

M^CLAREN TRAFFIC ENGINEERING

Address: Shop 7, 720 Old Princes Highway Sutherland NSW 2232
Postal: P.O Box 66 Sutherland NSW 1499

Telephone: (02) 9521 7199
Web: www.mclarenttraffic.com.au
Email: admin@mclarenttraffic.com.au

Division of RAMTRANS Australia ABN: 45067491678 RPEQ: 19457

Transport Planning, Traffic Impact Assessments, Road Safety Audits, Expert Witness

25 June 2026

Reference: 250737.03FA

PODIA
Suite 506, Level 5
55 Miller Street
Pyrmont NSW 2009
Attention: Dominic Biancardi

LETTER OF RESPONSE TO DPHI, TWEED SHIRE COUNCIL AND TFNSW REGARDING THE PROPOSED MIXED USE DEVELOPMENT AT 4-8 BELLS BOULEVARD, KINGSCLIFF

Dear Dominic,

Reference is made to your request to provide a response to the relevant items raised by the Department of Planning, Housing and Infrastructure (DPHI) regarding their additional information request for the proposed Mixed Use Development at 4-8 Bells Boulevard, Kingscliff (SSD-83069459). This letter provides a response to the items raised by DPHI and the items raised by the relevant agencies regarding the application, with respect to relevant traffic, parking and transport matters.

This letter of responses is supplementary to the original Transport Impact Assessment lodged, prepared by McLaren Traffic Engineering (this firm), and dated 11 December 2025 (250737.01FC).

1 Project Description

The proposed development seeks development consent of a new mixed use building on the site. The proposal will include the following works:

- Construction of a five storey mixed use development with ground level retail fronting Bells Boulevard and Gunnamatta Avenue and ground level residential units, with residential units contained on levels 1-4 (inclusive) and rooftop communal open space
- A total of 71 residential units of which 2 will be affordable housing units. These affordable housing units will be retained as such for 15-years and managed by a registered Community Housing Provider.
- Excavation of two basement levels of carparking with 193 car parking spaces and associated services
- Removal of 23 trees on site, and
- Landscaping and communal open space network with a focus on wellness including a rooftop pool, indoor communal space and ground level outdoor communal open space designed around a central lawn.

2 Revised Scale

As part of the applications response to DPHI, a set of amended plans have been prepared with the relevant extracts provided in **Annexure A** for reference. A summary of the relevant changes with respect to traffic, parking and transport matters are outlined below in **Table 1**.

TABLE 1: SUMMARY OF CHANGES IN AMENDED PLANS

Factor	Proposed (Dec 25')	Amended (June 26')	Net Change
Residential Units	69 units	71 units	+2 units
Retail	679m ² GFA	689m ² GFA ⁽¹⁾	+10m ² GFA
Car Parking	184 spaces	193 spaces	+9 spaces

Note: (1) Retail GFA excludes lobby and bathroom GFA, as these are ancillary services. Total retail GFA including these is 734m².

As shown above there has been a minor increase in residential units and retail GFA and car parking spaces, driven by an increase in 2-bed units and minor design amendments. These changes do not have a material impact on the proposal in terms of transport impacts.

3 Response to DPHI

The Department of Planning, Housing and Infrastructure (DPHI), provided an additional information request dated 20 March 2025. The additional information requested by DPHI relevant to traffic, parking and transport matters are shown below (*italicised*) with M^CLaren Traffic Engineering's (MTE) response thereafter.

7. Driveway access

The current position and configuration of the driveway present potential road safety risks. The safe operation of a roundabout relies on adequate sight lines, and both the adjacent building structure and driveway grades significantly restrict visibility. The driveway is also partially concealed, making it's location less intuitive for approaching drivers. The requirement for waste collection vehicles to negotiate movements with exiting traffic further increases the likelihood of vehicle movement conflict.

The Department requires you to engage an independent road safety auditor to undertake a Road Safety Audit (RSA) to assess the safety implications of the proposed access and associated design features and to demonstrate that appropriate due diligence has been exercised, and potential safety risks have been independently reviewed and formally considered.

MTE Response: The applicant has engaged The Transport Planning Partnership (TTPP) to undertake a (Pre-Construction) Road Safety Audit on the proposed access arrangements to 4-8 Bells Boulevard, Kingscliff, with a copy of the Road Safety Audit provided in **Annexure B** for reference. The lead road safety auditor on this Audit was Ken Hollyoak (KH) – Level 3 Road Safety Auditor, who is independent from the project, with the audit report dated 20 May 2026.

A detailed response to the items raised within the Road Safety Audit Report are addressed in detail in **Section 6** of this letter. The Road Safety Audit has resulted in minor adjustments and clarifications with respect to the proposed design and operation of the site driveway.

8. Waste management

The Transport Impact Assessment (TIA) identifies a customised vehicle similar to a MRV for waste collection, which suggests that collection would be undertaken by a private operator. Confirmation is required from Tweed Shire Council whether this arrangement is acceptable, and evidence is required verifying the specific vehicle type proposed for the waste collection.

MTE Response: Consultation with Tweed Shire Council has commenced and is ongoing. A copy of the consultation letter sent to Tweed Shire Council is provided in **Annexure C** for reference.

The proposed waste collection will be undertaken by a private operator. Solo Resource Recovery, that operates in the Tweed Region. The letter attached in **Annexure C**, has been provided by Solo Resource Recovery and indicates their ability and commitment to service the site. Solo Resource Recovery has nominated that their waste collection vehicle will be the *Inveco Eurocargo ML160E25*, based on the vehicle body of an *Inveco JS Rearloader* (Inveco JS Rearloader). The detailed specifications provided by Solo Resource Recovery are attached in **Annexure C** for reference. This vehicle has a length of 8.034m, a total operating height of 2.848m and an operating width of 2.42m. These dimensions have been adopted for the swept path testing of the vehicle within the proposed loading dock design, with the successful results provided in **Annexure D** for reference.

Swept path testing of the design waste collection vehicle (Inveco JS Rearloader) has been undertaken within the proposed loading dock and on-site waste collection area, with the successful swept paths provided in **Annexure D**. It should be noted waste collection services are occasional under the definition of “occasional service” within AS2890.2:2018.

The operating vehicle height of the Inveco JS Rearloader is 2.848m. The collection of waste bins will be a rear lift operation, which does not require the bins to be lifted higher than the rear of the vehicle, so the vehicle can operate successfully within the 2.9m height of the vehicle. This is demonstrated in **Figure 1** (Refer to **Section 5** response). The proposed loading dock has a 3.1m vertical clearance which can accommodate the private waste collection vehicle comfortably.

Tweed Shire Council raised a number of comments regarding waste collection within their letter dated 17 February 2026, with a detailed response to those items provided in **Section 5** of this letter.

9. Agency advice

All agency advice received is available via the Major Projects page. A response to all the issues raised within the agency referrals and submissions of revised documentation where relevant, is required.

MTE Response: Matters relevant to Traffic, Parking and Transport have been identified in the response by Transport for NSW, which is addressed in **Section 4** of this letter and in the response by Tweed Shire Council, which is addressed in **Section 5**.

4 Response to Transport for NSW

Transport for NSW provide a response letter dated 15 May 2025, regarding requested input to the SEAR's for the subject site. The letter makes the following relevant comments.

Tweed Coast Road (MR450) is a classified (Regional) road and all other roads within the site location are local roads. Council is the roads authority for these roads and all other public roads in the area, in accordance with Section 7 of the Roads Act 1993.

MTE Response: Tweed Coast Road is located over 2km away from the subject site. This proposed development does not impact Tweed Coast Road. Council is the relevant roads authority for the roads impacted by the proposed development.

TfNSW recommends that a Transport Impact Assessment (TIA) be prepared by suitably qualified person/s in accordance with the TfNSW Guide to Transport Impact Assessment, 2024, Austroads Guide to Traffic Management part 12 and the complementary TfNSW Supplement.

MTE Response: A Transport Impact Assessment has been prepared and lodged in accordance with the TfNSW Guide to Transport Impact Assessments, 2024. This report was dated 11 December 2025 and prepared by McLaren Traffic Engineering with reference (250737.01FC).

5 Response to Tweed Shire Council

The Tweed Shire Council has provided a number of comments within their letter to the DPHI dated 17 February 2026, with respect to the traffic, parking and waste collection elements of the proposal. The comments made by Tweed Shire Council relevant to the traffic, parking and transport elements of the letter are shown below (*italicised*) with McLaren Traffic Engineering's (MTE) response thereafter.

10. Traffic, access & parking

10.1 Loading dock headroom

The proposed loading dock provides only 3.1m of vertical clearance, which does not comply with AS2890.2:2018, requiring 4.5m for Medium Rigid Vehicles. Although the proponent states waste collection will be operated by a vehicle with a 2.9m height, no evidence is provided how bin-lifting mechanism can operating safely and effectively without risk of collision with the structure. The 200mm buffer is not supported.

Council recommends that confirmation is provided that the nominated waste collection vehicle can safely lift and service bins within the proposed loading dock clearance, supported by manufacturer specifications and/or operational confirmation from the waste contractor. The loading dock must be designed and signposted for the nominated MRV. Any increase to design vehicle class requires re-assessment and updated swept path analysis. In addition to the above, it is recommended a loading and waste plan of management be prepared that includes the following at a minimum:

- *Posted headroom limits with signage indicating maximum vehicle height; nominated service windows, including restriction of servicing outside retail peak periods.*
- *Marshalling procedures for service vehicle movements*
- *Safety measures, including any required convex mirrors, sight aids and warning signage*

- The POM should be implemented for the life of the development.

MTE Response: The proposed loading dock is designed to accommodate the identified design vehicle, being the Inverco JS Rearloader, as outlined in **Annexure A**. The vertical clearance of 3.1m within the loading dock is acceptable to accommodate the 2.9m operating height of the custom design vehicle. As shown in **Figure 1**, the bin lifting mechanism does not lift the bin above the height of the vehicle, and therefore the collection of waste can operate safely within the 2.9m headroom of the design vehicle.



FIGURE 1: EXAMPLE OF THE BIN LIFTING MECHANISM

Swept path testing of the nominated design vehicle has been undertaken and is included in **Annexure C** for reference. This demonstrates that the nominated design vehicle can safely service the bins and enter and exit the loading dock in a forward direction. The operation is in compliance with the requirements of AS2890.2:2018, as relevant.

Reference is also made to *Clause 1.4.4* of AS2890.2:2018, which states the following:

1.4.4. clearance height

Minimum height for which structures should be designed to accommodate the design vehicle.

Note 1 to entry: Maximum allow vehicle heights are generally 0.2m less than this height.

As such, for a vehicle height of 2.9m, a clearance height of 3.1m is appropriate and compliant with the requirements of AS2890.2:2018 and therefore is supported.

A waste management plan can be conditioned to address the items listed by Council. The items listed by council are typical for any loading dock and can be accommodated. Convex mirrors and signage reflecting the vehicle restrictions on the loading dock will be provided as necessary.

10.2 Lack of turning bay within blind aisle

It is recommended that the 24-hour security door within the basement should remain open to allow full forward vehicle movement circulation during all retail trading hours, details for the operational management of the security line door are recommended and implemented for the life of the development

MTE Response: The arrangement of the easement car parking spaces has been amended to ensure there is no blind aisles associated with the 24-hour security doors within the basement.

10.3 Parking provision

There is an insufficient amount of carparking as per Tweed Development Control Plan 2007 (TDCP) Section A2 Chapter A2.3 – Access & Parking Demand Schedule. The parking rate of shop has been applied as no commercial land-uses have been proposed. Insufficient parking amount is addressed below:

- *One shortfall to customer carparking for commercial use (24 spaces provided) whilst 25 spaces are required).*
- *One shortfall to visitor parking for residential use (17 spaces provide whilst 18 spaces are required)*

Note: Appendix M – Transport Impact Assessment does not assess the correct floor area for the commercial use. 679m² is used where 690m² of commercial floor area is proposed.

MTE Response: The identified discrepancy between the Transport Impact Assessment and Council is the application of Council's note to the car parking rates within their DCP, which states the following:

Where formulae in the table results in fractions, numbers are to be rounded up to the nearest whole number. If a number of uses are present on the same development site the rounding off is to take place after all the requirements for all uses have been summed. For offsite car parking contributions under CP23, rounding up to the next 0.1 space is permissible.

This is an atypical approach to application of a Council's DCP car parking provisions and is inconsistent with the typical practice of the broader industry whereby the standard approach to numerical rounding applies. However, it appears that Council has not applied their own DCP note correctly in preparation of this comment, as the note calls for rounding to occur "*after all requirements for all uses have been summed*". On the original project scale, this results in 24.15 commercial car parking spaces, and 17.25 residential visitor parking spaces. Summing all the individual parking requirements, before applying any rounding, would result in a total provision of 183.8 car parking spaces, which would be rounded up to 184 car parking spaces. Therefore, the application satisfies Council's DCP requirements with consideration to their rounding note.

Regardless of the above, the application has made some adjustments to the proposed scale which has resulted in the need to revise the overall parking calculations. **Table 2** below, provides a revised car parking calculation, and applies the rounding as per Council's rounding note within their DCP.

TABLE 2: REVISED TWEED SHIRE COUNCIL DCP PARKING REQUIREMENTS

Land Use	Type	Scale	Parking Rate	Car Parking Spaces Required	Car Parking Spaces Provided
Shops	Staff	689m ² ⁽¹⁾	1 per 100m ² GFA	6.89	7
	Customer		3.5 per 100m ² GFA	24.12	25
Residential Flat Building	1-bed unit	8	1 per unit	8	116
	2-bed unit	46	1.5 per unit	69	
	3-bed unit	17	2 per unit	34	
	Visitor	71	1 per 4 units	17.75	18
DCP Car Parking Requirement (Excluding Easement)				159.76 (160)	166
Easement	As per the terms of the Easement			27	27
Total Car Parking Requirement (Including Easement)				187	193

Note: (1) Retail GFA excludes retail lobby and bathrooms as they are ancillary components.

As shown the strict application of the TDCP 2008 requires the provision of **160** car parking spaces, the proposed development provides **166** car parking spaces for residents (116 spaces), residential visitors (18 spaces), retail visitors (25 spaces) and retail staff (7 spaces), achieving compliance with the relevant DCP controls. The DCP's rounding clause, which requires rounding up after all uses have been summed, has been applied to this calculation.

As previously identified, there is an existing Easement on the land that results in the development having to retain **27** public car parking spaces as part of the redevelopment. The 27 car parking spaces associated with the easement are provided within the basement and will be available and unrestricted at all times as per the requirements of the easement.

This results in a total car parking requirement of **187** spaces. The proposed plans detail the provision of **193** car parking spaces, resulting in compliance with the total car parking requirements (including the retention of the easement).

10.4 Tandem carparking

All tandem carparking spaces should be allocated to the occupants of the same residential tenancy.

MTE Response: All tandem car parking spaces will be allocated to the occupants of the same residential tenancy.

10.5 Construction Traffic Management Plan (CTMP)

Council recommends that a CTMP be prepared consistent with the submitted Traffic Impact Assessment's Preliminary CTMP. This should include haulage routes (via Casuarina Way), delivery times (avoid network peaks), site access points, temporary traffic controls, pedestrian detours/hoardings, queue management (no queueing on public roads), construction staff parking strategy and communication protocol.

MTE Response: A detailed Construction Traffic Management Plan is a typical consent condition for any development. The details of construction methodology, haulage routes and other detailed matters are subject to detailed design and development once a builder is engaged, which occurs after development consent. All construction impacts are temporary in nature and can be addressed as a condition of consent.

10.6 External works / roundabout interface

Any alterations at the Gun (sic) Gunnamatta Avenue / Mantra Access roundabout to add the site's driveway leg must be fully detailed under section 138 of the Roads Act 1993. This should ensure deflection, splitter island geometry, signs and line-marking meet current practice and do not diminish existing performance (LOS A as per TIA baseline)

MTE Response: The requirement for approval under Section 138 of the Roads Act 1993, is a standard requirement for any driveway (or other works) in the public road reserve, a condition of consent is typically provided to reiterate this requirement.

The proposed driveway will operate in a similar manner to the existing driveway access to the existing Easement car parking spaces on the site. The proposed driveway will be in the same location as the existing driveway.

It is reiterated that the proposed access is in the form of a driveway profile (as per existing) and not a road profile connection with the roundabout, such that splitter island, signs and line marking are not required, as all drivers on the driveway must give way to vehicles already on the road and in the roundabout.

10.7 Signage and line-marking

It is recommended that a plan be provided that demonstrates internal wayfinding signage, height bars, speed control, pedestrian crossing points, bicycle wayfinding, accessible bay signage and easement-parking "public/unrestricted signage to support safe operation.

