



Stormwater Management Plan

67-69 Shore Street East, Cleveland

PLANS AND DOCUMENTS
referred to in the PDA
DEVELOPMENT APPROVAL

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**PITCH
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GROUP

Stormwater Management Plan

67-69 Shore Street East, Cleveland

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As Part of Project:

23191 - 67-69 Shore Street East, Cleveland

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Document Revision History

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1 Introduction

Pitch Black Group has been commissioned by Karote ATF Chippers Trust to prepare a Stormwater Management Plan to support a development application for a proposed multi-storey residential development at 67-69 Shore Street East, Cleveland.

This report addresses stormwater quality and quantity management during the operational phase. The design been prepared in accordance with the State Planning Policy 2017, Queensland Urban Drainage Manual 2016 and the Toondah Harbour Priority Development Area Development Scheme 2014.

1.1 RFI Response

The report has also been prepared in response to item 5 of the information request issued by Economic Development Queensland dated 18th April 2024 for the proposed multi-unit dwelling development (DA Ref: DEV2024/1488). The RFI items and responses have been provided below.

Table 1-1: RFI Response Table

| RFI Item | Response |
|--|---|
| 5a: Part of the site and surrounding streets are subject to Storm Tide Inundation. Demonstrate how safe vehicular and pedestrian movement, including emergency services, access the property, including the car park during and after a flood/coastal hazard event. Assessment to account for a 1% AEP 2100 climate change scenario. | A separate Flood Emergency Management Plan (FEMP) has been prepared that provides information on how safe vehicular and pedestrian movement, including emergency services, access the property, including the car park during and after a flood/coastal hazard event. The FEMP is included as a separate document within the submission package. |
| 5b: A 1% AEP flow from the site will be connected to the existing 525mm diameter pipe located in the verge on the northern side of Shore St East. A network analysis with the assumptions made in Section 5.3.1 of the stormwater management plan revealed that the existing stormwater infrastructure along Shore St East has adequate capacity to convey the flow from the fully developed catchment during storm events up to and including the 1% AEP, with a very slight surcharge likely at some upstream drainage structures which would result in road flow depths of less than 300mm. Demonstrate the following: <ul style="list-style-type: none"> Whether blockage factors of the pits are considered for the proposed 1%AEP internal flow (2100 climate change scenario). Please provide a plan showing the extent of the flood hazard extent in the road likely to be resulted due to the proposed stormwater connection/diversion. Clearly identify the size of the new pipe from the site on to the existing on the road 525mm diameter pipe. | <p>No blockage factors have been considered, as the pits on site are located in an undercover carpark which will be limited to capturing drips from cars or windblown rain from the entrance. There is limited opportunity for blockages of the pits and the volume of runoff captured is negligible.</p> <p>The large majority of runoff from site is captured by gutters located above the treeline and conveyed via downpipes and the underground stormwater networks which does not require blockage factors. See section 5.3.1 for further details.</p> <p>As discussed with the assessing engineer, there is a reduction in surface runoff contributing to the roadway of Shore Street East under developed conditions due to the large majority of the site runoff being conveyed directly to the existing stormwater network via new pipes.</p> <p>The surface runoff contributing to the roadway is limited to the driveway only and does not warrant a dedicated flood hazard extent plan, as there will not be any increase in the flood hazard resulting from surface flows from the proposed development. See section 5.3.6 for further details.</p> |

| RFI Item | Response |
|---|--|
| | <p>The proposed stormwater pipe joining the proposed development to the existing 525mm diameter pipe on the north side of Shore St East will be a 450mm diameter RCP and has been clearly labelled in Figure 5-4. It is noted that the final sizing of the pipe network will be subject to a detailed design assessment.</p> |
| <p>5c: The Toondah Harbour PDA Development Scheme requires a proposal's design, siting and layout to have regard to the natural environment and minimise adverse impacts on receiving waters. The development will discharge directly into Moreton Bay and the stormwater management plan provides no treatment measure to address section 3.4.4 of the Development Scheme. Update the submitted stormwater management plan to provide stormwater treatment measures to enable discharge into Moreton Bay.</p> | <p>In addition to the trash filter baskets in the inlet pits, first flush diverters discharging to landscaped areas have now been specified for all roofwater downpipes. See section 6 for further details.</p> |

2 Site Details

2.1 Location

The subject site is located at 67-69 Shore Street East, Cleveland (Lot 12 on C14563 & Lot 13 on C14563), approximately 30km south-east of Brisbane's CBD and occupies a total area of 2,226m².

The site is bounded by Shore Street East to the north, residential dwellings to the east and west and a park to the south, as shown below in Figure 2-1.



Figure 2-1: Locality Plan

2.2 Topography

The subject site generally falls toward the south, with a level building pad of approximately RL 4.40m on the northern half of the site and the rear boundary falling to a low point of RL 2.11m as can be seen in Figure 2-2.

The northern boundary of the site sits 0.5m to 1.0m above the Shore Street East frontage pavement level and there is a poorly defined, shallow table drain in the verge running to the west.

2.3 Existing Use

The existing structures on the development site consist of two single storey residential dwellings, a single storey granny flat and a number of sheds and water tanks as shown below in Figure 2-2. The eastern lot also features a paved driveway area.

Refer to the site survey by Axis Surveys in Appendix B for further details.



Figure 2-2: Aerial Imagery showing 0.25m contours (QLD Globe, 2023)

2.4 Easements

The site is not encumbered by any easements.

2.5 Planning Scheme

The site falls within the Queensland State Government Toondah Harbour Priority Development Area as shown in Figure 2-3.

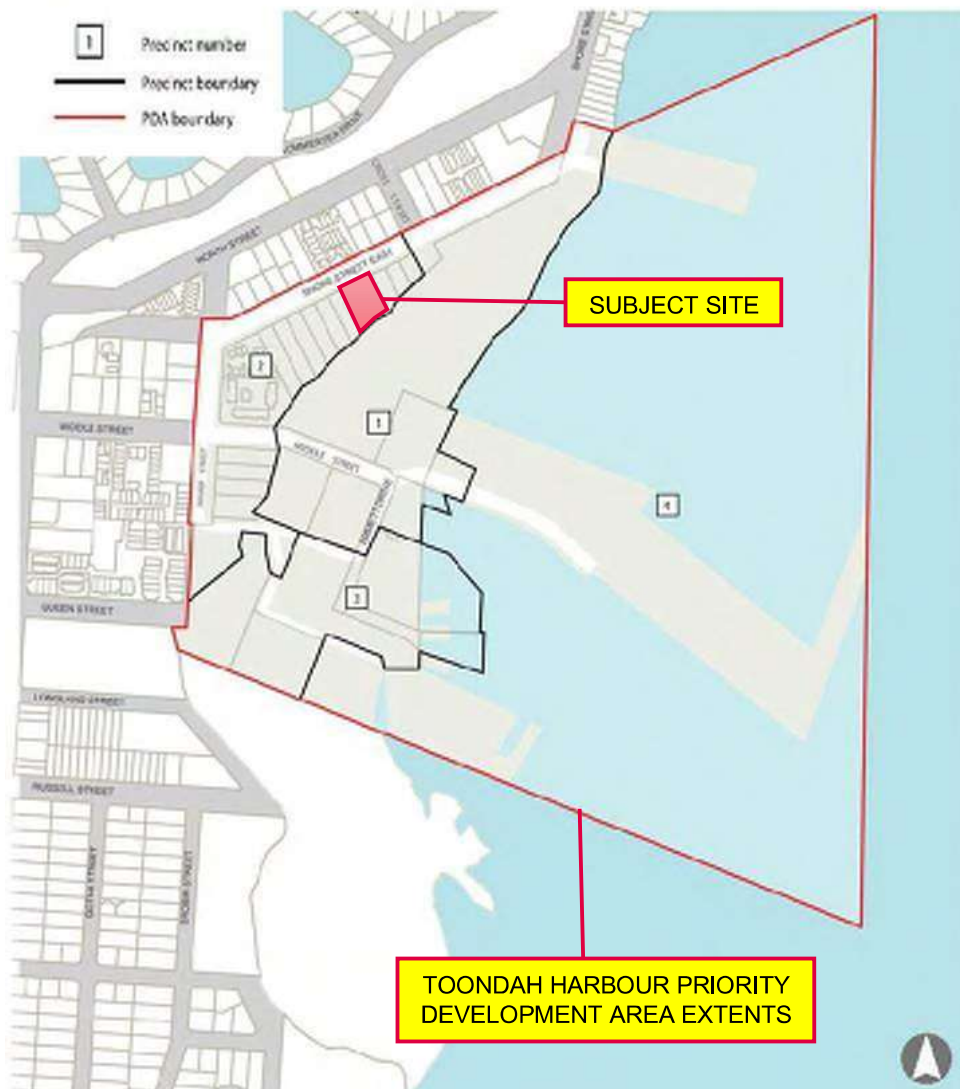


Figure 2-3: Toondah Harbour Priority Development Area Precinct Map (from Toondah Harbour PDA Development Scheme)

Under the Toondah Harbour Development Scheme, Precinct 2 will accommodate predominantly residential development with a preference for dual occupancy, multiple dwelling and residential care facilities.

3 Proposed Development

The proposal consists of a Material Change of Use application for a six (6) storey multi-unit development consisting of thirty (30) units and sixty-three (63) car parks on the ground floor. A 3D perspective of the development by RC+ Design is shown below in Figure 3-1.

Vehicular access to the development is proposed to be via a new 6.5m wide driveway crossover on Shore Street East. The section of Shore Street East fronting the proposed development will be upgraded to a 7m wide carriageway and new kerb and channel will be constructed along the southern edge, along with a new 2.5m wide multi-use footpath. Pedestrian access will be provided from Shore St East.



Figure 3-1: 3D Perspective by RC+ Design

Refer to Appendix A for the proposed site layout and elevation plans by RC+ Design.

4 Flooding

The subject site is impacted by the Flood and Storm Tide Hazard Overlay under the Redland City Plan 2018. The extent of the overlay over the site is shown in Figure 4-1.

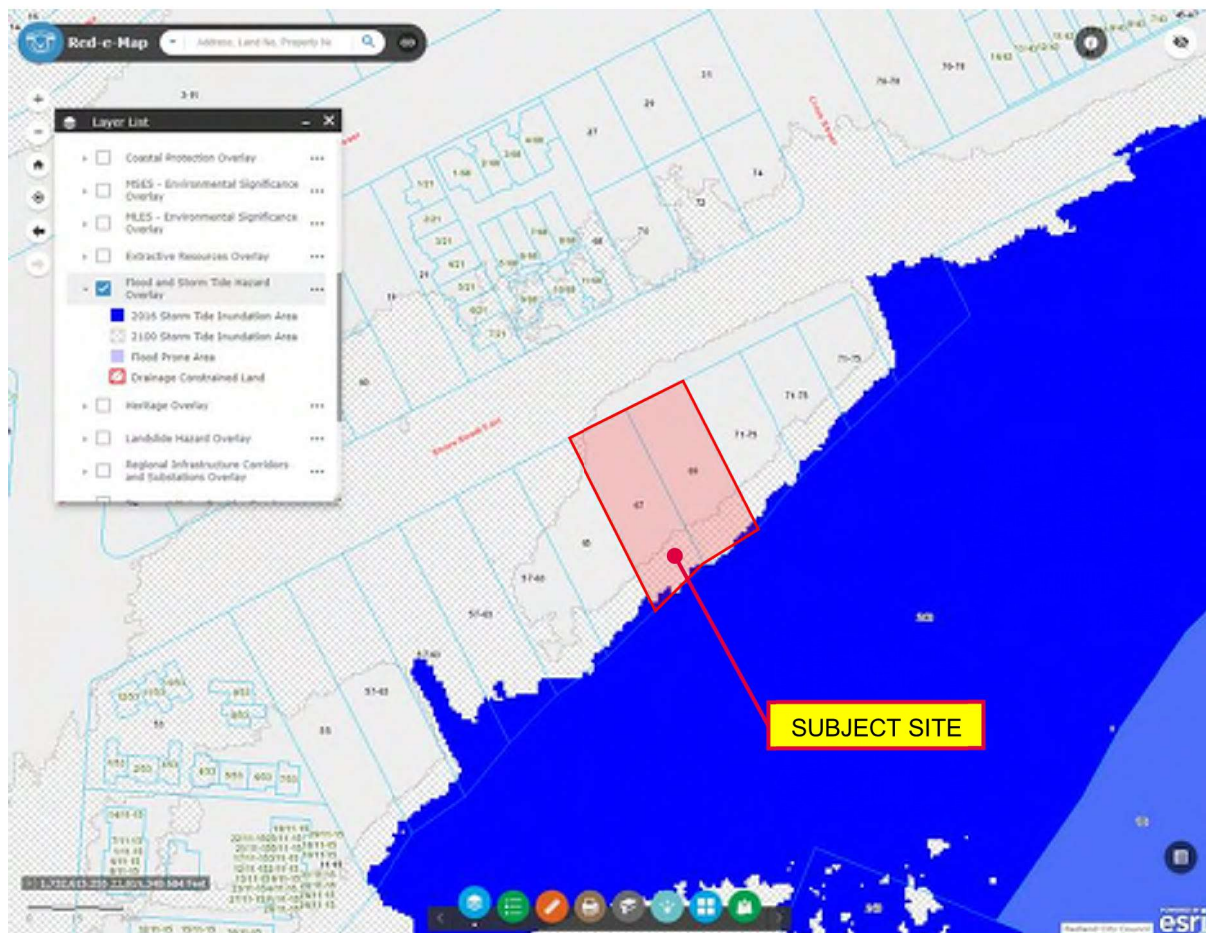


Figure 4-1: Redland City's Flood and Storm Tide Overlay

Redland City Council's Development.i website states that the predicted 1% AEP storm tide flood level for the subject site in the year 2100 is 3.16m AHD. Minimum freeboard requirements (300mm for habitable floors) have been set in accordance with QUDM.

The finished floor level of the habitable ground floor areas and all critical infrastructure including lifts have been designed to be at or above 3.46m AHD to achieve a 300mm freeboard above the 1% AEP year 2100 storm tide level.

Any Pad Mount Transformers (PMT) required for the site will be situated above 3.16m AHD.

Redland City Council's flood modelling shows that access to the subject site along Shore St is at risk of becoming un-trafficable during the year 2100 1% AEP storm tide event. A Flood Emergency Management Plan (FEMP) has been prepared to address the risks and actions for residents to take before, during and after such an event. The FEMP is included as a separate document in the submission package.

5 Stormwater Quantity Management

5.1 Existing Drainage Regime

5.1.1 Existing Infrastructure

No formal internal stormwater drainage infrastructure was identified within the proposed development site. It is assumed that all stormwater runoff from the site currently drains either to the council owned park at the south or to the table drain in the verge along Shore St East via sheet flow.

Shore St East has kerb and channel along the northern side draining to a gully pit approximately 75m to the east of the site, while the southern side of the road discharges directly into a shallow grassed table drain that also runs to the west.

A DN525 RCP stormwater pipe is located in the verge immediately opposite the proposed development on the northern side of the carriageway. This drainage network conveys internal flows from the existing unit/townhouse developments on the northern side of Shore St East to the gully pit and then continues under the road into a vegetated open channel to the south. The open channel appears to discharge into park and then flow overland into the bay.

The existing stormwater drainage infrastructure identified on Council's Red-e-map is shown in Figure 5-1.



Figure 5-1: Existing stormwater infrastructure (Red-e-map 2023)

5.1.2 Existing Catchments

The existing site catchments are summarised in Table 5-1.

Table 5-1: Existing catchment details

| Catchment | Area (m ²) | Fraction Impervious (fi) | Description |
|------------|------------------------|--------------------------|---|
| EX1 | 2,236 | 0.45 | Runoff from the subject site currently discharges via sheetflow either to the verge on Shore St East or into the park on the southern boundary. |
| Site Total | 2,236 | 0.45 | |

5.2 Proposed Drainage Regime

5.2.1 Lawful Point of Discharge

The proposed lawful point of discharge (LPOD) for the development is the existing 525mm RCP stormwater pipe in the verge on the northern side of Shore St East, directly opposite the development site.

5.2.2 Proposed Infrastructure

The proposed drainage infrastructure for the site will consist primarily of an internal system of grated stormwater pits draining the ground floor carpark and roof of the proposed development. These pits will connect to a proposed gully pit positioned just to the south-west of the new driveway crossover and then be piped under the road carriageway and into a new 1050mm diameter stormwater manhole built over the existing 525mm diameter pipe.

The internal stormwater system will be sized to convey up to a 1% AEP event via the pit and pipe network. The small landscaped areas within the site footprint will discharge directly to the verge along the front or the park to the rear of the site via sheetflow.

No detention structures are proposed for the developed site based on a capacity analysis of the existing stormwater network, refer to section 5.3 for details.

The proposed stormwater drainage infrastructure works are shown in the Concept Services Layout (Ref: 23191-DWG-CV-SK001) in Appendix C.

5.2.3 Developed Catchments

The developed site catchments are summarised below in Table 5-2 with the peak flow rates for the Rational Method shown in Table 5-2.

Table 5-2: Developed catchment details

| Catchment | Area (m ²) | Fraction Impervious (fi) | Description |
|------------|------------------------|--------------------------|--|
| PR1 | 2,236 | 0.90 | Runoff from the roof and hardstand areas are collected via gutters and downpipes and discharged via the piped drainage system. Landscaped areas discharge directly to the verge or park areas. |
| Site Total | 2,236 | 0.90 | |

5.3 Stormwater Quantity Modelling

5.3.1 Approach

A network analysis was carried out on the Shore St East stormwater drainage network to determine if the existing pipes had adequate capacity to convey the flow from the fully developed catchment during storm events up to and including the 1% AEP. It is proposed that if the existing drainage system can be shown to cater for a fully developed catchment, then stormwater detention measures will not be required as part of the proposed development.

The network analysis was carried out using DRAINS software to simulate a fully developed scenario with the following assumptions:

- all properties within the greater catchment area will ultimately become high density development with a fraction impervious value of around 90%
- all future development of properties along the southern side of Shore St East will be filled to achieve flood immunity and drain back towards Shore St East
- The two lots to the east and west of the existing drainage easement (Lot 7 & 8 on C14563) will be designed to discharge to the southern end of the easement and will not contribute to the flows in the piped network.
- The existing 900m diameter pipe discharging into the drainage easement is able to discharge freely (ie. no tailwater level) into the open channel.
- All pits and gutter inlets internal to the subject site will not have blockage factors considered as all grated inlet pits are undercover in a concrete carpark and the roof is above the treeline with gutters sized to handle a 1% AEP flow.

