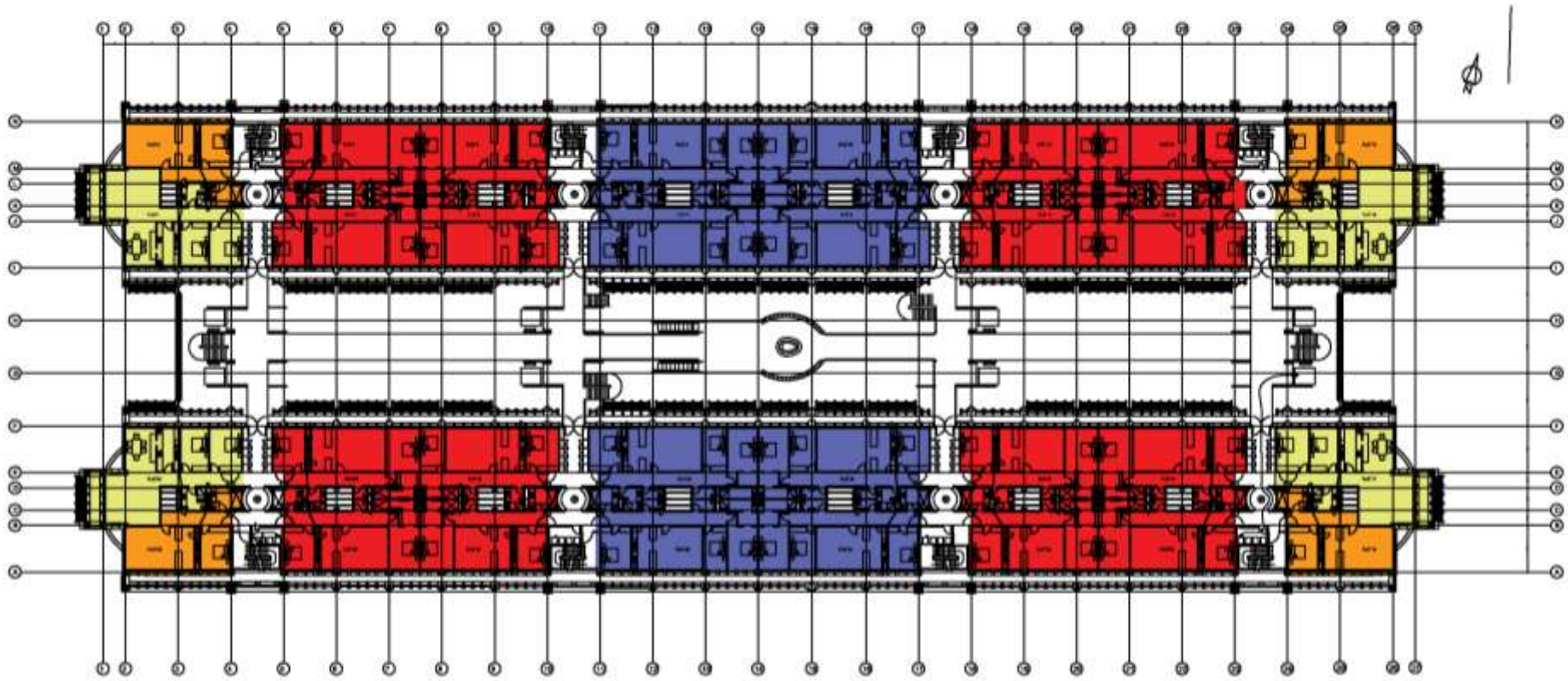
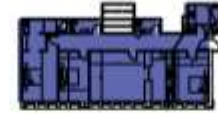
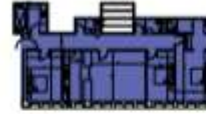
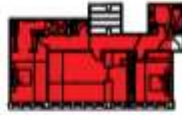
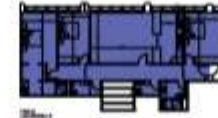
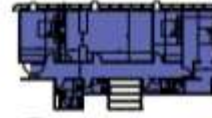
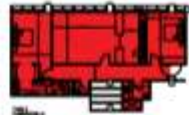
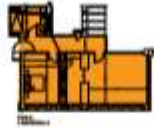
A new locking system will have to be designed for these apartments. The requires a separate study with OMP management.



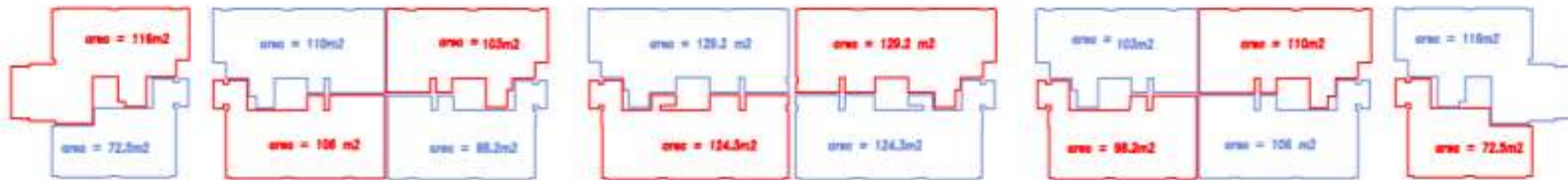
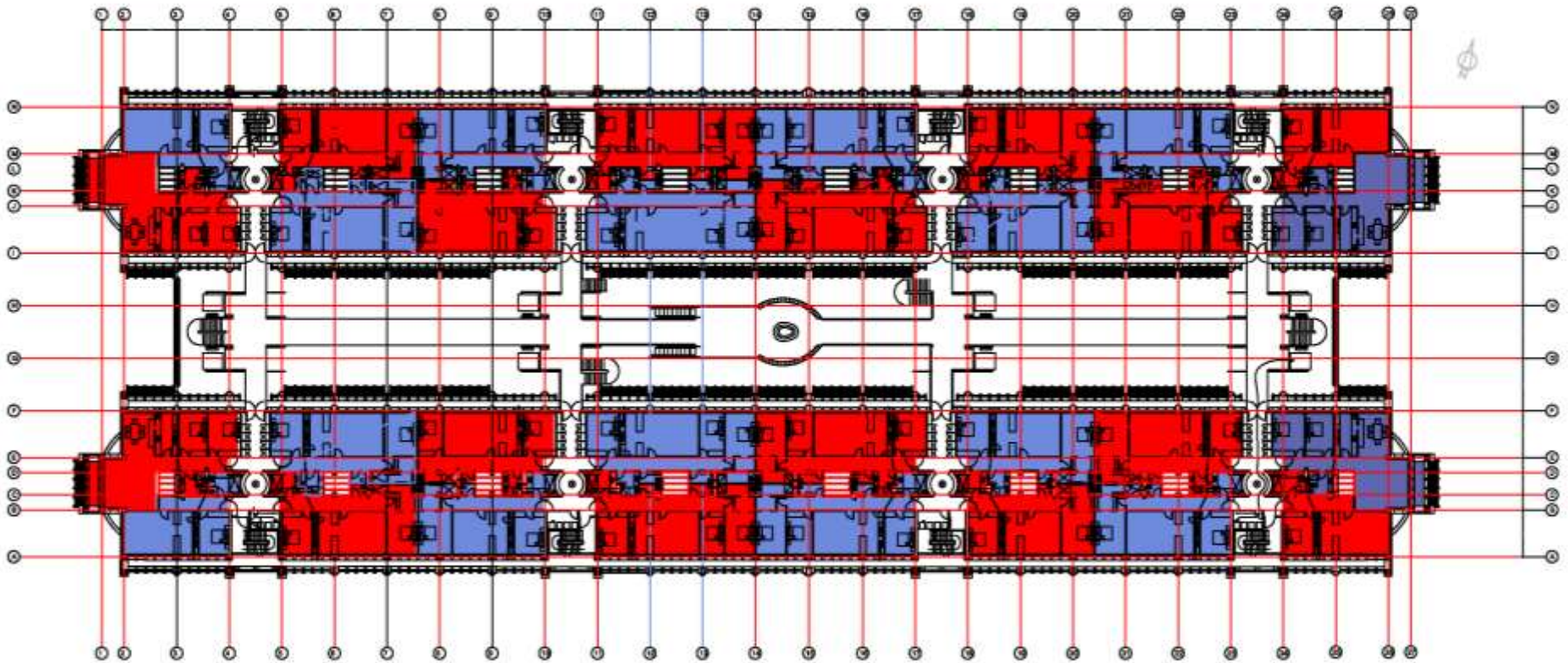
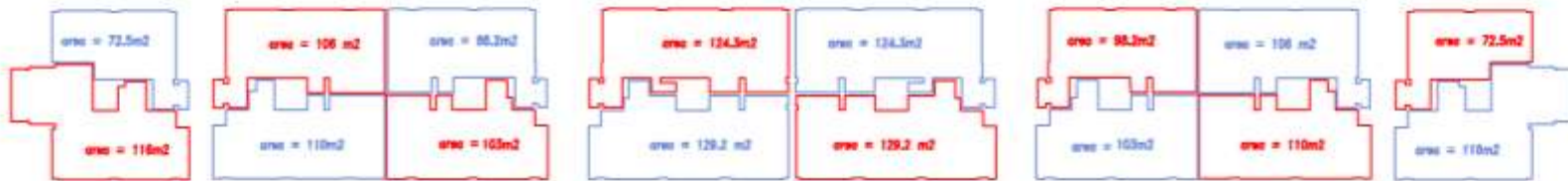
PROPOSAL > program



- Level 7
- 32 apartments
- 4 types : 1, 2 and 3 bedrooms

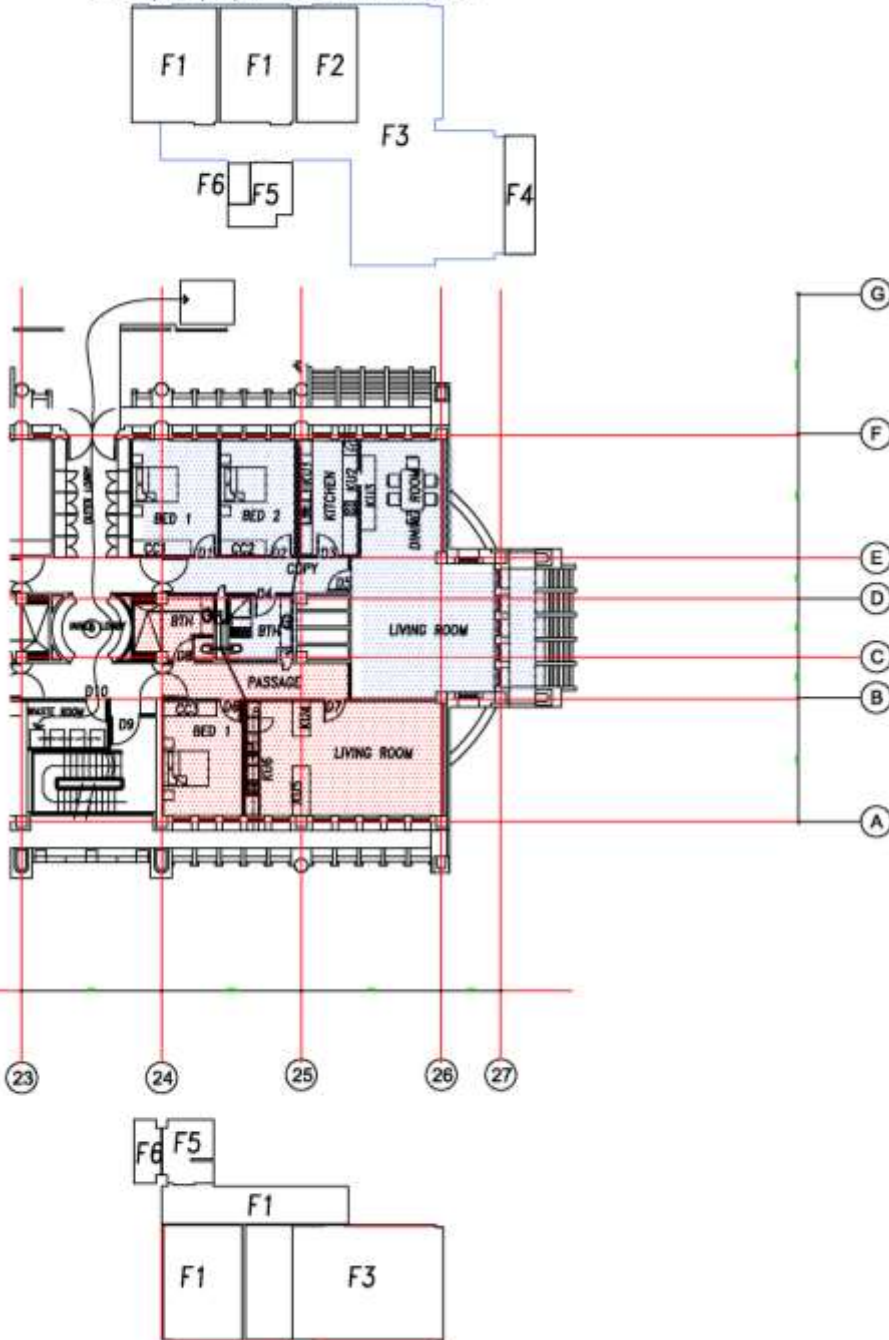


- FACTORS WHICH MAY EFFECT RENT LEVELS. This shows that there will be 4 one room apartments (ochre) , 20 two bedroom (red and yellow) apartments and 8 three bedroom apartments (Blue) . They are not the same area and they have different views and orientations



