



LOTTIE STEWART HOSPITAL REDEVELOPMENT

40 STEWART STREET, ERMINGTON

WASTE MANAGEMENT PLAN

SALT³

LOTTIE STEWART HOSPITAL REDEVELOPMENT, 40 STEWART STREET, ERMINGTON

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EXECUTIVE SUMMARY

SALT has been engaged by Wesley Mission to prepare a Waste Management Plan (WMP) for a proposed seniors housing development located at 40 Stewart Street, Ermington.

SALT understands that the proposal involves the development of a new retirement village consisting of 218 units with a split of duplex/villas and Independent Living Unit style buildings, with activity spaces, communal facilities and outdoor amenities to support the operational requirements of the subject site.

Waste will be stored within the designated waste storage areas onsite, each located to enable efficient servicing of the apartment buildings, villas and supporting facilities.

Waste would be collected and managed by a private contractor, with the following requirements:

- 11 x 660L garbage bins collected once per week;
- 39 x 120L garbage bins collected once per week;
- 11 x 660L commingled recycling bins collected once per week;
- 39 x 120L commingled recycling bins collected once per week;
- 11 x 240L organics bins collected once per week;
- 39 x 120L organics bins collected once per week;

Waste collection vehicles would enter the subject site via the entrances located on Stewart Street, to travel safely in a forward motion towards the respective collection areas located onsite.

Vehicle operators would ferry bins from the respective collection areas to the collection vehicle and return upon emptying, before exiting the site in a forward motion onto Stewart Street.

Building management would return presented bins to the respective waste storage areas as soon as practicable once collections are completed.

In the opinion of SALT, the enclosed Waste Management Plan would provide efficient waste management for the proposed development. This report must be read in detail prior to implementation of the waste management strategy.

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1 INTRODUCTION

This WMP is submitted to the Department of Planning, Housing and Infrastructure (DPHI) on behalf of Wesley Mission (the Applicant), to support a State Significant Development Application (SSDA) for the redevelopment of the former Lottie Stewart Hospital, for the purpose of a seniors housing development at 40 Stewart Street, Ermington.

Under State Significant Development Declaration Order (No 11) 2025, dated 23 July 2025, the following development is declared to be State Significant Development:

- (j) *Development specified in EOI application 255387 dated 10 April 2025 including development for the purpose of retention of heritage items and seniors housing and provision of affordable housing at 40 Stewart Street, Ermington being Lot A/DP29480, Lot D/DP29480, Lot F/DP29480, Lot 2/DP574056.*

Specifically, the proposed works include the following:

- Site preparation and early works, including demolition of existing structures;
- Torrens title lot amalgamation of the existing four (4) lots to create one (1) lot;
- Retention of the heritage building, part of the hospital building and other character elements;
- Construction and adaptive reuse of existing buildings for 6 x independent living unit buildings and a range of low-rise detached villas and duplex villas, delivering 218 seniors living dwellings;
- Adaptive reuse of the heritage item (Tebbutt Lodge) including conservation works and curtilage improvements with sympathetic new additions to facilitate the provision of communal facilities, communal and private outdoor open space, and wellness facilities;
- Removal of existing hardscape areas, retention of significant higher value soft landscaping, new landscaping (including tree removal) and public domain works; and
- Augmentation of physical infrastructure and utilities, as required.

For a detailed description of the proposed development, refer to the Environmental Impact Statement (EIS) prepared by Beam Planning, and the Architectural Drawings prepared by Integrated Design Group.

2 SITE DESCRIPTION

The site is located at 40 Stewart Street, Ermington within the City of Parramatta Local Government Area (LGA). It is legally identified as Lot A, D and F in DP29480 and Lot 2 in DP574056 and is approximately 4.647 hectares.

The site has a frontage of approximately 220m along Stewart Street, with three (3) separate points for vehicular access. The site is currently occupied by the former Lottie Stewart Hospital, which was then operated as a residential care facility, but ceased operation in 2012. The site is primarily vacant and heavily underutilised. The built form on the site comprises the local heritage item I166 'R E Tebbutt Lodge'. An aerial image of the site is shown below in Figure 1.

Figure 1 Aerial Image of Site



3 RELEVANT SEARS

This Waste Management Plan has been prepared to satisfy the NSW Planning Secretary's Environmental Assessment (SEAR's) Requirements applicable to a seniors housing development. The conditions to comply with the proposed use and SALT's responses or sections in which they have been addressed are listed in Table 1.

Table 1 SEAR's Compliance Table

SEAR's Request	Responses
<i>(18) Waste Management</i>	
Identify, quantify and classify the likely waste streams to be generated during construction and operation.	Refer to sections 6.1 and 7.1 of the enclosed WMP.
Provide the measures to be implemented to manage, reuse, recycle and safely dispose of this waste.	Refer to sections 6.2, 10, and 13 of the enclosed WMP.
Identify appropriate servicing arrangements for the site.	Refer to sections 10.3, 10.5 and 10.6 of the enclosed WMP.
If buildings are proposed to be demolished or altered, provide a hazardous materials survey.	Refer to compliance hazardous materials inspection and risk assessment (by others)

4 INCLUDED IN THIS REPORT

Enclosed is the Waste Management Plan for the proposed development at 40 Stewart Street, Ermington. Included are details regarding:

- Land use;
- Waste generation;
- Waste systems;
- Bin quantity, size and colour;
- Collection frequency;
- Bin storage area;
- Signage;
- Waste collection;
- Responsibilities;
- Ventilation, washing and vermin-prevention;
- Noise reduction;
- DDA compliance;
- Supplier contact information; and
- Scaled waste management drawings.

5 LAND USE

Planning application number: (SSD-89584717)

Land Zone: SP2 – Infrastructure: (pub. 3-3-2023)

Land use type: Senior Housing

Number of levels: 7 Levels

Resident/Occupant Space: A total of 39 villas and 179 apartment units with a split of;

- 39 x 3-Bed Villas
- 13 x 1-Bed Apartment Units
- 88 x 2-Bed Apartment Units
- 78 x 3-Bed Apartment Units

Commercial Space:

- 80m² Office Space
- 259m² Activity Spaces
- 84m² Café/Kitchen
- 30m² Salon
- 70m² Gym
- 20m² Medical/Consult

6 DEMOLITION AND CONSTRUCTION WASTE RESPONSIBILITIES

This Waste Management Plan is applicable and must be adhered to during the demolition and construction stages of the proposed development.

During site inductions for the construction and demolition phase, all contractors must be made aware of the waste management obligations, practices and legislative controls provided in this plan.

It is the responsibility of the appropriate Site Supervisor and relevant managing contractor that all waste disposal, load transfers and required assessments are adequately tracked and stored in a Waste Data File. Any associated receipt/invoices, waste classification documents and site validation certificates should be logged within this file accordingly.

All entries in the Waste Data File must include the following:

- Time and date;
- Description and size of waste;
- Waste facility used; and
- Vehicle registrations and company name.

Waste Data Files and relevant records may be requested during the construction stages for audit, inspection and quality management purposes.

6.1 WASTE CLASSIFICATION

All waste generated during the construction and demolition stages of the proposed development will be classified in accordance with *NSW EPA Waste Classification Guidelines 2014*.

Assessments should be routinely conducted of waste loads stored in skips or appropriate containers pre-disposal and off-site transfer to waste facilities, to ensure all materials can be accepted for disposal and recovery.

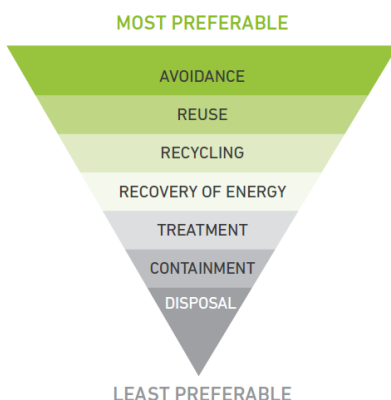
All waste classification assessments must follow the six-step procedure as outlined within the EPA waste classification guidelines stipulated above, with all waste classification data to be collected and recorded appropriately across the life of the development.

6.2 WASTE MANAGEMENT HIERARCHY

The NSW EPA waste management hierarchy has been adopted as the framework to guide the waste management practices of the proposed development, as depicted in Figure 2 below.

The waste hierarchy provides a reference on the order of approaches to achieve efficient resource use. The aspects of the hierarchy are applicable to the demolition and construction stages of this project. As a key objective for all employees and personnel, the avoidance of waste generation and reuse of materials will have priority over recycling, and recycling will have priority over disposal.

Figure 2 Waste Management Hierarchy



7 DEMOLITION AND CONSTRUCTION WASTE AND RECYCLING MANAGEMENT PLAN

7.1 DEMOLITION WASTE GENERATION AND MANAGEMENT PRACTICES

Based on SALT's review of City of Parramatta DCP requirements and waste management guidelines, it is understood that there are no demolition waste generation rates provided by Council. Therefore, demolition waste generation has been estimated using SALT3 generation rates, informed by material composition data from Australian construction and demolition waste guidance, including the NSW EPA's *Construction and Demolition Waste Guide* (2020), *The Hills Shire Council Development Control Plan* Appendix A (2012), and the Australian Government's *National Waste Report* (2022).

The estimated demolition waste volume for the proposed development has incorporated a rate per 1000m² as the most suitable rate applicable for the demolition of the existing buildings located at the subject site. These generation rates are shown in Table 2 below.

Table 2 Waste Generation Rates for Demolition Materials

Building Material	Waste Quantity (tonnes per 1000m ²)
Concrete	600
Bricks	156
Timber / Gyprock	22
Metal / Steel	9
Other Waste	26

The estimated demolition waste volumes for each material have been calculated based on the approximate demolition footprint of 6,882m². The estimated volumes and management strategies for demolition waste are presented in Table 3 below.

The assessment below has been prepared to achieve the 90% recycling target for demolition waste that has been adopted per the NSW Waste and Sustainable Materials Strategy 2021-2027.

Table 3 Estimated Demolition Waste Generation Volumes and Management Options

Type of Waste Generated	NSW EPA Waste Classification	Most to Least Favorable			Specify method of onsite reuse, contractor and recycling outlet and /or waste depot to be used
		Reuse Estimate Volume Weight (t)	Recycle Estimate Volume Weight (t)	Disposal Estimate Volume Weight (t)	
Concrete	General Solid Waste (Non-Putrescible)		4,129t		Demolish using excavator. crushed on site and delivered to an off-site recycler.
Bricks	General Solid Waste (Non-Putrescible)		1,072t		Demolish using excavator. crushed on site and delivered to an off-site recycler.
Timber / Gyprock	General Solid Waste (Non-Putrescible)		151t		Delivered to the off-site recycler listed below.
Metal / Steel	General Solid Waste (Non-Putrescible)		62t		Clean metal (i.e. without presence of other materials) will be delivered to the off-site recycler listed below. Any contaminated metal should be separated to be landfilled.

Type of Waste Generated	NSW EPA Waste Classification	Most to Least Favorable			Specify method of onsite reuse, contractor and recycling outlet and /or waste depot to be used
		Reuse Estimate Volume Weight (t)	Recycle Estimate Volume Weight (t)	Disposal Estimate Volume Weight (t)	
Other wastes	Pre-classified General Solid Waste (Non-Putrescible)		179t		Delivered to the off-site recycler listed below.
Glass & Aluminium Windows	General Solid Waste (Non-Putrescible)		TBC*		Aluminium would be removed manually by hand and delivered to the off-site recycler listed below. Glass would be removed and delivered to a suitable glass recycling facility or transfer station as listed in Table 5 below
Floor Coverings	General Solid Waste (Non-Putrescible)		TBC*		Depending on age and condition, materials would be removed and delivered to the off-site recycler listed below. Damaged fittings that cannot be recycled are to be delivered to the nearest landfill as listed below.
Fittings & Fixtures	General Solid Waste (Non-Putrescible)		TBC*		Depending on age and condition, materials would be removed and delivered to the off-site recycler listed below. Damaged fittings that cannot be recycled are to be delivered to the nearest landfill as listed below.
General Waste	General Solid Waste (Non-Putrescible) Containing Putrescible Waste		TBC*		It is anticipated that garbage will be generated on the subject site during the demolition phase. Any garbage generated shall be sorted and stored onsite in general waste skips or bins, as deemed necessary.
Hazardous / special waste	Should hazardous materials be present within the current developments at the subject site, it must be disposed of in accordance with the appropriate guideline, refer to section (9) and Table 6 below for guidance.				