The catchments and anticipated future stormwater drainage network for the fully developed scenario are shown below in



Figure 5-2.



Figure 5-2: Fully Developed Catchments – Shore St East Drainage Network

DRAINS software has been used to estimate the peak runoff rates generated from the catchments under fully developed conditions and model the hydraulic grade line of the pipe flows under the design event.

A Rational Method assessment has been undertaken to validate the DRAINS model parameters by comparing the peak flow rates estimated by both methodologies.

5.3.2 Model Configuration

The general configuration parameters and sub-catchment parameters adopted for the DRAINS modelling are summarised below in Table 5-3 and Table 5-4.

Table 5-3: DRAINS general configuration parameters

| Model Elements | Parameter |
|---|--|
| Hydrologic Model | IL/CL Model |
| Rainfall Depths | Design rainfall depths for events from 12EY to 0.05% AEP and durations of 1 minute to 168 hours were sourced from the Bureau of Meteorology's Design Rainfall Data System using coordinates from the centroid of the subject site (-27.525526, 153.283154) |
| Rainfall Temporal Patterns | East Coast (North) |
| Preburst Rainfall | Median preburst depths applied |
| Impervious Area Initial Loss (mm) | 0 |
| Impervious Area Continuing Loss (mm/hr) | 0 |

| Model Elements | Parameter |
|---------------------------------------|--|
| Pervious Area Initial Loss (mm) | 26 – Sourced from Australian Rainfall and Runoff's Data Hub |
| Pervious Area Continuing Loss (mm/hr) | 1.7 – Sourced from Australian Rainfall and Runoff's Data Hub |
| Timestep (secs) | 6 – Set by DRAINS |
| Storm Events Assessed | 63% AEP to 1% AEP events |
| Storm Durations Assessed | 5 mins to 2 hours |

Table 5-4: Sub-catchment parameters

| Catchment | Area (ha) | EIA % | RIA % | PA % | EIA TOC | RIA TOC | PA TOC |
|-----------|-----------|-------|-------|------|---------|---------|--------|
| CA1 | 0.0969 | 90 | 0 | 10 | 5 | 2 | 5 |
| CA2 | 0.2236 | 90 | 0 | 10 | 5 | 2 | 5 |
| CA3 | 0.4098 | 90 | 0 | 10 | 5 | 2 | 5 |
| CA4 | 0.1891 | 90 | 0 | 10 | 5 | 2 | 5 |
| CA5 | 0.1751 | 90 | 0 | 10 | 5 | 2 | 5 |
| CA6 | 0.2082 | 90 | 0 | 10 | 5 | 2 | 5 |
| CA7 | 0.4673 | 90 | 0 | 10 | 5 | 2 | 5 |
| CA8 | 0.1567 | 90 | 0 | 10 | 5 | 2 | 5 |
| CA9 | 0.4607 | 90 | 0 | 10 | 5 | 2 | 5 |
| CA10 | 0.4039 | 60 | 0 | 40 | 5 | 2 | 5 |
| CA11 | 0.3290 | 60 | 0 | 40 | 5 | 2 | 5 |

* EIA – Effective Impervious Area, RIA – Remaining Impervious Area, PA – Pervious Area, TOC – Time of Concentration (mins)

5.3.3 DRAINS Model



Figure 5-3: DRAINS Model Layout – Fully Developed Catchment

5.3.4 Model Results

The DRAINS model was run for all storm events up to and including the 1% AEP using the full unsteady hydraulic model. The results of the 10% and 1% AEP model simulations are shown in Figure 5-4 and Figure 5-5. The Hydraulic Grade Lines (HGLs) for a number of the primary pipes in the system can be seen in the pipe longitudinal section plots in Figure 5-6 and Figure 5-7.

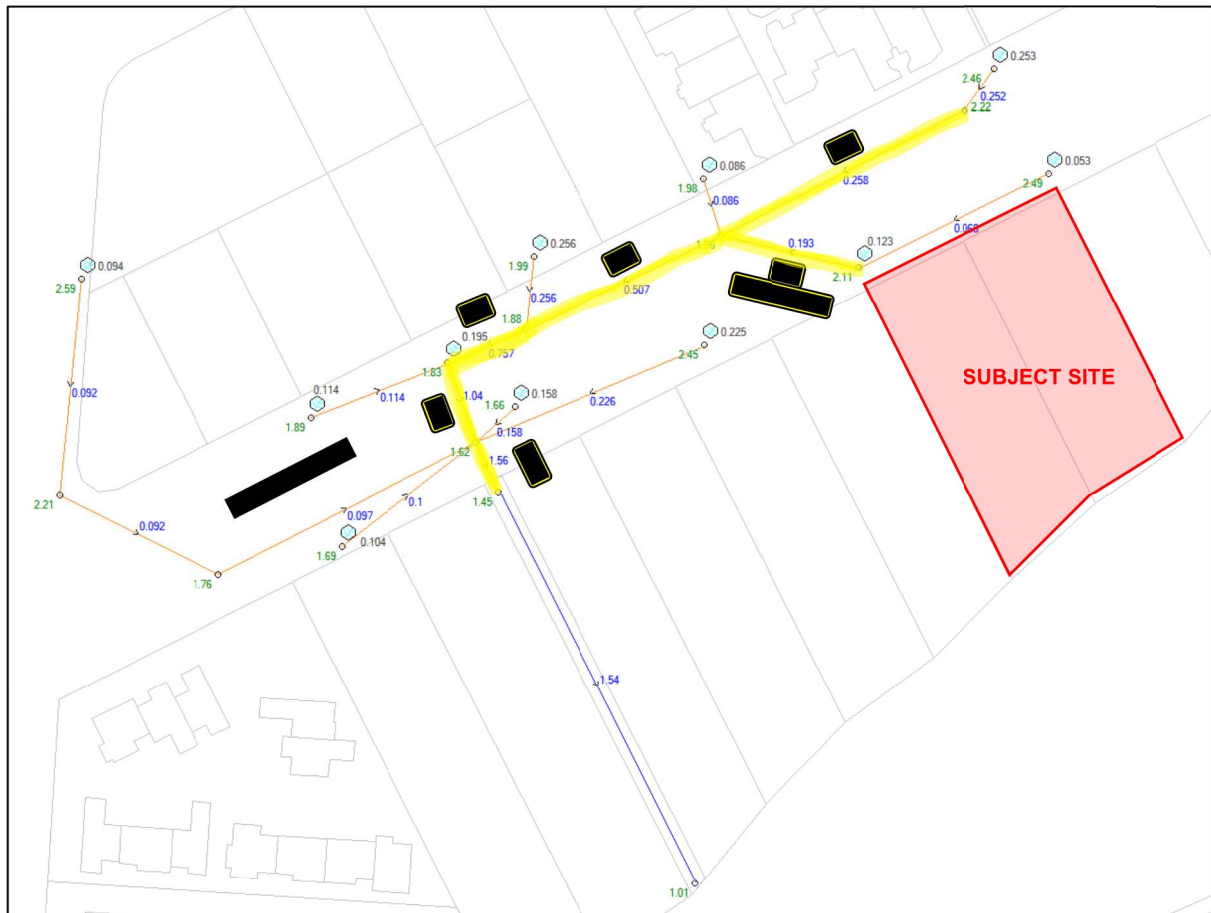


Figure 5-4: DRAINS Results (10% AEP)

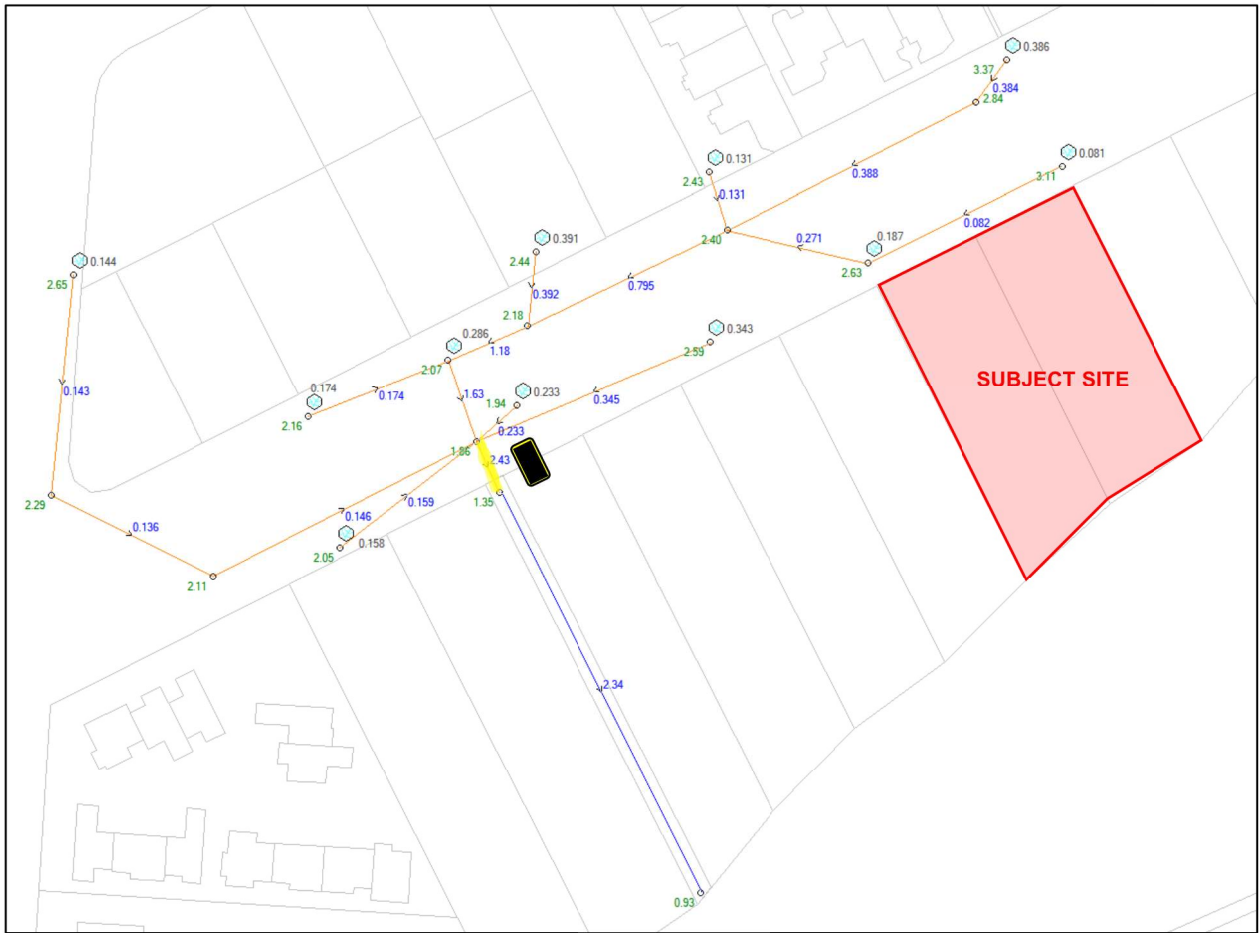


Figure 5-5: DRAINS Results (1% AEP)

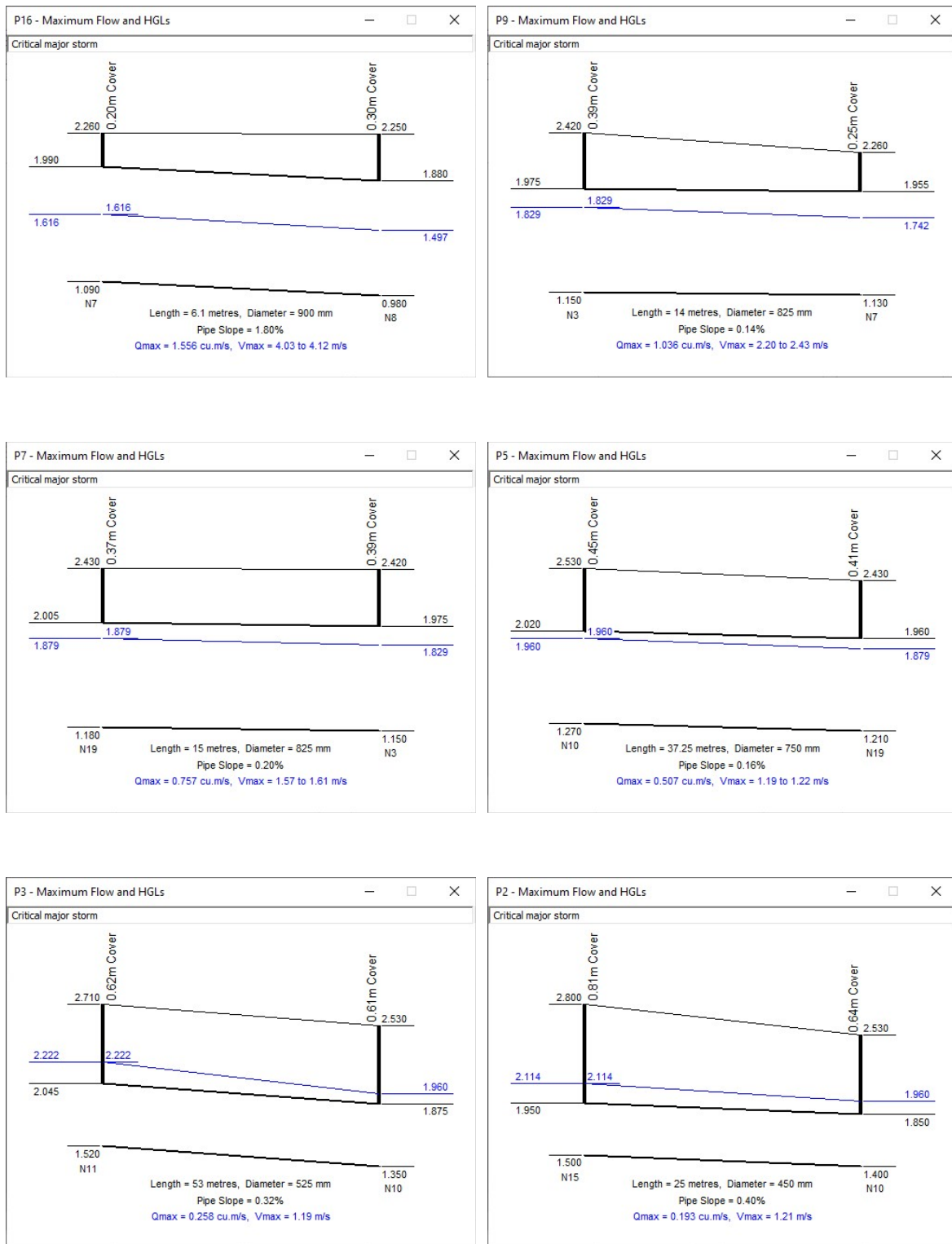


Figure 5-6: Pipe longitudinal sections and hydraulic grades (10% AEP)

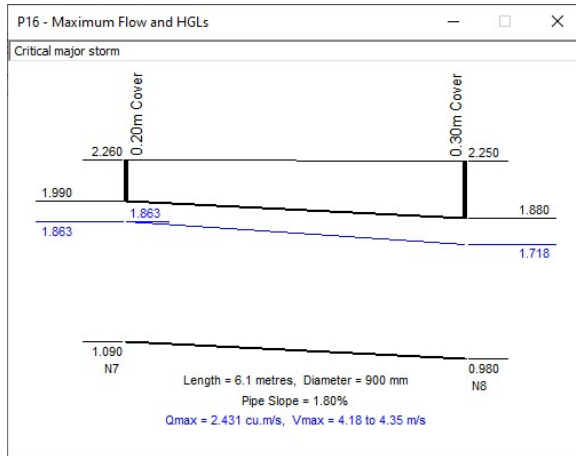


Figure 5-7: Pipe longitudinal sections and hydraulic grades (1% AEP)

5.3.5 Model Validation

The Rational Method was used to validate the DRAINS model configuration. Calculations were undertaken in accordance with Queensland Urban Drainage Manual's Section 4.3. Catchment discharge rates for the fully developed condition during a 10% AEP and 1% AEP event are summarised below in Table 5-5, with a comparison to the DRAINS results in Table 5-6 and Table 5-7.

Table 5-5: Rational method fully developed flows

| Catchment | Area (ha) | % Impervious (Fi) | TOC (mins) | Discharge (L/s) | |
|-----------|-----------|-------------------|------------|-----------------|--------|
| | | | | 10% AEP | 1% AEP |
| CA1 | 0.0969 | 0.9 | 5 | 50 | 87 |
| CA2 | 0.2236 | 0.9 | 5 | 115 | 200 |
| CA3 | 0.4098 | 0.9 | 5 | 153 | 367 |
| CA4 | 0.1891 | 0.9 | 5 | 93 | 169 |
| CA5 | 0.1751 | 0.9 | 5 | 86 | 157 |
| CA6 | 0.2082 | 0.9 | 5 | 102 | 186 |
| CA7 | 0.4673 | 0.9 | 5 | 240 | 418 |
| CA8 | 0.1567 | 0.9 | 5 | 80 | 140 |
| CA9 | 0.4607 | 0.9 | 5 | 236 | 412 |
| CA10 | 0.4039 | 0.6 | 5 | 192 | 347 |
| CA11 | 0.3290 | 0.6 | 5 | 156 | 283 |

Table 5-6: Comparison of DRAINS and Rational Method results (10% AEP)

| Catchment | Rational Method (L/s) | DRAINS (L/s) | Difference (%) |
|-----------|-----------------------|--------------|----------------|
| CA1 | 50 | 53 | 6% |
| CA2 | 115 | 123 | 7% |
| CA3 | 210 | 225 | 7% |
| CA4 | 97 | 104 | 7% |
| CA5 | 90 | 94 | 4% |
| CA6 | 107 | 114 | 6% |
| CA7 | 240 | 256 | 6% |
| CA8 | 80 | 86 | 7% |
| CA9 | 236 | 253 | 7% |
| CA10 | 192 | 195 | 2% |
| CA11 | 156 | 158 | 1% |

Table 5-7: Comparison of DRAINS and Rational Method results (1% AEP)

| Catchment | Rational Method (L/s) | DRAINS (L/s) | Difference (%) |
|-----------|-----------------------|--------------|----------------|
| CA1 | 87 | 81 | 7% |
| CA2 | 200 | 187 | 7% |
| CA3 | 367 | 343 | 7% |
| CA4 | 169 | 158 | 7% |
| CA5 | 157 | 144 | 8% |
| CA6 | 186 | 174 | 6% |
| CA7 | 418 | 391 | 6% |
| CA8 | 140 | 131 | 6% |
| CA9 | 412 | 386 | 6% |
| CA10 | 347 | 286 | 18% |
| CA11 | 283 | 233 | 18% |

The results are generally a good fit, with catchment discharge rates from the Rational Method within +/- 10% of the DRAINS results, apart from two catchments which showed an 18% difference. The DRAINS model parameters are considered to be a good representation of catchment conditions and are suitable for the purposes of this assessment.

