

## Schedule of Changes Register

<b>Project</b>	Residential Apartments (23 units)
<b>Job Number</b>	2827.22
<b>Date</b>	01 September 2023
<b>Location</b>	23-25 Charles Street, Liverpool

The following register is a schedule of changes that form part of the S4.55 Package.

### Project Background:

The original development was designed by iDraft Architects and approved by Liverpool City Council (DA-50/2021). In June 2022, Stanton Dahl Architects (SDA) were engaged as to prepare Design Finalisation / Construction Documentation for the above-mentioned project on behalf of Hume Community Housing.

As part of the design finalisation review by (SDA), several changes are proposed to assist in the buildability and design resolution of the construction methodologies. A review has also been undertaken to review the following areas;

- Compliance with National Construction Code (NCC)
- SEPP65 Apartment Design Guide
- Value engineering opportunities with the client/project managers

A summary of the changes has been listed below;

Item	Description of Changes
<b>DA00</b>	<b>Cover Sheet</b>
1.0	Revised S4.55 Drawing List
1.1	Updated Photomontage Image of revised design
1.2	The Gross Floor Area has been recalculated. Gross Floor area calculations are shown in detail on DA30.
1.3	<p>Adaptable Units</p> <p>The approved DA mentioned 100% units to be adaptable but the carparking was not in accordance with only 2 spaces achieving compliance. Additionally Liverpool council DCP requires 10% of units to be adaptable. Hence 10% of 23 units = 2.3</p> <p>Hence the number of units with adaptability compliance have been reduced to 2 nos in the S4.55 plans.</p>
<b>DA01</b>	<b>Services Basement</b>
2.0	<p><u>Services Basement</u></p> <p>The services basement has been redesigned to address revised structural design and provide compliant spatial requirements for the nominated services required by the hydraulic engineer.</p>

Outline of the building footprint of the floor above has been shown on this plan. The building envelope above is maintained as approved in the DA. The known deviation to this is the extension of the DA approved external stair located in the western setback to service the Fire Pump room and the introduction of the 3 angular columns on the Northern side of the proposed development as a result of structural resolution.

With the building lowered to maintain the DA approved height, the parking levels had to be lowered. This decrease in level caused a reduction in the internal height within the OSD impacting the installation of the proposed 460mm cartridges and the height required for maintenance access. To overcome this issue the OSD has been relocated outside within the northern landscape area achieving the minimum internal height required.

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#### 2.1 Access Stairs

Access stairs have been redesigned to suit revised structural design and include an airlock as required by NCC.

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#### 2.2 Fire Tank

To meet Basix commitments, a Fire tank has been added for the requirements of the sprinkler system.

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#### 2.3 Fire Pump Room

The stairs providing access to the fire tank have been relocated externally to accommodate the structural columns and to provide improved egress conditions during an emergency. Locating the stairs in the outside prevents access to the basement from the fire pump room during an emergency. These stairs are now designed to be a continuation of the egress stairs from the basement to prevent further encroachment into the setback. This has resulted in the relocation of the Fire Pump Room

This extension of the egress stair results in a decrease in the landscape area within the Western setback.

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### **DA02 Siteworks & Ground Floor Plan**

#### 3.0 Building Parking Under croft / Ground Floor RL

Upon receiving structural advice for the proposed residential building, it became apparent that the original architectural design did not make enough allowances for the building structure as the project required several levels of transfer beams to be included in the design. This resulted in increased floor-to-floor heights to accommodate the deeper beams & slabs. In order to maintain the overall approved DA building height, the building had to be lowered further into the ground. Original Parking Under croft/Ground Floor Level = RL: 21.600 and new proposed RL: 21.315 resulting in a lowering of 285mm.

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#### 3.1 Car Parking Layout & Design

The car parking layout has been redesigned to accommodate the structural columns supporting the building. The location of these columns is critical as they avoid adding additional costs to the building by reducing the depth of transfer beams to the slabs.

In summary, the car parking has been re-spaced resulting in a (1) parking space to be relocated near to the Community room wall. The accessible parking spaces has also been reconfigured to optimise space utilisation.

