

18 April 2026

Townsville City Council
PO Box 1268
TOWNSVILLE QLD 4810



USC Reference: USC119

Dear Sir/Madam

**DEVELOPMENT APPLICATION FOR A DEVELOPMENT PERMIT FOR MATERIAL
CHANGE OF USE FOR MULTIPLE DWELLING (14 UNITS)
177-179 FRANCIS STREET, WEST END (LOT 1 ON RP711746, LOT 2 ON
RP711746, LOT 3 ON RP711746 AND LOT 4 ON RP711746)**

On behalf of Kaenetto Investments, please accept this development application for a Development Permit for Material Change of Use for Multiple Dwelling (14 Units) at 177-179 Francis Street, West End, formally known as Lot 1 on RP711746, Lot 2 on RP711746, Lot 3 on RP711746 and Lot 4 on RP711746.

If you have any questions regarding the application, please do not hesitate to contact the office.

Yours sincerely,

URBAN SPACE CONSULTING

Encl: Development Application Package



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TOWN PLANNING REPORT

177-179 FRANCIS STREET
WEST END

LOTS 1-4 ON RP711746

APRIL 2026

PREPARED FOR KAENETTO
INVESTMENTS



US
URBAN SPACE
CONSULTING

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Appendix F – Traffic Engineering Report prepared by Modus

Appendix G – Operational Waste Management Plan prepared by Modus

Appendix H – Engineering Report prepared by STP Consultants

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Executive Summary

Proposed Development

Type of Approval	Category of Assessment	Planning Scheme Use
Development Permit	Impact Assessment	Multiple Dwelling (14 Units)

Subject Site Details

Subject Site Address	177-179 Francis Street, West End QLD 4810
Property Description	Lot 1 on RP711746, Lot 2 on RP711746, Lot 3 on RP711746 and Lot 4 on RP711746
Site Area	4,436m ²
Landowner	Kaenetto Investments Pty Ltd A.C.N 684 140 485
Local Government	Townsville City Council
Planning Scheme	Townsville City Plan
Zoning	Low Density Residential Zone
Relevant Overlays	OM1 – Operational Airspace and Wildlife Hazard Buffer Overlay OM3.1 – Environment Coastal Hazard Area – Storm Tide Inundation Area OM6.1 – Development Constraints Flood Hazard OM10.1 – Major Infrastructure and Hazardous Facilities OM11.1 – Development Constraints Transport Noise Corridors
State Referrals	Schedule 10, Part 9, Division 4, Subdivision 2, Table 4 Within 25m of a State transport corridor (State-controlled road)
State Planning Policy	Strategic Airports and Aviation Facilities Natural Hazards Risk and Resilience Transport Infrastructure Biodiversity

Applicant Details

Applicant	Contact Details	Reference
Kaenetto Investments C/- Urban Space Consulting	urbanspaceconsulting@outlook.com 0404 539 291 PO Box 5161 West End QLD 4101	USC119

1.0 Introduction

Urban Space Consulting, on behalf of Kaenetto Investments, has prepared this development application for a proposed development at 177-179 Francis Street, West End, formally known as Lot 1 on RP711746, Lot 2 on RP711746, Lot 3 on RP711746 and Lot 4 on RP711746 (subject site). This development application seeks approval for a Development Permit for a Material Change of Use for a Multiple Dwelling (14 Units)

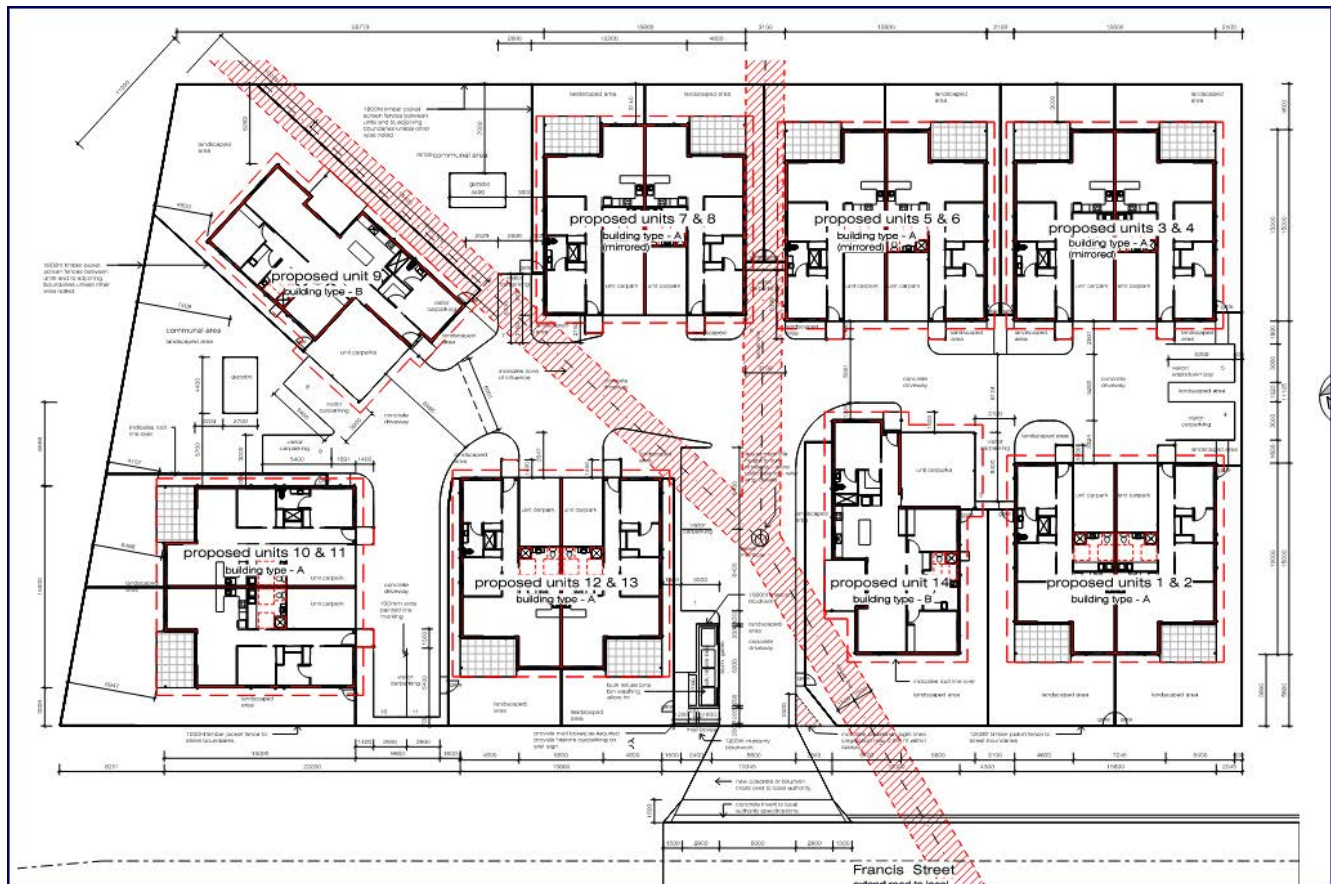


Figure 1: Proposed Development (source: Concepts Building Design)

This report addresses the merits of the proposed development with regard to the assessment benchmarks under the Townsville City Plan and the relevant sections of the *Planning Act 2016 (Planning Act)*.

This development application should be read in conjunction with the following supporting materials:

- Appendix A – DA Form
- Appendix B – Title Searches and Smartmap
- Appendix C – Land Owner Consent
- Appendix D – Proposal Plans prepared by Concepts Building Design
- Appendix E – Detail and Contour Survey prepared by Atkinson Surveys
- Appendix F – Traffic Engineering Report prepared by Modus
- Appendix G – Operational Waste Management Plan prepared by Modus
- Appendix H – Engineering Report prepared by STP Consultants
- Appendix I – Acoustic Report prepared by Acoustic Works
- Appendix J - SPP Mapping Report
- Appendix K – SARA Mapping
- Appendix L – SDAP Code Responses prepared by Urban Space Consulting
- Appendix M – Planning Scheme Assessment Benchmarks prepared by Urban Space Consulting

2.0 Subject Site and Surrounds

2.1 Subject Site

The proposed development is located at 177-179 Francis Street, West End shown in **Figure 2**. The subject site is located within the residential area of West End and is surrounded by low density residential zoning north, east and south, Percy Street (State-controlled road) to the west, as shown **Figure 3**.



Figure 2: Subject Site and Surrounding locality (source: Nearmap)

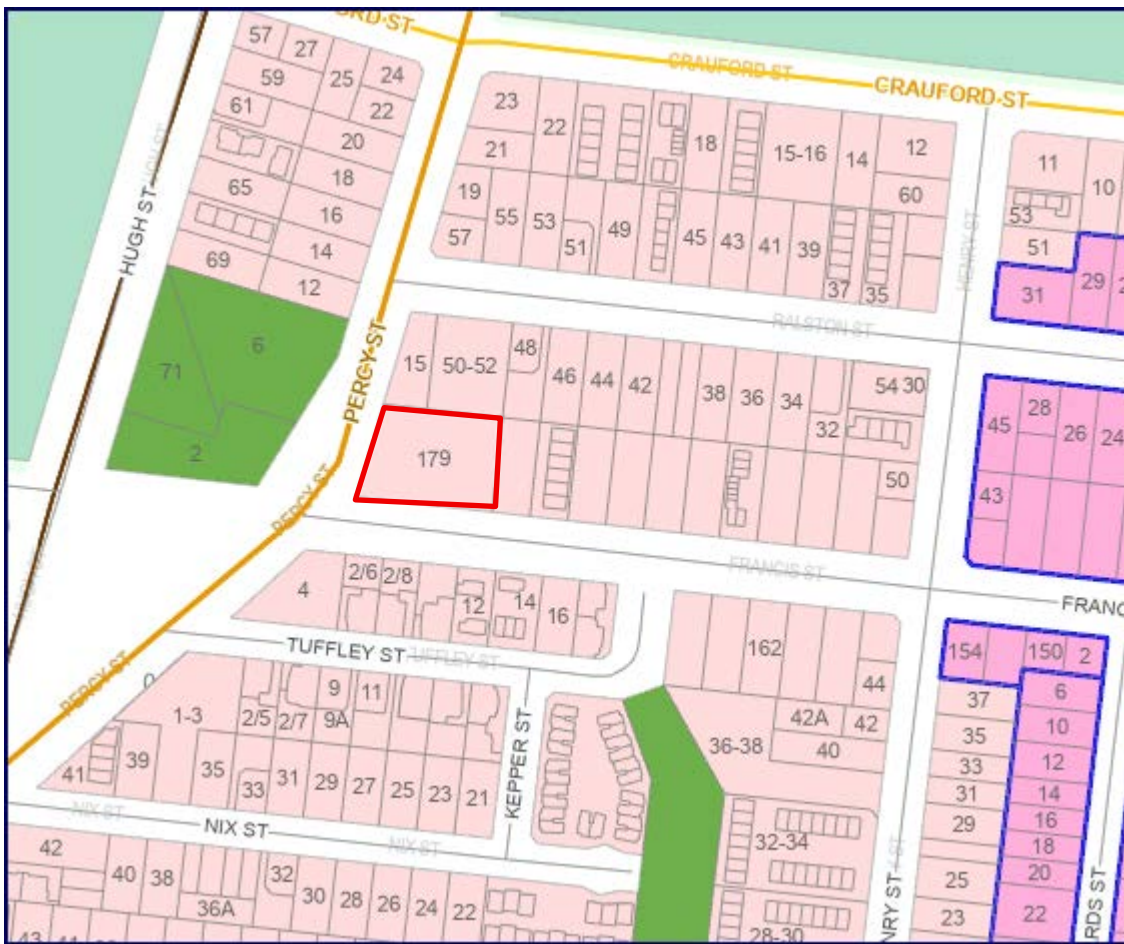


Figure 3: Planning Scheme Land Use Zoning (source: Townsville City Plan)

2.2 Surrounding Context

The subject site is situated in a predominantly residential area that combines suburban charm. West End is known for its family-friendly atmosphere and accessibility to local amenities. The surrounding context features a mix of established homes, green spaces and neighbourhood centres, with a pleasant neighborhood feel. The locality blends modern developments in the area with existing character. The location benefits from its proximity to key roads and public transportation, offering a balance between suburban living and convenient access to the broader city infrastructure, as shown in **Figure 4**.

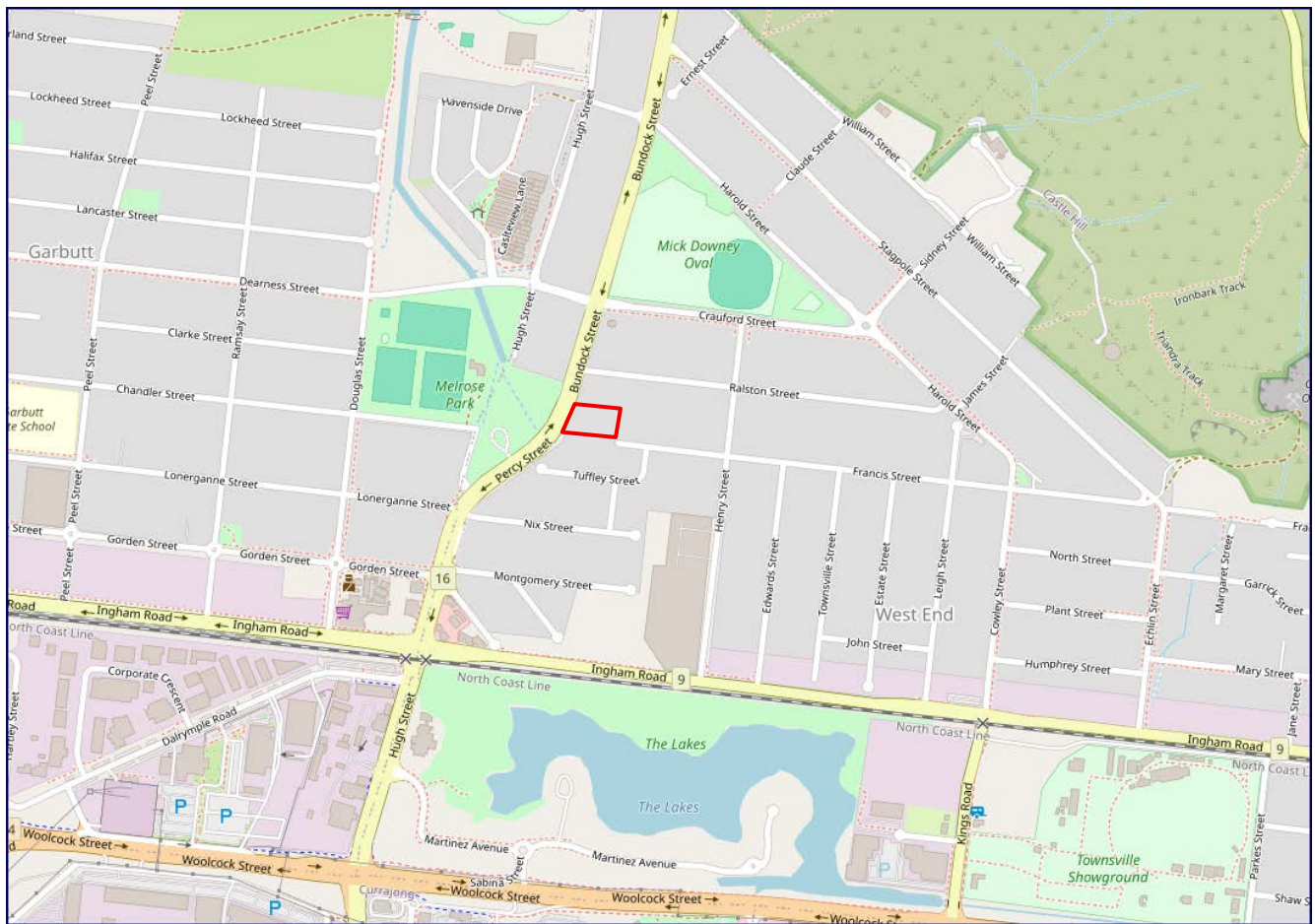


Figure 4: Subject Site and Surrounding locality (source: Open Street Map)

2.4 Easements and Encumbrances

There are currently no easements or encumbrances over the subject site, as shown in **Figure 5**.



Figure 5: Lot Boundaries and Easements (source: Queensland Globe)

3.0 Proposed Development

The proposal seeks a Development Permit for a Material Change of Use for a Multiple Dwelling(14 Units).

The proposed development is for a multiple dwelling development to accommodate family dwellings, designed to blend seamlessly with the surrounding neighbourhood. This project will feature state-of-the-art amenities, including elegant dwellings and a vibrant community hub. Residents will enjoy a lifestyle rich in beautiful green spaces, all while having access to top-tier centres accessed along Percy Street. This development promises not only a comfortable and active lifestyle but a thriving, supportive community where every need is met with excellence and warmth. Proposal Plans of the proposed development have been provided in **Appendix D**.



Figure 6: Proposed Development 3D Render (source: Concepts Building Design)

3.1 Development Details

A summary of the key components of the development proposal are summarised below in Table 2.

Table 2: Summary of Development

Key Development Parameter	Proposed Development
Defined Land Uses	Multiple Dwelling
Staging	The development will be constructed as one stage
Number of dwellings	14 dwellings
Dwelling mix	Building Type A: ▪ 2 bedroom, 2 bathroom Building Type B: ▪ 3 bedroom, 2 bathroom
Building Height	1 storey
Access	Access to all dwellings will be from Francis Street (extended)
Car Parking	27 carparking spaces total
Servicing	HRV loading can occur onsite and access provided from Francis Street

3.2 Description of Proposed Development

This development application seeks approval for a Development Permit for Material Change of Use for a Multiple Dwelling (14 x Units). The development provides an exciting opportunity to deliver much needed housing, with a primary focus being conveniently located with suburban amenity. The proposal provides an efficient use of residential zoned land and is consistent with the establishing pattern of development in the immediate context and the wider urbanised area and suburb of Cranbrook.

The subject site is located within an established urban locality characterised by a mix of detached dwellings and low-rise unit developments. The surrounding Francis Street corridor and broader West End area demonstrate an existing pattern of multiple dwelling sites, including small unit complexes and walk-up apartments, reflecting a transition toward increased residential density. Nearby properties along the same street comprise established unit developments, indicating that multi-unit housing is a consistent and accepted built form within the immediate locality.

In this context, a development comprising 14 units is considered consistent with the prevailing residential character and aligns with the intent of the Townsville City Council planning framework, which supports a diversity of housing types and incremental increases in density in well-located urban areas. As such, the proposed development would integrate seamlessly into the existing streetscape and built form pattern without introducing a scale or intensity that is out of character with the surrounding locality.

The proposed development application for a multiple dwelling directly aligns with the objectives of the Townsville City Council Local Housing Action Plan 2024–2027, which seeks to increase housing supply, promote infill development, and diversify housing options across the region. By delivering medium-density housing within an existing urban footprint, the proposal supports Council’s goal of boosting the proportion of infill development from less than 5% to at least 10% annually. The design responds to the Plan’s emphasis on housing diversity by offering an alternative to detached dwellings, catering to evolving household structures and affordability needs. Additionally, the development leverages existing infrastructure and services, consistent with Council’s strategy to optimise land use and reduce urban sprawl. This application contributes to the Plan’s broader vision of creating vibrant, walkable communities that accommodate Townsville’s projected population growth while maintaining liveability and economic resilience.

Furthermore, the Queensland Government’s Securing our Housing Foundations plan outlines a strategic approach to addressing housing challenges across the state. With a commitment to delivering 1 million new homes by 2044, the plan aims to ensure sustainable growth and accessibility for all Queenslanders. By focusing on infrastructure, affordability, and long-term planning, the initiative seeks to create a more resilient housing market that meets the needs of both urban and regional communities. The proposed application directly contributes to these goals, offering a practical solution to Queensland’s housing crisis.

4.0 Specialist Supporting Material

The following specialist material has been undertaken in support of the proposed development:

- Proposal Plans, prepared by Concepts Building Design
- Traffic Engineering Report, prepared by Modus
- Operational Waste Management Report, prepared by Modus
- Engineering Report prepared by STP Consultants
- Acoustic Report, prepared by Acoustic Works

A summary of the key findings of each of the technical reports is provided below, including the key elements proposed for the application and the matters that affect the assessment of the application.

4.1 Proposal Plans

A consistent theme has been applied to the development for uniformity and sense of community with subtle changes provided in colour. The theme is 'simplistic modern elegance' and responds to the immediate built environment of nearby residences. The design seeks to maximize and leverage from a northerly aspect and is achieved with a north/south orientation.

The intentional architectural outcome of the development represents an exemplar outcome for modern and sustainable design. The proposed development has been designed in accordance with advice from engineers and Council to ensure the design is capable to be built in a cost effective and efficient manner.

4.2 Traffic Engineering Report

The Traffic Engineering Report prepared by Modus for the proposed multiple residential development, concludes the project is acceptable from a traffic and transport engineering perspective. It confirms compliance with driveway and crossover design standards, identifies modest traffic generation, and shows no significant impact on surrounding intersections, all of which operate within acceptable thresholds.

4.3 Operational Waste Management

The Operational Waste Management Plan outlines the refuse generation, storage, transfer and servicing arrangements for the proposed development. It details the expected waste volumes based on Townsville City Council generation rates, confirming the need for four 1100L bulk bins (two general waste and two commingled recycling) stored within a purpose-built refuse enclosure. The plan describes how residents will manage daily waste, how bins will be transferred approximately 5 m to the servicing area, and how Council's rear-loading collection vehicle will service the site on-site via a safe manoeuvring path. It also outlines operational procedures, minimisation strategies, equipment options, signage requirements, and ongoing management responsibilities to ensure compliant, efficient and safe waste handling throughout the building's operational life.

4.4 Engineering Report

The Engineering Report confirms the site can be serviced and developed without major constraints. The land is unaffected by the 1% AEP flood event, though coastal hazard mapping requires minimum floor levels of RL3.9 m AHD. Only minor earthworks are needed, and existing overland flow paths and a small external catchment are accommodated in the design. Stormwater will be captured, treated via Atlan Stormsacks and a FlowFilter unit, and discharged to the lawful points of discharge on Francis and Percy Streets, with no detention required due to a low impervious fraction. Water and sewer network modelling shows sufficient capacity for the development, with new connections required but no upgrades. Power and telecommunications will be extended to the site. Overall, the report concludes there are no engineering impediments for the development.

4.5 Acoustic Report

The acoustic report assesses road traffic noise impacts on the proposed development, with a focus on noise generated from Percy Street, a State-controlled road. Unattended noise monitoring was undertaken over several weeks to establish existing ambient and traffic noise levels, which were then used to model future noise conditions to the year 2036 in accordance with SDAP and Queensland Development Code MP4.4 requirements. The assessment confirms that predicted noise levels can be mitigated through a combination of acoustic barriers, upgraded glazing, alternative ventilation, and compliant wall and roof constructions to ensure internal and external acoustic criteria are met. The report concludes that, with the recommended treatments, the development can achieve the required noise performance standards for habitable rooms and private open space.

5.0 Prelodgement Discussions

On 14 August 2025, representatives of Urban Space Consulting and Kaenetto Investments met with Townsville City Council officers to discuss the proposed development (Council Ref: PLM25/0146). The table below provides a summary of Council's advice, as well as how the proposed development has considered the advice.

Table 3: Summary of Prelodgement Meeting Discussion

Item	Council's comments	Proposal Response
1. Proposal Overview	▪ The proposal involves a multiple dwelling development comprising 22 units. ▪ The site is located within proximity to key amenities including a shopping centre, parks, and public transport, aligning with locality requirements for multiple dwellings. ▪ The development supports the Housing Action Plan and infill development objectives.	After working through concept design, engineering and improving amenity for the site and surrounds, it has resulted in a lower density for the development with a total of 14 dwellings. Although the site could be designed for a higher yield, given its location and size, 14 dwellings provides a higher level of amenity for future residents and home owners.
2. Engineering Considerations	<u>Flooding and Stormwater</u> ▪ Site is not significantly affected by flooding under current and upcoming flood mapping. ▪ Storm Water Management Plan (SWMP) is to be prepared in accordance with the current AR&R, QUDM, and rainfall intensities to demonstrate how Minor and major flows are managed, and must consider: ▪ Quantity • Minor flow: Stormwater from the site for the design rainfall event is to be discharged to the legal point of discharge at the predevelopment flow rate or the capacity of downstream network whichever is lesser. Stormwater exceeding the allowed flow rate is to be detained on site. • Major flow: overland flow for major rainfall event is to be directed towards the road reserve. If via private properties, then need to provide drainage easement. • Stormwater drainage design is to incorporate no nuisance to the neighbouring properties due to the proposed development. ▪ Quality – • Stormwater is to be treated onsite prior to discharging to LPOD to demonstrate compliance with the water quality objectives of SPP. • Stormwater quality treatment device is to be private in nature.	An Engineering Report is provided in Appendix H .

Stormwater

- Storm Water Management Plan (SWMP) is to be prepared in accordance with the current AR&R, QUDM, and rainfall intensities to demonstrate how Minor and major flows are managed, and must consider:
- Quantity
 - Minor flow: Stormwater from the site for the design rainfall event is to be discharged to the legal point of discharge at the predevelopment flow rate or the capacity of downstream network whichever is lesser. Stormwater exceeding the allowed flow rate is to be detained on site.
 - Major flow: overland flow for major rainfall event is to be directed towards the road reserve. If via private properties, then need to provide drainage easement.
 - Stormwater drainage design is to incorporate no nuisance to the neighbouring properties due to the proposed development.
- Quality –
 - Stormwater is to be treated onsite prior to discharging to LPOD to demonstrate compliance with the water quality objectives of SPP.
 - Stormwater quality treatment device is to be private in nature.

An Engineering Report is provided in **Appendix H**.

Flood Hazard Overlay

- Minimal affect by 1%AEP storm event per new flood mapping.
- Any minor adjustments can be addressed via Stormwater Management Plan
- Floor level for habitable buildings to be 300mm above the DFE in accordance with QUDM (or floor level requirement per coastal whichever is greater).

An Engineering report is provided in **Appendix H**.

Coastal environment overlay code

- The Coastal hazard overlay code requirements must be considered for any future built form outcomes proposed over the subject site i.e. 3.05 m AHD lot levels and 3.9m AHD FFL for all habitable areas.

An Engineering report is provided in **Appendix H**.

Reticulated water

- Detailed network analysis to confirm capacity and pressure requirements
- boundary condition information can be requested with council, and/or access to Council's network models by submitting a "Request for Network Modelling Information" form
- Fenced structure (raised in the meeting) appears to be air valve /scour valve and needs to be confirmed during the design phase via dial before you dig and onsite inspection. If scour valve, then council may consider heavy duty

An Engineering report is provided in **Appendix H**.

driveable manhole over at the same location. If air valve than needs to be relocated.

- Existing water main within the development frontage is 750mm diameter major infrastructure. Utmost care must be taken during design and construction phase to ensure no impact to the water main. Applicant is encouraged to liaise with council after the preliminary design (i.e. After the survey/investigation of the existing water main and other under and over ground structure are carried out). Request can be made to Council if the main hole lids are locked and need to be unlocked for survey/investigation purpose.

Sewer

- Construction of dwelling or access over the existing sewer trunk line is not supported.
- Council may consider removal and relocation of existing sewer gravity main at the developers cost. Realignment to follow DTMR road reserve at west of 179 Francis Street and Council Road reserve at the south of 179 Francis Street.
- Constructability must also be considered to maintain operational capability of existing services, and the design would need to demonstrate continuous operation with a limited 4 to 6-hour shutdown period.
- Detailed design is to be submitted for councils' approval and must comply with current CTM requirements.
- Driveway crossing over trunk line may be allowed provided that applicant could demonstrate it cannot be achieved in other areas.
- Service connections cannot be obtained from trunk sewer.
- Building near or over to services will be required for non-trunk lines if performance outcome and acceptable outcome of QDC MP1.4 is not met.
- Connection points will need to have clearance of 1m at all sides
- Detailed network analysis to confirm capacity and pressure requirements
- Boundary condition information can be requested with council, and/or access to Council's network models by submitting a "Request for Network Modelling Information" form
- Sewer if at the rear will require a minimum of 1.5m clear access from the road frontage

An Engineering report is provided in **Appendix H**.

Traffic

- Traffic Impact Assessment will be required. Consider following:
 - Refer SC6.4.5.2 (3) of city plan for impact level of TIA and Requirement

A Traffic Engineering report is provided in **Appendix F**.

- For Material Change of use, Francis Street is to be extended up to the farthest proposed driveway.
- Proposed road width is to allow for two-way traffic and incorporate necessary line marking, signage, LATM device as per Austroads requirement for safe transition if a reduced road width is proposed.
- Formal MCU application is to demonstrate turning of service vehicles (council waste/recycle truck) within the road reserve and within the road pavement.
- Formal MCU application is to incorporate swept paths with design and check vehicles for entry and exit to the driveway and within the development site.
- Driveways are to be constructed to commercial/industrial standard
- Sight distance analysis of design vehicle exiting the development site, with pedestrian over the footpath/nature strip.
- Sight distance analysis of design vehicle exiting the development site with vehicles on the public road in accordance with Australian standard.
- Consider Local area traffic management as necessary.
- Road design to incorporate other essential road infrastructures such as kerb and channel, underground drainage, street lights etc

Parking

- To be contained within the development site.

A Traffic Engineering report is provided in **Appendix F**. The development has been designed to ensure compliant carparking.

Waste collection

- Show waste collection location with dimensions. Refer SC6.4.22.7 of planning scheme for bulk waste facilities (if MCU)
- Commercial bins and on street collection is acceptable only if bins are brought to the kerb by the owner/developer. Council does not collect bins from bin storage area.
- Waste management plan to include a scaled plan showing bins located on kerbside to ensure the bins remain within the property frontage for collection.
- Council will charge for waste service as part of rates, even if waste collection is undertaken by a private contractor.

An Operational Waste Management Plan is provided in **Appendix G**.

Street trees

- To be provided per council policy.

These can be conditioned by Council.

Footpath

- To be provided per council policy.

These can be conditioned by Council.

	<u>Acid Sulphate Soil</u> Site is below 5mAHD therefore ASS Management plan will be required prior to construction and can be conditioned	These can be conditioned by Council.
	<u>Erosion and Sediment</u> - Can be provided during operational work application - Need to meet SPP target and designed in accordance with IECA - Site exceeds 2500m², RUSEL calculation will be required to inform what treatment type is required.	These can be conditioned by Council.
	<u>Poly-Fluoroalkyl Substances (PFAS)</u> - Due to the recent discovery of PFAS within the Townsville Local Government area, it is strongly recommended that an independent Human Health Risk Assessment be undertaken over the subject site to ensure there are no impacts to human health resulting from potential environmental exposure to PFAS. The applicant is advised further information can be obtained via: https://www.pfas.gov.au/ or http://www.health.gov.au/pfas. - PFAS contaminated map is here: Australian PFAS Chemicals Map - Highlighting contamination sites. (australianmap.net)	These can be conditioned by Council.
	3. Planning and Design Considerations	
	<u>Zoning and Density</u> - Site is zoned Low Density Residential. - Proposal is impact assessable and subject to public notification. - Density is higher than typical (1 dwelling per 200m² vs. 400m² in code). - Application should justify how amenity is maintained despite increased density.	While the proposed density is higher than the typical 1 dwelling per 400 m² benchmark, the development has been significantly scaled down from 22 dwellings to 14, resulting in a much lower overall site intensity. This reduction materially improves the interface with neighbouring properties by decreasing building bulk, traffic generation, and overall site activity. The revised layout provides generous landscaping, improved separation between buildings, and a softer built form that maintains residential amenity for both future residents and adjoining neighbours. Importantly, the proposal also makes a meaningful contribution to the Townsville Housing Action Plan by delivering well-designed infill housing at a time of acute local housing shortage. The outcome

strikes an appropriate balance between supporting housing supply and preserving neighbourhood amenity.

4. Architectural Considerations	<u>Open Space and Amenity</u> - Private open space generally complies (~25m² per unit). - Communal open space must be functional. - Landscaping and screening are important for amenity and privacy.	The design of the development has taken Council's advice into consideration.
	<u>Car Parking</u> 34 spaces proposed for 22 units - Consideration needed for bicycle racks, e-scooter charging, and visitor parking.	A Traffic Engineering report is provided in Appendix F . The development has been designed to ensure compliant carparking.
	<u>Setbacks and Privacy</u> - Clarification needed on rear setbacks (1.5m vs. 4m). - Screening required for balconies, bin areas, clotheslines, and car parking.	The design of the development has taken Council's advice into consideration.
	- Western-facing clerestory windows not recommended due to heat gain. - Cross-ventilation and natural light should be maximised. - Avoid box gutters due to high rainfall risk. - Disability access requirements must be addressed (e.g., circulation space, compliant bathrooms). - Mechanical ventilation or skylights may be needed for internal bathrooms. - Consider placement of air conditioning units, hot water systems, and letterboxes to preserve landscaping.	The design of the development has taken Council's advice into consideration.
	5. Road and Infrastructure Design - Consideration of road reserve use for driveways was discussed but not supported by Council. - Any proposal to alter road hierarchy or use road reserve must be formally assessed. - Footpath connection to Percy Street likely required. - Street trees and stormwater management in public space must be addressed.	The design of the development has taken Council's advice into consideration.

6.0 State Planning

6.1 Legislative Framework

The Planning Act provides a legislative framework for planning and development matters across most areas of Queensland. It is identified that this framework established by the Planning Act is relevant to the proposed development. To this end, the proposed development is not located within a Priority Development Area, State Development Area, Infrastructure Designation area, other or specific land use planning jurisdiction.

The Planning Act nominates several types of works within the definition of development.

