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Sent: Wednesday, December 23, 2015 11:57 AM
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Cc: Engineers; bradleyl@peddlethorp.co.nz; Purcell, Geoff; Apeksha Shah
Subject: RE: 85 CSE - FEB Response from NZFS

Good afternoon

Please find the NZFS response to the fire engineering brief meeting of the 30th November and the subsequent minutes from Auckland Council dated the 8th December.

The layout follows our fire-fighting checklist where possible to assist with sign-off later as required by the various NZ Standards.

Regards and Merry Christmas

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1: Firefighting Water:
Good Class A supply from Customs Street.

2: Access to site:
Alternative proposal of Gore Street not acceptable due to width and being one way thus easily blocked despite all egress stairs and entry to B1 for FCC centre and sprinkler/pump room being off Gore Street.

3: Access to building
It is assumed the building will be secure after hours thus the NZFS will require access into building through Grand entry (front and rear door to unlock on fire alarm).
Lobby control will be established in the apartment lobby and thus will require a VDU with a communication link (more detail below) located in the "Concierge Desk" area.

Entry to the fire control room, sprinkler pump room and hydrant pump located in BI (basement level 1). Location to be shown on mimic panel.
These rooms are accessed via door on Gore Street lane (to be labelled). The doors to unlock on fire alarm activation or unlocked with a "Lockwood 197 Key"
The access route to these rooms require emergency lighting and no sounders in hall or in rooms.

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Signage on the external door and the internal doors marked accordingly I.e. “Fire Control Room”, “Sprinkler Valve room” and “Pump Room”, the pump room to be segregated and sound proofed (marked with noise warning?).

Fire Service access to upper floors will be via apartment lift SE. This has access to all floors and will be hardened (Standard yet to be defined and agreed)
This will require lifts to be pressurised so as not to compromise operation.
All lifts will home to ground floor and Fire Service will have a “TOK 9” key to take manual control of fire fighting lift.
The fire service will also take control of good’s lift and thus require this to have firemans override/control as above. This will require entry to ground floor service lift lobby from main lobby.
Goods lift will be used to evacuate any disabled occupants from the building (if required). SE lift will be utilised to bring up fire-fighting resources to two floors below fire floor.
The SE passenger lift will be dedicated to operational functions and the service lift to evacuation requirements (both are required to be hardened).

Evacuation will be initiated on the floor of fire origin and one above (stage 1). Evacuation tone and voice message will be provided.
Remainder of building will get alert tone and voice message.
Able bodied occupants will evacuate via East stair and exit onto nearest lower refuge corridor.
We thus see the refuge areas to be part of the safe path and thus treated as such under the VM approach.

Access from stair into refuge areas will require re-entry from stair so doors must unlock on fire alarm and clear marking of refuge areas.
The designer will be responsible for checking the refuge area has sufficient space for the expected worst case occupant numbers.
This building will require an approved evacuation scheme that will reflect the intentions of the fire design and thus must be coordinated by the fire designer.

Above level 39 , occupants will cross over into refuge area on floors 39 and 45. This may require occupants between 41 and 44 to actually evacuate upwards to the refuge on 45 so as not to be placed at risk by fire service operations.
Evacuation to the ground floor will be decided by the NZFS should that be required.

FIRE FIGHTING OPERATIONS:
Fire fighters will establish forward control point 2 floors below fire floor.
Occupants well be directed into refuge areas by voice message (as part of the evacuation message) and appropriate signage. If occupant’s wish to continue evacuation this will be by west stair.

Floor 47 to top (level 58) have no corridors thus cannot use lifts OR HAVE TO BREAK INTO APARTMENTS!
It is preferable that the lifts can be used as the current layout will require the NZFS to walk up from below, a maximum of 9 floors (30+M). This will delay fire-fighting and rescue operations.

Sprinkler isolation valves need to be located in obvious location preferably within SE stair enclosure.
Similarly electrical isolation panel needs to identified on each floor.
The NZFS are unclear how to reach upper levels above 47 (have no drawings?)

Floor identification must be identical for lifts/ panels and physical labelling of floors.

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As the refuge areas are collocated with the lifts, What provision has been made to limit smoke ingress into the Lift shafts?

4: Waterway:
The NZFS would like both brigade inlets and a multiple hydrant outlet be co-located at gridline 5 between columns on Custom Street.
Hydrant outlets will be required in both stairs given reach of riser pack, located on half landing (40 m arc) and the duplex apartments.
Sprinkler floor isolation valves and drain valves to be locate in East stair***.(location marked on panels)***

5: Panels:
Locate mimic panel above BIC on Custom street, prefer 3-Dimensional version with LED lights mounted in actual location on diagram.
Main panel in FCC with VDU repeater in concierge/apartment lobby
Smoke detection will only sound in apartment or firecell of detection. Apartment smoke detection will not call fire service will be provided with a remote mute switch.

6: Fire Systems Centre:

Main panel, addressable
EWIS panel (Standard and design to be confirmed)
Ventilation control complete with schematic, carpark extract system included.
Security override: to doors into all stairs, floor by floor or all?
Electrical isolation switch's for each floor identified in FSC.
Mains power separated into non-emergency and emergency with isolating switches location identified in FSC (main switch's physically located on level 2?)
Override on Ballantyne fire door/s.
Lift indicator panel showing location.

COMMUNICATIONS:
Communication system consisting of two way microphones, FSC to be able to talk directly either 1 to 1 or 1 to many via sounder bases in smoke detection system. Microphones to be located on wall of West stair on each full level, SE lift car, sprinkler valve house, Lobby, Service lift, Fire control room***.***
NZFS will utilise the PA function on the EWIS system to provide direction/ instructions to each and any level.
To achieve inside/outside communications will require a leaky coaxial IGC repeater with amplifier, need to cover basement as well. Strongly recommend a second UHF channel for security/concierge radios. This will quickly highlight if any dead spots or system not working or been tampered with.
We have a specialist who can liaise with the designers of this system.

7: First aid fire fighting
Recommend provision of 1 kg dry powder extinguisher in kitchen of each apartment.
Provide FHR in main corridor.

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