The parking under croft has also removed the 'hit & miss' brick features and provided in lieu a powder coated open style batten system to improve surveillance, safety, ventilation and reduce maintenance.

The 3 angular columns which transfer the load from the external features of the building including the balconies extend to this level and are seen on the Northern side. This has resulted in the affected parking spaces to move inwards to avoid potential clash.

The egress door towards the West has been recessed into the building to respond to the extension of the external walkway to service the new fire tank position.

A Bulk Waste area has now been designated.

The communication services cupboard has been relocated for efficiency in serving the floors above.

Access hatches into the Fire pump room are shown on the plan.

The total number of parking spots and types retained as approved in the DA.

The stairs to access the fire pump room have been relocated to the outside to improve egress in case of an emergency while accommodating the structural columns.

With the building lowered to maintain the DA approved height, the parking levels had to be lowered. This decrease in level caused a reduction in the internal height within the OSD impacting the installation of the proposed 460mm cartridges and the height required for maintenance access. To overcome this issue the OSD has been relocated outside within the northern landscape area achieving the minimum internal height required.

A side door from the basement into the Southern setback from the DA approved drawings has been deleted.

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### 3.2 Community Room & WC

The redesign of the carparking layout as detailed above and the resolution of the structural design has impacted the community room layout. The total floor area of the Community room has been retained as approved in the DA. A store has been introduced in the community room for improved functionality.

Part of the external wall of the community room has been changed from glazing to solid to maximise use of the space within and to allow for the lowering of the building into the ground.

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### 3.3 Siteworks, Access Ramp & Retaining Walls

As the proposed building has now been lowered, the following has been amended within the design, they include;

- New 1:20 ramp within the front setback exiting from the fire stair & mains switch room.
- Due to the lowering of the building, the fence along Mill Road has been extended to suit.
- The driveway and the ramp into the basement now allow for the gradients required to arrive at the proposed basement FFL of 21.315.
- Swept path analysis for parking spots 8 & 10 have been re-submitted to council as requested on 25<sup>th</sup> August 2023.

Other amendments include:

- Wider entry paving to accommodate access requirements for letterboxes.
- New building signage wall with feature planting in front proposed with dual use of disguising access doors from fire stairs and mains switch room while providing street identification.
- The hydrant booster and water meter have been relocated to be included within the fence design. This relocation is in response to Council DA condition 21(b).

The DA approved location for these services did not show any enclosure resulting in the services being prominent within proximity of the entry area. To resolve this, in the S4.55, the relocated services have an external slatted gate which reduces the prominence while maintaining access. The proposed detail is as shown on DA 24, detail 05. The vertical slats are in continuation of the fence slatted detail allowing for visual continuity of the fence design. This new location along with the enclosure and gates provide an improved outlook to the street in comparison to the DA approved location and appearance.

- The OSD tank design has also been redesigned to accommodate the new design. With the building lowered to maintain the DA approved height, the parking levels had to be lowered. This decrease in level caused a reduction in the internal height within the OSD impacting the installation of the proposed 460mm cartridges and the height required for maintenance access. To overcome this issue the OSD has been relocated outside within the northern landscape area achieving the minimum internal height required.
- Gas meters relocated to provide improved access for maintenance.
- Bicycle parking area has been redesigned to accommodate new retaining walls. Further information is in point 3.5.
- The access to the fire pump room has been relocated externally to accommodate the structural columns and to provide improved egress conditions during an emergency. This was achieved by extending the DA approved external stairs located outside the main building envelope within the western setback.
- Existing sewer manhole located and marked prominently to avoid being covered within landscaping.
- The proposed easement located within the southern setback is shown prominently on the plan.

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#### 3.4 Garbage Store & Waste Chute

Due to the minimal number of apartments on each floor (4 units), it is not feasible to operate a garbage chute. Additionally, the small building footprint provides very limited space for garbage collection within the building. In lieu of this, 2 x 240L bins (General waste & recycling) have been provided on each residential floor (Level 1 to Level 7).