5.3.6 Surface Runoff Impacts

There will not be any impact on flooding extents or flood hazard levels in Shore St East caused by surface runoff from the development as the proposed design significantly reduces the amount of surface runoff being discharged to the street. In the pre-development scenario, the catchment area within the subject site contributing surface flows to Shore St East is approximately 800m², whereas under developed conditions the contributing catchment shrinks to approximately 100m², with the balance being collected in pits and conveyed underground to the drainage network in Shore St East. This represents a reduction in surface water catchment area of 87% and will result in a similar reduction in flows, being that both the existing catchment area and developed catchment area are both landscaped and pervious.

The rear portion of the subject site will also experience a reduction in surface runoff discharging to the park to the south of the site under developed conditions. The pre-developed catchment contributing surface runoff to the park is approximately 1400m² which will be reduced to approximately 220m² under developed conditions, with the balance being collected in pits and conveyed underground to the drainage network in Shore St East. This represents a reduction in surface water catchment area of 84% and will result in a similar reduction in flows, being that both the existing catchment area and developed catchment area are both landscaped and pervious.

5.3.7 Results Summary

The results of the network analysis show that the existing stormwater infrastructure along Shore St East has the capacity to convey the minor event (10% AEP) from the future fully developed catchment while providing at least 150mm freeboard from the water surface elevation (WSE) to the surface level of the structure. Flows from the major event (1% AEP) can be adequately conveyed to the system outlet with only very slight surcharge likely at some upstream drainage structures which would result in road flow depths of less than 300mm.

The analysis shows that the existing stormwater network and associated downstream infrastructure was originally designed to cater for a fully developed catchment and therefore no on-site detention will be needed as part of our development.

6 Stormwater Quality Management

As the site falls under a Priority Development Area, the stormwater quality management must meet the criteria set out in the Queensland State Planning Policy 2016 – Water Quality.

As the subject site is less 2,500m² no specific water quality objectives are required to be met and therefore no modelling of stormwater contaminants has been undertaken.

The Toondah Harbour PDA Development Scheme requires ‘a proposal’s design, siting and layout to have regard to the natural environment and minimise adverse impacts on receiving waters’. In order to reduce the impacts of the proposed development on downstream water quality, the following stormwater quality treatment measures are proposed:

- trash filter baskets in the grated field inlets collecting runoff from carparking areas to minimise gross pollutants entering the stormwater network
- First flush systems on all roofwater downpipes, discharging to landscaped areas.

7 Summary and Conclusions

Pitch Black Group was engaged by Karote ATF Chippers Trust to prepare a Stormwater Management Plan for the proposed multi-unit residential development at 67-69 Shore Street East, Cleveland.

The site is flagged to be affected by storm tide flooding with the predicted 1% AEP flood level in the year 2100 being 3.16m AHD. The finished floor level of the habitable ground floor areas and all critical infrastructure have been designed to be at or above 3.46m AHD to achieve a minimum 300mm freeboard above the flood level. Any Pad Mount Transformers (PMT) required for the site will be situated above 3.16m AHD.

Flood modelling also shows that access to the subject site along Shore St is at risk of becoming un-trafficable during the year 2100 1% AEP storm tide event. A Flood Emergency Management Plan (FEMP) has been prepared to address the risks and actions for residents to take before, during and after such an event. The FEMP is included as a separate document in the submission package.

An analysis of the existing stormwater network along Shore St East showed that the drainage infrastructure is sufficiently sized to cater for a fully developed catchment (ie. all contributing catchments to the network assumed to be developed as multiple occupancy dwellings) and therefore no on-site detention will be needed as part of our development.

Stormwater quality objectives are not triggered for the site so the development will implement best practice stormwater quality treatment measures in the form of trash baskets in the grated field inlets and first flush systems on the roofwater downpipes.

This report has demonstrated that the proposed development provides an acceptable solution for site-based stormwater management and has been designed to comply with Toondah Harbour Priority Development Area Development Scheme.

8 References

Before You Dig Australia - www.byda.com.au

Redland City Council – Red-e-map <

<https://redlandcity.maps.arcgis.com/apps/webappviewer/index.html?id=b3e7c450b99c4aa281ce24a9c747728f>>

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Economic Development Queensland, Protection from Flood and Storm Tide Indundation – PDA Guidelines No.15, May 2015.

Institute of Public Works Engineering Australasia, Queensland Division (2016), Queensland Urban Drainage Manual Fourth Edition 2016

Axis Survey Solutions, Contour and Feature Survey of 67-69 Shore St East, Cleveland. Drawing Number 2200896-X464541 Revision A Dated: 29/03/2022

Appendix A Proposed Development Plans

| SHEET INDEX | | SHEET INDEX | |
|-------------|--|-------------|-----------------------------|
| PG. | DRAWING TITLE | PG. | DRAWING TITLE |
| 0.00 | COVER PAGE | 2.4 | THIRD FLOOR |
| 0.01 | 3D INDICATIVE | 2.5 | FOURTH FLOOR |
| 0.02 | 3D INDICATIVE | 2.6 | FIFTH FLOOR (Sub-Penthouse) |
| 0.03 | 3D INDICATIVE | 2.7 | SIXTH FLOOR (Penthouse) |
| 0.04 | 3D INDICATIVE | 2.8 | Roof Plan |
| 0.05 | 3D INDICATIVE | 2.9 | SITE COVER |
| 0.06 | 3D INDICATIVE | 3.1 | ELEVATION |
| 0.07 | 3D INDICATIVE | 3.2 | ELEVATION |
| 1.1 | SITE LOCATION | 3.3 | ELEVATION |
| 1.2 | SURVEY PLAN | 3.4 | ELEVATION |
| 1.3 | SITE PLAN | 3.5 | SECTIONS |
| 1.4 | LANDSCAPE & RECREATION SPACE CALCULATION | 3.6 | SECTIONS |
| 1.5 | REFUSE CALCULATION | | |
| 2.1 | GROUND FLOOR | | |
| 2.2 | FIRST FLOOR | | |
| 2.3 | SECOND FLOOR | | |

| ISSUE | AMENDMENT | DATE |
|-------|---|-------------|
| A1 | New Design Sketch - 7 Storey | 30/OCT/2023 |
| B6 | facade updated, floor plan amended | 19/JAN/2024 |
| C1 | civil input, facade updated, FFL changed | 22/JAN/2024 |
| C2 | transformer pad relocated, carpark visitor layout changed | 23/JAN/2024 |
| C3 | first floor updated | 28/JAN/2024 |
| C4 | Facade updated | 02/FEB/2024 |
| C5 | Pad Mount Transformers FSL Updated, flood line shown | 02/FEB/2024 |
| C6 | Roof sketch (to be confirmed) | 08/FEB/2024 |
| C7 | Colour scheme & facade updated, roof plan provided | 14/FEB/2024 |
| | Motorbike spaces provided | |
| | Stairs 1 Amended | |
| C8 | Colour scheme & facade updated | 16/FEB/2024 |
| C9 | Drawings adjustment | 06/MAR/2024 |
| C10 | Amended : Pool fence & gate, Gym | 07/MAR/2024 |
| C11 | Drawing amended | 10/MAR/2024 |
| C12 | Roof updated, added PWD unit | 25/APR/2024 |

#PROPOSED DEVELOPMENT

LOT 12 #67 SHORE STREET EAST, CLEVELAND. REDLAND CITY, QLD

PROUDLY DEVELOPED BY :

TBC

SITE DETAILS

Real Property Description : Lot 12-13 on C14563

Address of Site : LOT 12 #67 SHORE STREET EAST CLEVELAND REDLAND CITY QLD

Area of Site : 2,226 sqm (APPROX.)

Total Numbers of Proposed Unit : 30 Units

Total Numbers of Proposed Carparking : 63 Cars (3 Visitor Spaces + 60 Residential Spaces)

2 Motorbike Spaces



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NORTH

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Design

BSA License Number: 1217533
Phone: 042187117
Email: info@rcdesigngroup.com.au

LOCATION :
**LOT 12 #67
SHORE STREET EAST
CLEVELAND
REDLAND CITY
QLD**

CLIENT:
TBC

DRAWING NAME :
COVER PAGE

ISSUE

| | | | |
|-----|-------------|-------------|----|
| C12 | 26/4/2024 | Preliminary | CH |
| C11 | 10/4/2024 | Preliminary | VT |
| C10 | 06/MAR/2024 | Preliminary | VT |
| C9 | 16/FEB/2024 | Preliminary | VT |

Refer to issued contract documents for final selections and inclusions

SCALE : @A3

JOB NO : #PIn

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ISSUE : **C12**

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TO BE UPDATED

COLOUR SCHEME
OPTION 2



TO BE UPDATED

COLOUR SCHEME
OPTION 2



- 1

main wall colour
COLORBOND PAPERBARK
- 2

screening
COLORBOND SUPRIMIST
/ SIMILAR
- 3

all door & window frame
Ground Floor Wall
PEARL WHITE / SIMILAR
- 4

ground floor hied area
SELECTED TRAVERTINE
/ FEATURE STONE / TILE /
IN BEIGE TONES / SIMILAR
- 5

feature colour A
COLORBOND SANDBANK
- 6

sheet walls / feature colour B
COLORBOND
PALE EUCALYPTUS

PRELIMINARY FOR DISCUSSION - ISSUE C12 (26/APR/2024)

TO BE UPDATED

COLOUR SCHEME
OPTION 2



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LOCATION
LOT 12 #67 SHORE STREET EAST, CLEVELAND QLD

DRAWING NAME
3D INDICATIVE
DESIGNER

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| C12 26/APR/2024 Preliminary Issue | VT |
| C11 10/MAR/2024 Preliminary Issue | VT |
| C10 07/MAR/2024 Preliminary Issue | VT |

Refer to signed contract documents for final selections and inclusions

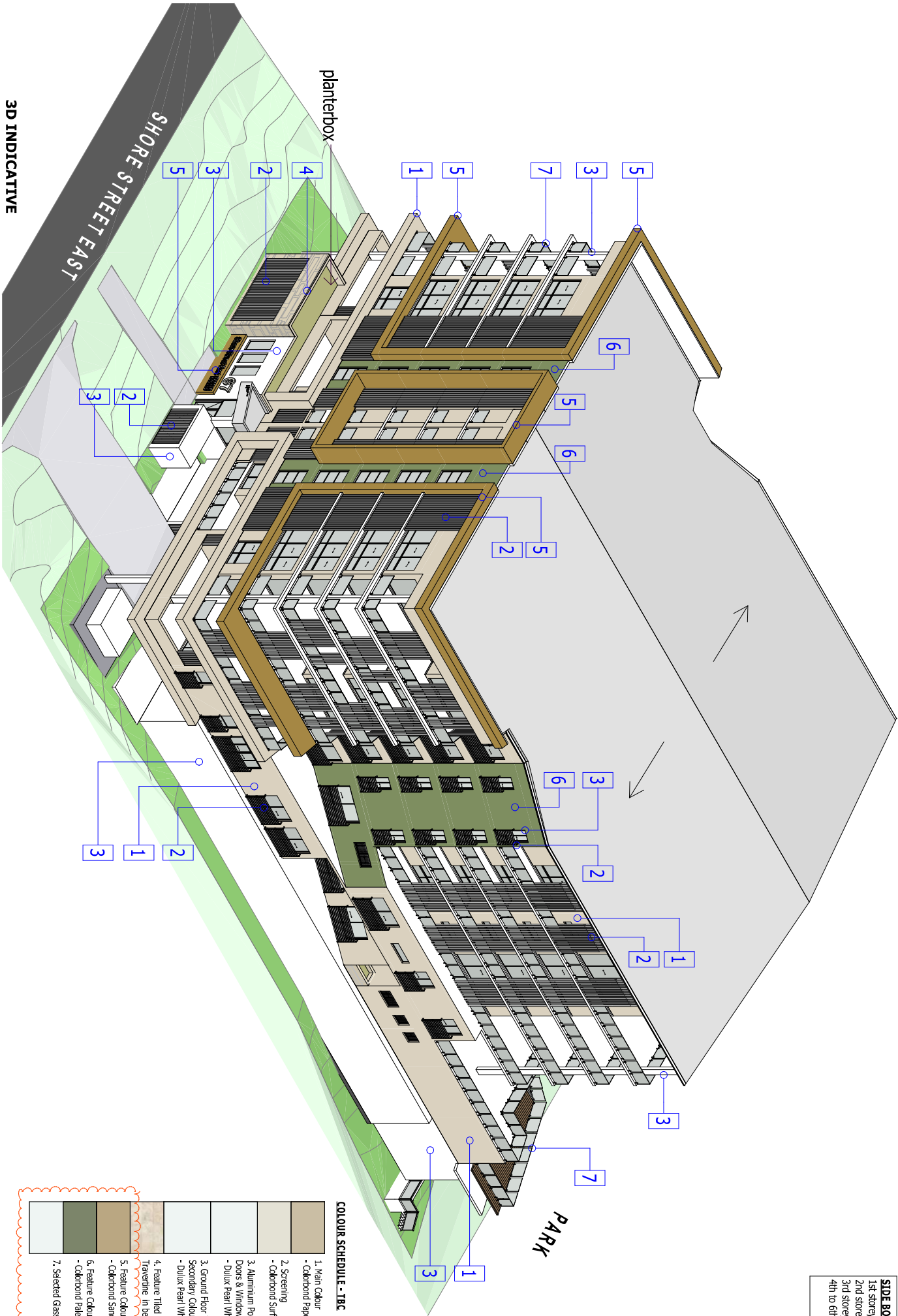


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PAPER

| JOB NUMBER | DRAWING | REVISION |
|--|---------|----------|
| | 0.03 | C12 |
| APPROVED FOR CONSTRUCTION BY ARCHITECT CLEVELAND DISTRICT COUNCIL AND LOT 12 SHORE STREET CLEVELAND DISTRICT COUNCIL "Assuming" (proposed) (reference) 12/24 | | |

SIDE BOUNDARY SETBACK:

- 1st storey - 1.5m setback
2nd storey - 2m setback
3rd storey - 3m setback
4th to 6th storey - 3m setback



COLOUR SCHEDULE - TBC

| |
|--|
| 1. Main Colour |
| - Cabotbond Paperbark or similar |
| 2. Screening |
| - Cabotbond Sunmist or similar |
| 3. Aluminium Powdercoated |
| Doors & Windows Frame |
| - Dulux Pearl White or similar |
| 3. Ground Floor Walls / |
| Secondary Colour |
| - Dulux Pearl White or similar |
| 4. Feature Tiled Area - Selected |
| Travertine in beige tone / similar |
| 5. Feature Colour A |
| - Cabotbond Sandbank or similar |
| 6. Feature Colour B / Shear Walls |
| - Cabotbond Pale Eucalyptus or similar |
| 7. Selected Glass Balustrade |

3D INDICATIVE

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193/Liviana Number
1212385
Email
info@rcplusdesign.com.au
Phone
0421971717

CLIENT
TBC
LOCATION
LOT 12 #67 SHORE STREET EAST, CLEVELAND QLD

DRAWING NAME
3D INDICATIVE
DESIGNER

ISSUE
C12 26/APR/2024 Preliminary Issue
C11 10/MAR/2024 Preliminary Issue
C10 07/MAR/2024 Preliminary Issue

CH
VT
VT

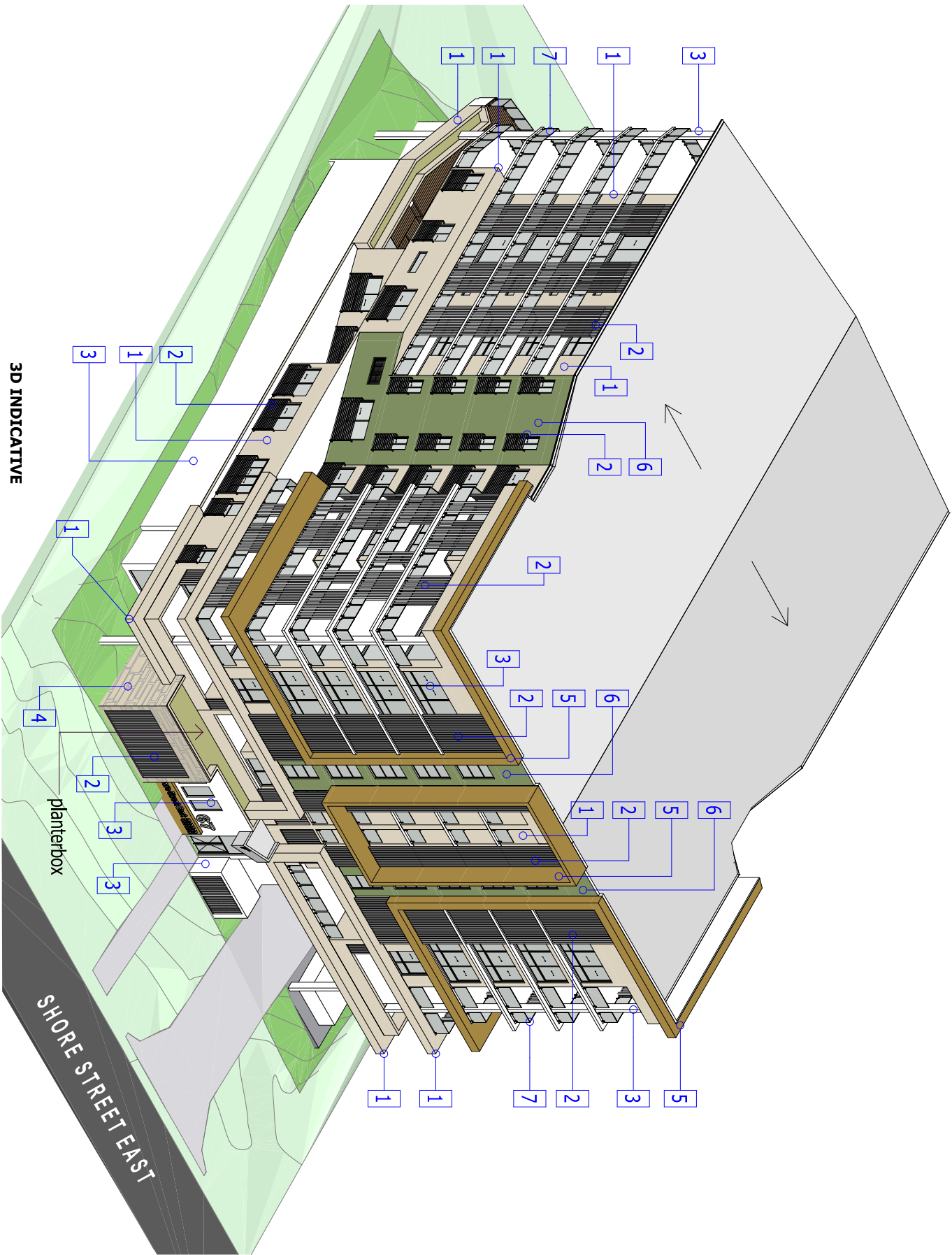


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JOB NUMBER
DRAWING
0.04
REVISION
C12