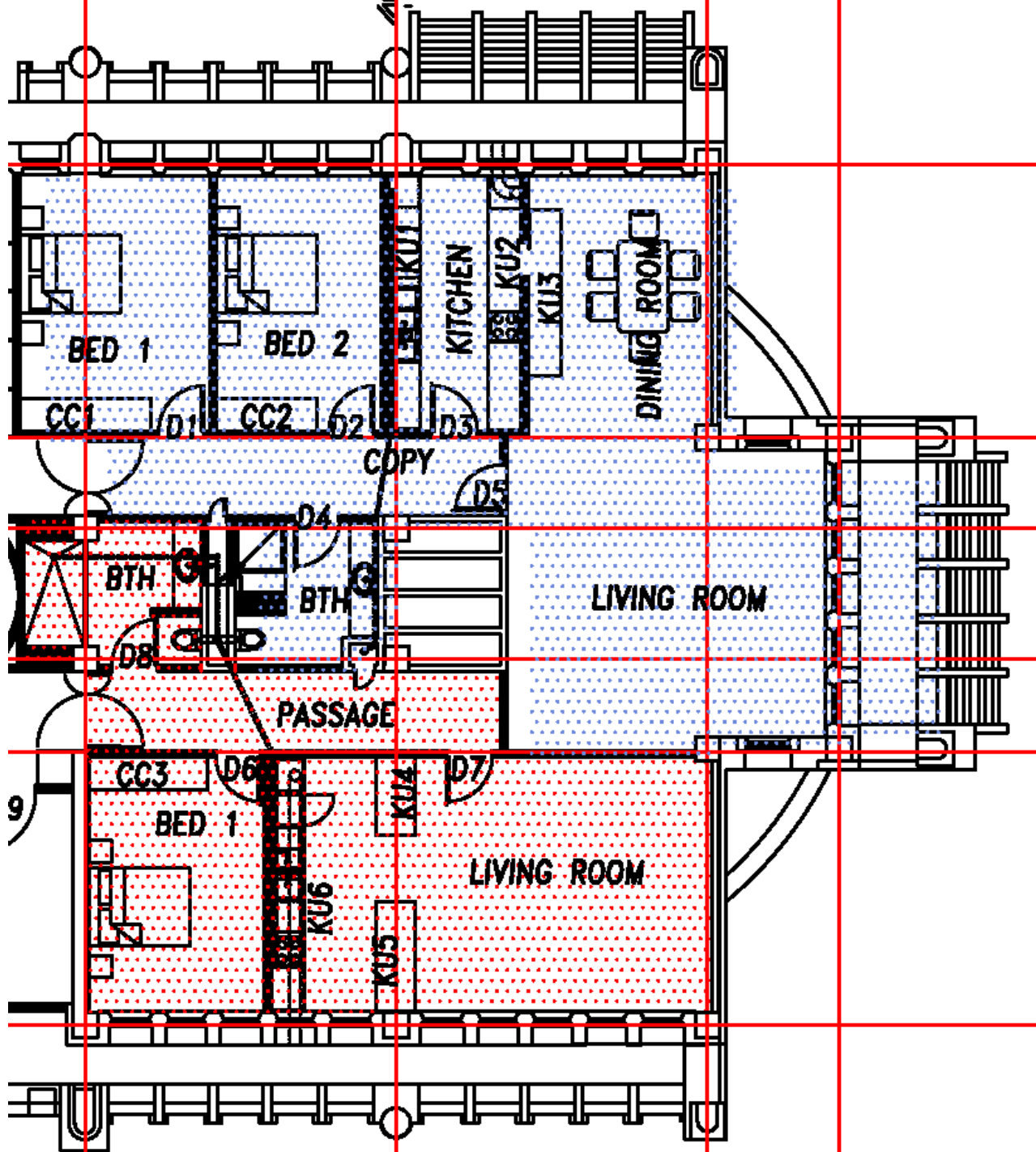
- Plan of level 7 showing 32 one, two and three flat types with lettable areas of each

S 24/27/B/F FLOOR FINISHES



• PROPOSALS

- Erect partition walls in 115 common bricks where shown hatched, These are to be two coat plastered and painted or tiled.
- Install pressed metal door frames where show with oak veneered flush doors to match existing and ironmongery as scheduled according up graded security system which applies to apartments only.
- FLOOR FINISHES
 - F1 carpeting
 - F2 tiles
 - F3 carpeting
 - F4 as existing
 - F5 tiles on water proof tanking in falls to floor outlet
 - F6 shower tray formed in tiles on water proof tanking with falls to outlet.
- SANITARY WARE
 - WC'S
 - Basins to be vanity set into 20 polished stone top
 - Showers fittings
 - Towel rails and mirrors and all bathroom fittings
- **ALL BUILT IN FURNITURE WILL HAVE TO BE INCLUDED**
- CUPBOARDS
- CC1, CC2, CC3 All timber cupboards with louvered slatted doors.



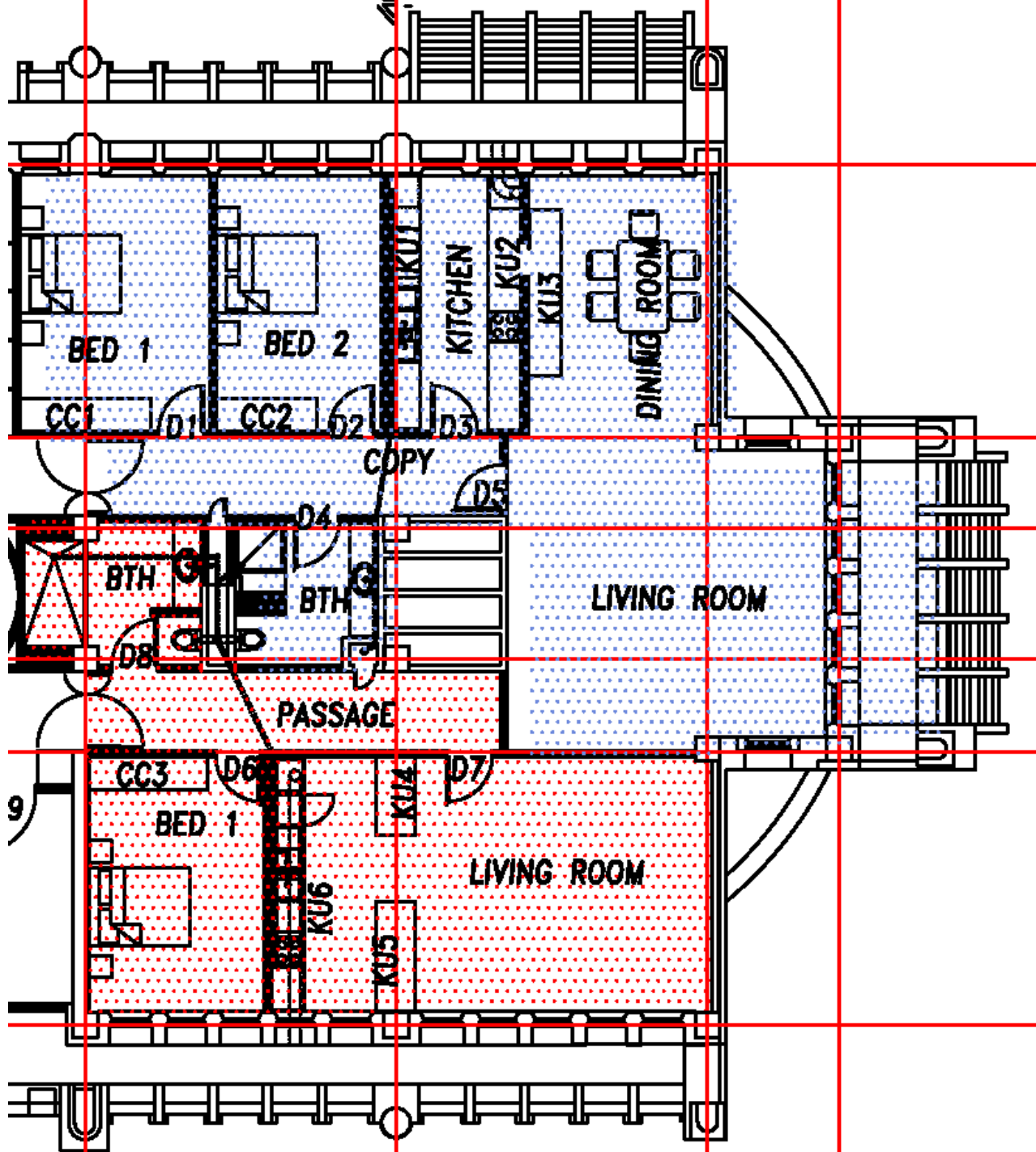
• KITCHEN UNITS

KU1 UNIT 4557L X 600W X 875H
 cw double bowl sink unit with
 dish washer and cloths washing
 machine built in and plumbed in
 with 25 polished stone top and
 75 high skirting. And with
 cupboards and drawer s built in.

Above glass fronted storage
 units to fill the entire 4557
 length.

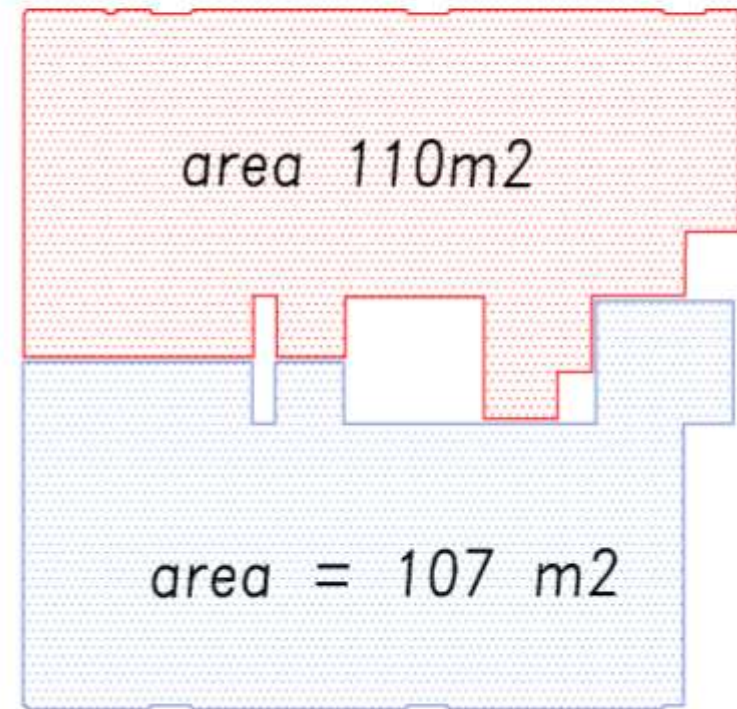
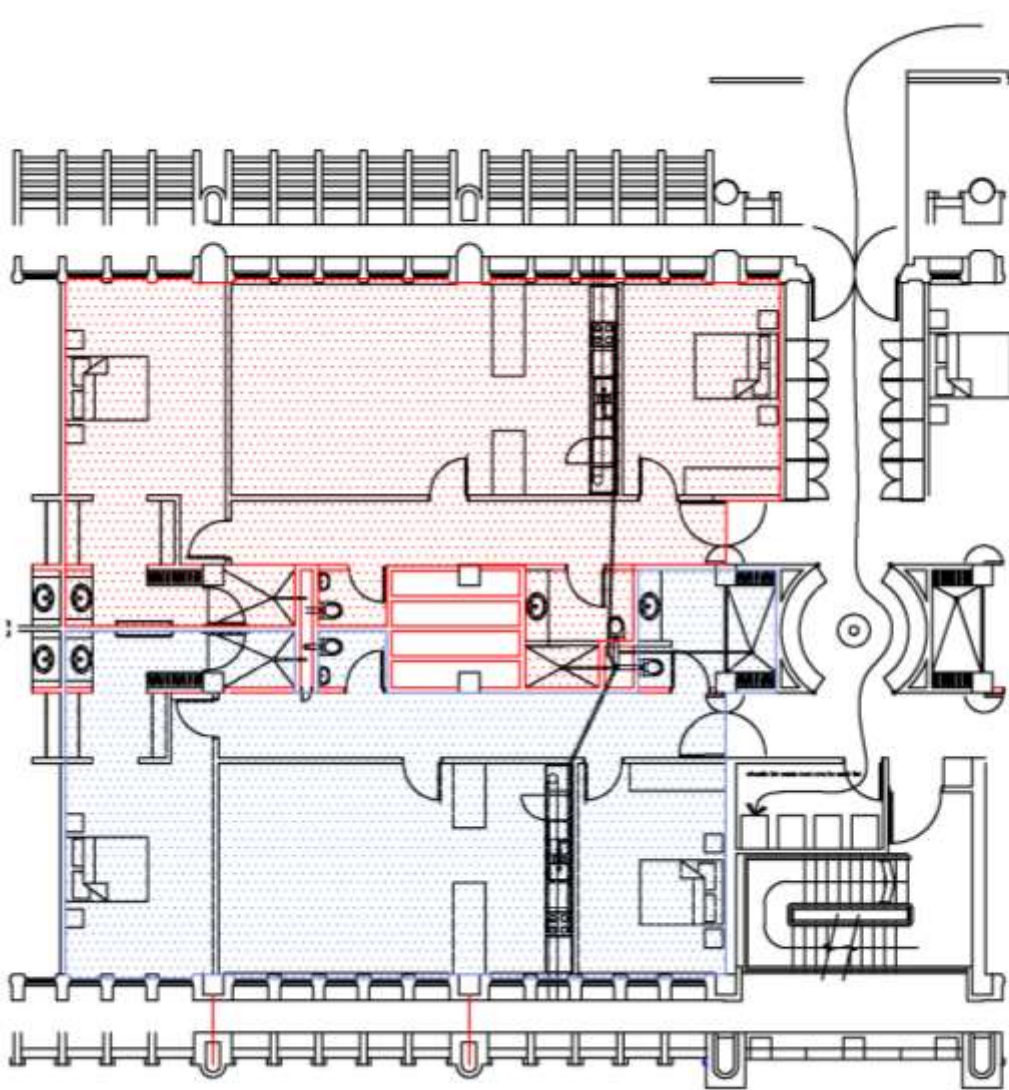
KU2 UNIT 4557L X 600W X 875H
 cw electric powered cooker unit
 and cloths dryer built in
 between cupboards units. With
 extractor unit above the cooker.
 Both this and the cloths drier to
 be ducted to existing porthole
 window as shown.