These bins are proposed to be emptied 2 times a week.

A separate Bulk Waste Storage area has been provided as required by the conditions of approval.

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#### 3.5 Bicycle parking

The bicycle parking has been provided with a cover in response to council's request. The proposed cover will be nominated to be lightweight in construction.

The access to this area will be over a permeable stone paver bed allowing rain or irrigation to pass through it due to its high porosity rate.

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#### 3.6 Allowance for Services

The revised design also makes allowance for services including, hydrant booster & water meters (these are now located within the front fence design). Gas meters have been located to the north-west and accessed via the pedestrian pathway.

The OSD tank design has also been redesigned to accommodate the new design. With the building lowered to maintain the DA approved height, the parking levels had to be lowered. This decrease in level caused a reduction in the internal height within the OSD impacting the installation of the proposed 460mm cartridges and the height required for

maintenance access. To overcome this issue the OSD has been relocated outside within the northern landscape area achieving the minimum internal height required.

The hydrant booster and water meter have been relocated to be included within the fence design. This relocation is in response to Council DA condition 21(b). This new location along with the enclosure and gates provide an improved outlook to the street in comparison to the DA approved location and appearance.

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### 3.7 Ground Floor Setbacks

The building setbacks are generally maintained as per the approved DA. Setback dimensions now added to DA 02.

- The external wall to the north of the parking undercroft has been setback to further enhance the feature columns. The walls have been setback approximately 470mm from the approved location. The columns, however, maintain the approved setbacks.
  - The Western setback for the basement wall has been maintained as approved in the DA. The stair access to the fire tank has now been relocated to the outside, within this setback area as detailed in point 3.3 above. This has resulted in some external landscaping and deep soil area being reduced to accommodate the stair.
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## DA03 Floor Plan – Level 01 to Level 07 to DA09

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### 4.0 Apartment Designs

The DA approved apartment layouts did not have any structural or services inputs. Hence they did not reflect any columns, risers and as many service cupboards. Accordingly, all apartments have been redesigned to include the following design considerations;

1. Include provision of proposed structural column grid. This required an adjustment in the apartment & balcony designs to accommodate the new columns.
2. Apartment designs have also been redesigned to accommodate the required services cupboards and risers.
3. In general the layout of the living dining/kitchen have also been amended where required to accommodate an improved and compliant kitchen layout.
4. Unit 01
  - Bathroom layout adjusted and made larger to comply with Adaptable Housing Standards AS4299 & meet the spatial requirements for bathrooms and door templates.
  - The kitchen has been replanned to make it functionable by allowing spaces for general equipment including microwave, adaptable wall oven, dishwasher, drawers etc. The replanning is essential to achieve compliance with the Adaptable Housing Standards AS4299
  - The above replanning of the kitchen has resulted in the laundry being relocated in the entry foyer.
  - Bedrooms have been increased in size (while retaining external walls in place) to allow for compliance and access requirements especially outside bedroom 02.
  - The apartment area has reduced marginally due to the staircase resolution and the wall makeup including the insulation and structural information including columns.
  - Storage has been introduced within the apartment which was missing in the DA approved Unit 01.
  - The Balcony area has reduced as a result of the fire egress stair occupying additional space to achieve compliance with the number and width of risers. The depth of the balcony has been retained as approved in the DA.

- Adaptability Compliance access templates have been added to the floor plan and issued separately on DA 33.

#### 5. Unit 02

- The kitchen has been replanned to make it functionable by allowing spaces for general equipment including microwave, adaptable wall oven, dishwasher, drawers etc. The replanning is essential to achieve compliance with the Adaptable Housing Standards AS4299
- The compliant kitchen design has resulted in the living/dining area to be reduced.
- Relocation of the kitchen is also essential to allow for clearance in front of the laundry cupboard to achieve compliance with AS4299.
- Bathroom layout adjusted and made larger to comply with Adaptable Housing Standards AS4299, meet the spatial requirements for bathrooms and door templates and improve buildability allowing for tolerance to maintain compliance after construction.
- Bedroom robe has reduced to allow for additional space required in Unit 01 for compliance purposes as detailed in Unit 01 above.
- Storage within the apartment has been improved by increasing the depth. The length has been retained as approved in the original DA.
- The entry door to unit 02 has been moved away from the entry door to unit 01 to allow for structure and meet door clearance requirements.
- The door into the balcony has been changed from a sliding door to a swing door to achieve minimum door width clearances.
- Adaptability Compliance access templates have been added to the floor plan and issued separately on DA 33.