MTE Response: The preparation of an internal signage and wayfinding plan is a typical part of the detailed design process and can be conditioned if it is considered necessary. The car park will comply with the relevant requirements of AS2890.1:2004, which includes the provision of signage, height bars and other typical traffic control and safety mechanisms as considered necessary. This matter can be addressed during the detailed design stage without a material impact on the development.

10.8 Dedicated easement car parks

Council recommends that the 27 easement spaces be physically delineated signposted, unrestricted 24/7, and accessible to the public without the need for building access devices. Wayfinding signage shall be installed at an appropriate location within the road reserve to clearly direct vehicles and inform the public of the availability and access arrangements.

MTE Response: The 27 easement car parking spaces are physically separated from all other parking spaces within the basement to ensure unrestricted 24/7 access. The management of this access is subject to the buildings plan of management. Wayfinding signage can be installed within the road reserve, informing the public of the availability of parking, typical dark blue parking wayfinding signage can be provided. The above can be addressed as a condition of consent and no further revised design changes are required.

It is noted that the location and arrangement of the easement car parking have been adjusted to provide improved circulation and 24/7 access.

10.9 Headroom for carparking underneath the access ramp.

It is unclear if there is adequate headroom available or residential carparks that are located underneath the basement carparking access ramp. The section diagrams nor the Traffic Impact Assessment provide detail on this headroom and it is recommended that this be provided.

MTE Response: A minimum headroom of 2.2m is provided for the relevant residential car parking spaces provided under the access ramp. Sections of the ramp indicating the available headroom is provided in **Annexure A** for reference and confirmation.

12. Waste

12.2 Council kerbside collection

Council has a kerbside waste collection contract to collect waste generated by residential uses. The applicant should demonstrate that temporary kerbside bin placement is possible. Temporary collection should be demonstrated should private contracted waste management cannot be undertaken. Any OWMP should minimise impact on retail/commercial areas and should not require manual handling of bins by the collection truck driver at kerbside.

It is recommended that the OWMP demonstrate temporary kerbside bin placement that includes numbers and sizes of bins, lengths or kerbside/street frontages, local topography, and kerbside locations where collection can occur from a public road without the collection truck being impeded by parked vehicles.

MTE Response: Kerbside bin collection is demonstrated through the successful swept paths of Council's kerbside waste collection vehicle collecting waste from the nominated kerbside collection point, along Gunnamatta Avenue, just south of the roundabout. In the instance that a private contractor is unable to service the site (as per the proposal), within the site itself, waste collection can occur along the kerbside, in the location of the indented kerbside parking south of the roundabout. Swept path testing of this arrangement is provided in **Annexure E** for reference.

This kerbside parking area can be nominated as a "No Parking" zone during the typical early morning waste collection period. Council's kerbside waste collection typically occurs during the early morning period, when parking demand in Kingscliff is at it's lowest.

The kerbside parking spaces will be made available at all other times and therefore would not have any impact on parking supply during peak times. The provision of time restricted “No Parking” restrictions will be subject to Council’s approval, if the site had to revert to kerbside collection.

However, it is reiterated and confirmed by the letter from Solo Resource Recovery in **Annexure C**, that private waste collection for this site can be achieved (within the site itself), such that kerbside collection is highly unlikely to ever be required. The applicant has demonstrated how such kerbside collection may occur, if the circumstances arose whereby private waste collection was no longer possible.

12.5 Loading bay for waste collection

The size of the loading bay has been designed for a custom collection vehicle. The size of the vehicle and the loading bay raises concerns with the vehicle being able to leave in a forward direction. The loading bay provides minimal flexibility for the MRV to be able to manoeuvre, and the loading bay is at flat slope adjacent to a sloping vehicle access ramp. The change in slope and levels is considered problematic for the MRV and vehicle access into the loading bay should be re-considered.

In addition to the above, there is no elevation or section detail provided in the architectural plans for the waste storage room. To determine if this space is usable for waste collection and differing levels will not cause issues for the MRV, amended plans should be provided.

MTE Response: Swept path testing of the custom waste collection vehicle has been completed with the successful results being provided in **Annexure D**. These swept paths demonstrate that the custom waste collection vehicle (less than MRV length) can enter and exit in a forward direction, as per the requirements of an occasional service definition in AS2890.2:2018.

There is no change of gradient within the direction of travel of the nominated waste collection vehicle as the loading dock entry is flat, the minor 1:8 transition at the edge of the loading dock, will be resolved during detailed design and will be able to achieve compliance with AS2890.2:2018 requirements, within the path of travel of the waste collection vehicle.

The provision of sections through the loading dock has been provided in **Annexure A** and clearly demonstrate the 3.1m headroom is achieved throughout the loading dock, in locations where the custom waste collection vehicle will travel. The vehicle size and headroom limits will be clearly signposted and included in the site’s plan of management.

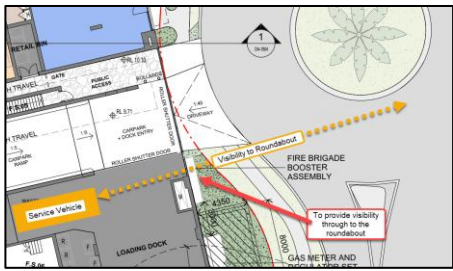
6 Road Safety Audit and Project Response

As requested by DPHI, an Independent Road Safety Audit of the sites proposed access arrangements has been completed by TTPP, with the lead Auditor Ken Hollyoak (Level 3 Road Lead Road Safety Auditor), and the resulting report provided in **Annexure B** for reference.

As set out in the road safety audit guidelines, a reiterated in Section 4.2 of the Road Safety Audit Report by TTPP, the project manager is under no obligation to accept the audit findings neither is the role of the auditor to agree or approve the response to the audit. The audit provides the opportunity to highlight potential road safety issues and have them be formally considered by the project manager in conjunction with all other project considerations.

On behalf of the project manager (PODIA), a response to each of the findings detailed in Section 4.3 of the Road Safety Audit, has been prepared by McLaren Traffic Engineer, with the responses provided below in **Table 3**.

TABLE 3: RESPONSE TO ROAD SAFETY AUDIT FINDINGS

Item	Finding	Risk Rating	Project Response
1	<i>The swept paths indicate that a waste collection vehicle would occupy the full width of the driveway when entering or leaving the site.</i> <i>However, it is acknowledged that AS2890.2:2018 Section 3.2.2 states that if usage of the loading dock is classified as Occasional Service, the full width of the access driveway may be used for both entering and leaving the site.</i>	Note only	This is correct. The waste collection vehicle is occasional service as per the definition in AS2890.2:2018 and hence the full width of the driveway may be used.
2	Given the proximity of the loading dock to the site access, a waste collection vehicle would have to make an "S-curve" manoeuvre when leaving the site from the loading dock. The building structure may impede the mutual sight distance for the truck driver and a motorist entering the site. A motorist entering the site from the south may not be aware that a waste collection vehicle is leaving the loading dock at the same time. This would increase the likelihood of traffic conflicts at the driveway. In addition, sudden breaking to avoid a collision with the waste collection vehicle may result in a rear end-potential on the circulating lane at the roundabout.	Medium	The location and design of the loading dock is driven by various site constraints and a desire to ensure active frontage is provided along the primary frontage of the site. The proposed plans propose an 2m "visibility screen" at the edge of the loading dock and driveway that provides visibility from the loading dock to vehicles on the roundabout, and when exiting the loading dock, as shown in the below image.  An assessment of the Stopping Sight Distance has been undertaken, with the measured 85th percentile approach speed (from Compass IOT) from the south 32km/h (average speed 23.9km/h). This results in a 25m SSD distance, which is achieved, and shown above in Figure 2 of this letter. Speeds are low in and around the roundabout and the risk of the possible outcome identified is considered low.

Item	Finding	Risk Rating	Project Response
3	<i>An exiting passenger car would have to stop on the ramp that has a 1:5 grade when a waste collection vehicle is leaving the dock.</i> <i>A 1:5 grade is too steep for a vehicle to stop safely. A vehicle may roll back on the slope resulting in possible rear-end conflicts.</i> <i>AS2890.1 stipulates a maximum grade of 1:10 for a queuing area for not less than 0.8 of the queue length determined in Table 3.3</i>	Low	Usage of the loading bay will be infrequent, and waste collection occurs less than once per day. The likelihood of a service vehicle and light vehicle existing the loading area simultaneously is low. A convex mirror is proposed at the top of the ramp to assist service vehicle drivers identify any approaching drivers before exiting. A Loading Dock Plan of Management will outline that exiting vehicles need to give-way to vehicles exiting the basement car park. Further a notice or sign on the wall should be provided indicating "Give Way to Traffic", supported with linemarking.
4	<i>There is no pedestrian crossing provision for pedestrians at the existing roundabout or proposed as part of the works.</i> <i>This may result in pedestrians crossing the road at inappropriate locations.</i>	Medium	A pedestrian crossing point already exists 30m north of Gunnamatta Ave/Site Driveway roundabout, as shown in the image below, providing a pedestrian crossing point in-line with expected pedestrian desire lines (to/from beach/park). Vehicle speeds within the proximity of the roundabout are low. 
5	<i>From the plans, it appears that the roundabout dimensions are being changes (n.b. an overlay of the layout plan on a nearmap suggest that approaches/exits on the eastern side are being widened significantly (possible enough for an additional lane) which would be likely to result in less deflection and excess speed with a resulting increase in the severity of any crashes.</i>	High	No changes are proposed to the roundabout on Gunnamatta Road. The identified widening is a drafting error, and the amended plans have been updated to ensure the plans match the geometry of the existing roundabout. No additional circulating or approach lanes are proposed.

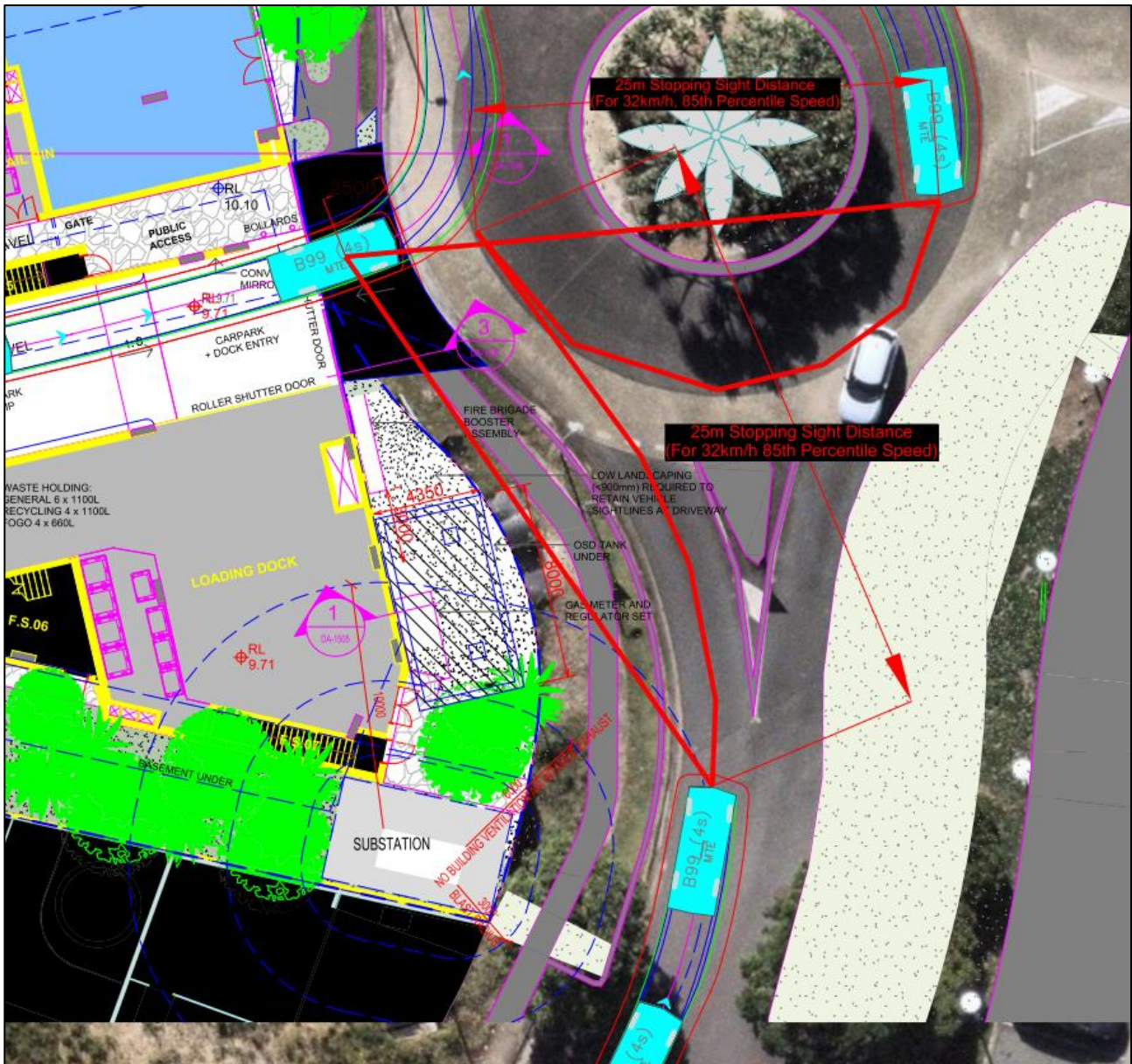


FIGURE 2: DRIVEWAY SIGHTLINE ASSESSMENT – FOR 85TH PERCENTILE SPEED

As outlined above, the project manager and team have addressed the identified risks as best as practicable and concludes that the risks associated with the subject design remain low, given the low speed environment, low frequency of loading dock utilisation and design features included (such as convex mirrors, signage and compliant sightlines) with the intention of further reducing the risk associated with the subject driveway design. The driveway design has been developed with consideration to the range of site constraints, particularly around activation of the site frontage and provision of loading facilities as far away as possible from the active frontages of the subject site.

Given these factors the loading dock position and driveway design are considered practical and fit-for-purpose, with a low safety risk to all road users, given the already low speed environment of Gunnamatta Road.

7 Conclusion

This letter addresses all the items raised by the DPHI, Tweed Shire Council and TfNSW as requested. The findings of the Road Safety Audit have been formally considered and addressed within this letter and the proposed arrangement results in a low safety risk to road users, with consideration to the constraints of the subject site. The proposed driveway is in the location of the existing driveway to the current parking arrangement on the site.

The proposed loading dock and waste collection solution utilising the services of Solo Resource Recovery and their custom waste collection vehicle (Inverco JS Rearloader) is fully supportable in terms of the traffic and design related matters. The loading dock is designed to accommodate a custom design vehicle (Inverco JS Rearloader) and will be clearly signposted with respect to the maximum vehicle size and height of vehicles permissible. Waste collection will be occasional service (as per the AS2890.2:2018 definition) and the loading dock has been designed to achieve all the relevant objectives related to a custom design vehicle, such that the design is compliant with AS2890.2:2018 requirements.

The minor amendments of the proposed plans and scale have been assessed and do not materially change the outcomes of the lodged December 2025, Transport Impact Assessment as prepared by this firm. The proposal achieves compliance with the Tweed Shire Council DCP requirements and retains the required easement car parking spaces.

Please contact the undersigned on 9521 7199 should you require further information or assistance.

Yours faithfully,

McLaren Traffic Engineering



Craig McLaren
FIEAust CPEng NER
RPEQ 19457
APEC Engineer IntPE(Aus)
Director & Mentor



BE Civil, Grad Dip (Transport Engineering), MITE
TfNSW Accredited Level 3 Road Safety Auditor [1998]
SafeWork NSW Traffic Control Work Training card
[Authorisation #TCT0015914: Prepare Work Zone (PWZ)]
Expert Traffic Engineering & Road Safety Witness
NSW Land & Environment & NSW Supreme Courts

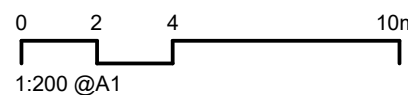
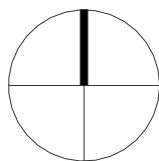


Aaron Tomlins
Principal Traffic Engineer
BE(Hon)(Civil Engineering)/BCom
TfNSW Accredited Level 2 Road Safety Auditor
(RSA-02-1623)
MIEAust, MAITPM, MITE-ANZ



ANNEXURE A: AMENDED PLANS (JUNE 2026)
(5 SHEETS)

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Nominated Architects: Adam Haddow-7188 | John Pradel-7004

Rev	Date	Revision	By	Chk.
A	28-11-2025	FOR SSDA	LR	JV
1	29-05-2026	FOR INFORMATION	MQ	WG
2	05-06-2026	FOR INFORMATION	MQ	WG
3	17-06-2026	FOR INFORMATION	MQ	WG
B	24-06-2026	FOR RFI	MQ	WG

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Client

**BELLS BOULEVARD
PTY LTD**

Project

**BELLS BOULEVARD
4-8 BELLS BOULEVARD, KINGSCLIFF**

Drawing Name

FLOOR PLAN - BASEMENT 02

Date

24-06-2026

Scale

1 : 200

Sheet Size

A1

Drawn

LR

Chk.