Specifically, relevant to the proposed development, Schedule 2 of the Planning Act identifies the following types of works as being classified as *development making a material change of use of premises*. A *material change of use, of premises, means any of the following that a regulation made under section 284(2)(a) does not prescribe to be minor change of use—*

- (a) the start of a new use of the premises;
- (b) the re-establishment on the premises of a use that has been abandoned;
- (c) a material increase in the intensity or scale of the use of the premises.

In view of the above definitions, the proposed development reflects a Material Change of Use.

6.2 State Planning Policy

The State Planning Policy (SPP) was introduced on 3 July 2017 as part of the new State planning system. The SPP defines the Queensland Government's policies about matters of state interest in land use planning and development and provides direction for the preparation of local planning instruments and assessment of development applications. The SPP also includes assessment benchmarks for some development applications, if a planning scheme does not appropriately integrate the relevant state interest.

The SPP provides supporting mapping to assist in spatially representing policies and requirements contained within the SPP (refer **Appendix J**).

The mapping indicates that the following SPP matters apply to the site:

- Strategic Airports and Aviation Facilities:
 - Wildlife hazard buffer zone
 - Lighting area buffer 6km
 - Aviation facility
 - Height restriction zone – 15m
- Natural Hazards Risk Resilience:
 - Medium storm tide inundation area
 - Flood Hazard Area – Level 1 – Queensland floodplain assessment overlay
 - Flood Hazard Area – Local government flood mapping area
- Transport Infrastructure:
 - State-controlled road
- Biodiversity:
 - MSES – Regulated vegetation (category R)

It is noted that the Townsville City Plan has not been prepared to fully reflect the latest SPP, and assessment of any proposed development against the Townsville City Plan will therefore require assessment against SPP.

The SPP contains assessment benchmarks that are expressed as performance outcomes for the purpose of development assessment. Importantly, these assessment benchmarks apply to the extent the SPP has not been identified in the Townsville City Plan as appropriately integrated. The proposed development has been assessed against and demonstrated to comply with the SPP assessment benchmarks for Natural Hazards Risk and Resilience, Transport Infrastructure, Biodiversity and Strategic Airports and Aviation Facilities.

6.4 State Assessment Referral Agency

The State Assessment and Referral Agency (SARA), seeks to deliver a coordinated, whole-of-government approach to the state's assessment of development applications. The State Development Assessment Provisions (SDAP) is an outcome of the SARA and a statutory instrument made under the Planning Act which sets out matters of interest of the state for development assessment, where the chief executive of administering the Planning Act is the assessment manager or a referral agency.

Importantly, the SDAP provide assessment benchmarks for the assessment by the chief executive officer or a referral agency and provides applicants with the opportunity to address performance criteria to demonstrate that a development appropriately manages any impacts on a matter of state interest, and/or protects a development from impacts of matters of state interests. An extract from the SDAP Mapping is shown in **Figure 7** below and is attached in **Appendix K**. An assessment of Schedule 10 of the Planning Regulation has identified the application will require referral to SARA. A response to the relevant SDAP codes is provided in **Appendix L**.

Specifically, the proposed development is required to be referred in accordance with the following sections of the Planning Regulation:

- Schedule 10, Part 9, Division 4, Subdivision 2, Table 4
 - Within 25m of a State transport corridor (State-controlled road)

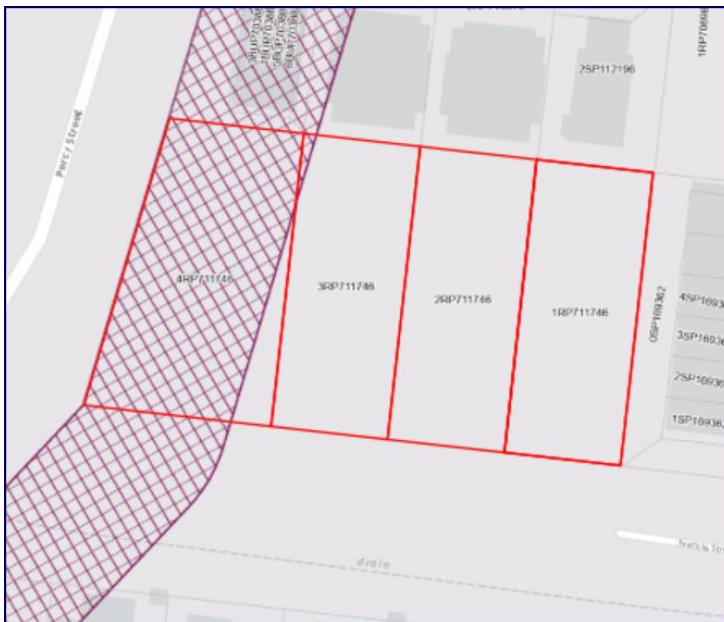


Figure 7: SARA DA Mapping (source: Development Assessment Mapping System)

7.0 Local Government Planning

7.1 Local Planning Instrument

The Townsville City Plan is the local planning instrument that is used to assess the proposed development. The following sections of this report provide an assessment of the proposed development against the assessment benchmarks under the Townsville City Plan.

7.2 Definitions

The proposed development is identified within the Townsville City Plan as Multiple. The Planning Scheme identifies:

Multiple Dwelling

- Premises containing three or more dwellings for separate households.

7.3 Zoning

The subject site is included in the Low Density Residential Zone of the Planning Scheme, as shown in **Figure 7** below.

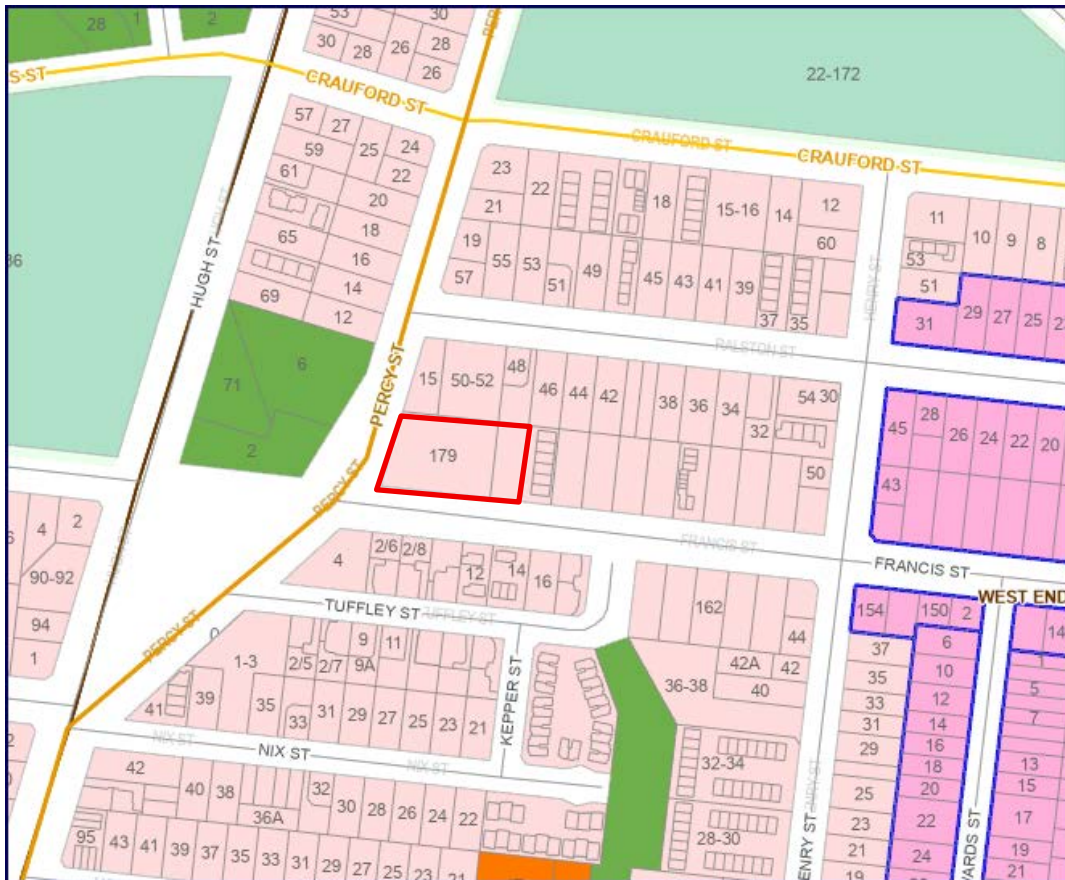


Figure 7: Subject Site Zone Mapping (source: Townsville City Plan)

The purpose of the Residential Low Density Zone is to be achieved through the following overall outcomes:

- a) *built form is of a house compatible scale and consistent with the local streetscape character;*
- b) *reconfiguration facilitates a range of lot sizes to accommodate dwelling houses and dual occupancy dwellings, typically on lots 400m² or greater (unless otherwise intended in a precinct);*
- c) *development maintains a high level of residential amenity on the site and in the neighbourhood;*
- d) *residential development is protected from the impacts of any nearby industrial activities, transport corridors, infrastructure, installations and major facilities such as the port, airport and Department of Defence landholdings;*
- e) *the design of development promotes accessibility by walking, cycling and public transport;*
- f) *the design of development is responsive to the city's climate and promotes sustainable practices including energy efficiency and water conservation;*
- g) ***low-rise multiple dwellings, residential care or retirement facilities may be acceptable within this zone where provided in locations that are within a convenient walkable distance to centres, public transport and community activities, and where of a scale that is consistent with the local character;***
- h) *non-residential uses only occur within the zone where they primarily support the day-to-day needs of the immediate residential community, do not unreasonably detract from the residential amenity of the area and are not better located in nearby centre zones;*
- i) *development minimises impacts on remaining areas of ecological significance within the zone; and*
- j) *the natural bushland setting and village character of the northern beaches and Magnetic Island townships are maintained. Tourism accommodation in these communities is of a house compatible scale.*

In particular, AO22 of the Low density residential zone code identifies:

Location	
PO21 Multiple dwelling, residential care facility or retirement facility development occur only in locations where: a) they can be designed to be compatible with local character and low density scale of development; b) having convenient walkable access to the city's network of centres; c) having convenient walkable access to public transport; and d) having convenient walkable access to recreational facilities.	AO21 The premises: a) is located within 400m of a centre zone or public transport stop on a major road; b) has a minimum site area of 1,000m² and 20m frontage where for a multiple dwelling; c) has a minimum site area of 3,000m² and 20m frontage where for a residential care facility or retirement facility; and d) is located within 400m of a park.

Figure 8 below shows the subject sites optimal location to centres, public transport, parks and has suitable site area and dimensions for a multiple dwelling.



Figure 8: Locality Map (source: Urban Space Consulting)

The proposed development is able to fulfil the intent of the Residential Low Density Zone as it is for a residential use that provides full urban services and is well located to provide sense of place.

7.4 Category of Assessment

The development application includes a Development Permit for Material Change of Use.

Table 5.5.1: Low density residential zone, does not identify a multiple dwelling within the table, and therefore requires **Impact Assessment** and assessment against the Townsville City Plan is required.

7.5 Codes of Assessment

The following Assessment Benchmarks are considered relevant to the proposed development:

- Low density residential code
- Airport environs overlay code
- Coastal environment overlay code
- Flood hazard overlay code
- Major infrastructure and hazardous facilities overlay code
- Healthy waters code
- Landscape code
- Traffic, impact, access and parking code
- Works code

7.6 Assessment Against Strategic Framework

The proposed development within the Low Density Residential Zone, while impact assessable, can demonstrate strong compliance with the Townsville City Plan strategic framework as it responds to the broader planning vision for housing diversity, urban consolidation, and community resilience.

The strategic framework encourages a compact urban form that supports infill development and efficient use of existing infrastructure. By delivering medium-density housing in an established suburb, the proposal contributes to the Townsville City Plan's goal of increasing housing choice and affordability, particularly in areas well-served by transport, education, and employment hubs. This aligns with the framework's emphasis on shaping Townsville as a connected and sustainable city that accommodates growth without compromising liveability.

Furthermore, the development supports the strategic outcome of creating a strong and connected community by integrating communal open space, pedestrian connectivity, and landscaping that enhances neighbourhood character. Although the Low Density Residential Zone typically anticipates detached dwellings, the impact assessment process allows for a merit-based evaluation where the proposal can demonstrate negligible amenity impacts, appropriate setbacks, and architectural articulation. The proposed development is supported by traffic, engineering, and waste management reports confirming operational suitability, the multiple dwelling use can be considered consistent with the strategic intent, particularly when it contributes to housing supply targets and aligns with the Townsville Local Housing Action Plan 2024–2027.

Therefore, it is considered the development aligns with:

- 3.3.2 Element – City shape and housing
 - o 3.3.2.1(1)
 - o 3.3.2.1(7)
 - o 3.3.2.1(8)
 - o 3.3.2.1(9)
- 3.4.2 Element – Urban design
 - o 3.4.2.1(1)
 - o 3.4.2.1(4)

8.0 Conclusion

Urban Space Consulting, has prepared this town planning report in support of a development application on behalf of Kaenetto Investments. This development application seeks approval for a:

- Development Permit for a Material Change of Use for a Multiple Dwelling (14 x Units)

The proposed development represents a strategically sound, technically supported and policy-aligned response to Townsville's evolving housing needs. Drawing upon best-practice design principles and a suite of expert assessments, the application achieves strong compliance with local and state planning frameworks. Key strengths of the proposal include:

- **Strategic Location:** Delivers medium-density infill housing within walking distance of centres, public transport, and open space—fulfilling AO21 locational criteria under the Low Density Residential Zone Code.
- **Built Form Integration:** Low-rise design and articulated facades complement existing neighbourhood character while elevating streetscape amenity.
- **Policy Alignment:** Directly addresses Townsville City Council's Housing Action Plan 2024–2027 and Queensland's Securing our Housing Foundations agenda, supporting increased housing supply and diversity.
- **Traffic & Parking Compliance:** Traffic impacts are negligible; alternative car parking benchmarks and a robust management plan address policy shortfalls.
- **Engineering Certainty:** Civil and hydraulic reports confirm capacity, lawful discharge, water quality compliance and negligible post-development runoff.
- **Efficient Servicing:** Waste management strategy aligns with SC6.4.22 policy and enables safe on-site collection through rear-loading vehicles.
- **Landscape & Amenity:** Subtropical planting, communal spaces, and pedestrian connections strengthen neighbourhood cohesion and outdoor liveability.
- **Strategic Framework alignment:** The proposed development is considered to meet the intent of the Townsville City Plan. Comprehensive documentation demonstrates that the development is compatible with its zone, maintains amenity, and supports planning scheme outcomes.

This report provides an assessment against all the relevant categorising instruments identified under section 45(3) of the Planning Act. From this assessment, it has been determined that the proposed development complies with, or can be conditioned to comply with, all relevant assessment benchmarks and should therefore be approved.

In view of the above information and the assessment carried out within this application, we recommend that the proposed development is approved, subject to reasonable and relevant conditions.

APPENDIX A

DA Form 1 – Development application details

Approved form (version 1.6 effective 2 August 2024) made under section 282 of the Planning Act 2016.

This form **must** be used to make a development application **involving code assessment or impact assessment**, except when applying for development involving only building work.

For a development application involving **building work only**, use *DA Form 2 – Building work details*.

For a development application involving **building work associated with any other type of assessable development (i.e. material change of use, operational work or reconfiguring a lot)**, use this form (*DA Form 1*) and parts 4 to 6 of *DA Form 2 – Building work details*.

Unless stated otherwise, all parts of this form **must** be completed in full and all required supporting information **must** accompany the development application.

One or more additional pages may be attached as a schedule to this development application if there is insufficient space on the form to include all the necessary information.

This form and any other form relevant to the development application must be used to make a development application relating to strategic port land and Brisbane core port land under the *Transport Infrastructure Act 1994*, and airport land under the *Airport Assets (Restructuring and Disposal) Act 2008*. For the purpose of assessing a development application relating to strategic port land and Brisbane core port land, any reference to a planning scheme is taken to mean a land use plan for the strategic port land, Brisbane port land use plan for Brisbane core port land, or a land use plan for airport land.

Note: All terms used in this form have the meaning given under the Planning Act 2016, the Planning Regulation 2017, or the Development Assessment Rules (DA Rules).

PART 1 – APPLICANT DETAILS

1) Applicant details	
Applicant name(s) (individual or company full name)	Kaenetto Investments C/- Urban Space Consulting
Contact name (only applicable for companies)	William Kruze
Postal address (P.O. Box or street address)	PO Box 5161
Suburb	West End
State	Queensland
Postcode	4101
Country	Australia
Contact number	0404 539 291
Email address (non-mandatory)	urbanspaceconsulting@outlook.com
Mobile number (non-mandatory)	-
Fax number (non-mandatory)	-
Applicant's reference number(s) (if applicable)	USC119

1.1) Home-based business

☐ Personal details to remain private in accordance with section 264(6) of *Planning Act 2016*

2) Owner's consent

2.1) Is written consent of the owner required for this development application?

- ☒ Yes – the written consent of the owner(s) is attached to this development application
☐ No – proceed to 3)

PART 2 – LOCATION DETAILS

3) Location of the premises (complete 3.1) or 3.2), and 3.3) as applicable)

Note: Provide details below and attach a site plan for any or all premises part of the development application. For further information, see [DA Forms Guide: Relevant plans](#).

3.1) Street address and lot on plan

- ☒ Street address **AND** lot on plan (all lots must be listed), **or**
☐ Street address **AND** lot on plan for an adjoining or adjacent property of the premises (appropriate for development in water but adjoining or adjacent to land e.g. jetty, pontoon. All lots must be listed).

a)	Unit No.	Street No.	Street Name and Type	Suburb
		177-179	Francis Street	West End
	Postcode	Lot No.	Plan Type and Number (e.g. RP, SP)	Local Government Area(s)
	4810	1-4	RP711746	Townsville City Council
b)	Unit No.	Street No.	Street Name and Type	Suburb
	Postcode	Lot No.	Plan Type and Number (e.g. RP, SP)	Local Government Area(s)

3.2) Coordinates of premises (appropriate for development in remote areas, over part of a lot or in water not adjoining or adjacent to land e.g. channel dredging in Moreton Bay)

Note: Place each set of coordinates in a separate row.

- ☐ Coordinates of premises by longitude and latitude

Longitude(s)	Latitude(s)	Datum	Local Government Area(s) (if applicable)
		☐ WGS84 ☐ GDA94 ☐ Other:	

- ☐ Coordinates of premises by easting and northing

Easting(s)	Northing(s)	Zone Ref.	Datum	Local Government Area(s) (if applicable)
		☐ 54 ☐ 55 ☐ 56	☐ WGS84 ☐ GDA94 ☐ Other:	

3.3) Additional premises

- ☐ Additional premises are relevant to this development application and the details of these premises have been attached in a schedule to this development application
☒ Not required

4) Identify any of the following that apply to the premises and provide any relevant details

- ☐ In or adjacent to a water body or watercourse or in or above an aquifer

Name of water body, watercourse or aquifer:

- ☐ On strategic port land under the *Transport Infrastructure Act 1994*

Lot on plan description of strategic port land:

Name of port authority for the lot:

- ☐ In a tidal area

Name of local government for the tidal area (if applicable):

Name of port authority for tidal area (if applicable)

☐ On airport land under the <i>Airport Assets (Restructuring and Disposal) Act 2008</i>
Name of airport:
☐ Listed on the Environmental Management Register (EMR) under the <i>Environmental Protection Act 1994</i>
EMR site identification:
☐ Listed on the Contaminated Land Register (CLR) under the <i>Environmental Protection Act 1994</i>
CLR site identification:

5) Are there any existing easements over the premises?

Note: Easement uses vary throughout Queensland and are to be identified correctly and accurately. For further information on easements and how they may affect the proposed development, see [DA Forms Guide](#).

- ☐ Yes – All easement locations, types and dimensions are included in plans submitted with this development application
- ☒ No

PART 3 – DEVELOPMENT DETAILS

Section 1 – Aspects of development

6.1) Provide details about the first development aspect

a) What is the type of development? *(tick only one box)*

- ☒ Material change of use ☐ Reconfiguring a lot ☐ Operational work ☐ Building work

b) What is the approval type? *(tick only one box)*

- ☒ Development permit ☐ Preliminary approval ☐ Preliminary approval that includes a variation approval

c) What is the level of assessment?

- ☐ Code assessment ☒ Impact assessment *(requires public notification)*

d) Provide a brief description of the proposal (e.g. 6 unit apartment building defined as multi-unit dwelling, reconfiguration of 1 lot into 3 lots):

Multiple Dwelling (14 Units)

e) Relevant plans

Note: *Relevant plans are required to be submitted for all aspects of this development application. For further information, see [DA Forms guide: Relevant plans](#).*

- ☒ Relevant plans of the proposed development are attached to the development application

6.2) Provide details about the second development aspect

a) What is the type of development? *(tick only one box)*

- ☐ Material change of use ☐ Reconfiguring a lot ☐ Operational work ☐ Building work

b) What is the approval type? *(tick only one box)*

- ☐ Development permit ☐ Preliminary approval ☐ Preliminary approval that includes a variation approval

c) What is the level of assessment?

- ☐ Code assessment ☐ Impact assessment *(requires public notification)*

d) Provide a brief description of the proposal (e.g. 6 unit apartment building defined as multi-unit dwelling, reconfiguration of 1 lot into 3 lots):

e) Relevant plans

Note: *Relevant plans are required to be submitted for all aspects of this development application. For further information, see [DA Forms Guide: Relevant plans](#).*

- ☐ Relevant plans of the proposed development are attached to the development application

6.3) Additional aspects of development

- ☐ Additional aspects of development are relevant to this development application and the details for these aspects that would be required under Part 3 Section 1 of this form have been attached to this development application
- ☒ Not required

6.4) Is the application for State facilitated development?

- ☐ Yes - Has a notice of declaration been given by the Minister?
- ☒ No

Section 2 – Further development details**7) Does the proposed development application involve any of the following?**

Material change of use	☒ Yes – complete division 1 if assessable against a local planning instrument
Reconfiguring a lot	☐ Yes – complete division 2
Operational work	☐ Yes – complete division 3
Building work	☐ Yes – complete DA Form 2 – Building work details

Division 1 – Material change of use

Note: This division is only required to be completed if any part of the development application involves a material change of use assessable against a local planning instrument.

8.1) Describe the proposed material change of use

Provide a general description of the proposed use	Provide the planning scheme definition (include each definition in a new row)	Number of dwelling units (if applicable)	Gross floor area (m ²) (if applicable)
Multiple Dwelling	Multiple Dwelling	14	

8.2) Does the proposed use involve the use of existing buildings on the premises?

- ☐ Yes
- ☒ No

8.3) Does the proposed development relate to temporary accepted development under the Planning Regulation?

- ☐ Yes – provide details below or include details in a schedule to this development application
- ☒ No

Provide a general description of the temporary accepted development	Specify the stated period dates under the Planning Regulation

Division 2 – Reconfiguring a lot

Note: This division is only required to be completed if any part of the development application involves reconfiguring a lot.

9.1) What is the total number of existing lots making up the premises?

--

9.2) What is the nature of the lot reconfiguration? (tick all applicable boxes)

☐ Subdivision (complete 10)	☐ Dividing land into parts by agreement (complete 11)
☐ Boundary realignment (complete 12)	☐ Creating or changing an easement giving access to a lot from a constructed road (complete 13)

10) Subdivision				
10.1) For this development, how many lots are being created and what is the intended use of those lots:				
Intended use of lots created	Residential	Commercial	Industrial	Other, please specify:
Number of lots created				

10.2) Will the subdivision be staged?	
☐ Yes – provide additional details below ☐ No	
How many stages will the works include?	
What stage(s) will this development application apply to?	

11) Dividing land into parts by agreement – how many parts are being created and what is the intended use of the parts?				
Intended use of parts created	Residential	Commercial	Industrial	Other, please specify:
Number of parts created				

12) Boundary realignment			
12.1) What are the current and proposed areas for each lot comprising the premises?			
Current lot		Proposed lot	
Lot on plan description	Area (m ²)	Lot on plan description	Area (m ²)
12.2) What is the reason for the boundary realignment?			

13) What are the dimensions and nature of any existing easements being changed and/or any proposed easement? (attach schedule if there are more than two easements)				
Existing or proposed?	Width (m)	Length (m)	Purpose of the easement? (e.g. pedestrian access)	Identify the land/lot(s) benefitted by the easement

Division 3 – Operational work

Note: This division is only required to be completed if any part of the development application involves operational work.

14.1) What is the nature of the operational work?	
☐ Road work ☐ Drainage work ☐ Landscaping ☐ Other – please specify:	☐ Stormwater ☐ Earthworks ☐ Signage ☐ Water infrastructure ☐ Sewage infrastructure ☐ Clearing vegetation
14.2) Is the operational work necessary to facilitate the creation of new lots? (e.g. subdivision)	
☐ Yes – specify number of new lots:	
☐ No	

14.3) What is the monetary value of the proposed operational work? (include GST, materials and labour)

\$

PART 4 – ASSESSMENT MANAGER DETAILS

15) Identify the assessment manager(s) who will be assessing this development application

Townsville City Council

16) Has the local government agreed to apply a superseded planning scheme for this development application?

- ☐ Yes – a copy of the decision notice is attached to this development application
- ☐ The local government is taken to have agreed to the superseded planning scheme request – relevant documents attached
- ☒ No

PART 5 – REFERRAL DETAILS

17) Does this development application include any aspects that have any referral requirements?

Note: A development application will require referral if prescribed by the Planning Regulation 2017.

- ☐ No, there are no referral requirements relevant to any development aspects identified in this development application – proceed to Part 6

Matters requiring referral to the **Chief Executive of the Planning Act 2016:**

- ☐ Clearing native vegetation
- ☐ Contaminated land (*unexploded ordnance*)
- ☐ Environmentally relevant activities (ERA) (*only if the ERA has not been devolved to a local government*)
- ☐ Fisheries – aquaculture
- ☐ Fisheries – declared fish habitat area
- ☐ Fisheries – marine plants
- ☐ Fisheries – waterway barrier works
- ☐ Hazardous chemical facilities
- ☐ Heritage places – Queensland heritage place (*on or near a Queensland heritage place*)
- ☐ Infrastructure-related referrals – designated premises
- ☐ Infrastructure-related referrals – state transport infrastructure
- ☒ Infrastructure-related referrals – State transport corridor and future State transport corridor
- ☐ Infrastructure-related referrals – State-controlled transport tunnels and future state-controlled transport tunnels
- ☐ Infrastructure-related referrals – near a state-controlled road intersection
- ☐ Koala habitat in SEQ region – interfering with koala habitat in koala habitat areas outside koala priority areas
- ☐ Koala habitat in SEQ region – key resource areas
- ☐ Ports – Brisbane core port land – near a State transport corridor or future State transport corridor
- ☐ Ports – Brisbane core port land – environmentally relevant activity (ERA)
- ☐ Ports – Brisbane core port land – tidal works or work in a coastal management district
- ☐ Ports – Brisbane core port land – hazardous chemical facility
- ☐ Ports – Brisbane core port land – taking or interfering with water
- ☐ Ports – Brisbane core port land – referable dams
- ☐ Ports – Brisbane core port land – fisheries
- ☐ Ports – Land within Port of Brisbane's port limits (*below high-water mark*)
- ☐ SEQ development area
- ☐ SEQ regional landscape and rural production area or SEQ rural living area – tourist activity or sport and recreation activity
- ☐ SEQ regional landscape and rural production area or SEQ rural living area – community activity
- ☐ SEQ regional landscape and rural production area or SEQ rural living area – indoor recreation
- ☐ SEQ regional landscape and rural production area or SEQ rural living area – urban activity
- ☐ SEQ regional landscape and rural production area or SEQ rural living area – combined use
- ☐ SEQ northern inter-urban break – tourist activity or sport and recreation activity



Queensland
Government

- ☐ SEQ northern inter-urban break – community activity
- ☐ SEQ northern inter-urban break – indoor recreation
- ☐ SEQ northern inter-urban break – urban activity
- ☐ SEQ northern inter-urban break – combined use
- ☐ Tidal works or works in a coastal management district
- ☐ Reconfiguring a lot in a coastal management district or for a canal
- ☐ Erosion prone area in a coastal management district
- ☐ Urban design
- ☐ Water-related development – taking or interfering with water
- ☐ Water-related development – removing quarry material *(from a watercourse or lake)*
- ☐ Water-related development – referable dams
- ☐ Water-related development – levees *(category 3 levees only)*
- ☐ Wetland protection area

Matters requiring referral to the **local government**:

- ☐ Airport land
- ☐ Environmentally relevant activities (ERA) *(only if the ERA has been devolved to local government)*
- ☐ Heritage places – Local heritage places

Matters requiring referral to the **Chief Executive of the distribution entity or transmission entity**:

- ☐ Infrastructure-related referrals – Electricity infrastructure

Matters requiring referral to:

- The **Chief Executive of the holder of the licence**, if not an individual
- The **holder of the licence**, if the holder of the licence is an individual
- ☐ Infrastructure-related referrals – Oil and gas infrastructure

Matters requiring referral to the **Brisbane City Council**:

- ☐ Ports – Brisbane core port land

Matters requiring referral to the **Minister responsible for administering the Transport Infrastructure Act 1994**:

- ☐ Ports – Brisbane core port land *(where inconsistent with the Brisbane port LUP for transport reasons)*
- ☐ Ports – Strategic port land

Matters requiring referral to the **relevant port operator**, if applicant is not port operator:

- ☐ Ports – Land within Port of Brisbane's port limits *(below high-water mark)*

Matters requiring referral to the **Chief Executive of the relevant port authority**:

- ☐ Ports – Land within limits of another port *(below high-water mark)*

Matters requiring referral to the **Gold Coast Waterways Authority**:

- ☐ Tidal works or work in a coastal management district *(in Gold Coast waters)*

Matters requiring referral to the **Queensland Fire and Emergency Service**:

- ☐ Tidal works or work in a coastal management district *(involving a marina (more than six vessel berths))*

18) Has any referral agency provided a referral response for this development application?

- ☐ Yes – referral response(s) received and listed below are attached to this development application
- ☒ No

Referral requirement	Referral agency	Date of referral response

Identify and describe any changes made to the proposed development application that was the subject of the referral response and this development application, or include details in a schedule to this development application *(if applicable)*.

PART 6 – INFORMATION REQUEST

19) Information request under the DA Rules

☒ I agree to receive an information request if determined necessary for this development application

☐ I do not agree to accept an information request for this development application

Note: By not agreeing to accept an information request I, the applicant, acknowledge:

- that this development application will be assessed and decided based on the information provided when making this development application and the assessment manager and any referral agencies relevant to the development application are not obligated under the DA Rules to accept any additional information provided by the applicant for the development application unless agreed to by the relevant parties
- Part 3 under Chapter 1 of the DA Rules will still apply if the application is an application listed under section 11.3 of the DA Rules or
- Part 2 under Chapter 2 of the DA Rules will still apply if the application is for state facilitated development

Further advice about information requests is contained in the [DA Forms Guide](#).

PART 7 – FURTHER DETAILS

20) Are there any associated development applications or current approvals? (e.g. a preliminary approval)

☐ Yes – provide details below or include details in a schedule to this development application

☒ No

List of approval/development application references	Reference number	Date	Assessment manager
☐ Approval			
☐ Development application			
☐ Approval			
☐ Development application			

21) Has the portable long service leave levy been paid? (only applicable to development applications involving building work or operational work)

☐ Yes – a copy of the receipted QLeave form is attached to this development application

☐ No – I, the applicant will provide evidence that the portable long service leave levy has been paid before the assessment manager decides the development application. I acknowledge that the assessment manager may give a development approval only if I provide evidence that the portable long service leave levy has been paid

☒ Not applicable (e.g. building and construction work is less than \$150,000 excluding GST)

Amount paid	Date paid (dd/mm/yy)	QLeave levy number (A, B or E)
\$		

22) Is this development application in response to a show cause notice or required as a result of an enforcement notice?

☐ Yes – show cause or enforcement notice is attached

☒ No

23) Further legislative requirements

Environmentally relevant activities

23.1) Is this development application also taken to be an application for an environmental authority for an **Environmentally Relevant Activity (ERA)** under section 115 of the *Environmental Protection Act 1994*?

- ☐ Yes – the required attachment (form ESR/2015/1791) for an application for an environmental authority accompanies this development application, and details are provided in the table below
- ☒ No

Note: Application for an environmental authority can be found by searching “ESR/2015/1791” as a search term at www.qld.gov.au. An ERA requires an environmental authority to operate. See www.business.qld.gov.au for further information.

Proposed ERA number:		Proposed ERA threshold:	
Proposed ERA name:			

- ☐ Multiple ERAs are applicable to this development application and the details have been attached in a schedule to this development application.

Hazardous chemical facilities

23.2) Is this development application for a **hazardous chemical facility**?

- ☐ Yes – Form 536: Notification of a facility exceeding 10% of schedule 15 threshold is attached to this development application
- ☒ No

Note: See www.business.qld.gov.au for further information about hazardous chemical notifications.

Clearing native vegetation

23.3) Does this development application involve **clearing native vegetation** that requires written confirmation that the chief executive of the *Vegetation Management Act 1999* is satisfied the clearing is for a relevant purpose under section 22A of the *Vegetation Management Act 1999*?

- ☐ Yes – this development application includes written confirmation from the chief executive of the *Vegetation Management Act 1999* (s22A determination)
- ☒ No

Note: 1. Where a development application for operational work or material change of use requires a s22A determination and this is not included, the development application is prohibited development.
2. See <https://www.qld.gov.au/environment/land/vegetation/applying> for further information on how to obtain a s22A determination.

Environmental offsets

23.4) Is this development application taken to be a prescribed activity that may have a significant residual impact on a **prescribed environmental matter** under the *Environmental Offsets Act 2014*?