#### 6. Unit 03 (Applies to Unit 07 & Unit 11 as well)

- The kitchen has been replanned to allow for working counter space, kitchen equipment and storage drawers.
- This has resulted in the living & dining layout to be amended.
- Laundry layout widened to allow for a standard washing machine, requiring the riser to be relocated to the rear of the laundry cupboard.
- Storage cupboards have been added to the unit layout. No additional storage provided in the DA approved Unit 03 (& Unit 07 & Unit 11)
- The balcony width in the narrower portion has reduced to allow for the external wall thickness. The external wall in the DA approved plans was assumed to be 270mm thick. The walls in the S4.55 plans are currently drawn at 350mm to allow for the Structural elements, wall insulation and construction methodology.
- The balcony depth has been increased off the living & dining for improved amenity.
- Angular columns added in the balcony as a result of structural resolution. The angle allows for better light quality into the unit spaces.
- Removed blade wall to the West and replaced with glass balustrades to the balcony to ensure better use of natural light.
- A privacy screen introduced between Unit 03 & Unit 04 balcony in lieu of the solid wall in the approved DA, to allow for the angular column.
- Storage introduced within the unit layout.
- Introduction of structure, resolution of the wall makeup including insulation and structural columns have resulted in a minor reduction in the apartment area.
- The balcony length on the western end has been reduced and brought in line with the angular structural column. This has resulted in a minor reduction in the balcony area.

7. Unit 04 (Applies to Unit 08 & Unit 12 as well)
  - The kitchen has been replanned to allow for working counter space, kitchen equipment and storage drawers.
  - This has resulted in the living & dining layout to be amended.
  - Robe length in bedrooms reduced to marginally to allow for services.
  - Overall storage within the unit has been increased in comparison to the DA approved Unit 04.
  - Removed blade wall in the balcony to the West and replaced with privacy screen to ensure better use of natural light.
  - Balcony depth altered to allow for 350mm external walls in lieu of DA approved 270mm walls. The increase in depth is a result of BASIX, Wall insulation & structural resolution. The balcony dimensions now take the balustrade material into consideration.
  - The services riser in the lobby, Introduction of structure, resolution of the wall makeup including insulation and structural columns have resulted in a minor reduction in the apartment area.
  - Introduction of the structural column in the balcony has a minor reduction in the balcony area, but is still compliant.
  
8. Unit 05 (Applies to Unit 09 as well)
  - The kitchen has been replanned to make it functionable by allowing spaces for general equipment including microwave, adaptable wall oven, dishwasher, drawers etc.
  - The above replanning of the kitchen has resulted in the laundry being relocated in the entry foyer.
  - The furniture layout for the resulting space has been included within the furniture floor plans.
  - The increase in bedroom sized in Unit 01 below for adaptability compliance has been maintained in Unit 05 & Unit 09. This is to allow for structural resolution and load transfer.
  - The GFA calculation excludes service risers within the apartment and is hence lesser in comparison to the DA approved Unit 05 & Unit 09.
  - Storage has been introduced within the apartment which was missing in the DA approved Unit 05 & Unit 09.
  - The apartment area has reduced marginally due to the staircase resolution and the wall makeup including the insulation and structural information including columns.
  - The balcony area has reduced as a result of the fire egress stair occupying additional space to achieve compliance with the number and width of risers. The depth of the balcony has been retained as approved in the DA.
  