SIDE BOUNDARY SETBACK:

- 1st storey - 1.5m setback
2nd storey - 2m setback
3rd storey - 3m setback
4th to 6th storey - 3m setback



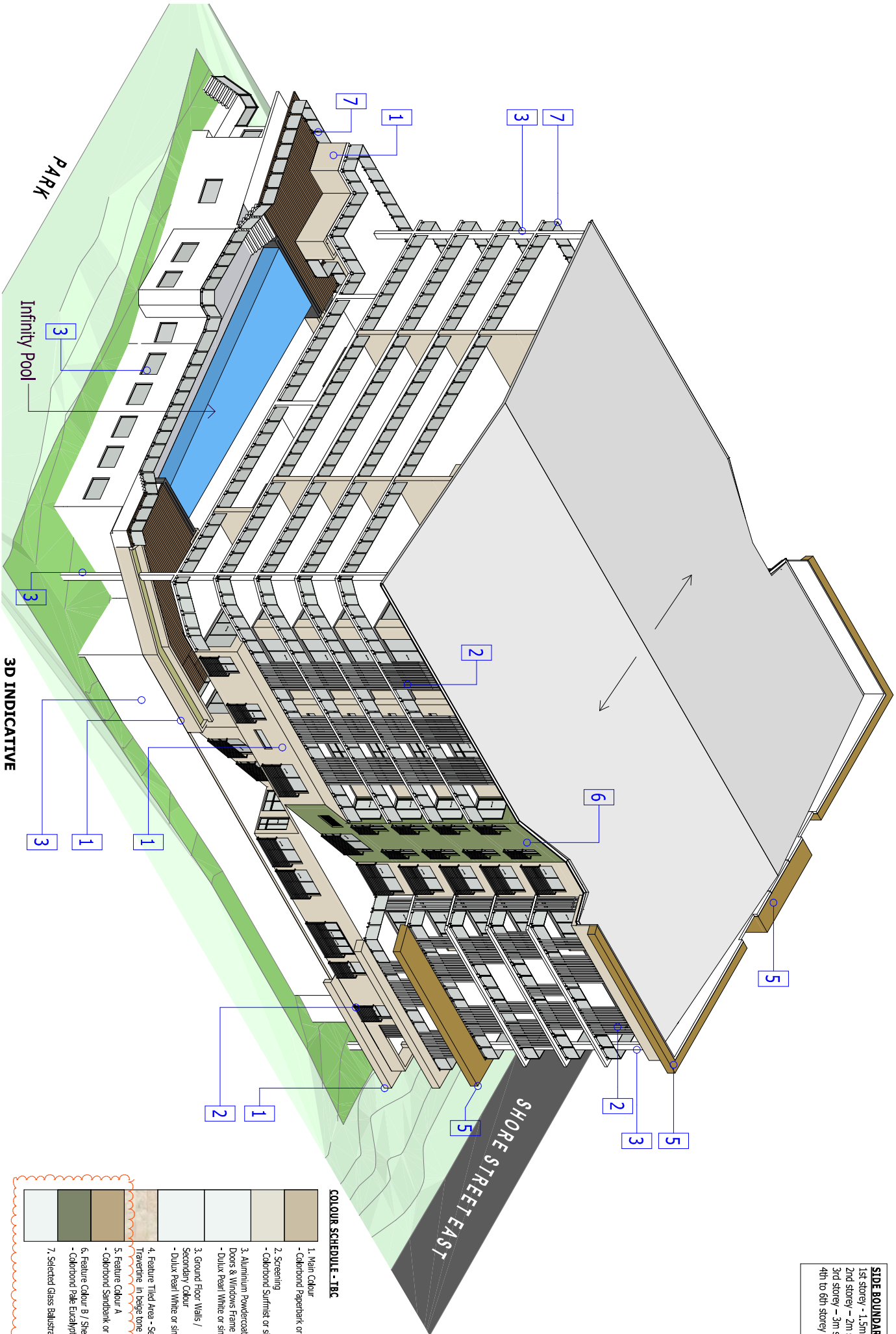
COLOUR SCHEDULE - TBC

| | |
|---|--|
| 1. Main Colour | - Cabotbond Paperbark or similar |
| 2. Screening | - Cabotbond Sunmist or similar |
| 3. Aluminium Powdercoated Doors & Windows Frame | - Dulux Pearl White or similar |
| 3. Ground Floor Walls / Secondary Colour | - Dulux Pearl White or similar |
| 4. Feature Tiled Area - Selected Travertine in beige tone / similar | |
| 5. Feature Colour A | - Cabotbond Sandbank or similar |
| 6. Feature Colour B / Shear Walls | - Cabotbond Pale Eucalyptus or similar |
| 7. Selected Glass Balustrade | |

PRELIMINARY FOR DISCUSSION - ISSUE C12 (26/APR/2024)

SIDE BOUNDARY SETBACK:

1st storey - 1.5m setback
2nd storey - 2m setback
3rd storey - 3m setback
4th to 6th storey - 3m setback



COLOUR SCHEDULE - TBC

| | |
|---|---------------------------------------|
| 1. Main Colour | - Colobond Paperbark or similar |
| 2. Screening | - Colobond Sunmist or similar |
| 3. Aluminium Powdercoated Doors & Windows Frame | - Dulux Pearl White or similar |
| 3. Ground Floor Walls / Secondary Colour | - Dulux Pearl White or similar |
| 4. Feature Tiled Area - Selected Travertine in beige tone / similar | |
| 5. Feature Colour A | - Colobond Sandbank or similar |
| 6. Feature Colour B / Shear Walls | - Colobond Pale Eucalyptus or similar |
| 7. Selected Glass Balustrade | |

3D INDICATIVE

DRAWING NAME
3D INDICATIVE
DESIGNER

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|-----------------------------------|----|
| C12 26/APR/2024 Preliminary Issue | VT |
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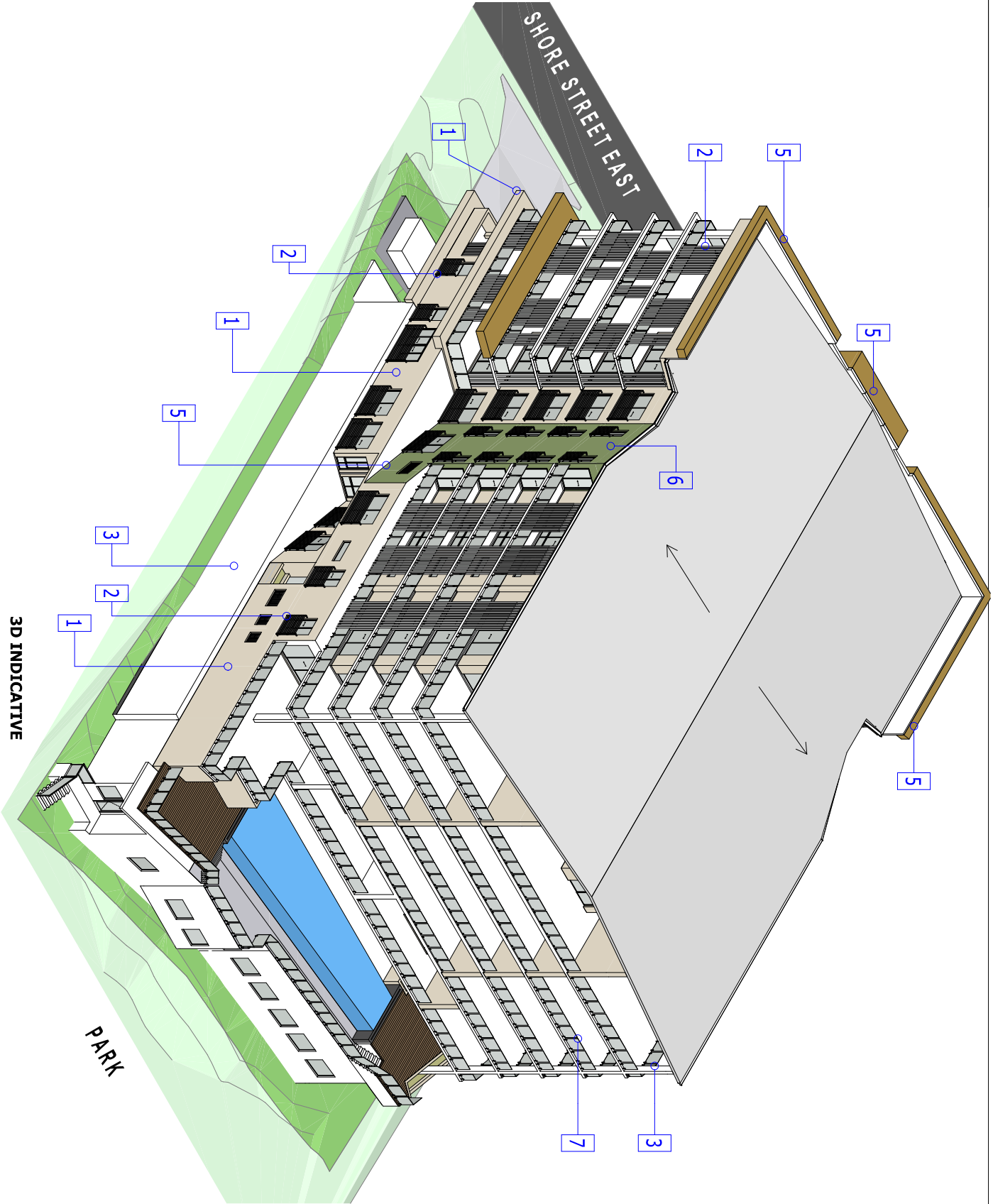
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Phone
042197117

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CLIENT
TBC
LOCATION
LOT 12 #67 SHORE STREET EAST, CLEVELAND QLD

SIDE BOUNDARY SETBACK:

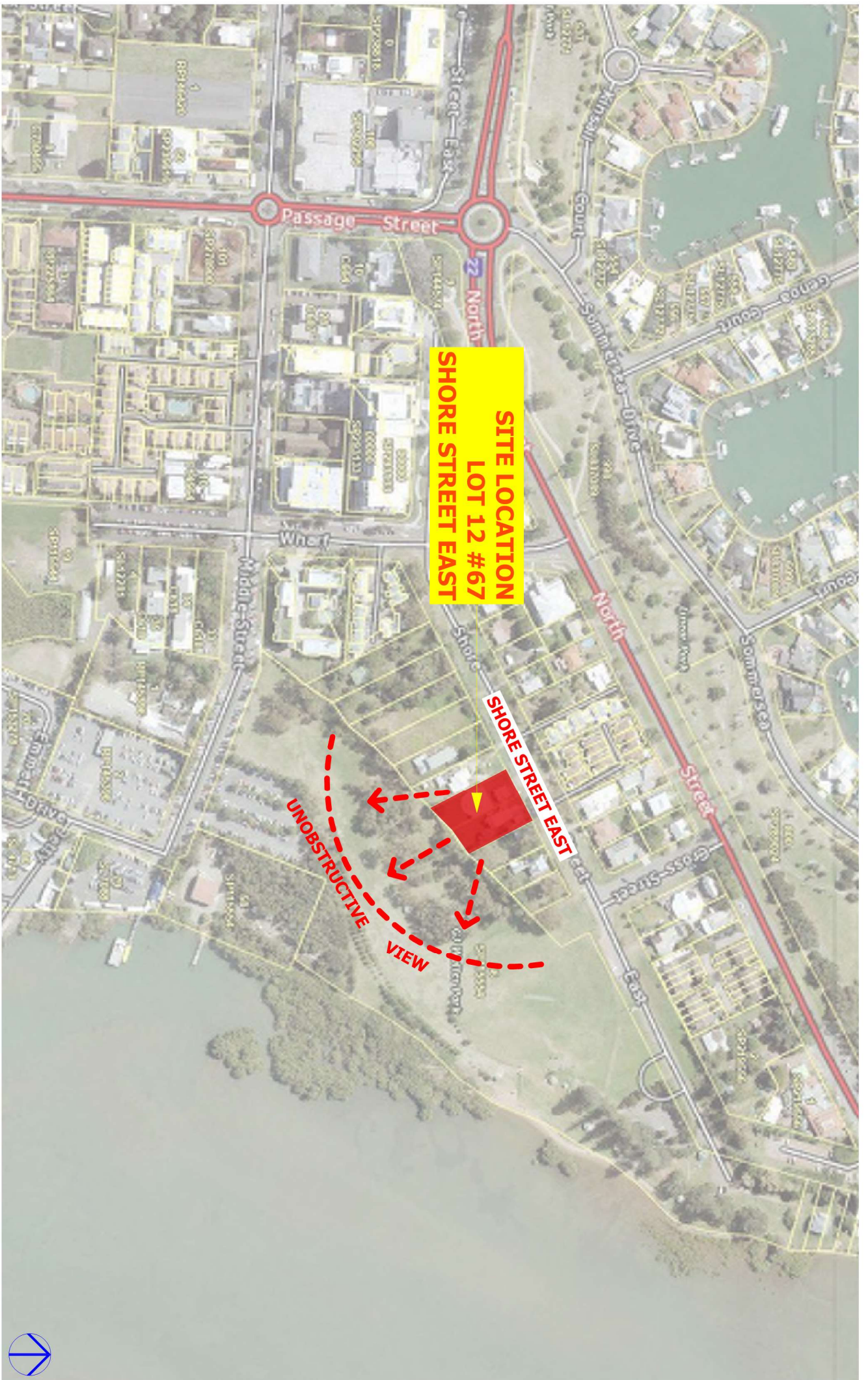
- 1st storey - 1.5m setback
2nd storey - 2m setback
3rd storey - 3m setback
4th to 6th storey - 3m setback

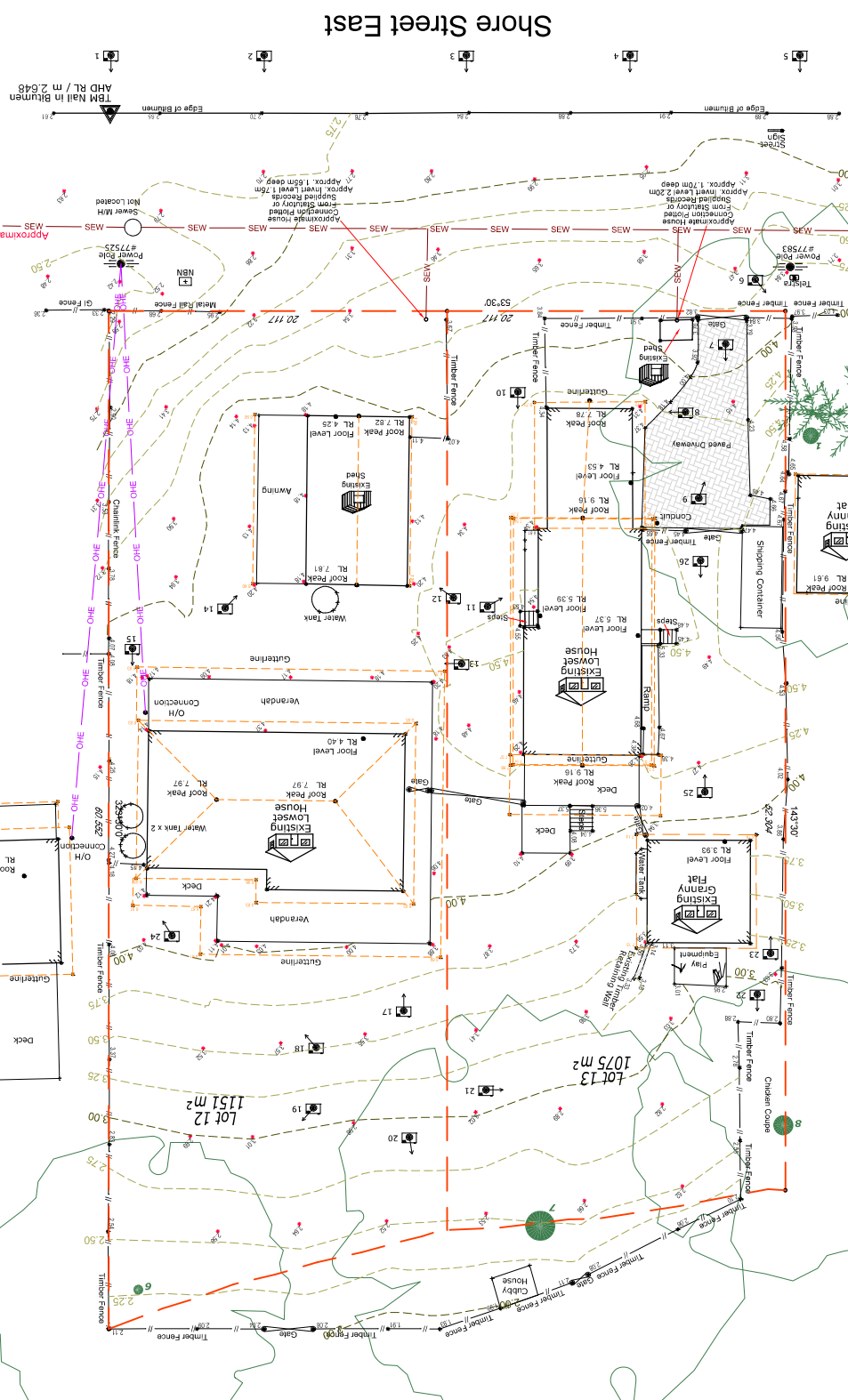


COLOUR SCHEDULE - TBC

| | |
|---|--|
| 1. Main Colour | - Colorbond Paperbark or similar |
| 2. Screening | - Colorbond Sunmist or similar |
| 3. Aluminium Powdercoated Doors & Windows Frame | - Dulux Pearl White or similar |
| 3. Ground Floor Walls / Secondary Colour | - Dulux Pearl White or similar |
| 4. Feature Tiled Area - Selected Travertine in beige tone / similar | |
| 5. Feature Colour A | - Colorbond Sandbank or similar |
| 6. Feature Colour B / Shear Walls | - Colorbond Pale Eucalyptus or similar |
| 7. Selected Glass Balustrade | |

