



CITY OF HOBART

# **AGENDA**

## **City Planning Committee Meeting**

### **Open Portion**

**Monday, 25 July 2022**

**at 5:30 pm**

**Council Chamber, Town Hall**

### **SUPPLEMENTARY ITEM**

#### **ORDER OF BUSINESS**

**COMMITTEE ACTING AS PLANNING AUTHORITY ..... 3**

#### **APPLICATIONS UNDER THE HOBART INTERIM PLANNING SCHEME 2015**

- 13    1 Knopwood Street, Battery Point and Adjacent Road Reserve -  
Demolition and New Building for 26 Multiple Dwellings and Food  
Services and works within Council Road Reservation ..... 4

**The Chief Executive Officer reports:**

“That in accordance with the provisions of Part 2 Regulation 8(6) of the *Local Government (Meeting Procedures) Regulations 2015*, these supplementary matters are submitted for the consideration of the Committee.

Pursuant to Regulation 8(6), I report that:

- (a) information in relation to the matter was provided subsequent to the distribution of the agenda;
- (b) the matter is regarded as urgent; and
- (c) advice is provided pursuant to Section 65 of the Act.”



## **COMMITTEE ACTING AS PLANNING AUTHORITY**

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In accordance with the provisions of Part 2 Regulation 25 of the *Local Government (Meeting Procedures) Regulations 2015*, the intention of the Committee to act as a planning authority pursuant to the *Land Use Planning and Approvals Act 1993* is to be noted.

In accordance with Regulation 25, the Committee will act as a planning authority in respect to those matters appearing under this heading on the agenda, inclusive of any supplementary items.

The Committee is reminded that in order to comply with Regulation 25(2), the Chief Executive Officer is to ensure that the reasons for a decision by a Council or Council Committee acting as a planning authority are recorded in the minutes.

**13     1 KNOPWOOD STREET, BATTERY POINT AND ADJACENT ROAD  
RESERVE - DEMOLITION AND NEW BUILDING FOR 26 MULTIPLE  
DWELLINGS AND FOOD SERVICES AND WORKS WITHIN COUNCIL  
ROAD RESERVATION  
PLN-21-719 - FILE REF: F22/71584**

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Address:                      1 Knopwood Street, Battery Point and Adjacent Road Reserve

Proposal:                    Demolition and New Building for 26 Multiple Dwellings and Food Services and works within Council Road Reservation

Expiry Date:                2 August 2022

Extension of Time:






Author:                      Richard Bacon

**RECOMMENDATION**

That pursuant to the *Hobart Interim Planning Scheme 2015*, the Council refuse the application for a partial demolition and new building for 26 multiple dwellings and food services at 1 Knopwood Street Battery Point TAS 7004 for the following reasons:

- 1        The proposal does not meet the acceptable solution or the performance criterion with respect to clause E13.8.2 A1 or P1 of the *Hobart Interim Planning Scheme 2015* because the design and siting of the buildings results in detriment to the historic cultural heritage significance of the precinct as described in Table E13.2.
- 2        The proposal does not meet the acceptable solution or the performance criterion with respect to clause E13.8.4 A1 or P1 of the *Hobart Interim Planning Scheme 2015* because the site area per dwelling of the proposal detracts from the pattern of development that is a characteristic of the historic cultural heritage significance of the precinct in the vicinity of the site as described in Table E13.2.
- 3        The proposal does not meet the acceptable solution or the performance criterion with respect to clause E13.8.4 A3 or P3 of the *Hobart Interim Planning Scheme 2015* because the building height is obtrusive in the streetscape and detracts from the pattern of development that is a characteristic of the precinct in the vicinity of the site as described in Table E13.2.

- 4 The proposal does not meet the acceptable solution or the performance criterion with respect to clause E13.8.4 A6 or P6 of the *Hobart Interim Planning Scheme 2015* because the building detracts from the pattern of development that is a characteristic of the precinct in the vicinity of the site as described in Table E13.2.
- 5 The proposed cafe/wine bar is within the use class Food Services which is prohibited in the use Table at clause 11.2 of the Hobart Interim Planning Scheme 2015, because it is not within an existing building.