- ☐ Yes – I acknowledge that an environmental offset must be provided for any prescribed activity assessed as having a significant residual impact on a prescribed environmental matter
- ☒ No

Note: The environmental offset section of the Queensland Government's website can be accessed at www.qld.gov.au for further information on environmental offsets.

Koala habitat in SEQ Region

23.5) Does this development application involve a material change of use, reconfiguring a lot or operational work which is assessable development under Schedule 10, Part 10 of the Planning Regulation 2017?

- ☐ Yes – the development application involves premises in the koala habitat area in the koala priority area
- ☐ Yes – the development application involves premises in the koala habitat area outside the koala priority area
- ☒ No

Note: If a koala habitat area determination has been obtained for this premises and is current over the land, it should be provided as part of this development application. See koala habitat area guidance materials at www.desi.qld.gov.au for further information.

Water resources

23.6) Does this development application involve **taking or interfering with underground water through an artesian or subartesian bore, taking or interfering with water in a watercourse, lake or spring, or taking overland flow water under the Water Act 2000?**

- ☐ Yes – the relevant template is completed and attached to this development application and I acknowledge that a relevant authorisation or licence under the *Water Act 2000* may be required prior to commencing development
- ☒ No

Note: Contact the Department of Resources at www.resources.qld.gov.au for further information.

DA templates are available from planning.statedevelopment.qld.gov.au. If the development application involves:

- Taking or interfering with underground water through an artesian or subartesian bore: complete DA Form 1 Template 1
- Taking or interfering with water in a watercourse, lake or spring: complete DA Form 1 Template 2
- Taking overland flow water: complete DA Form 1 Template 3.

Waterway barrier works

23.7) Does this application involve **waterway barrier works?**

- ☐ Yes – the relevant template is completed and attached to this development application
- ☒ No

DA templates are available from planning.statedevelopment.qld.gov.au. For a development application involving waterway barrier works, complete DA Form 1 Template 4.

Marine activities

23.8) Does this development application involve **aquaculture, works within a declared fish habitat area or removal, disturbance or destruction of marine plants?**

- ☐ Yes – an associated resource allocation authority is attached to this development application, if required under the *Fisheries Act 1994*
- ☒ No

Note: See guidance materials at www.daf.qld.gov.au for further information.

Quarry materials from a watercourse or lake

23.9) Does this development application involve the **removal of quarry materials from a watercourse or lake under the Water Act 2000?**

- ☐ Yes – I acknowledge that a quarry material allocation notice must be obtained prior to commencing development
- ☒ No

Note: Contact the Department of Resources at www.resources.qld.gov.au and www.business.qld.gov.au for further information.

Quarry materials from land under tidal waters

23.10) Does this development application involve the **removal of quarry materials from land under tidal water under the Coastal Protection and Management Act 1995?**

- ☐ Yes – I acknowledge that a quarry material allocation notice must be obtained prior to commencing development
- ☒ No

Note: Contact the Department of Environment, Science and Innovation at www.desi.qld.gov.au for further information.

Referable dams

23.11) Does this development application involve a **referable dam** required to be failure impact assessed under section 343 of the *Water Supply (Safety and Reliability) Act 2008* (the *Water Supply Act*)?

- ☐ Yes – the 'Notice Accepting a Failure Impact Assessment' from the chief executive administering the *Water Supply Act* is attached to this development application
- ☒ No

Note: See guidance materials at www.resources.qld.gov.au for further information.

Tidal work or development within a coastal management district

23.12) Does this development application involve **tidal work or development in a coastal management district**?

- ☐ Yes – the following is included with this development application:
- ☐ Evidence the proposal meets the code for assessable development that is prescribed tidal work (*only required if application involves prescribed tidal work*)
 - ☐ A certificate of title

☒ No

Note: See guidance materials at www.desi.qld.gov.au for further information.

Queensland and local heritage places

23.13) Does this development application propose development on or adjoining a place entered in the **Queensland heritage register** or on a place entered in a local government's **Local Heritage Register**?

☐ Yes – details of the heritage place are provided in the table below

☒ No

Note: See guidance materials at www.desi.qld.gov.au for information requirements regarding development of Queensland heritage places.

For a heritage place that has cultural heritage significance as a local heritage place and a Queensland heritage place, provisions are in place under the Planning Act 2016 that limit a local categorising instrument from including an assessment benchmark about the effect or impact of, development on the stated cultural heritage significance of that place. See guidance materials at www.planning.statedevelopment.qld.gov.au for information regarding assessment of Queensland heritage places.

Name of the heritage place:	Place ID:
-----------------------------	-----------

Decision under section 62 of the Transport Infrastructure Act 1994

23.14) Does this development application involve new or changed access to a state-controlled road?

☐ Yes – this application will be taken to be an application for a decision under section 62 of the *Transport Infrastructure Act 1994* (subject to the conditions in section 75 of the *Transport Infrastructure Act 1994* being satisfied)

☒ No

Walkable neighbourhoods assessment benchmarks under Schedule 12A of the Planning Regulation

23.15) Does this development application involve reconfiguring a lot into 2 or more lots in certain residential zones (except rural residential zones), where at least one road is created or extended?

☐ Yes – Schedule 12A is applicable to the development application and the assessment benchmarks contained in schedule 12A have been considered

☒ No

Note: See guidance materials at www.planning.statedevelopment.qld.gov.au for further information.

PART 8 – CHECKLIST AND APPLICANT DECLARATION

24) Development application checklist

I have identified the assessment manager in question 15 and all relevant referral requirement(s) in question 17	☒ Yes
Note: See the Planning Regulation 2017 for referral requirements	
If building work is associated with the proposed development, Parts 4 to 6 of DA Form 2 – Building work details have been completed and attached to this development application	☐ Yes ☒ Not applicable
Supporting information addressing any applicable assessment benchmarks is with the development application	☒ Yes
Note: This is a mandatory requirement and includes any relevant templates under question 23, a planning report and any technical reports required by the relevant categorising instruments (e.g. local government planning schemes, State Planning Policy, State Development Assessment Provisions). For further information, see DA Forms Guide: Planning Report Template .	
Relevant plans of the development are attached to this development application	☒ Yes
Note: Relevant plans are required to be submitted for all aspects of this development application. For further information, see DA Forms Guide: Relevant plans .	
The portable long service leave levy for QLeave has been paid, or will be paid before a development permit is issued (see 21)	☐ Yes ☒ Not applicable

25) Applicant declaration

- ☒ By making this development application, I declare that all information in this development application is true and correct
- ☒ Where an email address is provided in Part 1 of this form, I consent to receive future electronic communications from the assessment manager and any referral agency for the development application where written information is required or permitted pursuant to sections 11 and 12 of the *Electronic Transactions Act 2001*

Note: It is unlawful to intentionally provide false or misleading information.

Privacy – Personal information collected in this form will be used by the assessment manager and/or chosen assessment manager, any relevant referral agency and/or building certifier (including any professional advisers which may be engaged by those entities) while processing, assessing and deciding the development application. All information relating to this development application may be available for inspection and purchase, and/or published on the assessment manager's and/or referral agency's website.

Personal information will not be disclosed for a purpose unrelated to the *Planning Act 2016*, Planning Regulation 2017 and the DA Rules except where:

- such disclosure is in accordance with the provisions about public access to documents contained in the *Planning Act 2016* and the Planning Regulation 2017, and the access rules made under the *Planning Act 2016* and Planning Regulation 2017; or
- required by other legislation (including the *Right to Information Act 2009*); or
- otherwise required by law.

This information may be stored in relevant databases. The information collected will be retained as required by the *Public Records Act 2002*.

PART 9 – FOR COMPLETION OF THE ASSESSMENT MANAGER – FOR OFFICE USE ONLY

Date received: Reference number(s):

Notification of engagement of alternative assessment manager

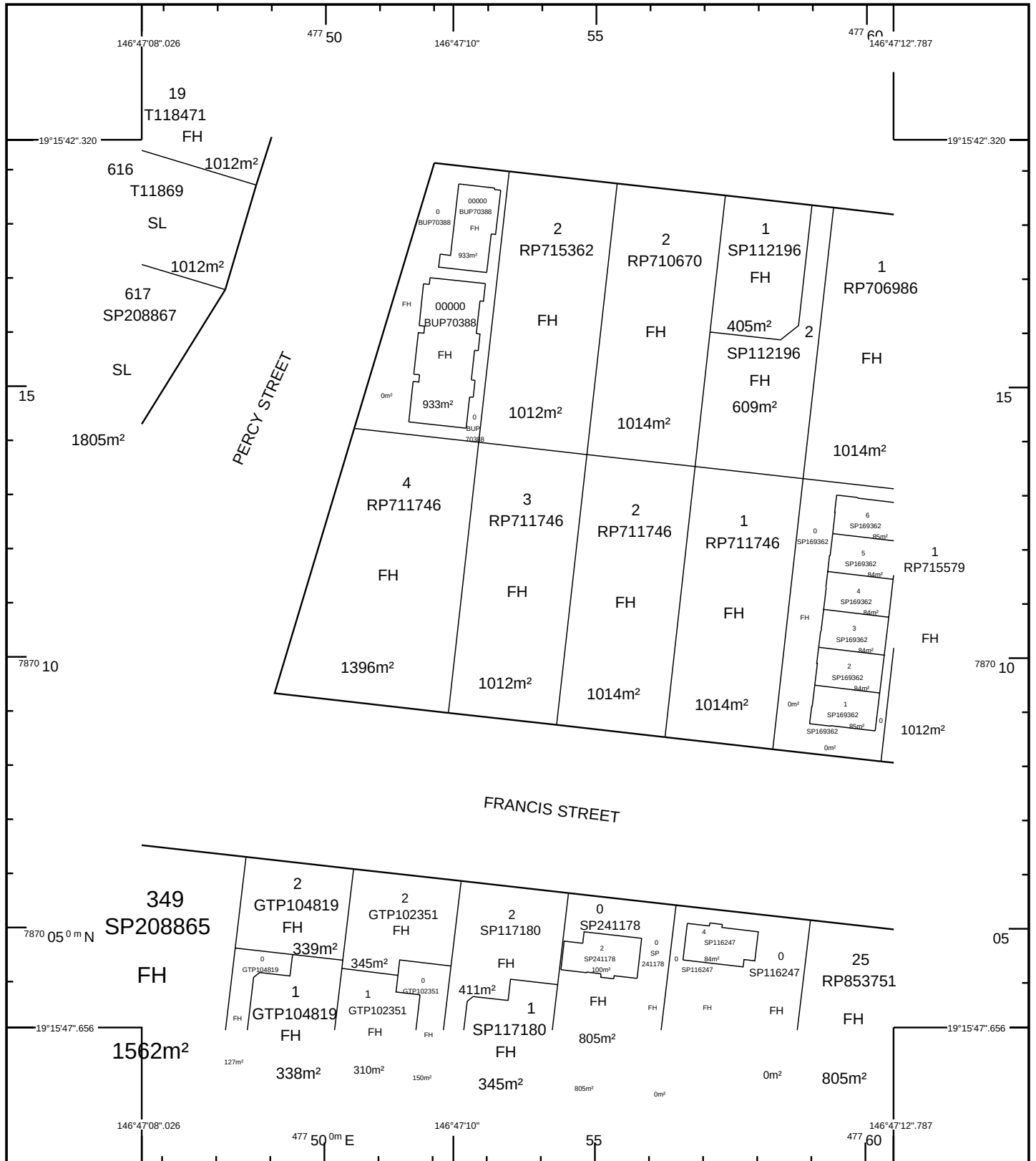
Prescribed assessment manager	
Name of chosen assessment manager	
Date chosen assessment manager engaged	
Contact number of chosen assessment manager	
Relevant licence number(s) of chosen assessment manager	

QLeave notification and payment

Note: For completion by assessment manager if applicable

Description of the work	
QLeave project number	
Amount paid (\$)	Date paid (dd/mm/yy)
Date receipted form sighted by assessment manager	
Name of officer who sighted the form	

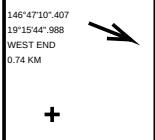
APPENDIX B



STANDARD MAP NUMBER
8259-24414

0 20 40 60 80 100 m
HORIZONTAL DATUM:GDA94 ZONE:55 SCALE 1 : 1000

MAP WINDOW POSITION &
NEAREST LOCATION



SUBJECT PARCEL DESCRIPTION

DCDB	
Lot/Plan	3/RP711746
Area/Volume	1012m²
Tenure	FREEHOLD
Local Government	TOWNSVILLE CITY
Locality	WEST END
Segment/Parcel	50638/27

CLIENT SERVICE STANDARDS

PRINTED 25/03/2026

DCDB 24/03/2026

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SmartMap

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Digital Cadastral Data Base



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Queensland Titles Registry Pty Ltd
ABN 23 648 568 101

Title Reference:	20394108	Search Date:	17/04/2026 19:59
Date Title Created:	22/05/1947	Request No:	55821097
Previous Title:	20134091, 20134092		

ESTATE AND LAND

Estate in Fee Simple

LOT 2 REGISTERED PLAN 711746
Local Government: TOWNSVILLE

LOT 3 REGISTERED PLAN 711746
Local Government: TOWNSVILLE

LOT 4 REGISTERED PLAN 711746
Local Government: TOWNSVILLE

REGISTERED OWNER

Dealing No: 724832031 15/04/2026

KAENETTO INVESTMENTS PTY LTD A.C.N. 684 140 485

EASEMENTS, ENCUMBRANCES AND INTERESTS

1. Rights and interests reserved to the Crown by
Deed of Grant No. 20134091 (ALLOT 13 SEC 8B)
Deed of Grant No. 20134092 (ALLOT 14 SEC 8B)
2. MORTGAGE No 724832032 15/04/2026 at 15:44
PERMANENT CUSTODIANS LIMITED A.C.N. 001 426 384

ADMINISTRATIVE ADVICES

NIL

UNREGISTERED DEALINGS

NIL

Caution - Charges do not necessarily appear in order of priority

** End of Current Title Search **

Queensland Titles Registry Pty Ltd
ABN 23 648 568 101

Title Reference:	20705104	Search Date:	17/04/2026 19:59
Date Title Created:	25/05/1966	Request No:	55821097
Previous Title:	20603007, 20603008		

ESTATE AND LAND

Estate in Fee Simple

LOT 1 REGISTERED PLAN 711746

Local Government: TOWNSVILLE

REGISTERED OWNER

Dealing No: 724832038 15/04/2026

KAENETTO INVESTMENTS PTY LTD A.C.N. 684 140 485

EASEMENTS, ENCUMBRANCES AND INTERESTS

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Deed of Grant No. 20134091 (ALLOT 13 SEC 8B)
2. MORTGAGE No 724832039 15/04/2026 at 15:44
PERMANENT CUSTODIANS LIMITED A.C.N. 001 426 384

ADMINISTRATIVE ADVICES

NIL

UNREGISTERED DEALINGS

NIL

Caution - Charges do not necessarily appear in order of priority

** End of Current Title Search **

APPENDIX C

**Company owner's consent to the making of a development application
under the *Planning Act 2016***

KAENETTO INVESTMENTS PTY LTD A.C.N. 684 140 485

being the owner/s of the premises identified as follows:

**177-179 FRANCIS STREET, WEST END
LOT 1 ON RP711746, LOT 2 ON RP711746, LOT 3 ON RP711746, LOT 4 ON RP711746**

consent to the making of a development application under the *Planning Act 2016* by:

URBAN SPACE CONSULTING

on the premises described above for:

DEVELOPMENT APPLICATIONS AND DEALING WITH ANY ASSOCIATED MATTERS THAT MAY ARISE

Company Name and ACN:

KAENETTO INVESTMENTS PTY LTD A.C.N. 684 140 485

.....
Signature

Martin Kaess

.....
Name of signatory

SOLE DIRECTOR* DIRECTOR / SECRETARY
Position of signatory (please circle)

18/04/26

.....
Date

.....
Signature

.....
Name of signatory

SOLE DIRECTOR* / DIRECTOR / SECRETARY
Position of signatory (please circle)

.....
Date

**Where a Sole Director, only one signature is required*

The Planning Act 2016 is administered by the Department of Local Government, Infrastructure and Planning, Queensland Government.

APPENDIX D

NOTES: * THIS DRAWING IS ONLY INTENDED TO OBTAIN A LOCAL AUTHORITY BUILDING PERMIT. * COMPLY WITH ALL RELEVANT AUTHORITY REG. & BSA. * USE FIGURED DIMENSIONS ONLY. DO NOT USE SCALED MEASUREMENTS. * VERIFY ALL ON SITE DIMENSIONS & LEVELS PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION.		
Revision Schedule		
No	Description	Date
1		



1 francis street - view 1



3 francis street - view 3



5 francis street - view aerial



4 percy street - view -1

Sheet List		
Count	Sheet Number	Sheet Name
1	sk_01	title page
1	sk_02	site plan
1	sk_03	site area breakdown
1	sk_04	services & detail survey plan
1	sk_05	Building - A
1	sk_06	Building - B
1	sk_07	Gazebo

Grand total: 7



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project:
Proposed Multiple Dwellings

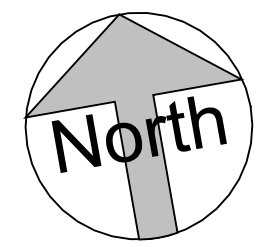
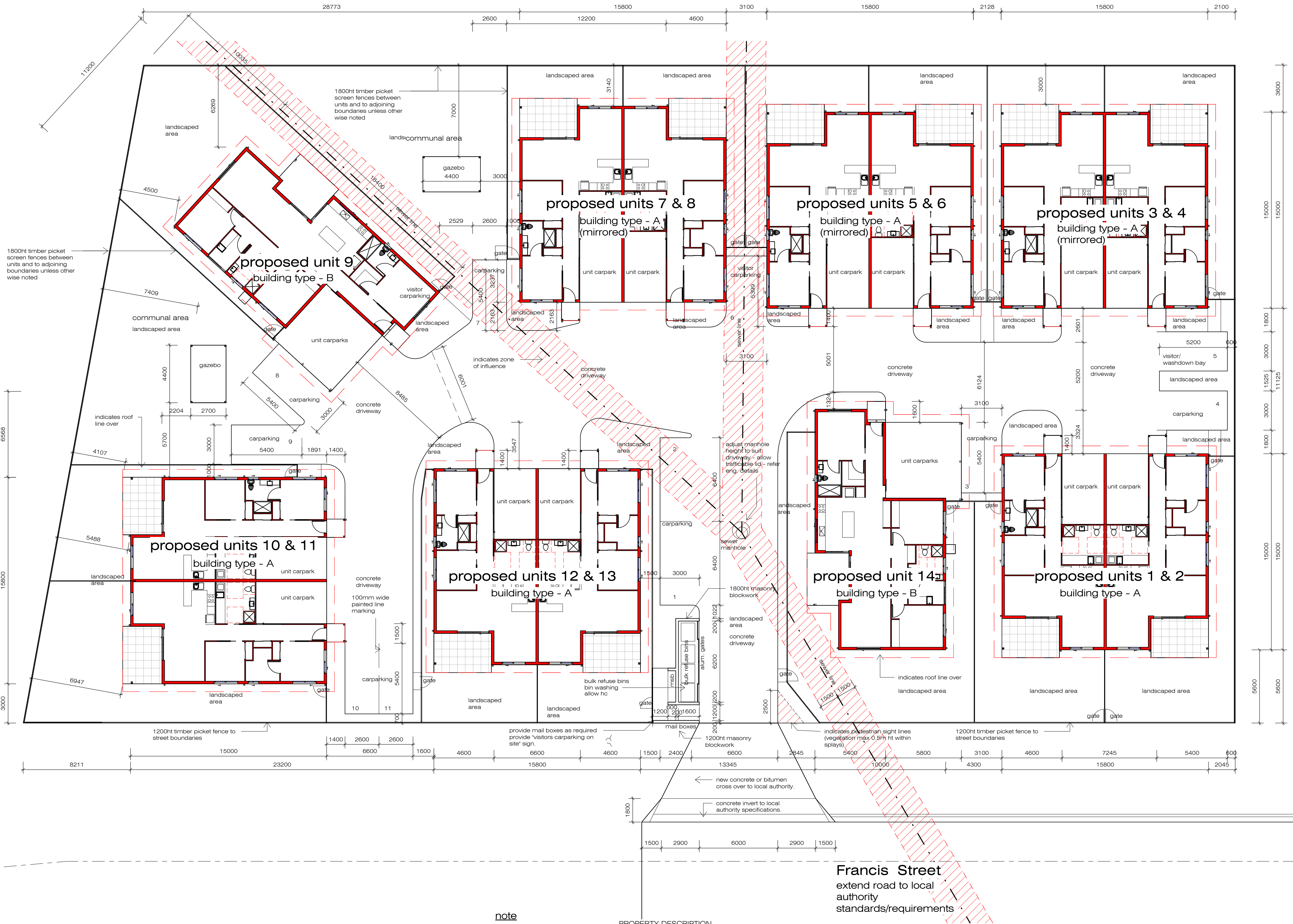
for:
Kaenetto Investments P/L

at:
177-179 Francis Street
Westend

Issue Date	dec 2025	25-051
Drawn	Author	
scale		
sheet	sk_01	printed 7/04/2026 10:24:16 AM

sheet size = A1

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Revision Schedule		
No	Description	Date



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project:
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for:
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at:
177-179 Francis Street
Westend

Issue Date	dec 2025	25-051
Drawn	Author	
scale	As indicated	
sheet	sk 02	
printed	7/04/2026 10:24:17 AM	

sheet size = A1

note

1. provide hard standing area for bulk refuse or wheeler bins provide hose cock & hose
2. a/c condensers are to be located below fence lines and not located on the frontage of the buildings or on balconies and must not be visible from the street frontage or from adjoining properties.
3. refer engineers details for all civil & storm water details
4. landscaping - refer landscape consultant plans for details

PROPERTY DESCRIPTION

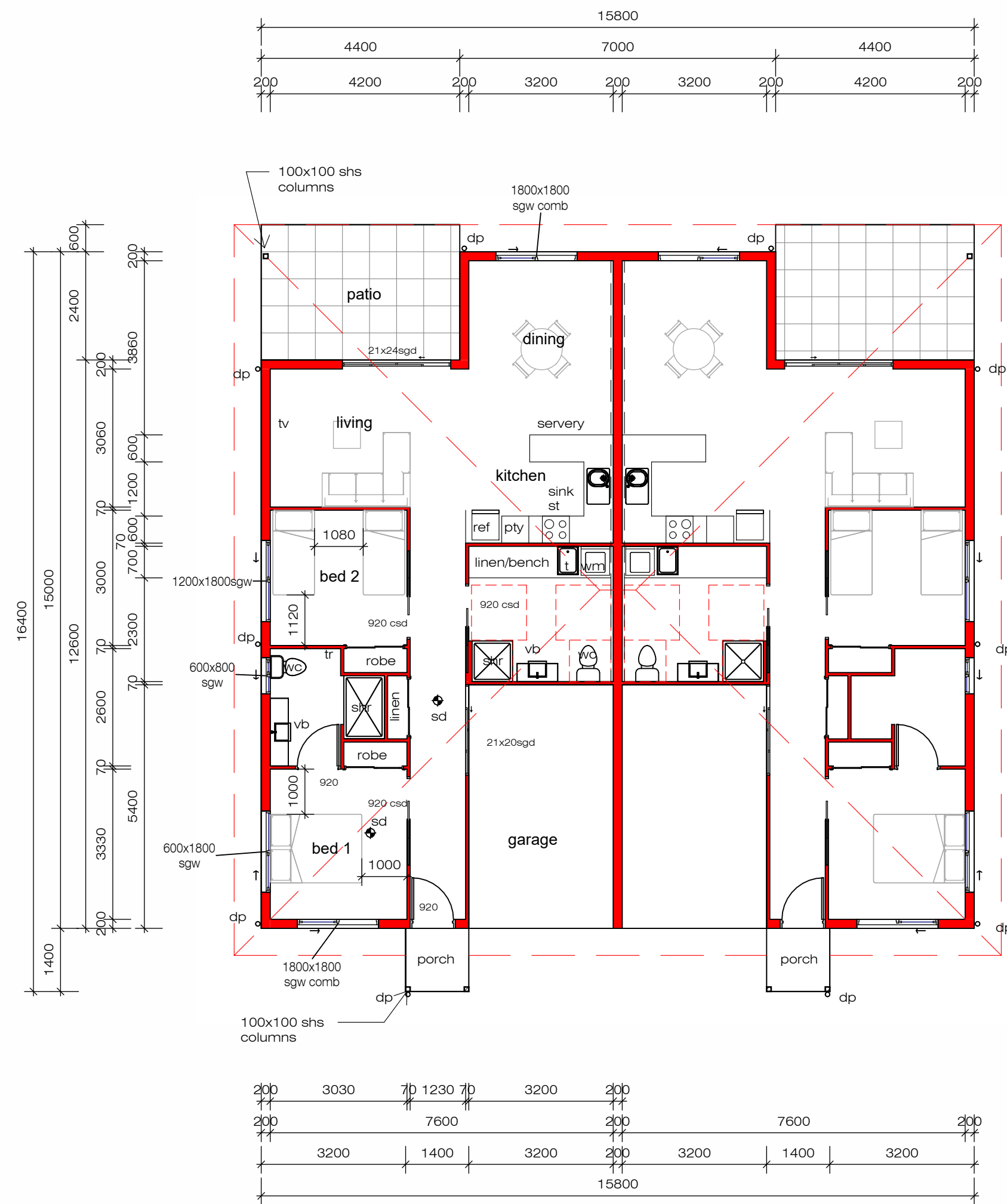
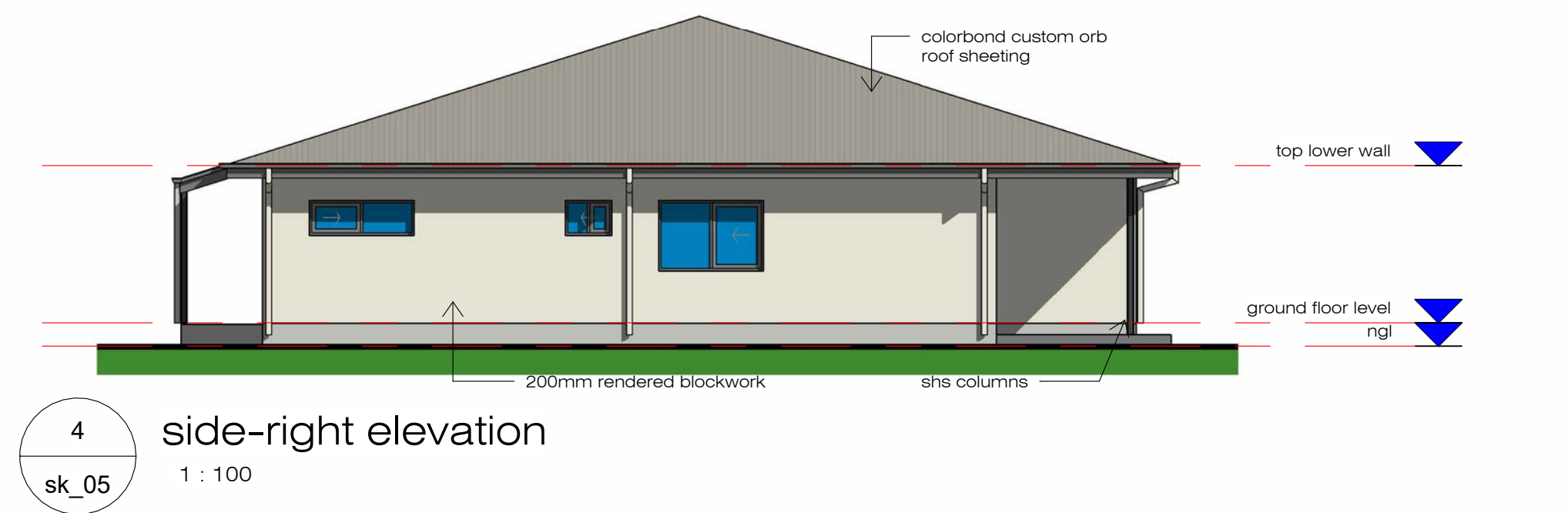
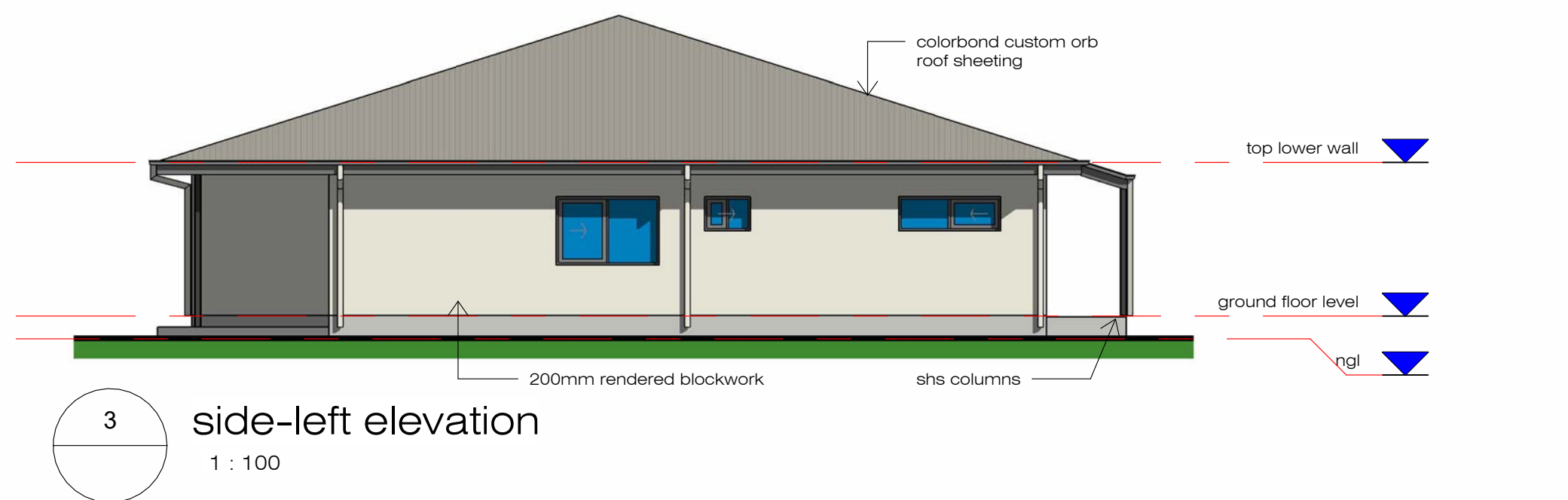
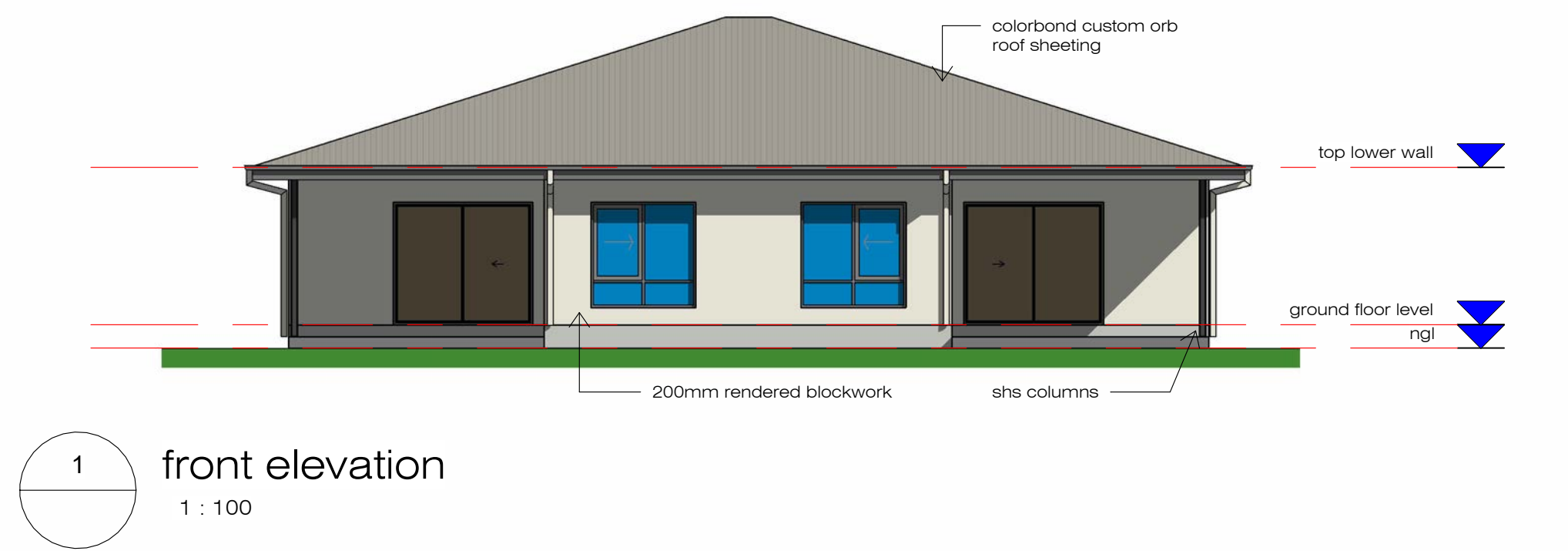
LOT No: Lot 1,2,3,&4
PLAN No: RP 711746
SITE AREA: 4433M2

Parking Schedule

Levels	unit parking	Visitor parking
Ground Floor	16	11
Sub-total	16	11
Total parks provided	27	

1 site plan
1 : 150

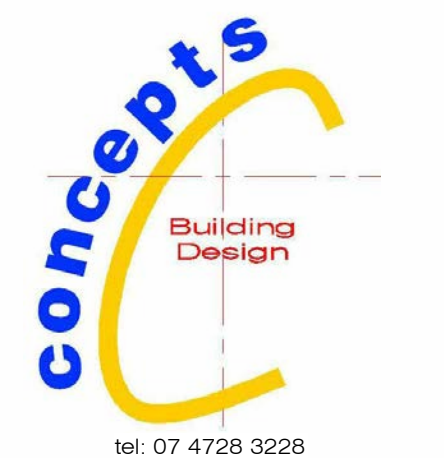
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Revision Schedule		
No	Description	Date