9. Unit 06 (Applies to Unit 10 as well)
  - The kitchen has been replanned to make it functionable by allowing spaces for general equipment including microwave, adaptable wall oven, dishwasher, drawers etc.
  - The kitchen redesign has resulted in the living/dining layout to be reconfigured. This is reflected in the furniture layouts.
  - Bathroom layout adjusted and made larger to allow alignment with Unit 02 below.
  - Bedroom robe has reduced to introduce storage space in Unit 01.
  - Storage within the apartment has been improved by increasing the depth. The length has been retained as approved in the original DA.
  - The entry door to unit 02 has been moved away from the entry door to unit 01 to allow for structure and meet door clearance requirements.



- The door into the balcony has been changed from a sliding door to a swing door to achieve minimum door width clearances.

#### 10. Lobby – Level 01- Level 07

- Bin space increased to allow 2 bins.
- Stair pressurisation removed and stair resolved to allow for the increased transfer slab depth at level 04.
- Fire Egress staircase door recess removed to improve circulation. This has caused a minor increase in the GFA per floor.
- The recess in the external wall, alongside the lift shaft has been straightened adding to the floor area of the lift lobby.

#### 11. Unit 13 (Applies to Unit 16 & Unit 19 as well)

- The layout has minor adjustments to improve storage, access & amenity.
- The bedroom access is improved from the narrow gully in the DA approved layout.
- Bedroom layout amended for improved amenity and connectivity to bathroom.
- Bathroom size increased form improved amenity
- Improved storage area in comparison to DA approved plans.
- Introduction of columns and resolution of the Fire egress stair has resulted in a minor reduction in the balcony area.

#### 12. Unit 14 (Applies to Unit 17 & Unit 20 as well)

- Adjustment to the Kitchen layout and size to provide better amenity and achieve Silver Level compliance in accordance with Livable Housing Australia Guidelines
- Size and layout of the Bathroom adjusted for better amenity and door templates.
- Laundry layout replanned to provide increased storage.
- General storage increased within unit.
- Removed blade wall and replaced with privacy screen to the balcony to ensure better use of natural light.
- The balcony length on the western end has been reduced and brought in line with the angular structural column.
- The apartment area has increased since the common lobby space has been given back to the apartment due to the replanning of the fire egress stair entry.

#### 13. Unit 15 (Applies to Unit 18 & Unit 21 as well)

- Replaced hinged door with sliding door to provide improve mobility to bathroom.
- Introduced general storage within the unit.
- A window introduced on the balcony wall to improve amenity to living spaces.
- Bedroom sized increased marginally for better amenity.
- Removed blade wall to the West and replaced with privacy screen to the balcony to ensure better use of natural light.
- Addition of column required relocation of door into the bedroom. This has an impact on the cross ventilation for these units.
- Balcony dimensions and area marginally reduced due to the introduction of structural column.

#### 14. Unit 22

- The unit entry is replanned since the units do not need to meet Platinum Livable housing level. The resulting space was utilized in providing



improved amenity including spacious kitchen design and a bigger bedroom.

- Adjustment to the Bathroom and Laundry layout and locations to provide better amenity and make use of the large circulation space at the entry in the DA approved plans.
- Introduced general storage within unit.
- The apartment area has increased since the common lobby space has been given back to the apartment due to the replanning of the fire egress stair entry.
- The balcony area has reduced as a result of the fire egress stair occupying additional space to achieve compliance with the number and of risers to meet the transfer slab depths. The depth of the balcony has been retained as approved in the DA.

#### 15. Unit 23

- Adjustment to the Kitchen layout and size to provide better amenity and use of kitchen space.
- Layout of the Dining and Living areas adjusted to have a more structured use of space.
- Introduction of general storage within units.
- Minor adjustments to the layout of the Bathroom for better use of space and efficient movement in the corridor (Entry door).
- Alcove created for placement of TV unit
- Apartment size increased by 5 sq.m. This was done to allow the external wall to align with the external wall of Unit 21 underneath. This alignment aids in transferring the load of the planter on the Roof above.
- Balcony dimension reduced for the above reason to allow the external wall to align with the unit below and the planter at the roof level. This reduction in Balcony width brings it in line with the balcony dimensions on the floors below and maintains compliance.