- Attachment A: PLN-21-719 - 1 KNOPWOOD STREET BATTERY POINT TAS 7004 - Planning Committee or Delegated Report ↓ 
- Attachment B: PLN-21-719 - 1 KNOPWOOD STREET BATTERY POINT TAS 7004 - CPC Agenda Documents ↓ 
- Attachment C: PLN-21-719 - 1 KNOPWOOD STREET BATTERY POINT TAS 7004 - Planning Referral Officer Cultural Heritage Report ↓ 
- Attachment D: PLN-21-719 - 1 KNOPWOOD STREET BATTERY POINT TAS 7004 - Planning Referral Officer Development Engineering Report ↓ 
- Attachment E: PLN-21-719 - 1 KNOPWOOD STREET BATTERY POINT TAS 7004 - Urban Design Advisory Panel Report ↓ 

**APPLICATION UNDER HOBART INTERIM PLANNING SCHEME 2015**

Type of Report:	Committee
Council:	1 August 2022
Expiry Date:	2 August 2022
Application No:	PLN-21-719
Address:	1 KNOPWOOD STREET , BATTERY POINT ADJACENT ROAD RESERVE
Applicant:	(Bensons Property, by their Agent, Ireneinc Planning) C/- 49 Tasma Street
Proposal:	Demolition and New Building for 26 Multiple Dwellings and Food Services and works within Council Road Reservation
Representations:	348
Performance criteria:	Inner Residential Zone Use and Development Standards, Parking and Access Code, Historic Heritage Code, Potentially Contaminated Land Code, Attenuation Code.

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**1. Executive Summary**

- 1.1 Planning approval is sought for a demolition and new building for 26 multiple dwellings and food services at 1 Knopwood Street, Battery Point TAS 7004 and adjacent road reserve.

- 1.2 More specifically the proposal includes:
- a total of 26 multiple dwellings within two buildings on the site over up to 8 levels;
  - the new north west building fronting Montpelier Retreat and Knopwood Street would have up to seven above ground storeys, and the new south east building fronting James Street would have up to four above ground storeys;
  - a basement carpark would cover the site, and would include a lap pool at this level;
  - a ground level carpark, and food services;
  - at level 1, the north west building would contain three multiple dwellings, and the south east building would contain two multiple dwellings;
  - a central courtyard would separate the two buildings. There would be walkways linking the courtyard to the Knopwood Street and James Street frontages;
  - at level 2, four multiple dwellings in each of the two buildings;
  - at level 3, four multiple dwellings in the north west building, and three multiple dwellings in the south east building;
  - at level 4, a penthouse (the lowest of three levels) in the north west building, and three multiple dwellings in the south east building;
  - at level 5, a penthouse (the middle of three levels) in the north west building, and two multiple dwellings in the south east building;
  - at level 6, a penthouse (the topmost of three levels) in the north west building;
  - the 40 space two level carpark would be accessed from Montpelier Retreat; and
  - works within Council Road Reservation.
- 1.3 The proposal relies on performance criteria to satisfy the following standards and codes:
- 1.3.1 Inner Residential Zone - Use, Private Open Space, Sunlight, Privacy
  - 1.3.2 Parking and Access Code - Number of Parking Spaces
  - 1.3.3 Historic Heritage Code - Demolition, Building and Works in a Heritage Precinct and in Heritage Precinct BP1
  - 1.3.4 Potentially Contaminated Land Code - Excavation
  - 1.3.5 Attenuation Code - Proximity to Late Night Music venue
- 1.4 A total of 348 representations have been received. A total of 342 state objection to the proposal. A total of 4 state support of the proposal, and two do not state an opinion. The representations were received within the statutory advertising period between the 30th May and the 14th June 2022.

- 1.5 The application was considered by the Urban Design Advisory Panel at its meeting of 14th June 2022. In the context of the provisions on which they were asked to comment, the Panel was not supportive of the proposal. The Panel's report is provided as an Attachment to this report.
- 1.5 The proposal is recommended for refusal.
- 1.6 The final decision is delegated to the Council, because the proposal exceeds 3 storeys and 2,000 square metres in size, involves Council land, is recommended for refusal, and received more than five objections.

## 2. Site Detail

- 2.1 The site is known as 1 Knopwood Street, and comprises a number of titles with frontages to Montpelier Retreat, Knopwood Street, and James Street. The site is within the Inner Residential Zone, and the Battery Point Heritage Precinct. Montpelier Retreat and Knopwood Street also form the boundary of the Hobart Interim Planning Scheme area, with the Sullivans Cove Planning Scheme applying to development on the other side of these streets.
- 2.2 The site was visited date the 1st November 2021 and has been re-visited since including on the 1st June 2022.