Area Schedule (Gross Building)			
Count	Name	Area	%
unit 1			
1	unit 1 living	90.12	37%
1	unit 1 carport	17.82	7%
1	unit 1 patio	13.20	5%
1	unit 1 porch	1.96	1%
4		123.10	
unit 2			
1	unit 2 living	90.12	37%
1	unit 2 carport	17.82	7%
1	unit 2 patio	13.20	5%
1	unit 2 porch	1.96	1%
4		123.10	
8		246.20	



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tel: 07 4728 3228

project:
Proposed Multiple Dwellings

for:
Kaenetto Investments P/L

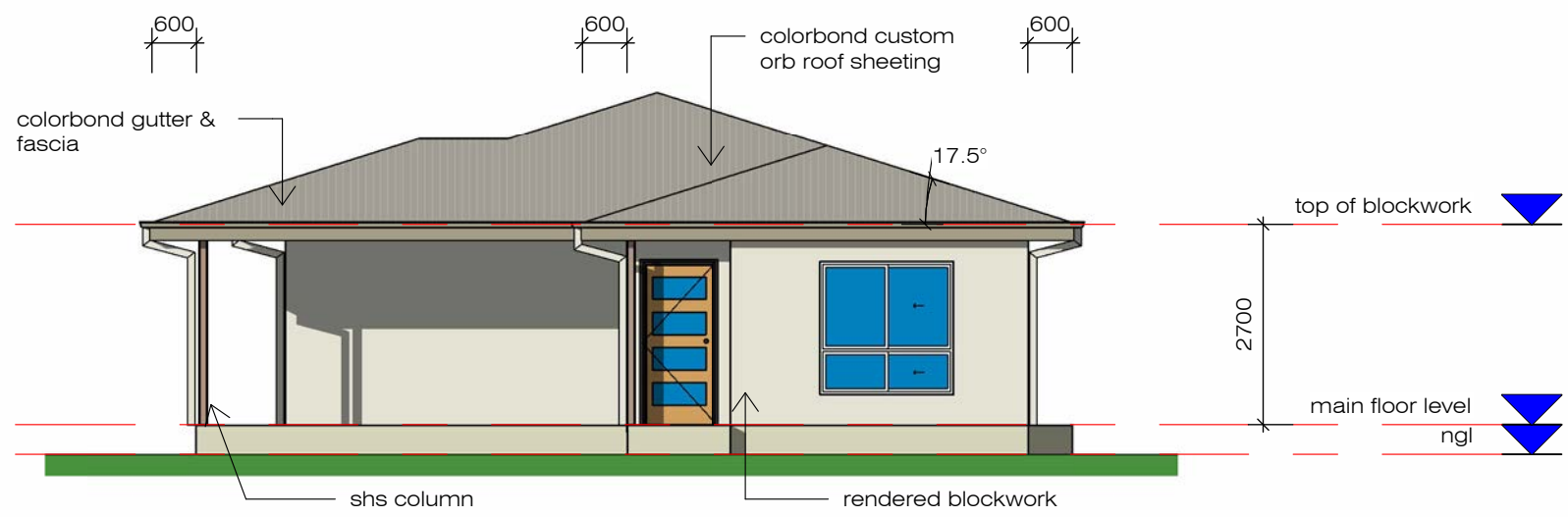
at:
177-179 Francis Street
Westend

Issue Date	dec 2025	25-051
Drawn	Author	
scale	1 : 100	
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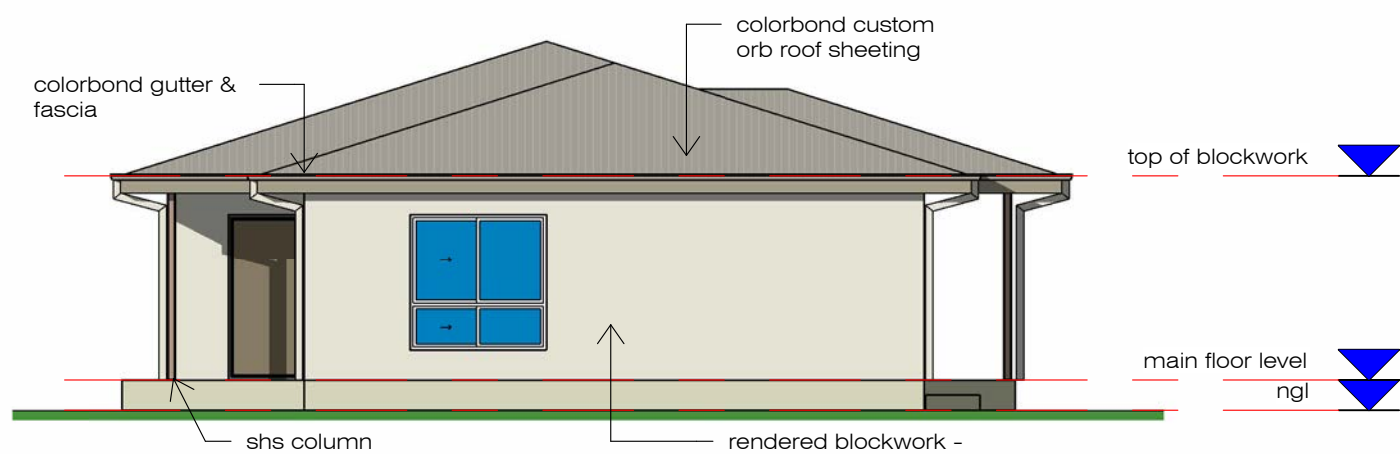
Building - A
units 3,4,5,6,7,8 mirrored

sheet size = A1

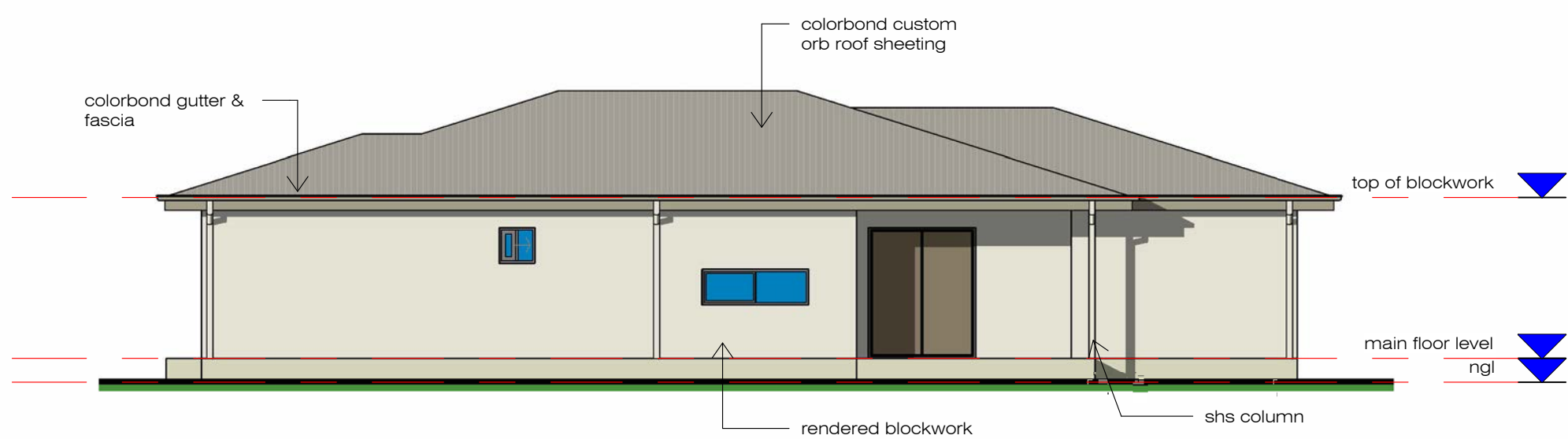
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Revision Schedule		
No	Description	Date



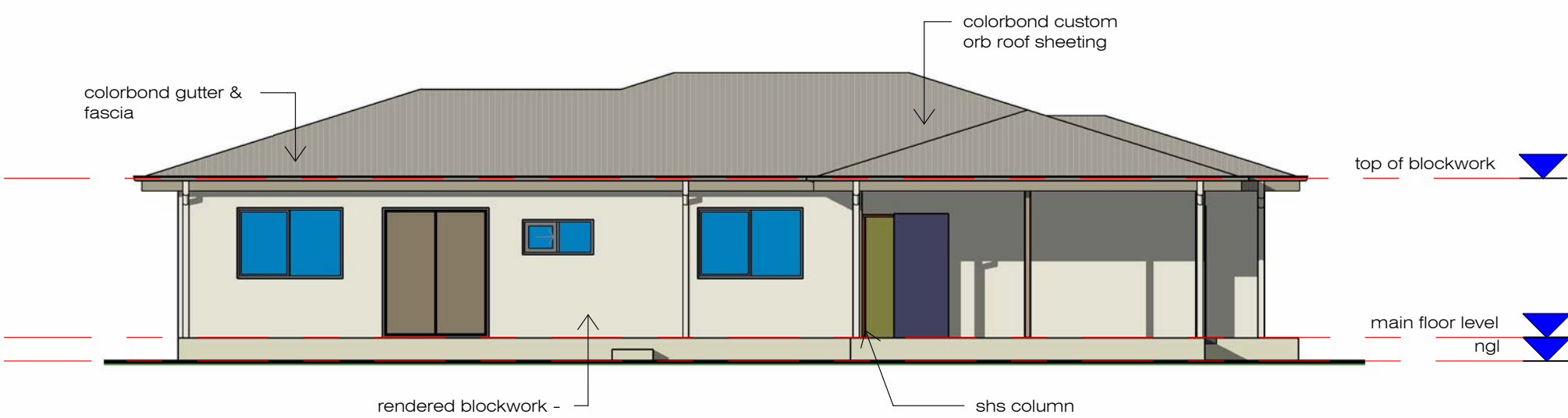
4 front elevation
sk_06 1 : 100



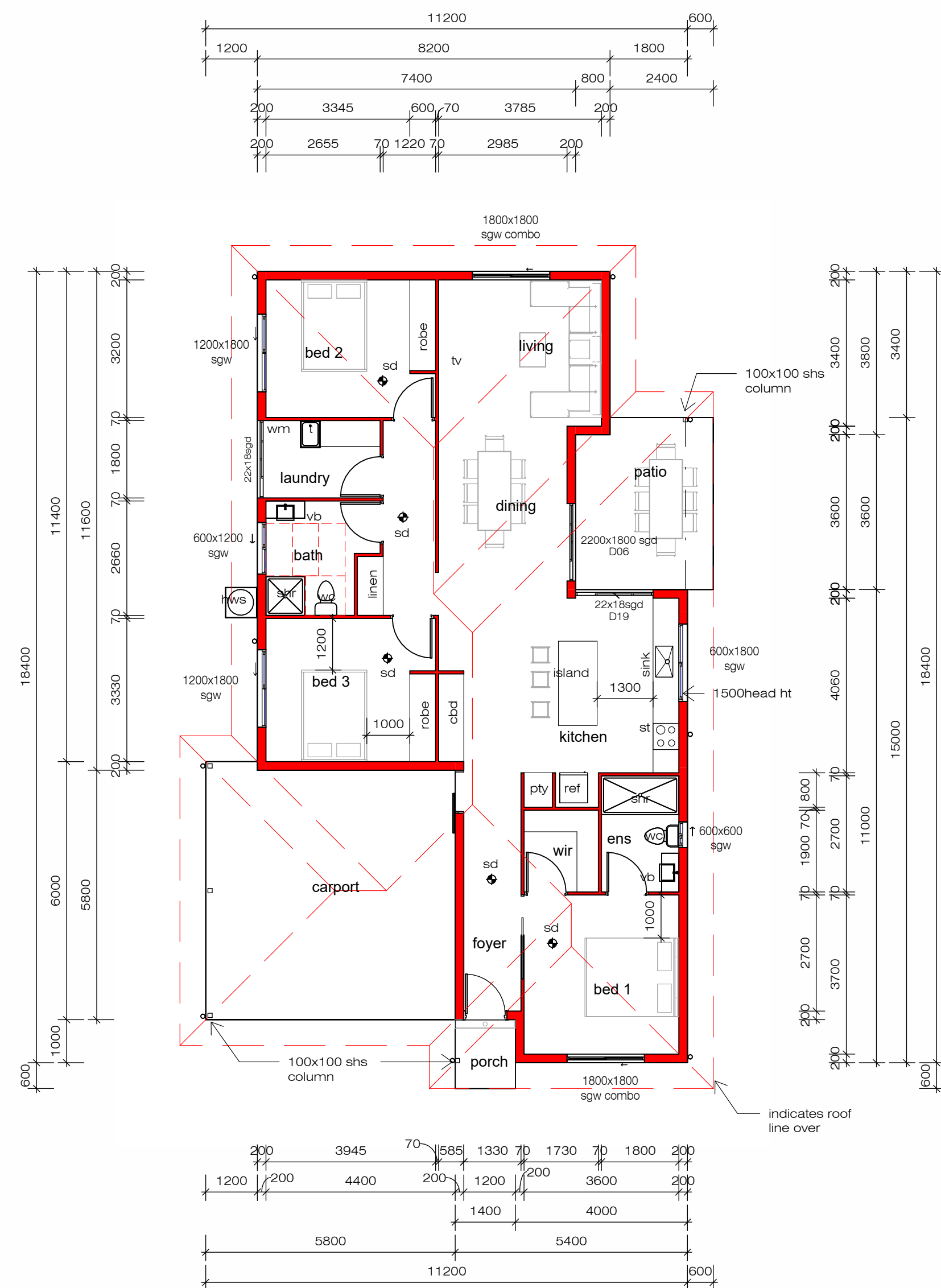
3 rear elevation
sk_06 1 : 100



5 right elevation
sk_06 1 : 100



2 left elevation
sk_06 1 : 100



1 floor plan
sk_06 1 : 100

Area Schedule (Gross Building)			
Count	Name	Area	%
1	porch	2.24 m²	1%
1	patio	12.48 m²	7%
1	garage	33.88 m²	18%
1	living	135.12 m²	74%
4		183.72 m²	100%

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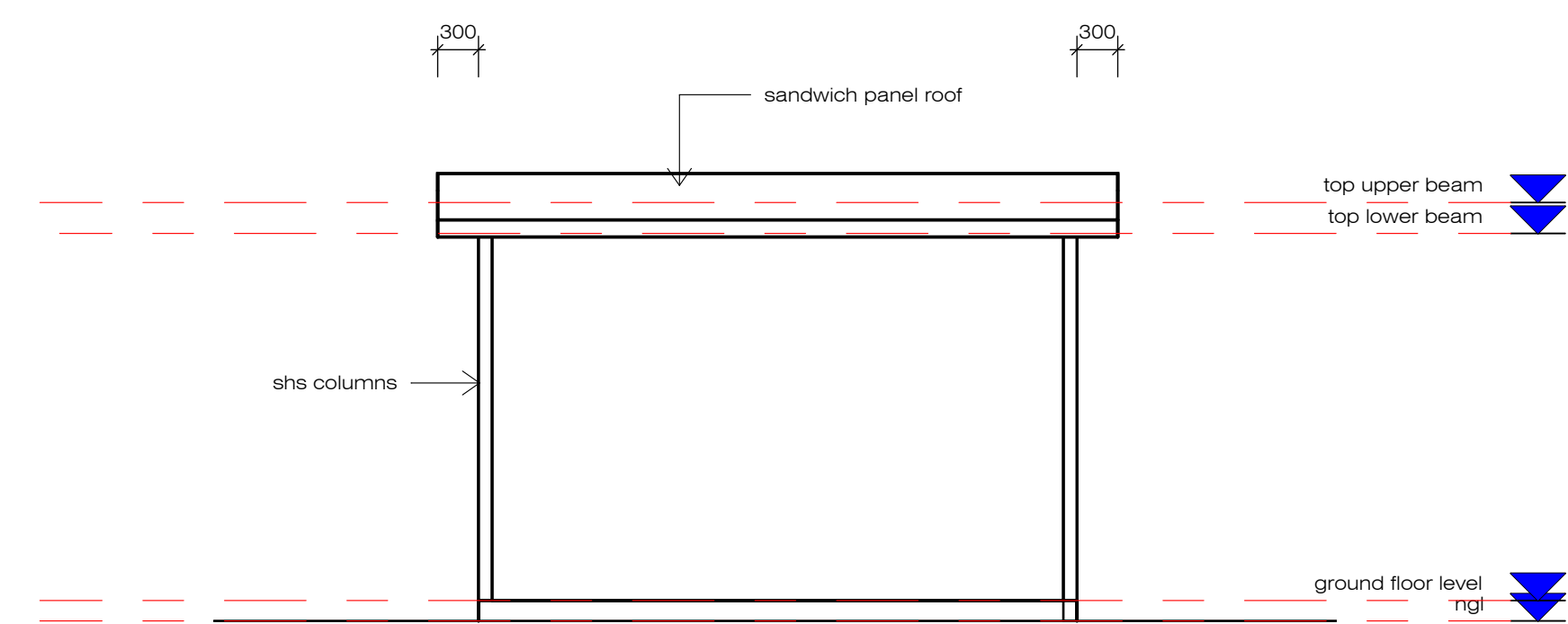
for:
Kaenetto Investments P/L

at:
177-179 Francis Street
Westend

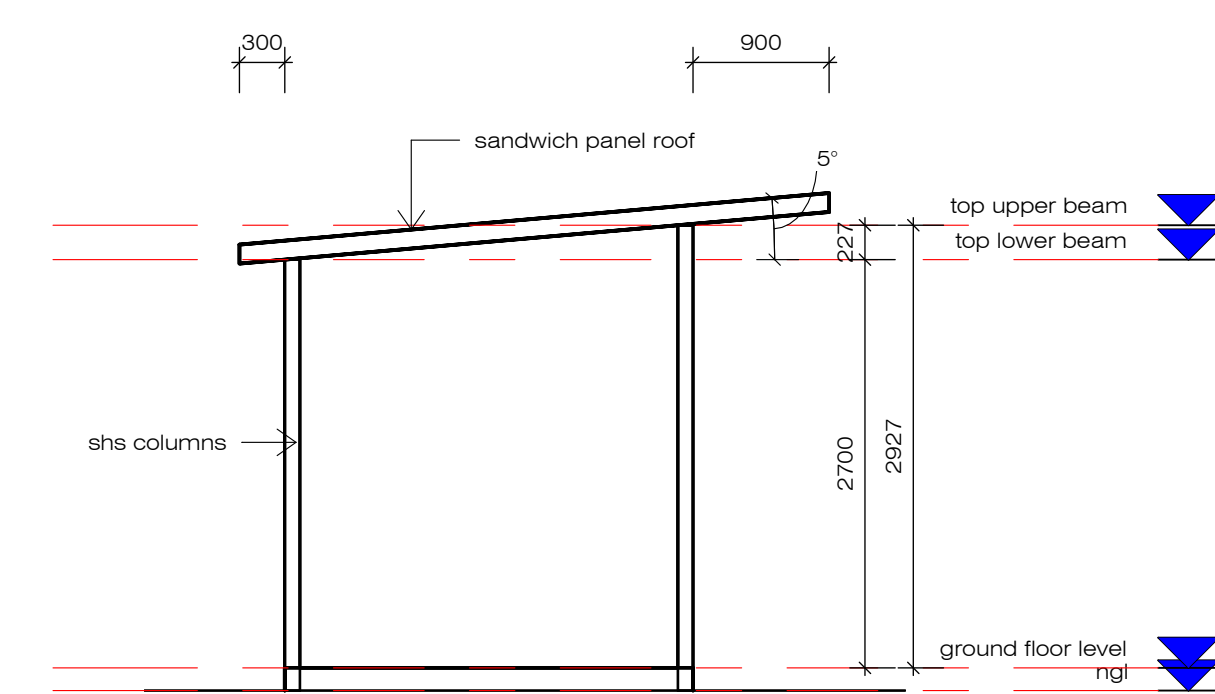
Issue Date	25-051
Drawn Author	
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sheet size = A1

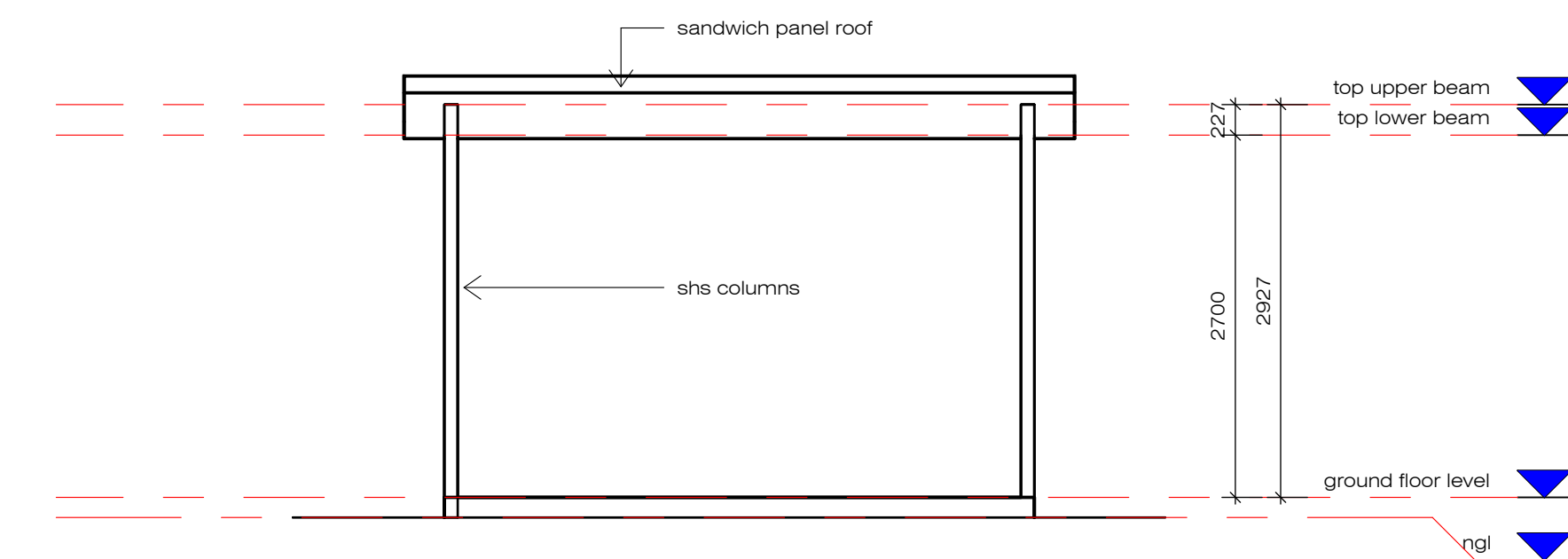
Building - B



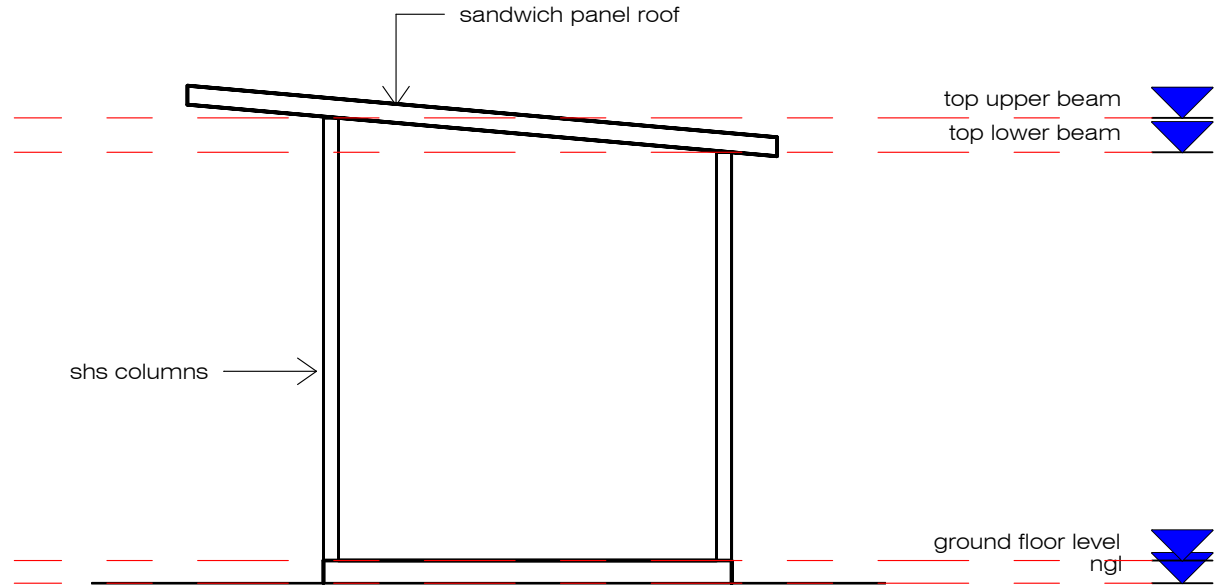
5 front elevation
1 : 50



3 side elevation 2
1 : 50

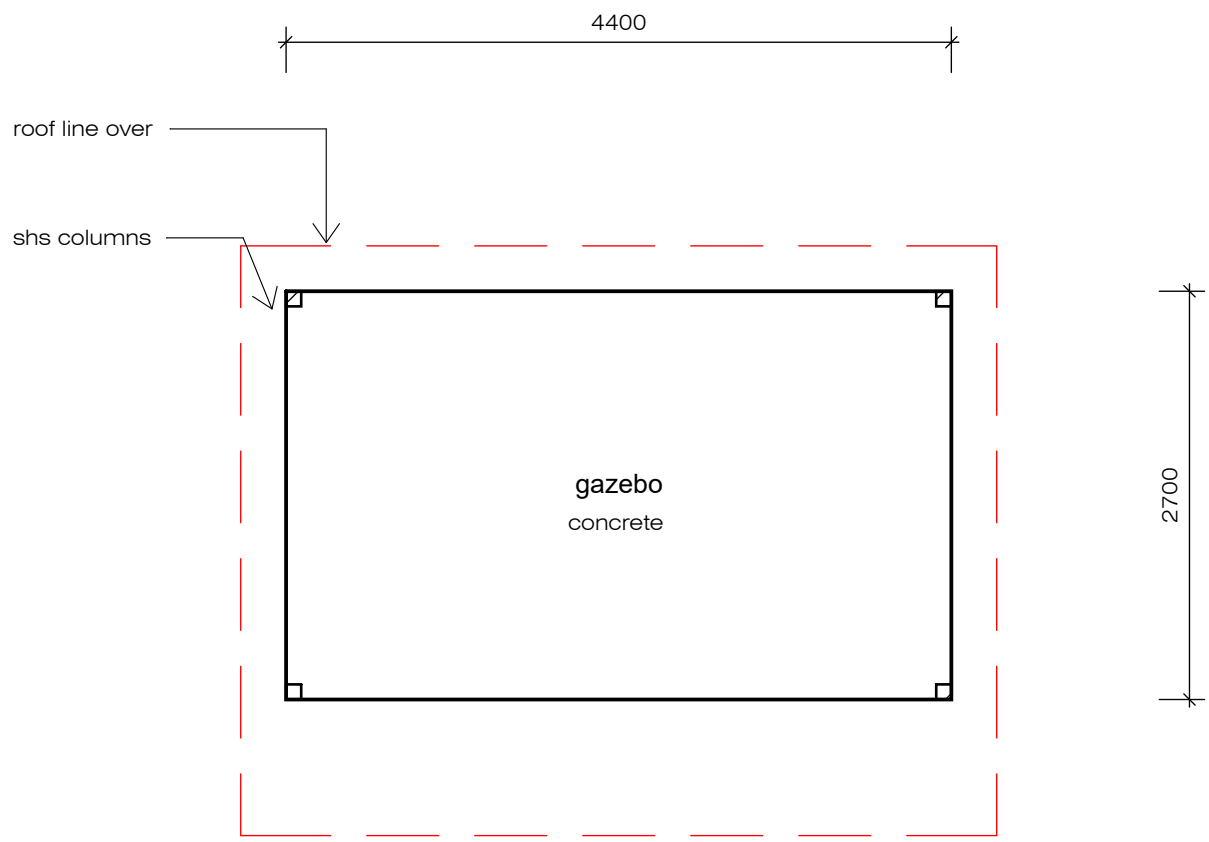


2 rear elevation
1 : 50



4 side elevation 1
1 : 50

Area Schedule (building area)			
Count	Name	Area	%
1	gazebo	11.88	100%
1		11.88	100%

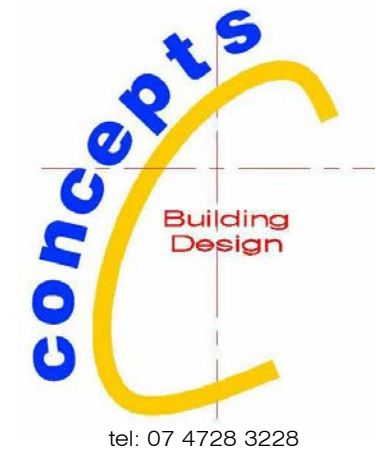


1 ground floor level
sk_07 1 : 50

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Revision Schedule		
No	Description	Date



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project:
Proposed Multiple Dwellings

for:
B & M Bennetto

at:
9 Burdekin Street, Richmond Hill
Charters Towers

Issue Date	august 2020	22-047
Drawn	Author	
scale	1 : 50	
sheet	sk_07	printed 7/04/2026 10:21:56 AM

sheet size = A1

Gazebo

Gross Area Schedule				
number	Count	Name	Area	percentage
building				
1	1	units 1 & 2	215.19 m²	5%
2	1	units 3 & 4	215.88 m²	5%
3	1	units 5 & 6	215.88 m²	5%
4	1	units 7 & 8	215.88 m²	5%
5	1	units 9	169.03 m²	4%
6	1	units 10 & 11	215.88 m²	5%
46	1	units 12 & 13	215.88 m²	5%
47	1	units 14	169.00 m²	4%
building: 8	8		1632.61 m²	37%
driveway/parking				
7	1	driveway/visitor parking	945.30 m²	21%
51	1	refuse/msb	21.96 m²	0%
driveway/parking: 2	2		967.26 m²	22%
landscape				
48	1	gazebo	11.88 m²	0%
49	1	gazebo	11.88 m²	0%
13	1	landscaping	13.20 m²	0%
16	1	landscaping	11.99 m²	0%
17	1	landscaping	179.83 m²	4%
24	1	landscaping	174.03 m²	4%

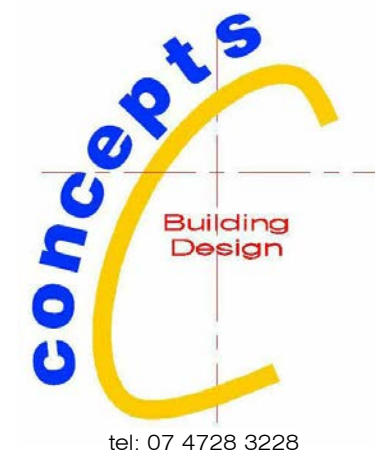
Gross Area Schedule				
number	Count	Name	Area	percentage
25	1	landscaping	134.45 m²	3%
26	1	landscaping	106.58 m²	2%
27	1	landscaping	66.96 m²	2%
28	1	landscaping	270.88 m²	6%
29	1	landscaping	165.95 m²	4%
30	1	landscaping	172.28 m²	4%
31	1	landscaping	6.41 m²	0%
32	1	landscaping	4.36 m²	0%
33	1	landscaping	13.04 m²	0%
34	1	landscaping	12.48 m²	0%
35	1	landscaping	13.20 m²	0%
36	1	landscaping	13.20 m²	0%
37	1	landscaping	13.20 m²	0%
38	1	landscaping	13.20 m²	0%
39	1	landscaping	12.48 m²	0%
40	1	landscaping	13.20 m²	0%
41	1	landscaping	13.20 m²	0%
42	1	landscaping	13.20 m²	0%
43	1	landscaping	13.20 m²	0%
44	1	landscaping	13.20 m²	0%
45	1	landscaping	13.20 m²	0%
50	1	landscaping	239.09 m²	5%
52	1	landscaping	91.76 m²	2%
landscape: 29	29		1831.54 m²	41%
Grand total: 39	39		4431.41 m²	100%



NOTES:		
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Revision Schedule		
No	Description	Date
1		