JV

Job No.

6906

Drawing No.

DA-1001

Revision

/ B

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PARKING LEGEND

(E)	EASEMENT
(E)	EASEMENT ACCESSIBLE
(R)	RESIDENTIAL
(SCR)	SMALL CAR RESIDENTIAL
(V)	VISITOR
(RT)	RETAIL
(RT)	RETAIL ACCESSIBLE
(RTS)	RETAIL STAFF
(RTS)	RETAIL STAFF ACCESSIBLE

BICYCLE PARKING SCHEDULE

TYPE	COUNT
LEVEL 00	
RETAIL	12
BASEMENT 01	
RESIDENTIAL	25
VISITOR	10
BASEMENT 02	
RESIDENTIAL	44
TOTAL	91

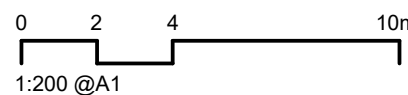
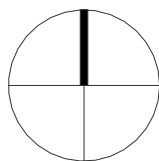
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SUBTOTAL	27
RESIDENTIAL 2600x5400	6
VISITOR 2600x5400	18
SUBTOTAL	24
RETAIL 2600x5400	24
RETAIL ACCESSIBLE 2600x5400	1
SUBTOTAL	25
RETAIL STAFF 2600x5400	6
RETAIL STAFF ACCESSIBLE 2600x5400	1
SUBTOTAL	7
BASEMENT 02	
RESIDENTIAL 2600x5400	110
SUBTOTAL	110
TOTAL	193

PARKING TOTALS

TYPE	COUNT
EASEMENT PARKING	25
EASEMENT ACCESSIBLE	2
RESIDENTIAL PARKING	116
RETAIL PARKING	24
RETAIL ACCESSIBLE	1
RETAIL STAFF PARKING	6
RETAIL STAFF ACCESSIBLE	1
VISITOR PARKING	18
TOTAL	193

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Client

**BELLS BOULEVARD
PTY LTD**

Project

**BELLS BOULEVARD
4-8 BELLS BOULEVARD, KINGSCLIFF**

Drawing Name

FLOOR PLAN - BASEMENT 01

Date

24-06-2026

Scale

1 : 200

Sheet Size

A1

Drawn

LR

Chk.

JV

Job No.

6906

Drawing No.

DA-1002

Revision

/ B

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PARKING LEGEND

(E)	EASEMENT
(E)	EASEMENT ACCESSIBLE
(R)	RESIDENTIAL
(SCR)	SMALL CAR RESIDENTIAL
(V)	VISITOR
(RT)	RETAIL
(RT)	RETAIL ACCESSIBLE
(RTS)	RETAIL STAFF
(RTS)	RETAIL STAFF ACCESSIBLE

BICYCLE PARKING SCHEDULE

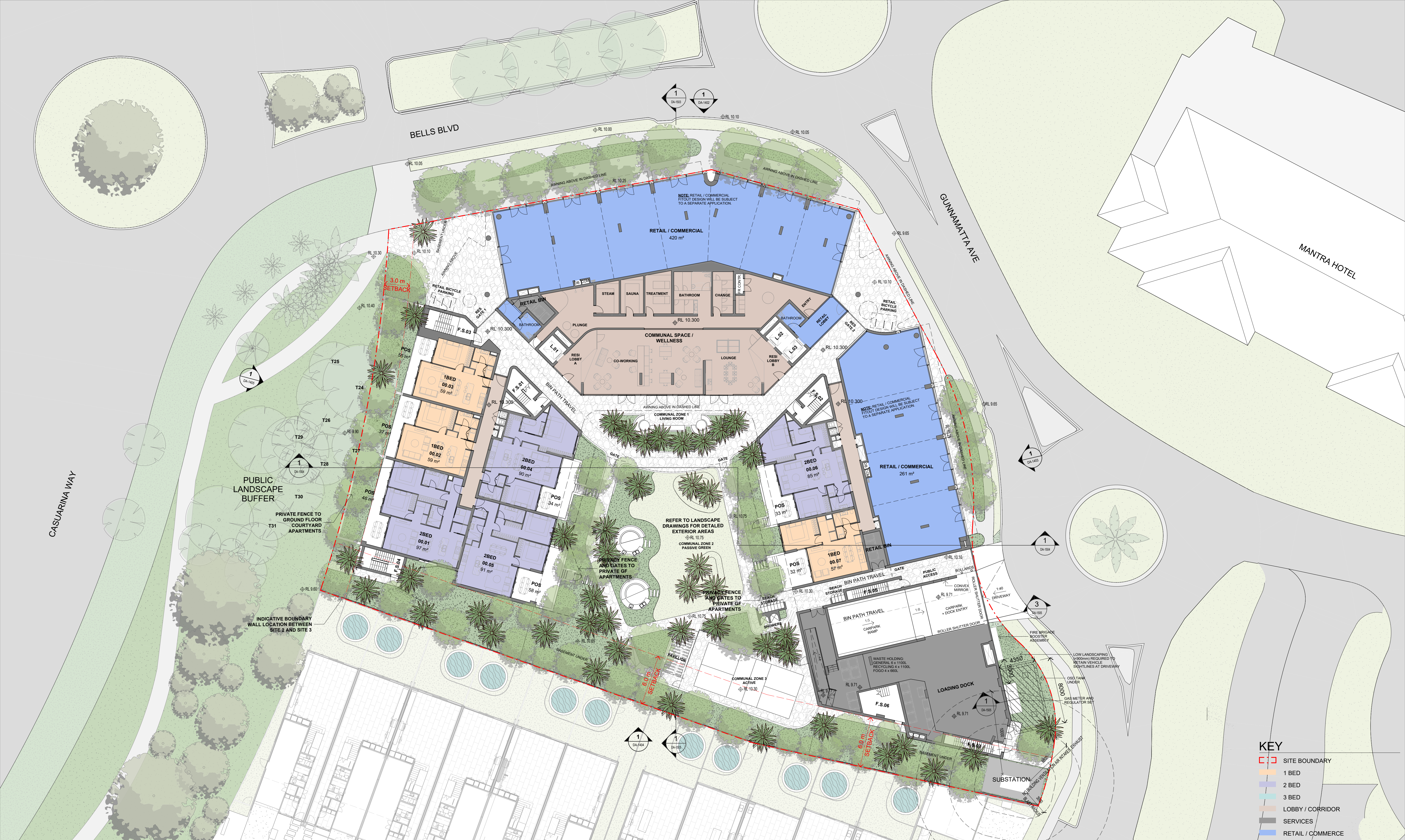
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RETAIL	12
BASEMENT 01	
RESIDENTIAL	25
VISITOR	10
BASEMENT 02	
RESIDENTIAL	44
TOTAL	91

PARKING SCHEDULE

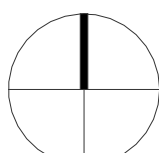
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SUBTOTAL	27
RESIDENTIAL 2600x5400	6
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SUBTOTAL	24
RETAIL 2600x5400	24
RETAIL ACCESSIBLE 2600x5400	1
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VISITOR PARKING	18
TOTAL	193



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Client

**BELLS
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Project

**BELLS BOULEVARD
4-8 BELLS BOULEVARD, KINGSCLIFF**

Drawing Name

FLOOR PLAN - LEVEL 00

Date

24-06-2026

Scale

1:200

Sheet Size

A1

Drawn

LR

Chk.

JV

Job No.

6906

Drawing No.

DA-1003

Revision

/ B

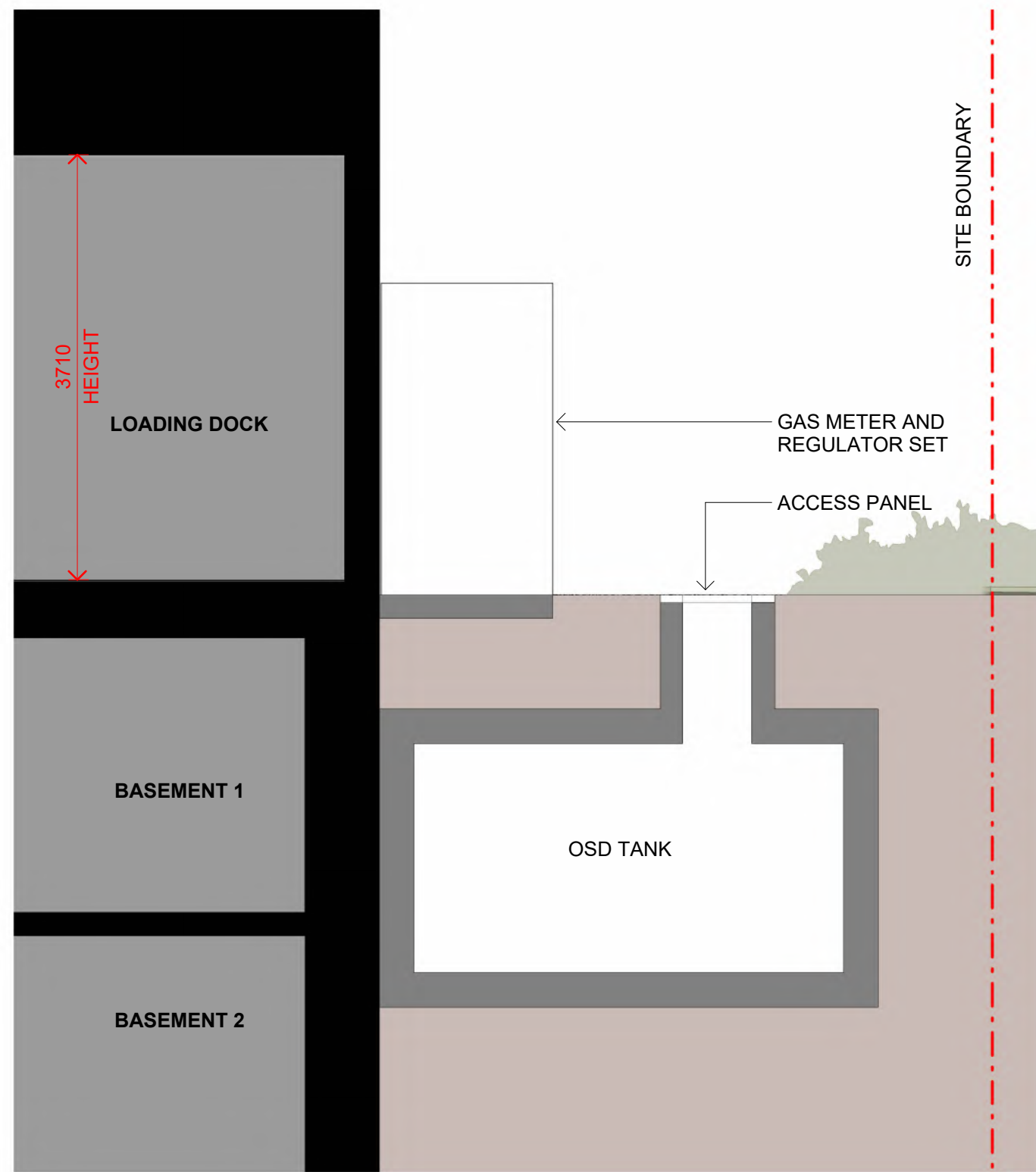
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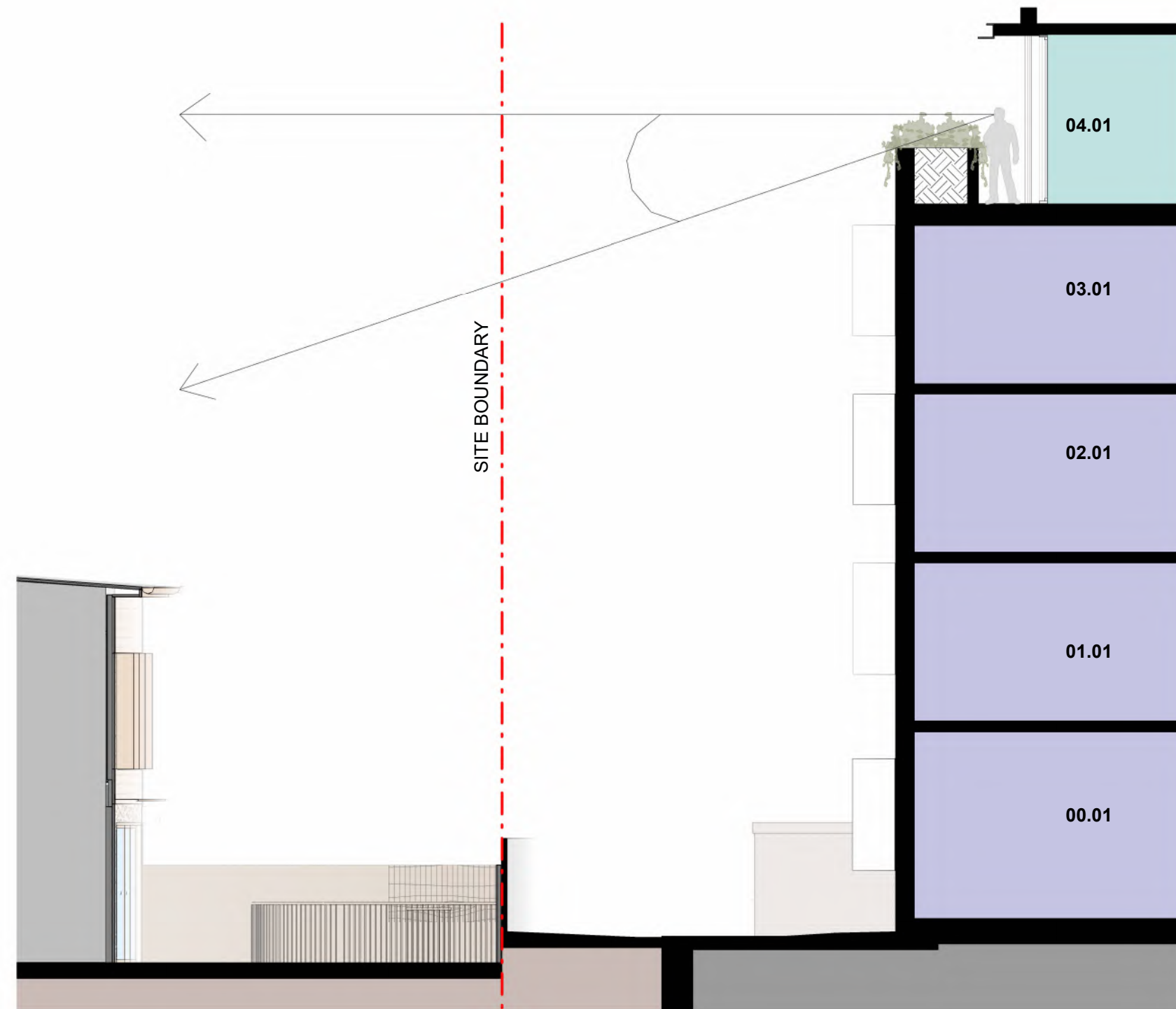
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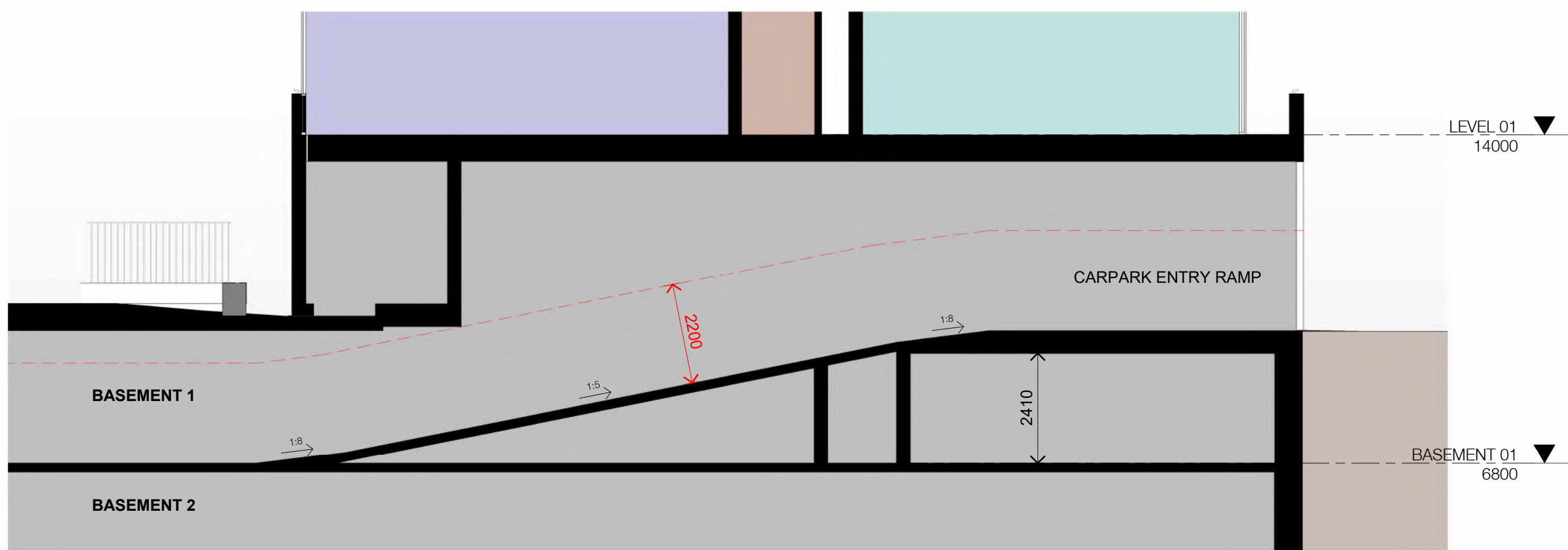