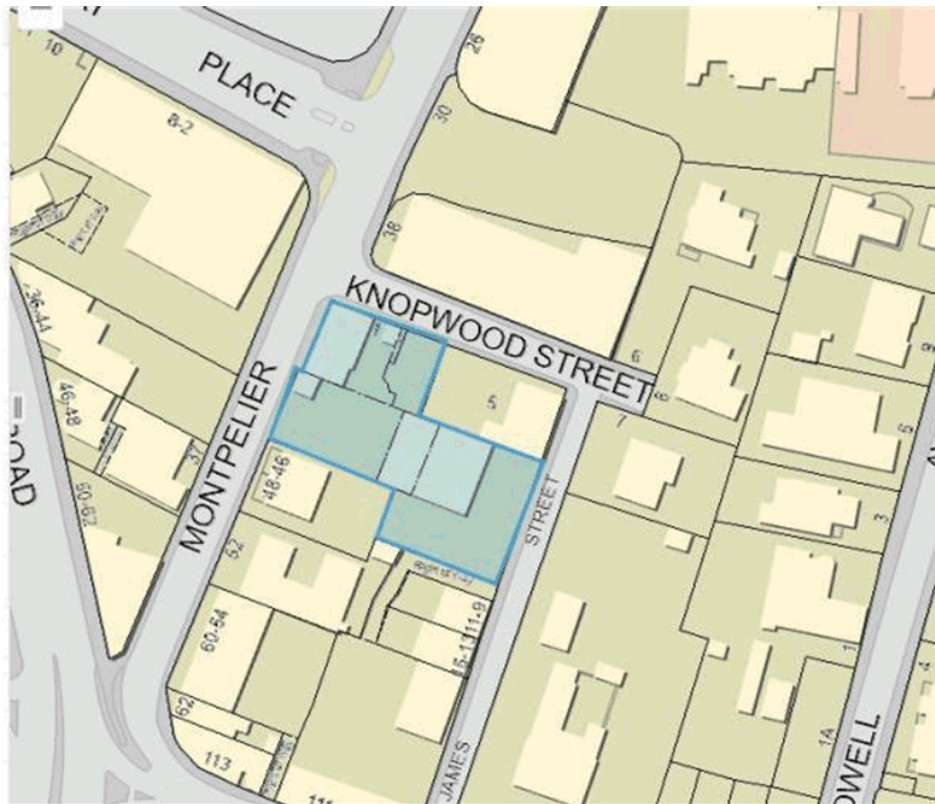


Figure 1 above: location plan with site highlighted.

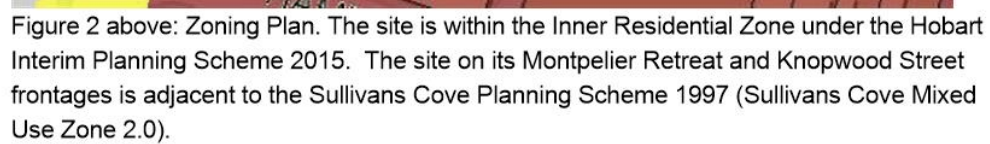






Figure 3 above: aerial photograph.



Figure 4 above: view south west along Montpelier Retreat. Subject site in centre, Knopwood House to left, Kirksway House to right.



Figure 5 above: view north east along Montpelier Retreat. Subject site in centre, Kirksway House to left, Knopwood House to right.



Figure 6 above: view across site from James Street.





Figure 7 above: aerial photograph with site in centre of image (Bing).

### 3. Proposal

- 3.1 Planning approval is sought for a demolition and new building for 26 multiple dwellings and food services at 1 Knopwood Street, Battery Point TAS 7004 and adjacent road reserve.