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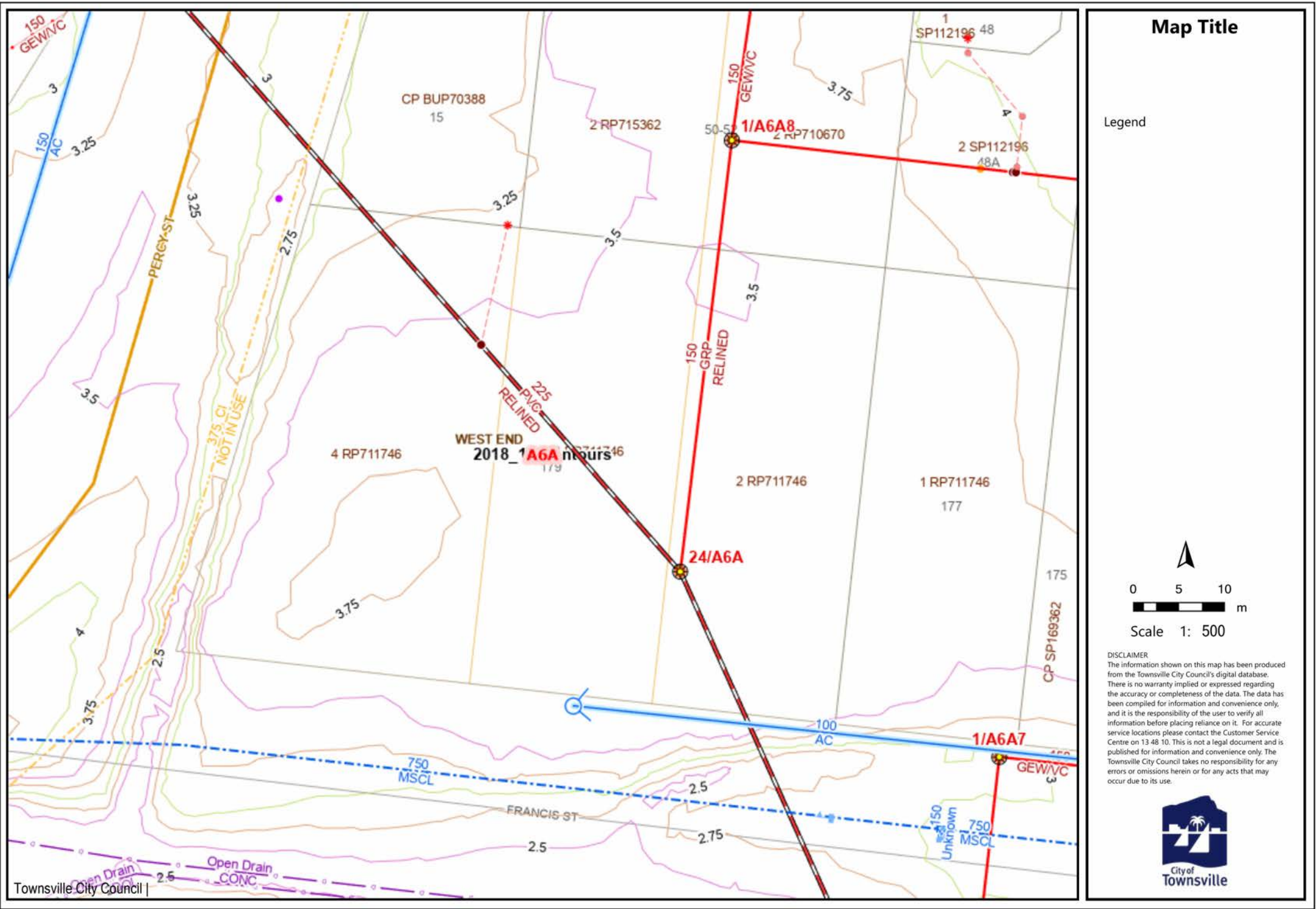
project:
Proposed Multiple Dwellings

for:
Kaenetto Investments P/L

at:
177-179 Francis Street
Westend

Issue Date dec 2025		25-051
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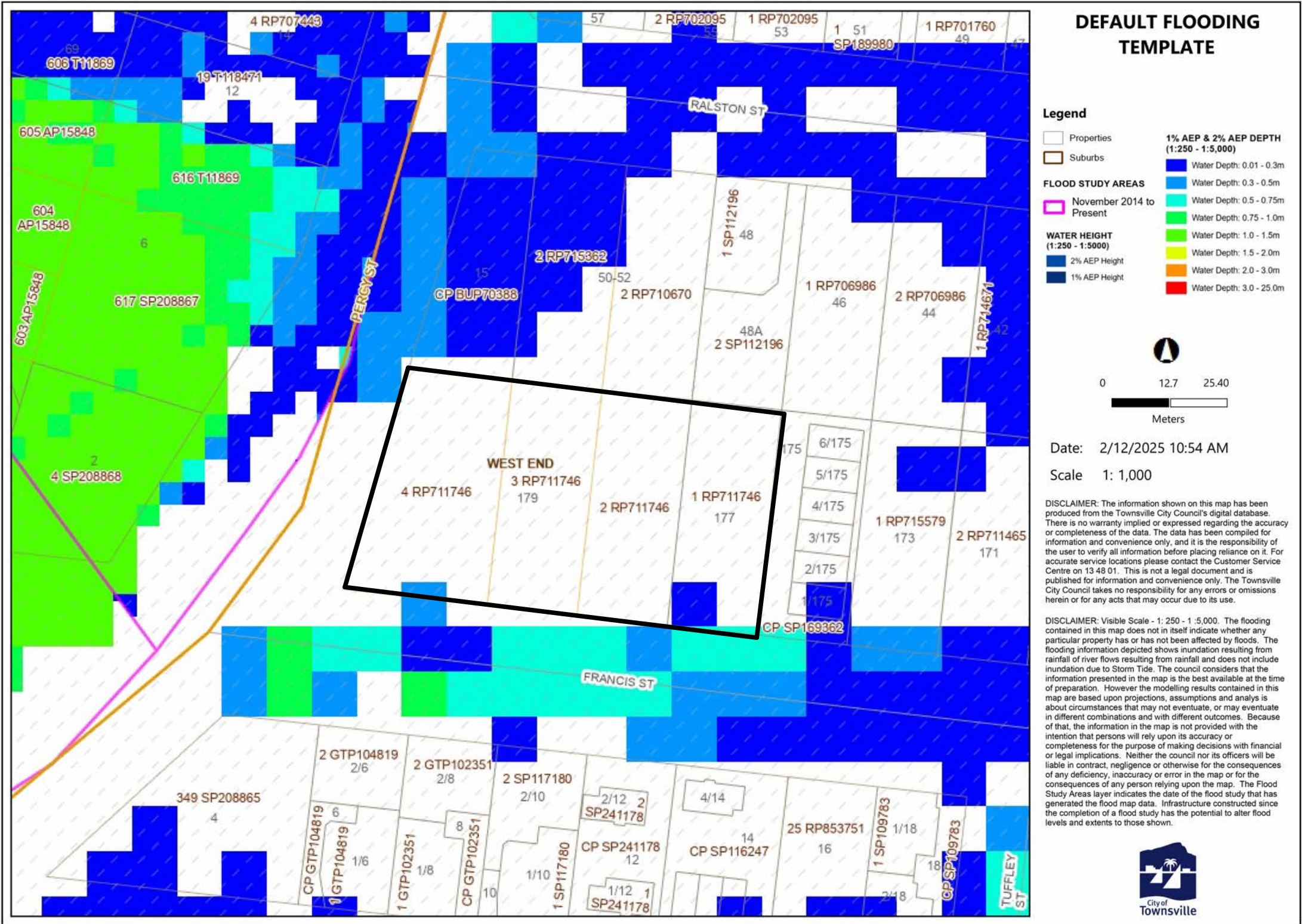


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Revision Schedule

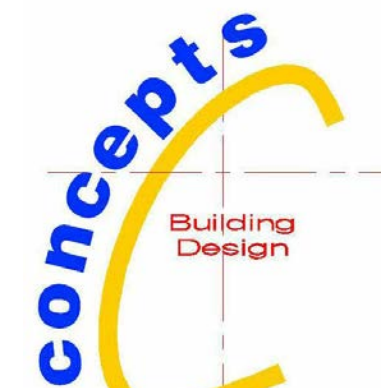
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project:
Proposed Multiple Dwellings

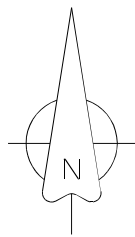
for:
Kaenetto Investments P/L

at:
177-179 Francis Street
Westend

Issue Date dec 2025	25-051
Drawn Author	
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APPENDIX E



FEATURE LEGEND

THE FOLLOWING SYMBOLS MAY APPEAR IN THE DRAWING.
SERVICE ALIGNMENTS ARE UNDERGROUND & FROM RECORDS UNLESS OTHERWISE STATED.

- MAJOR CONTOUR
- MINOR CONTOUR
- FENCE LINE
- POWER LINE O'HEAD
- WATER LINE
- SEWER LINE
- STORMWATER LINE
- TELSTRA LINE
- BOUNDARY
- EASEMENT
- CHANGE IN GRADE
- TOP OF BANK
- BOTTOM OF BANK
- TOP OF WALL
- BOTTOM WALL
- TOP OF KERB
- KERB INVERT
- ROAD CROWN
- EDGE OF BITUMEN
- EDGE OF CONCRETE
- EDGE OF PAVING
- BOTTOM OF DRAIN
- BUILDING
- STRUCTURAL EAVES
- SEWER MANHOLE
- TELSTRA PIT
- WATER STOP VALVE
- WATER TAP
- WATER METER
- FIRE HYDRANT
- POWER POLE
- LIGHT POLE
- TRANSFORMER POLE
- POWER 4/H
- STORMWATER GRATED PIT
- STORMWATER MANHOLE
- TRAFFIC SIGN
- TBM
- CONTROL STATION
- TREE
- PALM TREE
- UNABLE TO LIFT

NOTES:

- Not all Services hereon have been located by field survey. All services have not been found. Prior to any demolition, excavation or construction on the site, the relevant authority should be contacted for possible location of all underground services.
- This is not an Identification Survey. Boundaries have not been marked.

Atkinson
SURVEYS

33 Castlemaine St, Kirwan QLD 4817
Phone: (07) 47234885
CADASTRAL SURVEYS

CLIENT

URBAN SPACE CONSULTING

PROJECT

177-179 FRANCIS STREET
WEST END

TITLE

DETAIL & CONTOUR SURVEY
Lots 1,2,3 and 4 on RP711746

APPROVED

DATE 19/9/2025

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FILE No 25_422

MERIDIAN SP328733

LEVEL DATUM AHD

REF. BENCH MARK PSM157223 RL 6.982

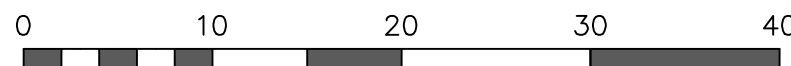
SCALE OF ORIGINAL 1:400 @ A3

DWG. No. 25_422-001

SHEET

1 of 1

SERVICES PLOTTED FROM COUNCIL RECORDS



BOLT IN TOP OF WALL

BOLT IN SEMH

STREET

STREET

PERCY

FRANCIS

0
BUP70388

2
RP715362

2
RP710670

2
SP112196

4
RP711746

3
RP711746

2
RP711746

1
RP711746

APPENDIX F

Traffic Engineering Report

To	Kaennetto Investments	Date	25 March 2026
Prepared by	Luke Huang, Modus Graduate Traffic Engineer	Approved by	Harj Singh, Modus Executive Director (RPEQ 22364)
Location	177 Francis Street, West End		
Subject	Proposed Residential Development - Traffic Engineering Report		
Status	Final	Attachments	Appendix A: Development Plans Appendix B: Traffic Concept Plan Appendix C: Swept Path Assessments

1 Introduction

1.1 Overview

Modus has been commissioned by Kaennetto Investments to provide traffic and transport advice in relation to the proposed Residential development located at 177 Francis Street, West End.

This Traffic Engineering Report has been produced by Modus to assess the traffic and transport engineering items in support of the proposed development. A copy of the proposed development plans are provided at **Appendix A**.

Modus has completed this Traffic Engineering Report in accordance with the usual care and thoroughness of the consulting profession. The assessment is based on accepted traffic engineering practices and standards applicable at the time of undertaking the assessment. Modus disclaims responsibility for any changes to project planning or road conditions that may occur after completion of the assessment.

2 Existing Conditions

2.1 Site Location

The development site is located at 177 Francis Street, West End and is bounded by Residential uses to the north and east, a vacant land to the west with Francis Street to the south.

Furthermore, the development site is currently zoned Low Density Residential within the Townsville City Council (TCC) Local Government Area.

Additionally, the development site is currently vacant with no crossovers provided onto Francis Street.

Figure 2-1 on the subsequent report page illustrates the development site location.

Figure 2-1 Development Site Location



2.2 Existing Road Network

Table 2-1 outlines characteristics of the existing road network in proximity to the development site.

Table 2-1 Key Road Characteristics

Road	Authority	Hierarchy	Speed Limit	Typical Form
Francis Street	Council	Local Street	50 km/hr	Two lanes, undivided

2.3 Active and Public Transport Facilities

A dedicated pedestrian footpath is not provided along the frontage of the site to connect to the wider pedestrian network. Additionally, there are no dedicated bicycle lanes provided along the frontage of the site.

Furthermore, there are five (5) bus stops within a 400m radius (a comfortable 5-minute walk) of the development site. The nearest bus stop is located along Percy Street approximately 100m west of the site.

3 Proposed Development

3.1 Overview

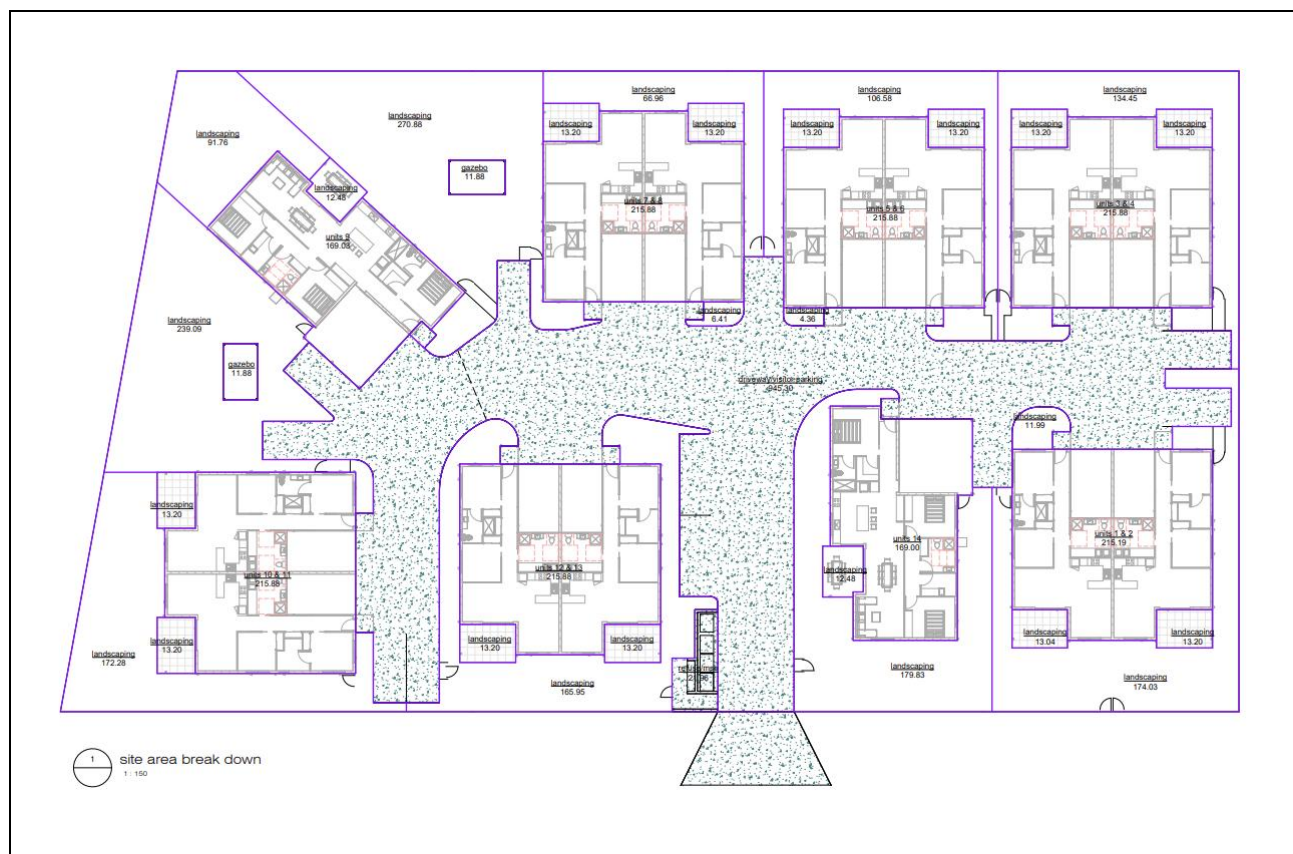
The proposed development will comprise a Multiple Dwelling use accommodating 14 units.

As part of the proposed development, vehicular access will be achieved via a 6.0m wide access onto Francis Street.

Furthermore, the proposed development will accommodate a total of 27 car parking spaces on-site.

Figure 3-1 illustrates the proposed development layout. A copy of the development plans are provided at **Appendix A**.

Figure 3-1 Proposed Development Layout



4 Traffic and Transport Review

4.1 Access Design

4.1.1 Driveway Design

In accordance with Australian Standards 2890.1, the minimum driveway requirements for the proposed development are outlined in Table 4-1.

Table 4-1 Driveway Design Compliance

Road Frontage	AS2890.1 Driveway Design Compliance	Access Conditions
Francis Street	Site Conditions	Minor Road Frontage User Class 2 25-100 Spaces
	Access Facility Category	2
	Required Driveway Widths	Minimum 6.0m – 9.0m
	Proposed Driveway Width	6.0m

Therefore, the proposed driveway width COMPLIES with Australian Standards 2890.1.

4.1.2 Crossover Design

Modus recommends the development accommodates crossover designs in accordance with the IPWEA Standard Drawings package as illustrated on the Traffic Concept Plan provided at **Appendix B**.

4.1.3 Driveway Location

In accordance with Australian Standards 2890.1, development accesses with a Class 2 Access Facility Category are to achieve a 6.0m separation to any formal intersections.

Provided that the proposed access location is not located within a 6.0m distance to any formal intersections, the proposed access location is considered acceptable.

4.1.4 Pedestrian Sight Splays

In accordance with Australian Standards 2890.1, pedestrian sight splays should be provided at the egress point of a driveway and measure 2.5m in depth and 2.0m in width from the property boundary.

The proposed development does accommodate pedestrian sight splay provisions in accordance with Australian Standards 2890.1

Therefore, the proposed pedestrian sight provisions are considered acceptable.

4.2 Car Parking Provisions

In accordance with the Townsville City Plan the minimum car parking requirements are outlined in Table 4-2.

Table 4-2 Minimum Car Parking Requirements

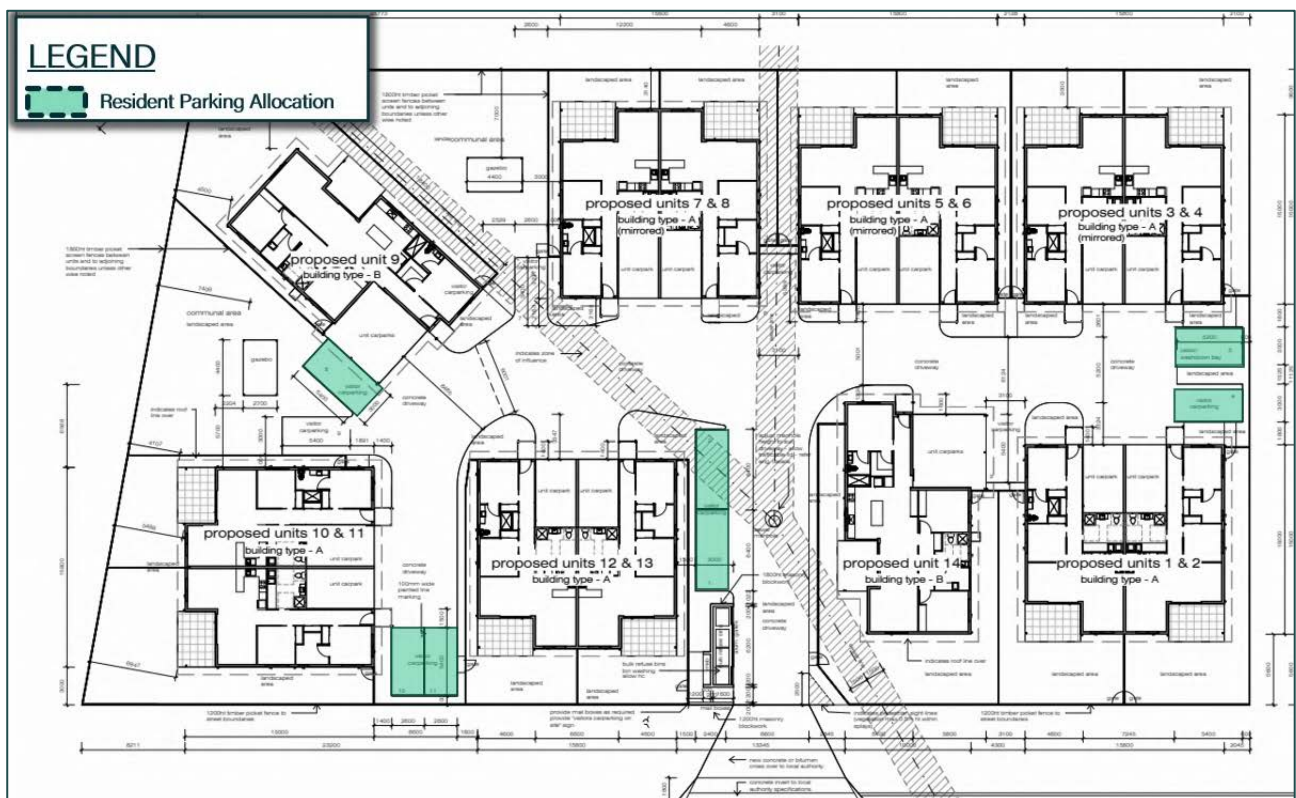
Land Use	Car Parking Rate	Yield	Car Parking Required	Car Parking Provided
Multiple Dwelling	1.7 Resident Spaces per dwelling 0.2 Visitor Spaces per dwelling	14 Units	23.8 (24) Resident Spaces 2.8 (3) Visitor Spaces	16 Resident Spaces 11 Visitor Spaces
TOTAL:			27 Spaces	27 Spaces

Therefore, the proposed development provides compliant car parking supply in accordance with the Townsville City Plan.

However, the development accommodates a technical shortfall in Resident parking spaces and a surplus in Visitor spaces.

On this basis, Modus recommends the spaces outlined in green as per Figure 4-1 be allocated exclusively for Resident parking.

Figure 4-1 Recommended Resident Parking Allocation



4.3 Car Parking Design

4.3.1 Car Parking Layout

Modus has conducted a design review of the car parking layout against the design guidelines within Australian Standards 2890.1, of which is summarised below in Table 4-3.

Table 4-3 Car Parking Layout Design Review

Design Criteria	AS2890 Requirement	Proposed Design	Compliant
Parking Spaces			
Car Space Length - General	Min 5.4m	Min 5.4m	✓
Parallel Space Length - Obstructed End (3.3m One-Way Aisle)	Min 6.4m	Min 6.4m	✓
Garage Internal Length - Single Vehicle	Min 5.4m	Min 5.4m	✓
Garage Internal Length - Double Vehicle	Min 5.4m	Min 5.4m	✓
Car Space Width - Visitors / Medium Turnover	Min 2.5m	Min 2.5m	✓
Parallel Space Width - General	Min 2.1m plus 0.3m door opening clearance	Min 2.4m	✓
Garage Internal Width - Single Vehicle	Min 3.0m	Min 3.0m	✓
Garage Internal Width - Double Vehicle	Min 5.4m	Min 5.4m	✓
Car Parking Door Opening Clearances	Min 0.3m	Min 0.3m	✓
Roadways and Parking Aisles			
Minimum Car Parking Aisle Width	Min 5.8m	Min 5.8m	✓
Minimum Two-Way Circulation Roadway	Min 5.5m	Min 5.5m	✓
Maximum Car Parking Length	Max 100.0m	Max 75.0m	✓

Therefore, the proposed car parking layout is designed in accordance with Australian Standards 2890.1.

4.3.2 Queueing Provisions

In accordance with Table 3.3 of Australian Standards AS2890.1, the proposed development is required to provide a minimum queueing provision of two (2) vehicles (equivalent to 12.0m in length) from the property boundary to the first high turnover space.

The proposed development accommodates a total length of 9.0m from the property boundary to the first parking space (of which is recommended to be allocated for Residents).

Provided that this car parking space will have a low parking turnover, the proposed queueing provisions are considered acceptable.

4.4 Servicing Requirements

The largest design service vehicle anticipated for on-site general servicing arrangements is a Heavy Rigid Vehicle (HRV).

Therefore, Modus has conducted a swept path assessment, which confirms the HRV design vehicle is able to safely and efficiently manoeuvre to, within and from the site ensuring a minimum 0.3m to any permanent obstructions, ensuring a forward-in / forward-out arrangement occurs.

This swept path assessment is provided at **Appendix C**.

4.5 Development Traffic Generation

In accordance with the TfNSW Guide to Transport Impact Assessment (2024) document, the peak hour traffic generating potential of the proposed development is outlined in Table 4-4.

Table 4-4 Proposed Development Traffic Generation Volumes

Land Use	Yield	AM Peak Traffic Generation Rates	PM Peak Hour Traffic Generation Rates	AM Peak Hour Traffic Generation Volumes	PM Peak Hour Traffic Generation Volumes
Multiple Dwelling	14 Units	0.41 trip per dwelling	0.6 trip per dwelling	6 vehicles per hour	9 vehicles per hour

Therefore, the proposed development is anticipated to generate up to 9 vehicles per hour (vph) in the peak hour period.

On average, this corresponds to a new vehicle on the external road network once every 6 minutes and 40 seconds over the peak hour period.

Therefore, the traffic generation associated with the proposed development is not anticipated to comprise the safety or efficiency of the external road network.

5 Summary

Therefore, Modus is of the opinion that the proposed development is acceptable from a traffic engineering perspective and will not have a substantial impact on the safety or efficiency of the external road network.

Should there be any issue with the above, please contact the undersigned.

Yours sincerely,



MODUS TRANSPORT AND TRAFFIC ENGINEERING

Harj Singh
Executive Director (RPEQ 22364)

APPENDIX A

Development Plans

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Revision Schedule		
No	Description	Date
1		



1 francis street - view 1



3 francis street - view 3



5 francis street - view aerial



4 percy street - view -1

Sheet List		
Count	Sheet Number	Sheet Name
1	sk_01	title page
1	sk_02	site plan
1	sk_03	site area breakdown
1	sk_04	services & detail survey plan
1	sk_05	Building - A
1	sk_06	Building - B

Grand total: 6



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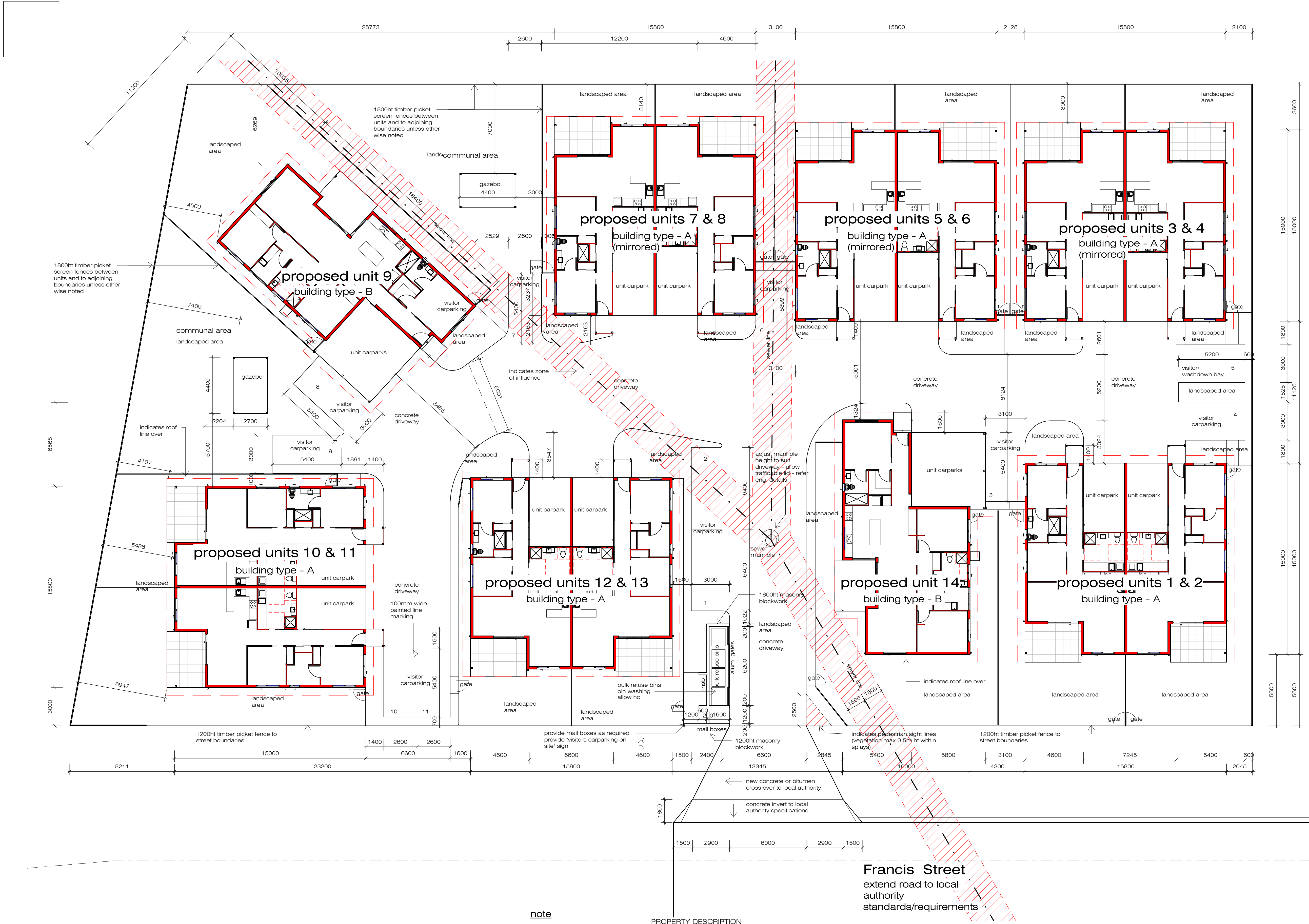
project:
Proposed Multiple Dwellings

for:
Kaenetto Investments P/L

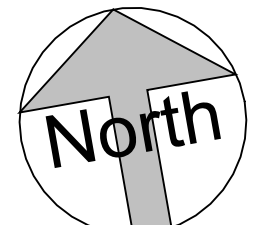
at:
177-179 Francis Street
Westend

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Revision Schedule		
No	Description	Date



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Proposed Multiple Dwellings

for:
Kaenetto Investments P/L

at:
177-179 Francis Street
Westend

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Drawn	Author	
scale	As indicated	
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sheet size = A1

- note**
1. provide hard standing area for bulk refuse or wheelie bins provide hose cock & hose
 2. a/c condensers are to be located below fence lines and not located on the frontage of the buildings or on balconies and must not be visible from the street frontage or from adjoining properties.
 3. refer engineers details for all civil & storm water details
 4. landscaping - refer landscape consultant plans for details

PROPERTY DESCRIPTION
LOT No: Lot 1,2,3,&4
PLAN No: RP 711746
SITE AREA: 4433M2

Parking Schedule		
Levels	unit parking	Visitor parking
Ground Floor	16	11
Sub-total	16	11
Total parks provided	27	

1 site plan
1 : 150

Francis Street
extend road to local
authority
standards/requirements

Gross Area Schedule				
number	Count	Name	Area	percentage
building				
1	1	units 1 & 2	215.19 m²	5%
2	1	units 3 & 4	215.88 m²	5%
3	1	units 5 & 6	215.88 m²	5%
4	1	units 7 & 8	215.88 m²	5%
5	1	units 9	169.03 m²	4%
6	1	units 10 & 11	215.88 m²	5%
46	1	units 12 & 13	215.88 m²	5%
47	1	units 14	169.00 m²	4%
building: 8	8		1632.61 m²	37%
driveway/parking				
7	1	driveway/visitor parking	945.30 m²	21%
51	1	refuse/msb	21.96 m²	0%
driveway/parking: 2	2		967.26 m²	22%
landscape				
48	1	gazebo	11.88 m²	0%
49	1	gazebo	11.88 m²	0%
13	1	landscaping	13.20 m²	0%
16	1	landscaping	11.99 m²	0%
17	1	landscaping	179.83 m²	4%
24	1	landscaping	174.03 m²	4%

Gross Area Schedule				
number	Count	Name	Area	percentage
25	1	landscaping	134.45 m²	3%
26	1	landscaping	106.58 m²	2%
27	1	landscaping	66.96 m²	2%
28	1	landscaping	270.88 m²	6%
29	1	landscaping	165.95 m²	4%
30	1	landscaping	172.28 m²	4%
31	1	landscaping	6.41 m²	0%
32	1	landscaping	4.36 m²	0%
33	1	landscaping	13.04 m²	0%
34	1	landscaping	12.48 m²	0%
35	1	landscaping	13.20 m²	0%
36	1	landscaping	13.20 m²	0%
37	1	landscaping	13.20 m²	0%
38	1	landscaping	13.20 m²	0%
39	1	landscaping	12.48 m²	0%
40	1	landscaping	13.20 m²	0%
41	1	landscaping	13.20 m²	0%
42	1	landscaping	13.20 m²	0%
43	1	landscaping	13.20 m²	0%
44	1	landscaping	13.20 m²	0%
45	1	landscaping	13.20 m²	0%
50	1	landscaping	239.09 m²	5%
52	1	landscaping	91.76 m²	2%
landscape: 29	29		1831.54 m²	41%
Grand total: 39	39		4431.41 m²	100%