Note: *TBC has been used for totals of disposal/recyclable materials that will be determined once onsite works commence

7.2 CONSTRUCTION WASTE GENERATION AND MANAGEMENT PRACTICES

As discussed in Section 5.1 above, construction waste generation rates have been incorporated from SALT3 generation rates as informed by NSW EPA's *Construction and Demolition Waste Guide* (2020), *The Hills Shire Council Development Control Plan* Appendix A (2012), and the Australian Government's *National Waste Report* (2022).

The construction waste generation rates for a commercial development (per 1000m²) have been applied, as these are found to be the most suitable rates corresponding to the proposed buildings at the subject site. These generation rates are shown in Table 4 below.

Table 4 Estimate Waste Generation Rates for Construction Materials

Building Material	Waste Quantity (tonnes per 1000m ²)
Concrete	6.7
Bricks	3.2
Timber / Gyprock	1.3
Steel / Metal	28.7
Other	0.6

The estimated construction waste volumes for each material have been calculated based on an estimated construction footprint based on a combined total of GFA (seniors apartments) and NSA (Villas) of 23,890m² with a maximum of 7 levels. The estimated volumes and management strategies for construction waste are presented in Table 5.

The assessment below has been prepared to achieve the 90% recycling target for construction waste that has been adopted per the NSW Waste and Sustainable Materials Strategy 2021-2027. All recycling and diversion targets will be revised by the Site Supervisor during the construction works, as other waste streams (i.e. general waste) would need to be accounted for during both demolition and construction stages.

Table 5 Estimated Construction Waste Generation Volumes and Management Options

Type of Waste Generated	NSW EPA Waste Classification	Most to Least Favorable			Specify method of onsite reuse, contractor and recycling outlet and /or waste depot to be used
		Reuse Estimate Volume Weight (t)	Recycle Estimate Volume Weight (t)	Disposal Estimate Volume Weight (t)	
Concrete	General Solid Waste (Non-Putrescible)		160.1t		To be used as hardstand during construction, then as base under pavements. Any unused concrete would be returned to batch plant for re-use.
Bricks	General Solid Waste (Non-Putrescible)		76.4t		Clean and reuse lime mortar bricks for footings. Delivered to the off-site recycler listed below. Noted: it should not be mixed with other materials from construction and demolition waste and reinforced concrete.
Timber / Gyprock	General Solid Waste (Non-Putrescible)		31.1t		Disposed of in a designated general waste skip. Chip remainder may be used in landscaping. Should asbestos be present, the waste must be removed and disposed of in accordance with the requirements of Work Cover.
Steel / Metal	General Solid Waste (Non-Putrescible)		686t		Clean metal (i.e. without presence of other materials) will be delivered to the off-site recycler listed below. Any contaminated metal should be separated to be landfilled.
General waste (including residual waste and dust)	General Solid Waste (Non-Putrescible) Containing Putrescible Waste		TBC*		Disposed into a general waste skip.

Type of Waste Generated	NSW EPA Waste Classification	Most to Least Favorable			Specify method of onsite reuse, contractor and recycling outlet and /or waste depot to be used
		Reuse Estimate Volume Weight (t)	Recycle Estimate Volume Weight (t)	Disposal Estimate Volume Weight (t)	
Other	Pre-classified General Solid Waste (Non-Putrescible)		14.3t		Sorted accordingly based on recycling potential of each material

**Generation volumes and totals of disposal/recyclable materials will be determined once onsite works commence*

7.3 WASTE STORAGE AND COLLECTION REQUIREMENTS

Demolition and construction waste generated during the development of the site will be separated and recycled where possible. All recyclable material will be separated and stored onsite in skip bins or via an appropriate waste container.

Waste bays and storage areas would be located in the same area where demolition and construction practices are conducted.

Demolition and construction waste shall not be stored along footpaths, public reserves and street gutters or in areas that would lead to contamination of stormwater and waterways.

In the circumstance an appropriate waste container cannot be supplied, due to timing of waste transfers and capacity limits at facilities, all demolition and construction wastes must be stored within the site boundary and must consider the factors mentioned above, to avoid the potential contamination of soil and stormwater flows.

The position of the designated waste bays onsite may change according to building works and the progression of the development. Access, visual amenity and work health and safety (WHS) requirements should always apply to the selection of waste storage area locations.

All waste storage areas onsite should:

- Be located in accessible areas for on-site movement, transfers and collection;
- Have an appropriate space allocated for the quantity of waste generated and separation of recyclable materials;
- Have space allowances for required on-site treatment facilities, such as compaction equipment if required;
- Have an acceptable level of weather protection and be enclosed if necessary;
- Be secured and lockable;
- Be well-ventilated and located nearby a sewer for drainage purposes; and
- Provided clear signage and labelling to ensure appropriate use.

7.4 BIN TYPE, QUANTITY AND DIMENSIONS

An appropriate size and number of waste containers should be provided for purpose of source separating each type of demolition and construction material generated on site. This is a standard to maximise the recovery of materials, while reducing the costs and diversion of waste disposed at landfill.

For the context of this development waste skips should be provided for the following

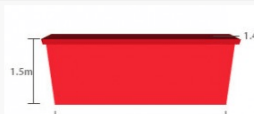
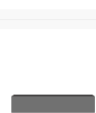
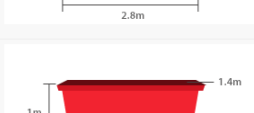
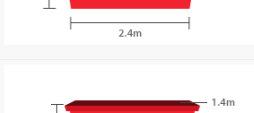
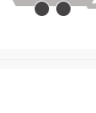
- 1 or more general waste skips (or the container/MGB equivalent) for products including sand and soil not classified as VENM, gyprock, treated timber, residual waste and dust, to be delivered to BINGO Recycling Centre, Auburn: 1300 424 646 or other suitable facility;
- Recycling skips (or container/MGB equivalent) per material type for bricks and concrete to be delivered to BINGO Recycling Centre, Auburn: 1300 424 646 or other suitable facility;
- 1 recycling skip (or container/MGB equivalent) for clean metal to be delivered to Benedict Recycling Centre, Chipping Norton: 02 8761 0000 or other suitable facility;

- Additional recycling skips (or container/MGB equivalent), as required for paper & cardboard, glass, plastics and others to be delivered to Remondis Recycling Facility Seven Hills or a suitable recycling facility.

Note: refer to section 7 below for a detailed directory relevant to the disposal of demolition and construction for the subject site.

The size of waste containers and skip bins should be appropriate to the nature of waste generated, site constraints and the available storage area. The following options shown in Figure 3 below would be acceptable:

Figure 3 Skip Bin Size Dimensions

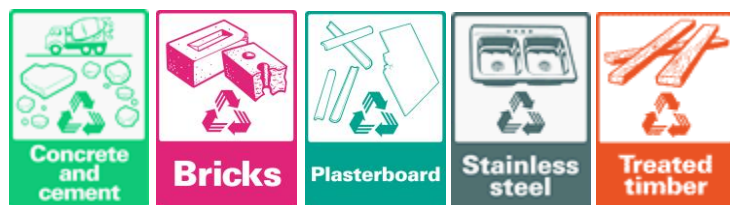
Bin Sizes	Wheelie Bins	6x4 Box Trailers
 10m³ 4.5m long 1.7m wide 1.5m high	 x 40	 x 10
 6m³ 3.2m long 1.4m wide 1.5m high	 x 24	 x 6
 4m³ 2.8m long 1.4 wide 1 high	 x 16	 x 4
 3m³ 2.4m long 1.4m wide 1m high	 x 12	 x 3
 2m³ 1.8m long 1.4m wide 1m high	 x 8	 x 2

7.5 WASTE SIGNAGE AND SAFETY

As a standard, signage should be applied in all waste storage areas, with waste containers to be appropriately labelled and colour coded to identify the correct waste type to be disposed into each bin.

All signage installed should use EPA standards as a reference shown in Figure 4 below. All skip bins should be clearly visible, provided safe paths of travel and must not be overfilled to prevent the risk of injury and relevant environmental impacts.

Figure 4 NSW EPA Signage

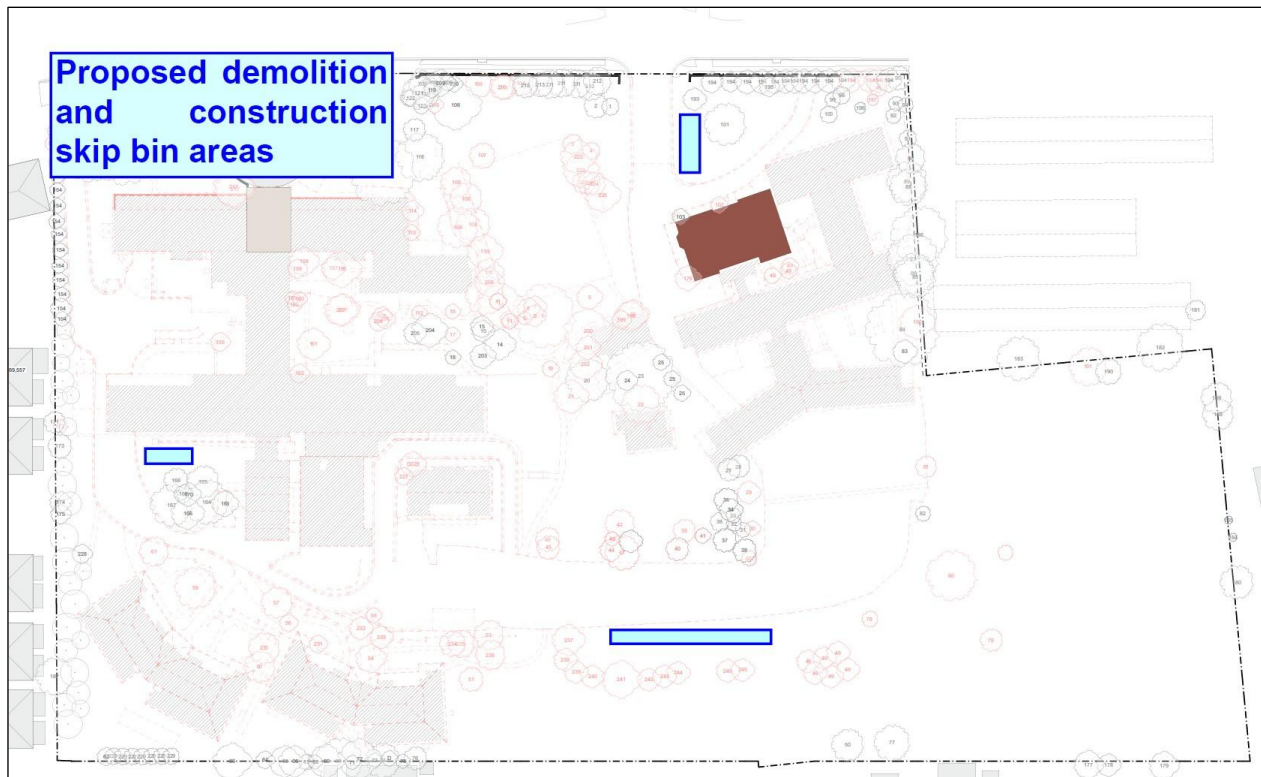


7.6 BIN LOCATION AND STORAGE AREA

Outlined in Figure 5 below is the proposed location of waste storage bays to place relevant containers to segregate and source separate waste materials generated by onsite demolition and construction practices.

Proposed locations of waste storage areas may be subject to change depending on the ongoing waste volume generated onsite and capacity limits. With consideration to the effectiveness of the location in meeting litter and stormwater pollution prevention mentioned in section 8.3 below, and in achieving an adequate level of source separation. Any adjustments should be made at the discretion of a site supervisor or the appropriate managing contractor.

Figure 5 Proposed Skip Bin Storage Areas



Note: due to the site constraints and limitations, waste storage locations for the demolition and construction stages may be relocated by the appropriate site supervisor and or contractor manager.

8 CONSTRUCTION AND DEMOLITION SITE MANAGEMENT

8.1 ASBESTOS, AND OTHER HAZARDOUS/CONTAMINATED WASTE

The construction and demolition phases of the development may involve the removal of contaminated/hazardous materials including asbestos. All hazardous/contaminated materials will be removed by qualified contractors and disposed at licensed facilities.

All hazardous/contaminated waste removal, transport and disposal must comply with the requirements found in the SafeWork NSW Code of Practice, EPA guidelines and City of Parramatta requirements located here: <https://www.cityofparramatta.nsw.gov.au/residents/bins-waste-and-recycling/problem-waste/asbestos/asbestos-management-policy> for reference.