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#### 4.1 Balcony Columns

The structural columns have been incorporated into the balcony designs. This has meant additional columns have been included into the designs and/or orientation of the columns. Columns facing Mill Road have also been rotated 45 degrees to provide better solar access into the dwellings.

#### Changes to Balcony Sizes

This structural resolution including addition of columns has resulted in a minimal reduction in the balcony floor space. The minor reduction seen on the comparative table on DA 25 is the deletion of the floor area occupied by these balcony columns.

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#### 4.2 Allowance for Services

Services provisions have now been allowed for within the Lobby.

Service risers within the apartments have also been shown.

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#### 4.3 Garbage Chute

The garbage chute has been deleted. Please refer point 3.4 above for further details.

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#### 4.4 Bicycle Parking

- The bicycle parking has been provided with a lightweight cover in response to council's request.
- Access to this bicycle parking has been added in response to council's request. This proposed material for this pathway is permeable paving with a high porosity rate.

- Lighting provision to be proposed to this bicycle parking area as requested by council.

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## **DA10 Floor Plan – Roof Terrace**

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### **5.0 Common Area WC**

The WC layout has been amended to achieve compliance with AS 1428.

### **5.1 Landscape Podium**

The landscape podium has been extended to the north to provide cover over the balconies to Unit 23. This has provided a better architectural outcome to the building when viewed from Mill Road.

#### Changes to Rooftop Communal Open Space

As a result of the above, the width of the green belt on the roof terrace has extended by 1m.

Also note the slight recess in the external planter wall towards the West as a result of the alignments with the structural column under.

Structural columns required to support the roof are now shown on the roof plan.

### **5.2 Pergola Redesign**

The pergola has been redesigned to be adjacent to the BBQ area and provide under cover area for outdoor dining, whilst opening up the northern part of the roof terrace area as a multi-use space for kids play area, picnicking and sunbathing.

### **5.3 Roof Terrace Lift Lobby Redesign**

The lobby between the lift and the fire exit stairs has been enclosed as requested by the waterproofing consultant for building protection from wet weather, improved usability as well as DBP compliance.

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## **DA11 Roof Plan**

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### **6.0 Lift Overrun**

The original approved architectural plans did not make allowance for a lift overrun. Investigations have been undertaken to source a lift with the lowest overrun commercially available. This lift has now been specified and reflected on the revised architectural plans.

In the proposed S4.55 drawings, the lift overrun along with the hob for the roof has a resulting maximum building RL of 50.620. The maximum height of the DA approved building is RL 49.078. Please note the DA approved building did not incorporate a lift overrun.

### **6.1 Pergola Redesign**

The pergola has been redesigned to be adjacent to the BBQ area and provide under cover area for outdoor dining, whilst opening the northern part of the roof terrace area as a multi-use space for kids play area, picnicking and sunbathing.

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## **DA12 East Elevation (Charles Street) to DA17 West Elevation North Elevation (Mill Road) South Elevation Section 01 & 02**

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### **7.0 Siteworks, Access Ramp & Retaining Walls**

As the proposed building has now been lowered, the following has been amended within the design, they include;

- New accessible 1:20 ramp within the front setback exiting from the fire stairs and mains switch room.

- New building signage wall to disguise access doors from fire stairs and mains switch room
- New retaining walls to accommodate for the additional cut to the site
- Revised front fence design to accommodate services including hydrant booster assembly etc.

#### 7.1 Community Room

The glazing treatment to the façade of the ground floor Community Room has been amended as the external walls contain structural column elements, reducing the extent of glazing available. The design has been amended to include large, double-glazed doors and sidelights with a powder coated batten treatment to the walls which compliments the screening that occurs on other areas on the building.

#### 7.2 Balcony/Roof Terrace Balustrade Treatments

Balcony treatments of solid render elements vs aluminium glazed elements have been revised to accommodate the new structural columns.

The internal balustrade of the Roof Terrace has been increased to comply with NCC (original design only 700mm high). This has now been increased to 1,100mm high as measured from the FFL of the Roof Terrace.