KU 3 STONE TOPPED DRESSER
 UNIT IN DINING ROOM SIZE
 2000L X 500W X 875H with
 drawers and cupboards below.



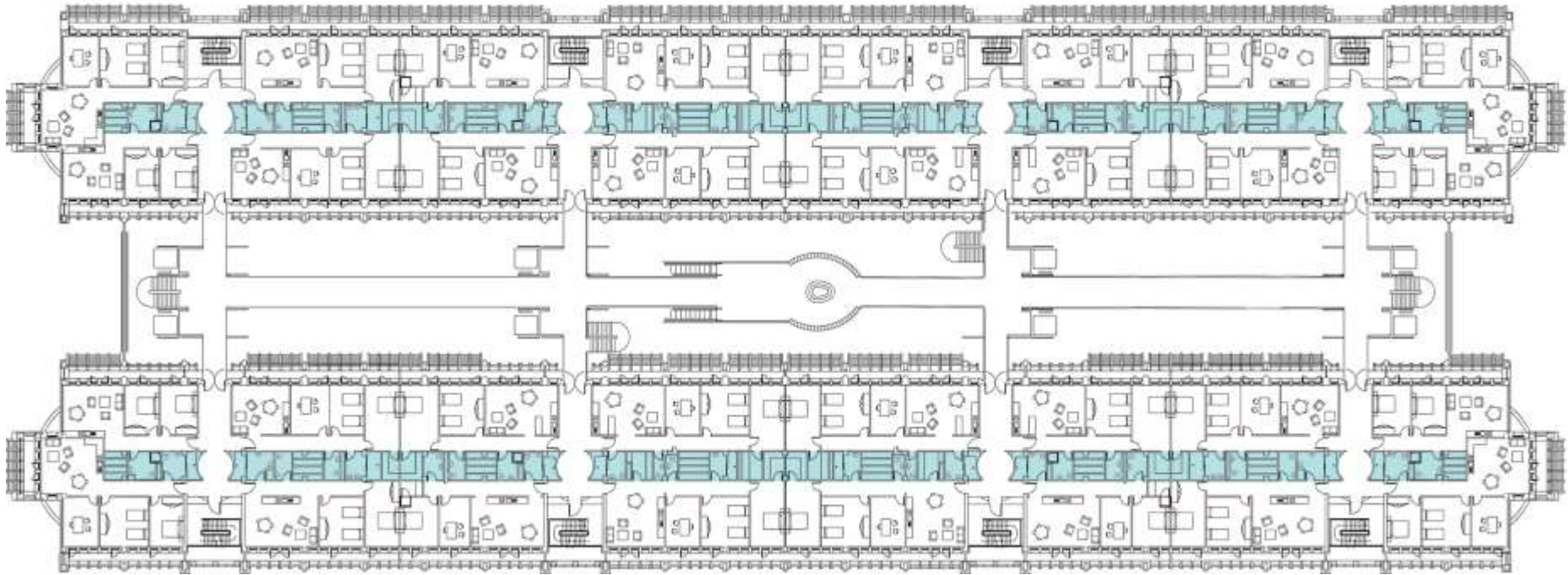
- **KITCHEN UNITS**
- **KU4 UNIT.** Stone topped size 1400L X700WX 875H with cupboards below
- **KU5 UNIT.** Stone topped unit 2000L x 800W X 700 H as table on steel framing.
- **KU6 UNIT.** Stone topped 4557L X 600 X 875H with full range glass fronted cupboards above and closed in extract duct above to ceiling. Cw washing machine and dryer all plumbed in with extract system, and fridge unit built in, BD sink unit, dish washer, drawers and storage cupboards all built in.



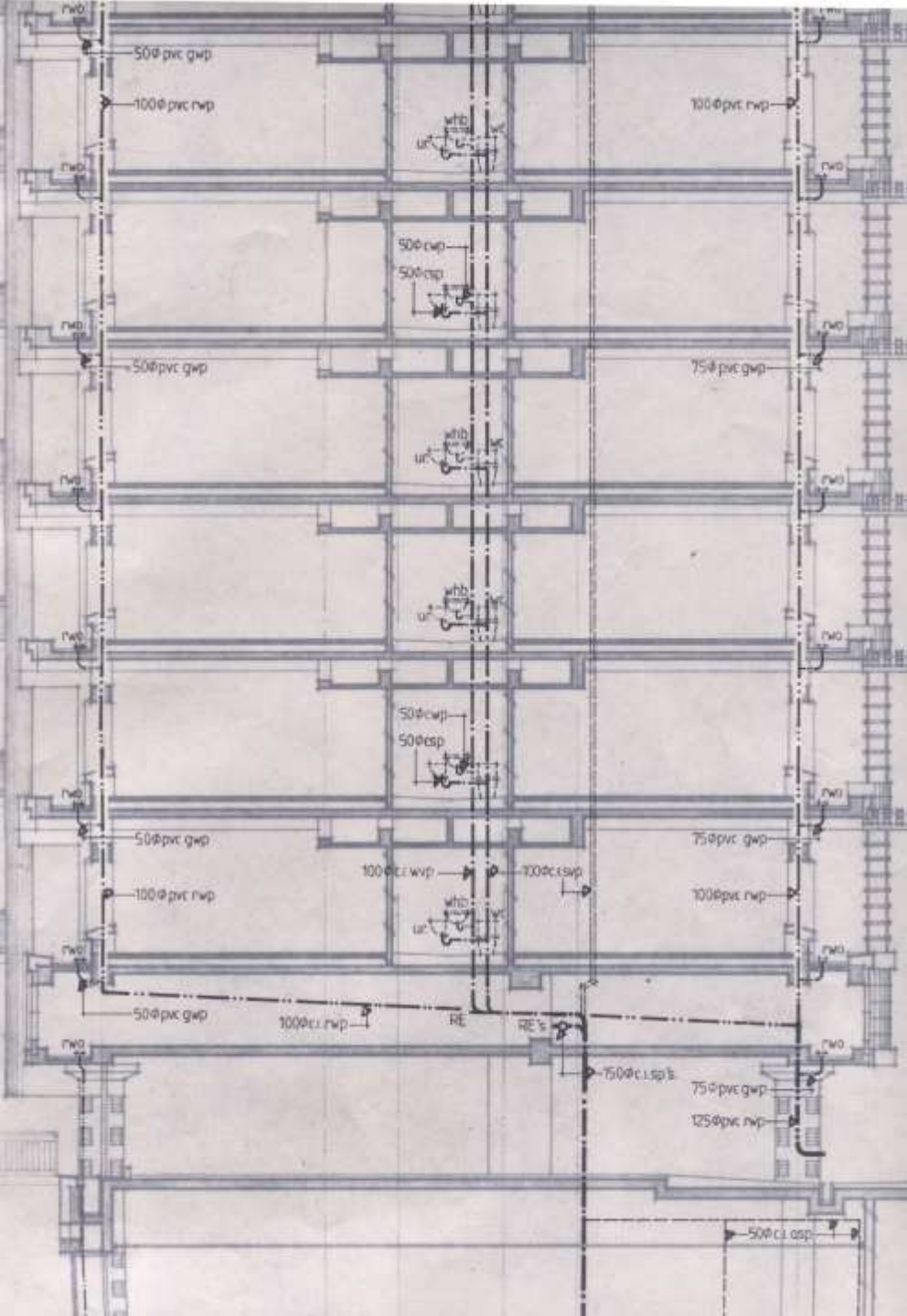


- The above two apartments are typical of the two bedroom type. The idea is to place the second bedroom near the entrance so that it could be used as an office or a spare bedroom for a friend or even to rent out. This bedroom has access to a bathroom off the passage whereas the main bedroom has an unsuited bathroom.

PROPOSAL > water

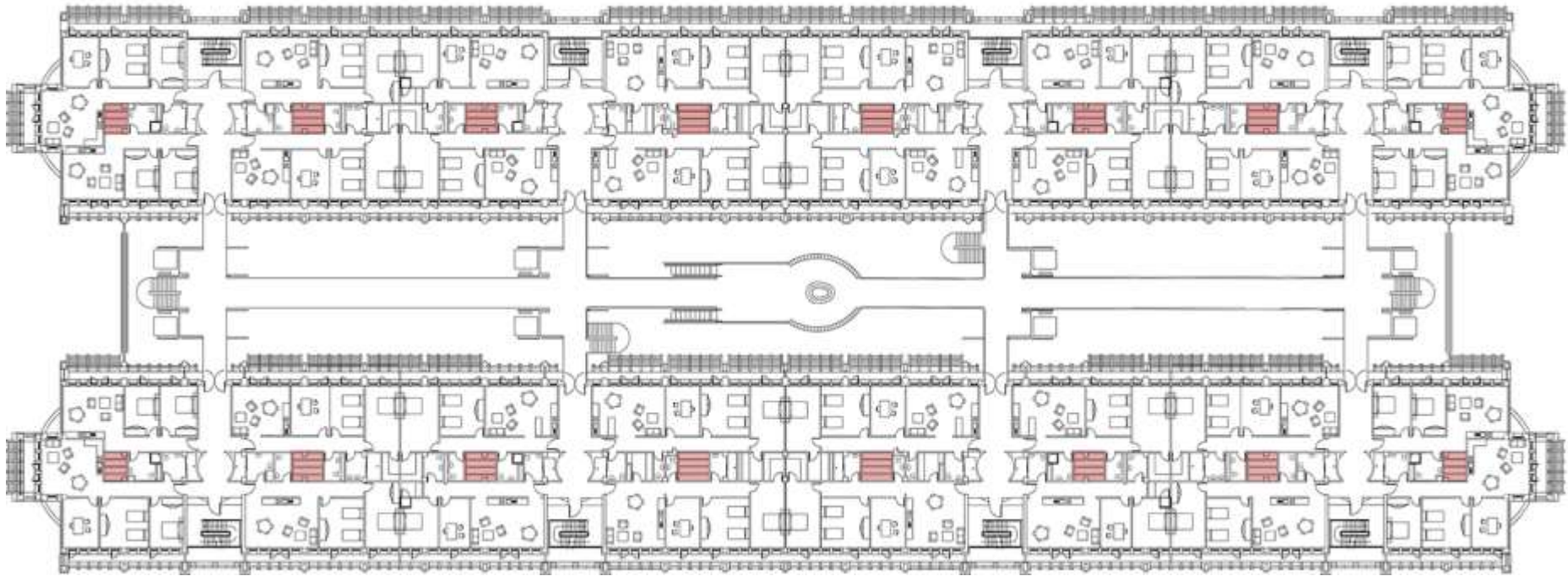


EASTGATE WAS DESIGNED FOR SMALL AND LARGE TENANCIES AND ADAPTABILITY TO HOUSING WAS ORIGINALLY DISCUSSED. Fortunately we planned the serviced rooms in linear cores down the centre of the two blocks which allows conversion to housing possible with a minimum of disruption and cost. Water supply to Eastgate is Municipal at present. However, there is plenty of water underground in quantities way beyond the needs if all 8 floors are converted to housing. We are not sure whether tenants would accept the city water at this time so we may have to look into the quality and extra quantity of the existing borehole supply and storage system



- DRAINAGE CONNECTIONS TO EXISTING SYSTEM.
- This is a photograph of the original drainage section approved by council. It shows the rain water drainage was cast into the concrete columns and which discharge into street drainage systems.
- It shows the waste and soil drainage flowing down though the central core to be collected in the mezzanine service floor and thence down to collection drains in the lower basement.
- The vertical stacks are 100 diameter and the final runs are 150 diameter.
- Engineers will have to check that these diameters are adequate to carry the extra load from the apartments. The water consumption and resultant discharge volumes will have to be assessed. There is an abundant supply of water from the borehole under eastgate.