- 3.2 More specifically the proposal is for:
- a total of 26 multiple dwellings within two buildings on the site over up to 8 levels;
  - the new north west building fronting Montpelier Retreat and Knopwood Street would have up to seven above ground storeys, and the new south east building fronting James Street would have up to four above ground storeys;
  - a basement carpark would cover the site, and would include a lap pool at this level;
  - a ground level carpark, and food services;
  - at level 1, the north west building would contain three multiple dwellings, and the south east building would contain two multiple dwellings;
  - a central courtyard would separate the two buildings. There would be walkways linking the courtyard to the Knopwood Street and James Street frontages;
  - at level 2, four multiple dwellings in each of the two buildings;
  - at level 3, four multiple dwellings in the north west building, and three multiple dwellings in the south east building;
  - at level 4, a penthouse (the lowest of three levels) in the north west building, and three multiple dwellings in the south east building;
  - at level 5, a penthouse (the middle of three levels) in the north west building, and two multiple dwellings in the south east building;
  - at level 6, a penthouse (the topmost of three levels) in the north west building;
  - the 40 space two level carpark would be accessed from Montpelier Retreat; and
  - works within Council Road Reservation.

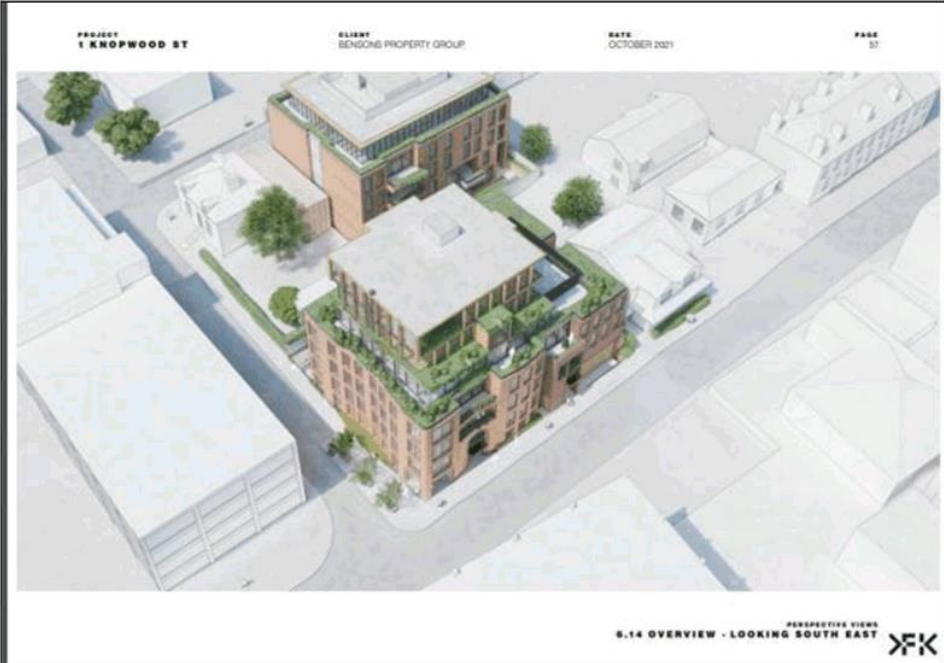


Figure 6 above: aerial view from Montpelier Retreat/Knopwood Street (north west building).