Any disposal and off-site transfer of classified hazardous waste and contaminated materials must be recorded in the Waste Data File and or tracked in accordance with Part 4 of the *Protection of the Environment Operations (Waste) Regulation 2014*.

If previously unidentified hazardous waste and contaminated materials are located on-site during the stages of demolition, excavation, and construction, the management processes identified in the relevant development

protocols are to be implemented. Should these not exist, the Site Supervisor is to immediately stop all work and contact a qualified hazardous/contaminated waste contractor prior continuing all on-site works.

The following mitigation measures will apply in the event hazardous and contaminated waste is uncovered (in the case of no existing mitigation measures being in place):

- Storing (if required) and covering contaminated materials with an industrial approved and graded HDPE liner and placed in an area that is protected from severe weather events;
- Segregating all classified hazardous and contaminated waste from general waste, recycling, and other specified skip bin areas;
- Ensuring vehicles are securely covered when transporting and loading contaminated materials to prevent windblown emissions and potential spillage; and
- Decontamination of equipment and containers that have stored hazardous materials to prevent the spread of contamination.

8.2 LIQUID WASTE MANAGEMENT AND HANDLING

All liquid waste located and classified onsite during the construction and demolition stages of the proposed development must be handled appropriately in accordance with NSW EPA guidelines that include *Hazardous Waste Storage and Processing: Guidance for the Liquid Waste Industry 2016* and otherwise in accordance with the process and guidelines are proposed under the development and associated approval.

In the event that liquid waste is identified and present (e.g. in the form of spills) it is the responsibility of the Site Supervisor and relevant managers to provide an immediate response to prevent any necessary environmental impacts.

The following actions in such circumstances can include:

- Containing the identified spill/liquid waste distribution area;
- Reporting all incidents directly to relevant authorities;
- Logging incidents internally to assist with conducting any onsite investigations; and
- Introducing precautionary actions to lessen the risk of similar incidents occurring in the future.

If the management and handling of liquid waste is part of regular practice to complete the demolition and construction stages of the proposed site. It is the responsibility of the managing contractor adheres to the EPA guidelines and best practice standards regarding storage, segregation, disposal and routine monitoring.

8.3 LITTER MANAGEMENT AND STORMWATER POLLUTION PREVENTION

All staff and relevant managers employed in the demolition and construction stages. Must be aware of the practices applied to mitigate the potential litter and stormwater pollution that can occur through on-site works.

The Site Supervisor and or an appointed staff would be responsible in ensuring the following to mitigate the dispersion of litter and stormwater pollution on site:

- Establishing appropriate barriers and fencing to trap coarse sediment at points where stormwater can flow and run-off into gutters, drains and waterways;
- Ensuring adjacent streets and gutters are regularly swept and not hosed. Relocating and removing accidental spills of soil and other material immediately;
- Maintaining kerbside vegetation in a healthy state and not using nature strips or footpaths for parking or stockpiling waste. If unavoidable contact the relevant council for permission;
- Ensuring wash water and waste concrete, paint and other solutions used on site is contained within the site boundary. The same is to be applied when cleaning equipment;
- Covering any appropriate waste containers and skip bins after daily onsite works to minimize windblown litter and to protect waste storage area during the event of inclement weather;
- Ensuring all waste loads transported off-site is kept enclosed to avoid airborne litter being generated;

8.4 TRAINING

All staff, managers, and appropriate supervisors employed during the stages of construction and demolition must be made aware of and be provided formal training on the site-specific waste management procedures of the proposed development.

As a standard, toolbox and pre-start meetings will be undertaken as a part of general site induction and will be refreshed periodically. Training and induction material provided should contain the following:

- Legal obligations and guidelines;
- Emergency management and response procedures;
- Waste storage areas and specific containers used for waste separation;
- Litter prevention practices on and off site;
- Applicable waste reduction and avoidance practices;
- Hazardous/contaminated waste management response;
- Environmental and legislative implications of poor waste management behaviors; and
- Responsibility, duties and reporting lines outlined (including appointing personnel responsible for waste management and individual responsibilities)

8.5 MONITORING AND COMPLIANCE

All relevant documents relating to volumes of waste disposed and transferred to the appropriate facility are to be maintained. Any dockets verifying recycling/disposal, waste testing/assessment reports, validation certificates must be adequately stored and presented to the EPA and relevant Council when required.

Inspections of waste storage areas should be routinely conducted. An inspection log and checklist are to be maintained for reporting purposes. Inspections will be used to identify and correct issues waste management practices onsite.

Audits are to be performed by the relevant demolition and construction contractor to monitor the effectiveness of recycling/reuse initiatives and waste separation practices. Audits that indicate procedures and compliance not met as mentioned within the waste management plan should be rectified immediately, through the provision of additional staff training or adjustment to waste signage.

All environmental incidents require an immediate response to minimise the potential impacts. An incident register must be maintained across demolition and construction stages and should include the contact details of the 24-hour NSW EPA response unit.

9 BIN SUPPLIER AND RECYCLING DIRECTORY

Table 6 below provides an overview and list of appropriate landfill and resource recovery centers based on the common types and classifications of waste generated from the life of the project. The managerial contractor for required construction works is not obligated to procure goods/services from these companies. This is not, nor is it intended to be, a complete list of available suppliers. SALT does not warrant (or make representations for) the goods/services provided by these suppliers.

Materials removed from the proposed site will need to be managed within the provisions of current legislation and may include segregation by material type classification in accordance with NSW EPA (2014) Waste Classification Guidelines, Part 1: Classifying Waste, as mentioned above. With disposal at facilities appropriately licensed to receive the classified waste materials.

Please note: the nominated facilities provided below are suitably located, licensed facilities capable of accepting the relevant waste materials. Alternative sites may be utilised if preferred. However, alternative facilities and waste-transfer providers must be licensed to receive the generated waste materials.

The capacity of nominated facilities in accepting the specified volume of waste materials, may differ upon the time construction commences. It is recommended that the proposed facilities are contacted prior to the transfer of waste off-site.

Table 6 Bin Supplier and Recycling Directory

Waste Type	Business Name	Contact Information	Suburb	State
Asbestos (less than 10m²)	REMONDIS	13 73 73	Seven Hills	NSW
	BINGO Industries	1300 424 646	Auburn	NSW
	Veolia	1300 651 116	Wetherill Park	NSW
Asbestos (Greater than 10m²)	Integrated Environmental	0448 298 485	Baulkham Hills	NSW
	Asbestex	02 9008 0499	Seven Hills	NSW
Excavation Material	Benedict Recycling	02 9986 3500	Chipping Norton	NSW
Bricks	BINGO Industries Benedict Recycling REMONDIS Veolia	1300 424 646 02 9986 3500 13 73 73 1300 651 116	Auburn Chipping Norton Seven Hills Wetherill Park	NSW NSW NSW NSW NSW
Concrete				
Metals				
Plasterboard				
Tiles				
Timber				

Note: Waste generated outside the site must not be received for onsite storage and or the transportation to the permitted facilities listed below.

10 OPERATIONAL WASTE AND RECYCLING MANAGEMENT PLAN

10.1 WASTE GENERATION

Waste generation rates for the subject site are shown in Table 7 and Table 8. Calculations are based on 7 days per week operation for the proposed restaurant tenancy.

Generation rates have been based on the waste generation rates enclosed in the NSW EPA Better Practice Guide (2019). These rates are considered appropriate for a seniors housing development and use located within the City of Parramatta.

Generation rates for the proposed villas and duplex have been based on the rates enclosed within the NSW EPA better practice guide (2019) for standard 2-bedroom and 3-bedroom dwellings refer to Table 7 below. Generation rates for seniors apartments have been based on aged care generation rates as referenced in the NSW EPA better practice guide (2019).

Generation rates for organics recycling have been based on NSW EPA Analysis of NSW Kerbside Red Lid Bin Audit Data Report (2020), which details general waste streams for residential sites have a general composition of approximately 30% organics recyclables. General waste volumes have been adjusted by 30% to reflect the separation of organic recyclables (see Table 7 below), and to align with best practice resource recovery and source separation.

Generation rates for organics recycling for the café areas have been based on NSW EPA Reducing Business Waste: Industry fact sheet (2012), which details general waste streams for commercial and mixed-use sites have a general composition of approximately 50% organics recyclable. General waste volumes have been adjusted by 50% to reflect the separation of organic recyclables and to align with best practice resource recovery and source separation.

Any common spaces located within the proposed site, including circulation, storage, services and amenities, have not been included in the calculations below, as waste generated in these areas is subject to the general servicing of the site, and therefore have not been incorporated into the below rates.

Table 7 Waste Generation Rates (Villas/Duplex)

Type	Garbage (L/week)	Commingled Recycling (L/week)	Organics Recycling (L/week)
3 Bedroom Villa	120L	120L	50L

Table 8 Waste Generation Rates (Retirement Village)

Use	Garbage (L/per unit or 100m ² /week)	Commingled Recycling (L/per occupant or 100m ² /week)	Organics Recycling (L/per occupant or 100m ² /week)
Seniors Apartments (per unit)	24.5L	14L	10.5L
Office	70L	105L	-
Activity Spaces	35L	70L	-
Café/Kitchen	350L	840L	350L
Salon	350L	280L	-
Gym	140L	105L	-
Consult/Medical	140L	70L	-

A waste generation assessment for the proposed use is provided in Table 9.

Table 9 Waste Generation Assessment

Use/Type	Total no. of units / Area m ²	Waste Per Week		
		Garbage	Recycling	Organics
3 Bedroom Villa	39	4,680L	4,680L	1,950L
Seniors Apartments (per unit)	179	4,385L	2,506L	1,879L
Office	80m ²	56L	84L	-
Activity Spaces	259 m ²	91L	181L	-

Café/Kitchen	84m ²	294L	706L	294
Salon	30m ²	105L	84L	–
Gym	70m ²	98L	73L	–
Consult/Medical	20m ²	28L	14L	–
Total Waste Generated per Week		9,737L	8,328L	4,123L

10.2 WASTE SYSTEMS

Waste would be sorted on-site by staff and cleaners as appropriate into the following streams:

- Garbage (General Waste);
- Commingled Recycling;
- Organics Recycling;
- Clinical Waste; and
- Bulk Waste.

10.2.1 DUAL CHUTE SYSTEM (SENIORS APARTMENTS)

Staff and occupants within the proposed apartment buildings would dispose of general waste and commingled recyclables using the dual chute system provided.

All Chute doors and access points would be clearly marked and labelled with either "General Waste" or "General Waste" and "Commingled Recycling" as appropriate, with reference to relevant colour code for each stream as mentioned in section 7 below. Each chute would terminate directly into the appropriate 1,100L (general waste) or 660L bins (recycling) located within the basement level bin storage areas.

Termination points would have skirting or other equivalent system to reduce any materials leaving the bin on impact.

Please note that the maximum deflection angle typically allowed for the chute system is 22°. It is however recommended that a smaller angle than the maximum is adopted to prevent clogging of materials within the chute system.

Termination of chutes would have skirting or other equivalent system to reduce any materials leaving the bin on impact.

Chute termination points would be fenced off, so residents are not able to access the equipment.

It is recommended that waste bins have reinforced bases for bin longevity.

Note: additional bins and volume capacity for general waste and commingled recycling streams have been provided to assist with chute changeover periods, scheduled collections and peak periods for the subject site.

10.2.2 GARBAGE (GENERAL WASTE)

Villas would be furnished with plastic lined bins to have a minimum capacity of 20 litres for the temporary holding of garbage. Staff/cleaners and/or occupants would transfer the waste as required to the appropriate 120L general waste bins provided. This capacity is based on the transfer of waste occurring once per day.

Seniors apartments would be furnished with plastic lined bins for the temporary holding of garbage waste, to have minimum cumulative capacity of 25 liters per occupant. This capacity is based on the transfer of waste occurring once per week.

Office spaces would be furnished with plastic lined bins for the temporary holding of garbage waste, to have minimum cumulative capacity of 10 litres per 100m² of floor area. This capacity is based on the transfer of waste occurring once per day.

Activity spaces would be furnished with plastic lined bins for the temporary holding of garbage waste, to have minimum cumulative capacity of 5 litres per 100m² of floor area. This capacity is based on the transfer of waste occurring once per day.