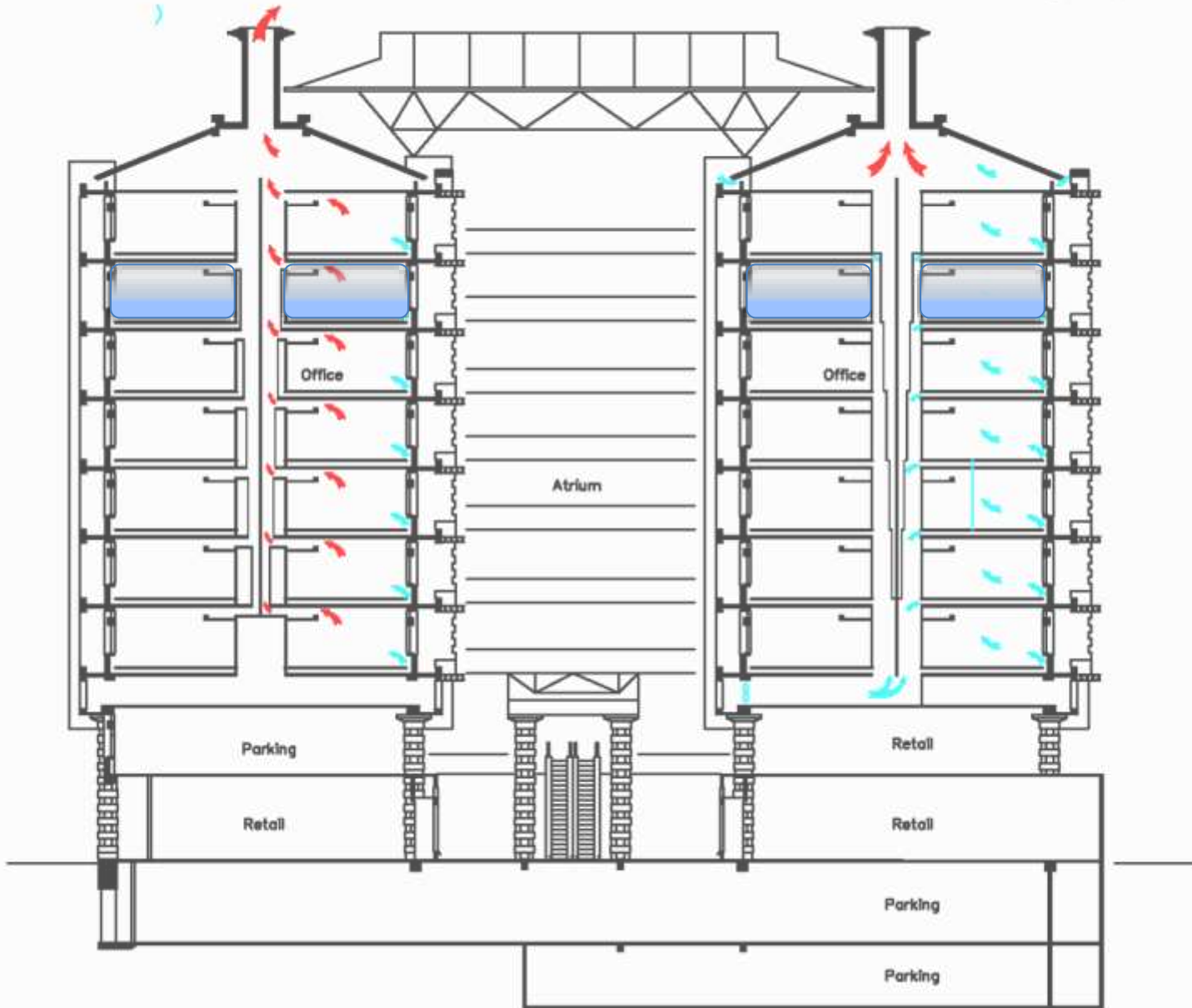
PROPOSAL > ventilation



The ventilation chimneys (shown in red) which supply and extract air are also placed in the linear core and will now work just as well for change of use to housing with some localized additional control systems to be designed.

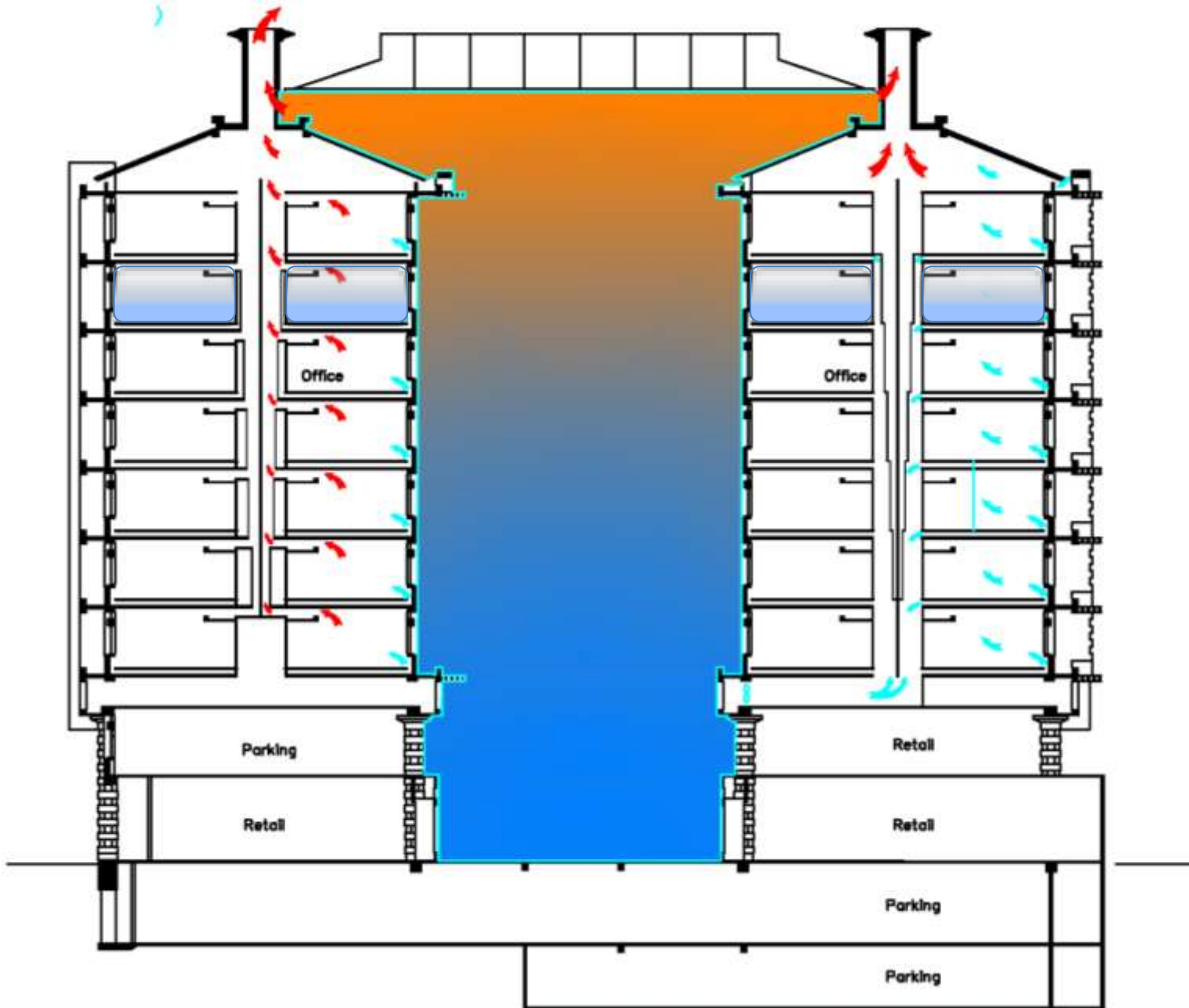
DAY CYCLE
3 air changes per hr.

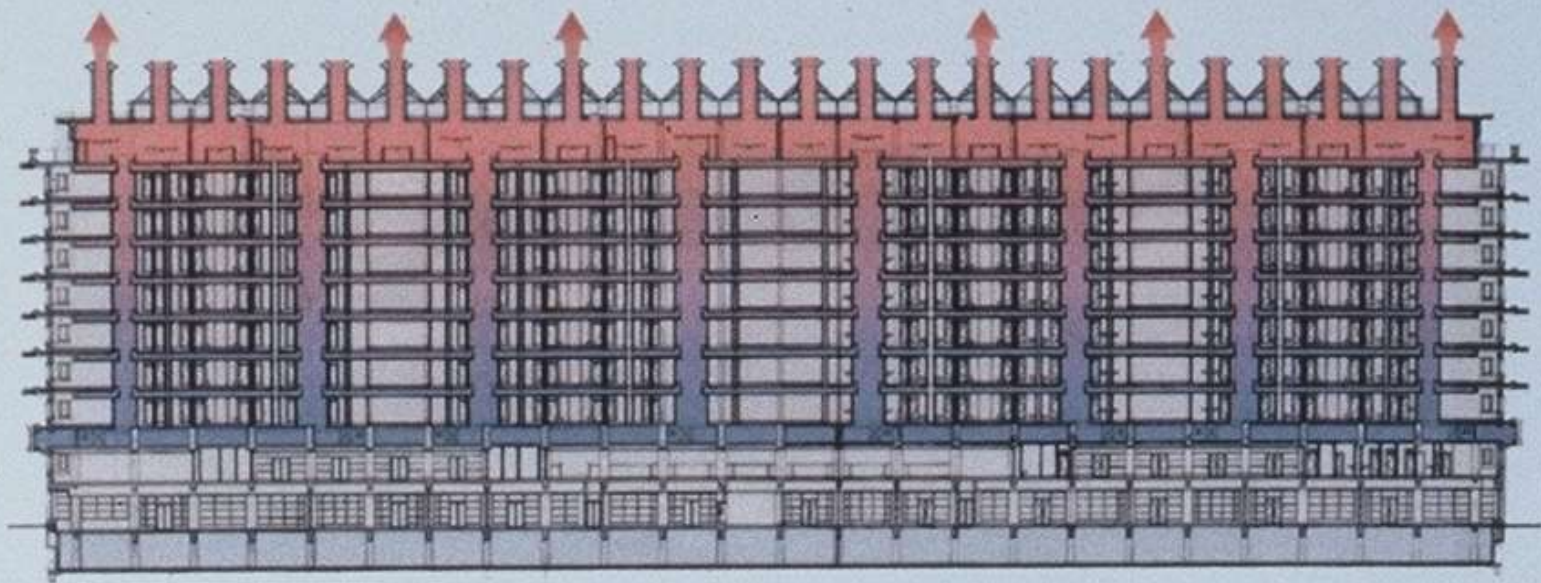
NIGHT CYCLE
6 air changes per hr.



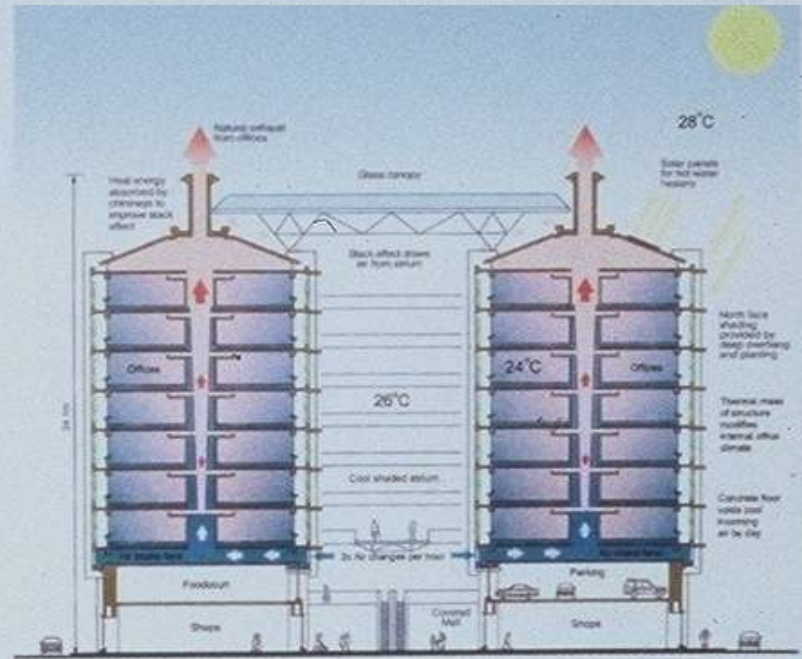
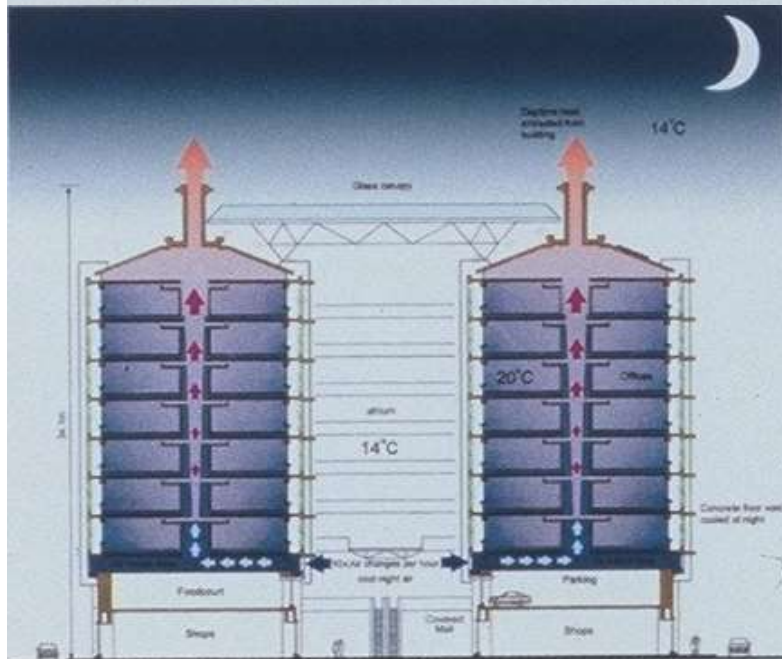
DAY CYCLE
3 air changes per hr.