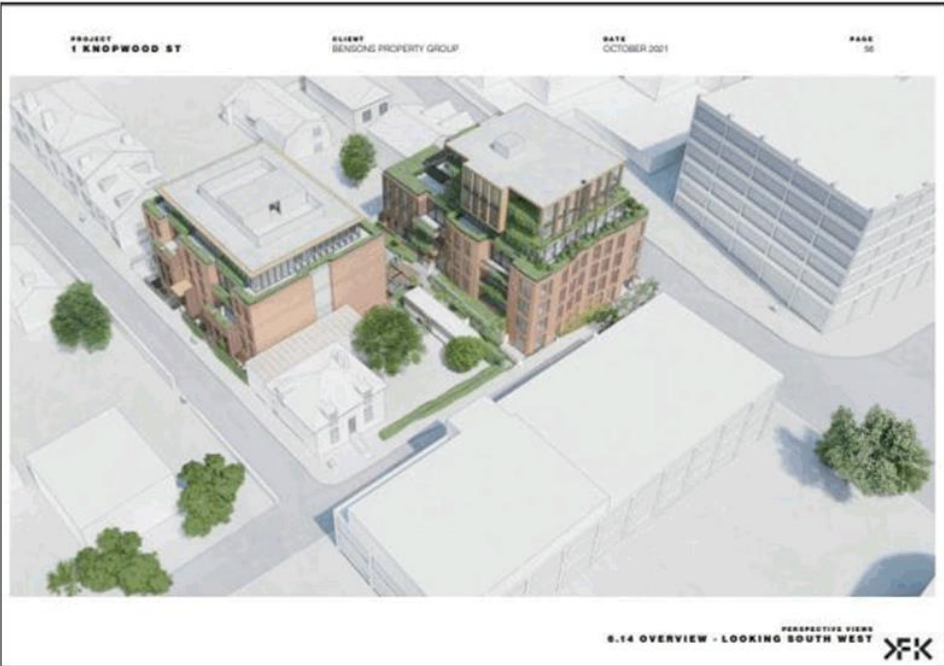


Figure 7 above: aerial view from James Street (south east building).

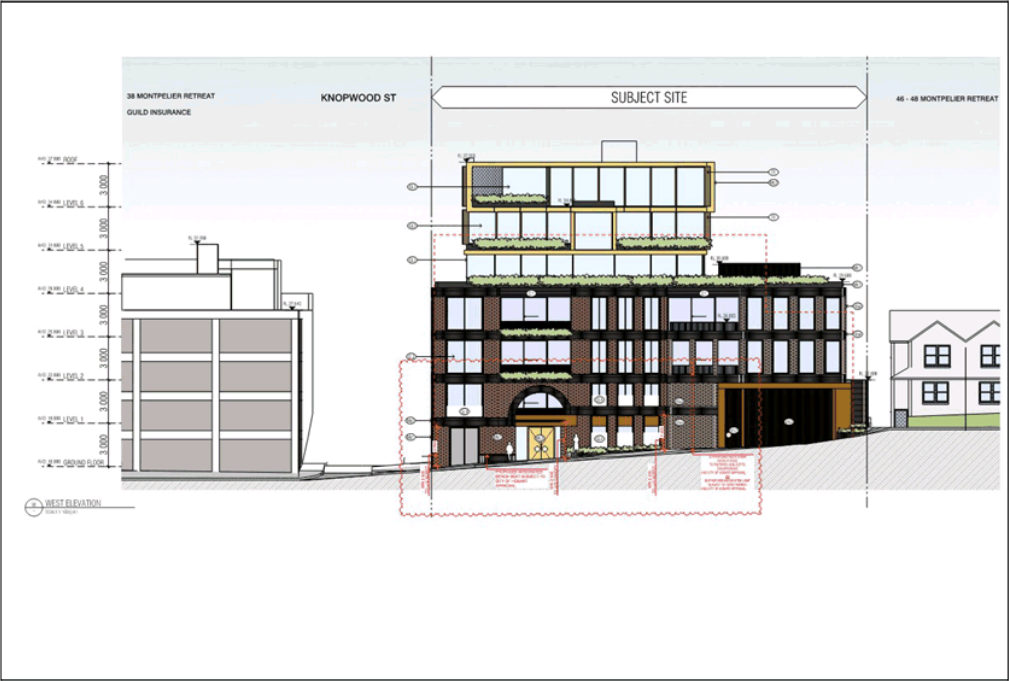


Figure 8: Montpelier Retreat elevation

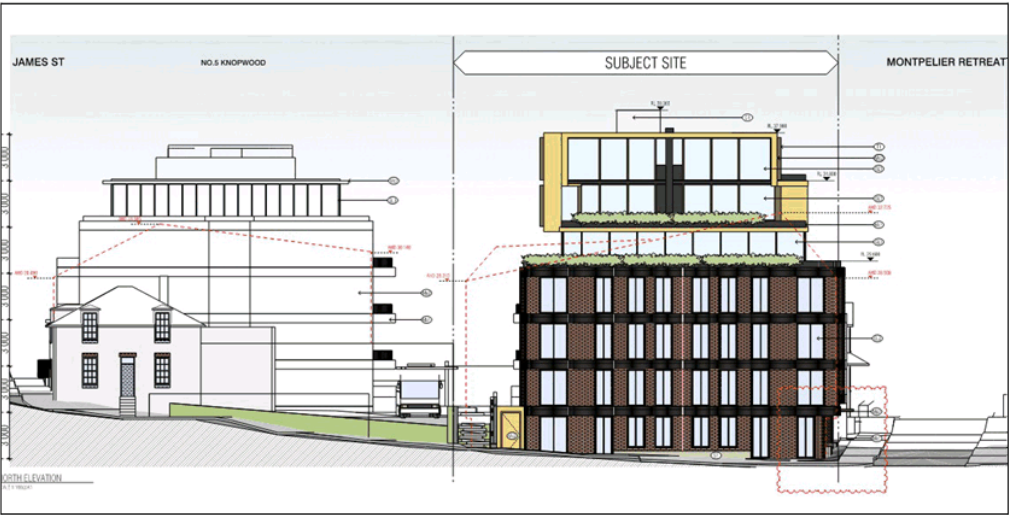


Figure 9: Knopwood Street elevation.