Café and Salon spaces would be furnished with plastic lined bins for the temporary holding of garbage waste, to have minimum cumulative capacity of 50 litres per 100m² of floor area. This capacity is based on the transfer of waste occurring once per day.

Gym and Medical spaces would be furnished with plastic lined bins for the temporary holding of garbage waste, to have minimum cumulative capacity of 20 litres per 100m² of floor area. This capacity is based on the transfer of waste occurring once per day.

Staff/cleaners would dispose of waste from these bins directly into the appropriate 1,100L bins provided within the designated waste storages areas located onsite, as demonstrated in Appendix 1.

Garbage is to be disposed of bagged.

10.2.3 COMMINGLED RECYCLING

Villas would be furnished with plastic lined bins to have a minimum capacity of 20 litres for the temporary holding of commingled recycling. Staff/cleaners and/or occupants would transfer the waste as required to the appropriate 120L general waste bins provided. This capacity is based on the transfer of recyclables occurring once per day.

Seniors apartments would be furnished with plastic lined bins for the temporary holding of commingled recycling, to have minimum cumulative capacity of 10 liters per occupant. This capacity is based on the transfer of recyclables once per week.

Office and Gym spaces would be furnished with plastic lined bins for the temporary holding of commingled recycling, to have minimum cumulative capacity of 15 litres per 100m² of floor area. This capacity is based on the transfer of recyclables occurring once per day.

Activity and Medical spaces would be furnished with plastic lined bins for the temporary holding of commingled recycling, to have minimum cumulative capacity of 10 litres per 100m² of floor area. This capacity is based on the transfer of recyclables occurring once per day.

Café spaces would be furnished with plastic lined bins for the temporary holding of commingled recycling, to have minimum cumulative capacity of 120 litres per 100m² of floor area. This capacity is based on the transfer of recyclables occurring once per day.

Salon spaces would be furnished with plastic lined bins for the temporary holding of commingled recycling, to have minimum cumulative capacity of 40 litres per 100m² of floor area. This capacity is based on the transfer of recyclables occurring once per day.

Staff/cleaners would dispose of waste from these bins directly into the appropriate 1,100L bins provided within the designated waste storages areas located onsite, as demonstrated in Appendix 1.

Commingled recyclables would be disposed of loosely.

10.2.4 FOOD ORGANICS AND GARDEN ORGANICS

Villas would be furnished with plastic lined bins to have a minimum capacity of 20 litres for the temporary holding of organic recycling. Staff/cleaners and/or occupants would transfer the waste as required to the appropriate 120L general waste bins provided. This capacity is based on the transfer of organic recyclables occurring once per day.

Seniors apartments would be furnished with plastic lined bins for the temporary holding of commingled recycling, to have minimum cumulative capacity of 11 liters per occupant. This capacity is based on the transfer of recyclables occurring once per week.

Café spaces would be furnished with unlined bins for the temporary holding of food organics and garden organics, to have minimum cumulative capacity of 50 litres per 100m² of floor area. This capacity is based on the transfer of waste to the bin room occurring once per day.

Staff/cleaners would dispose of waste from these bins directly into the appropriate 240L bins provided within the designated waste storages areas located onsite, as demonstrated in Appendix 1.

Organics waste is to be disposed of loosely or in compostable bags that have been approved by the waste contractor.

Compostable bags should be marked with the Australian Standard compostable logo as shown in Figure 6 below. It should be noted that non-compostable bags should not be placed into the organics bins as it cannot be composted and thus will affect the quality of the organic product.

Figure 6 Australian Standard Compostable Logo



10.2.5 CLINICAL WASTE

If required, clinical waste would be managed by medical practitioners and trained staff members only. No clinical waste would be accessible by unauthorised personnel.

Clinical waste shall be properly segregated, packaged, labelled and transported to minimize risk to waste handlers and the community. Clinical waste shall be managed in accordance with Industry Code of Practice for the Management of Biohazardous Waste (including Clinical & Related wastes 7th edn. IWRG612, and AS3816:1998).

All sharps and other waste containers shall meet the requirements of AS3816:1998.

Clinical waste and sharps bins of a size deemed appropriate by the occupant (generally less than 60L) would be provided to the appropriate rooms, to contain the intended prescribed waste.

These bins would be collected by a qualified contractor directly from the respective consult rooms onsite. Collections would be arranged as required, as is common practice.

Clinical waste would be collected by an AustRoads B99 design vehicle or the equivalent. Clinical waste would be collected in the same manner as general waste collections occur, as discussed in the below sections.

10.2.6 BULK WASTE

An allocation of 11m² has been provided onsite and adjacent to respective bin storage areas, to assist with the management and handling of bulky waste items.

Building management and caretakers would arrange collections of bulky waste/goods to occur as required via a private service contractor.

10.3 BIN QUANTITY, SIZE AND COLLECTION FREQUENCY

The bin quantity, size and the frequency of collection are shown below in Table 10 and Table 11.

A once per week collection schedule is recommended for the nature and volume of general waste, commingled and organic recycling generated per the operational requirements of the subject site.

Recommended collection frequencies and volume capacities may be subject to change once the site is operational.

Table 10 Bin Size and Collection Frequency

Waste Stream	Collections per Week	Bin Size	No. Bins	Weekly Capacity	Weekly Volume
Garbage	1	660L	11	11,940L	9,737L
		120L	39		
Commingled Recycling	1	660L	11	11,940L	8,776L
		120L	39		
Organics Recycling	1	240L	11	7,320L	4,123L
		120L	39		
*Weekly collection frequencies and bin volume capacities (L) are subject to change once the site is operational					

Table 11 Typical Waste Bin Dimensions

Capacity (L)	Width (mm)	Depth (mm)	Height (mm)	Area (m ²)
660	1260	780	1330	0.98
240	480	545	930	0.26
120	585	730	1060	0.43

Note: The above dimensions are based on SULO's flat lid bin specifications

10.4 BIN COLOUR AND SUPPLIER

All bins would be provided by private supplier. The below bin colours are specified by Australian Standard AS4123.7-2006, however due the private nature of the collection, these are only recommendations and are not mandatory:

- Garbage (general waste) shall have red lids with dark green or black body;
- Recycle shall have yellow lids with dark green or black body;
- Organics shall have green lids with dark green or black body; and

Note, private contractors often supply bins for collection.

10.5 WASTE STORAGE AREA

Table 12 and Table 13 demonstrate the cumulative space requirements and provision of waste areas for the proposed development.

Please refer to scaled drawing shown in Appendix 1.

All waste storage areas located onsite provides sufficient space to allow for the circulation and movement of the required bins.

Waste generated from all onsite community facilities and associated spaces (office, activity, café, salon, gym, medical/consult) will be stored in a separate waste storage area shown in Table 14 and in Appendix 1 below.

Note: as stated in section 8.2.4 above medical/clinical waste would be stored in the respective consult rooms.

Table 12 Waste Area Space Requirements (Villa/Duplex)

Stream	Space Required (excluding circulation)	Space Provided
General Waste	0.26m ²	2m ²
Commingled Recycling	0.26m ²	
Organics	0.26m ²	
TOTAL	0.78m²	2m²

Table 13 Waste Area Space Requirements (Seniors Apartments)

Stream	Space Required (excluding circulation)	Space Provided
Building A		
General Waste	0.98m ²	10m ²
Commingled Recycling	0.98m ²	
Organics	0.43m ²	
Chute Equipment	2.5m ²	
TOTAL	4.89m²	10m²
Building B		
General Waste	0.98m ²	10m ²
Commingled Recycling	0.98m ²	
Organics	0.43m ²	
Chute Equipment	2.5m ²	
TOTAL	4.89m²	10m²
Building C*		

Stream	Space Required (excluding circulation)	Space Provided
General Waste	1.96m ²	20m ²
Commingled Recycling	1.96m ²	
Organics	0.86m ²	
Chute Equipment	2.5m ²	
TOTAL	7.28m²	20m²
Building D*		
General Waste	1.96m ²	20m ²
Commingled Recycling	1.96m ²	
Organics	0.86m ²	
Chute Equipment	2.5m ²	
TOTAL	7.28m²	20m²
Building E		
General Waste	0.98m ²	10m ²
Commingled Recycling	0.98m ²	
Organics	0.43m ²	
Chute Equipment	2.5m ²	
TOTAL	4.89m²	10m²
Building F*		
General Waste	1.96m ²	10m ²
Commingled Recycling	1.96m ²	
Organics	0.86m ²	
Chute Equipment	2.5m ²	
TOTAL	7.28m²	10m²
<i>*Building segments that will contain 2 x bins for each waste stream (general waste, recycling, organics)</i>		

Table 14 Waste Area Space Requirements (Community Facilities and Activity Areas)

Stream	Space Required (excluding circulation)	Space Provided
General Waste	1.96m ²	10m ²
Commingled Recycling	1.96m ²	
Organics	0.85m ²	
TOTAL	4.77m²	10m²

Waste management would be overseen by building management.

10.6 WASTE COLLECTION

Waste would be collected by private contractor as follows:

- 11 x 660L garbage bins collected once per week;
- 39 x 120L garbage bins collected once per week;
- 11 x 660L commingled recycling bins collected once per week;
- 39 x 120L commingled recycling bins collected once per week;
- 11 x 240L organics bins collected once per week;
- 39 x 120L organics bins collected once per week;

Waste will be stored onsite within the designated waste storage areas as provided for the servicing of the seniors apartment buildings, villas and supporting facilities as stated in section 10.5 above.

Waste collections would occur between 7am to 8pm on Mondays to Fridays and between 8am to 8pm on Saturdays, Sundays and public holidays, in accordance with EPA NSW *Protection of the Environment Operations (Noise Control) Regulation 2017*. This is to ensure minimal noise impacts to the neighboring properties.

Waste collections would occur via a standard medium rigid (MRV) waste collection vehicle.

Site management will transfer bins from the basement waste storage areas servicing Buildings C, D, E and F to the consolidated collection area located on the western side of the site the day of, or prior to, scheduled waste collection.

Bins servicing Buildings A, B, the community facilities and the villas will be transferred by site management to the designated collection area and presented to the kerbside on the day of, or prior to, scheduled waste collection.

Waste collection vehicles would enter the subject site via the entrances located on Stewart Street, to travel in a forward motion towards the respective collection areas located onsite.

Vehicle operators would ferry bins from the respective collection areas to the collection vehicle and return upon emptying, before exiting the site in a forward motion onto Stewart Street.

Site management would return presented bins from all collection areas to the respective waste storage areas bin as soon as practicable once collections are completed.

Please refer to the swept path analysis attached Appendix 2 and the submitted traffic engineering report as part of this state significant development application, demonstrating access by the waste collection vehicle.

Building management would ensure that waste vehicle operators are able to access all bins onsite.

11 RESPONSIBILITIES

Building management would be responsible for overseeing waste management within the development. Responsibilities would include:

- Providing a copy of the endorsed Waste Management Plan to the building operator and onsite staff;
- Ensure all signages and waste education materials should be based on the latest available information from City of Parramatta Council waste management guidelines and or the NSW EPA equivalent standards;
- Providing occupants and site cleaners with an information package which would include the following information:
 - (a) A copy of this Waste Management Plan which includes information on waste storage areas and management methods onsite;
 - (b) Methods and techniques for waste reduction and minimization;
 - (c) Information regarding bin collection days and requirements;
 - (d) Staff members' responsibilities with regard to bin usage, storage, and collection
- Ensure that all bins throughout the site and the bin room are equipped with appropriate signages to guide users on appropriate segregation methods for their waste and recyclables;
- Inspecting waste stores;
- Reviewing contamination within bins;
- Investigating incidents of inappropriate waste storage (or aggregation).

Building management would ensure anyone found responsible for inappropriate waste disposal would be appropriately educated and made aware of correct waste disposal techniques.

It is recommended that building management conducts a waste audit if waste is found to be inappropriately deposited by users or if the bin capacities need to be reviewed.

12 SIGNAGE

Waste storage areas and bins would be clearly marked and signed with the industry standard signage approved by NSW EPA or equivalent. The typical NSW EPA signage is illustrated in Figure 7.

Figure 7 NSW EPA Signage



Signage within the waste disposal areas should inform staff members on the significance of food waste separation and highlight the end use products that can be generated from the recycling process. The signage should also note that any contamination within the food/organic bins would affect the quality of the product and thus cause the separation to be ineffective. This may increase their awareness and encourage correct food/organic waste separation practice.

Signages may be available from the waste collection contractor.