NIGHT CYCLE
6 air changes per hr.



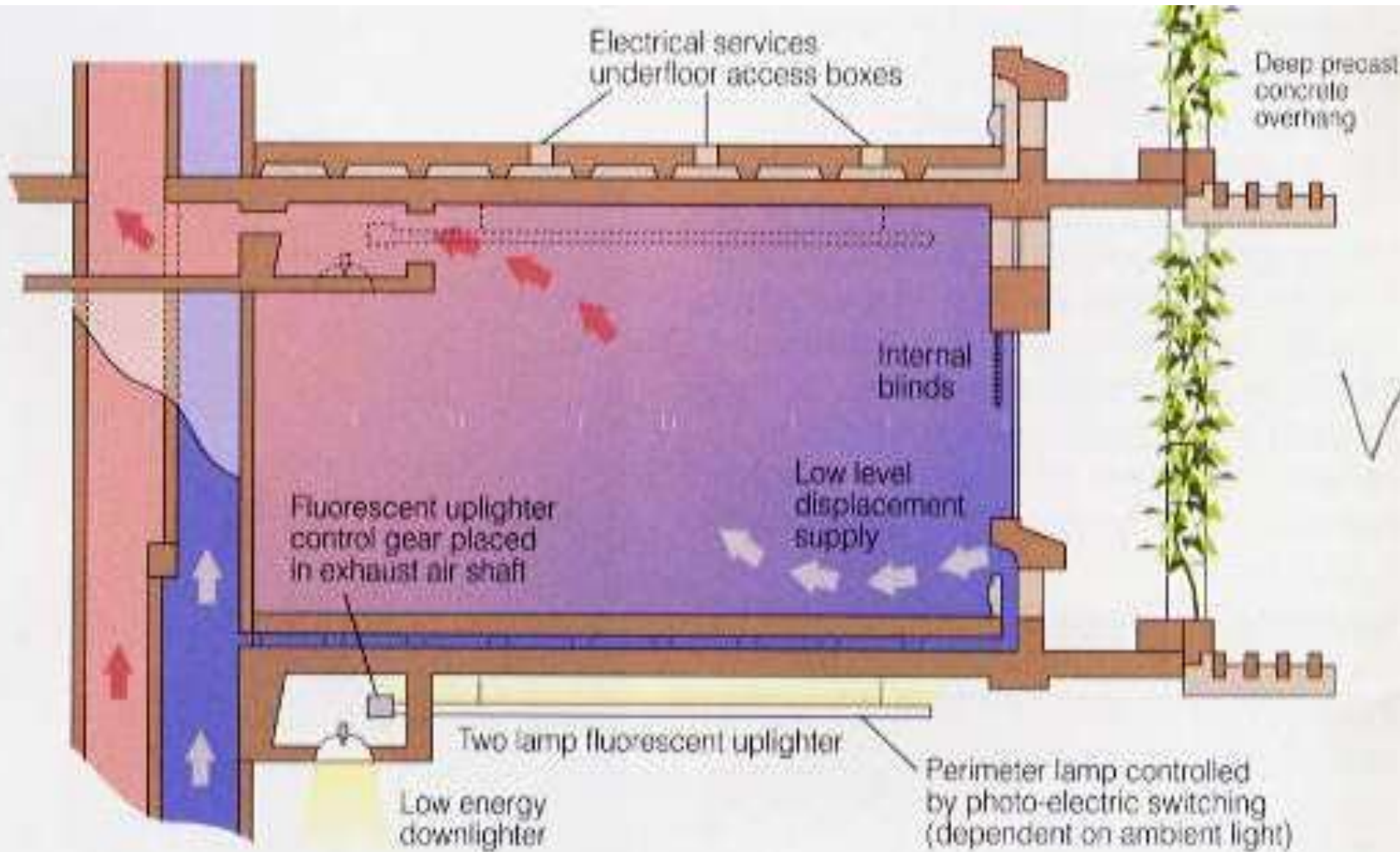


Longitudinal section



Sections showing the passive cooling system

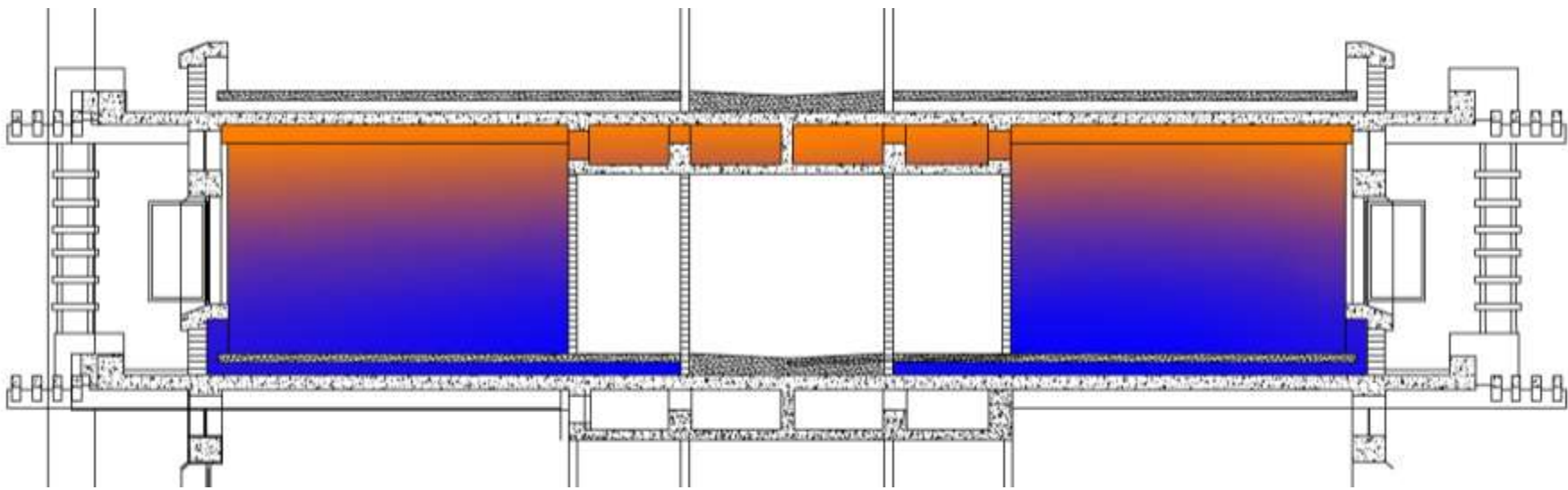
4. Cross-section through typical office.



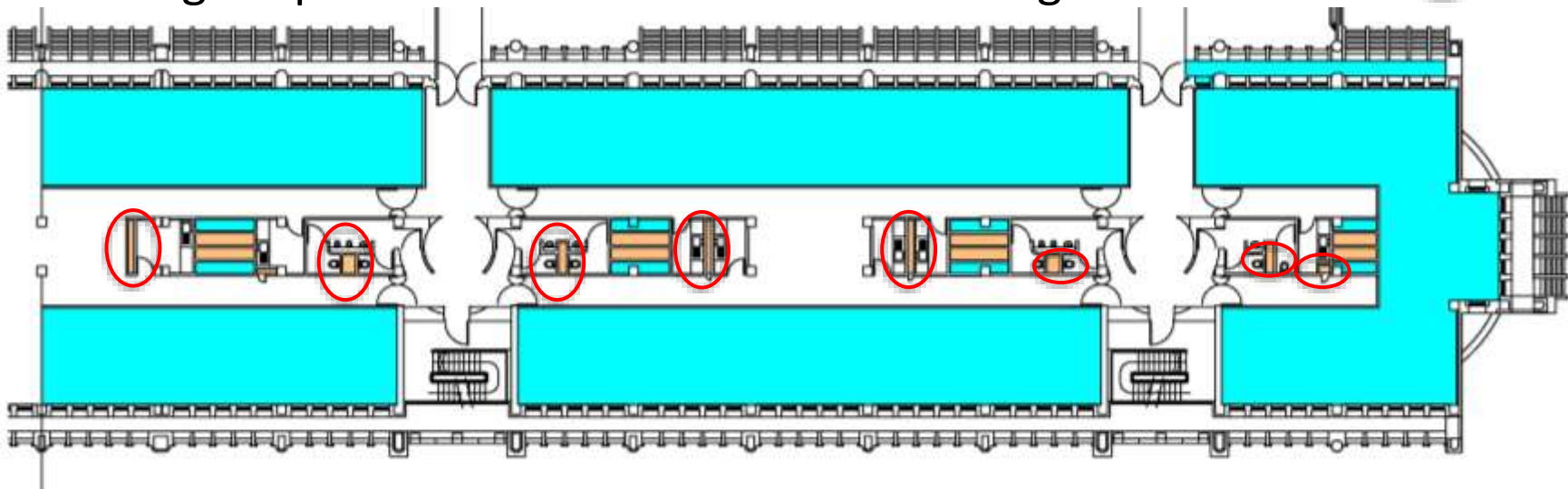
SECTION THROUGH TYPICAL BAY

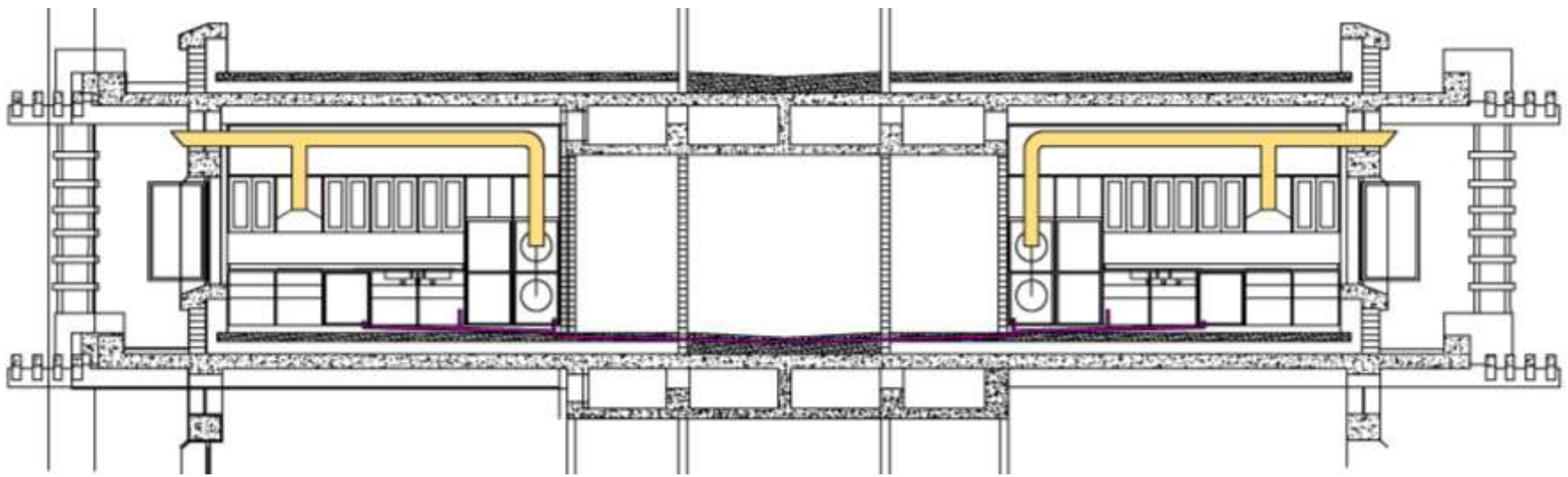


Construction of the heat exchanger floor in precast concrete units with dentils formed on the underside to enhance heat exchange from air to concrete for thermal storage. These will remain. The layer above these has a grid of conduit for floor accessible power outlets.