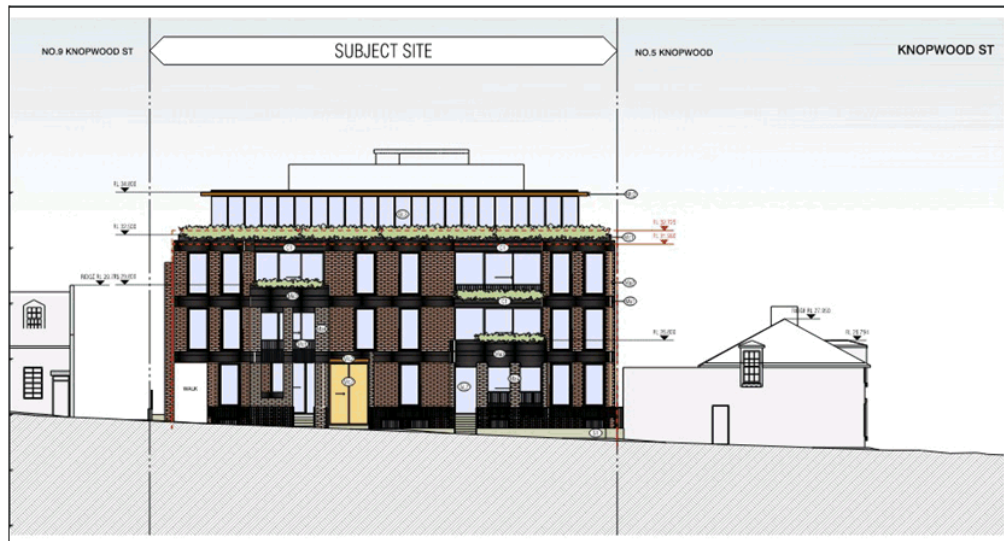


Figure 10: James St elevation.

#### 4. Background

- 4.1 A previous application for 31 multiple dwellings under PLN-15-00971-01 was refused by Council, but granted approval by the Resource Management and Planning Appeal Tribunal in its decision dated the 20th September 2016. Extensions of time were granted for the approved application, with the second and final extension taking the planning permit expiry to the 20th September 2022. Please note that pursuant to the Covid 19 Disease Emergency (Miscellaneous Provisions) Act 2020, a planning permit already in effect is extended for a further 6 month period. The expiry date for PLN-15-00971-01 is therefore the 20th March 2023.
- 4.2 A similar but larger proposal for 38 dwellings was considered by the Urban Design Advisory Panel at its meeting of 27th July 2021 as a pre-application proposal. In the context of the provisions on which they were asked to comment, the Panel was broadly not supportive of the proposal in terms of the height, materiality and form of the proposed upper levels. Concern was raised with regard to 'overdevelopment'.
- 4.3 The current planning application was considered by the Urban Design Advisory Panel at its meeting of 14 June 2022. In the context of the provisions on which they were asked to comment, the Panel was not supportive of the proposal. The Panel's report is included where relevant in section 6 of this report, and discussed in section 7. The Panel's report is provided in full as an attachment to this report.

4.3 In its report, the Panel noted:

The Panel is of the view that the proposal is too tall. The submitted documents by the applicant show the proposal's relationship to the previous approved Development Application for the site. However, the Panel questioned the accurateness of the information shown as approved for the site and queried whether they were the originally submitted scheme (which was not granted a DA) and not the scheme approved by consent agreement via the Tribunal. The Panel were of the view the basic massing comparison diagrams represent the approved previous scheme, but the render image comparisons include the previously submitted refused scheme. The applicant was to provide clarification.