13 SUSTAINABILITY ACTION PLAN AND INITIATIVES

The importance of restructuring the institutional waste management methods in developments is becoming more apparent as we experience the adverse impacts of increasing waste volumes and declining recycling rates. Developments such as the proposed subject site can contribute towards the prevention and reduction of nationwide waste generation volumes as well as to promote a local circular economy system.

Building management should encourage users by demonstrating a commitment towards waste avoidance and minimisation initiatives. The waste hierarchy as detailed in the *Environmental Protection Act 2017* should be observed in order of preference (refer to Figure 2 above).

In addition to the waste management strategy detailed in the enclosed report, building management can establish landfill diversion and recycling targets and conduct periodic waste audits to monitor contamination levels in recycling and organics bins. The results of the audit could be shared with commercial tenants, staff and management to encourage them to continue or to improve their waste separation efforts. The audit may also be beneficial from a cost perspective as it would inform building management of opportunities to reduce bin numbers or collection frequencies.

Staff and commercial tenants should be inducted on on-site waste management practices and on the development's sustainability action plan via the provision of a handbook or in-person training, as deemed necessary.

14 WASTE AREA DESIGN REQUIREMENTS

14.1 VENTILATION

Ventilation would be provided in accordance with Australian Standard AS1668.

Waste storage rooms will be equipped with tight fitting doors and impervious flooring. Any openings within the waste room will be fitted with vermin-proof mesh.

14.2 LITTER MANAGEMENT, WASHING AND STORMWATER POLLUTION PREVENTION

An appropriately drained wash down area would be provided within the bin room in which each bin is to be washed regularly by building management. Bin washing areas or bin wash bays must discharge to a litter trap and/or grease trap. Bin wash areas should not discharge into stormwater drainage.

Alternatively, a third-party bin washing service can be engaged to perform this service. Bin washing suppliers must retain all waste water to within their washing apparatus so as to not impact on the drainage provisions of the site.

Building management and cleaners would be responsible in ensuring the following to prevent or minimise the dispersion of litter throughout the site:

- Prevent overfilling of bins by ensuring bin lids are closed at all times;
- Require waste contractor to remove any spillage that may occur during waste collections; and
- Ensure anyone found responsible for inappropriate waste disposal or dumping would be appropriately educated and made aware of correct waste disposal techniques.

14.3 NOISE REDUCTION

All waste areas would meet EPA, BCA and AS2107 acoustic requirements as appropriate within operational hours assigned to minimise acoustic impact on surrounding premises.

Waste collection timings in accordance with EPA NSW *Protection of the Environment Operations (Noise Control) Regulation* (2017), which have been stipulated in the waste collection section 9.6 above.

Waste contractors should also abide by the following regulations to ensure minimal noise impacts to the neighboring properties:

- Compaction only to be carried while on the move;
- Bottles should not be broken up at the point of collection
- Routes that service entirely residential areas should be altered to reduce early morning disturbances; and
- Noisy verbal communication between operators should be avoided where possible.

15 RISK AND HAZARD ANALYSIS

Table 15 shows the potential risks, severity and suggested control methods that could be considered to avoid the risks from occurring during waste collections.

Note that this is a preliminary risk assessment and does not replace the need for the building management and collection contractors to complete their respective OHS assessment for waste collections.

The information provided below have been adopted from WorkCover NSW *Collection of Domestic Waste: Code of Practice*. The severity of each risk has been determined based on the risk rating table enclosed in Department of the Environment *Environmental Management Plan Guidelines* 2014.

Table 15 Potential Risks and Control Methods During Waste Collections

Area	Risk	Severity	Suggested controls
Waste collection	Incidents during waste collection vehicle ingress or egress movements	Low	Vehicle operators would be trained in ensuring the following Tailgate is closed after clearing waste area Move vehicle slowly when tailgate or body is raised Clear waste from tailgate seal and from rear of machine before departure from the subject site Ensure tailgate is locked after unloading operation Vehicle operators should not exit the vehicle body unless engine is switched off, ignition key is removed, safety prop is in position and the vehicle body is well ventilated. Regular safety checks and inspection of vehicles should be conducted.
	Incidents during manual handling of bins	High	Vehicle should meet relevant Australian Design Rules. Ensure that vehicles with low bowl height are used to avoid lifting of bins above shoulder height. Vehicle operator should be clear of the equipment before activation of packing or tipping controls.
	Slip and trip hazards in moving into and out of the vehicle	Medium	Maintain sufficient and frequent communication between driver and runner. The hose should not be used as handholds when mounting or dismounting.
	Slips and trips while transporting bins	Low	As the bin holding areas are at the same grade of collection vehicles, there are no hazards presented from the presence of slopes or steps. Internal transfer routes and designated waste storage areas would also be well lit at all times to ensure good visibility to staff/vehicle operators. However, to ensure that any other potential risks are mitigated, frequent communication should be maintained between the driver and runner and the runner should only transfer one bin at a time.
Surrounding traffic	Conflict with other vehicle operators and commercial tenants within the car park during collection	Medium	Ensure that collection is to occur only at off-peak hours. The collection area should also be well-lit to allow for better visibility of oncoming traffic and pedestrians.
Waste bins	Type of wastes handled – risk associated in contact with unknown hazardous substances or sharp objects	Medium	Staff, cleaners and commercial tenants should be educated on safe disposal of hazardous substances and sharp objects. Waste vehicle operators should be trained and informed on safe handling of unknown substances. Operators could be provided with PPE to avoid infections and to assist in handling of waste bins.
Waste Bins	Overflowing bins affecting the transport of bins to the waste collection vehicle or presenting as a trip hazard.	Low	The recommended number of bins enclosed in this WMP provides a larger capacity than the volume generated for all waste streams hence there would be a low likelihood of this occurring.

16 SUPPLIER CONTACT INFORMATION

Table 16 provides a list of equipment specified by this waste management plan.

Below is a complimentary listing of contractors and equipment suppliers. You are not obligated to procure goods/services from these companies. This is not, nor is it intended to be, a complete list of available suppliers.

SALT does not warrant (or make representations for) the goods/services provided by these suppliers.

Table 16 High Level Purchasing Schedule

Item	Quantity	Supplier	Notes
660L Bins	22	Private Supplier*	11 x 660L general waste bins
240L Bins	11		11 x 660L recycling bins
120L Bins	117	Private Supplier*	11 x 240L organic recycling bins
			39 x 120L general waste bins
			39 x 120L recycling bins
			39 x 120L organic recycling bins
Bin Station(s)	As required	Private Supplier*	Internal bin stations. Each bin station will contain one bin per waste stream.
*Private waste collection contractors often supply their own bins for collection.			

16.1 EQUIPMENT SUPPLIERS

16.1.1 BIN SUPPLIER

- Sulo MGB Australia (wheelie bin) – 1300 364 388
- Method Recycling (bin stations) – 0477 630 220
- Source Separation System (wheelie bin and bin stations) – 1300 739 913

16.2 WASTE COLLECTORS

16.2.1 GARBAGE, RECYCLING AND ORGANICS

- Cleanaway – 13 13 39
- Bingo Industries – 1300 424 646
- JJ Richards – 1300 971 325
- SUEZ Environment – 13 13 35
- Veolia Environmental Services – 132 955
- Waste Sense – 1300 492 783
- Sydney Waste Services* – 02 8661 0031
- Waste Clear – 1800 156 298
- Capital City Waste Services – 02 9599 9999
- Wanless Waste Management – 1300 926 537
- Remondis – 13 73 73

16.3 BIN WASHING SERVICES

- The Bin Butlers – 1300 788 123
- Oz Bin Cleaning – 1300 65 11 65
- Bin2Clean – 0400 383 848
- Wanless Waste Management – 1300 926 537

17 PURPOSE AND LIMITATIONS

This Waste Management Plan has been prepared to form a part of the state significant development application. The report is prepared to:

- Demonstrate that an effective waste management system is compatible with the design of the development. An effective waste management system comprises of a system that is hygienic, clean, tidy, minimises waste being landfilled and maximises recycling and resource recovery;
- Ensure stakeholders are well informed of the design, roles and responsibilities required to implement the system;
- Provide supporting scaled drawings to confirm that the final design and construction is compliant with the report;
- Define the relevant stakeholders involved in ensuring the implementation of the waste management system; and
- Ensure tenants are not disadvantaged in access to recycling and other sustainable waste management options.

The following should be noted regarding the enclosed information:

- The waste generation volumes provided are estimates based on the best available waste generation rates. The actual waste volumes generated on-site may differ slightly from that estimated as it would depend on occupancy rates and the operational capacities of the development.
- The equipment specifications and any information provided regarding the recommended equipment are provided for reference purposes only and should not be relied upon for procurement. SALT recommends that the developer attains the latest specifications of the required equipment and service provisions from the respective contractor(s) prior to engaging them or purchasing the relevant equipment.
- The report should be updated if the development plans are amended or if new legal requirements are introduced.

APPENDIX 1 DESIGN DRAWINGS

OVERALL PLANS

BASEMENT 2 (LEVEL-4)

CARPARKING – KEY:

BUILDING A CARPARK

BUILDING A 10 x 12 x 1.0 m = 20 x 20 x 1.0 m = CARPARKS REQ =	2 carparks 20 carparks 22 carparks	achieved = 20 carparks
CARPARK TYPES REQUIREMENTS SHARED ACCESS 6.2022: SEPP SENIOR 3.2M WIDE: STANDARD CARPARKS: VISITORS:	22 x 100% = 1 carparks 22 x 100% = 11 carparks 22 x 100% = 11 carparks 22 x 100% = 2 carparks	achieved = 1 carparks achieved = 11 carparks achieved = 11 carparks achieved = 2 carparks

BUILDING B CARPARK

BUILDING B 10 x 12 x 1.0 m = 20 x 20 x 1.0 m = CARPARKS REQ =	12 carparks 8 carparks 18 carparks	achieved = 18 carparks
CARPARK TYPES REQUIREMENTS SHARED ACCESS 6.2022: SEPP SENIOR 3.2M WIDE: STANDARD CARPARKS: VISITORS:	18 x 100% = 3 carparks 18 x 100% = 11 carparks 18 x 100% = 11 carparks 18 x 100% = 1 carparks	achieved = 3 carparks achieved = 11 carparks achieved = 11 carparks achieved = 1 carparks

BUILDING C CARPARK

BUILDING C OVER TWO CARPARK LEVELS 10 x 12 x 1.0 m = 20 x 20 x 1.0 m = CARPARKS REQ =	14 carparks 40 carparks 54 carparks	achieved = 57 carparks
CARPARK TYPES REQUIREMENTS SHARED ACCESS 6.2022: SEPP SENIOR 3.2M WIDE: STANDARD CARPARKS: VISITORS:	14 x 100% = 8 carparks 14 x 100% = 28 carparks 14 x 100% = 28 carparks 14 x 100% = 4 carparks	achieved = 8 carparks achieved = 28 carparks achieved = 28 carparks achieved = 4 carparks

BUILDING D CARPARK

BUILDING D 10 x 12 x 1.0 m = 20 x 20 x 1.0 m = CARPARKS REQ =	14 carparks 40 carparks 54 carparks	achieved = 55 carparks
CARPARK TYPES REQUIREMENTS SHARED ACCESS 6.2022: SEPP SENIOR 3.2M WIDE: STANDARD CARPARKS: VISITORS:	14 x 100% = 8 carparks 14 x 100% = 28 carparks 14 x 100% = 28 carparks 14 x 100% = 1 carparks	achieved = 8 carparks achieved = 28 carparks achieved = 28 carparks achieved = 1 carparks

BUILDING E CARPARK

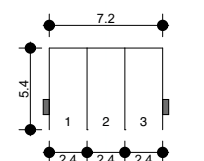
BUILDING E 10 x 12 x 1.0 m = 20 x 20 x 1.0 m = CARPARKS REQ =	8 carparks 24 carparks 32 carparks	achieved = 31 carparks
CARPARK TYPES REQUIREMENTS SHARED ACCESS 6.2022: SEPP SENIOR 3.2M WIDE: STANDARD CARPARKS: VISITORS:	32 x 100% = 4 carparks 32 x 100% = 18 carparks 32 x 100% = 18 carparks 32 x 100% = 3 carparks	achieved = 4 carparks achieved = 18 carparks achieved = 18 carparks achieved = 3 carparks