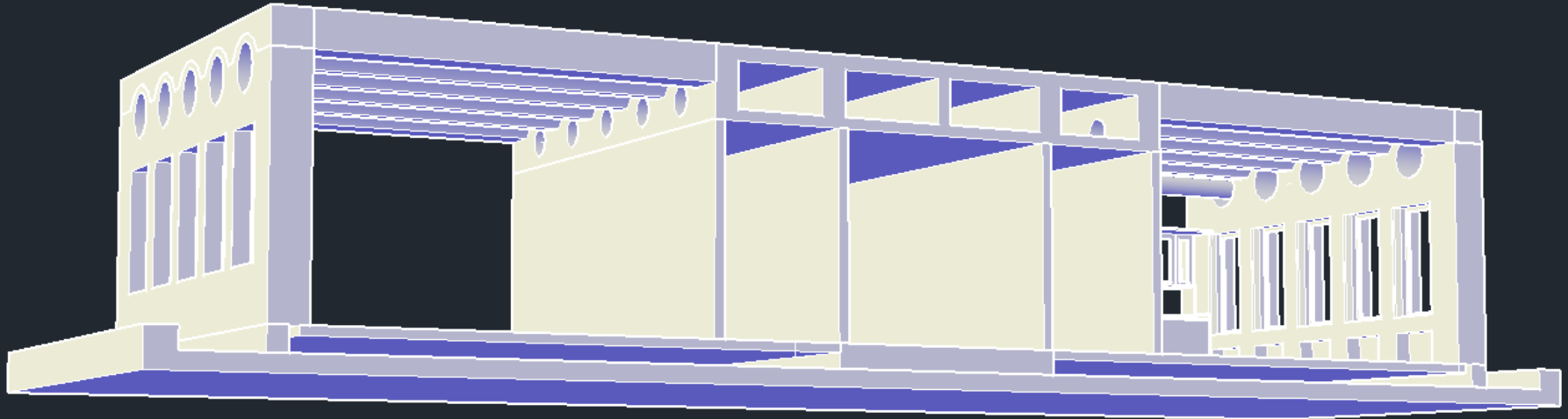


- This section shows how the system devised for the main spaces on each side of the corridor and serviced core can be used as before with passive ventilation.
- The central core and passages can be force vented as at present through separate vertical ducts. These are ringed in red below ○

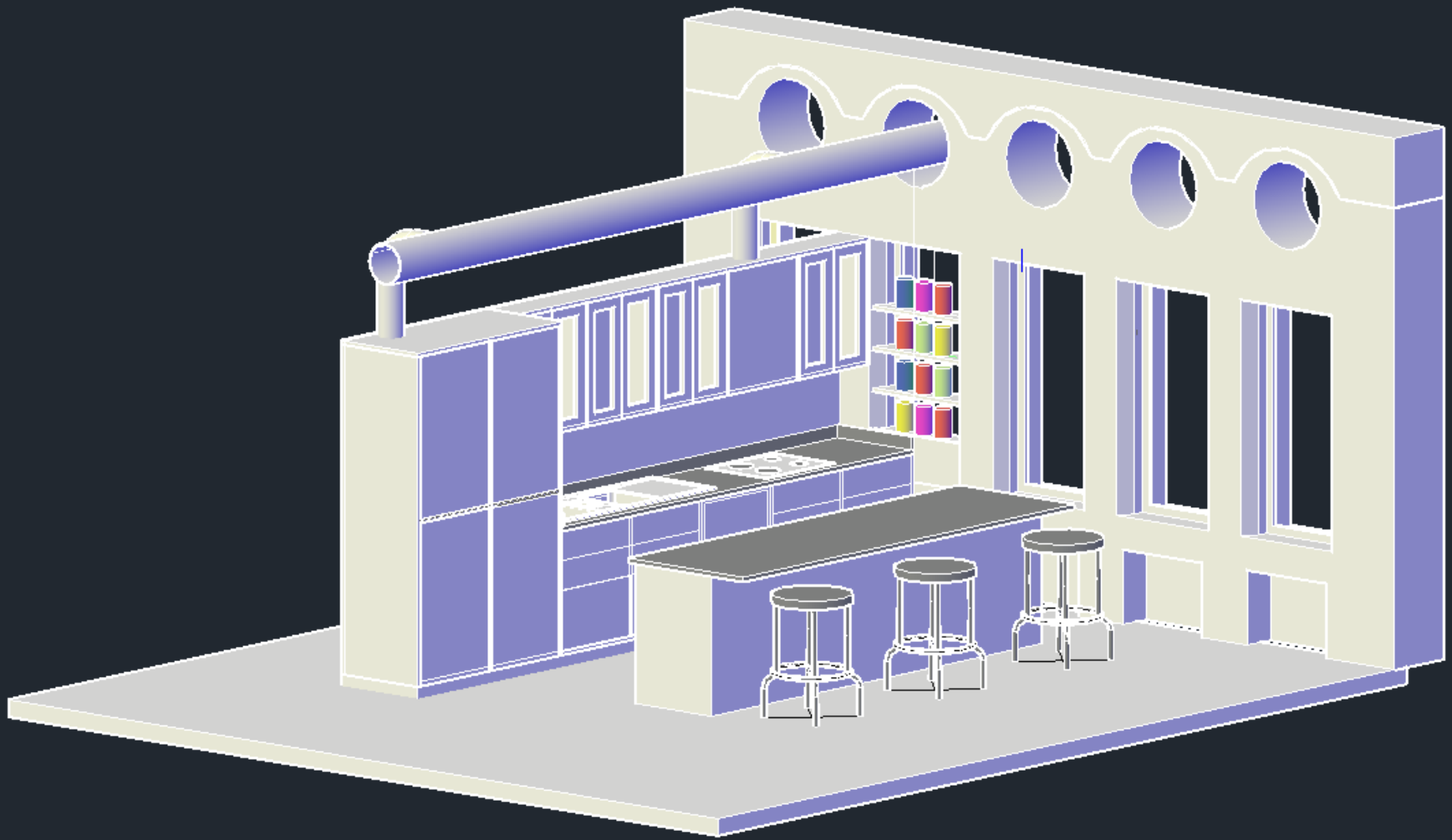




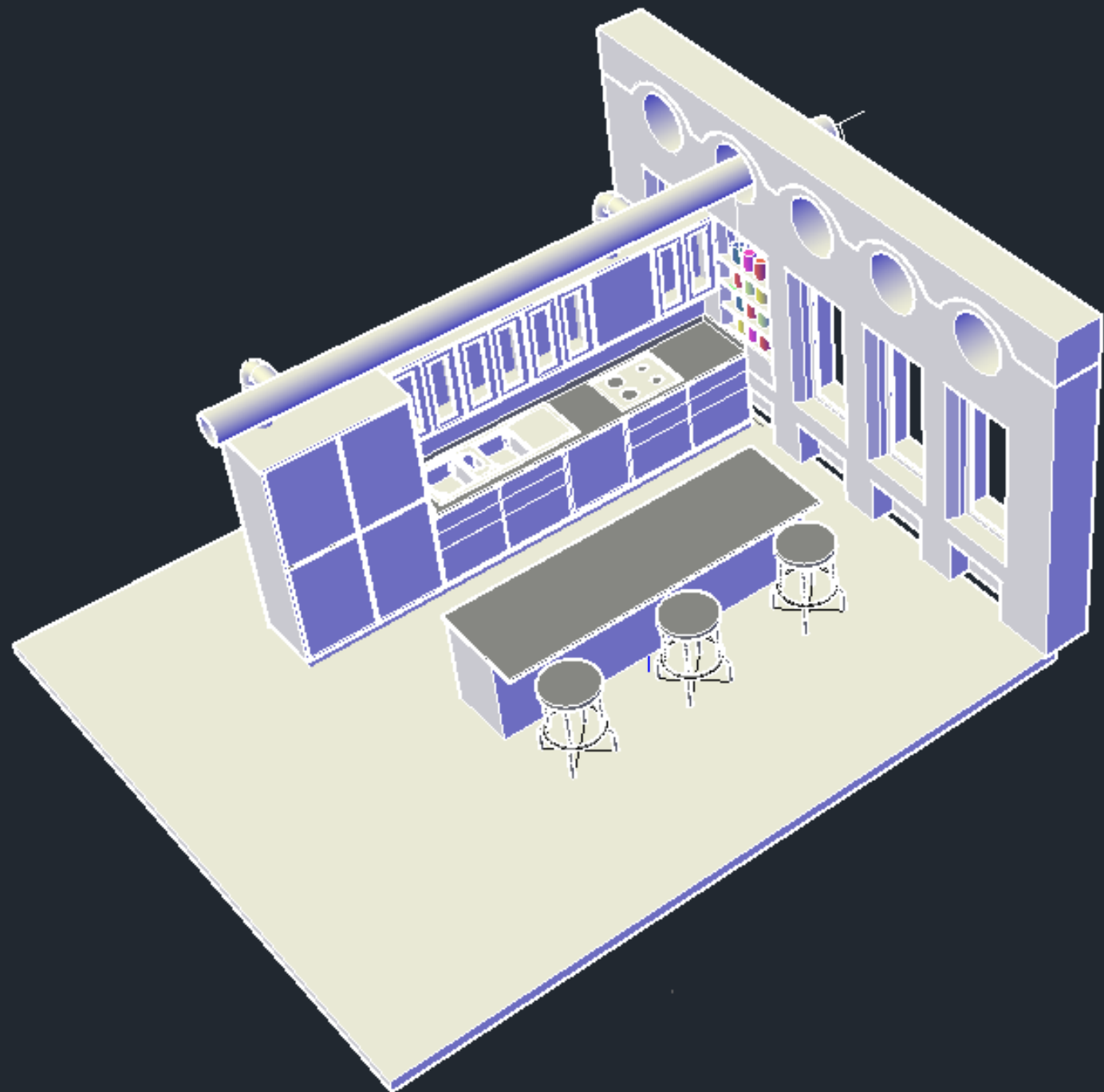
- This section shows that powered extract from the clothes drier and the stove can in most cases be extracted through the external portholes formed originally for extra ceiling lights. This would apply for electric cooking as well as gas.
- There are other cases where the internal exhaust system can be used for forced extract from clothes driers.
- The waste drain from the galley kitchens (washing machines, dish washers, kitchen sinks) runs in the skirting depth , crosses the passage in the topping screed and then runs within the depth of the core floor.

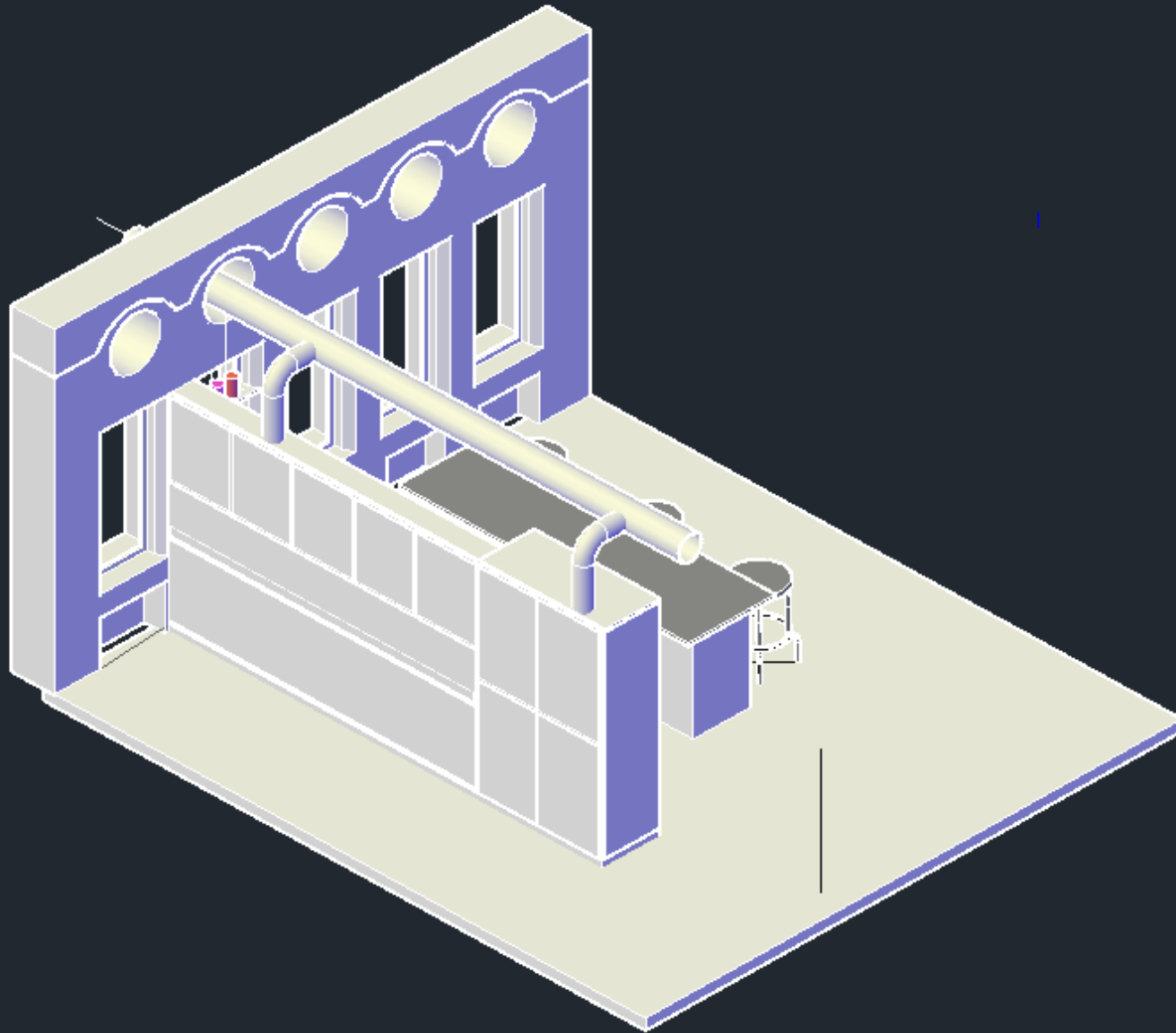


- Model of a typical bay cut through Eastgate
- This shows the rib arched ceiling
- The portholes above the windows and the internal portholes for exhaust air.
- The horizontal air ducts in the core
- The floor voids which contain the heat exchangers