PRELIMINARY FOR DISCUSSION - ISSUE C12 (26/APR/2024)





ISSUE
26APR2024 Preliminary
 CH
 C11 10MAR2024 Preliminary
 VT
 C10 07APR2024 Preliminary
 VT
 C09 07APR2024 Preliminary
 VT
 C08 16FEB2024 Preliminary
 VT
 Refer to separate contract documents for full solutions and inclusions

SCALE : 1:250 @A3

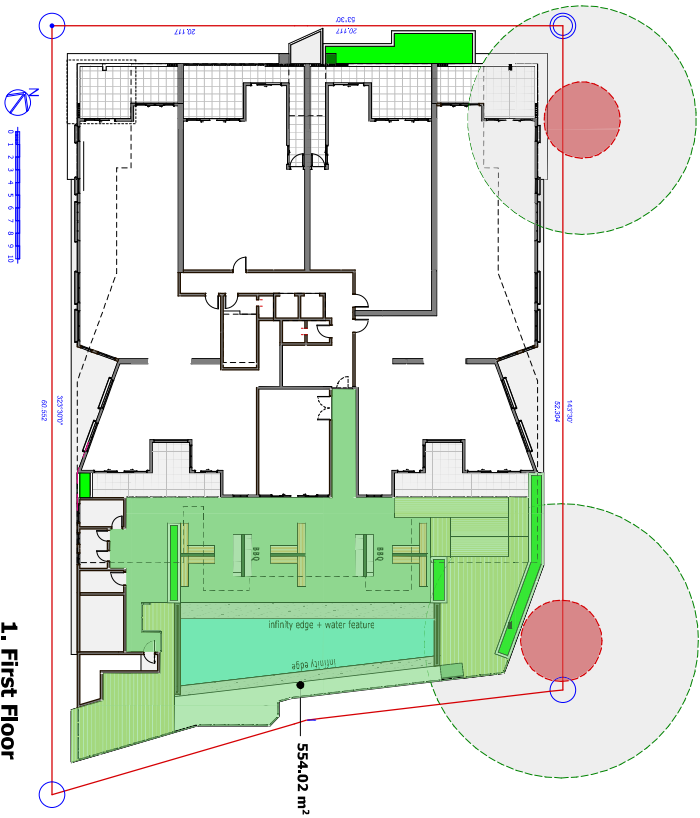
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 CLEVELAND, ISSUE C12, 2/20/2019
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SHORE STREET EAST



| Ground Floor | |
|----------------|--------|
| Landscape Area | 101.66 |
| Landscape Area | 243.47 |

| First Floor | |
|-----------------------------------|-----------------------------|
| Common Area / Recreation Space | 554.02 |
| | 554.02 m² |
| | 899.15 m² |

| Deep Landscape | |
|----------------|-----------------------------|
| | 53.06 |
| | 69.46 |
| | 122.52 m² |

Landscape and recreation areas can be provided in a variety of locations including rooftops, on podiums or at ground level. These areas should provide safe, comfortable and varied recreation opportunities, and at a minimum include basic facilities such as seating, shade and wind protection (either structures or planting) and flexible spaces suitable for a range of recreation activities. Innovative treatments, such as green roofs, green walls or community gardens that contribute to the attractiveness of these spaces are also encouraged.

SITE AREA : 2,226 sqm (as per survey)

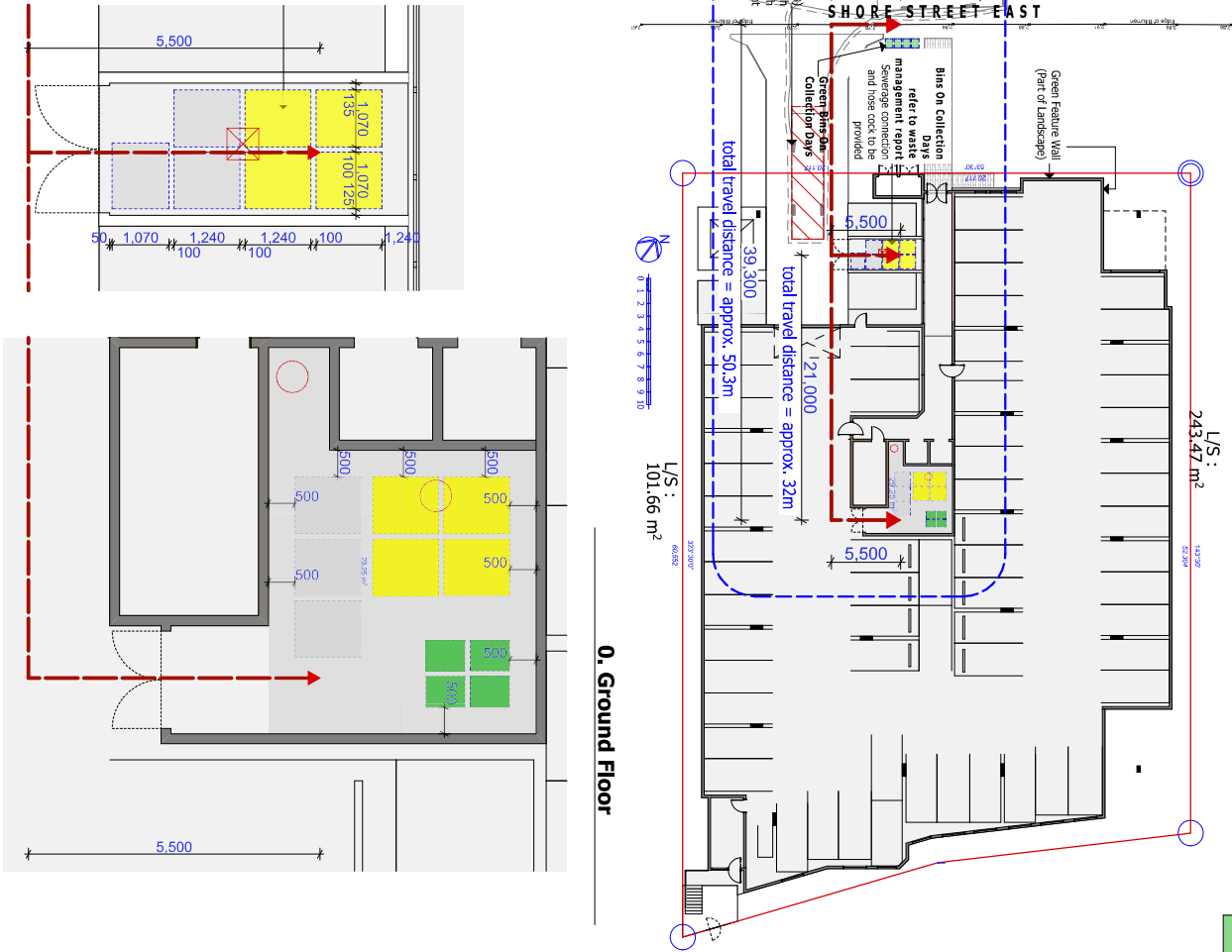
| Ground Floor | | |
|----------------|-----------------------|--|
| Landscape Area | 101.66 | |
| Landscape Area | 243.47 | |
| | 345.13 m ² | |

| Type | Waste | Recycling | Green Waste |
|---------------------------------------|---------------------|--------------------|---|
| Multiple Dwelling (3 or more stories) | 100 L / unit / week | 70 L / unit / week | 1x 240L bin per 100m2 communal open space and landscaping |

| Description | Quantity | Generate Waste (L/week) | Generated Recycling (L/week) | Green Waste |
|---------------------------|---|-------------------------|------------------------------|-------------|
| Multiple Dwelling | 30 Units (all 3 Bed +) & 345.13 sqm landscaping area (Ground Floor) <i>Exclude communal area</i> | 3,000 | 2,100 | 828 |
| Refuse per day | - | 429 | 300 | - |
| Refuse per collection | - | 3,000 | 2,100 | - |
| Equipment | Bin Size (L) | 1,100 | 1,100 | 240 |
| Collections Per Week | Bins Required per Service | 1 | 0.5 | As Needed |
| Required Bin Storage Area | Refuse Room (Ground Floor) | 3 | 4 | 3 |
| Bin Compartment (TBC) | | | | |

Servicing frequency – 1 per week residential and 1 per fortnight recycling
Green Bins to be determined

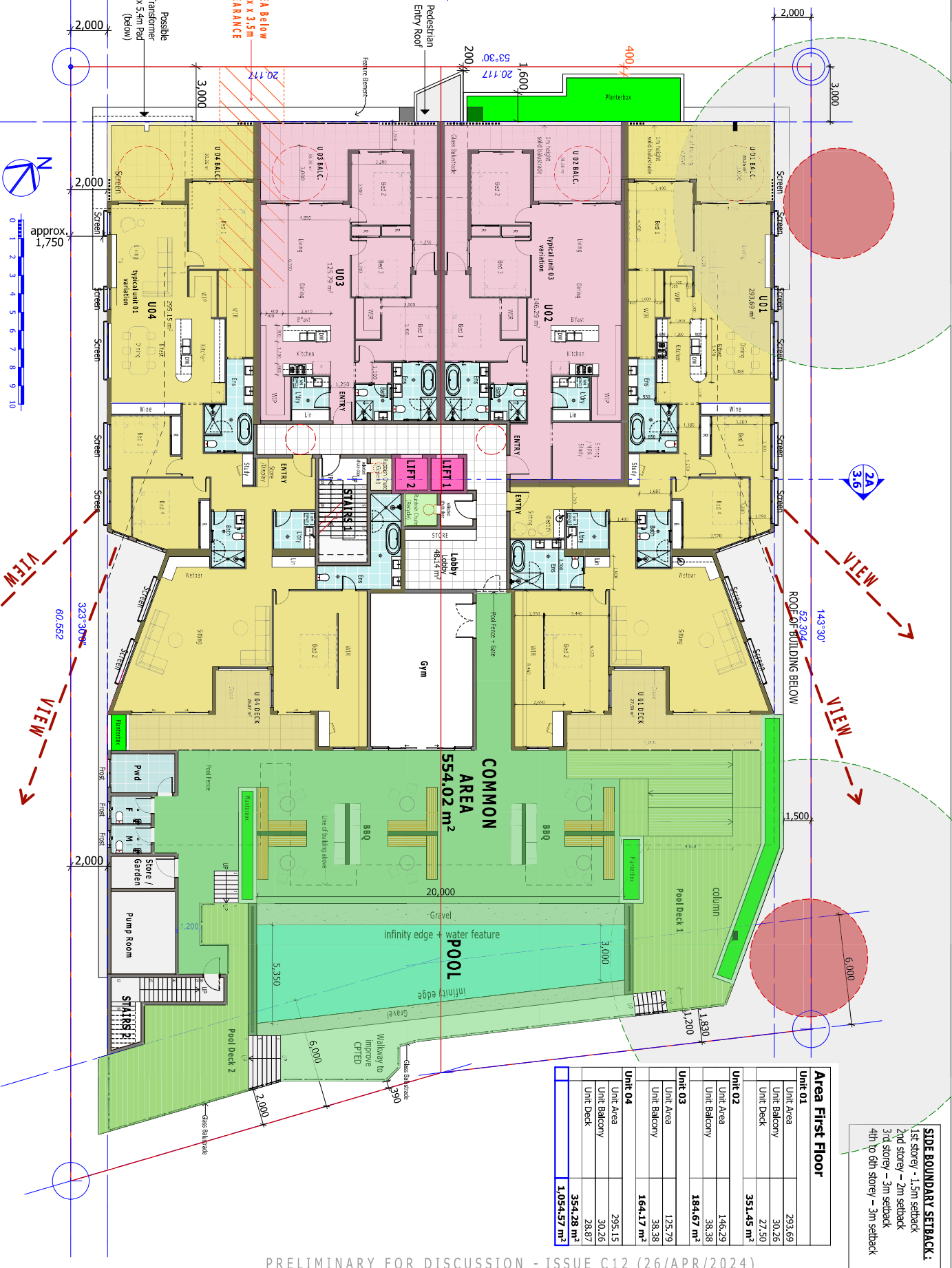
0. Ground Floor



| | | | |
|------------------------|---|--------------------------|--|
| 1070 | 1240 | 1240 | 740 |
| 1070 | 1070 | 585 | 585 |
| 1100L Bulk Bin (waste) | 1240mm length x 1070mm width required : 4 Bins provided : 3 Bins | 1100L Bulk Bin (recycle) | 1240mm length x 1070mm width required : 4 Bins provided : 4 Bins |
| 240L Wheelie Bin | 740mm length x 580mm width required : 4 Bins provided : 4 Bins (to be determined) | | |



SHORE STREET EAST

LOADING AREA BELOW
12x3.5m
min. 4m HEIGHT CLEARANCE

Area First Floor

| Unit 01 | |
|--------------|-------------------------|
| Unit Area | 293.69 |
| Unit Balcony | 30.26 |
| Unit Deck | 27.50 |
| | 351.45 m ² |
| Unit 02 | |
| Unit Area | 146.29 |
| Unit Balcony | 38.38 |
| | 184.67 m ² |
| Unit 03 | |
| Unit Area | 125.79 |
| Unit Balcony | 38.38 |
| | 164.17 m ² |
| Unit 04 | |
| Unit Area | 295.15 |
| Unit Balcony | 30.26 |
| Unit Deck | 28.67 |
| | 354.28 m ² |
| | 1,054.57 m ² |

SIDE BOUNDARY SETBACK:
1st storey - 1.5m setback
2nd storey - 2m setback
3rd storey - 3m setback
4th to 6th storey - 3m setback

PRELIMINARY FOR DISCUSSION - ISSUE C12 (26/APR/2024)

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Design1851 Lyons Road
1212835
info@rcplusdesign.com.au
0421971717CLIENT
TBC
LOCATION
LOT 12 #67 SHORE STREET EAST, CLEVELAND QLDDRAWING NAME
FIRST FLOOR
DESIGNERISSUE
C12 26/APR/2024 Preliminary Issue
C11 10/MAR/2024 Preliminary Issue
C10 07/MAR/2024 Preliminary Issue
CH
VT
VTSCALE
1:200
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REVISION
2.2
C12

SHORE STREET EAST

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Design

ISS: License Number
121285
Email
info@rcplusdesign.com.au
Phone
042197117

CLIENT
TBC
LOCATION
LOT 12 #67 SHORE STREET EAST, CLEVELAND QLD

DRAWING NAME
SECOND FLOOR
DESIGNER

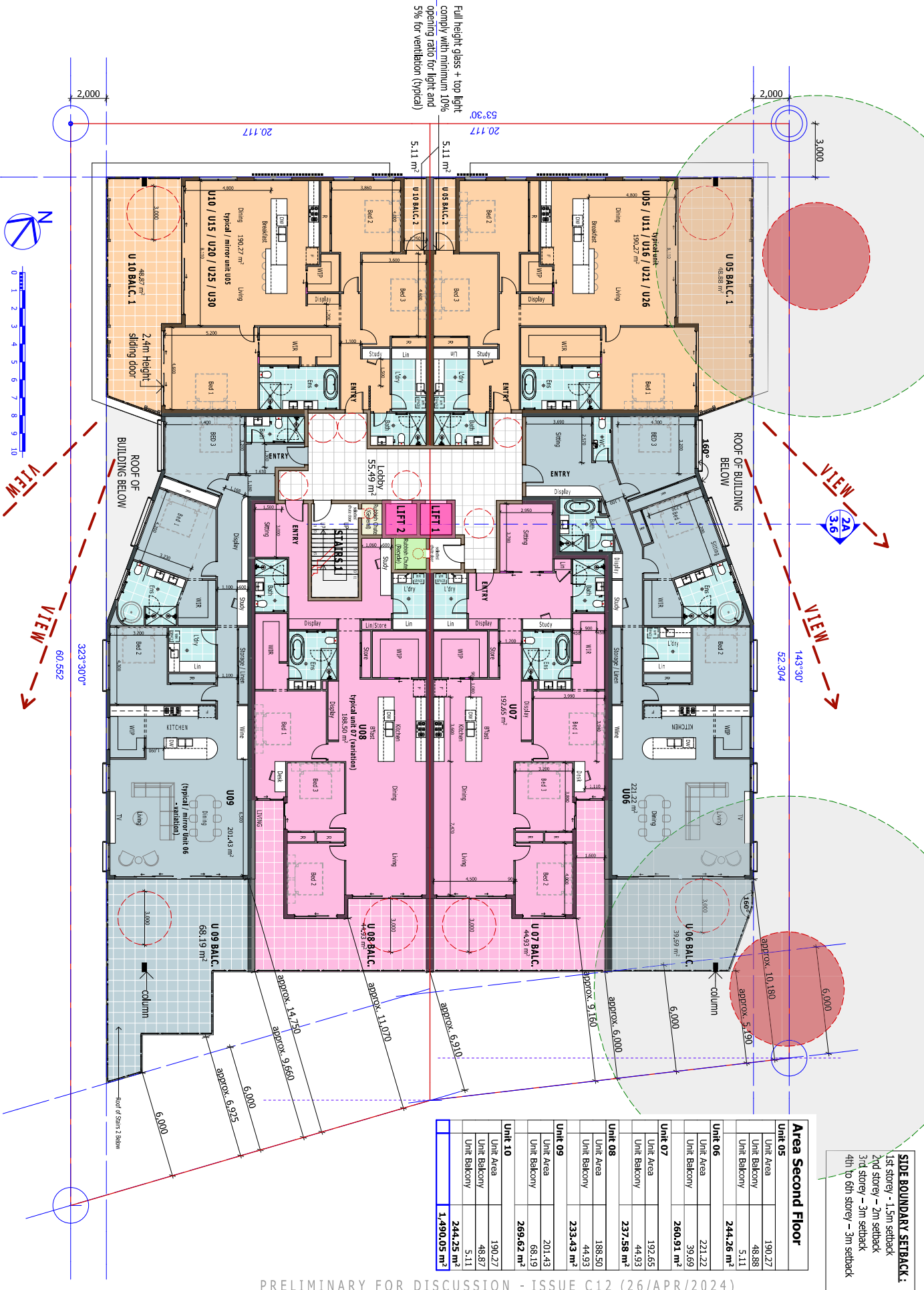
ISSUE
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C11 10/MAR/2024 Preliminary Issue
C10 07/MAR/2024 Preliminary Issue
CH VT VT
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REVISION
2.3 C12