4.4 The applicant provided the following clarification to the Panel:



The following is intended to provide clarity to the Panel regarding the 3D massing and montages used as part of the presentation (14/06) and in the accompanying reports, which refer to the previously approved development on the site. Following further investigation, we determined that:

- The original (Cira-Morris Nunn) DA was refused in 2016 – the decision was subsequently appealed, and a revised proposal approved by the Tribunal - which included a reduction in height and form – necessitating a reduced No. of apartments.
- In 2017, several amendments were made, which included;
  - o Provision of a swimming pool and alterations to the basement level, parking and access; and
  - o Provision of three (3) additional apartments.

The 3D massing of the approved development shown in the presentation/application documentation, is based on the most recent set of approved plans (2017) and is accurate.

It is our understanding that a revised montage was not included in the approved (2017) set of documents and that the photo montage is of the 2016 proposal prior to being amended by the Appeals Tribunal.

This mix-up was not intentional, and we apologise for any confusion this may have caused.

The purpose of the montage used in the on-screen presentation and referenced in the reports, was to illustrate the difference in design approach and choice of external materials and to demonstrate that, in our view, the current design approach and materiality is more consistent with/respectful of the heritage precinct and appearance in the streetscape. Whilst the montage represents a different massing that the final approved design, the external materiality is very similar.

We acknowledge that the approved (2017) design is lower in built form, but feel that the external materiality and form exacerbate it's visual bulk – whilst the proposed development, albeit being taller, provides a more sympathetic and recessive built form.

- 4.5 An application for Council General Manager Consent was lodged with Council under GMC-21-65 ('valid') dated the 18th October 2021. The GMC is with respect to roadworks within the Montpelier Retreat and Knopwood Street road reservations. Council's Manager Surveying Services advises (dated the 1st November 2021) that the lot 1 title frontage to Montpelier Retreat under CT 126274 is subject to a 'user road'. Any works proposed over the 'user road' would also be subject to a prior requirement for Council General Manager Consent. There has been consultation to this effect between the applicant and the Council's Technical Officer-Roads. The user road has been included in the requirement for Council General Manager Consent, which was approved under GMC-21-65 dated the 13th May 2022. The Council's Manager Surveying Services recommends conditional approval.

## 5. Concerns raised by representors

- 5.1 A total of 348 representations have been received. A total of 342 state objection to the proposal. A total of 4 state support of the proposal, and two do not state an opinion.. The representations were received within the statutory advertising period between the 30th May and the 14th June 2022.
- 5.2 The following table outlines the concerns raised in the representations received. Those concerns which relate to a discretion invoked by the proposal are addressed in Section 6 of this report.

<p>in support</p> <p>-I am heavily for the proposed development.</p> <p>Despite criticisms of these being "million dollar apartments" I feel that any addition to housing stock during an ongoing housing crisis is a good thing. Million dollar apartments may be what we need to lure wealthy singles or couples out of oversized family homes outside the city – such as the one I live in with my partner.</p> <p>In regards to the concerns raised by neighbour Preachers about the blockage of sunlight, I believe the potential effect may have been overstated. The beer garden at nearby Watermans receives a healthy dose of sun despite being positioned inside a quarry and surrounded on all sides with far less clearance than Preachers would enjoy';</p> <p>-I like this development.</p> <p>It is well below the recommended height limit for the area, looks to be built in the redbrick similar to many of the original houses in Battery Point and nearby. The design is not ultra modern way out so should fit well in both Knopwood Street and Montpelier retreat.</p> <p>Oh for more Hobart buildings with such sensitivity!'</p>
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Height concern

- out of character and over height;
- to suggest a 3,4,and 7 storey structure is appropriate defies belief;
- neighbouring taller buildings are under different planning scheme and are irrelevant to this application;
- concern at towering over the other historic buildings of Battery Point;
- 'This development is far too tall. It is not in keeping with the area';
- needs to be lower so as not to 'dwarf and shadow';
- 'Excessive overall height compared to adjacent context/previous approval; Overall poor architectural outcome for upper levels. Height, proportion, materiality not in context to existing surrounds; Highly negative impact on neighbours amenity and overall streetscape, particularly with regard to 5 Knopwood st. Which is an important early colonial architectural example in Battery Point and is completely dwarfed by this development';
- 'take 20% off the top' of the building;
- 'This planning application appears to significantly exceed the standard height limits and shadowing effects and should be rejected';
- '1. Application height is too high (beyond approved envelope), and will negatively impact enjoyment of Preachers venue by overshadowing it during the day time. This venue is a well loved location and cultural institution in Battery Point, and many people enjoy attending it for its open beer garden.
- 2. Design of the upper floors (5+) of the development is an eyesore and would negatively impact the aesthetics of the Salamanca waterfront and the local area.
- 3. Development could instead include 4 floors and a rooftop garden to add greenspace to the area and avoid overshadowing and poor aesthetics of upper penthouse floors';

-'This proposal is generally very good with the exception of two major issues.