- This is one way of arranging an open plan kitchen with a bar counter. This is very popular in South Africa and Australia
- T

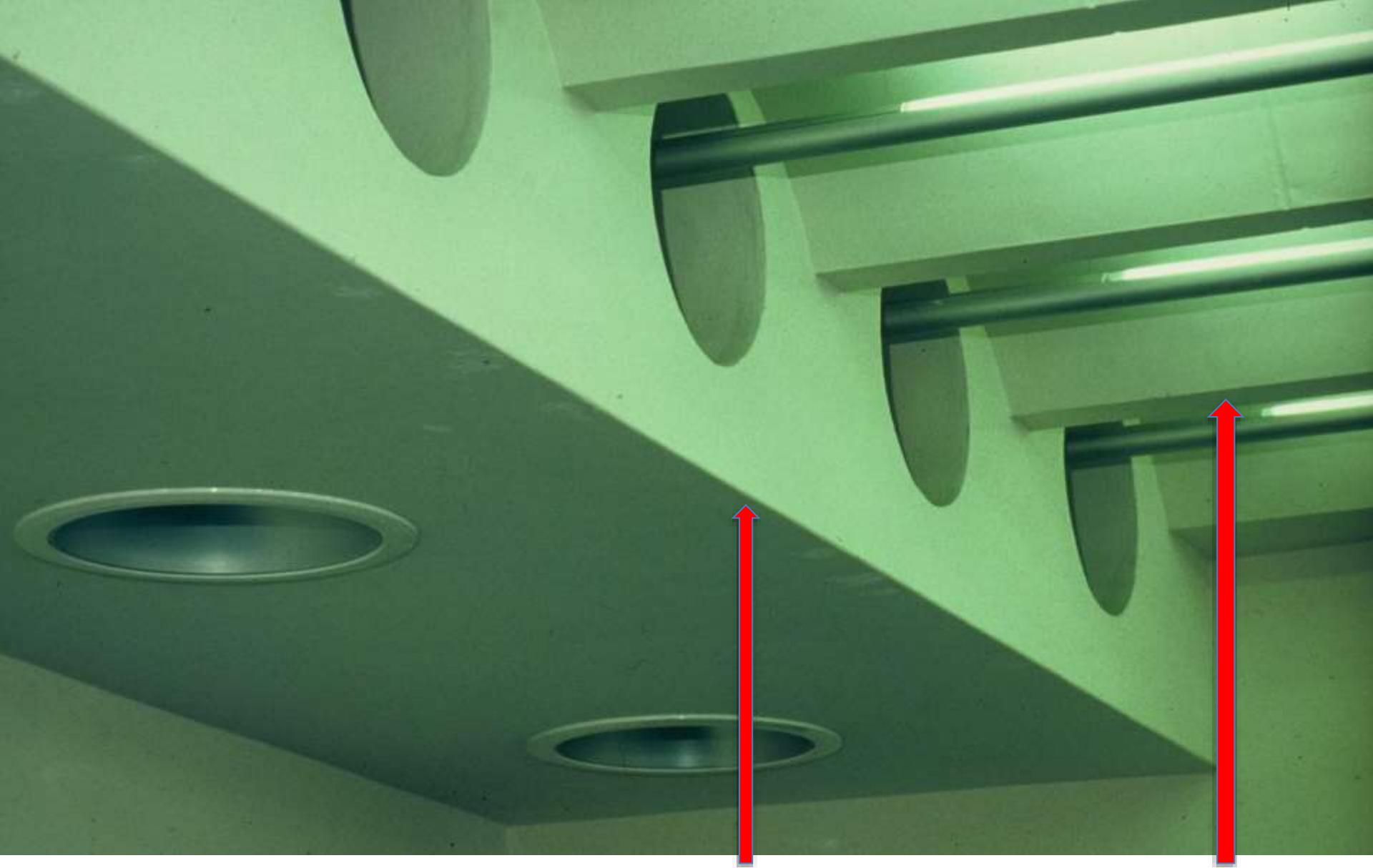




- The external portholes are also useful for fitting exhaust air ducts for both cooking smelt and from the tumble cloths driers



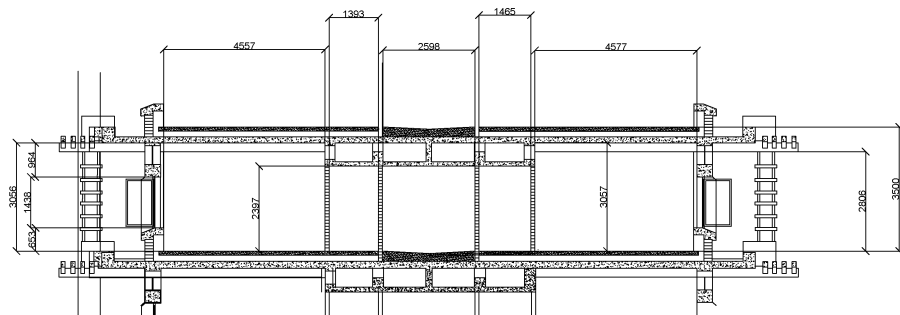
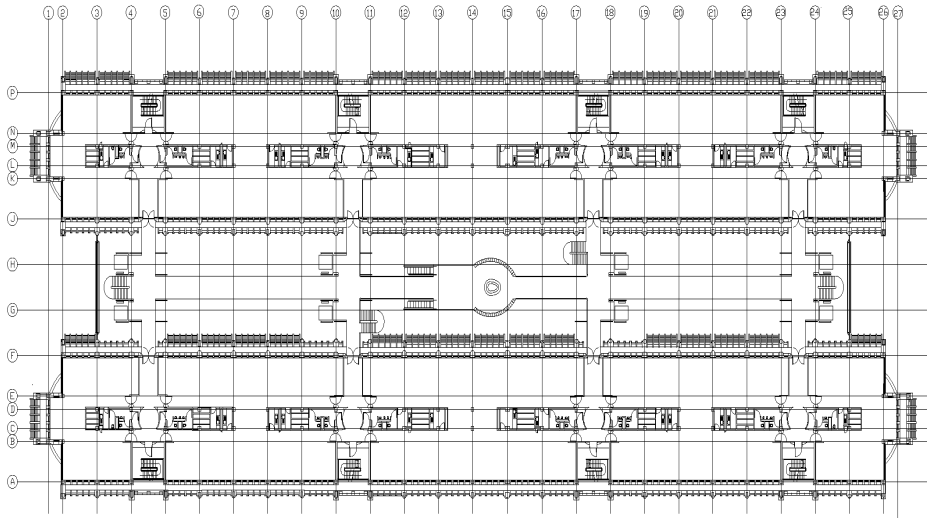
The ribs vaults also are positioned to receive partitions and act as indirect light reflectors. The existing lighting system needs completely upgrading to suit apartment living. We suggest replacement of florescent tubes (which are now unobtainable) with LED tubular fittings



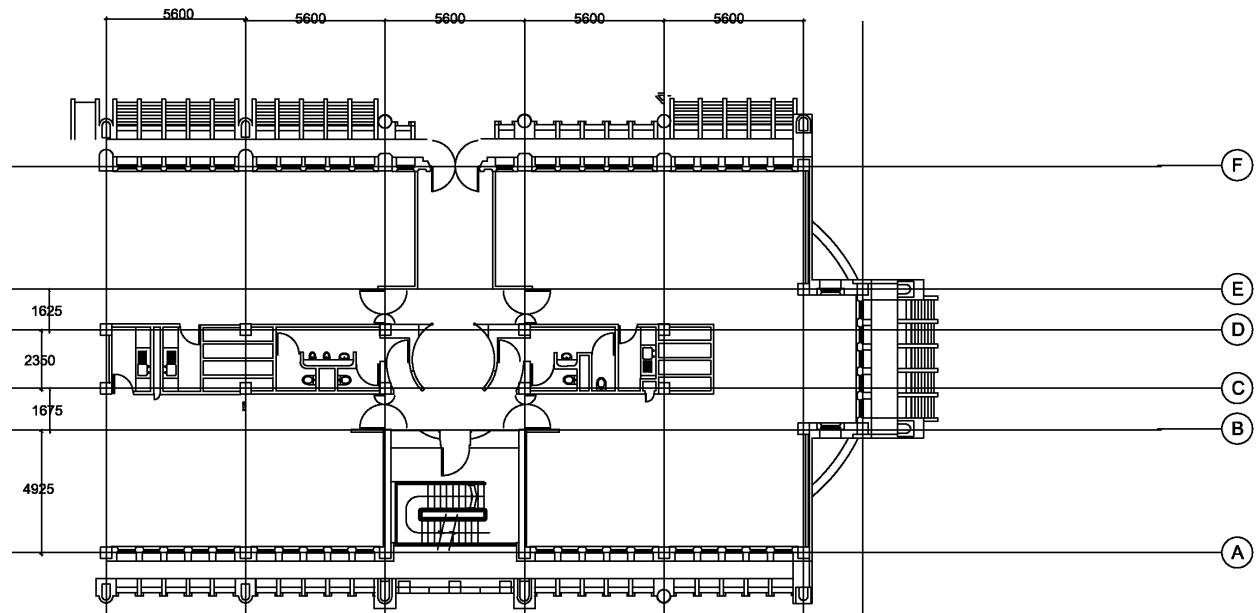
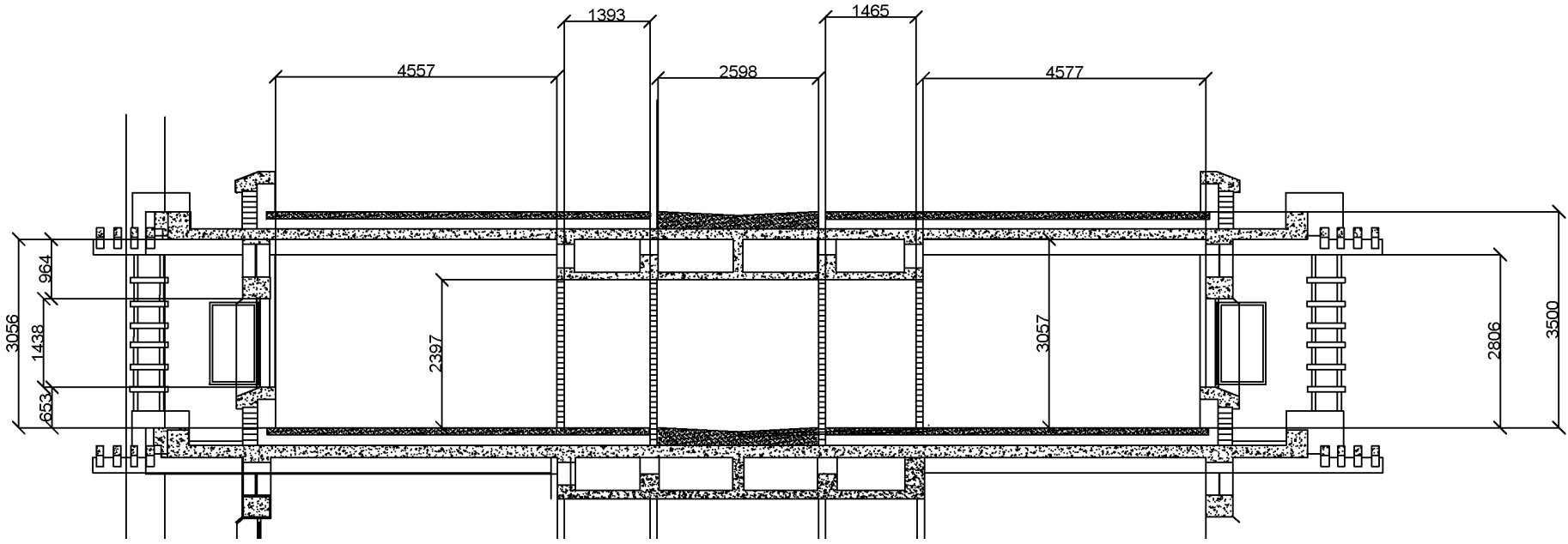
Horizontal exhaust air duct removing heat from the office or flat. Note that the partition walls must be built onto the ribs between the lights. The access passage walls must be placed along this edge.