#### 7.3 Floor-to-Floor Heights

Floor-to-Floor heights/RL's have been amended to accommodate the structural design (including transfer beams). The proposed floor level RL's are as follows;

- Ground Floor Level FFL's (Current FFL:21.600) (Proposed FFL:21.315)
- Floor Plan – Level 01 (Current FFL: 24.600) (Proposed FFL: 24.350) (-250mm)
- Floor Plan – Level 02 (Current FFL: 27.700) (Proposed FFL: 27.450) (-250mm)
- Floor Plan – Level 03 (Current FFL: 30.800) (Proposed FFL: 30.550) (-250mm)
- Floor Plan – Level 04 (Current FFL: 33.900) (Proposed FFL: 33.900) (no change)
- Floor Plan – Level 05 (Current FFL: 37.000) (Proposed FFL: 37.000) (no change)
- Floor Plan – Level 06 (Current FFL: 40.100) (Proposed FFL: 40.100) (no change)
- Floor Plan – Level 07 (Current FFL: 43.200) (Proposed FFL: 43.200) (no change)
- Roof Terrace (Current FFL: 46.200) (Proposed FFL: 46.300) (+100mm)
- Lift Overrun (Current RL: 48.800) (Proposed RL: 50.520) (+1,720mm)

#### 7.4 Façade Materials

The 'rendered' look on the tower element of the design (Levels 05-07) has replaced rendered brickwork + batten elements with a 'pre-finished fibre cement product (cemintel barestone). This provides a light-weight structure to the design and better maintenance long-term for the building.

#### 7.5 Pergola Redesign

The pergola has been redesigned to be adjacent to the BBQ area and provide under cover area for outdoor dining, whilst opening the northern part of the roof terrace area as a multi-use space for kids play area, picnicking and sunbathing.

#### 7.6 Enclosing Lift Lobby

The lift lobby has been enclosed with a glazed door on the West and a window to the East.

#### 7.7 Bicycle Parking

A lightweight metal cover has been provided over the bicycle parking space as requested by council.

#### 7.8 Building Envelope

The building footprint is generally retained as approved in the DA. The 2 deviations from the approved footprint are:

- The 3 angular columns on the Northern façade as required by the Structural engineer to the units on the northern elevation (Mil Road). These columns help in

reducing the transfer slab depths and hence are essential to the structural resolution of the proposed development. Consequentially, the roof slab has been extended over the Level 7 units.

- The DA approved external stair has been extended to service the Fire pump room. The width of the stair has been retained as approved. Refer to DA32 for comparative building footprint plans between the Approved and Proposed.

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**DA14 West Elevation**

**DA15 South Elevation**

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8.0 Window Locations

Window locations have been amended to accommodate the revised apartment layouts.

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8.1 Parking Under croft Cross-ventilation

The 'hit & miss' brick features have been removed from the original design and powder coated aluminium batten systems have been provided in lieu. This provides a greater air circulation to the parking under croft

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8.2 Pergola Redesign

The pergola has been redesigned to be adjacent to the BBQ area and provide under cover area for outdoor dining, whilst opening the northern part of the roof terrace area as a multi-use space for kids play area, picnicking and sunbathing.

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8.3 Bicycle Parking

A lightweight metal cover has been provided over the bicycle parking space.

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**DA18 ADG - Soft Landscaping & Deep Soil Diagrams**

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9.1 Soft Landscape Calculations

Updated soft landscaping diagrams have been provided for the revised design.

The Soft landscaping area has reduced in comparison to the DA approved area. This is due to:

- The entry pathway was widened to provide AS1428 compliant access to the letterboxes.
  - Additionally the hydrant booster and the water meters area is excluded from the calculations.
  - The relocation of the OSD tank & RWT has caused a loss to the landscaped area
  - and the extension of the stair on the western setback
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9.2 Deep Soil Calculations

Updated deep soil diagrams have been provided for the revised design.

The DA approved deep soil calculation did not have the minimum 3m width required in some instances.

In the S4.55 calculation, only the areas with minimum 3m width has been included.