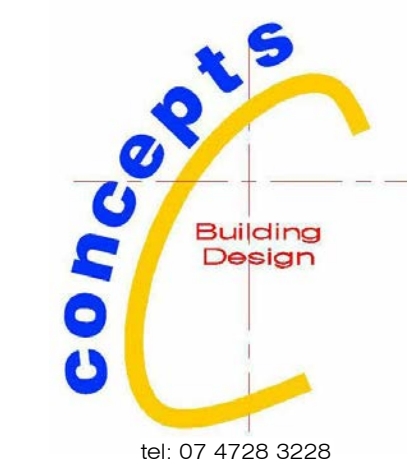


1 site area break down
1 : 150

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Revision Schedule		
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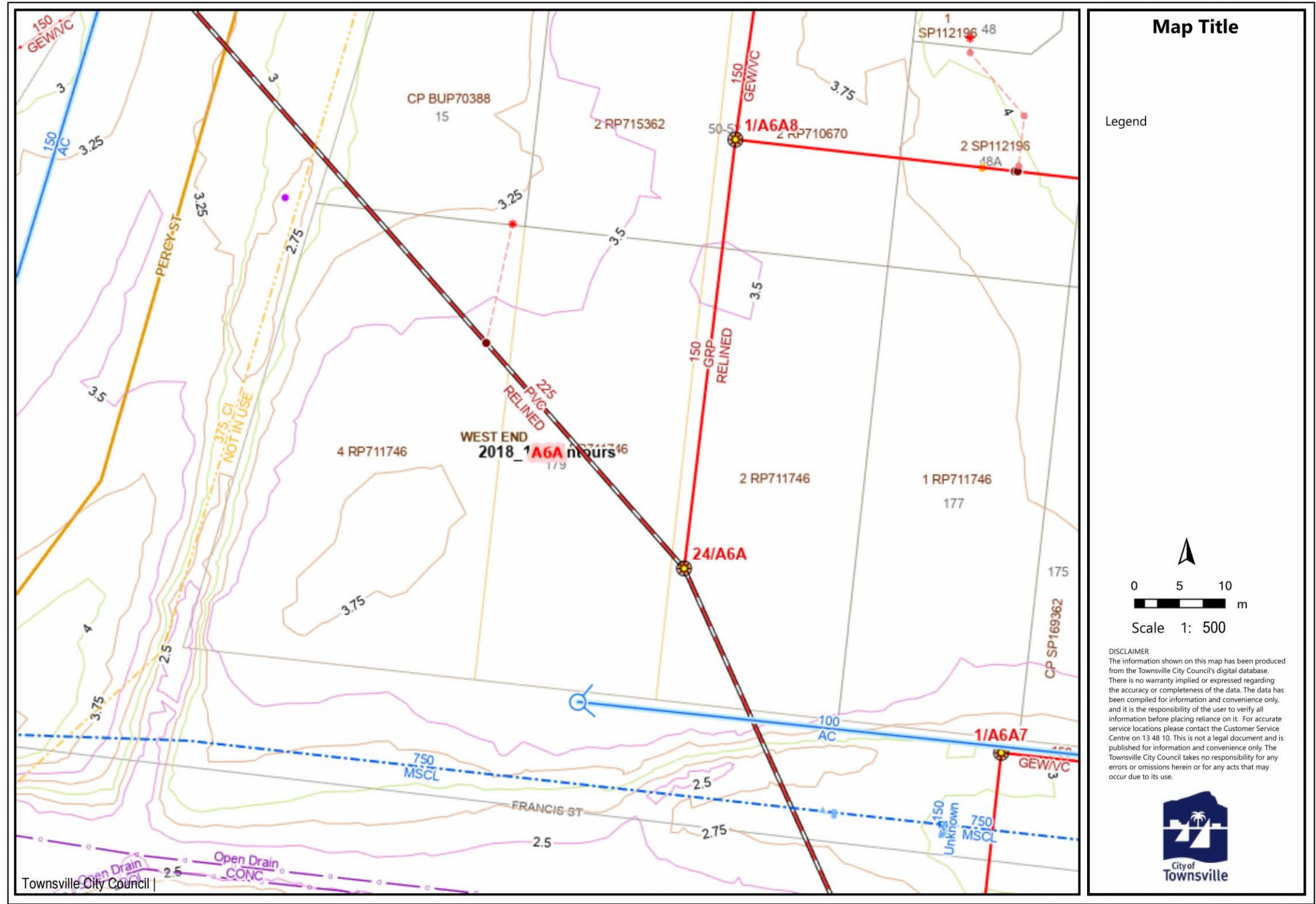
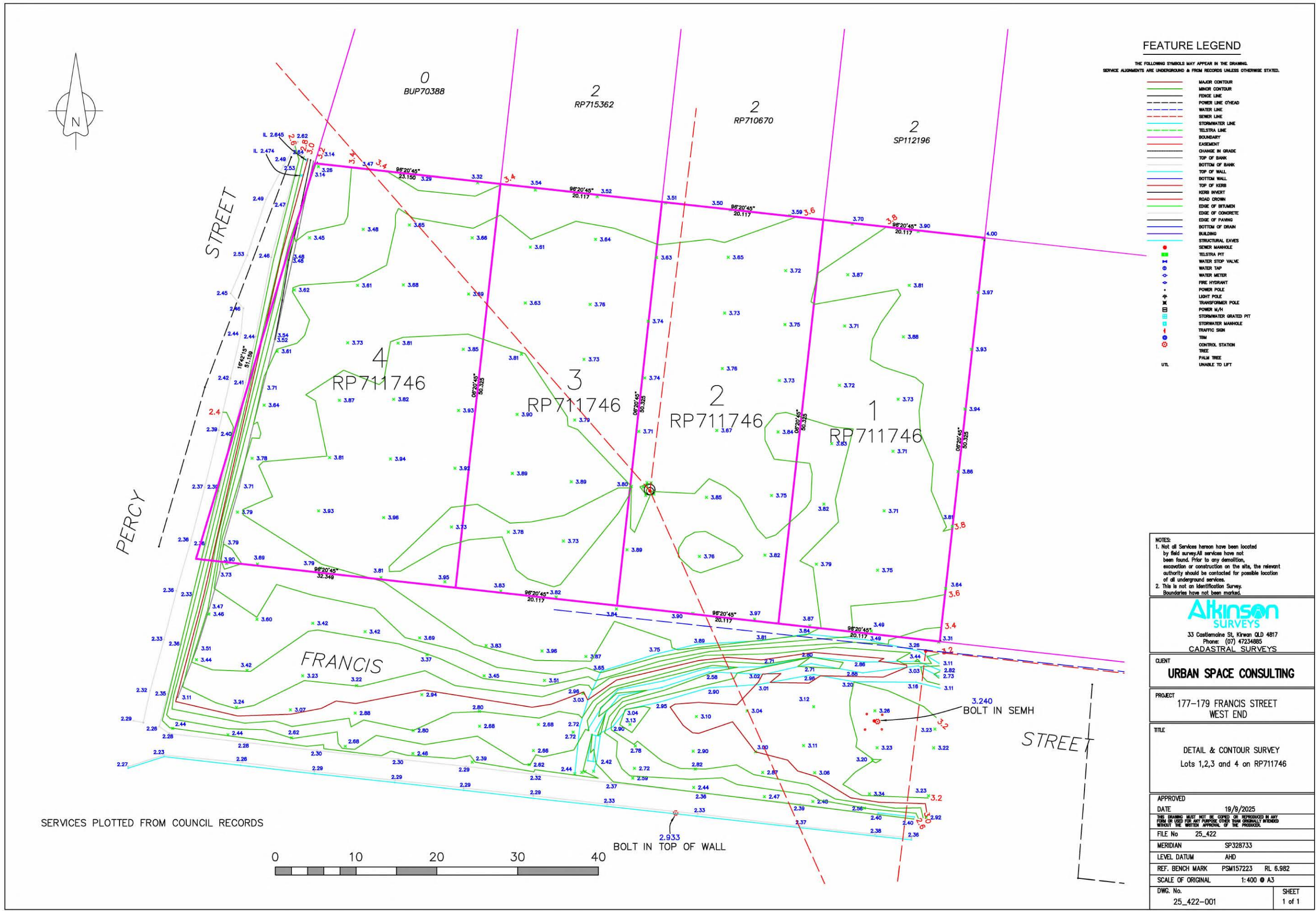
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for: Kaenetto Investments P/L		
at: 177-179 Francis Street Westend		
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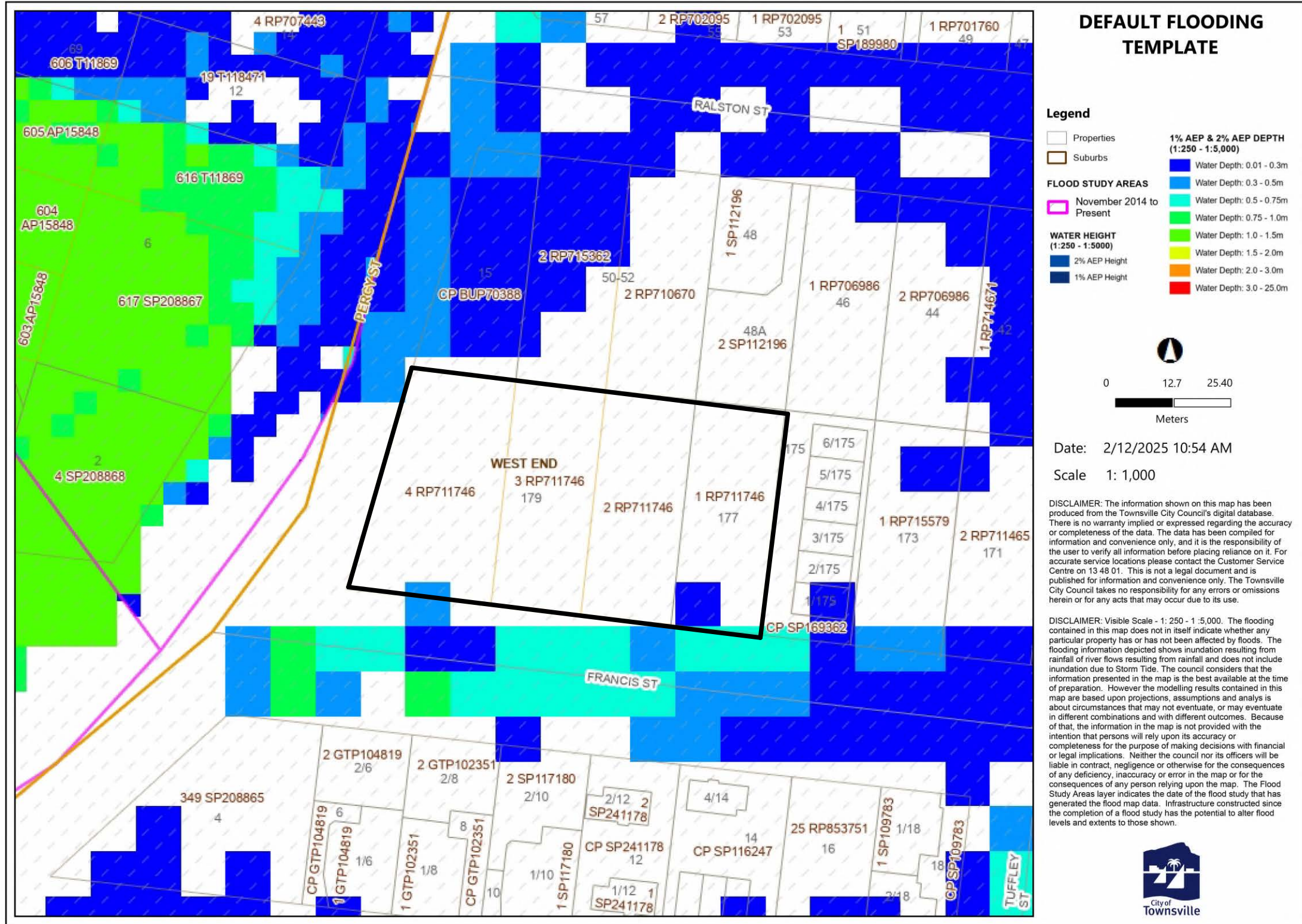
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Revision Schedule

No	Description	Date

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Building Design

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Proposed Multiple Dwellings

for:
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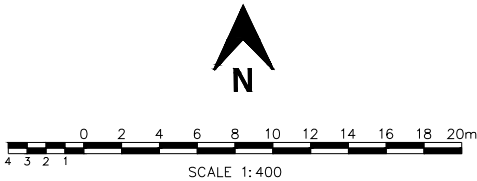
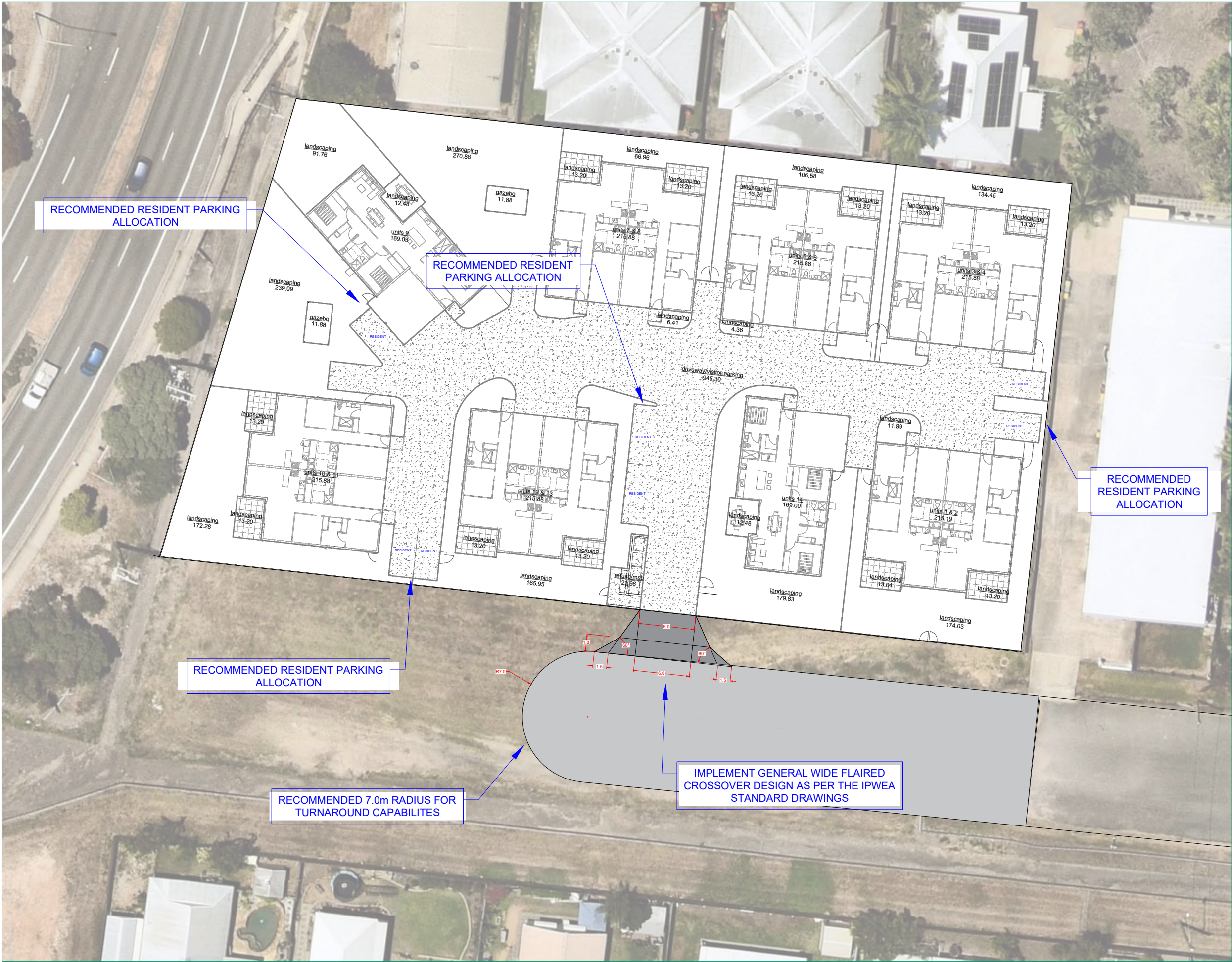
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APPENDIX B

Traffic Concept Plan



PROJECT
177 FRANCIS STREET, WEST END

CLIENT
KAENNETTO INVESTMENTS

DRAWING TITLE
MODUS TRAFFIC CONCEPT PLAN

DRAWING NUMBER
MOD25529QLD - SK01

DATE		REVISION	
09 03 2026		A	
REV	DATE	DESIGNER	APPROVED BY



ABN 49 668 863 269
310 Edward Street, BRISBANE CITY QLD 4000

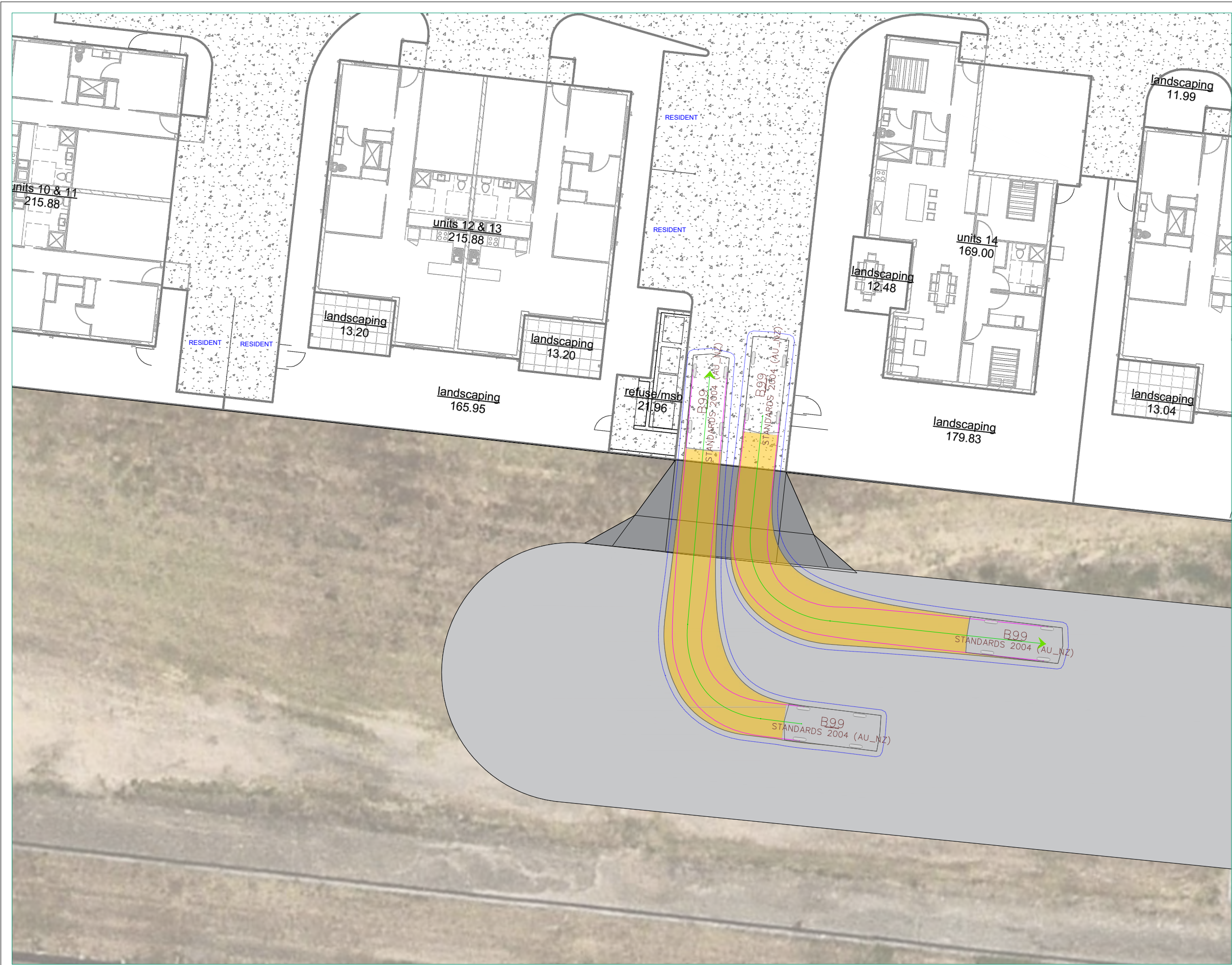
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RPEQ CERTIFICATION

APPENDIX C

Swept Path Assessment

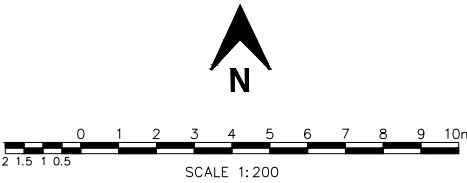


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	Lock to Lock Time	: 6.0
	Steering Angle	: 33.5
	Turning Radius (Kerb to Kerb)	: 6.30

SWEPT PATH LEGEND

	VEHICLE BODY
	FRONT TIRES
	VEHICLE PATH
	VEHICLE CLEARANCE (300mm)
	VEHICLE CLEARANCE (600mm)
	VEHICLE
	5KM/H DESIGN SPEED



PROJECT
177 FRANCIS STREET, WEST END

CLIENT
QCWS

DRAWING TITLE
B99 SWEPT PATH ASSESSMENT

DRAWING NUMBER
MOD25529QLD - SK02

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09 03 2026		A	
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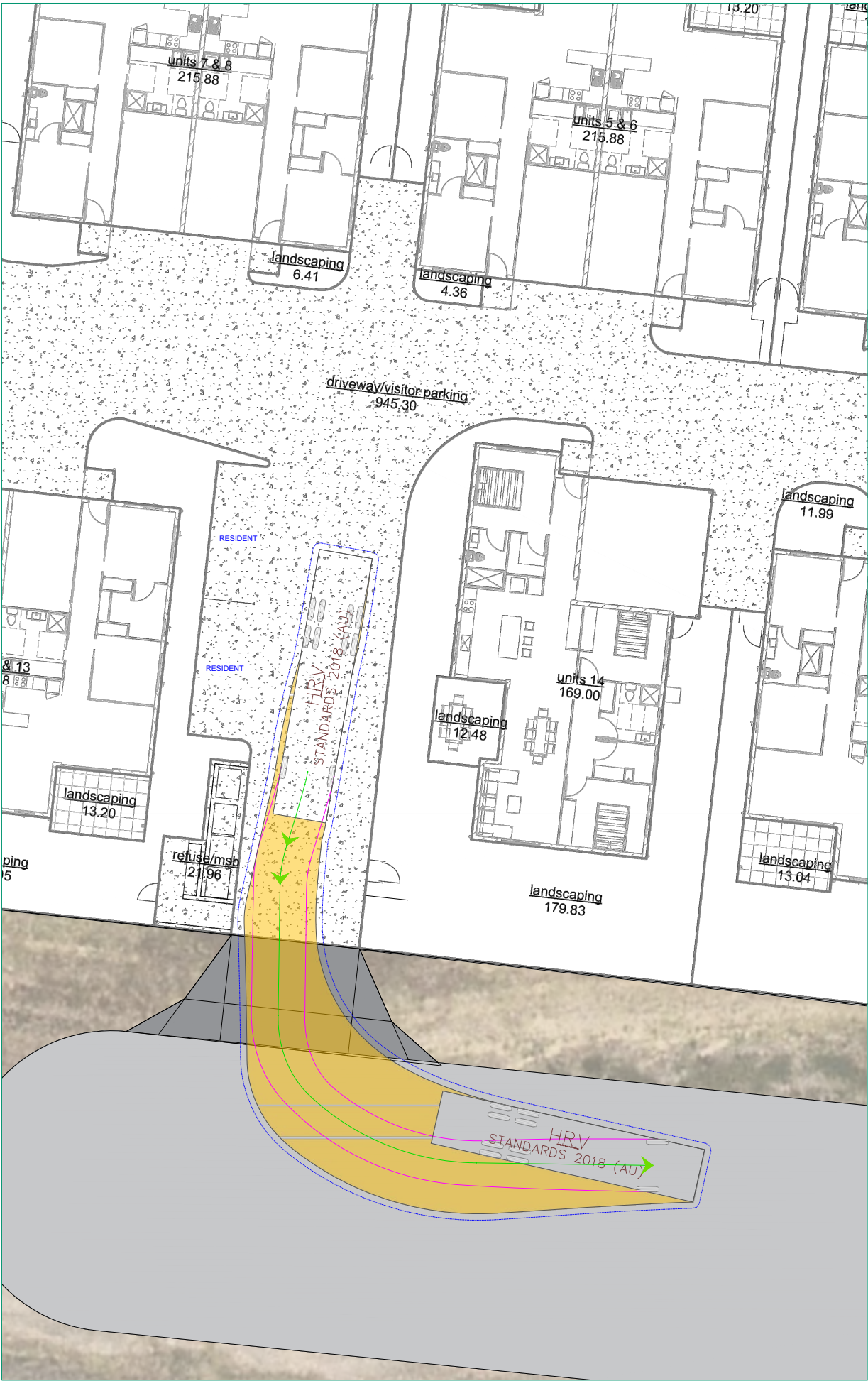
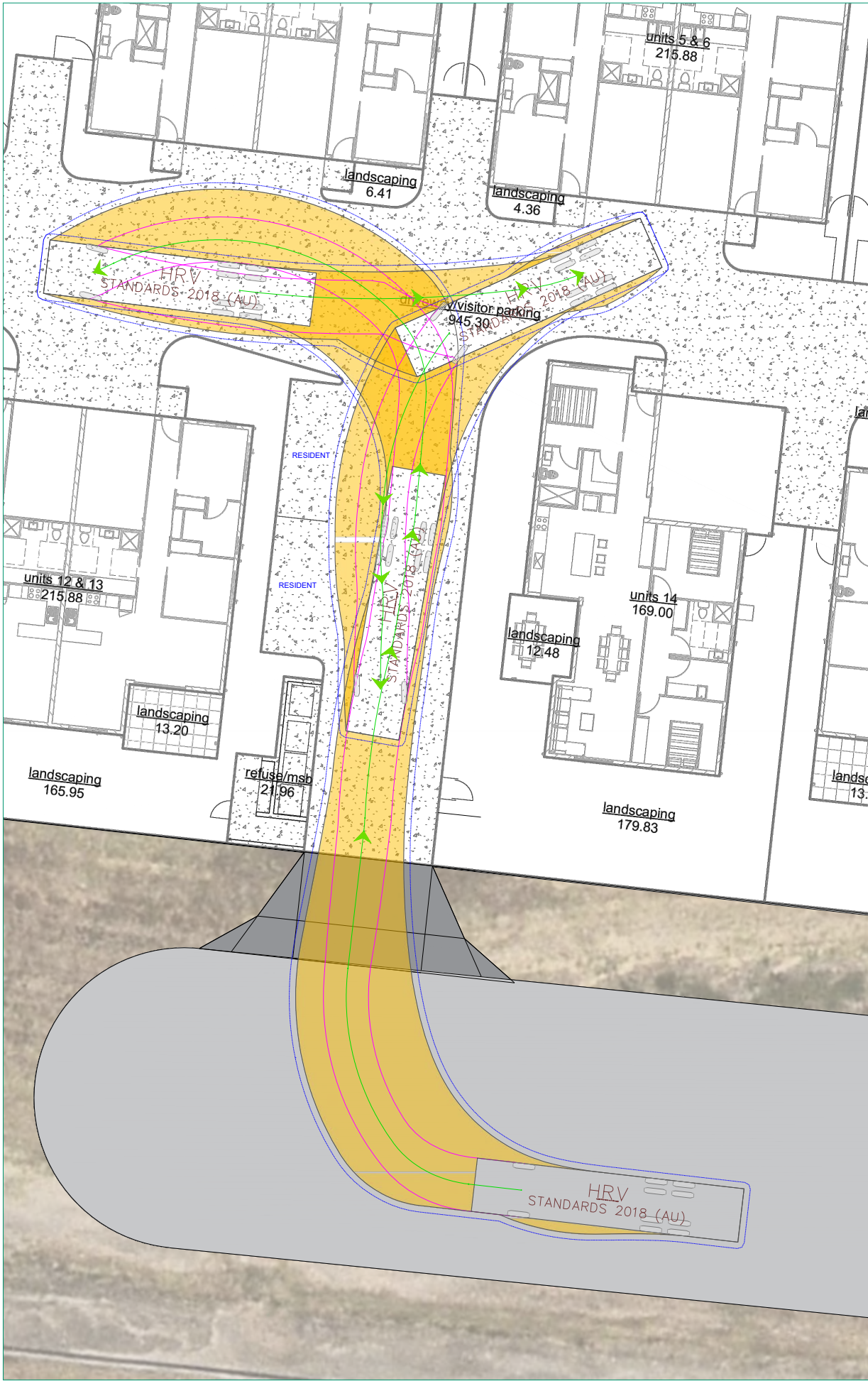


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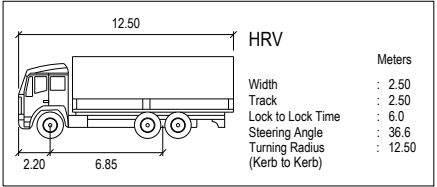
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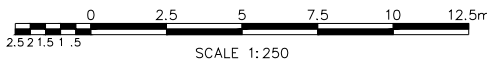


DESIGN VEHICLE ADOPTED



SWEPT PATH LEGEND

- VEHICLE BODY
- FRONT TIRES
- VEHICLE PATH
- VEHICLE CLEARANCE (300mm)
- VEHICLE CLEARANCE (600mm)
- VEHICLE
- 5KM/H DESIGN SPEED



PROJECT

177 FRANCIS STREET, WEST END

CLIENT

QCWS

DRAWING TITLE

HRV SWEPT PATH ASSESSMENT

DRAWING NUMBER

MOD25529QLD - SK04

DATE

09 03 2026

REVISION

A

REV	DATE	DESIGNER	APPROVED BY

MODUS
Transport and Traffic Engineering

ABN 49 668 863 269
310 Edward Street, BRISBANE CITY QLD 4000

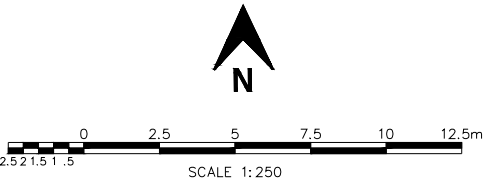
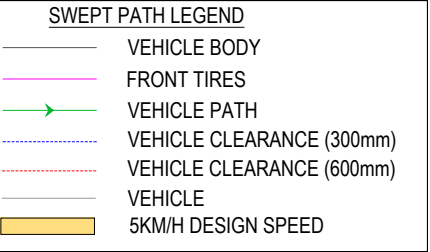
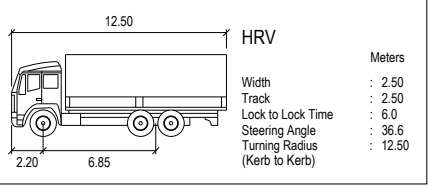
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RPQ Certification



DESIGN VEHICLE ADOPTED



PROJECT

177 FRANCIS STREET, WEST END

CLIENT

QCWS

DRAWING TITLE

HRV SWEPT PATH ASSESSMENT

DRAWING NUMBER

MOD25529QLD - SK05

DATE		REVISION	
09 03 2026		A	
REV	DATE	DESIGNER	APPROVED BY



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RPEQ CERTIFICATION

APPENDIX G

Operational Waste Management Plan

Project:

177 Francis Street, West End



Operational Waste Management Plan
177 Francis Street, West End

- 1 -

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Document Information

Prepared for QCWS	Job Reference MOD25529QLD – OWMP
Project: 177 Francis Street, West End	

Document Control

Version	Date	Description of Revision	Prepared by	Reviewed By
A	09/03/26	DRAFT for review and comments	Y.S.	A.S.
B	25/03/26	Final	Y.S.	A.S.

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Whether your project is a small residential development, mixed use development, a large commercial precinct or anything in between, our experienced traffic engineers will apply sound and practical traffic engineering principles to achieve an outstanding outcome for your project.

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Definitions

In this OWMP, a term has the following meaning unless otherwise specified and is shown below.

Term	Description
Bin carting / transfer route	The proposed route to move bins between the refuse room (storage point) and the servicing point.
Bin (bulk / wheelie)	A container (steel or plastic) use for disposal and storage of refuse items. Bins come in various types and sizes from MGB's to up 360L and bulk from 660L to 4500L.
Collection / Servicing point	The designated area allocated to the temporary storage of waste bins for the period of servicing only. The point may be within or external to a development.
Compactor / Compaction unit	A device that provides mechanical compaction for refuse (typically general waste only). It allows to reduce bin numbers and collection frequency.
Composter	A container or machine used for composting specific organic material
General waste	Waste, other than domestic clean-up waste, green waste, recyclable waste, interceptor waste or waste discharged to a sewer, produced as a result of the ordinary use or occupation of domestic or commercial premises.
Gross Floor Area (GFA)	The GFA of all storeys of a building is measured from the outside of the external walls or the centre of a common wall. It is commonly measured in square metres (m ²)
Hazardous waste	Solid waste that is or contains toxic material, for example light bulbs, fluorescence lights, batteries.
Mobile Garbage Bin (MGB)	A plastic bin used for the storage and collection of refuse that is up to 360L in capacity. MGB's are typically used for kerbside collection for residential dwellings and on-site collection for commercial development.
Organic Waste	Waste that comes from plants or animals that is biodegradable for example green waste and food waste.
Recycling	All material suitable for re-manufacture or re-use, e.g. glass bottles and jars; plastics such as PET, HDPE and PVC; aluminium aerosol and steel cans and lids; milk and juice cartons; soft drink, milk and shampoo containers; paper, cardboard, junk mail, newspapers and magazines.
Refuse	Refuse is material generated and discarded from residential and commercial buildings including general waste, recyclables, green waste and bulky items.
Refuse Room / Storage point	The area allocated to the permanent storage of waste bins. This is the normal location of the waste bins and excludes the period when the bin is serviced. A storage point may be a common storage point or an individual bin storage point.
Refuse Collection Vehicle (RCV)	A vehicle specifically designed for collecting and emptying refuse bins and refuse compactors.
Rear-End-Loading RCV	A truck specially designed to collect refuse (typically 240L-1100L bins), from a rear loading mechanism and haul the collected waste to a solid waste treatment facility.
Transfer	Manual transfer means physical transfer of refuse material and associated bulk bins or trolleys without assistance.