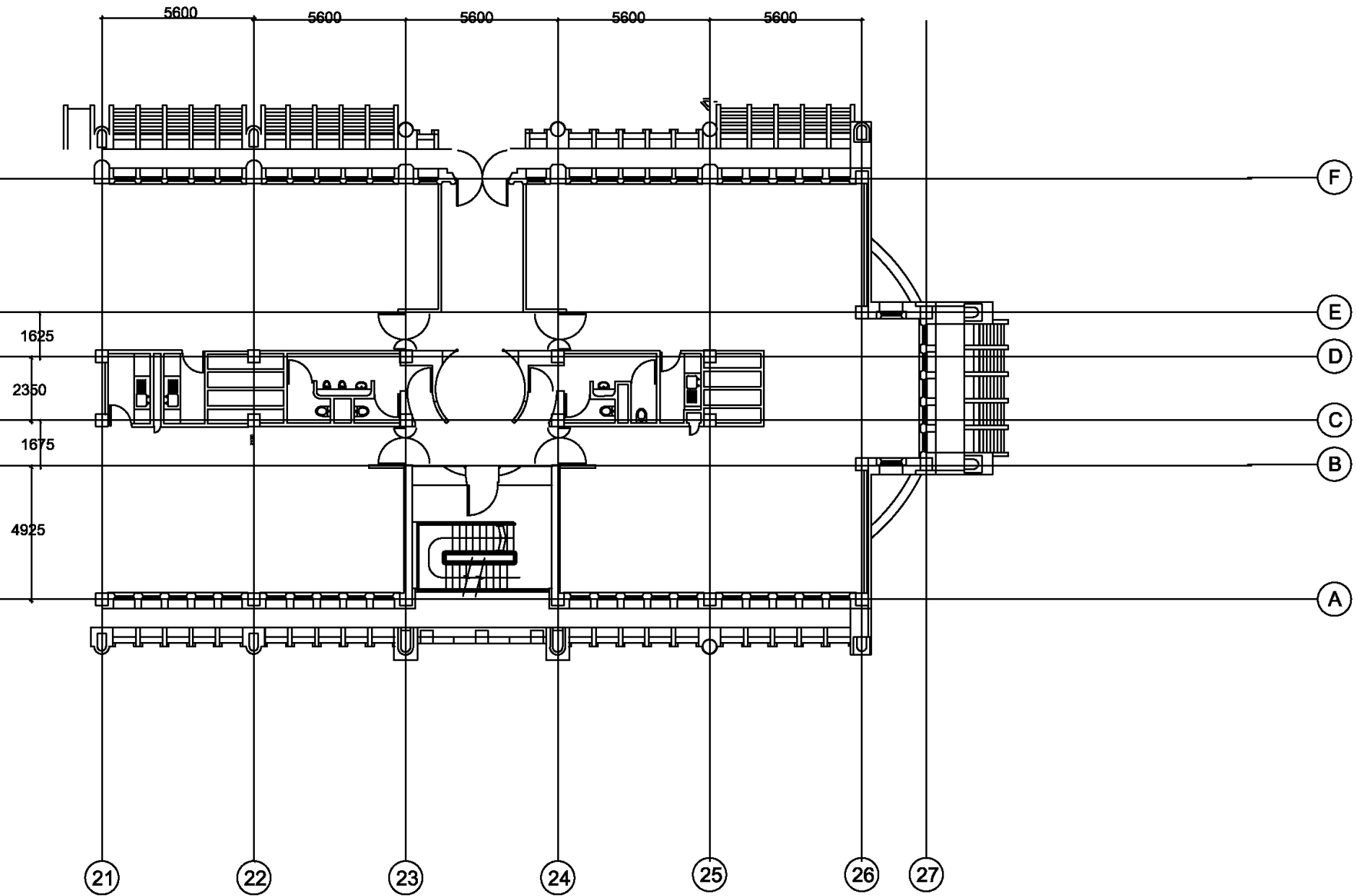
- **SOLAR HOT WATER & SOLAR PV**
- The north side of the north roof is available for solar harvesting.
- The existing solar panels locally made have all failed due to the type of Perspex “glass” used to cover the panels. This could be replaced with ordinary glass and the existing hot water system revived, circulation pumps and all.
- Alternatively the existing installation could be replaced with Vac Vac tubes which are far more efficient. All new housing developments today have to have primary solar hot water installations. In this case level 7 could be supplied with a new installation which could be designed to be added to as further conversions may happen in the future.
- There is the possibility for solar hot water winter heating (to be investigated) to supplement electrical heating as installed at present.
- There is also room for solar PV on this roof to supplement ZESA for lighting and internet.

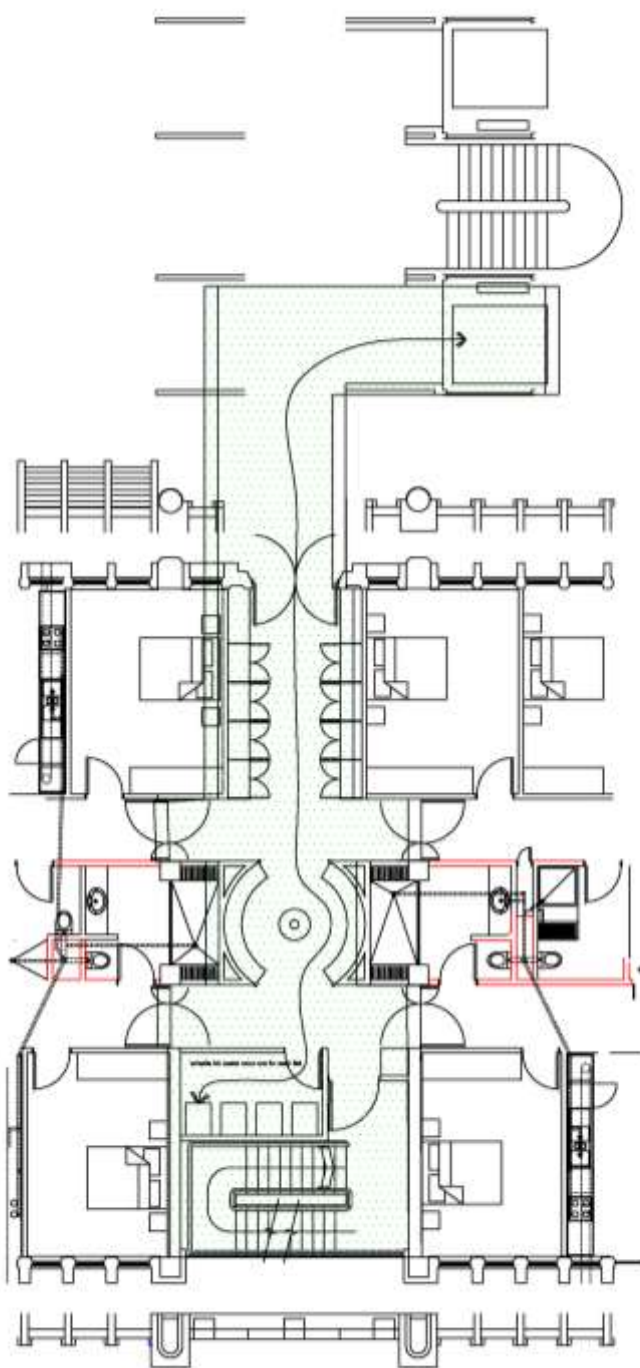


- **DEMOLITIONS**
- DEMOLISH AND REMOVE ALL PARTITIONING DOORS ETC
- REMOVE ALL CARPETINGS
- REMOVE ALL BRICK CORE PARTITION WALLS EXCEPT SURROUNDING DUCTS FOR AIR AND FOR WATER AND ELECTRICAL SERVICES.
- ELECTRICAL POWER OUTLETS IN THE FLOORS MAYBE REUSED BUT THE ENTIRE ELECTRICAL INSTALLATION TO BE REWIRED
- ALL LIGHT FITTINGS ARE TO BE REPLACED REMOVE ALL SANITARY WARE AND SEAL OFF CONNECTIONS TO STACKS AND SUPPLIES LINE OF WATER AND DRAINAGE.
- ALLOW FOR MAINTAINING ALL SERVICES ABOVE AND BELOW LEVEL 7
- REMOVE FLOOR FINISHES INSIDE CORE AREAS.



- Basic plan dimensions for measuring purposes



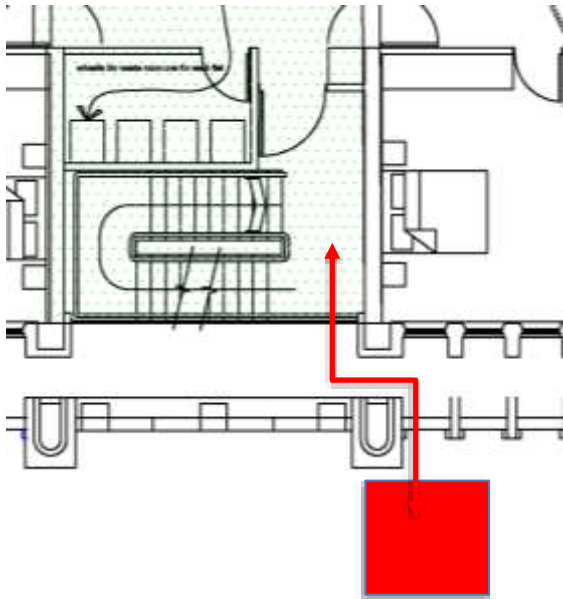
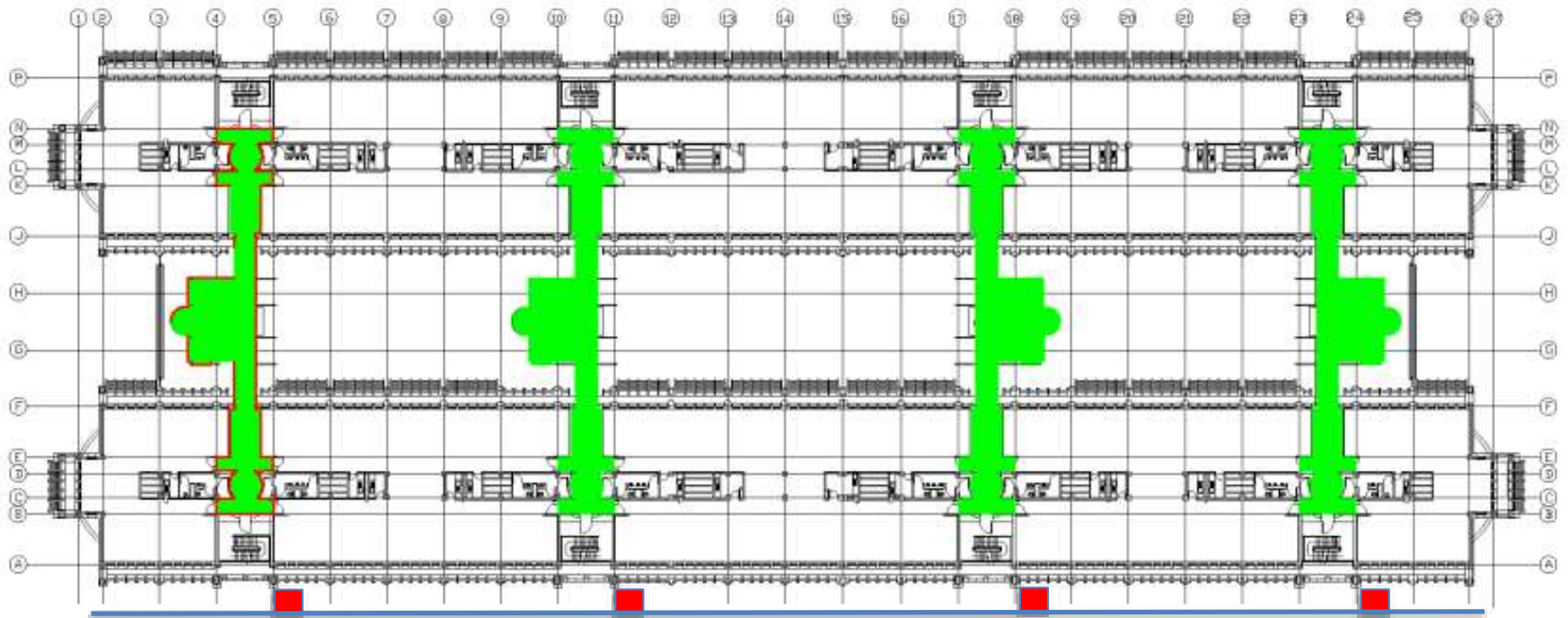


- **WASTE COLLECTION & DELIVERIES.**

There are 8 lobbies on level 7 each with 4 entrances to apartments. The escape stairs has space on the landing if rearranged as shown for 4 standard wheelie bins, one for each flat. These can be wheeled to the lift and taken down to the refuse sorting room on the ground floor. Here we would recommend remodelling this room to its original form with recycling bays now for food waste, plastics, metals and electrical goods and fibres.

In the circular centre of the lobby there could be a waiting area.

First after the entrance doors there is room for 8 cupboards; one for storage item for each apartment and a separate cupboard for on line deliveries. On line shopping has already begun in Harare. SPAR offer this service



- ACCESS FOR BUILDING
- The demolitions and rebuilding operations could avoid using the lifts by allowing the contractor to erect 4 lift towers from the Robert Mugabe Road pavement near the 4 escape stairs. There is a way through as shown without too much disturbance to other occupied floors. A lot depends on what is used to build the partition walls

- ITEMS FOR MEASUREMENT
- demolition
- Plumbing
- Drainage
- Partitions
- Core alteration
- Door frames and doors
- Plastering
- Tiling
- Painting
- Floor finishes
- First fix electrical rewire
- Second fix electrical light fittings and equipment
- Ironmongery
- Built in furnishings
- Furniture
- Sanitary ware
- Extract ductwork
- Fire gear
- Approvals
- Solar hot water system upgrade.
- Solar power
- Adjusting ventilation system
- Makeover of waste recycling room on ground floor
- Skirtings
- Fittings (mirrors toilet paper holders bathroom figments)
- QS specifications
- Consultation with engineers on partition walls
- Tanking under showers
- Access for building operations