BUILDING F CARPARK

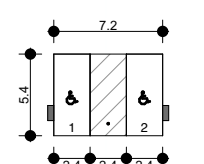
BUILDING F 10 x 12 x 1.0 m = 20 x 20 x 1.0 m = CARPARKS REQ =	4 carparks 12 carparks 16 carparks	achieved = 24 carparks
CARPARK TYPES REQUIREMENTS SHARED ACCESS 6.2022: SEPP SENIOR 3.2M WIDE: STANDARD CARPARKS: VISITORS:	24 x 100% = 4 carparks 24 x 100% = 14 carparks 24 x 100% = 14 carparks 24 x 100% = 2 carparks	achieved = 4 carparks achieved = 14 carparks achieved = 14 carparks achieved = 2 carparks

TOTAL CAR PARKING SUMMARY

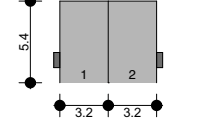
APARTMENTS 10 x 12 x 1.0 m = 20 x 20 x 1.0 m = CARPARKS REQ =	6 carparks 80 carparks 86 carparks	achieved = 207 carparks
CARPARK TYPES REQUIREMENTS SHARED ACCESS 6.2022: SEPP SENIOR 3.2M WIDE: STANDARD CARPARKS: VISITORS:	212 x 100% = 32 carparks 212 x 100% = 180 carparks 212 x 100% = 174 carparks 212 x 100% = 14 carparks	achieved = 32 carparks achieved = 180 carparks achieved = 174 carparks achieved = 14 carparks
MECHANICAL SERVICES 10 x 12 x 1.0 m = 20 x 20 x 1.0 m = CARPARKS REQ =	2 carparks 16 carparks 18 carparks	achieved = 2 carparks achieved = 14 carparks achieved = 16 carparks
ELECTRICAL SERVICES 10 x 12 x 1.0 m = 20 x 20 x 1.0 m = CARPARKS REQ =	2 carparks 16 carparks 18 carparks	achieved = 2 carparks achieved = 14 carparks achieved = 16 carparks
HYDRAULIC SERVICES 10 x 12 x 1.0 m = 20 x 20 x 1.0 m = CARPARKS REQ =	2 carparks 16 carparks 18 carparks	achieved = 2 carparks achieved = 14 carparks achieved = 16 carparks
WASTE SERVICES 10 x 12 x 1.0 m = 20 x 20 x 1.0 m = CARPARKS REQ =	2 carparks 16 carparks 18 carparks	achieved = 2 carparks achieved = 14 carparks achieved = 16 carparks
FIRE PROTECTION SERVICES 10 x 12 x 1.0 m = 20 x 20 x 1.0 m = CARPARKS REQ =	2 carparks 16 carparks 18 carparks	achieved = 2 carparks achieved = 14 carparks achieved = 16 carparks



STANDARD CARPARKS



AS2890.6:2022 SHARED CARPARKS



SEPP SENIOR 3.2M WIDE CARPARK BAYS

MECHANICAL SERVICES

ELECTRICAL SERVICES

HYDRAULIC SERVICES

WASTE SERVICES

FIRE PROTECTION SERVICES

00. NUMBERS CORRELATE TO ENGINEER CONSULTANT NEURON SPATIALS



OVERALL PLANS
BASEMENT 1 (LEVEL-3)

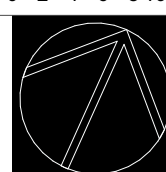
CARPARKING – KEY:

	BUILDING A CARPARK
BUILDING A 10 x 4.5 x 1.0 m = 20.25 x 1.0 m = CARPARKS REQ =	2 carparks 20 carparks 20 carparks achieved = 20 carparks
CARPARK TYPES REQUIREMENTS SHARED ACCESS 6.20M: SEPP SENIOR 3.2M WIDE: STANDARD CARPARKS: VISITORS:	20 x 100% = 20 carparks 20 x 100% = 20 carparks 20 x 100% = 20 carparks 20 x 100% = 20 carparks achieved = 20 carparks achieved = 20 carparks achieved = 20 carparks achieved = 20 carparks
	BUILDING B CARPARK
BUILDING B 10 x 4.5 x 1.0 m = CARPARKS REQ =	12 carparks 12 carparks 12 carparks achieved = 12 carparks
CARPARK TYPES REQUIREMENTS SHARED ACCESS 6.20M: SEPP SENIOR 3.2M WIDE: STANDARD CARPARKS: VISITORS:	12 x 100% = 12 carparks 12 x 100% = 12 carparks 12 x 100% = 12 carparks 12 x 100% = 12 carparks achieved = 12 carparks achieved = 12 carparks achieved = 12 carparks achieved = 12 carparks
	BUILDING C CARPARK
BUILDING C (OVER TWO CARPARK LEVELS) 10 x 4.5 x 1.0 m = CARPARKS REQ =	14 carparks 14 carparks 14 carparks achieved = 14 carparks
CARPARK TYPES REQUIREMENTS SHARED ACCESS 6.20M: SEPP SENIOR 3.2M WIDE: STANDARD CARPARKS: VISITORS:	14 x 100% = 14 carparks 14 x 100% = 14 carparks 14 x 100% = 14 carparks 14 x 100% = 14 carparks achieved = 14 carparks achieved = 14 carparks achieved = 14 carparks achieved = 14 carparks
	BUILDING D CARPARK
BUILDING D 10 x 4.5 x 1.0 m = CARPARKS REQ =	14 carparks 14 carparks 14 carparks achieved = 14 carparks
CARPARK TYPES REQUIREMENTS SHARED ACCESS 6.20M: SEPP SENIOR 3.2M WIDE: STANDARD CARPARKS: VISITORS:	14 x 100% = 14 carparks 14 x 100% = 14 carparks 14 x 100% = 14 carparks 14 x 100% = 14 carparks achieved = 14 carparks achieved = 14 carparks achieved = 14 carparks achieved = 14 carparks
	BUILDING E CARPARK
BUILDING E 10 x 4.5 x 1.0 m = CARPARKS REQ =	8 carparks 8 carparks 8 carparks achieved = 8 carparks
CARPARK TYPES REQUIREMENTS SHARED ACCESS 6.20M: SEPP SENIOR 3.2M WIDE: STANDARD CARPARKS: VISITORS:	8 x 100% = 8 carparks 8 x 100% = 8 carparks 8 x 100% = 8 carparks 8 x 100% = 8 carparks achieved = 8 carparks achieved = 8 carparks achieved = 8 carparks achieved = 8 carparks
	BUILDING F CARPARK
BUILDING F 10 x 4.5 x 1.0 m = CARPARKS REQ =	4 carparks 4 carparks 4 carparks achieved = 4 carparks
CARPARK TYPES REQUIREMENTS SHARED ACCESS 6.20M: SEPP SENIOR 3.2M WIDE: STANDARD CARPARKS: VISITORS:	4 x 100% = 4 carparks 4 x 100% = 4 carparks 4 x 100% = 4 carparks 4 x 100% = 4 carparks achieved = 4 carparks achieved = 4 carparks achieved = 4 carparks achieved = 4 carparks
TOTAL CAR PARKING SUMMARY	
APARTMENTS 10 x 4.5 x 1.0 m = CARPARKS REQ =	6 carparks 6 carparks 6 carparks achieved = 6 carparks
CARPARK TYPES REQUIREMENTS SHARED ACCESS 6.20M: SEPP SENIOR 3.2M WIDE: STANDARD CARPARKS: VISITORS:	212 x 100% = 212 carparks 212 x 100% = 212 carparks 212 x 100% = 212 carparks 212 x 100% = 212 carparks achieved = 212 carparks achieved = 212 carparks achieved = 212 carparks achieved = 212 carparks
MECHANICAL SERVICES 10 x 4.5 x 1.0 m = CARPARKS REQ =	2 carparks 2 carparks 2 carparks achieved = 2 carparks
ELECTRICAL SERVICES 10 x 4.5 x 1.0 m = CARPARKS REQ =	2 carparks 2 carparks 2 carparks achieved = 2 carparks
HYDRAULIC SERVICES 10 x 4.5 x 1.0 m = CARPARKS REQ =	2 carparks 2 carparks 2 carparks achieved = 2 carparks
WASTE SERVICES 10 x 4.5 x 1.0 m = CARPARKS REQ =	2 carparks 2 carparks 2 carparks achieved = 2 carparks
FIRE PROTECTION SERVICES 10 x 4.5 x 1.0 m = CARPARKS REQ =	2 carparks 2 carparks 2 carparks achieved = 2 carparks

	STANDARD CARPARKS
	AS2890.6:2022 SHARED CARPARKS
	SEPP SENIOR 3.2M WIDE CARPARK BAYS

	MECHANICAL SERVICES
	ELECTRICAL SERVICES
	HYDRAULIC SERVICES
	WASTE SERVICES
	FIRE PROTECTION SERVICES

00. NUMBERS CORRELATE TO ENGINEER CONSULTANT NEURON SPATIALS



BUILDING A CARPARK

BUILDING A	
18 x 4 x 0.6 ratio =	2 carparks
28 x 20 x 1.0 ratio =	20 carparks
CARPARKS REQ. =	22 carparks
	achieved = 28 carparks
CARPARK TYPES REQUIREMENTS	
SHARED ASSESS 6/2022	22 x 15% = 3 carparks
SEPP SERVICE 3.2M WIDE	22 x 50% = 11 carparks
STANDARD CARPARKS:	22 x 35% = 8 carparks
VISITORS:	22 x 10% = 2 carparks
	achieved = 4 carparks
	achieved = 12 carparks
	achieved = 8 carparks
	achieved = 5 carparks

ratio =	12 carparks	
do =	6 carparks	
ffo =	18 ramps	arbeitszeit = 18

REJUVINING	
28 x 12 x 1.0 ratio =	12 carparks
35 x 4 x 1.5 ratio =	6 carparks
CARPARKS REQ. =	18 carparks achieved = 19 carparks
SHARED PARKING REQUIREMENTS	
SAFARI AS2899 6,2022	
SEPP (SEPP 3.24) WIDE:	18 x 15% = 3 carparks achieved = 9 carparks
STANDARD CARPARKS:	18 x 35% = 6 carparks achieved = 6 carparks
VISITORS:	18 x 10% = 2 carparks achieved = 1 carpark

OVER TWO CARPARK LEVELS)

ratio =	14 carparks
ratio =	42 carparks
ratio =	68 carparks

BUILDING C (OVER TWO CARPARK LEVELS)	
20 x 14 x 1.0 ratio =	14 carparks
30 x 20 x 1.5 ratio =	42 carparks
CARPARKS REQ. =	56 carparks
	achieved = 57 carparks
CARPARK TYPES REQUIREMENTS	
SHARED ACCESSIBLE CARPARKS	
15% x 50% = 8 carparks	achieved = 8 carparks
15% x 50% = 25 carparks	achieved = 25 carparks
15% x 30% = 20 carparks	achieved = 20 carparks
15% x 10% = 6 carparks	achieved = 1 carpark

ratio =	14 car parks	
ratio =	42 car parks	
CO ₂ =	60 car parks	substantially in 2000

BUILDING D	
28 x 14 x 1.0 ratio =	14 carparks
38 x 29 x 1.5 ratio =	42 carparks
CARPARKS REQ. =	56 carparks achieved = 55 carparks
CARPARK TYPES REQUIREMENTS	
SHARED ASD989.6.2022	
SEPP SPD 3.24 VANCE:	56 x 15% = 9 carparks achieved = 6 carparks
STANDARD CARPARKS:	56 x 50% = 28 carparks achieved = 28 carparks
+ VISITORS:	56 x 35% = 20 carparks achieved = 20 carparks
	56 x 10% = 6 carparks achieved = 1 carpark

do =	8 carparks
ratio =	24 carparks
ratio =	24 carparks

REQUIREMENTS		
25 x 9 x 1.0 ratio =	8 carparks	
32 x 16 x 1.5 ratio =	24 carparks	
CARPARKS REQ. =	32 carparks	achieved = 31 carparks
SHAPED SITE REQUIREMENTS		
CARPARK AS2990 6:2022:		
SEPP SPD 3.24 VANCE:	32 x 50% = 16 carparks	achieved = 4 carparks
STANDARD CARPARKS:	32 x 35% = 12 carparks	achieved = 15 carparks
+ VISITORS:	32 x 10% = 3 carparks	achieved = 12 carparks
		achieved = 0 carparks

do =	4 casparks
atio =	21 casparks

BUILDING 2	
105 x 4 = 0.5 ratio =	4 carparks
205 x 21 = 1.0 ratio =	21 carparks
305 x 2 = 1.0 ratio =	3 carparks
CARPARKS REQ. =	28 carparks achieved = 24 carparks
CARPARK TYPES REQUIREMENTS	
SHARED A22890 & C-222	
SEPR - SENIOR (1.294 WIDE)	
STANDARD CARPARKS	
28 x 15% = 4 carparks	achieved = 2 carparks
28 x 50% = 14 carparks	achieved = 13 carparks
28 x 35% = 10 carparks	achieved = 9 carparks