Additionally relocation of the services including the OSD & RWT (refer point 3.6 above), Hydrant Booster & Water Meters (refer point 3.6 above) and also the introduction of the 3 angular columns for structural resolutions has impacted the deep soil area calculation.

The extension of the external stair to service the fire pump room has further impacted the deep soil area.

Due to the above 2 reasons the Deep soil areas has reduced in comparison.

Additionally, the bicycle parking was provided with access pathways which was not a part of the DA approved drawings. This pathway on the S4.55 has been nominated with a highly porous permeable paving. Hence this area has been included within this calculation.

Similarly the area outside the community room has also been proposed with the same highly porous permeable pathway.

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### 9.3 Communal Area Calculations

Updated common area calculations have been provided for the revised design.

The relocation of the hydrant booster & water meters, and adjustment to the footprint of the community room have resulted in a reduction in the communal area calculations.

On the Roof Terrace level, the communal space is 200 sq.m in the S4.55 drawings. Please note the DA calculation included the WC within the communal space calculations and hence the area seen in the approved plans is incorrect.

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### **DA19 Solar Access Plans**

#### 10.0 Solar Access

Updated building height diagrams have been provided for the revised design. Refer elevations.

Solar impact of the angular columns have been shown on the S4.55 plans as requested by council for 9am, 12 noon and 3pm. 70% of the Units achieve compliance for the living rooms and private open space.

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### **DA20 ADG - Cross Ventilation Diagrams**

#### 11.0 Cross Ventilation Diagrams

Updated cross ventilation diagrams have been provided for the revised design.

Unit 15, 18, 21 do not achieve compliance due to the relocation of the door to the bedroom as highlighted by council. The relocation is as a result of the introduction of structural column. These 3 are in addition to the 3 units shown as not achieving cross ventilation.

The calculations have been updated accordingly. 74% units now achieve cross ventilation.

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### **DA21 Shadow Diagrams**

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#### **DA 23**

12.0 Updated shadow diagrams have been provided for the revised design.

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### **DA24 Fence & Letterbox Details**

13.0 Fence & Letterbox details provided

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### **DA25 Area Calculation Tables**

#### 14.0 Unit & Balcony

Table shows comparison between approved areas, proposed areas and areas required for compliance.

## DA 26 Photomontages

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## DA 28

15.0 Updated photomontages have been provided reflecting any amendments listed above.

## DA29 ADG – Storage Area Plans

16.0 Table shows comparison between approved areas, proposed areas and areas required for compliance.

The DA approved plans did not list the storage area provided. A calculation of those areas was hence undertaken. These figures were then added to the DA approved column.

The S4.55 calculations have matched or improved the storage areas provided. Additional over bonnet storage has been introduced within the basement to improve the provision.

## DA 30 Gross Floor Area Plans

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## DA 31

17.0 The overall GFA has been calculated to 1662.17sqm. This calculation is based on the Liverpool LEP definition of GFA which excludes:

- Lifts & Staircase
- Hydraulic & Comms risers
- Areas exclusively used for ducting & services (risers) within units
- Terraces & balconies with outer wall less than 1.4m in height.

17.1 Stanton dahl have recalculated the GFA in the DA approved plans. The area arrived at is 1,653.35 as shown in DA 31.

The DA calculations seems to have the following miscalculations:

- The WC on the ground floor was excluded.
- The garbage area on the ground floor was excluded
- The WC on the roof Terrace was excluded

Additional GFA in the S4.55 plans:

- The S4.55 now includes a bulk waste area
- The recess next to the lift was included in the GFA.
- The lift lobby has now been included as it is required to be enclosed as requested by the waterproofing consultant for DBP compliance.
- It also includes the extension of unit 23 as detailed in point 4, sub point 18 above

Taking all the above into consideration, the S4.55 calculations result in a GFA of 1,662.17 sq.m .

## DA 32 Building Footprint Plans - comparison

18.0 The plans provide a comparison between the DA approved Building footprint & proposed S4.55 footprint.

## DA 33 Adabtable Unit Plans

Access templates have been shown for Adaptable Units 01 and 02