1 Introduction

1.1 Overview

Modus has been engaged by QCWS to prepare an Operational Waste Management Plan (OWMP) in support of the proposed residential development, located at 177 Francis Street, West End.

This OWMP is to be used as a guide during the operational phase of the development only and additional requirements for demolition and/or construction phases will need a separate WMP. The purpose of the OWMP is to satisfy City of Townsville (CoT) requirements and detail the following information:

- ▶ Refuse (type and quantity) likely to be generated during the occupancy of the proposed development.
- ▶ Refuse collection arrangements, including disposal, storage and transfer, during the occupancy of the proposed development.
- ▶ Operational requirements, including equipment and systems, and design requirements for the proposed development.

1.2 References

For the purpose of this assessment, the following references have been utilised:

- ▶ Development Plans, prepared by Concepts Building Design
- ▶ Townsville City Council – SC6.4.22 Waste Management
- ▶ Traffic Engineering Report, prepared by Modus

1.3 Limitations

Modus has completed this OWMP in accordance with the usual care and thoroughness of the consulting profession. The assessment is based on accepted waste management practises and standards applicable at the time of undertaking the assessment. Modus disclaims responsibility for any changes to project planning or equipment requirements that may occur after completion of the assessment.

2 Existing Conditions

2.1 Site Location

The development site is located at 177 Francis Street, West End and is bounded by Residential uses to the north and east, vacant land to the west with Francis Street to the south.

Furthermore, the development site is currently zoned Low Density Residential within the CoT Local Government Area.

The site location is shown on Figure 2-1.

Figure 2-1 Site Location



Source: Nearmap

2.2 Existing Development and Refuse Arrangements

The lot is currently vacant land with no existing refuse arrangements.

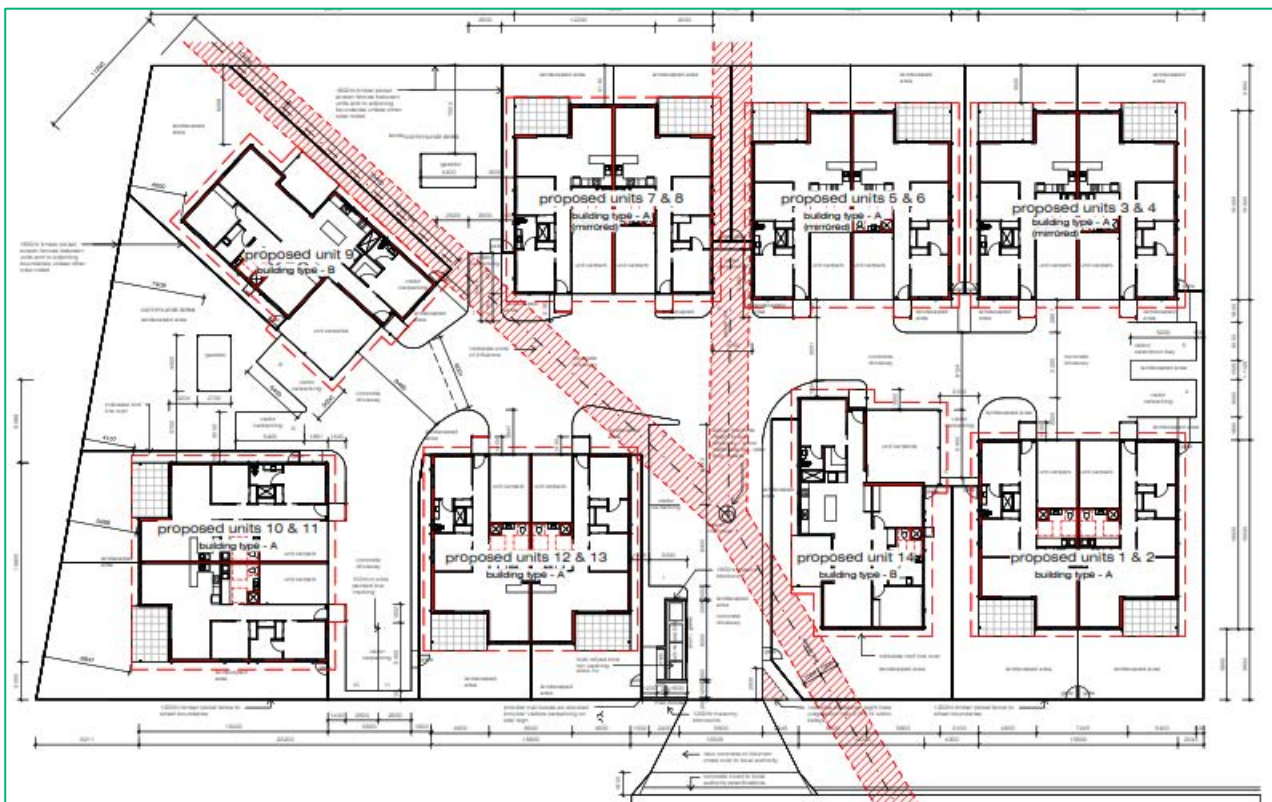
3 Proposed Development

The proposed development will comprise a Multiple Dwelling use accommodating 14 units.

As part of the proposed refuse arrangements for the development, bulk bins are proposed to be stored and collected on-site.

The proposed site plan is illustrated on Figure 3-1. A copy of the development plans can be found at **Appendix A**.

Figure 3-1 Proposed Development



Source: Concepts Building Design, Ground Floor Plans (Date: 25/02/26) – Ground Level

4 Refuse Generation

4.1 Calculations

The anticipated refuse to be generated by the proposed development may consist of the streams outlined in **Appendix B**.

To assess the waste generation for the proposed site, Modus has applied the current CoT generation rates, as outlined below in Table 4-1.

Table 4-1 Refuse Generation

Use	Generation Rate (L/Unit/week)		Units	Generation (L/Week)	
	General Waste	Commingled Recycling		General Waste	Commingled Recycling
Residential	120	120	14	1,680	1,680

The refuse volumes are considered to be conservative and may vary according to the operation of the development and each dwelling. As such, bin numbers and collection frequencies may need to be altered to suit the building operation once operational.

4.2 Bin Numbers

The required equipment for the development is based on the volumes calculated in Table 4-1. Additional waste management / minimisation equipment may vary depending on the operation of the development and each dwelling.

Table 4-2 shows the bin requirements (number & size) and area required to accommodate the bins.

Table 4-2 Bin Requirements

Description	Units	General Waste	Commingled Recycling
Total	14	1,680	1,680
Daily Volumes (L/day)		240	240
Collection Frequency (per week)		1	1
Collection Volumes (L/week)		1,680	1,680
Bin Size (L)		1100	1100
No. Bins		2	2
Bin Area		2.76m ²	2.76m ²
Refuse Storage Area		9.9m ² (1.6m x 6.2m)	

4.3 Equipment

The refuse bins to be utilised for the proposed development is outlined below in Table 4-3.

Table 4-3 Refuse Bins

Type	Dimensions	Comments
80L-120L	559 x 279 x 635mm (L x W x H)	For general waste and recycling Residents to supply and position in various locations. Several options and sizes available from numerous suppliers, depending on preference and space available.
1100L	1080 x 1280 x 1340mm (L x W x H)	For general waste and recycling Supplied by Council prior to operation. Sizes may vary slightly depending on contractor.

Depending on the operation of the development and each dwelling, additional refuse minimisation equipment and procedures can be implemented. Refuse minimisation and recommendations are detailed in Section 6.

5 Refuse Arrangements

5.1 Refuse Disposal

The proposed disposal arrangements are provided in Table 5-1.

Table 5-1 Residential Refuse Disposal

Stream	Process
General Provisions (Waste and Recycling)	▶ Each dwelling will have at least one day worth of storage capacity for their refuse. ▶ Small bins / receptacles will be provided around various locations within each dwelling, typically under sinks, in pantries or bathrooms. ▶ As required, residents will dispose of their refuse to the appropriate receptacles / bins within their dwelling during the day. ▶ Residents will collect the refuse from their dwelling after each day or as required. The refuse material will be disposed directly to the refuse enclosure.
General Waste	▶ Bins should always be lined with bags and tied before removal. ▶ Waste should not exceed 3kg in weight or the dimensions of the receptacles. ▶ Waste bins should be accompanied by a commingled recycling bin.
Commingled Recycling	▶ Items for recycling must not be bagged and disposed in loose form. ▶ Recycling waste should not exceed 3kg in weight or the dimensions of the receptacles. ▶ Recycling bins should be accompanied by a general waste bin.

5.2 Refuse Storage

The proposed refuse storage arrangements are as follows:

- ▶ The refuse enclosure can accommodate all required bins (4 x 1100L bins) for storage and collection.
- ▶ Bin wash facilities will be provided within the refuse enclosure.
- ▶ The refuse enclosure is screened to improve amenity impacts (odour, amenity and noise).

The configuration and size of the refuse room are provided to ensure the bins are accessible to all required users. The refuse area is adequately sized to include sufficient clearance between bins / walls and store all bins for collection, as shown in Figure 5-1.

The recommended refuse room design requirements are detailed in **Appendix C**.

Figure 5-1 Refuse Enclosure



Source: Concepts Building Design, Ground Floor Plans (Date: 25/02/26) – Ground Level

5.3 Refuse Transfer

The proposed transfer arrangements are as follows:

- ▶ Once a day, or as required, residents will transfer all refuse material to the refuse enclosure.
- ▶ CoT contractors will be responsible for collecting the bins directly from the enclosure and return them once serviced.
- ▶ Bins will be transferred approximately 5m to the loading area along a generally flat grade.

The transfer requirements are detailed in **Appendix D**.

5.4 Servicing Arrangements

The proposed servicing provisions are as follows:

- ▶ Servicing will be conducted on-site by CoT via a rear-loading RCV.
- ▶ The RCV will enter and exit the site in a forward via Francis Street and perform a single reversing movement on-site.
- ▶ The RCV will stand on-site in an informal loading area within the driveway, which has dimensions of 6.6m (W) x 12.5m (L). Servicing will not have any overhead obstruction and will be conducted on a generally flat grade.
- ▶ The refuse enclosure is located within 5m from the servicing area, with contractors to directly collect bins and return them once serviced.
- ▶ Access and manoeuvring is shown in the Traffic Engineering Report prepared by Modus.
- ▶ General waste and recycling will be serviced with a maximum collection frequency of once per week. All collections will be coordinated and managed onsite by the building management.

The recommended servicing requirements are detailed in **Appendix D**.

5.5 Operational Management

The operational management and procedures can vary based on the operation of the development and each dwelling.

Appendix E details the minimum recommended arrangements for roles and responsibilities, maintenance and cleaning, training and education, safety, signage and monitoring and review. A blank table is also provided, to be completed by the appropriate personnel as required.

6 Refuse Minimisation

Refuse minimisation is an important part of any site operation and ensuring that diversion from landfill is minimised, to achieve the desired target rates as outlined in the QLD sustainability requirements.

To determine the feasibility of collection volumes and assist with achieving desired landfill diversion targets, it is recommended that a baseline audit is undertaken at various stages of building occupancy (i.e. at a minimum of 50% and 80% dwelling occupancy or 0-1 month, 1-3 months, 3-6 months, 6-12 months and yearly thereafter) by an external contractor.

Based on the outcome of the audit, a management plan can be developed and implemented for continual improvement of the operational performance of the site and assist with implementation of waste minimisation strategies.

6.1 Equipment

Refuse minimisation is an important part of any site operation. Minimisation systems are summarised in Table 6-1 and are presented as options only. To assess the feasibility, further investigation is required by the developer at the concept stage and/or building management at the operational stage. Additional refuse management equipment is detailed in Table 6-2. The equipment suppliers are further outlined in **Appendix F**.

Table 6-1 Refuse Minimisation Equipment

Type	Streams	Comments
Composter / digester	Food Waste	Compost bins / digestors can process compostable material and garden organics on-site. This reduces the volume of waste to landfill and converts organic materials into soil or mulch through natural decomposition. A variety of compost bin arrangements and systems are commercially available for use.
Waste Conversion	General waste	Converting waste by reducing its volume and weight means less material to be disposed of, which results in fewer RCV trips. This allows cost savings and reduces environmental impacts. An example of waste conversion is an OMPECO system, which converts waste into a sterilised, dehydrated material. The final product reduces up to 80% less volume and 50% less weight than the original waste material and can be used in waste to energy systems as it is reasonably dry with a high calorific value. The process involves crushing / grinding of the material and is heated to approximately 100°C, evaporating moisture from the material.
Compaction	General waste, cardboard, plastics	Various compaction equipment exists for reducing the volume of refuse and ultimately less bins and/or fewer collections / service vehicle trips are required, to reduce costs and environmental impact. Examples of typical waste compaction equipment include bin press equipment and public place litter bins with a built-in compaction mechanism.
Container deposit schemes	Eligible plastic / glass / aluminium bottles	Container deposit / refund schemes are currently in place in QLD. This includes bottle return facilities and (automated) reverse vending machines. Tenants, staff and cleaners should be encouraged to separate containers that qualify for the schemes from the waste or recycling streams, and return them to a designated return points. Dedicated storage space or bins should be provided within tenancies or communal areas.

Table 6-2 Refuse Management Equipment

Type	Streams	Comments
Refuse Trolley	General waste, recycling, food waste, paper / cardboard	Safety and mobility disposal can be assisted by trolleys for everyday use. Multi-purpose bin trolleys are used to transport bulky and awkward loads and are used widely in hospitals, laundries, manufacturing and warehouses.

6.2 Signage

Waste signage guidelines are provided by local and state government. Various signage for the refuse areas including safety and facility signage should be arranged through appropriate providers. Example signage for the site including refuse room and equipment, and safety signage is demonstrated in **Appendix G**.

7 Summary

Modus has been commissioned by QCWS to provide waste engineering advice in relation to a proposed Residential development located at 177 Francis Street, West End. Modus has the following findings:

Refuse Equipment

- ▶ 2 x 1100L bulk bins for general waste.
- ▶ 2 x 1100L bulk bins for commingle recycling.

Refuse Disposal

- ▶ Each dwelling will be provided with receptacles for storage of daily refuse volumes.
- ▶ Once a day, or as required, residents will dispose of all refuse material directly to the refuse enclosure.

Refuse Storage

- ▶ The refuse enclosure can accommodate all required bins (4 x 1100L bins) for storage and collection.
- ▶ Bin wash facilities will be provided within the refuse enclosure.

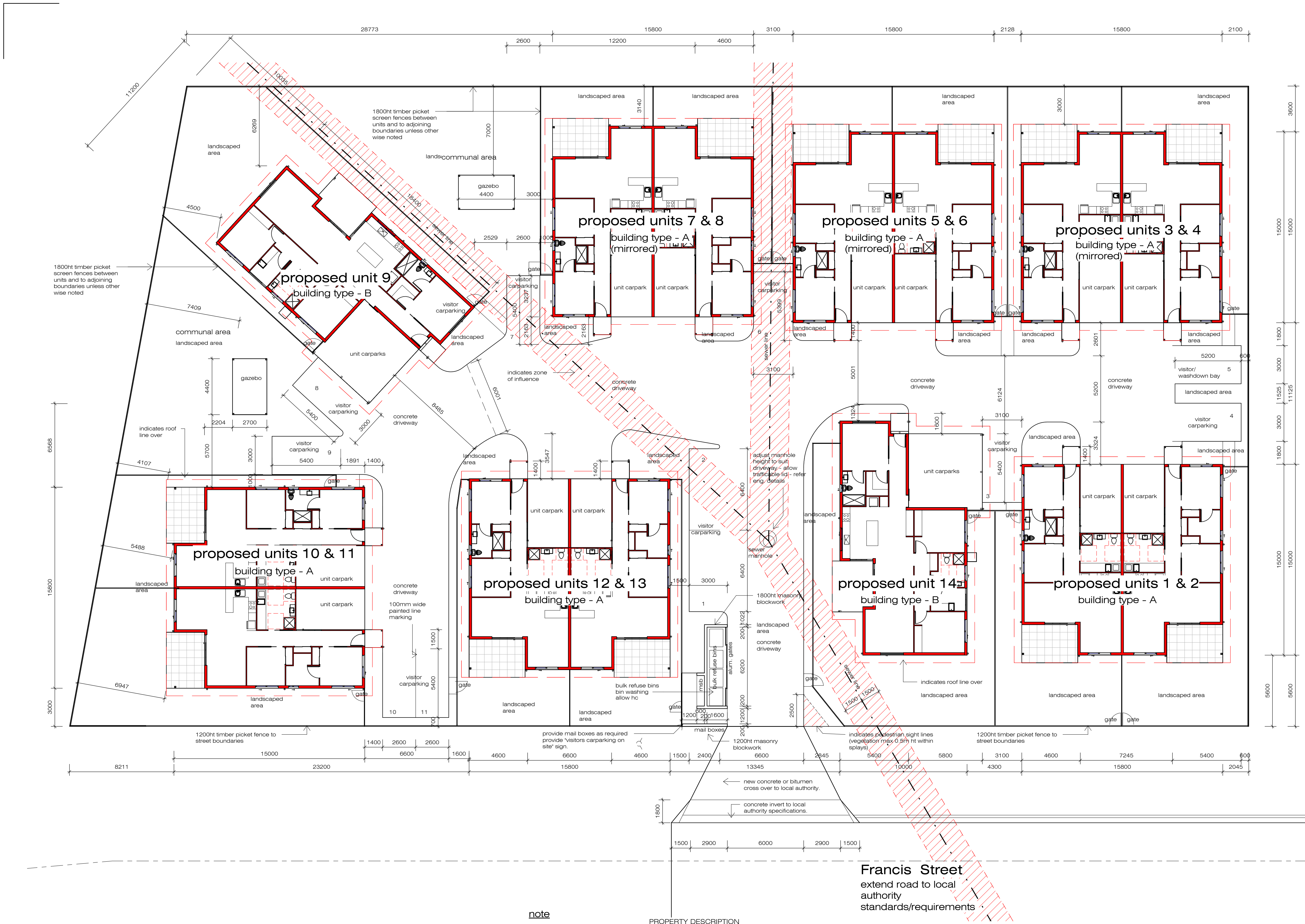
Refuse Transfer

- ▶ Once a day, or as required, residents will transfer all refuse material to the refuse enclosure.
- ▶ CoT contractors will be responsible for collecting the bins directly from the enclosure and return them once serviced.
- ▶ Bins will be transferred approximately 5m to the loading area along a generally flat grade.

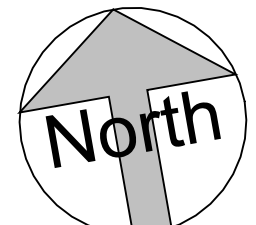
Refuse Servicing

- ▶ Servicing will be conducted on-site by CoT via a rear-loading RCV.
- ▶ The RCV will enter and exit the site in a forward via Francis Street and stand on-site in an informal loading area within the driveway.
- ▶ Servicing will not have any overhead obstruction and will be conducted on a generally flat grade.
- ▶ The refuse enclosure is located within 5m from the servicing area, with contractors to directly collect bins and return them once serviced.
- ▶ General waste and recycling will be serviced with a collection frequency of once per week.

APPENDIX A - Development Plans



NOTES:		
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Revision Schedule		
No	Description	Date



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project:
Proposed Multiple Dwellings

for:
Kaenetto Investments P/L

at:
177-179 Francis Street
Westend

Issue Date	dec 2025	25-051
Drawn	Author	
scale	As indicated	
sheet	sk 02	
printed	25/02/2026 7:45:59 PM	

sheet size = A1

note

1. provide hard standing area for bulk refuse or wheeler bins provide hose cock & hose
2. a/c condensers are to be located below fence lines and not located on the frontage of the buildings or on balconies and must not be visible from the street frontage or from adjoining properties.
3. refer engineers details for all civil & storm water details
4. landscaping - refer landscape consultant plans for details

PROPERTY DESCRIPTION
LOT No: Lot 1,2,3,&4
PLAN No: RP 711746
SITE AREA: 4433M2

Parking Schedule		
Levels	unit parking	Visitor parking
Ground Floor	16	11
Sub-total	16	11
Total parks provided	27	

1 site plan
1 : 150

Francis Street
extend road to local
authority
standards/requirements

Gross Area Schedule				
number	Count	Name	Area	percentage
building				
1	1	units 1 & 2	215.19 m²	5%
2	1	units 3 & 4	215.88 m²	5%
3	1	units 5 & 6	215.88 m²	5%
4	1	units 7 & 8	215.88 m²	5%
5	1	units 9	169.03 m²	4%
6	1	units 10 & 11	215.88 m²	5%
46	1	units 12 & 13	215.88 m²	5%
47	1	units 14	169.00 m²	4%
building: 8	8		1632.61 m²	37%
driveway/parking				
7	1	driveway/visitor parking	945.30 m²	21%
51	1	refuse/msb	21.96 m²	0%
driveway/parking: 2	2		967.26 m²	22%
landscape				
48	1	gazebo	11.88 m²	0%
49	1	gazebo	11.88 m²	0%
13	1	landscaping	13.20 m²	0%
16	1	landscaping	11.99 m²	0%
17	1	landscaping	179.83 m²	4%
24	1	landscaping	174.03 m²	4%

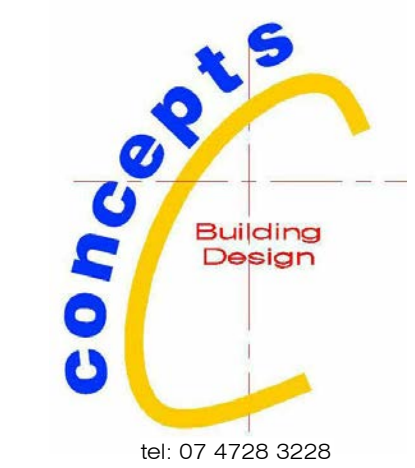
Gross Area Schedule				
number	Count	Name	Area	percentage
25	1	landscaping	134.45 m²	3%
26	1	landscaping	106.58 m²	2%
27	1	landscaping	66.96 m²	2%
28	1	landscaping	270.88 m²	6%
29	1	landscaping	165.95 m²	4%
30	1	landscaping	172.28 m²	4%
31	1	landscaping	6.41 m²	0%
32	1	landscaping	4.36 m²	0%
33	1	landscaping	13.04 m²	0%
34	1	landscaping	12.48 m²	0%
35	1	landscaping	13.20 m²	0%
36	1	landscaping	13.20 m²	0%
37	1	landscaping	13.20 m²	0%
38	1	landscaping	13.20 m²	0%
39	1	landscaping	12.48 m²	0%
40	1	landscaping	13.20 m²	0%
41	1	landscaping	13.20 m²	0%
42	1	landscaping	13.20 m²	0%
43	1	landscaping	13.20 m²	0%
44	1	landscaping	13.20 m²	0%
45	1	landscaping	13.20 m²	0%
50	1	landscaping	239.09 m²	5%
52	1	landscaping	91.76 m²	2%
landscape: 29	29		1831.54 m²	41%
Grand total: 39	39		4431.41 m²	100%



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APPENDIX B – Proposed Refuse Streams

Stream		Description
Frequently Generated		
General Waste	General Waste, Food Waste	General waste items are non-recyclable and can be putrescible (organic matter which can break down) or non-putrescible (non-organic matter which cannot break down).
Commingled Recycling	Semi-rigid plastics, glass, aluminium, steel / tin cans, glass, cardboard, paper	Commingled recycling includes everyday items that are collected and later processed for recycling into new products and resources. Recycling separation diverts waste to landfill.
Infrequently Generated		
Green Waste	Landscaping, trees, potted plants	This development does not generally produce green waste (other than landscaping). Maintenance contractors are typically engaged to remove material and should be directed to send to a resource recovery / composting facility to avoid landfill.
Hard Waste / Bulky Goods	Furniture, white goods, appliances	Storage and collection should be coordinated with building management or designated staff. Where available, space can be provided in the refuse room or within a designated area. When transferring heavy material, it is recommended to utilise mechanical assistance or multiple personnel. Please refer to local and QLD government websites for further information.
Hazardous Waste	Paints, fluorescent globes, mobiles, batteries and cartridges Electronic Waste (computers, printers, TV's)	Storage and collection should be coordinated with building management or designated staff, and handled with care. Space should be provided in a secure and separate area. Refer to local and state government websites for further information.

APPENDIX C – Refuse Enclosure Design Requirements

Component	General Requirement
Refuse Room / Storage point	▶ Allow the bins to be serviced in-situ or easily transported to a separate servicing point (no steps or lips on bin-carting route). ▶ Waste-carting distance generally should not exceed 60m and in any case be reasonable to ensure ease of use. ▶ Generally positioned away from entrances to shops or residential premises and located at least 5m from any door, window or fresh air intake within the development (habitable rooms) or any adjoining site (excluding the storage of wheelie bins at each individual dwelling), particularly food preparation areas (including food storage). ▶ Screened to ensure bins are not visible from a public place or sensitive land use. ▶ Safe access to the disposal area. ▶ Of sufficient size to accommodate the required number of bins. Allowance is to be made for a minimum of 0.1m clearance surrounding each container, or for the storage of multiple bins – one metre clearance around the combined bin area (whichever is the lesser). ▶ Provide adequate storage and unobstructed access for all users to safely and easily access via the provision of suitably located bulk bins or wheelie bins. ▶ The floors, walls and ceilings of waste and recycling storage areas and chute room(s) are to be finished with a rigid, smooth-faced impermeable material capable of being easily cleaned. ▶ Is enclosed on all sides except for the gated entrance to ensure bins are not visible from a public place, neighbouring properties, passing vehicles or pedestrian traffic external to the site. A close-fitting and self-closing door or gate operable from within the room is to be fitted to all waste and recycling storage areas. ▶ Doors/gates to the waste and recycling storage rooms are to provide a minimum clearance width of 1.3m. At least one door or gate to the waste and recycling storage area is to have sufficient dimensions to allow the entry and exit of waste containers of a capacity nominated for the development. ▶ The height of the bin storage area to be a minimum of 2.1m in accordance with the National Construction Code and Building Code of Australia, to allow for waste bins to be opened and closed. ▶ Lightweight roller shutter-type doors or grilles should be considered for access to waste and recycling storage areas, as these do not impact on the available storage space. If these types of doors or grilles are used, the requirement for a close-fitting and self-closing door remains, so that waste collectors can access the waste and recycling storage area other than through the roller door or grille. Where required, the refuse room is to be fire rated in accordance with the National Construction Code and Building Code of Australia. ▶ The design shall restrict the entry of trespassers, vermin or other animals into the area. ▶ The waste and recycling storage area is to be provided with an adequate supply of water for cleaning purposes with a hose cock. ▶ The storage area is to be adequately ventilated by either: i. Natural ventilation openings to external air. The dimension of the openings are not to be less than 5% of the bin bay or bin room floor area.

	ii. A mechanical exhaust ventilation system in accordance with relevant Australian standards. ▶ Waste and recycling areas are to be provided with artificial light controlled by switches located both outside and inside the storage area. ▶ Any compactors or mechanical devices, if permitted for the mechanical handling and storage of waste and recycling, are to be fitted with safety operating and cut-off systems. ▶ Any facet of the waste and recycling management system that is visible from outside the building is to be in keeping with the dominant design of the remainder of the development.
Bin wash-down facility	▶ Constructed hardstand area with a solid concrete base or acceptable equivalent. ▶ Roofed and designed to prevent entry to rainwater. ▶ The floors are graded to fall to a drainage point. The floor is to be provided with a ramp to the doorway where necessary. ▶ Drainage point connected to sewer in accordance with trade waste requirements. ▶ Provided with a hosecock for cleaning. ▶ Not be located within a building structure, unless it is: i. in a purpose-built storage area which is air locked, fly and vermin proofed, and used solely for the storage of waste; ii. in a well-ventilated portion of the basement and not within 30m of an opening to a food premises or food handling area; or iii. demonstrated that no / minimal putrescible / organic waste is generated by the proposed development type.

APPENDIX D - Servicing Requirements

Component	General Requirement
Bin servicing point	▶ Is of sufficient size to accommodate the bins. ▶ Sufficient access and clearance for the collection vehicles to service the bins, including adequate unobstructed overhead space for the swinging arm action of the collection vehicle. ▶ Bins serviced safely while minimising the impediment of traffic flow during servicing. ▶ Separated from car parking bays, loading bays, footpaths and pedestrian access, and any other similar areas. ▶ Clear of speed control devices or similar provisions (including entry and exit to the site) which inhibit direct access to the bins for servicing. ▶ Must be positioned to allow collection vehicles to enter and exit the site in a forward gear (internal servicing roadway). ▶ Positioned on a level pad devoid of stairs, lips or ramps and allows bins to be manoeuvred easily. ▶ Over 5m from any door, window or fresh air intake within the development (habitable rooms) or any adjoining site (excluding the storage of wheelie bins at each individual dwelling), particularly food preparation areas (including food storage). ▶ Bins to be removed from and returned to the storage point. ▶ Constructed hardstand with a solid concrete base or acceptable equivalent. ▶ Screened to minimise the view of bins from neighbouring properties, or passing vehicles and pedestrian traffic external to the site. ▶ Positioned away from entrances to shops or residential premises.
Bin carting	▶ The route must be via hard stand pathways / internal roads, and can be easily moved to the temporary storage area, and is not stored on a section of the driveway that falls away (e.g. to the basement). The route must occur within the property boundary. ▶ The route must allow bins to be easily manoeuvred and be devoid of steps or steep rises. ▶ The route must not impede traffic flow and extend through habitable parts of a building, or a food premises, and only occur through common property or publicly accessible locations.

APPENDIX E – Operational Management

Process	Procedure
Roles and Responsibilities	Responsibilities have to be assigned for all on-going refuse management operations. This is generally completed by a building manager, staff and / or cleaners. The on-going responsibilities help managing responsibilities and monitor the refuse operations in order to maintain efficient services and a safe environment. These include and are not limited to the following: ▶ Scheduling / organising refuse collections ▶ Transferring bins to and from the refuse area ▶ Washing bins ▶ Ensuring users / occupants are informed of all waste, recycling, organics and bulky waste arrangements ▶ Coordination of contractors, including specialised equipment and cleaning ▶ Monitoring and reviewing all waste management procedures
Maintenance and Cleaning	Regular on-going maintenance and cleaning is required to maintain a clean and hygienic environment for all users, including management / staff, visitors and contractors. This includes, and is not limited to the following: ▶ Refuse storage areas ▶ Refuse transfer areas ▶ Refuse equipment
Training and Education	Training and education is required to ensure operational efficiency and sustainability of the equipment and facilities within the development. Training and on-going education should be conditioned within all body corporate and leasing contracts. It is recommended that building management circulate ongoing recycling rate results to highlight current rate and performance against benchmarked recycling rate target.
Safety	Safety is an important part of all refuse management operations and is the responsibility of all users. A full risk assessment should be conducted by building management and all contractors. Contractors must provide required documentation to appropriate personnel prior to development occupancy and delivery of equipment.
Signage	All receptacles, bins and other refuse management equipment must have adequate signage. Standard signage will be provided in and around waste collection / storage areas and will be colour coded in accordance with AS 4123.7-2006 mobile waste containers and all local government regulations. Signage should be included, and not limited to the following: ▶ Refuse storage and collections areas ▶ Refuse transfer areas ▶ Refuse disposal points ▶ Refuse equipment All signage should be clear, legible and easy to read.
Monitoring and Review	Regular monitoring and reviews will ensure operational efficiency and sustainability of the refuse management arrangements for the development. This includes, and is not limited to the following: ▶ Refuse equipment ▶ Refuse area ▶ Refuse volumes, including diversion rates and targets to meet the required sustainability targets ▶ Service frequency and site operations / methodologies It is recommended that waste auditing / reviews are conducted a minimum of at least once every 12 months. Audits may be undertaken by external contractor or internally by visual inspection during on-site waste management handling activities. Additionally, refuse weights and movements should be noted to assist with economic feasibility.

A blank operational checklist is provided below to be appropriately filled out as required by building management / staff. This table has been designed to maintain efficient services and a safe environment and help manage responsibilities / monitor the refuse operations.

[illegible]

APPENDIX F – Equipment / Systems Manufacturers and Suppliers

Manufacturer / Supplier	Equipment / Systems
Elephants Foot Recycling Solutions http://www.elephantsfoot.com.au	Compactors Bin Lifters
Waste Initiatives https://wasteinitiatives.com.au	Compactors and Balers, Shredders, Sorting Equipment
Wastech http://wastech.com.au	Compactors, Bin Lifters
Pakmor http://pakmor.com.au	Compactors, Bin Lifters
Miltek http://www.miltek.com.au	Compactors
Closed Loop Organics https://closedloop.com.au/upcycling-products	Composting
Materials Handling https://www.materialshandling.com.au	Bin Lifters, Spill containment, Bins, Bin Cleaning
Spacepac Solutions http://www.spacepac.com.au	Bin tugs / trailers, trolleys / assisted transfer equipment
Draffin https://draffin.com.au	Bin lifters
Electrodrive / Lift Master http://www.electrodrive.com.au	Bin tugs / trailers, bin lifters
Absorbenviro http://www.absorbenviro.com.au	Spill containment equipment
Trade Environmental http://www.tradeenviro.com.au	Spill containment equipment
Spillstationaustralia www.spillstation.com.au	Spill containment equipment
Compost Revolution https://compostrevolution.com.au	Composting
Urban Composter https://www.urbancomposter.com.au	Composting
ORCA Digester https://www.feedtheorca.com	Composting
Rubbermaid https://rubbermaidcommercial.com.au/products/waste-management	trolleys / assisted transfer equipment, spill containment, bins
Sulo http://www.sulo.com.au	trolleys / assisted transfer equipment, bins, composting
Australian Waste Management https://www.australianwastemanagement.com.au/products	Bin lifters, bins
ReturnIT https://www.returnit.com.au/qld/	Various models exist including bottle return facilities and (automated) reverse vending machines

Contractors / Service Providers	Streams
JJ Richards	Commercial waste & recycling, Cooking oils, hazardous waste, liquid waste, industrial waste, construction and demolition waste
Cleanaway	Commercial waste & recycling, Cooking oils, hazardous waste, construction and demolition waste
Veolia	Commercial waste & recycling, Hazardous waste, liquid waste, industrial waste, construction and demolition waste, secure document destruction
Suez	Commercial waste & recycling, Liquid waste, electronic waste, construction and demolition waste
Toxfree	Hazardous waste, electronic waste, industrial waste
Ace Waste	Hazardous waste, industrial waste

APPENDIX G – Example Signage

Standard Signage



Refuse Room / Facility Signage



Safety Signage



Refuse Equipment



APPENDIX H



14 Unit Development

177 – 179 FRANCIS STREET, WEST END QLD 4810

ENGINEERING REPORT

KAENETTO INVESTMENTS

STP25-1272

DOCUMENT STATUS

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1. Introduction

Kaenetto Investments has engaged STP Consultants to prepare a Development Application (DA) Engineering Report, for submission to the Townsville City Council.