PRELIMINARY FOR DISCUSSION - ISSUE C12 (26/APR/2024)



| Area Second Floor | |
|-------------------|-------------|
| Unit 05 | |
| Unit Area | 190.27 |
| Unit Balcony | 48.88 |
| Unit Balcony | 5.11 |
| Unit 06 | |
| Unit Area | 221.22 |
| Unit Balcony | 39.69 |
| Unit 07 | |
| Unit Area | 192.65 |
| Unit Balcony | 44.93 |
| Unit 08 | |
| Unit Area | 188.50 |
| Unit Balcony | 44.93 |
| Unit 09 | |
| Unit Area | 201.43 |
| Unit Balcony | 68.19 |
| Unit 10 | |
| Unit Area | 190.27 |
| Unit Balcony | 48.87 |
| Unit Balcony | 5.11 |
| | 244.25 m² |
| | 1,490.05 m² |

SIDE BOUNDARY SETBACK:
1st storey - 1.5m setback
2nd storey - 2m setback
3rd storey - 3m setback
4th to 6th storey - 3m setback

SHORE STREET EAST



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LOCATION
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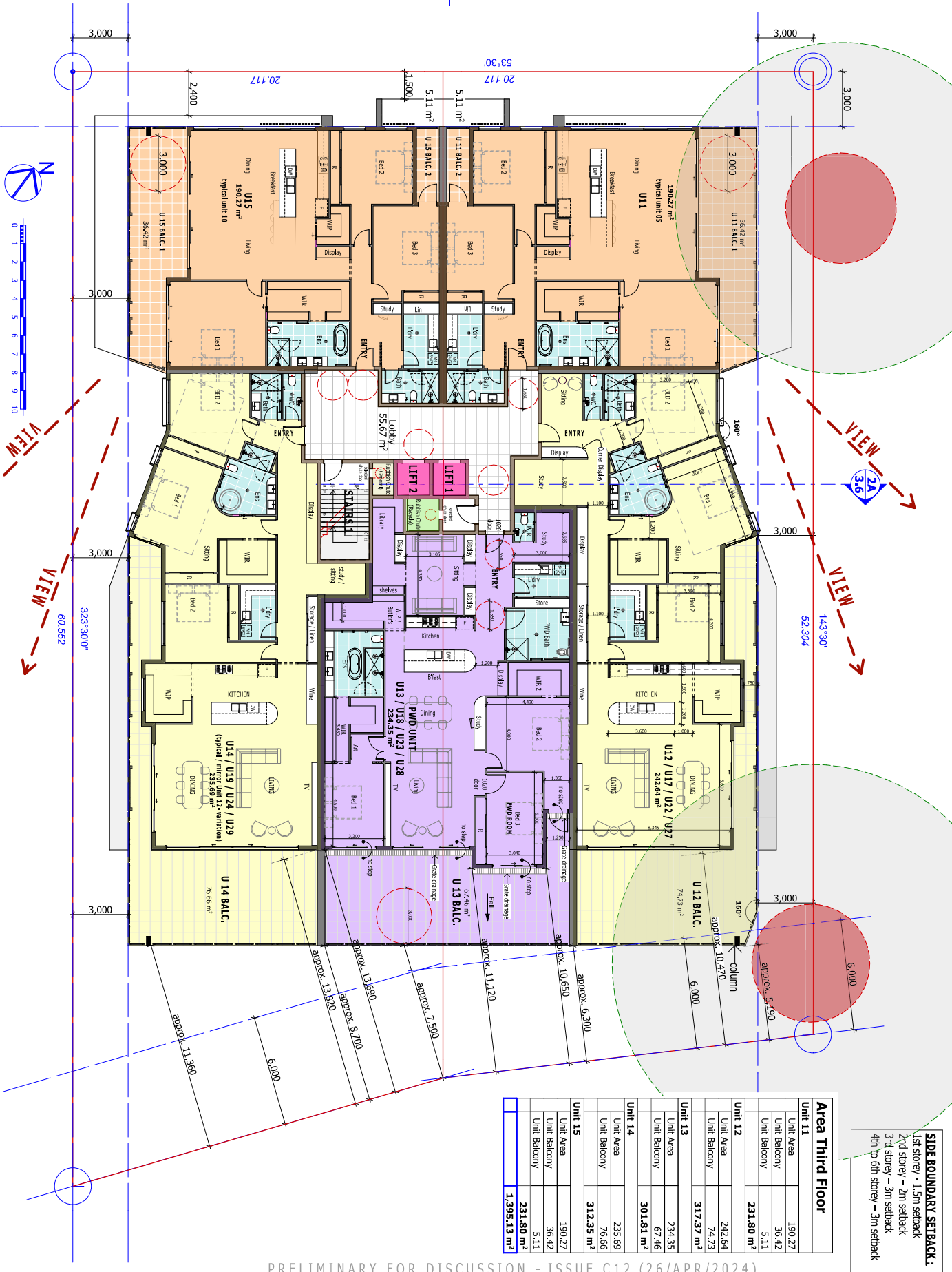
DRAWING NAME
THIRD FLOOR
DESIGNER

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REVISION
2.4 C12



| Area Third Floor | |
|------------------|-------------|
| Unit 11 | |
| Unit Area | 190.27 |
| Unit Balcony | 36.42 |
| Unit Balcony | 5.11 |
| Unit Balcony | 231.80 m² |
| Unit 12 | |
| Unit Area | 242.64 |
| Unit Balcony | 74.73 |
| Unit Balcony | 317.37 m² |
| Unit 13 | |
| Unit Area | 234.35 |
| Unit Balcony | 67.46 |
| Unit Balcony | 301.81 m² |
| Unit 14 | |
| Unit Area | 235.69 |
| Unit Balcony | 76.66 |
| Unit Balcony | 312.35 m² |
| Unit 15 | |
| Unit Area | 190.27 |
| Unit Balcony | 36.42 |
| Unit Balcony | 5.11 |
| Unit Balcony | 231.80 m² |
| Unit Balcony | 1,395.13 m² |

PRELIMINARY FOR DISCUSSION - ISSUE C12 (26/APR/2024)

SIDE BOUNDARY SETBACK:
1st storey - 1.5m setback
2nd storey - 2m setback
3rd storey - 3m setback
4th to 6th storey - 3m setback

SHORE STREET EAST



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1212835
Email: info@rcplusdesign.com.au
Phone: 042197117

CLIENT
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LOCATION
LOT 12 #67 SHORE STREET EAST, CLEVELAND QLD

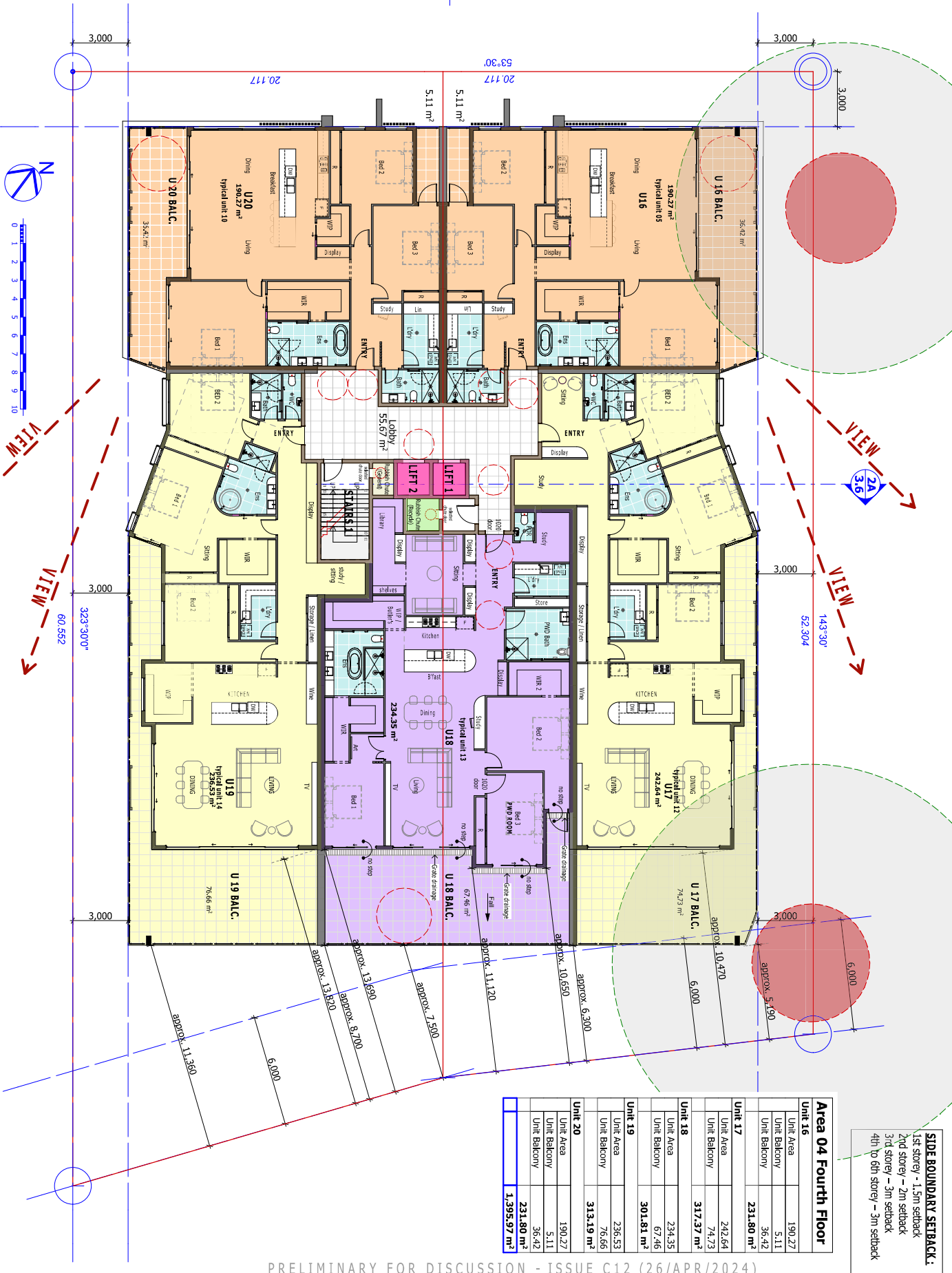
DRAWING NAME
FOURTH FLOOR
DESIGNER

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C10 07/MAR/2024 Preliminary Issue
CH VT VT
Refer to signed contract documents for final selections and inclusions



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DRAWING
2.5
REVISION
C12



Area 04 Fourth Floor

| | | |
|--------------|------------|--|
| Unit 16 | | |
| Unit Area | 190.27 | |
| Unit Balcony | 5.11 | |
| Unit Balcony | 36.42 | |
| Unit 17 | | |
| Unit Area | 231.80 m | |
| Unit Area | 242.64 | |
| Unit Balcony | 74.73 | |
| Unit 18 | | |
| Unit Area | 317.37 m | |
| Unit Area | 234.35 | |
| Unit Balcony | 67.46 | |
| Unit 19 | | |
| Unit Area | 301.81 m | |
| Unit Area | 236.55 | |
| Unit Balcony | 76.66 | |
| Unit 20 | | |
| Unit Area | 313.19 m | |
| Unit Area | 190.27 | |
| Unit Balcony | 5.11 | |
| Unit Balcony | 36.42 | |
| Unit Balcony | 231.80 m | |
| Unit Balcony | 1,395.97 m | |

SIDE BOUNDARY SETBACK:
1st storey - 1.5m setback
2nd storey - 2m setback
3rd storey - 3m setback
4th to 6th storey - 3m setback

SHORE STREET EAST



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1212835
Email
info@rcplusdesign.com.au
Phone
042197117

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LOCATION
LOT 12 #67 SHORE STREET EAST, CLEVELAND QLD

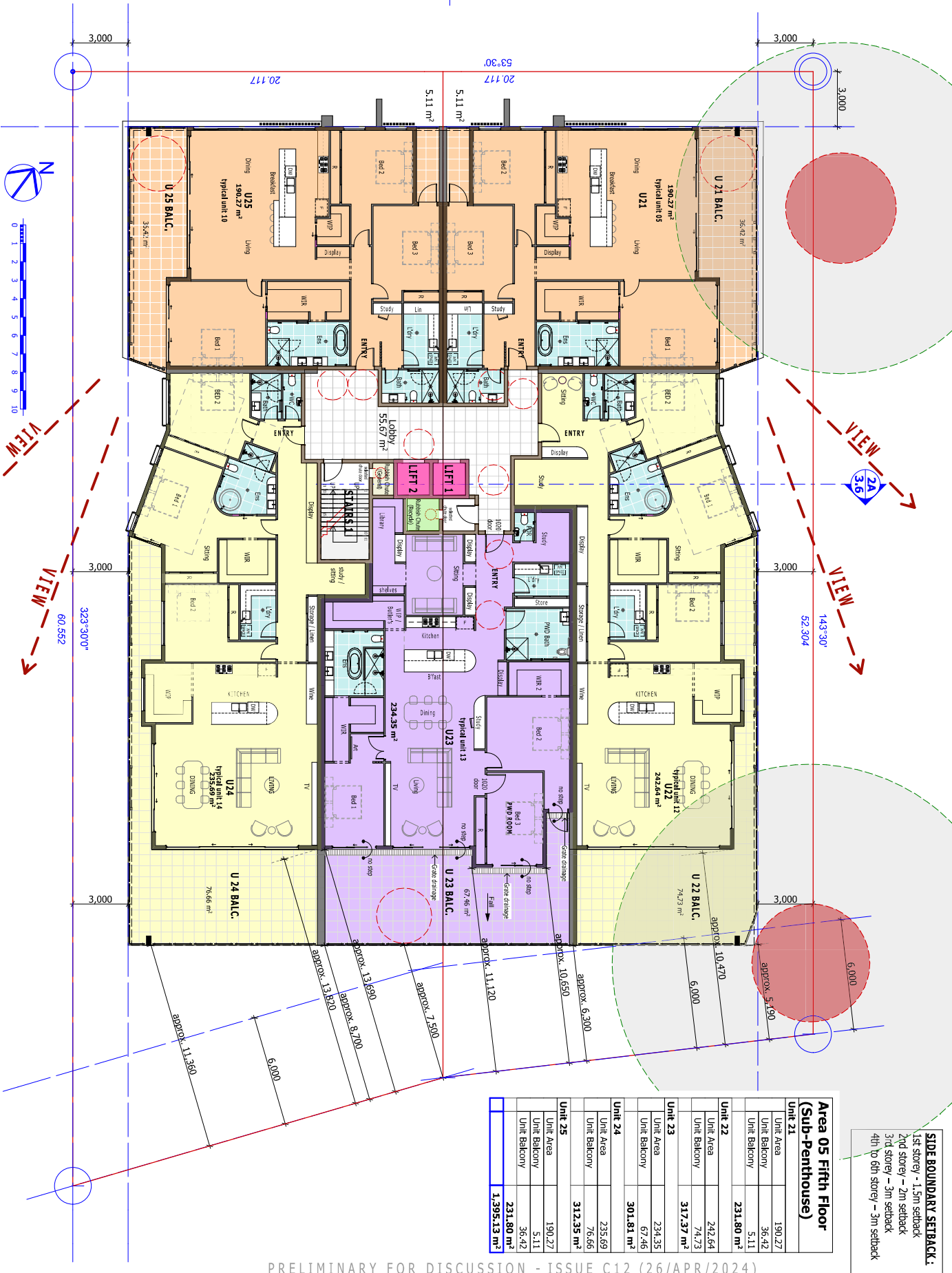
DRAWING NAME
FIFTH FLOOR (Sub-Penthouse)
DESIGNER

ISSUE
C12 26/APR/2024 Preliminary Issue
C11 10/MAR/2024 Preliminary Issue
C10 07/MAR/2024 Preliminary Issue
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Refer to signed contract documents for final selections and inclusions



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REVISION
2.6 C12



SIDE BOUNDARY SETBACK:
1st storey - 1.5m setback
2nd storey - 2m setback
3rd storey - 3m setback
4th to 6th storey - 3m setback

| Area 05 Fifth Floor (Sub-Penthouse) | |
|--|-------------|
| Unit 21 | |
| Unit Area | 190.27 |
| Unit Balcony | 36.42 |
| Unit Balcony | 5.11 |
| Unit Balcony | 231.80 m² |
| Unit 22 | |
| Unit Area | 242.64 |
| Unit Balcony | 74.73 |
| Unit Balcony | 317.37 m² |
| Unit 23 | |
| Unit Area | 224.35 |
| Unit Balcony | 67.46 |
| Unit Balcony | 301.81 m² |
| Unit 24 | |
| Unit Area | 235.69 |
| Unit Balcony | 76.66 |
| Unit Balcony | 312.35 m² |
| Unit 25 | |
| Unit Area | 190.27 |
| Unit Balcony | 5.11 |
| Unit Balcony | 36.42 |
| Unit Balcony | 231.80 m² |
| Unit Balcony | 1,395.13 m² |