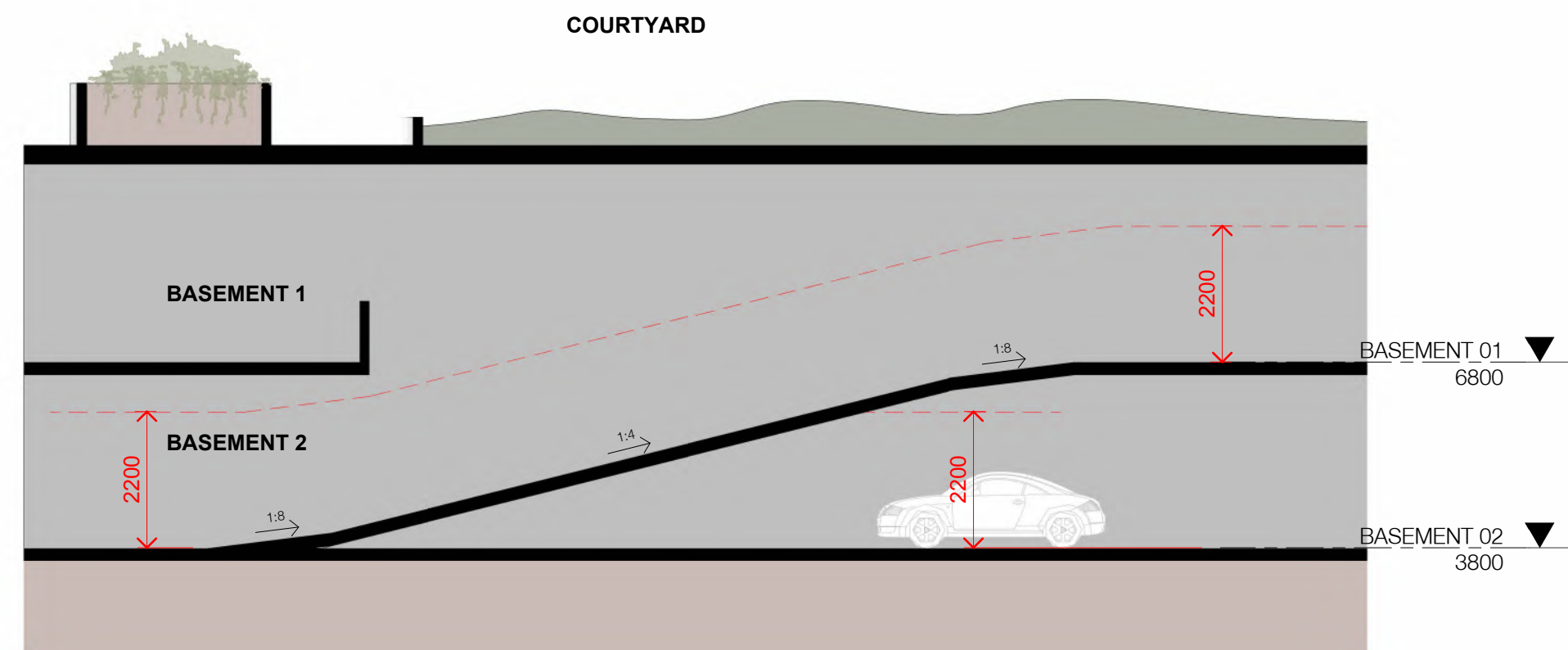
1 SECTION_LOADING DOCK & OSD TANK
DA-1001 SCALE 1:50



2 SECTION_OVERLOOKING STUDY
DA-1002 SCALE 1:100



3 SECTION_CARPARK RAMP
DA-1002 SCALE 1:100



4 SECTION_BASEMENT RAMP
DA-1001 SCALE 1:100

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Client

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Project

BELLS BOULEVARD
4-8 BELLS BOULEVARD, KINGSCLIFF

Drawing Name

DETAIL SECTIONS

Date

24-06-2026

Scale

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Sheet Size

A1

Drawn

MQ

Chk.

WG

Job No.

6906

Drawing No.

DA-1505

Revision

/ A

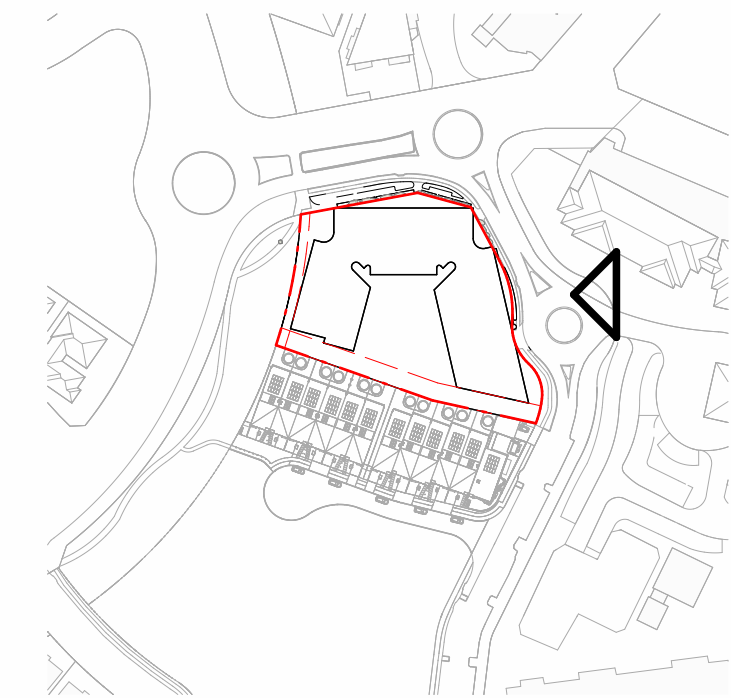
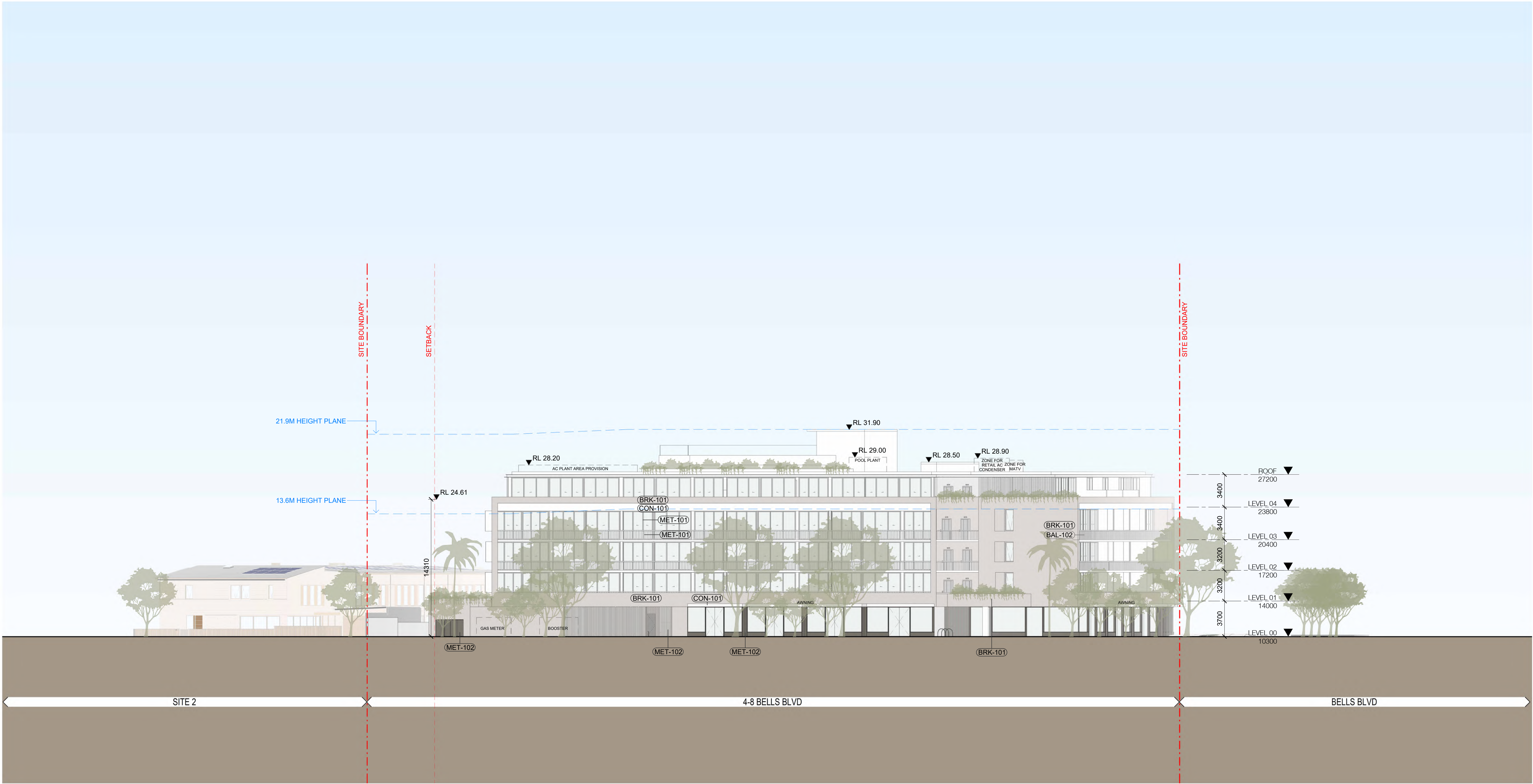
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EXTERNAL FINISHES AND MATERIALS LEGEND

- BRK-101** - Precast Brick Inlay - Light Beige Tone, equal to or similar
CON-101 - Concrete - Applied Finish Light Grey, equal to or similar
BAL-101 - Clear Vision Glass Balustrade (Pool), equal to or similar
BAL-102 - Metal Balustrade in MET-101 Finish, equal to or similar
MET-101 - Metal Finish (Window Frames, Balconies & Screens) - White, equal to or similar
MET-102 - Metal Finish (Window Frames) - Dark Grey, equal to or similar
SCR-101 - Screen (Windows, Balconies & South Stair), equal to or similar
CLD-101 - External Soffit Cladding (Roof)

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Client

BELLS BOULEVARD PTY LTD

Project

**BELLS BOULEVARD
4-8 BELLS BOULEVARD, KINGSCLIFF**

Drawing Name
ELEVATIONS - EAST

Date	Scale	Sheet Size
24-06-2026	1:200	A1
Drawn	Chk.	Job No.
LR	JV	6906
Drawing No.	Revision	
DA-1403	/ B	

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**ANNEXURE B: TTPP ROAD SAFETY AUDIT
(20 SHEETS)**



Proposed Access Arrangement to 4–8 Bells Boulevard, Kingscliff (Pre-Construction) Road Safety Audit

Prepared for:

Bells Boulevard Pty Ltd

28 May 2026

The Transport Planning Partnership

Proposed Access Arrangement to 4–8 Bells Boulevard, Kingscliff (Pre-Construction) Road Safety Audit

Client: Bells Boulevard Pty Ltd

Version: 02

Date: 28 May 2026

TPP Reference: 26160

Quality Record

Version	Date	Prepared by	Reviewed by	Approved by
01	25/05/2026	Doris Lee David Yu	Ken Hollyoak	Ken Hollyoak
02	28/05/2026	Doris Lee David Yu	Ken Hollyoak	Ken Hollyoak

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2.2	Audit Objective	4
2.3	Procedures and Reference Material	4
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4.2	Responding to the Audit Report.....	7
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APPENDICES

A. AUDITED DRAWINGS

1 Road Safety Audit Summary

Audited project:	Proposed Access Arrangement to 4–8 Bells Boulevard, Kingscliff
Client:	Bells Boulevard Pty Ltd
Audit Team:	Ken Hollyoak (KH) - Level 3 lead road safety auditor Doris Lee (DL) - Level 3 road safety auditor David Yu (DY) – Level 2 road safety auditor
Audit type:	(Pre-Construction) Road Safety Audit
Commencement meeting:	Not Requested
Audit date:	20 May 2026
Completion meeting:	Not requested

The objective of this road safety audit is to examine and identify road safety concerns regarding the Proposed Access Arrangement to 4–8 Bells Boulevard, Kingscliff.

The findings of the road safety audit have been detailed in Section 4.3 of this report.

2 Introduction

2.1 Background

Bells Boulevard Pty Ltd has lodged a SSDA to Tweed Shire Council for the construction of a residential flat building involving 69 apartment units with ground floor retail and wellness areas atop a two-level basement car park.

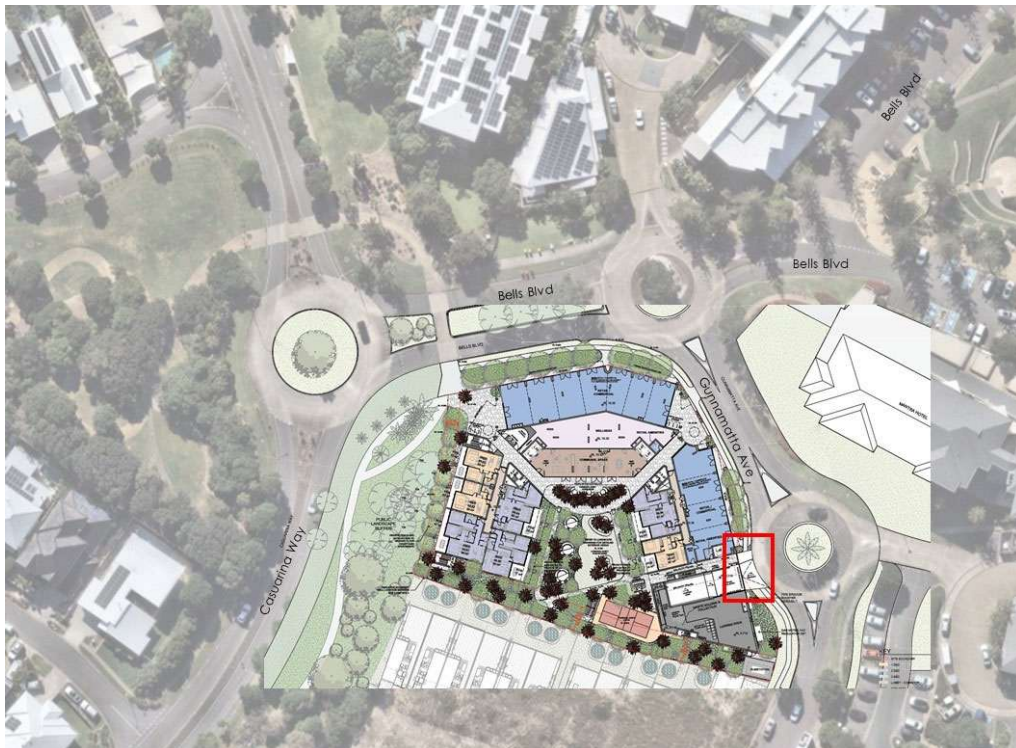
The proposed site access is located at an existing driveway that connects with a four-leg roundabout on Gunnamatta Avenue, as highlighted in Figure 1. The existing driveway will be removed, with a new driveway to be constructed at the same location as the western leg of the Gunnamatta Avenue roundabout.