APARTMENTS	
18 x 12 x 0.5 ratio =	6 carports
28 x 89 x 1.0 ratio =	89 carports
60 x 79 x 4.0 ratio =	44% expansion

[illegible]

S2890 6-2022 SHARED

EPP SENIOR 3.2M WIDE

MECHANICAL SERVICES

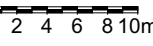
ELECTRICAL SERVICES

HYDRAULIC SERVICES

WASTE SERVICES

FIRE PROTECTION SERVICES

0. NUMBERS CORRELATE O ENGINEER CONSULTANT EURON SPATIALS



OVERALL PLANS
GROUND FLOOR
(LEVEL-1)

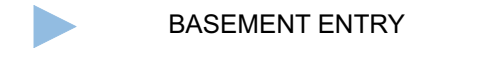
FLOOR PLAN - KEY:



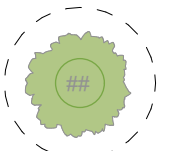
PROPOSED BUILDING



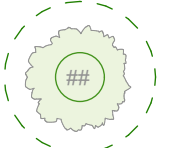
SECONDARY ENTRY



BASEMENT ENTRY



NZR OF PRIORITY FOR
RETENTION TREE - REFER
ARBORICULTURAL PLANS



NZR CONSIDER FOR
RETENTION/REMOVAL TREE
- REFER ARBORICULTURAL
PLANS



PROPOSED TREE - TBC BY
LANDSCAPE



COMMUNITY ZONE



MECHANICAL SERVICES



ELECTRICAL SERVICES



HYDRAULIC SERVICES



WASTE SERVICES



FIRE PROTECTION
SERVICES

00. NUMBERS CORRELATE
TO ENGINEER CONSULTANT
NEURON SPATIALS



BUILDING A CARPARK



BUILDING B CARPARK



BUILDING C CARPARK



BUILDING D CARPARK



BUILDING E CARPARK



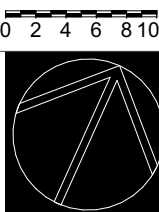
BUILDING F CARPARK



OVERALL PLANS
UPPER GROUND –
STEWART ST (LEVEL 0)

FLOOR PLAN – KEY:

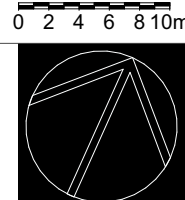
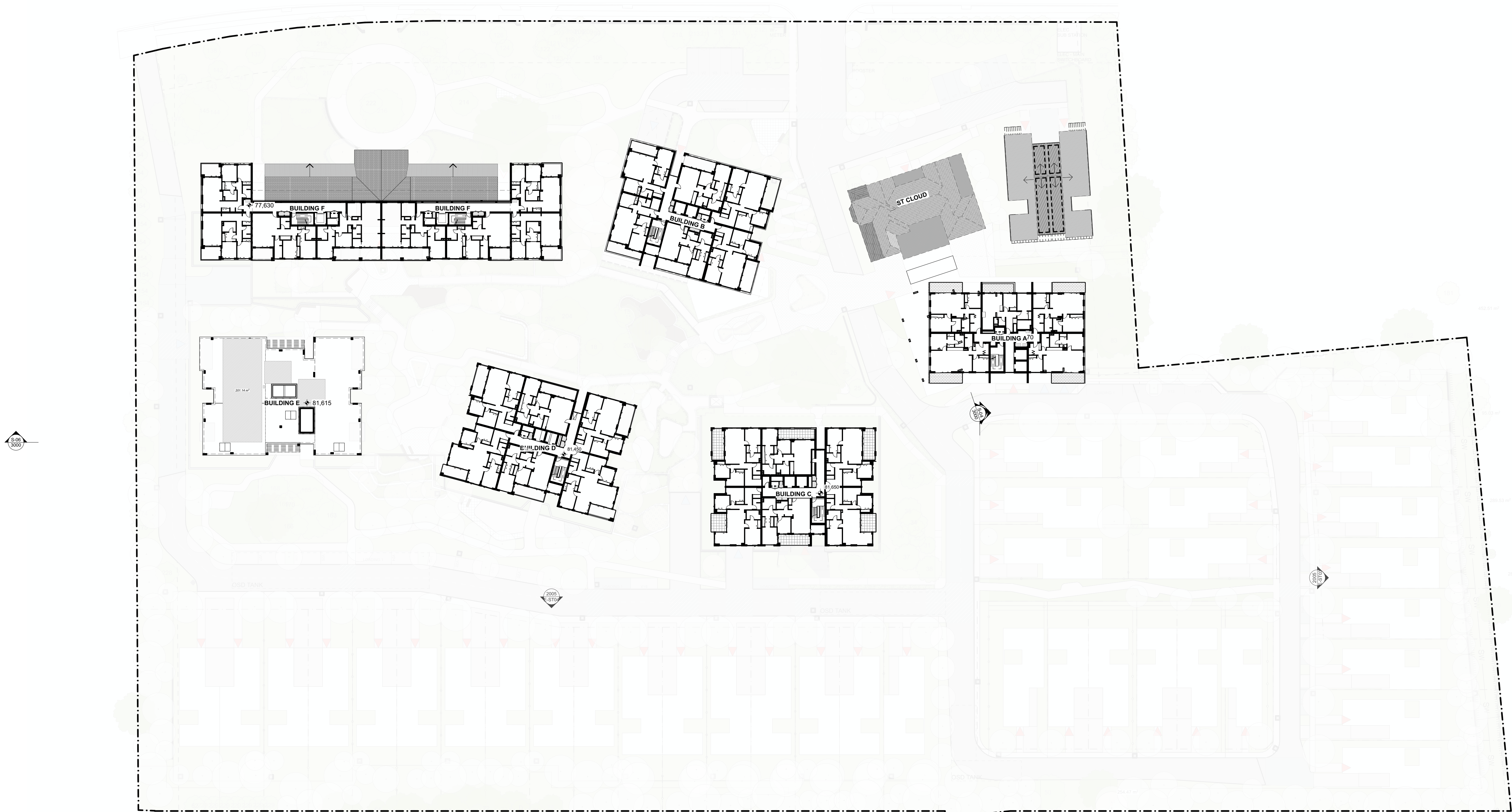
- PROPOSED BUILDING
- SECONDARY ENTRY
- BASEMENT ENTRY
- NZR OF PRIORITY FOR RETENTION TREE – REFER ARBORICULTURAL PLANS
- NZR CONSIDER FOR RETENTION/REMOVAL TREE – REFER ARBORICULTURAL PLANS
- PROPOSED TREE – TBC BY LANDSCAPE
- COMMUNITY ZONE
- MECHANICAL SERVICES
- ELECTRICAL SERVICES
- HYDRAULIC SERVICES
- WASTE SERVICES
- FIRE PROTECTION SERVICES
- 00. NUMBERS CORRELATE TO ENGINEER CONSULTANT NEURON SPATIALS
- BUILDING A CARPARK
- BUILDING B CARPARK
- BUILDING C CARPARK
- BUILDING D CARPARK
- BUILDING E CARPARK
- BUILDING F CARPARK



OVERALL PLANS
LEVEL 1

FLOOR PLAN - KEY:

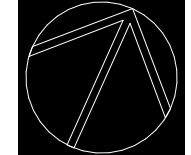
- PROPOSED BUILDING
- SECONDARY ENTRY
- BASEMENT ENTRY
- NZR OF PRIORITY FOR RETENTION TREE - REFER ARBORICULTURAL PLANS
- NZR CONSIDER FOR RETENTION/REMOVAL TREE - REFER ARBORICULTURAL PLANS
- PROPOSED TREE - TBC BY LANDSCAPE
- COMMUNITY ZONE
- MECHANICAL SERVICES
- ELECTRICAL SERVICES
- HYDRAULIC SERVICES
- WASTE SERVICES
- FIRE PROTECTION SERVICES
- 00. NUMBERS CORRELATE TO ENGINEER CONSULTANT NEURON SPATIALS
- BUILDING A CARPARK
- BUILDING B CARPARK
- BUILDING C CARPARK
- BUILDING D CARPARK
- BUILDING E CARPARK
- BUILDING F CARPARK



OVERALL PLANS
LEVEL 2

FLOOR PLAN – KEY:

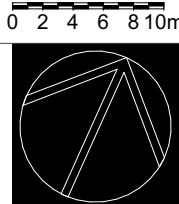
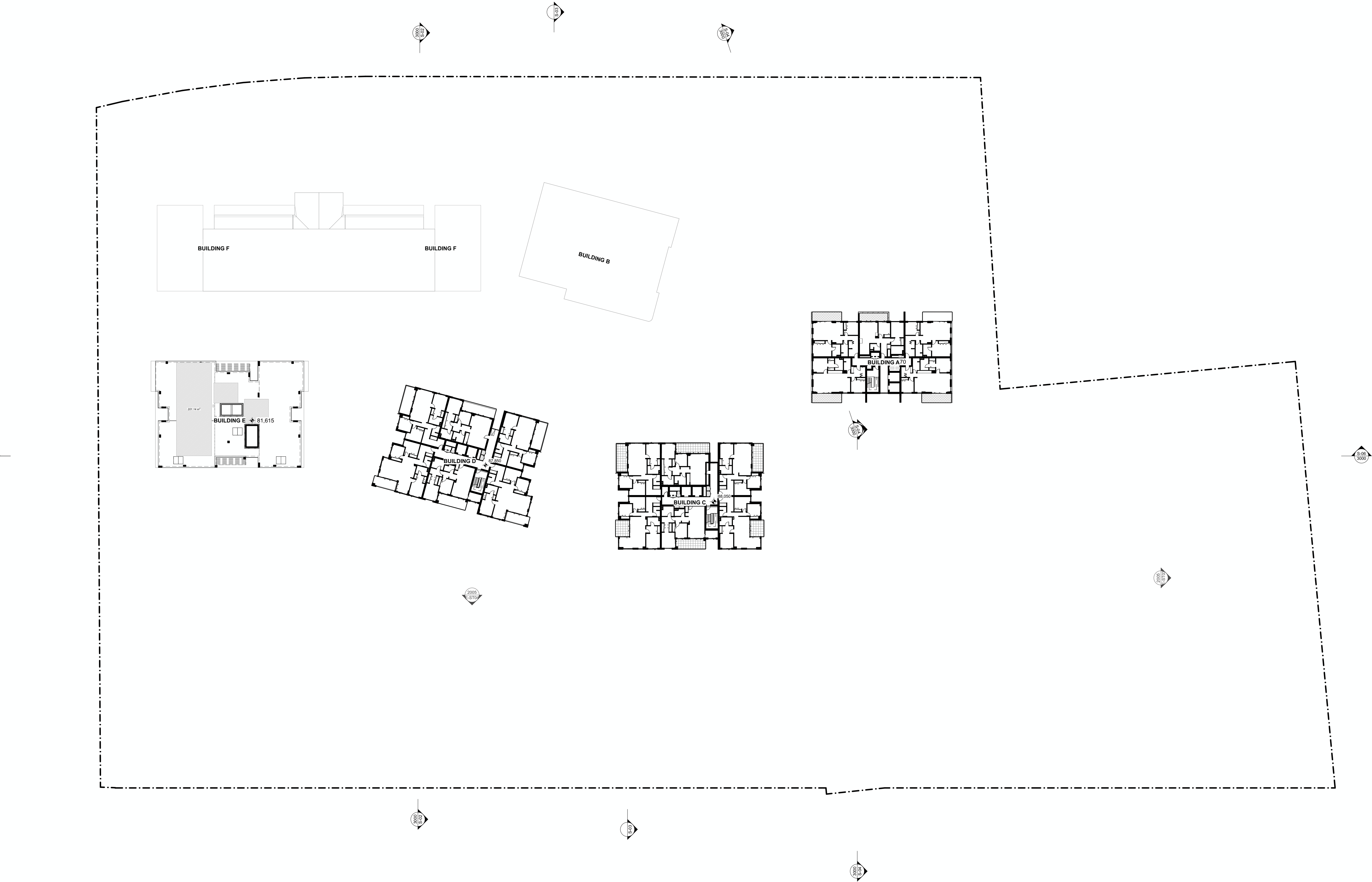
- PROPOSED BUILDING
- SECONDARY ENTRY
- BASEMENT ENTRY
- NZR OF PRIORITY FOR RETENTION TREE – REFER ARBORICULTURAL PLANS
- NZR CONSIDER FOR RETENTION/REMOVAL TREE – REFER ARBORICULTURAL PLANS
- PROPOSED TREE – TBC BY LANDSCAPE
- COMMUNITY ZONE
- MECHANICAL SERVICES
- ELECTRICAL SERVICES
- HYDRAULIC SERVICES
- WASTE SERVICES
- FIRE PROTECTION SERVICES
- 00. NUMBERS CORRELATE TO ENGINEER CONSULTANT NEURON SPATIALS
- BUILDING A CARPARK
- BUILDING B CARPARK
- BUILDING C CARPARK
- BUILDING D CARPARK
- BUILDING E CARPARK
- BUILDING F CARPARK