SHORE STREET EAST

2.88 2.89 2.91 2.88 2.84 2.76 2.70 2.65 2.61

1A
3.5RL +30/850
53°30'

3,000

20.117

2,400

3,000

2,400

3,000

approx. 5,280

3,000

3,000

3,000

3,000

3,000

3,000

3,000

3,000

3,000

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Walls Below

Selected Gutter

5° Selected Roof
(with 300mm upstand)roof area : approx. 696.48 m²
= approx. 18 downpipes (TBC - 1 DP per 40 sqm roof area)

Roof of Stairs Below

Lift 1

Below

Lift Overrun - RL +29,950

maximum building height
stipulated by number of storey
(max 7 storeys)roof area : approx. 751.61 m²
= approx. 20 downpipes (TBC - 1 DP per 40 sqm roof area)5° Selected Roof
(with 300mm upstand)

ROOF TBC

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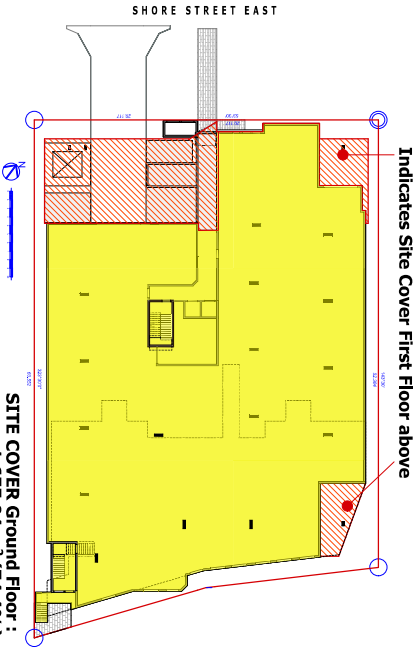
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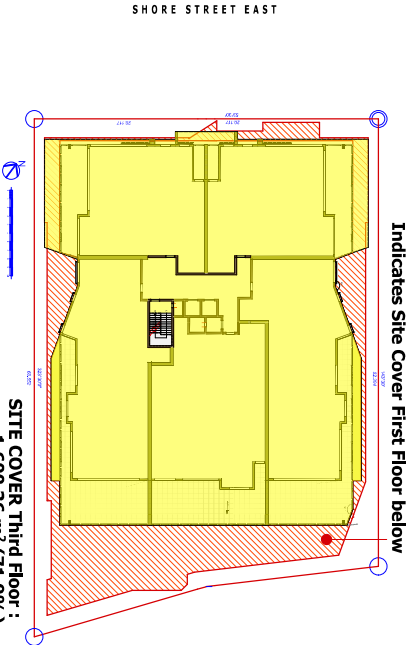
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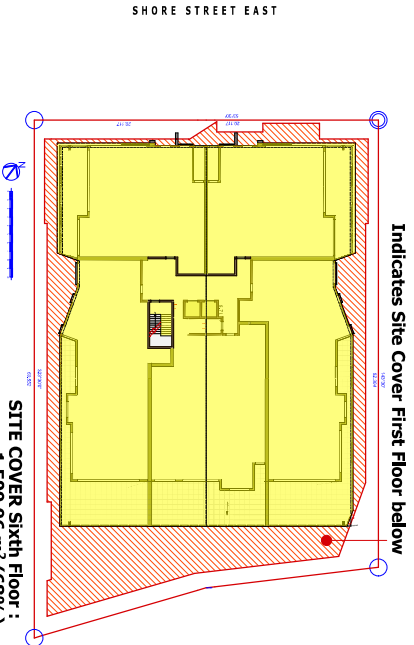
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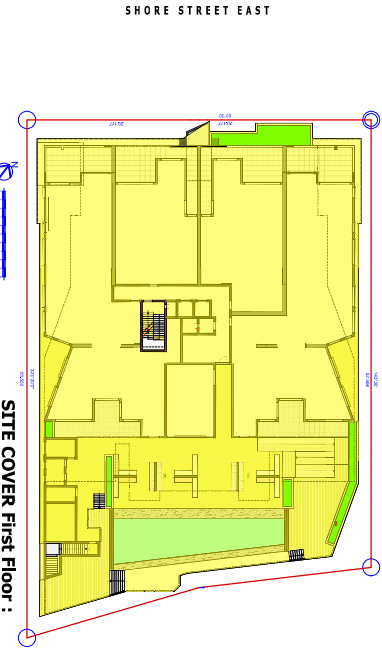
0. Ground Floor



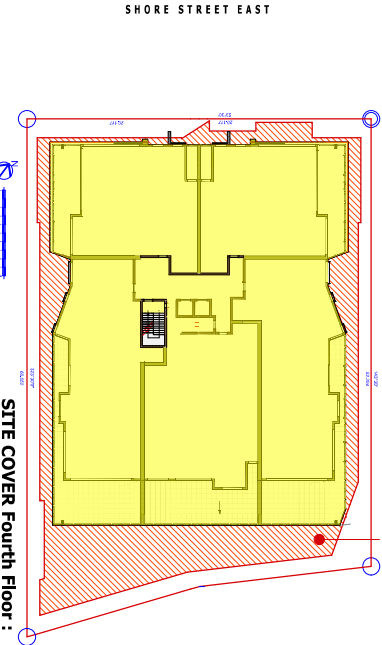
3. Third Floor



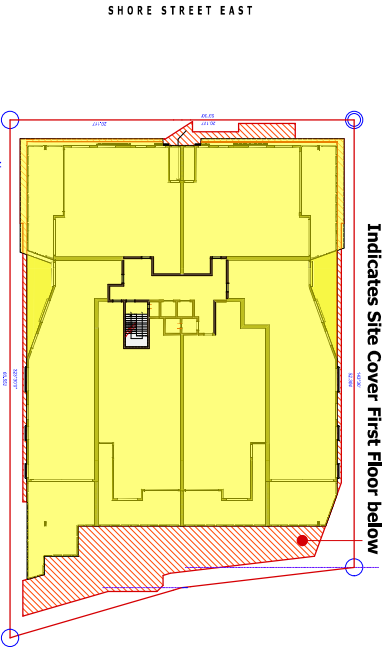
6. Sixth Floor (Penthouse)



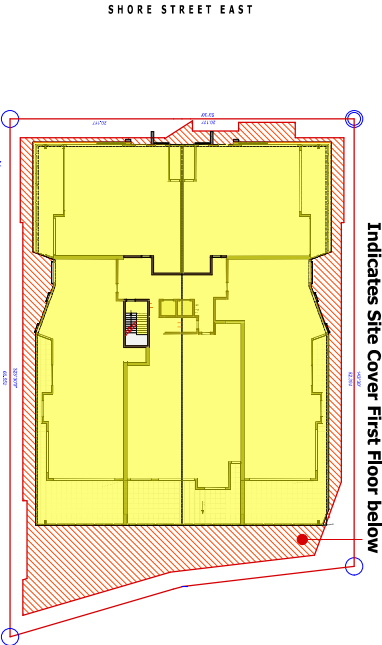
1. First Floor



4. Fourth Floor



2. Second Floor



6. Sixth Floor (Penthouse)

SITE AREA :
2,226 sqm (approx)
SITE COVER MAX :
1,928.95 m² (86.40%)

SITE COVER, of development, means the portion of the site, expressed as a percentage, that will be covered by a building or structure, measured to its outermost projection, after the development is carried out, other than a building or structure, or part of a building or structure, that is—
(a) in a landscaped or open space area, including, for example, a gazebo or shade structure; or
(b) a basement that is completely below ground level and used for car parking; or
(c) the eaves of a building; or
(d) a sun shade

PRELIMINARY ISSUE - REV C12 (26/APR/2024)

RC+
Design

BSA License Number:
121233
info@rcdesignsg.com.au
Phone:
0421811717
Email:

LOCATION:
LOT 12 #67
SHORE STREET EAST
CLEVELAND
REDLAND CITY
QLD

CLIENT:
TBC

DRAWING NAME:
SITE COVER

ISSUE : **C12**

SCALE : 1:625 @A3

JOB NO : #P1n

DRAWING : 2.9

ISSUE

| | | | |
|-----|-------------|-------------|----|
| C12 | 26/APR/2024 | Preliminary | CH |
| C11 | 10/MAR/2024 | Preliminary | VT |
| C10 | 06/MAR/2024 | Preliminary | VT |
| C9 | 18/FEB/2024 | Preliminary | VT |

Refer to issued contract documents for final selections and inclusions

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BANKING ROOM BEHIND SHORE ST EAST,
EAST CLEVELAND, QUEENSLAND, AUSTRALIA
ARCH: LOT 12 #67 SHORE ST EAST,
CLEVELAND, QUEENSLAND, AUSTRALIA
DRAWING: 18/FEB/2024

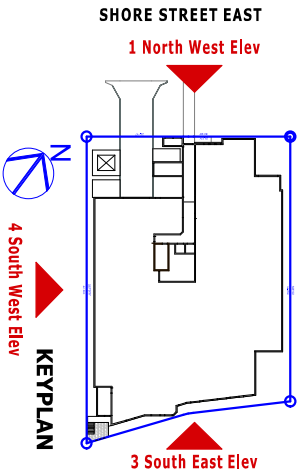
NOTE:
The finished floor level of the habitable Ground Floor areas and all critical infrastructure have been designed to be at or above 3.46m AHD to achieve a minimum 300mm freeboard above the flood level



.1 SITE ELEVATION : NORTH WEST ELEVATION 1:200

- COLOUR SCHEDULE - TBC**
1. Main Colour
- Colorbond Repetark or similar
 2. Screening
- Colorbond Surfmat or similar
 3. Aluminum Powdercoated Doors & Windows Frame
- Dulux Pearl White or similar
 3. Ground Floor Walls /
- Dulux Pearl White or similar

4. Feature Tiled Area - Selected Travertine in beige tone / similar
5. Feature Colour A
- Colorbond Sandbank or similar
6. Feature Colour B / Shear Walls
- Colorbond Pale Eucalyptus or similar
7. Selected Glass Balustrade



NOTE: the finished floor level of the habitable Ground Floor areas and all critical infrastructure have been designed to be at or above 3.46m AHD to achieve a minimum 300mm freeboard above the flood level



| JOB NUMBER | DRAWING | REVISION |
|------------|---------|----------|
| | 3.2 | C12 |

NOTE:
The finished floor level of the habitable Ground Floor areas and all critical infrastructure have been designed to be at or above 3.46m AHD to achieve a minimum 300mm freeboard above the flood level

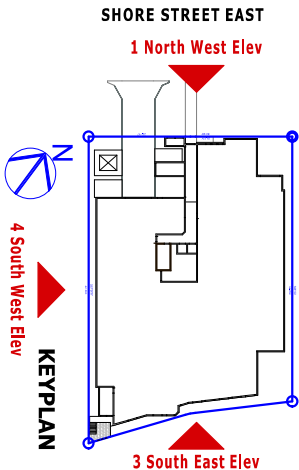


COLOUR SCHEDULE - TBC

1. Main Colour
- Colorbond Peppercorn or similar
2. Screening
- Colorbond Surfstrut or similar
3. Aluminum Powdercoated Doors & Windows Frame
- Dulux Pearl White or similar
3. Ground Floor Walls / Secondary Colour
- Dulux Pearl White or similar

4. Feature Tiled Area - Selected Travertine in beige tone / similar
5. Feature Colour A
- Colorbond Sandbank or similar

6. Feature Colour B / Shear Walls
- Colorbond Pale Eucalyptus or similar
7. Selected Glass Balustrade



RC+
Design

183/1 Lyons Number
1212325
Email
info@rcplusdesign.com.au
Phone
0421971717

CLIENT
TBC
LOCATION
LOT 12 #67 SHORE STREET EAST, CLEVELAND QLD

DRAWING NAME
ELEVATION
DESIGNER

ISSUE
C12 26/APR/2024 Preliminary Issue
C11 10/MAR/2024 Preliminary Issue
C10 07/MAR/2024 Preliminary Issue
CH VT VT
Refer to signed contract documents for final selections and inclusions



SCALE
1:200
@A3
PAPER

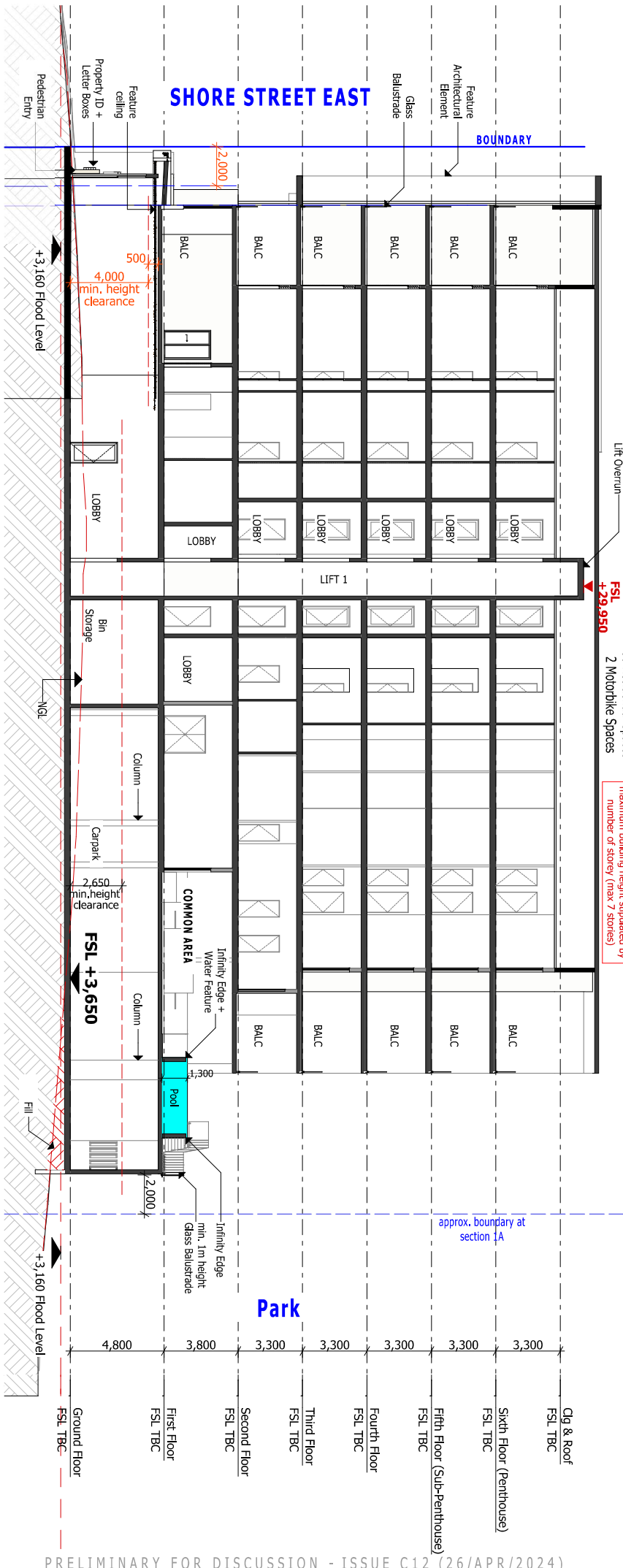
JOB NUMBER
DRAWING
3.3
REVISION
C12
C12 26/APR/2024 Preliminary Issue
C11 10/MAR/2024 Preliminary Issue
C10 07/MAR/2024 Preliminary Issue
CH VT VT
Refer to signed contract documents for final selections and inclusions

TOTAL = 30 Units + COMMON AREA

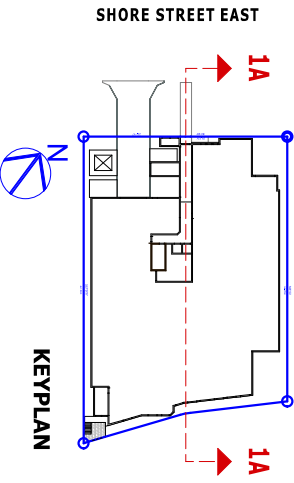
3 Visitor Spaces
60 Residential Spaces
2 Motorbike Spaces

maximum building height stipulated by
number of storey (max 7 storeys)

NOTE:
the finished floor level of the habitable
Ground Floor areas and all critical
infrastructure have been designed to
be at or above 3.46m AHD to achieve a
minimum 300mm freeboard above the
flood level



reference for
feature ceiling



PRELIMINARY FOR DISCUSSION - ISSUE C12 (26/APR/2024)

RC+
Design

BSA License Number
1212835
Email
info@rcpsdesign.com.au
Phone
042191717

CLIENT
TBC
LOCATION
LOT 12 #67 SHORE STREET EAST, CLEVELAND QLD

DRAWING NAME
SECTIONS
DESIGNER

ISSUE
C12 26/APR/2024 Preliminary Issue
C11 10/MAR/2024 Preliminary Issue
C10 07/MAR/2024 Preliminary Issue
CH VT VT
Refer to signed contract documents for final selections and inclusions



SCALE
1:200
@A3
PAPER

JOB NUMBER
DRAWING
REVISION
C12

40.234

20.117

20.117

TOTAL = 30 Units + COMMON AREA

63 Cars

3 Visitor Spaces + 60 Residential Spaces

2 Motorbike Spaces

maximum building height stipulated by
number of storey (max 7 storeys)

Selected Roof

FSL + 29,950

5°

5°

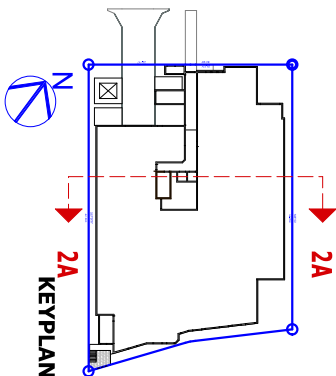
NOTE.
the finished floor level of the habitable
Ground Floor areas and all critical
infrastructure have been designed to
be at or above 3.46m AHD to achieve a
minimum 300mm freeboard above the
flood level



2A SECTION 2A

1:200

SHORE STREET EAST

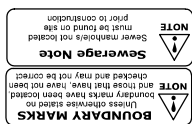
2A
KEYPLAN

PRELIMINARY FOR DISCUSSION - ISSUE C12 (26/APR/2024)

RC+
DesignRDA License Number
1212825
Email
info@rcplusdesign.com.au
Phone
042197117CLIENT
TBC
LOCATION
LOT 12 #67 SHORE STREET EAST, CLEVELAND QLDDRAWING NAME
SECTIONS
DESIGNERISSUE
C12 26/APR/2024 Preliminary Issue
C11 10/MAR/2024 Preliminary Issue
C10 07/MAR/2024 Preliminary IssueCH
VT
VTSCALE
1:200
@A3
PAPERJOB NUMBER
DRAWING
3.6
REVISION
C12

All drawings are prepared in accordance with the Australian Standards AS/NZS 1546.1 and AS/NZS 1546.2. The drawings are the property of RC+ Design and are not to be used for any other purpose without the written consent of RC+ Design. The drawings are not to be used for any other purpose without the written consent of RC+ Design.