As part of the SSDA review, council requires a road safety audit to assess the driveway access as follows:

Driveway Access

The current position and configuration of the driveway present potential road safety risks. The safe operation of a roundabout relies on adequate sight lines, and both the adjacent building structure and driveway grades significantly restrict visibility. The driveway is also partially concealed, making its location less intuitive for approaching drivers. The requirement for waste collection vehicles to negotiate movements with exiting traffic further increases the likelihood of vehicle movement conflict.

Figure 1: Proposed Site Access Location



2.2 Audit Objective

The objective of this independent audit was to identify road safety issues resulting from the Proposed Access Arrangement to 4–8 Bells Boulevard, Kingscliff

2.3 Procedures and Reference Material

The procedures used are described in the following guidelines:

- Roads and Maritime Services' 2011 Guidelines for Road Safety Audit Practices
- Austroads Guide to Road Safety 2022: Part 6 Road Safety Audits.

Other guidelines that were considered during the preparation of this audit included:

- Australian Standards (AS) 2890.2:2018
- Austroads Guide to Road Design Part 4B

The following information was supplied and referenced prior to undertaking the Road Safety Audit as shown in Table 2.1.

Table 2.1: Information Supplied

Documentation File Reference	Drawing Date
Bells Boulevard 4-8 Bells Boulevard, Kingscliff - Dwg No. 1003	28 November 2025

The design plans are shown in Appendix A.

2.4 Audit Team

The Road Safety Audit (RSA) was carried out by the following team:

- Ken Hollyoak (RSA-02-0249) – Level 3 road safety auditor (lead auditor)
- Doris Lee (RSA-02-0128) – Level 3 road safety auditor (team member)
- David Yu (RSA-02-0982) – Level 2 road safety auditor (team member)

Ken, Doris and David are registered road safety auditors with the NSW Centre for Road Safety and are experienced in traffic engineering and design/ inspection of traffic management schemes.

3 Road Safety Audit Program

3.1 Commencement Meeting

No commencement meeting was requested.

3.2 Site and Field Audit

A site inspection was carried out on Wednesday 20th May 2026 under sunny conditions.

Observations were made by driving along and walking the extent of the works to identify possible road safety concerns. Photographs were taken and video footage was recorded during the site inspection and this enabled audit staff to revisit elements of the site visit. Some photographs have been included in the audit findings in Table 4.2.

3.3 Completion Meeting

No completion meeting was requested.

4 Road Safety Audit Findings

4.1 Introduction

Table 4.1 provides specific details of the road safety deficiencies and a risk rating as extreme, high, medium, low or negligible. The risk ratings have been based on the risk matrix presented in Table 4.1, which has been adopted from the latest Austroads Guide to Road Safety: Road Safety Audit (2022).

Table 4.1: Risk Matrix

			Severity				
			Insignificant	Minor	Moderate	Serious	Fatal
			Property damage	Minor first aid	Major first aid and/or presents to hospital (not admitted)	Admitted to hospital	Death within 30 days of the crash
Likelihood (includes exposure)	Almost Certain	One per quarter	Medium	High	High	Extreme (FSI)	Extreme (FSI)
	Likely	Quarter to 1-year	Medium	Medium	High	Extreme (FSI)	Extreme (FSI)
	Possible	1 to 3 years	Low	Medium	High	High (FSI)	Extreme (FSI)
	Unlikely	3 to 7 years	Negligible	Low	Medium	High (FSI)	Extreme (FSI)
	Rare	7 years+	Negligible	Negligible	Low	Medium (FSI)	High (FSI)

The terms in Table 4.1 are described below.

Likelihood:

- Almost certain – occurrence once per quarter
- Likely – occurrence once per quarter to once per year
- Possible – occurrence once per year to once every three years
- Unlikely – occurrence once every three years to once every seven years
- Rare – occurrence less than once every seven years.

Severity:

- Insignificant – property damage
- Minor – minor first aid
- Moderate – major first aid and/or presents to hospital (not admitted)
- Serious – admitted to hospital
- Fatal – at scene or within 30 days of the crash.

Priority:

- Negligible – no action required
- Low – should be corrected or the risk reduced if the treatment cost is low
- Medium – should be corrected or the risk significantly reduced, if the treatment cost is moderate, but not high
- High – should be corrected or the risk significantly reduced, even if the treatment cost is high
- Extreme – must be corrected regardless of cost.

4.2 Responding to the Audit Report

As set out in the road safety audit guidelines, the responsibility for the road rests with the project manager, not with the auditor. The project manager is under no obligation to accept the audit findings. Neither is it the role of the auditor to agree to, or approve the project manager's responses to the audit.

The audit provides the opportunity to highlight potential road safety problems and have them formally considered by the project manager in conjunction with all other project considerations.

4.3 Road Safety Audit Findings

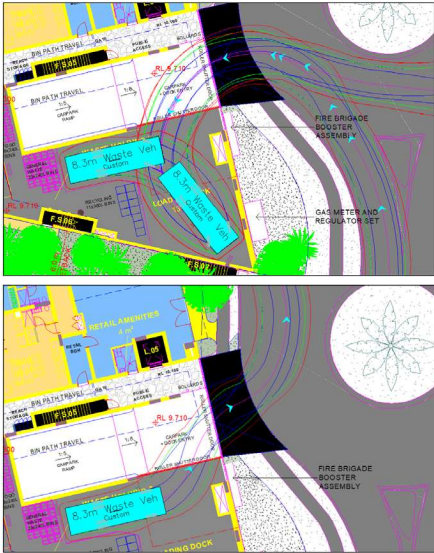
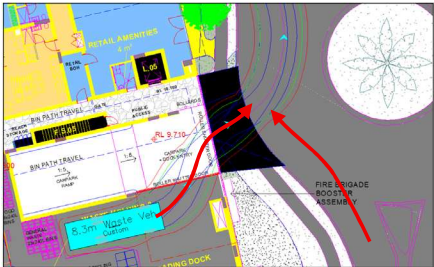
The audit findings are documented in Table 4.2 which provides:

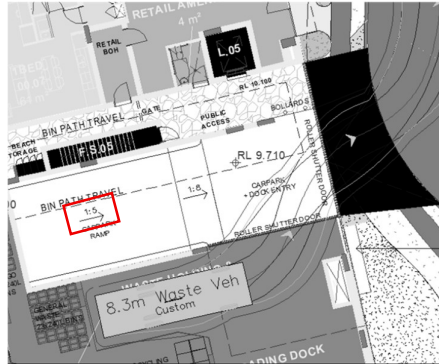
- specific details of the road safety issues identified during the audit
- a risk level rating for each of the road safety audit findings.

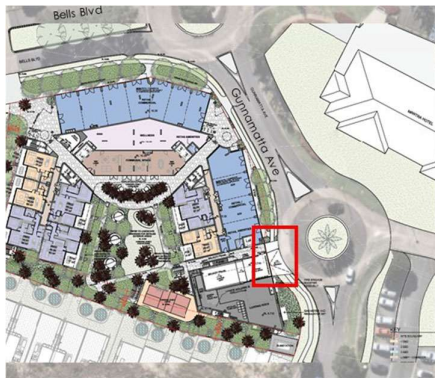
It should be acknowledged that positive attributes of the audited road section have not been discussed. Deficiencies that do not cause a safety problem are also not listed.

A column including recommendations has been included in Table 4.2.

Table 4.2: Road Safety Audit Findings

Item No.	Location	Descriptions of Findings	Design/ Photo	Likelihood	Severity	Risk Rating	Recommendation
1	Site access	The swept paths indicate that a waste collection vehicle would occupy the full width of the driveway when entering or leaving the site. However, it is acknowledged that AS2890.2:2018 Section 3.2.2 states that if the usage of the loading dock is classified as Occasional Service, the full width of the access driveway may be used for both entering and leaving the site.		-	-	Note only	N/A
2	Site access	Given the proximity of the loading dock to the site access, a waste collection vehicle would have to make an "S-curve" manoeuvre when leaving the site from the loading dock. The building structure may impede the mutual sight distance for the truck driver and a motorist entering the site. A motorist entering the site from the south may not be aware that a waste collection vehicle is leaving the loading dock at the same time.		Possible	Minor	Medium	Designer to confirm roundabout sight distance criterion can be satisfied in accordance with Austroads GTRD Part 4B for vehicles leaving the site.

Item No.	Location	Descriptions of Findings	Design/ Photo	Likelihood	Severity	Risk Rating	Recommendation
		This would increase the likelihood of traffic conflicts at the driveway. In addition, sudden braking to avoid a collision with the waste collection vehicle may result in a rear-end potential on the circulating lane at the roundabout.					
3	Site access	An exiting passenger car would have to stop on the ramp that has a 1:5 grade when a waste collection vehicle is leaving the loading dock. A 1:5 grade is too steep for a vehicle to stop safely. A vehicle may roll back on the slope resulting in possible rear-end conflicts. AS2890.1 stipulates a maximum grade of 1:10 for a queuing area for not less than 0.8 of the queue length determined in Table 3.3.		Possible	Property damage	Low	Provide a queueing area with a maximum grade of 1:10 to be compliant to AS2890.1.
4	Site access roundabout	There is no pedestrian crossing provision for pedestrians at the existing roundabout or proposed as part of the works. This may result in pedestrians crossing the road at inappropriate locations.		Possible	Minor	Medium	Consider the provision of a pedestrian crossing facility at the roundabout

Item No.	Location	Descriptions of Findings	Design/ Photo	Likelihood	Severity	Risk Rating	Recommendation
5	Site access roundabout	From the plans, it appears that the roundabout dimensions are being changed (n.b. an overlay of the layout plan on a nearmap suggests that the approaches/exits on the eastern side are being widened significantly (possibly enough for an additional lane) which would be likely to result in less deflection and excess speed with a resulting increase in the severity of any crashes.	 	Possible	Moderate	High	Ensure that scope of scheme is correctly shown on drawings such that it doesn't affect the eastern side of the roundabout. If it does widen the roundabout on the eastern side, there is a need to prepare plans showing line markings etc which should be included in this audit.

5 Concluding Statement

The findings and opinions in the report are based on the examination of the specific road and environs, and might not address all concerns existing at the time of the audit.

The auditors have endeavoured to identify features of the road that could be modified in order to improve safety, although it must be recognised that safety cannot be guaranteed since no road can be regarded as absolutely safe.

While every effort has been made to ensure the accuracy of this report, it is made available strictly on the basis that anyone relying on it does so at their own risk without any liability to the Auditors.



Ken Hollyoak
Level 3 Lead Road Safety Auditor
The Transport Planning Partnership



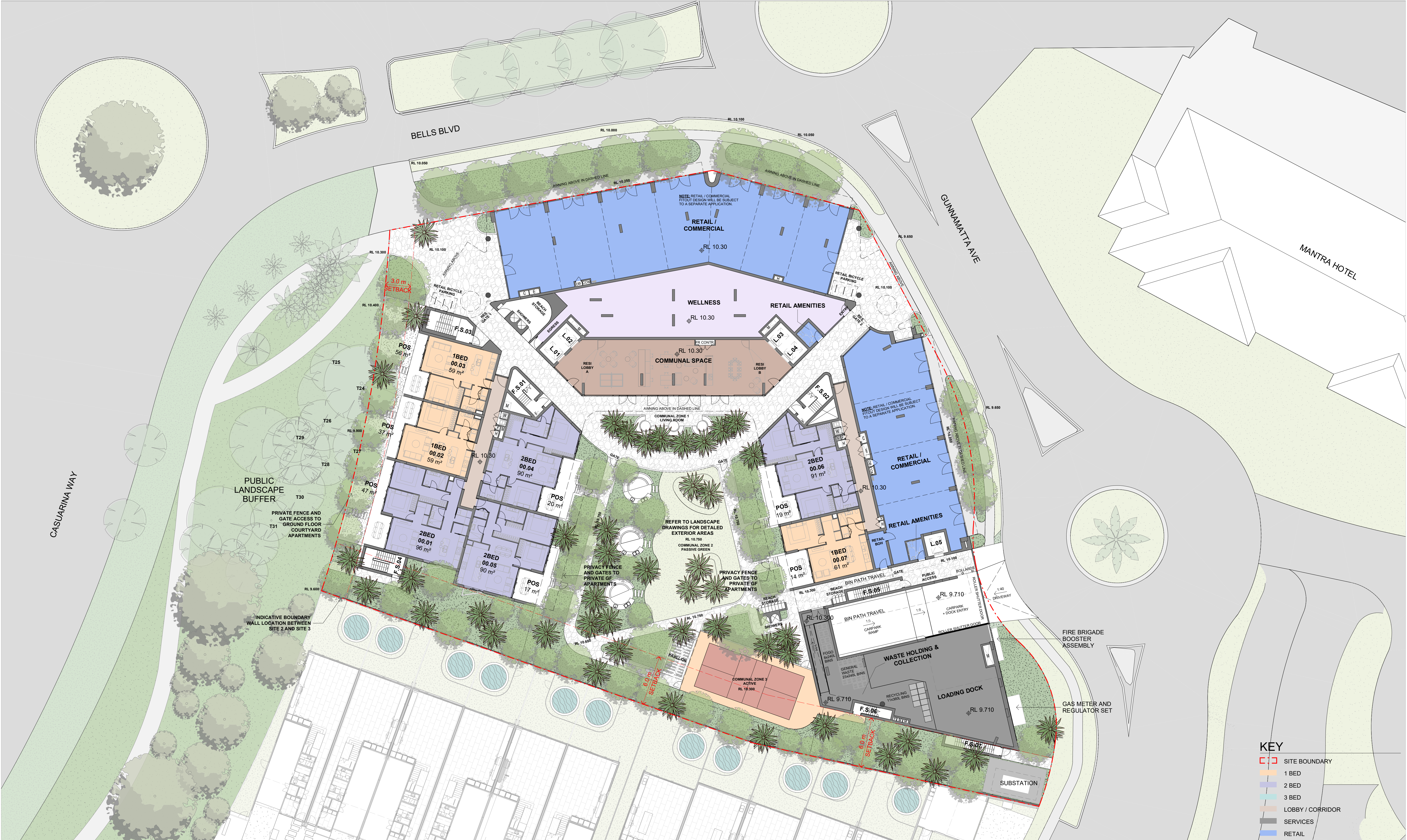
Doris Lee
Level 3 Road Safety Auditor
The Transport Planning Partnership



David Yu
Level 2 Road Safety Auditor
The Transport Planning Partnership

Annexure A

Audited Drawings

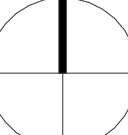


KEY

- SITE BOUNDARY
- 1 BED
- 2 BED
- 3 BED
- LOBBY / CORRIDOR
- SERVICES
- RETAIL

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0 2 4 10m
1:200 @A1

Nominated Architects: Adam Haddow-7188 | John Pradel-7004

Rev	Date	Revision	By	Chk.
A	28-11-2025	FOR SSDA	LR	JV

NOTE: MINOR CHANGES TO FORM AND CONFIGURATION MAY BE REQUIRED WHEN DRAWINGS ARE SUBSEQUENTLY PREPARED FOR CONSTRUCTION PURPOSES AFTER THE GRANT OF DEVELOPMENT CONSENT.

Client

BELLS BOULEVARD PTY LTD

Project

BELLS BOULEVARD
4-8 BELLS BOULEVARD, KINGSCLIFF

Drawing Name

FLOOR PLAN - LEVEL 00

Date

28-11-2025

Scale

1:200

Sheet Size

A1

Drawn

LR

Chk.

JV

Job No.

6906

Drawing No.