The purpose of this report is to address several key areas critical to the successful planning and execution of the project, including.

- Earthworks
- Flood Impact
- Stormwater Management
- Water Supply
- Sewerage Connection

1.1 Limitations

This report provides a desktop investigation from the information obtained from the following sources.

- Architectural plans prepared by Concepts Building Design.
- Survey Plan prepared by Atkinson Surveys.
- LiDAR data obtained from Department of Natural Resources and Mines (via ELVIS – Elevation Foundation Spatial Data).
- Townsville City Council Infrastructure Mapping Information.
- Townsville City Council Overlays.
- Townsville City Council Planning Scheme.
- Rainfall and Meteorological Data by the Australia Bureau of Meteorology.
- Before You Dig Australia.
- Queensland Globe.
- Google Maps and Street View.

2. Site Characteristics

The site is situated at 177 – 179 Francis Street, West End Queensland 4810, and encompasses four lots specifically identified as Lot 1 - 4 on RP711746, with a total land area of 4,436 m² (hereafter described as “the site”). The site falls within the Low-Density Residential zone under the authority of the Townsville City Council (TCC) local government area.

The site is positioned on the corner of Francis Street and Percy Street with the site being on the northern side of Francis Street. At present, the site is unoccupied with low density vegetation. The site's immediate surroundings are residential dwellings in the north, south, and east directions, while to the west across the road, is parkland.



Figure 2.1 - Zoning and Locality Plan Extract (TCC Mapping)

2.1 Easements and Resumptions

There are currently no easements registered over the lot.



Figure 2.2 - Cadastral Boundaries and Easements (Qld Globe)

2.3 Flood Study

In accordance with the Townsville City Council Floor Hazard Overlay Mapping, the 1% AEP (Annual Exceedance Probability) flood event does not affect the site.

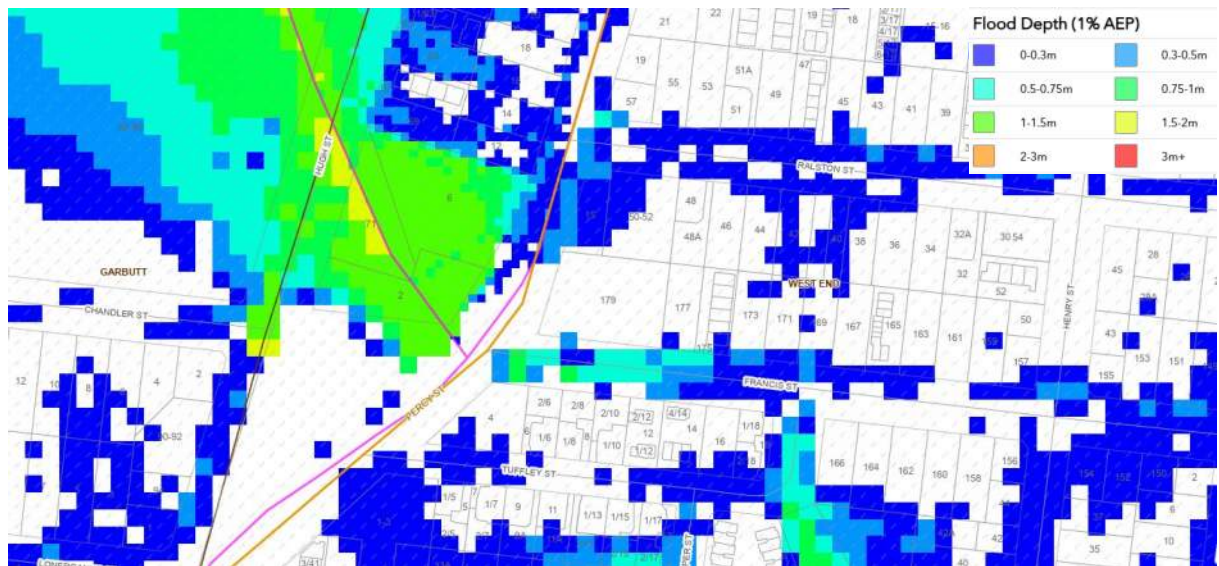


Figure 2.4 - 1% AEP Flood Map Extract (TCC Mapping)

The site is partly affected by the Storm Tide hazard Overlay which requires a minimum Habitable Floor levels to be set at RL3.9m AHD.

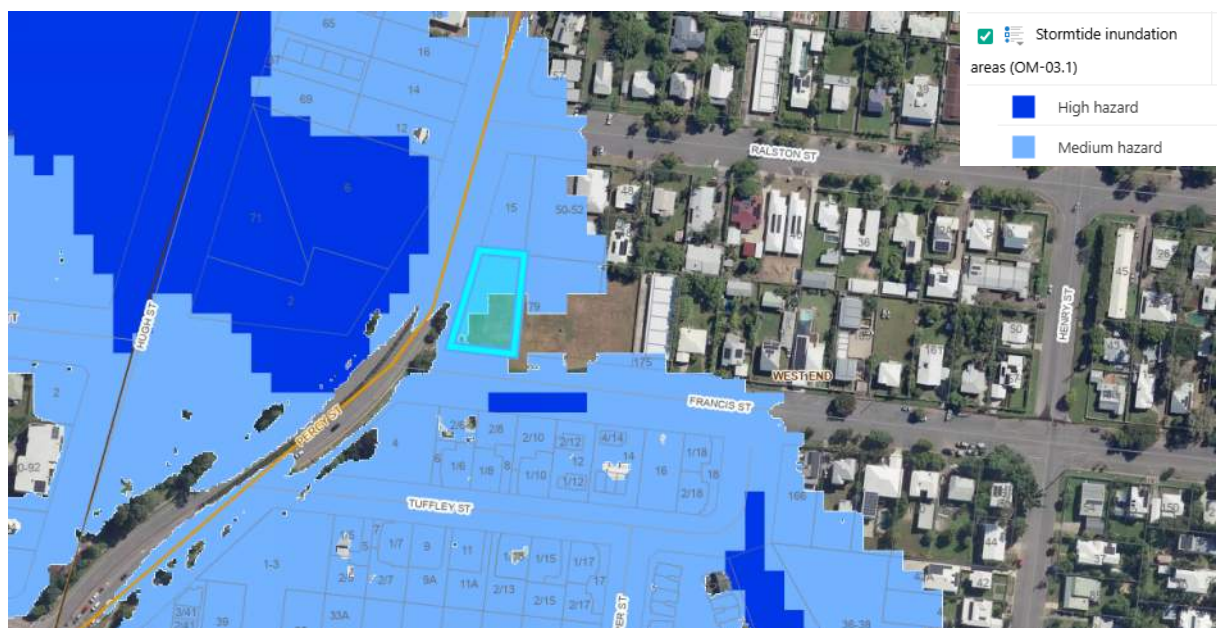


Figure 2.5 - Coastal Hazard Storm Tide Map Extract (TCC Mapping)

3. Proposed Development

3.1 Site Plan

A copy of the architectural site plan for the proposed development is provided in Appendix B.

The proposed development consists of the following.

- Clearing out the existing vegetation
- Potholing the unknown stormwater and 750mm dia water main.
- Minor earthworks for the new building paths, landscape areas, driveway, and car parks including retaining walls.
- Construction of the 14 units
- Construction of the site's stormwater drainage system including stormwater quality improvement device
- Extension of Francis Street with a cul-de-sac head.



Figure 3.1 - Site Plan (Building Concept Design)

3.2 Site Earthworks

A copy of the concept earthworks drawing for the proposed development is provided in Appendix C.

A Geotechnical Report was not available at the time of preparing this document.

Concept earthworks are based on the existing levels surveyed and the preliminary finished surface levels shown on the Concept Civil Works drawing. The proposed levels shown on the drawing, when compared to the surveyed levels, indicate that generally there will be minimal cut or fill on site for the proposed development thereby negating the need for significant site earthworks.

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Minimum Floor Levels

The site is not subject to inundation in the defined flood event of 1% AEP, but the site is affected by the coastal hazard overlay. The Coastal hazard Overlay sets the minimum floor levels for the units at RL3.9m AHD.

Site Stormwater Drainage

A concept civil works plan is illustrated in Figure 3.3 and attached in Appendix D.

The intent of the plan is to ensure the site stormwater catchment is captured through stormwater pits into the underground stormwater network, treated and discharged to the open drain on Francis Street.

A minimum of 3 Atlan Stormsacks in the driveway and 3 in the landscape areas are required, to achieve stormwater quality targets, which are conveyed via stormwater pipes to the main treatment device, an Atlan FlowFilter (1500/6 Series).

Roofwater downpipes will discharge to splash pads or drainage pits where possible. A stormwater pit has been allowed for in each unit's backyard, such that the landscaped area can be graded to this pit.

The driveway entrance is collected by a trench grate before being discharge to the new kerb and channel via Kerb Adapters.



4. Traffic & Waste

A Traffic Engineering Report will be provided under a separate cover for this application.

An Operational Waste Management Plan will be provided under a separate cover for this application.

5. Stormwater Quantity Management

5.1 Existing Stormwater Infrastructure

Currently the site stormwater discharges runoff via overland flow towards the southern and western boundaries, into the existing open drains. There is no underground stormwater drainage according to Before You Dig Australia plans and Townsville City Council asset mapping.

It is proposed to maintain the existing catchments and therefore the Legal Point of Discharge (LPOD) is the open drains in Francis Street and Percy Street road reserves.



Figure 5.1 - Existing Council Infrastructure (TCC Mapping)

During a visit it was noted there is an existing stormwater pipe that potentially runs parallel to the rear boundary from east to west. The size is 300mm pipe and the material of the pipe is unknown. Additional detailed survey or potholing is required to determine the length of the pipe, existing depths, and the stormwater catchment it caters for.



Figure 5.2 - Street View From Percy Street (Google)

5.2 External Catchment

The site possibly takes the northern neighbour's yard as part of an external catchment. The size of this area is approximately 912.5m² and only affects the north east corner of the site. The development's internal stormwater infrastructure must allow and cater for this external catchment during the design process.

The unknown stormwater pipe at the rear of the site will also contribute to the external stormwater catchment, but further investigations are required to be able to determine the extent and size



Figure 5.3 - External Catchment Extract (TCC Mapping)

5.3 Stormwater Runoff & Detention

The Townsville City Council Planning Scheme Policy in section 6.4.9.3 – Stormwater Quantity, prescribes the design AEP for both Major and Minor systems. The Major drainage system is to be designed for the 1% AEP event while the Minor system is to be designed for the 39% AEP event, in accordance with Table 5.1 below of the planning scheme.

Development Category	ARI (yrs)	AEP
Residential	2	39%
Commercial - Lower order (district centre and below)	2	39%
Commercial - Other (excluding Lower order commercial and Principal centre)	5	18%
Industrial	5	18%
Principal Centre (CBD)	10	10%
Rural Residential	20	5%
Parks and recreation areas (excluding community facilities)	1	1EY

Table 5.1 - Recommended Design for Minor Systems (TCC Planning Scheme)

Stormwater Detention in Townsville requires to be designed in accordance with the principles of QUDM. Detention storage must be installed if any of the following conditions are met.

- Insufficient capacity in the downstream drainage system to provide a no worsening situation.
- Limit any increase in discharge rate for all storm events up to and including the define flood event.

- The site must not discharge more than the discharge calculated for the pre-development flows.

In this case, pre-development and post-development runoff calculations will be based on the current permissible fraction of Impervious for the zone, and time of concentration will be based kerb inlet times of 10 minutes, as per QUDM clause 4.6.4.

The Townsville City Plan, *Schedule 6.4 Development Manual Planning Scheme Policy, Table SC6.4.9.2 – Fraction impervious for Land Use Zones*, prescribes the fraction impervious for the existing Low Density Residential zoning of 0.65 and for a fraction impervious of 0.70 for the proposed Medium Density Residential zoning.

With reference to the Architectural drawings 'Gross Area Schedule the grassed areas and garden beds make up 41% of the land area, giving a fraction impervious for the subject site 59% which is less than assigned 70% for a Medium Density Residential zoned site, in accordance with the Townsville City Council Planning Scheme and less than the 65% for Low Density Residential. As the fraction of impervious for the proposed development falls under the current permissible fraction of impervious for Low Density Residential zoning, no on-site detention will be required.

Development Category	Land use	Fraction impervious (fi)
Residential zones category	Low density residential	0.65
	Medium density residential	0.7
	High density residential	0.9
	Rural residential	0.6
Centre zones category	Character residential	0.55
	Neighbourhood centre	0.9
	Local centre	0.9
	District centre	0.9
	Major centre	1.0
	Principal centre (CBD)	1.0
	Specialised centre	0.9
Community facilities and Open space zone category	Mixed use	0.9
	Sport & recreation	0.2
	Open space	0.2
	Community facilities	0.95
	Environmental management & conservation	0.4
Industry zones category	Low impact industry	0.9
	Medium impact industry	0.9
	High impact industry	0.8
Rural zones category	Rural	0.1
Other zones category	Emerging community	-
	Special purpose	-

Table 5.2 - Fraction of Impervious for Land Use Zones (TCC Planning Scheme)

6. Stormwater Quality Management

In accordance with the State Planning Policy (SPP), the reconfigured development does meet the threshold criteria and therefore stormwater quality treatment is required. The size of the development is 4,436m².

Assessment benchmarks – water quality These performance outcomes apply to the following development applications, to the extent the SPP has not been identified in a local planning instrument as being appropriately integrated.		
For receiving waters, a development application for: (1) a material change of use for an urban purpose that involves premises 2500 metres ² or greater in size and; (a) will result in six or more dwellings; or (b) will result in an impervious area greater than 25 per cent of the net developable area; or (2) reconfiguring a lot for an urban purpose that involves premises 2500 metres ² or greater in size and will result in six or more lots; or (3) operational works for an urban purpose that involves disturbing a land area 2500 metres ² or greater in size.	For water supply buffer areas, a development application: (4) located wholly outside an urban area and relating to premises that is within, or partly within, a water supply buffer area, that involves: (a) a material change of use for the intensive animal industry, medium and high-impact industry, noxious and hazardous industry, extractive industry, utility installation that involves sewerage services, drainage or stormwater services, waste management facilities, or motor sport facility; or (b) reconfiguring a lot to create five or more additional lots if any resultant lot is less than 16 hectares in size, and any of the lots created will rely on on-site wastewater treatment.	The following requirements are assessment benchmarks for the development: (1) Development is located, designed, constructed and operated to avoid or minimise adverse impacts on environmental values arising from: (a) altered stormwater quality and hydrology (b) waste water (c) the creation or expansion of non-tidal artificial waterways (d) the release and mobilisation of nutrients and sediments. (2) Development achieves the applicable stormwater management design objectives outlined in tables A and B (appendix 2) (3) Development in a water supply buffer area avoids adverse impacts on drinking water supply environmental values. Further information in relation to these requirements is detailed in the water quality guidance material.

Figure 6.1 - Assessment Benchmark for Stormwater Quality (State Planning Policy)

6.1 Pollutant Concern

Queensland Healthy Water Guidelines provide guidance of the types of pollutants likely to be generated from different developments. These pollutants are indicators that need to be address and treated prior to discharge. The pollutants most likely to be of concern for developments are identified in Table 6.1 below.

Pollutant	Development Phase	
	Construction	Operation
Litter	✓	✓
Sediment	✓	unlikely
Hydrocarbons (including oil and grease)	✓	✓
Toxic materials (e.g. cement slurry, asphalt primer, solvents)	✓	unlikely
pH altering substances (e.g. cement slurry and wash waters)	✓	unlikely
Oxygen demanding substances (organic and chemical matter)	possibly	unlikely
Nutrients (nitrogen and phosphorus)	✓	✓
Pathogens / Faecal coliforms (bacteria and viruses)	possibly	unlikely
Heavy metals (often associated with fine sediment)	unlikely	unlikely
Surfactants (e.g. detergents from car washing)	unlikely	possibly
Thermal pollution (heat)	unlikely	unlikely

Table 6.1 - Pollutants Likely to be of Most Concern

6.2 Design Objectives for Water Management

Load based reduction targets focus on performance of a stormwater quality management system within the urban footprint, concentration-based water quality objectives are concerned with median flow concentrations as they enter downstream receiving water. Table 6.2 shows the minimum water quality objectives for Townsville.

Parameter	Statistic	Load Based Reduction	Water Quality Objectives
Total Suspended Solids (TSS)	Mean Range	80%	Less than 5mg/L
Total Phosphorous (TP)	Mean Range	65%	Less than 0.01 to 0.05mg/L
Total Nitrogen (TN)	Mean Range	40%	Less than 0.2 to 0.5mg/L
Gross Pollutants	-	90%	Retention of litter greater than 3mm for flows up to the 3-month ARI peak flow

Table 6.2 - Water Quality Objectives (TCC Planning Scheme)

6.3 Proposed Stormwater Treatment Train Analysis

The proposed development site has sufficient area available to dedicate the stormwater treatment devices. Roof water will discharge via downpipes to splash pads. The landscaped areas and pavements will discharge directly to field inlet pits or to overland flow. A minimum of 6 Atlan Stormsacks (3 in landscape and 3 in the driveway) are required to reduce pollutant loads. Once stormwater runoff is treated it will discharge to the LPOD. A single treatment chamber has been used for the site catchments. The Atlan Flow Filter (FLF.1500/6) has been used for modelling purposes but may be substituted by another proprietary product with similar performance characteristics. This initial model assumes that all the surface water will be capture but will need to be updated once the detail design has commenced to ensure the treatment matches what the design catchments.

6.4 MUSIC Modelling

6.4.1 Model Parameters

Input	Data Used
Rainfall Station	32040 TOWNSVILLE
Rainfall Period	03/03/1953 – 31/03/2010
Mean Annual Rainfall (mm)	1014mm
Mean Annual Evapotranspiration (mm)	1827mm
Model Timestep	6 minutes
Rainfall Runoff Parameters*	Urban Residential SEQ
Pollutant Parameters*	Residential (Split)

Table 6.3 - Basic MUSIC Model Parameters

6.4.2 Rainfall & Runoff Parameters

Parameter	Roof/Road/Ground Level
Rainfall Threshold (mm)	1
Soil Storage Capacity (mm)	400
Soil Initial Storage (% of Capacity)	10
Field Capacity (mm)	200
Infiltration Capacity – Coefficient A	211
Infiltration Capacity – Coefficient B	5.0
Initial Depth (mm)	50
Daily Recharge Rate (%)	28
Daily Baseflow Rate (%)	27
Daily Deep Seepage Rate (%)	0

Table 6.4 - Recommended MUSIC Rainfall-Runoff Parameters

6.4.3 Pollutant Generation

MUSIC, stormwater quality is characterized by event mean concentrations (EMC) for storm flows and base flows. In this study, the EMC adopted the Water by Design MUSIC Modelling Guidelines. The pollutants of concern that were assessed include total suspended solids (TSS), total phosphorous (TP), and total nitrogen (TN). The quality of stormwater runoff is characterised by inputting event mean concentrations (EMC) for storm flow and base flow conditions as well as the standard deviation of each EMC.

Pollutant concentrations are based on Urban Residential land use parameters.

Flow Type	Surface Type	TSS (log ₁₀ values)		TP (log ₁₀ values)		TN (log ₁₀ values)	
		Mean	Std Dev.	Mean	Std Dev.	Mean	Std Dev.
Baseflow	Roof	0	0	0	0	0	0
	Roads	1	0.34	-0.97	0.31	0.20	0.20
	Ground level	1	0.34	-0.97	0.31	0.20	0.20
Stormflow	Roof	1.30	0.39	-0.89	0.31	0.26	0.23
	Roads	2.43	0.39	-0.30	0.31	0.26	0.23
	Ground level	2.18	0.39	-0.47	0.31	0.26	0.23

Table 6.5 - Water by Design MUSIC Modelling Parameters – Urban Residential Split Catchment

6.4.4 Results

The indicative layout of the MUSIC model are shown below in Figures 6.2 and the perspective treatment effectiveness in Tables 6.6.

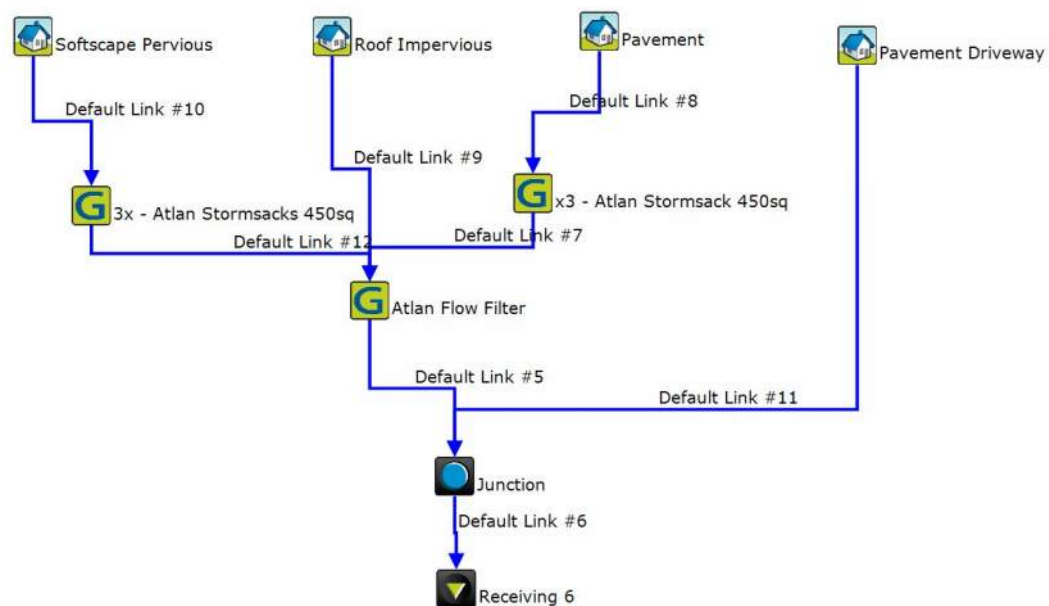


Figure 6.2 – MUSIC X Treatment Train

(1) Scenario 1 : Treatment Train Effectiveness : Receiving 6			
	Sources	Residual Load	% Reduction
Flow (ML/yr)	4.079	4.079	-2.177E-14
Total Suspended Solids (kg/yr)	534.1	69.88	86.92
Total Phosphorus (kg/yr)	1.223	0.2396	80.4
Total Nitrogen (kg/yr)	8.487	4.912	42.12
Gross Pollutants (kg/yr)	68.12	3.975	94.16

Table 6.6 – MUSIC X Modelling Results

7. Water Supply & Sewerage

7.1 Water Supply

In accordance with the information provided by Townsville Maps and Before You Dig Australia (BYDA), the subject site does not currently contain a water meter or a connection point to council main. A new connection will need to be installed of the 100mm AC main, with the size to be determined by the hydraulic consultant during the design phase based on actual water demands.

There is an existing fire hydrant on verge of Francis Street on the site frontage, located on the 100mm AC main. Further fire requirements for the site (boosters and hydrants) will be determined by the hydraulic consultant during the design phase.

The location of the existing water connection and fire hydrants is provided in the Figure below.

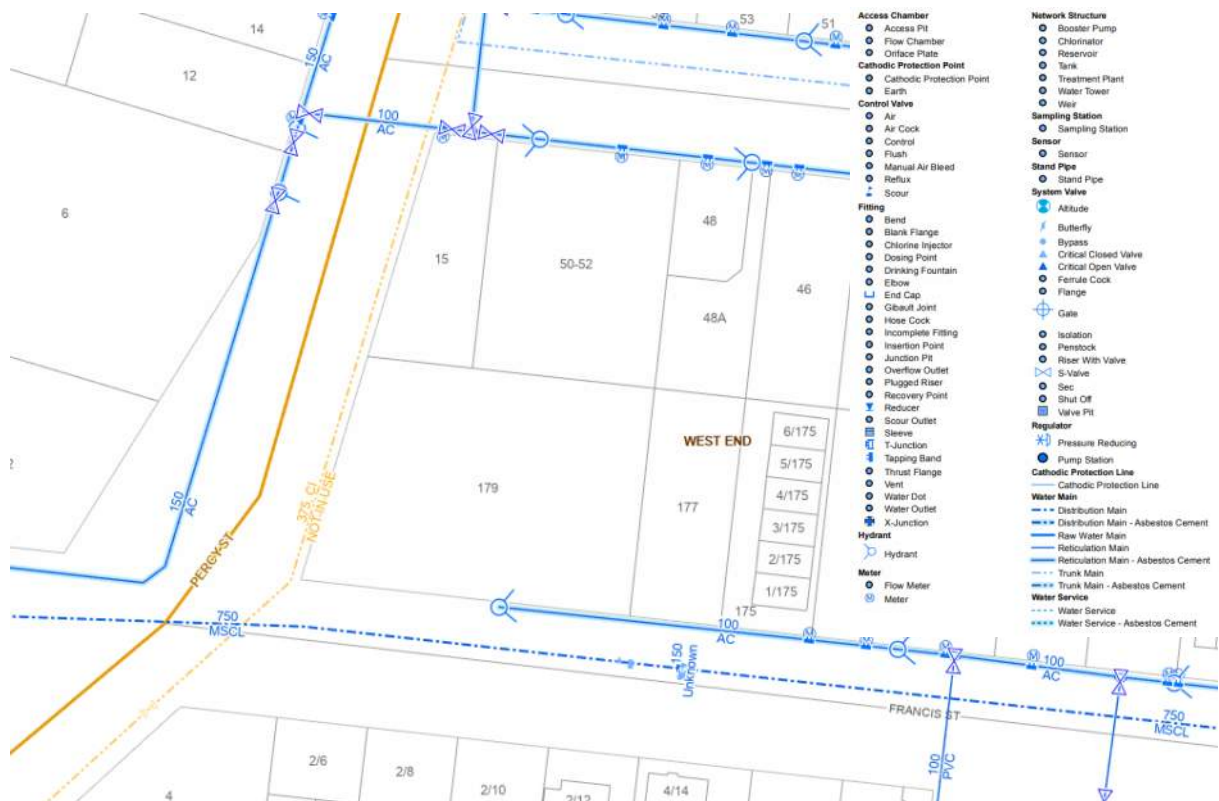


Figure 7.1 - Existing Water Layout (TCC Mapping)

A water network analysis has been undertaken for the proposed development in accordance with SC6.4.11 of the Townsville City Plan and the analysis demonstrates that the existing water network infrastructure has sufficient capacity to cope with the proposed development. The water network analysis is provided in Appendix F.

7.2 Sewer Connection

In accordance with the information provided by Townsville Maps and Before You Dig Australia (BYDA), the subject site does not currently contain a sewer property connection. The site currently is traversed by two sewers.

- A 150mm dia Glass Reinforce Polyester (GRP) which travels north to south from manhole 1/A6A8 to 24/A6A, with an approximate depth of 2.87m.
- A 225mm dia Polyvinyl Chloride Pipe (PVC) which travels from north west to south east. There is an existing manhole located on the southern side of the site where the 150mm and 225mm pipe join. This manhole is 24/A6A and has a depth of approximately 3m and an invert level of RL1.29m AHD.

The existing sewer manhole 24/A26A has a top of manhole level of RL4.29m AHD. The concept design proposes

to lower the lid level to approximately RL3.255m AHD, to sit flush with the driveway pavement. This may require a change to the existing sewer manhole lid to a Class D trafficable type.

A new 150mm dia stub connection will need to be installed on manhole 24/A6A at invert level RL1.59m AHD, to service the proposed development.

Given the lowest building floor level is RL3.9m AHD, there is sufficient depth to grade the internal sewers at 1 in 60 to the proposed new sewer connection.

A building over sewer application will be required as the proposed retaining walls traverse the sewer alignment.

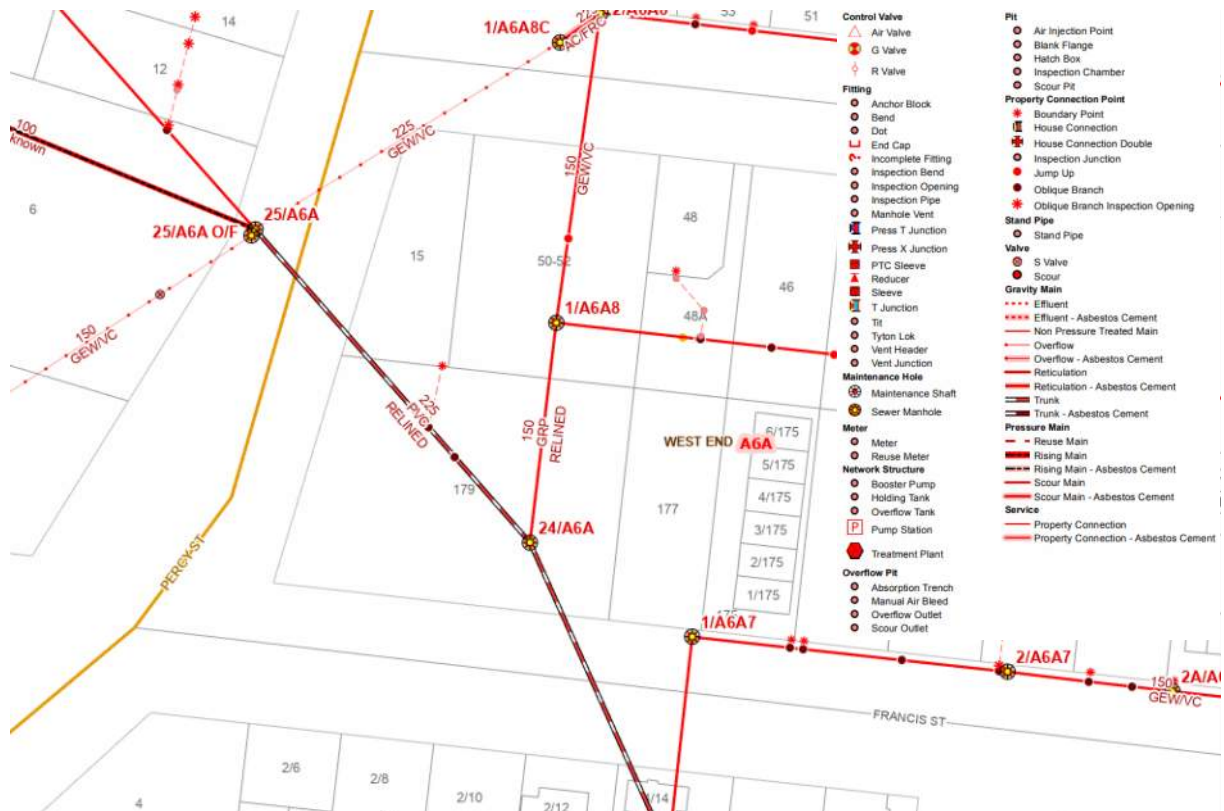


Figure 7.2 - Existing Sewer Layout (TCC Mapping)

A sewer network analysis has been undertaken for the proposed development in accordance with SC6.4.11 of the Townsville City Plan and the analysis demonstrates that the existing sewer network infrastructure has sufficient capacity to cope with the proposed development. The sewer network analysis is provided in Appendix F.

8. Electrical and Communication Services

The site will need to connect to Ergon for power requirements and will need to comply with the suppliers' standard drawings. Based on BYDA's provided drawings, a new power pole for overhead power or underground low voltage cables will need to be installed to power the site.

Similarly for telecommunications, the NBN or Telstra conduits will need to be extended to provide data to the development.

The Electrical Engineer will determine the supply demands for the site and coordinate with the local suppliers during the detailed design phase.

9. Conclusion

As demonstrated within the report, the proposed development can be undertaken, and a summary of the requirements are as follows: -

- The 1% AEP Design Storm does not affect the site.
- Storm Tide Coastal Hazard affects the site.
- The building floor levels should be set to minimum of RL3.9m AHD, to comply with the Coastal Hazard Overlay.
- Retaining walls are required for the development with a maximum height of 1.2m.
- The external catchment from the adjacent northern property is accommodated in the design.
- The Minor Design Event is 39% AEP.
- The Major Design Event is 1% AEP.
- No on-site detention is required.
- Stormwater Quality treatment is required under the State Planning Policy.
- The Legal Point of Discharge is the Open Drain on Fracis Street.
- The existing water and sewer networks have sufficient capacity to accommodate the proposed development.
- Power and telecommunications will need to extend, and new services installed in the verge to service the development.
- A Building Over Sewer Application will be required for the site.

Based on our investigative works, we consider that Council has no impediment to the approval of this development within the context of engineering issues. We therefore recommend that Council approves the application subject to reasonable, relevant, equitable and justifiable conditions.

Appendix A: Survey