OVERALL PLANS
LEVEL 3

FLOOR PLAN – KEY:

- PROPOSED BUILDING
- SECONDARY ENTRY
- BASEMENT ENTRY
- NZR OF PRIORITY FOR RETENTION TREE – REFER ARBORICULTURAL PLANS
- NZR CONSIDER FOR RETENTION/REMOVAL TREE – REFER ARBORICULTURAL PLANS
- PROPOSED TREE – TBC BY LANDSCAPE
- COMMUNITY ZONE
- MECHANICAL SERVICES
- ELECTRICAL SERVICES
- HYDRAULIC SERVICES
- WASTE SERVICES
- FIRE PROTECTION SERVICES
- 00. NUMBERS CORRELATE TO ENGINEER CONSULTANT NEURON SPATIALS
- BUILDING A CARPARK
- BUILDING B CARPARK
- BUILDING C CARPARK
- BUILDING D CARPARK
- BUILDING E CARPARK
- BUILDING F CARPARK



OVERALL PLANS
LEVEL 4

FLOOR PLAN – KEY:

PROPOSED BUILDING

SECONDARY ENTRY

BASEMENT ENTRY

NZR OF PRIORITY FOR
RETENTION TREE – REFER
ARBORICULTURAL PLANS

NZR CONSIDER FOR
RETENTION/REMOVAL TREE
– REFER ARBORICULTURAL
PLANS

PROPOSED TREE – TBC BY
LANDSCAPE

COMMUNITY ZONE

MECHANICAL SERVICES

ELECTRICAL SERVICES

HYDRAULIC SERVICES

WASTE SERVICES

FIRE PROTECTION
SERVICES

00. NUMBERS CORRELATE
TO ENGINEER CONSULTANT
NEURON SPATIALS

BUILDING A CARPARK

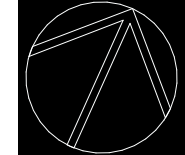
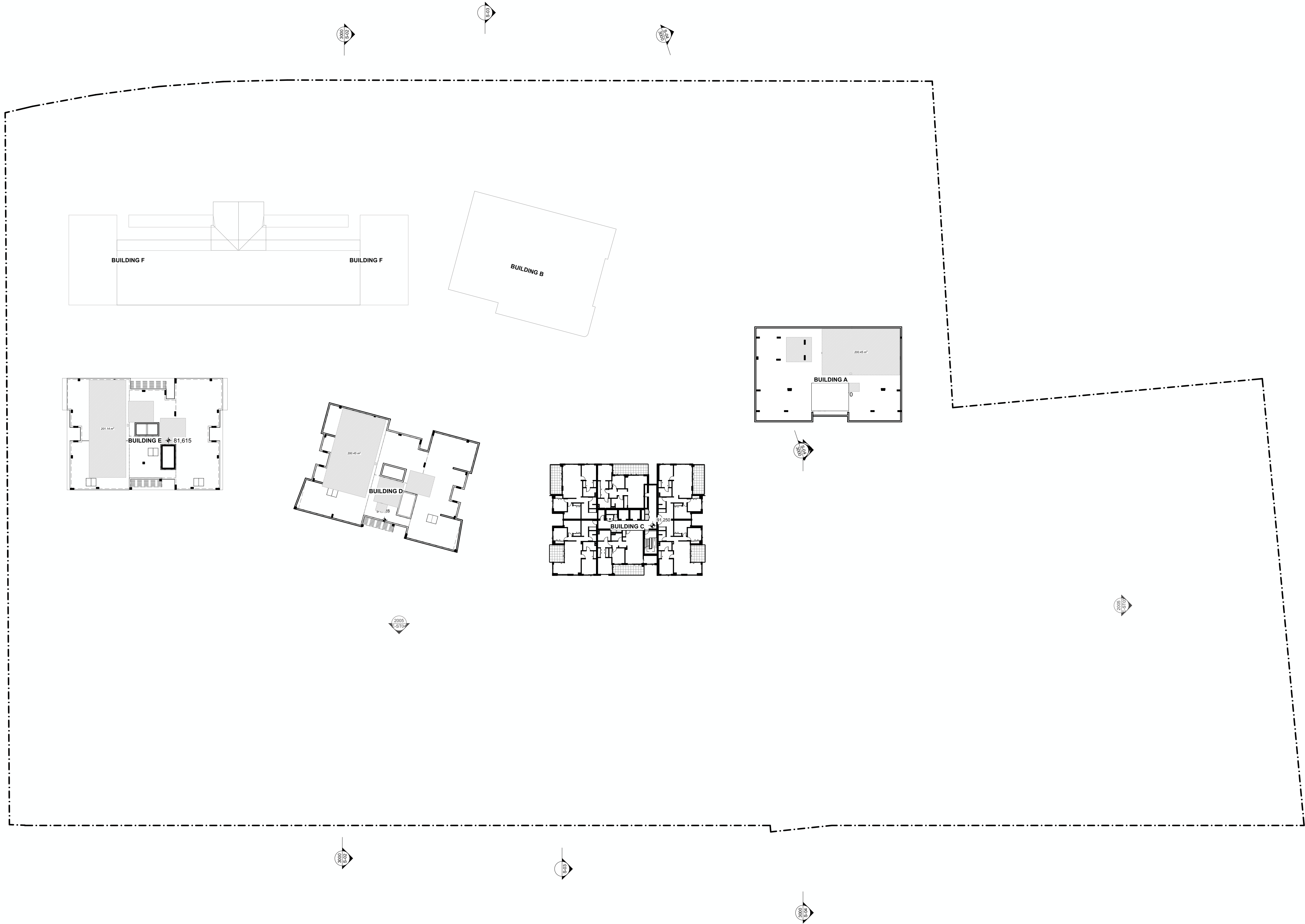
BUILDING B CARPARK

BUILDING C CARPARK

BUILDING D CARPARK

BUILDING E CARPARK

BUILDING F CARPARK



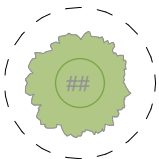
OVERALL PLANS
LEVEL 5

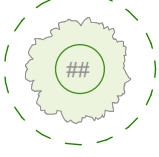
FLOOR PLAN – KEY:

- 

PROPOSED BUILDING
- 

SECONDARY ENTRY
- 

BASEMENT ENTRY
- 

NZR OF PRIORITY FOR
RETENTION TREE – REFER
ARBORICULTURAL PLANS
- 

NZR CONSIDER FOR
RETENTION/REMOVAL TREE
– REFER ARBORICULTURAL
PLANS
- 

PROPOSED TREE – TBC BY
LANDSCAPE
- 

COMMUNITY ZONE
- 

MECHANICAL SERVICES
- 

ELECTRICAL SERVICES
- 

HYDRAULIC SERVICES
- 

WASTE SERVICES
- 

FIRE PROTECTION
SERVICES
00. NUMBERS CORRELATE
TO ENGINEER CONSULTANT
NEURON SPATIALS
- 

BUILDING A CARPARK
- 

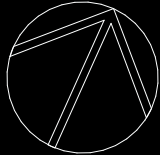
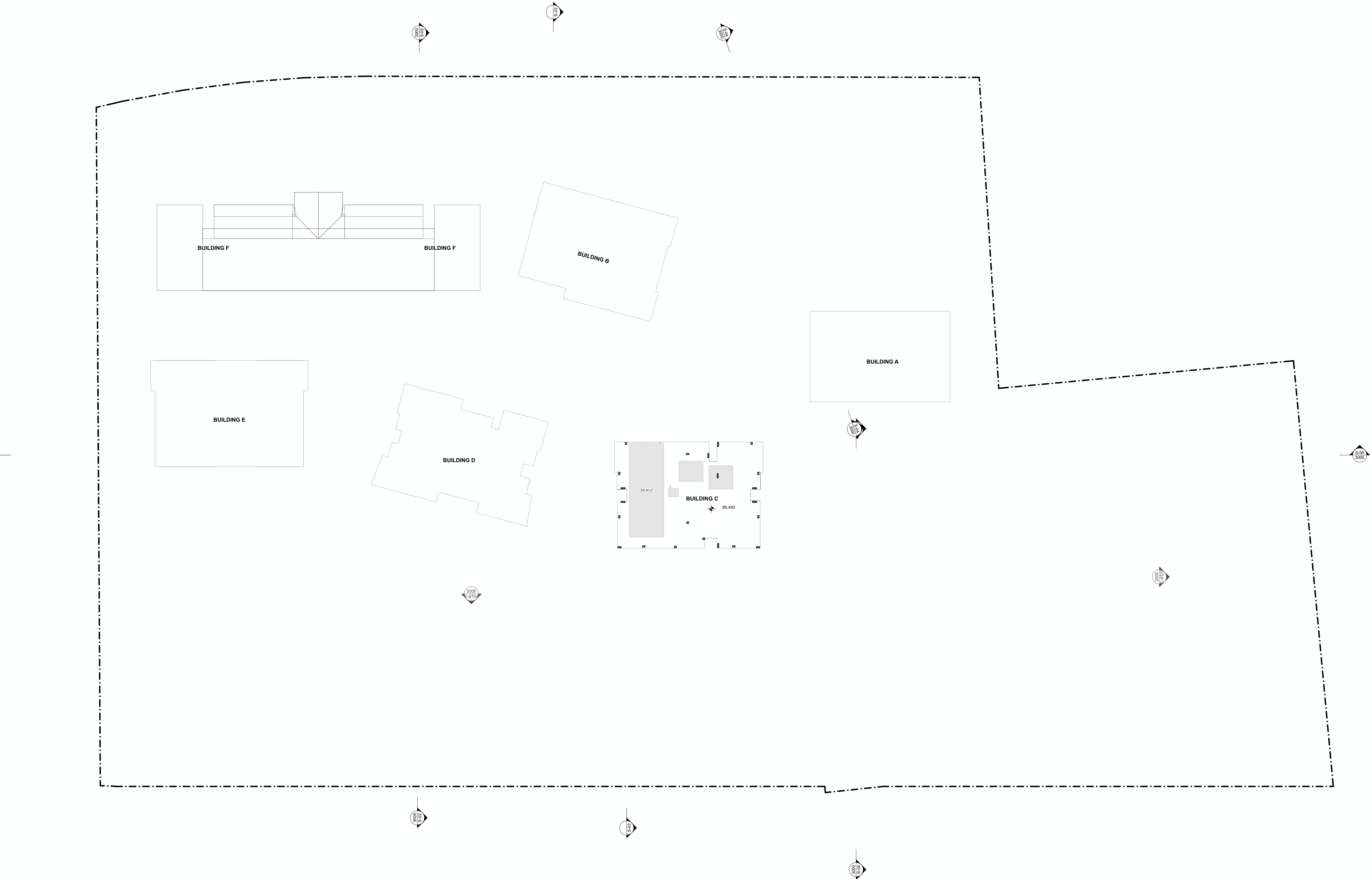
BUILDING B CARPARK
- 

BUILDING C CARPARK
- 

BUILDING D CARPARK
- 

BUILDING E CARPARK
- 

BUILDING F CARPARK



APPENDIX 2 SWEPT PATH ANALYSIS



GARBAGE TRUCK	
Overall Length	10.800m
Overall Width	2.500m
Overall Body Height	3.633m
Min Body Ground Clearance	0.428m
Track Width	2.500m
Lock-to-lock time	4.00s
Curb to Curb Turning Radius	10.000m



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