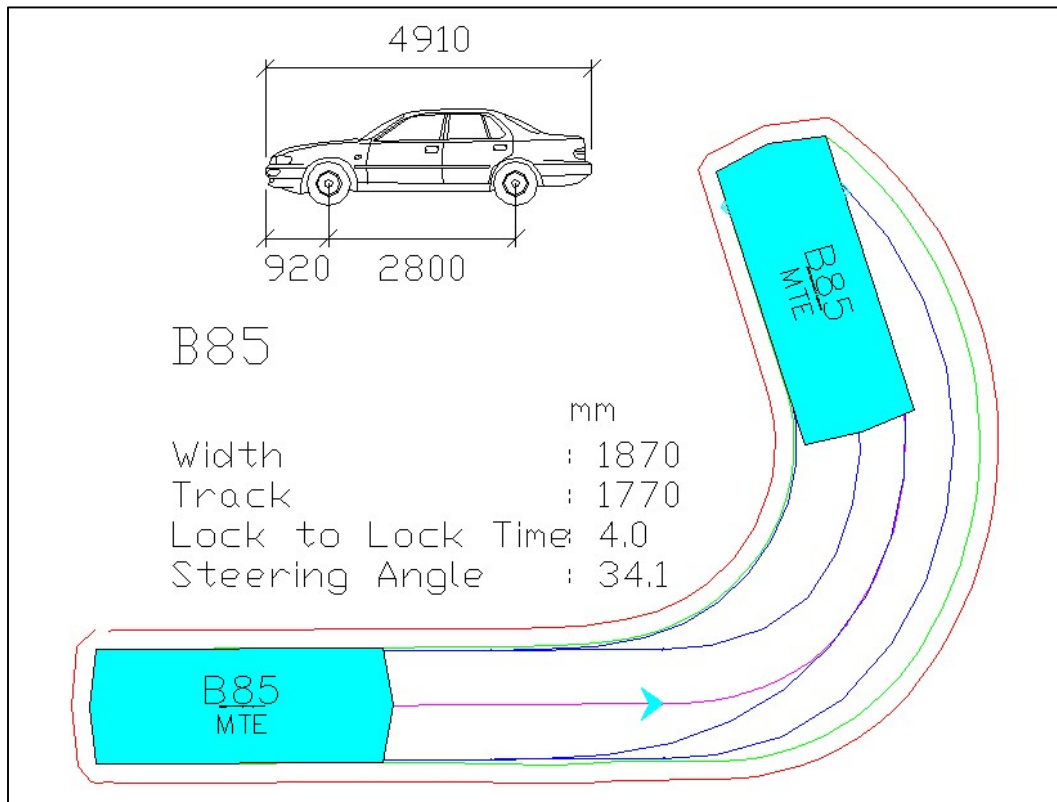
DA-1003

Revision

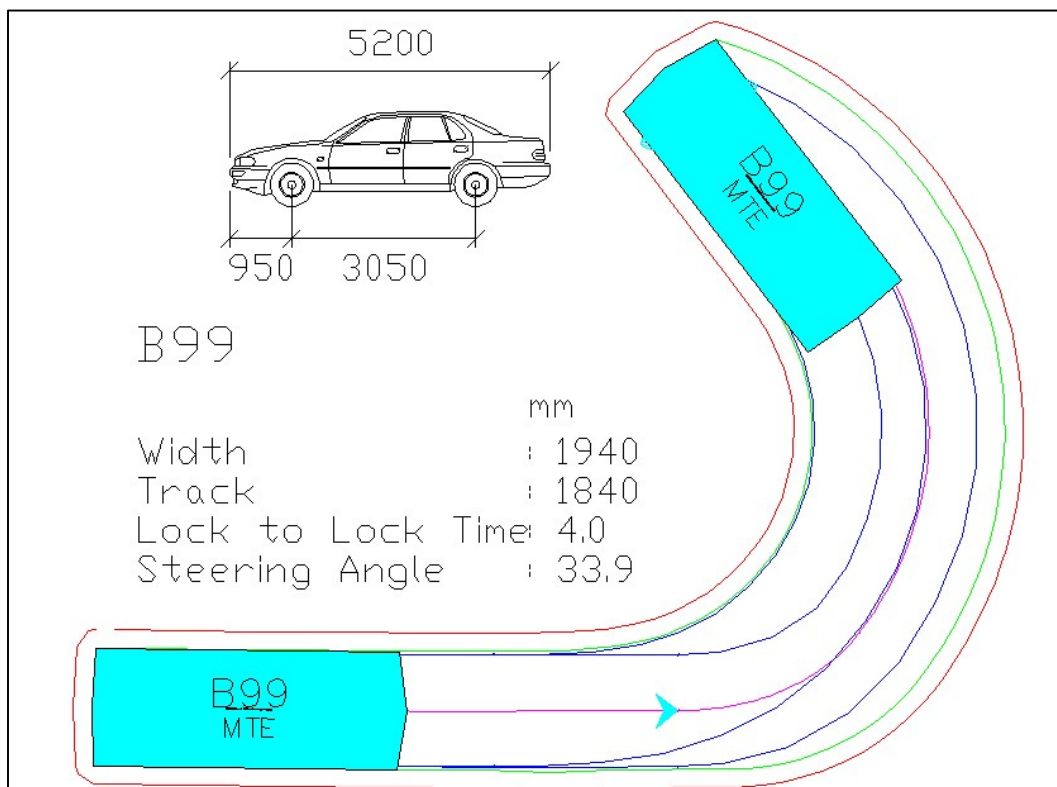
/ A

SJB Architects
Level 2, 490 Crown Street
Surry Hills NSW 2010
T 61 2 9380 9911
www.sjb.com.au





AUSTRALIAN STANDARD 85TH PERCENTILE SIZE VEHICLE (B85)



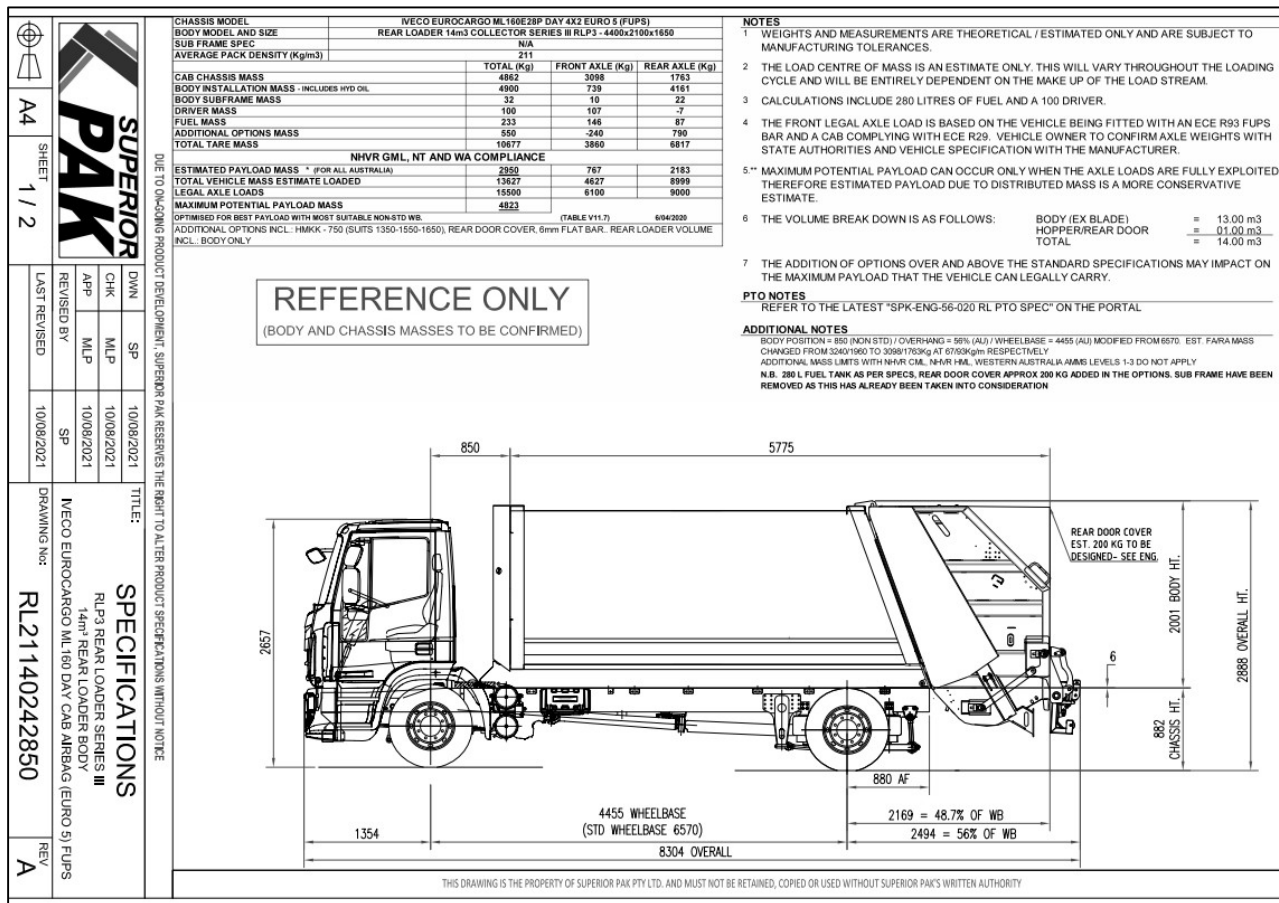
AUSTRALIAN STANDARD 99.8TH PERCENTILE SIZE VEHICLE (B99)

Blue – Tyre Path

Green – Vehicle Body

Red – 300mm Clearance

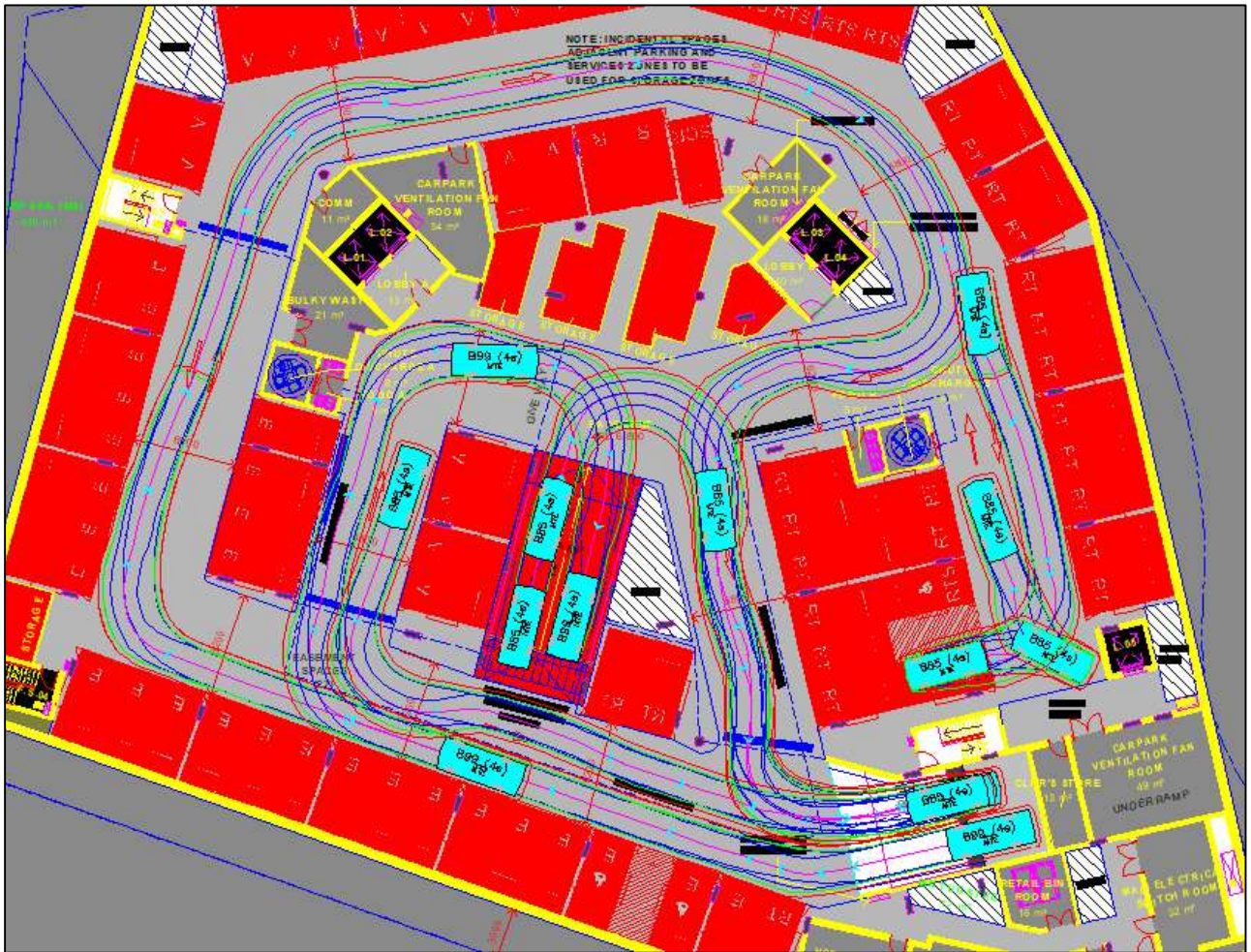
All tests performed at 10km/h on public roads and 5km/h internally.



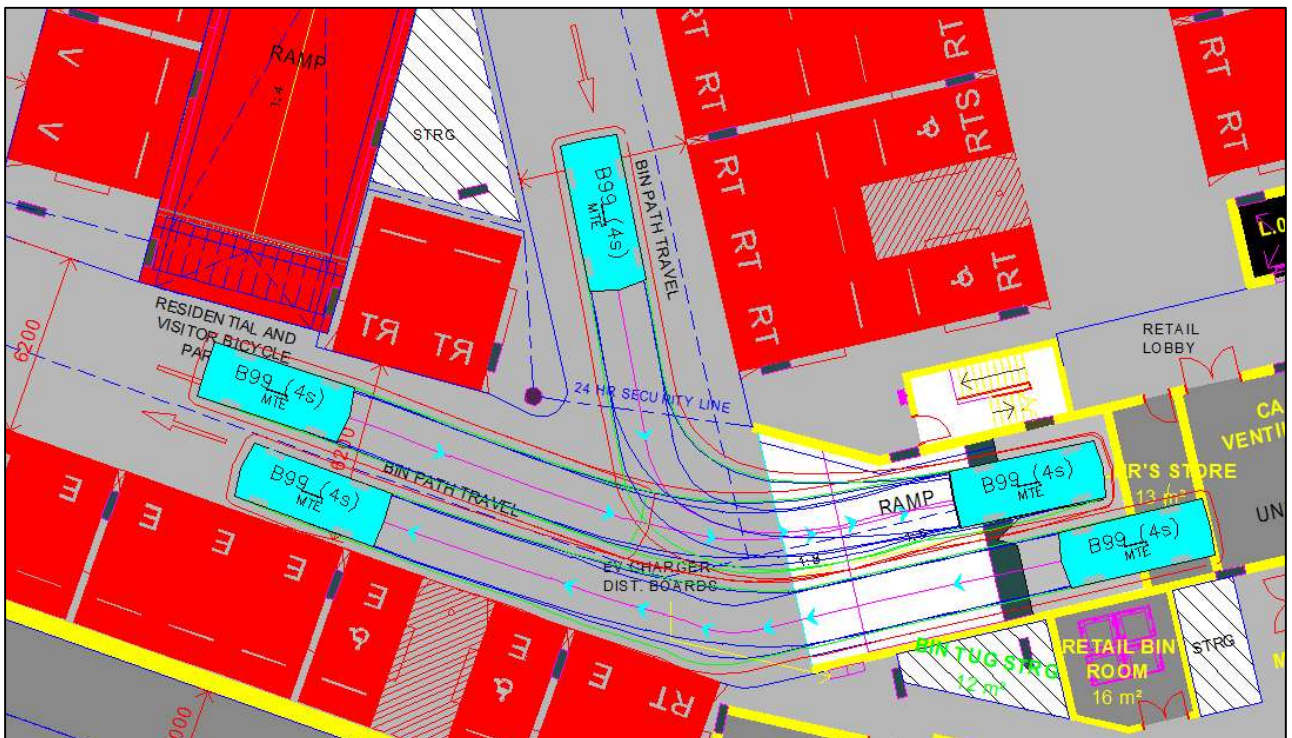
8.3m Custom Waste Vehicle Specifications



8.3m Waste Vehicle Entry / Exit from Loading Dock
2 Manoeuvres REVERSE ENTRY / 1 Manoeuvre FORWARD EXIT
Successful



B99 Circulation of Basement 1 with B85 Passing at Critical Locations Successful



B99 Passing B99 along Basement 1 Ramp Successful

The Transport Planning Partnership
Suite 402 Level 4, 22 Atchison Street
St Leonards NSW 2065

P.O. Box 237
St Leonards NSW 1590

02 8437 7800

info@tpp.net.au

www.tpp.net.au



**ANNEXURE C: WASTE LETTER SENT TO TWEED SHIRE
COUNCIL INCLUDING LETTER FROM SOLO WASTE
(17 SHEETS)**

M^CLAREN TRAFFIC ENGINEERING

Address: Shop 7, 720 Old Princes Highway Sutherland NSW 2232
Postal: P.O Box 66 Sutherland NSW 1499

Telephone: (02) 9521 7199
Web: www.mclarenttraffic.com.au
Email: admin@mclarenttraffic.com.au

Division of RAMTRANS Australia ABN: 45067491678 RPEQ: 19457

Transport Planning, Traffic Impact Assessments, Road Safety Audits, Expert Witness

12 June 2026

Reference: 250737.02FA

PODIA
Suite 506, Level 5
55 Miller Street
Pyrmont NSW 2009
Attention: Dominic Biancardi

LETTER OF ADVICE REGARDING WASTE COLLECTION FOR THE PROPOSED MIXED USE DEVELOPMENT AT 4-8 BELLS BOULEVARD, KINGSCLIFF

Dear Dominic,

Reference is made to your request to provide advice regarding waste collection for the proposed Mixed Use Development at 4-8 Bells Boulevard, Kingscliff (SSD-83069459). This letter provides further information to assist Tweed Shire Council in their review of the proposed waste collection operation for the proposed development.