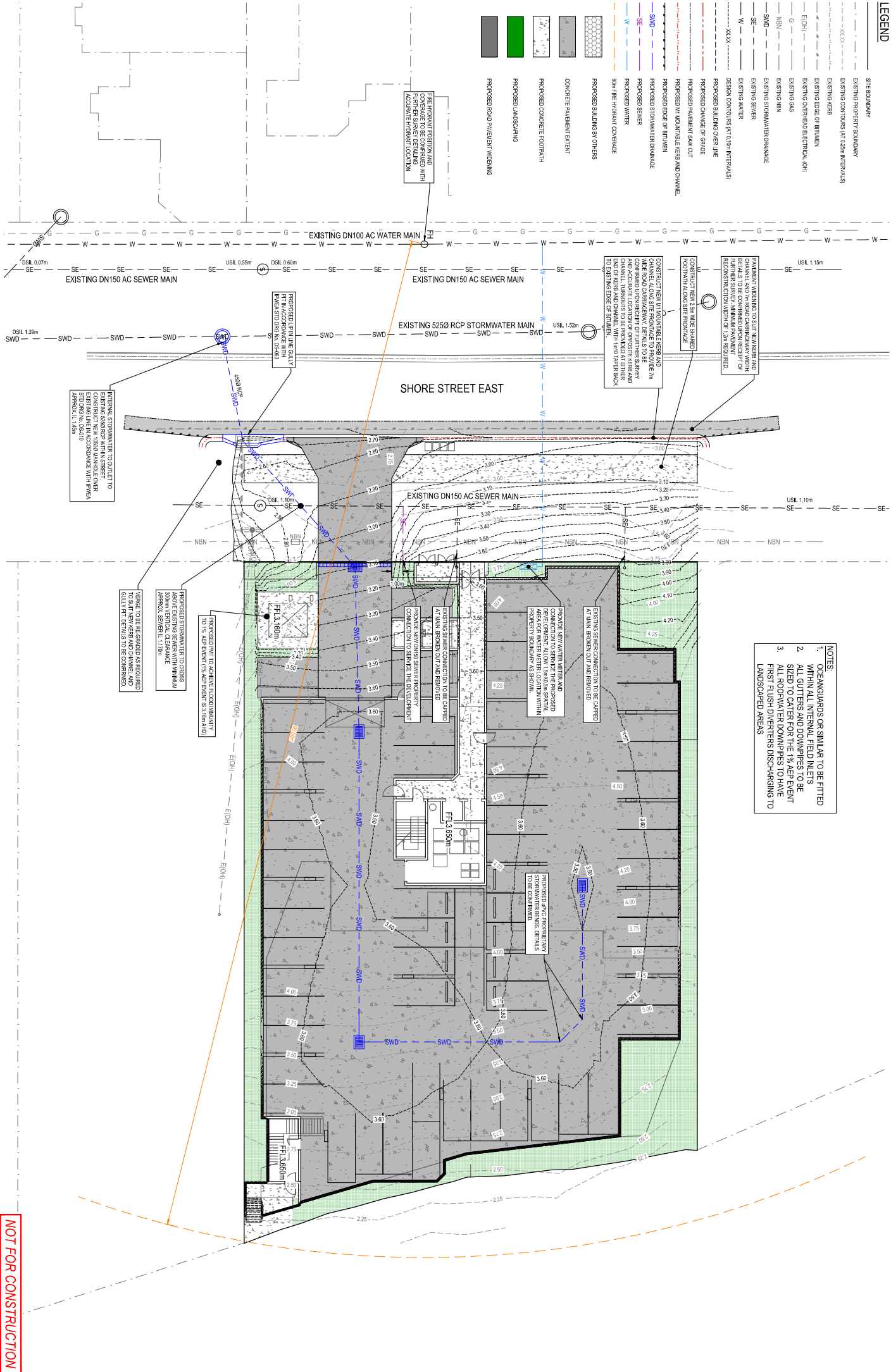
Appendix B Survey Plan



Appendix C Civil Works Drawings

LEGEND

- SITE BOUNDARY
- EXISTING PROPERTY BOUNDARY
- EXISTING CONTROLS (AT 0.25M INTERVALS)
- EXISTING KERB
- EXISTING EDGE OF BITUMEN
- EXISTING OVERHEAD ELECTRICAL (OH)
- EXISTING GAS
- EXISTING NBN
- EXISTING STORMWATER DRAINAGE
- EXISTING WATER
- EXISTING WATER
- DESIGN CONTROLS (AT 0.10M INTERVALS)
- PROPOSED CHANGE OF GRADE
- PROPOSED CHANGE OF GRADE
- PROPOSED IN MOBILE KERB AND CHANNEL
- PROPOSED EDGE OF BITUMEN
- PROPOSED STORMWATER DRAINAGE
- PROPOSED SEWER
- PROPOSED WATER
- 90° PRE HYDRANT COVERAGE
- PROPOSED BUILDING BY OTHERS
- CONCRETE PAVEMENT EXISTENT
- PROPOSED CONCRETE FOOTPATH
- PROPOSED LANDSCAPING
- PROPOSED ROAD PAVEMENT WIDENING



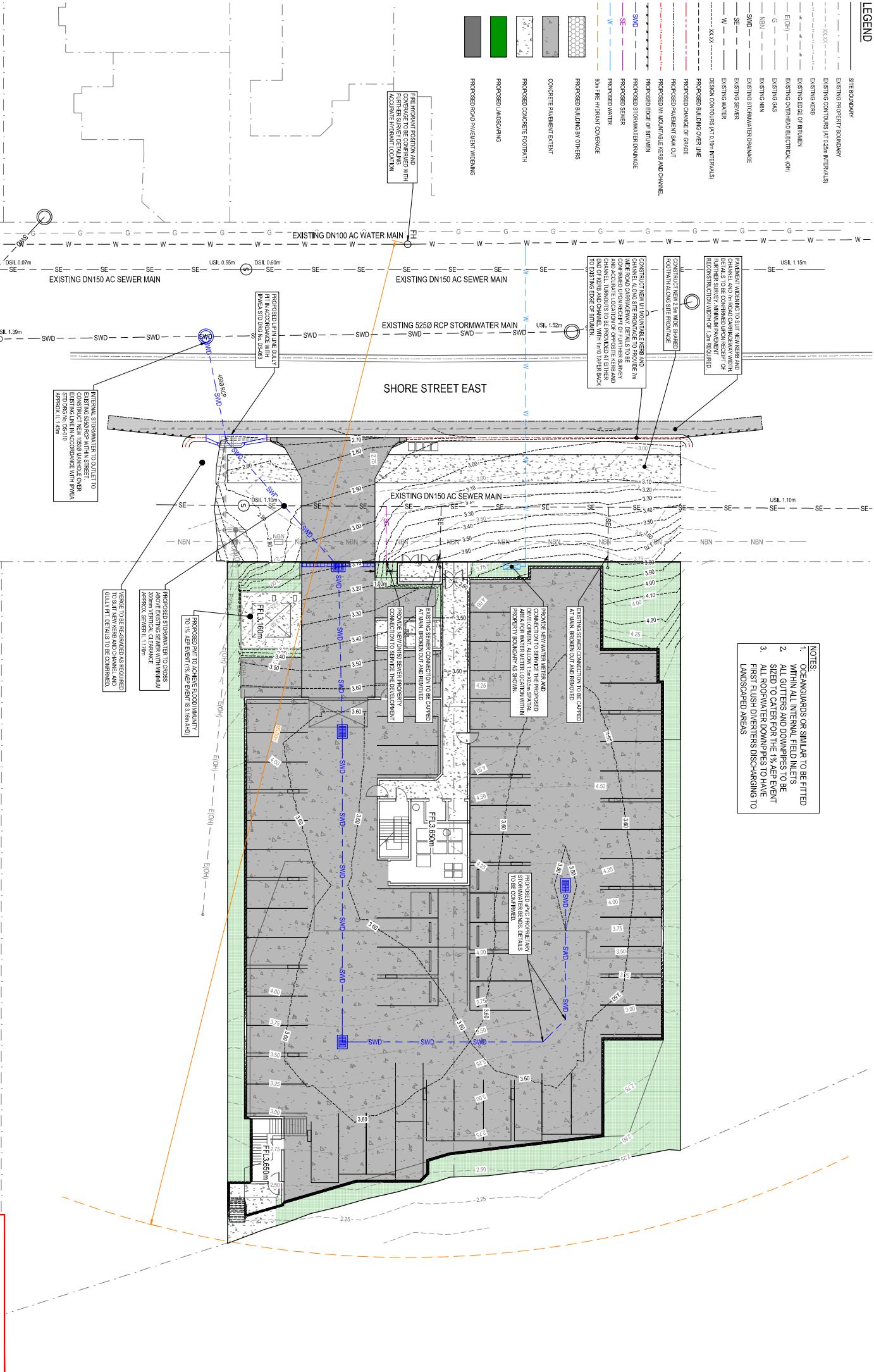
- NOTES:
- OCEANGUARDS OR SIMILAR TO BE FITTED WITHIN ALL INTERNAL FIELD INLETS
 - ALL GUTTERS AND DOWNPIPES TO BE SIZED TO CATER FOR THE 1% AEP EVENT
 - ALL ROOFWATER DOWNPIPES TO HAVE FIRST FLUSH DIVERTERS DISCHARGING TO LANDSCAPED AREAS

PROPOSED DRAIN TO COLLECT 0.05% RAINFALL TO 1% AEP EVENT (1% AEP EVENT IS 3.16m AHD)

PROPOSED STORMWATER TO CROSS ABOVE EXISTING SEWER WITH MINIMUM 300mm VERTICAL CLEARANCE APPROX. SLOPE 1:170m

VEHICLE TO BE REDESIGNED AS REQUIRED TO ACCOMMODATE NEW WATER AND GULLY PIT DETAILS TO BE CONFORMED

INTERNAL ORGANIZATION TO OULET TO EXISTING 5250 RCP WITHIN STREET CONSTRUCT NEW 1000 MANHOLE OVER EXISTING 5250 RCP WITHIN STREET APPROX. L 1.560



NOT FOR CONSTRUCTION

PITCH
BLACK
GROUP

REV

23191

23191-DWG-CV-CV-SK001

C

| REV | DESCRIPTION | DATE | APPROVED | CHECKED | DESIGNED |
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| 100 | FOR APPROVAL | 10/25/24 | NG | NG | NG |

PROPOSED DEVELOPMENT
67 & 69 SHORE STREET EAST
CLEVELAND QLD 4163

STATUS

PRELIMINARY ISSUE

CONCEPT SERVICES LAYOUT

23191

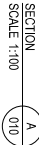
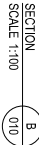
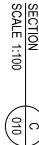
23191-DWG-CV-CV-SK001

REV

C

BULK ENK1 HWUHAS SURFALCE

PROPOSED SURFACE SLOPE



VERGE TO GRADE AT 3% TO BACK OF PROPOSED FOOTPATH IN ACCORDANCE WITH COUNCIL STANDARDS BEFORE GRADING BACK TO EXISTING SURFACE LEVELS AT PROPERTY BOUNDARY AT VARYING GRADES OF APPROX. 10%.

NOT FOR CONSTRUCTION

PRELIMINARY ISSUE

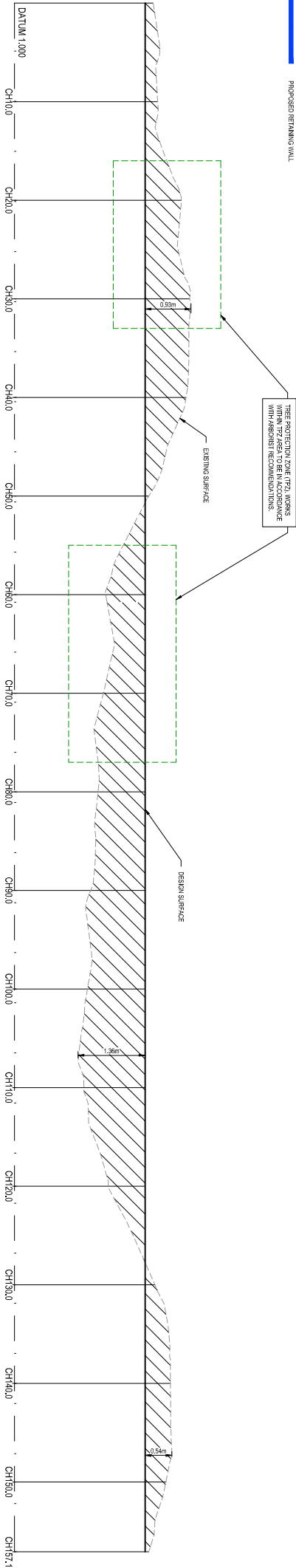
CONCEPT EARTHWORKS SITE SECTIONS

PITCH BLACK

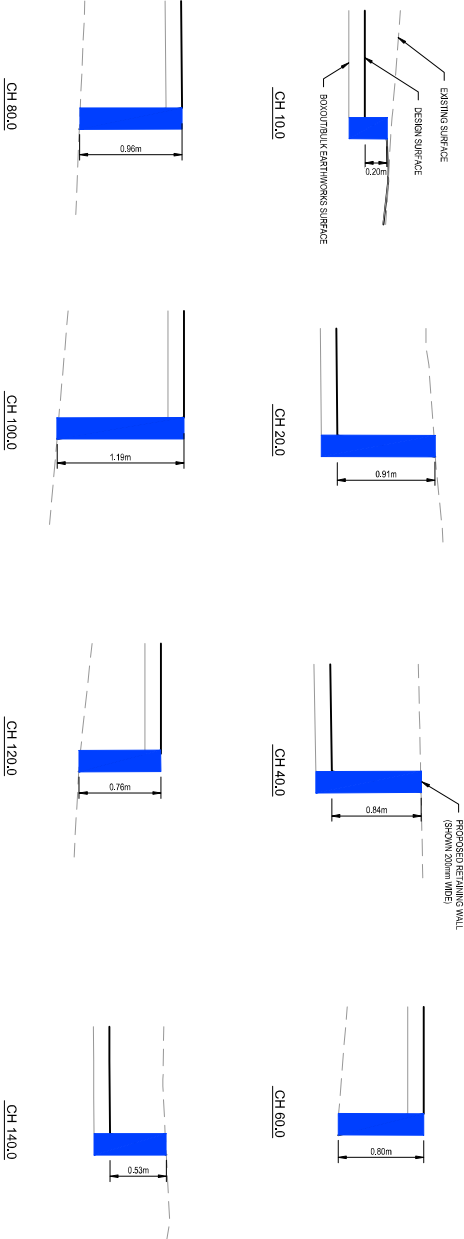
[illegible]

LEGEND

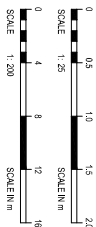
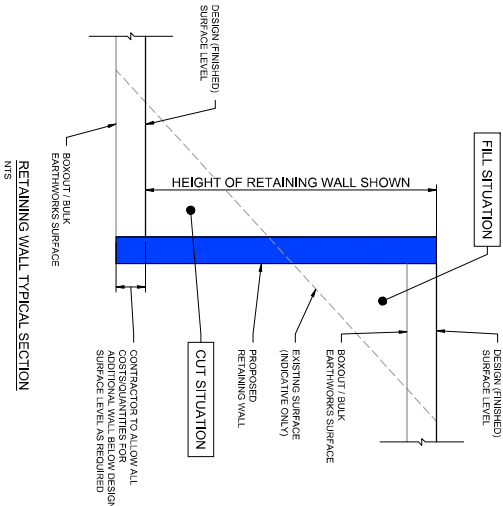
- DESIGN SURFACE
- BULK EARTHWORKS SURFACE
- DATUM LINE
- EXISTING SURFACE
- PROPOSED RETAINING WALL



PROPOSED RETAINING WALL RTW01
LONGITUDINAL PROFILE
SCALE 1:200 (H) 1:40 (V)
[ix VERTICAL ENLARGEMENT]



PROPOSED RETAINING WALL RTW01
SELECTED CROSS SECTIONS
SCALE 1:25



PITCH
BLACK

GROUP

| | | | | | | | |
|-----|---|--------------|------------------|------|----------|----------|---------|
| REV | A | FOR APPROVAL | REVISION DETAILS | DATE | APPROVED | DESIGNED | LEARNST |
| | | | | | | DRAWN | LEARNST |
| | | | | | | CHECKED | N.GREEN |

THE ENGINEERING TOOLBOX

DO NOT SCALE FROM DRAWING

PROJECT

DISCIPLINE

PROPOSED DEVELOPMENT
67 & 69 SHORE STREET EAST
CLEVELAND QLD 4163

CIVIL

STATUS

SHEET TITLE

PRELIMINARY ISSUE

CONCEPT RETAINING WALL
RTW01 SECTIONS

PROJECT NUMBER

23191

DRAWING NUMBER

23191-DWG-CV-CV-SK012

REV

A

NOT FOR CONSTRUCTION