1 Response to DPHI

This letter is in response to item 8 of the Department of Planning, Housing and Infrastructure (DPHI), additional information request dated 20 March 2025. The comments made by DPHI relevant to waste collection is shown below (*italicised*) with M^CLaren Traffic Engineering's (MTE) response thereafter.

8. Waste management

The Transport Impact Assessment (TIA) identifies a customised vehicle similar to a MRV for waste collection, which suggests that collection would be undertaken by a private operator. Confirmation is required from Tweed Shire Council whether this arrangement is acceptable, and evidence is required verifying the specific vehicle type proposed for the waste collection.

MTE Response: The proposed waste collection will be undertaken by a private operator. Solo Resource Recovery, that operates in the Tweed Region. The letter attached in **Annexure A**, has been provided by Solo Resource Recovery and indicates their ability and commitment to service the site. They have nominated that their waste collection vehicle will be the *Inveco Eurocargo ML160E25*, based on the vehicle body of an *Inveco JS Rearloader* (Inveco JS Rearloader), with the detailed specifications provided by Solo Resource Recovery and attached in **Annexure B** for reference. This vehicle has a length of 8.034m, a total operating height of 2.848m and an operating width of 2.42m. These dimensions have been adopted for the swept path testing of the vehicle within the proposed loading dock design, as provide in **Annexure C**.

Swept path testing of the design waste collection vehicle (Inverco JS Rearloader) has been undertaken within the proposed loading dock and on-site waste collection area, with the successful swept paths provided in **Annexure C**. It should be noted waste collection services are occasional under the definition of “occasional service” within AS2890.2:2018.

The operating vehicle height of the Inverco JS Rearloader is 2.848m. The collection of waste bins will be a rear lift operation, which does not require the bins to be lifted higher than the rear of the vehicle, so the vehicle can operate successfully within the 2.9m height of the vehicle. This is demonstrated below in **Figure 1**. The proposed loading dock has a 3.1m vertical clearance which can accommodate the private waste collection vehicle comfortably.

2 Response to Tweed Shire Council (Waste Matters)

The Tweed Shire Council has provided a number of comments within their letter to the DPHI dated 17 February 2026, with respect to the traffic elements of the waste collection. The comments made by Tweed Shire Council relevant to the traffic elements of waste collection shown below (*italicised*) with M^CLaren Traffic Engineering’s (MTE) response thereafter.

10. Traffic, access & parking

10.1 Loading dock headroom

The proposed loading dock provides only 3.1m of vertical clearance, which does not comply with AS2890.2:2018, requiring 4.5m for Medium Rigid Vehicles. Although the proponent states waste collection will be operated by a vehicle with a 2.9m height, no evidence is provided how bin-lifting mechanism can operating safely and effectively without risk of collision with the structure. The 200mm buffer is not supported.

Council recommends that confirmation is provided that the nominated waste collection vehicle can safely lift and service bins within the proposed loading dock clearance, supported by manufacturer specifications and/or operational confirmation from the waste contractor. The loading dock must be designed and signposted for the nominated MRV. Any increase to design vehicle class requires re-assessment and updated swept path analysis. In addition to the above, it is recommended a loading and waste plan of management be prepared that includes the following at a minimum:

- *Posted headroom limits with signage indicating maximum vehicle height; nominated service windows, including restriction of servicing outside retail peak periods.*
- *Marshalling procedures for service vehicle movements*
- *Safety measures, including any required convex mirrors, sight aids and warning signage*
- *The POM should be implemented for the life of the development.*

MTE Response: The proposed loading dock is designed to accommodate the identified design vehicle, being the Inverco JS Rearloader, as outlined in **Annexure A**. The vertical clearance of 3.1m within the loading dock is acceptable to accommodate the 2.9m operating height of the custom design vehicle. As shown in **Figure 1**, the bin lifting mechanism does not lift the bin above the height of the vehicle, and therefore the collection of waste can operate safely within the 2.9m headroom of the design vehicle.



FIGURE 1: EXAMPLE OF THE BIN LIFTING MECHANISIM

Swept path testing of the nominated design vehicle has been undertaken and is included in **Annexure C** for reference. This demonstrates that the nominated design vehicle can safely service the bins and enter and exit the loading dock in a forward direction. The operation is in compliance with the requirements of AS2890.2:2018, as relevant.

Reference is also made to *Clause 1.4.4* of AS2890.2:2018, which states the following:

1.4.4. clearance height

Minimum height for which structures should be designed to accommodate the design vehicle.

Note 1 to entry: Maximum allow vehicle heights are generally 0.2m less than this height.

As such, for a vehicle height of 2.9m, a clearance height of 3.1m is appropriate and compliant with the requirements of AS2890.2:2018 and therefore is supported.

A waste management plan can be conditioned to address the items listed by Council. The items listed by council are typical for any loading dock and can be accommodated. Convex mirrors and signage reflecting the vehicle restrictions on the loading dock will be provided as necessary.

12. Waste

12.2 Council kerbside collection

Council has a kerbside waste collection contract to collect waste generated by residential uses. The applicant should demonstrate that temporary kerbside bin placement is possible. Temporary collection should be demonstrated should private contracted waste management cannot be undertaken. Any OWMP should minimise impact on retail/commercial areas and should not require manual handling of bins by the collection truck driver at kerbside.

It is recommended that the OWMP demonstrate temporary kerbside bin placement that includes numbers and sizes of bins, lengths or kerbside/street frontages, local topography, and kerbside locations where collection can occur from a public road without the collection truck being impeded by parked vehicles.

MTE Response: Kerbside bin collection is demonstrated through the successful swept paths of Council's kerbside waste collection vehicle collecting waste from the nominated kerbside collection point, along Gunnamatta Avenue, just south of the roundabout. In the instance that a private contractor is unable to service the site (as per the proposal), waste collection can occur on the kerbside, in the location of the indented kerbside parking south of the roundabout. Swept path testing of this arrangement is provided in **Annexure D** for reference.

This kerbside parking area can be nominated as a "No Parking" zone during the typical early morning waste collection period. Council's kerbside waste collection typically occurs during the early morning period, when parking demand in Kingscliff is at it's lowest. The kerbside parking spaces will be made available at all other times and therefore would not have any impact on parking supply during peak times. The provision of time restricted no parking restrictions will be subject to Council's approval, if the site had to revert to kerbside collection.

However, it is reiterated and confirmed by the letter from Solo Resource Recovery in **Annexure A**, that private waste collection for this site can be achieved, such that kerbside collection is highly unlikely to ever be required. The applicant has demonstrated how such kerbside collection may occur, if the circumstances arose whereby private waste collection was no longer possible.

12.5 Loading bay for waste collection

The size of the loading bay has been designed for a custom collection vehicle. The size of the vehicle and the loading bay raises concerns with the vehicle being able to leave in a forward direction. The loading bay provides minimal flexibility for the MRV to be able to manoeuvre, and the loading bay is at flat slope adjacent to a sloping vehicle access ramp. The change in slope and levels is considered problematic for the MRV and vehicle access into the loading bay should be re-considered.

In addition to the above, there is no elevation or section detail provided in the architectural plans for the waste storage room. To determine if this space is usable for waste collection and differing levels will not cause issues for the MRV, amended plans should be provided.

MTE Response: Swept path testing of the custom waste collection vehicle has been completed with the successful results being provided in **Annexure C**. These swept paths demonstrate that the custom waste collection vehicle can enter and exit in a forward direction, as per the requirements of an occasional service definition in AS2890.2:2018.

There is no change of gradient within the direction of travel of the nominated waste collection vehicle as the loading dock entry is flat, the minor 1:8 transition at the edge of the loading dock, will be resolved during detailed design and will be able to achieve compliance with AS2890.2:2018 requirements, within the path of travel of the waste collection vehicle.

The provision of sections through the loading dock will be provided with the updated architectural package and will clearly demonstrate the 3.1m headroom is achieved throughout the loading dock, in locations where the custom waste collection vehicle will travel. The vehicle size and headroom limits will be clearly signposted and included in the site's plan of management.

3 Conclusion

The proposed loading dock and waste collection solution utilising the services of Solo Resource Recovery and their custom waste collection vehicle (Inverco JS Rearloader) is fully supportable in terms of the traffic and design related matters. The loading dock is designed to accommodate a custom design vehicle (Inverco JS Rearloader) and will be clearly signposted with respect to the maximum vehicle size and height of vehicles permissible. Waste collection will be occasional service (as per the AS2890.2:2018 definition) and the loading dock has been designed to achieve all the relevant objectives related to a custom design vehicle, such that the design is compliant with AS2890.2:2018 requirements.

Please contact the undersigned on 9521 7199 should you require further information or assistance.

Yours faithfully,

McLaren Traffic Engineering



Aaron Tomlins

Principal Traffic Engineer

BE(Hon)(Civil Engineering)/BCom

TfNSW Accredited Level 2 Road Safety Auditor (RSA-02-1623)

MIEAust, MAITPM, MITE-ANZ



ANNEXURE A: SOLO RESOURCE RECOVERY LETTER



10th June 2026

Tweed Shire Council
Civic and Cultural Centre
10–14 Tumbulgum Road
Murwillumbah NSW 2484

Attention: Development Assessment Team

RE: Kingscliff Mixed Use Development – State Significant Development
Application No. SSD-83069459 4–8 Bells Boulevard, Kingscliff

Response to Condition 10.1 (Tweed Shire Council) and Item 8 (Department of Planning, Housing and Infrastructure RFI) – Waste Collection Vehicle Confirmation and Loading Dock Operations

86-88 Chinderah Bay Drive
Chinderah NSW 2487
P.O. Box 1427
Kingscliff NSW 2487
AUSTRALIA

Services: 02 6676 7647
Admin: 02 6674 7656
Fax: 02 6674 7657
Email: solorr@solo.com.au
Web: www.solo.com.au

Dear Council,

Solo Resource Recovery is the nominated private waste contractor for the above development. This letter is provided in direct response to Tweed Shire Council Condition 10.1 and the Department of Planning, Housing and Infrastructure (DPHI) Request for Information Item 8, both of which require confirmation of the nominated waste collection vehicle and evidence that the proposed arrangement is operationally viable within the loading dock.

Nominated collection vehicle

The vehicle nominated for this development is the Iveco Eurocargo ML160E25 fitted with a Bucher Municipal JS14 Ecopack rear load compactor body. The relevant dimensions confirmed by manufacturer specification are as follows:

This vehicle is classified as a Medium Rigid Vehicle (MRV) under AS2890.2:2018. The Iveco chassis specification sheet and Bucher Municipal JS14 Ecopack sales data sheet are attached as Attachments A and B respectively. These attachments constitute the evidence of specific vehicle type required by the DPHI RFI.

Bin lift clearance confirmation

The Bucher Municipal JS14 Ecopack services bins via an underbody bin lifter mechanism. During the collection cycle, bins are raised and tipped into the rear hopper. The maximum height reached by the bin and lift mechanism during the tipping cycle complies with the required clearances necessary to undertake safe and efficient waste and recycling collection within the proposed 3.1m loading dock.

Solo Resource Recovery confirms that waste and recycling bins can be safely lifted, tipped and serviced within the proposed dock without risk of collision with any structural element. This confirmation is based on manufacturer specifications and our operational experience servicing enclosed dock environments with this vehicle configuration.

BYRON BAY Address: 25A Fowlers Lane PO Box 342 Bangalow NSW 2479 Phone: 02 6687 0455 Email: byron@solo.com.au	HUNTER REGION Address: 25-27 Oakdale Road PO Box 2347 Gateshead NSW 2290 Phone: 02 4947 8511 Email: solohunt@solo.com.au	HEATHERBRAE Address: 47 Camfield Drive PO Box 806 Raymond Terrace NSW 2324 Phone: 02 4983 4500 Email: l00solois@solo.com.au	CARRUM DOWNS Address: 47 Tova Drive PO Box 8236 Carrum Downs VIC 3201 Phone: 03 9770 8040 Email: rankston@solo.com.au	CLAYTON SOUTH Address: 145 Fairbank Road PO Box 1051 Clayton VIC 3168 Phone: 03 9552 1600 Email: rankston@solo.com.au
ROSEBUD Address: 4 David Court, Rosebud VIC 3941 PO Box 8236 Carrum Downs VIC 3201 Phone: 03 5982 2725 Email: rankston@solo.com.au	WARRAGUL Address: 10 A Endeavour Street PO Box 1364 Warragul VIC 3820 Phone: 03 5633 2009 Email: bawbaw@solo.com.au	NORTHPLYMPTON Address: 181 Morphet Road North Plympton SA 5037 Phone: 08 8295 5077 Email: soloman@solo.com.au	WINGFIELD Address: 401 Hanson Road Wingfield SA 5013 Phone: 08 8295 5077 Email: soloman@solo.com.au	WA REGION Address: 58-60 Burlington Street WA 6165 PO Box 990 Rockingham WA 6968 Phone: 08 9410 1566 Email: perth@solo.com.au



Private operator arrangement

In direct response to DPHI Item 8, Solo Resource Recovery confirms that waste collection for this development will be undertaken entirely by a private operator, not by Tweed Shire Council. Solo Resource Recovery is a private waste and recycling contractor with the resources, capability and operational experience to service the site in accordance with the proposed Operational Waste Management Plan prepared by Elephants Foot. This arrangement removes any reliance on Council collection services and is consistent with the customised MRV arrangement identified in the Transport Impact Assessment.

Solo Resource Recovery formally confirms its commitment to service this development on an ongoing basis under a private waste collection contract.

Loading and Waste Plan of Management

Solo Resource Recovery commits to operating under a Loading and Waste Plan of Management (POM) for the life of the development. The POM will be prepared prior to commencement of operations. The POM will be provided to the building owner and building manager upon finalisation and maintained for the life of the development.

Summary

Solo Resource Recovery is satisfied that the nominated Iveco Eurocargo ML160E25 can safely and efficiently service the proposed development within the 3.1m loading dock clearance. The attached manufacturer specifications substantiate the vehicle dimensions relied upon in this letter and constitute the evidence of specific vehicle type requested by DPHI. We are committed to preparing and maintaining a compliant POM for the life of the development.

Should Council or the Department require any further technical information or wish to discuss the operational methodology directly, please contact the undersigned.

Kind regards,

Tony Martin
Sales Representative
Solo Resource Recovery
M: 0419 239 046

Attachment A: Iveco Eurocargo ML160E25 chassis specification sheet

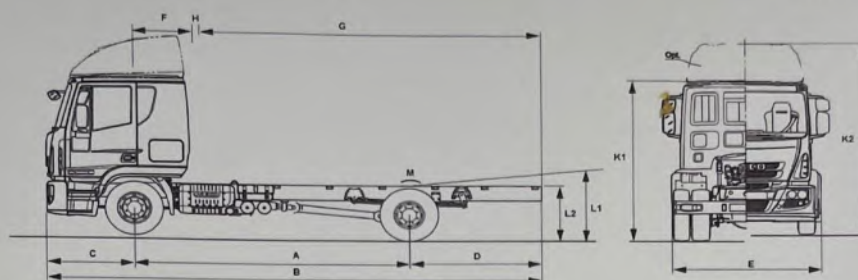
Attachment B: Bucher Municipal JS14 Ecopack sales data sheet (SD-JS14EJTA-V259)



Attachment A: Iveco Eurocargo ML160E25 chassis specification sheet

EUROCARGO E6

ML160E25S
ML160E25/P
4x2 RIGID



Plated/Design Weight	GVW (Kg)	GTW (Kg)	Front (Kg)	Rear (Kg)
Plated Weight	15990	19490	5800	10900
Design Weight	15990	19490*	6100	11000

* A GTW of 32500kgs is permissible provided a 9 or 12 speed gearbox and the drawbar pack are specified
For Front (Kg) axle capacity upgrade – see Order Guide

Kerb Weight

Weights are for the S model to a standard specification and include water, oils, 5 litres of AdBlue and 20 litres of fuel but exclude driver.

Kerb weights are subject to a manufacturing tolerance of +/- 5%.

For /P model add 155kg to the Rear (Kg) axle kerb weight.

A sleeper cab standard roof adds 100kg (70/30kg) to the kerb weight. A high roof sleeper adds 160kg (120/40kg) to the kerb weight.

Wheelbase (mm)	3105	3690	4185	4455	4815	5175	5670	6570
Front (Kg)	3092	3112	3137	3147	3182	3192	3227	3262
Rear (Kg)	1418	1498	1503	1508	1543	1553	1638	1693
Total (Kg)	4510	4610	4640	4655	4725	4745	4865	4955
Maximum Body/Payload (Kg) @ GVW	11480	11380	11350	11335	11265	11245	11125	11035

Dimensions (mm)

A	Wheelbase	3105	3690	4185	4455	4815	5175	5670	6570
B	Overall length (over bumpers)	5690	6702	7512	7917	8547	9132	9942	11447
C	Front overhang	1362	1362	1362	1362	1362	1362	1362	1362
D	Rear overhang	1313	1740	2055	2190	2460	2685	3000	2735
E	Cab width (over wings)	2420	2420	2420	2420	2420	2420	2420	2420
F	C/line f/axle to back of cab/equip	385	385	385	385	385	385	385	385
	day								
	sleeper		965	965	965	965	965	965	965
G	Usable frame length	3943	4955	5765	6170	6800	7385	8195	9700
	day		4375	5185	5590	6220	6805	7615	9120
	sleeper								
H	Cab gap	120	120	120	120	120	120	120	120
K1	Cab height (unladen*)	2765	2765	2765	2765	2765	2765	2765	2761
	std roof								
K2	high roof		3420	3420	3420	3417	3415	3415	3415
L1	Frame height at centre line of axle	1041	1039	1037	1038	1038	1038	1036	1035
	S								
	/P	904	903	903	903	903	903	903	902
L2	Frame height at end of frame	1080	1084	1085	1085	1086	1088	1086	1087
	S		886	886	886	886	886	886	886
	/P								
M	Wheel bump clearance	150	150	150	150	150	150	150	150
	Turning circle (wall to wall)	12340	14080	15540	16340	17400	18480	19940	22600

* Reduce by 3mm for air suspension models

Tyres and Wheels	Tyre Size		Tread		Wheels (8 stud)	
	Front	Rear	Front	Rear	Front	Rear
Standard	285/70R19.5	285/70R19.5	On Road	Traction	7.50 x 19.5	7.50 x 19.5
Optional	305/70R19.5	305/70R19.5	On Road	Traction	8.25 x 19.5	8.25 x 19.5
Optional	11R22.5	11R22.5	On/Off Road	On/Off Road	7.50 x 22.5	7.50 x 22.5



The information in this literature is intended to be of a general nature only. Iveco Ltd reserves the right to modify or change specification at any time. For further information please consult your dealer. PDI/APIAD ML160E25 Truck 18/12/2013



Attachment B: Bucher Municipal JS14 Ecopack sales data sheet (SD-JS14EJTA-V259)

SD 09/2014		SALES DATA SHEET			BUCHER municipal	
ACN 004 992 090						
PRODUCT NAME	DATE	REVISION	SHEET	SD-JS14EJTA-V259		
JS REARLOADER	02/06/2020	01	1 OF 1			
PRODUCT CODE	PRODUCT SIZE/CAPACITY	SALES MARKET	PRODUCT FUNCTION VARIATION			
REARLOADER	14m	AUSTRALIA				
BODY OPTIONS						
VEHICLE MAKE		VEHICLE MODEL		AXLE CONFIGURATION	WHEELBASE	
IVECO		ML160 E25		4x2	4455 (STD)	
CAB/CHASSIS OPTIONS					VCS CODE	
AIRBAG SUSP. AUTO TRANS.					2/F4DT1136	

	FRONT (kg)	REAR (kg)	TOTAL (kg)
TRUCK *	3,020	1,800	4,820
JS14 - ECOPACK BODY	561	3,089	3,650
DRIVER	80	0	80
ADD'L 175L FUEL	98	58	156
UNDERBODY BINLIFTER	-125	375	250
TARE	3,634	5,322	8,956
PAYLOAD **	848	3,678	4,527
GROSS	4,482	9,000	13,482
MAX RATED LOAD ***	5,800	9,000	15,000

* TRUCK TARE ESTIMATED FROM TRUCK SPEC SHEETS
** PAYLOAD WEIGHTS ESTIMATED ONLY AND MAY DIFFER
*** PAYLOAD LIMITED BY REAR LEGAL LIMIT



**ANNEXURE B: INVERCO JS REARLOADER DETAILS
(CUSTOM WASTE COLLECTION VEHICLE)
(2 SHEETS)**

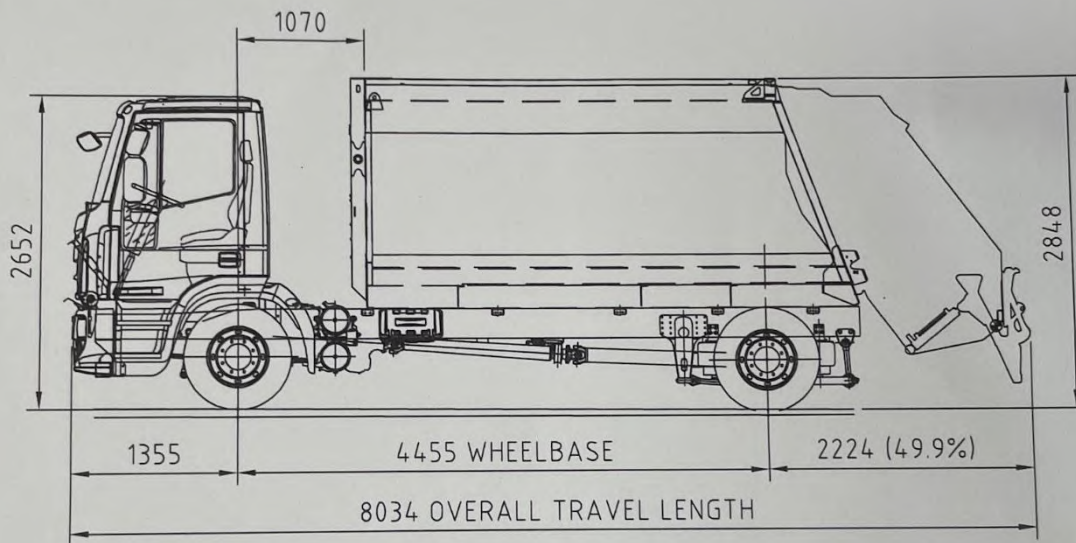
SD 09/2014

SALES DATA SHEET

BUCHER
municipal

ACN 004 992 090

PRODUCT NAME		DATE	REVISION	SHEET	ALN 004 992 090
JS REARLOADER		02/06/2020	01	1 OF 1	SD-JS14EJTA-V259
PRODUCT CODE	PRODUCT SIZE/CAPACITY	SALES MARKET		PRODUCT FUNCTION VARIATION	
REARLOADER	14m	AUSTRALIA			
BODY OPTIONS					
VEHICLE MAKE		VEHICLE MODEL		AXLE CONFIGURATION	WHEELBASE
IVECO		ML160 E25		4x2	4455 (STD)
CAB/CHASSIS OPTIONS					VCS CODE
AIRBAG SUSP. AUTO TRANS.					2/F4DT1136



	FRONT (kg)	REAR (kg)	TOTAL (kg)
TRUCK *	3,020	1,800	4,820
JS14 - ECOPACK BODY	561	3,089	3,650
DRIVER	80	0	80
ADD'L 175L FUEL	98	58	156
UNDERBODY BINLIFTER	-125	375	250
TARE	3,634	5,322	8,956
PAYLOAD **	848	3,678	4,527
GROSS	4,482	9,000	13,482
MAX RATED LOAD ***	5,800	9,000	15,000

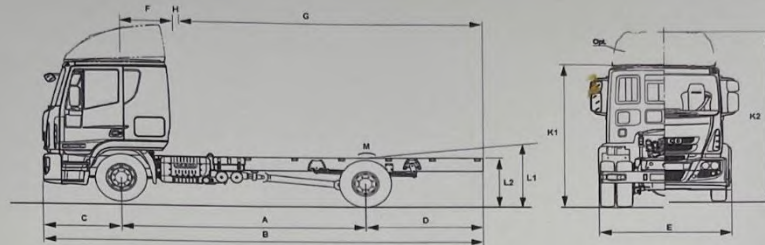
* TRUCK TARE ESTIMATED FROM TRUCK SPEC SHEETS

** PAYLOAD WEIGHTS ESTIMATED ONLY AND MAY DIFFER

*** PAYLOAD LIMITED BY REAR LEGAL LIMIT

EUROCARGO E 6

ML160E25S
ML160E25/P
4x2 RIGID



Plated/Design Weight	GVW (Kg)	GTW (Kg)	Front (Kg)	Rear (Kg)
Plated Weight	15990	19490	5800	10900
Design Weight	15990	19490*	6100	11000

* A GTW of 32500kgs is permissible provided a 9 or 12 speed gearbox and the drawbar pack are specified
For Front (Kg) axle capacity upgrade - see Order Guide

Kerb Weight

Weights are for the S model to a standard specification and include water, oils, 5 litres of AdBlue and 20 litres of fuel but exclude driver.
Kerb weights are subject to a manufacturing tolerance of +/- 5%.

For /P model add 155kg to the Rear (Kg) axle kerb weight.

A sleeper cab standard roof adds 100kg (70/30kg) to the kerb weight. A high roof sleeper adds 160kg (120/40kg) to the kerb weight.

Wheelbase (mm)	3105	3690	4185	4455	4815	5175	5670	6570
Front (Kg)	3092	3112	3137	3147	3182	3192	3227	3262
Rear (Kg)	1418	1498	1503	1508	1543	1553	1638	1693
Total (Kg)	4510	4610	4640	4655	4725	4745	4865	4955
Maximum Body/Payload (Kg) @ GVW	11480	11380	11350	11335	11265	11245	11125	11035

Dimensions (mm)

A	Wheelbase		3105	3690	4185	4455	4815	5175	5670	6570
B	Overall length (over bumpers)		5690	6702	7512	7917	8547	9132	9942	11447
C	Front overhang		1362	1362	1362	1362	1362	1362	1362	1362
D	Rear overhang		1313	1740	2055	2190	2460	2685	3000	2735
E	Cab width (over wings)		2420	2420	2420	2420	2420	2420	2420	2420
F	C/line flxile to back of cabequip	day	385	385	385	385	385	385	385	385
		sleep		965	965	965	965	965	965	965
G	Usable frame length	day	3943	4955	5765	6170	6800	7385	8195	9700
		sleep		4375	5185	5590	6220	6805	7615	9120
H	Cab gap		120	120	120	120	120	120	120	120
K1	Cab height (unladen*)	sid roof	2765	2765	2765	2765	2765	2763	2762	2761
K2		high roof		3420	3420	3420	3417	3415	3415	3415
L1	Frame height at centre line of axle	S	1041	1039	1037	1038	1038	1038	1036	1035
		/P	904	903	903	903	903	903	903	902
L2	Frame height at end of frame	S	1080	1084	1085	1085	1086	1088	1086	1087
		/P	886	886	886	886	886	886	886	886
M	Wheel bump clearance		150	150	150	150	150	150	150	150
	Turning circle (wall to wall)		12340	14080	15540	16340	17400	18480	19940	22600
* Reduce by 3mm for air suspension models										

* Reduce by 3mm for air suspension models

Tyres and Wheels	Tyre Size		Tread		Wheels (8 stud)	
	Front	Rear	Front	Rear	Front	Rear
Standard	285/70R19.5	285/70R19.5	On Road	Traction	7.50 x 19.5	7.50 x 19.5
Optional	305/70R19.5	305/70R19.5	On Road	Traction	8.25 x 19.5	8.25 x 19.5
Optional	11R22.5	11R22.5	On/Off Road	On/Off Road	7.50 x 22.5	7.50 x 22.5





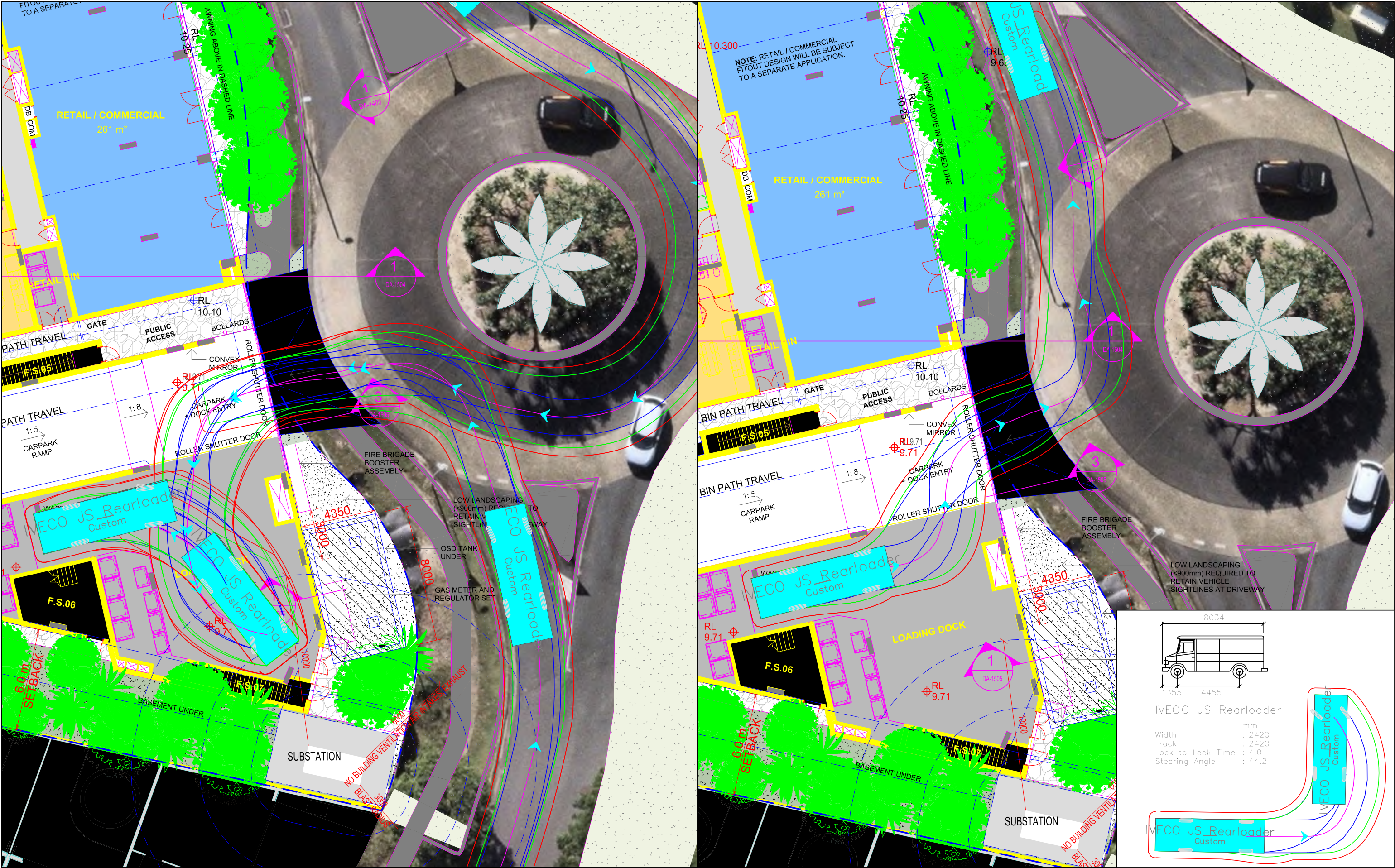
**ANNEXURE C: ON-SITE WASTE COLLECTION
SWEPT PATH TEST
(1 SHEET)**



**ANNEXURE D: ON-STREET KERBSIDE WASTE COLLECTION
SWEPT PATH TEST
(1 SHEET)**



**ANNEXURE D: ON-SITE WASTE COLLECTION
SWEPT PATH TEST
(1 SHEET)**



MCLAREN TRAFFIC ENGINEERING
A division of RAMTRANS Australia Pty. Ltd.
Shop 7, 716-720 Old Princes Hwy, Sutherland NSW 2232
P : (02) 9521 - 7199
E : admin@mclarentraffic.com.au
www.mclarentraffic.com.au

Client / Project:
PODIA

Project Address:
4-8 Bells Boulevard, Kingscliff

Notes:
CONCEPT PLAN ONLY.
NOT FOR CONSTRUCTION.

Tested Using:
*AutoTURN 11
*ZWCAD 2019
Scale @ A3 1:200

Project No:
250737.02

Drawing Title:
01A - On-Site Private Waste Collection

Revision History		
Version	Date	Notes
A	11/06/2026	Swept Path Testing





**ANNEXURE E: ON-STREET KERBSIDE WASTE COLLECTION
SWEPT PATH TEST
(1 SHEET)**