1. The scale of the proposal is too great for its surroundings. Both adjacent properties, being Preachers in Knopwood Street and the two conjoined residences in Montpelier street are two storeys in height. This proposal is seven storeys, and does not conform to the built form skyline as shown in Figure 13.
2. The proposal is over and above the Approved Built Form envelope of 4, stepping back to 5 storeys. ( See page 26 of the proposal). Containing the building to the approved envelope would be fine, and would allow the higher storeys to step back in accordance with the building envelope. This would give extra opportunity for outdoor living

space as well as planting and softening on balconies. This would be a visual, architectural and aesthetic advantage.

The proposal would be fine providing the two top storeys are removed, limiting the development to 5 storeys. (See figure 13). The proposed 2 top storeys have an unnecessary vertical emphasis, and destroy any sympathy with surrounding buildings, and are not a compatible human scale in keeping with the Battery Point and Sullivans Cove area.

I understand that developers try to push the boundaries as far as they can, but this is a very sensitive and historic area. It only takes one building to set a height precedent, and then it's very difficult to manage future proposals.

Please do not approve the proposal in its present form';

-The proposed overall height is excessive and completely out of kilter with the surrounding buildings within the Inner Residential Zone. Any reference to the two buildings opposite the proposed development, which in themselves are not worthy of comparison, is simply clutching at straws.

We strongly believe that the top three storeys of the development should be eliminated, which will produce a much more appropriate structure.

The curved façade format, compatibility with other 'fenestrations', brick string courses, simplified built form, incorporation of brass cladding and recessed glazing etc. do not justify the bulk of the proposed building. A seven-story building is completely out of place in what is widely acknowledged as a predominately 2 storey, heritage precinct';

-I am not entirely opposed to the development, however I feel that the building on the corner of Montpelier Retreat would be far more appropriate as a three or four storey brick building without the extra three storey 'poptop' addition. The building on James Street also seems unnecessarily large';

-Height – The proposed development appears to be just under the maximum height allowed but the building is a lot taller than those around it and will tower over the nearby buildings, particularly 'Preachers' and the heritage cottages on James Street. Although the previous proposal was large there were at least sloped rooflines which would have reduced some of the visual impact'.

Scale and character concern

-out of scale with surroundings;

-to approve such a monstrosity and overpowering building would be a travesty of justice and sense;

-overbearing presence;

-scale 'out of kilter' with that of surrounding block;

-concern at impact on entrance to Battery Point;

-'overpowering';

-proposal 'too big' for the area and would ruin the charm and quaintness of Battery Point;

-'too big and modern for the area and it will impact the local community it will also impact other businesses nearby';

-would create wind tunnel, making walking in the area very unpleasant;

-'multi storey monstrosity';

-'eyesore';

-will 'destroy' (overall atmosphere of the Battery Point/Salamanca Area);

-'The sheer size of this new development should be ringing alarm bells. This particular part of Battery Point is still low buildings and premises like Preachers (the immediate neighbour) rely on afternoon sun and that pub patrons feel they are in a nice place rather than being looked down upon and potentially complained about once this huge building is built. We saw issues with the Salamanca Square development when residents moved in and immediately complained about the night life noise. This is a social area and developments need to fit in with the existing businesses that make this area attractive. In my opinion this development is inappropriate and way too high';

-'A monstrosity that will devalue and jeopardize the future of our iconic and historical Battery Point. Greatly impacting on and casting shadow over a long standing small business that is deeply valued in our community';

-'does nothing for the aesthetic of our city and waterfront';

-'The planned building is inappropriately tall for the Salamanca/Battery Point area, and is unsympathetically designed. It will have a direct negative impact on surrounding businesses and residences due to the blocking of sunlight and decreased street appeal to locals and tourists alike. There are many more suitable sites for a development like this further away from the historic waterfront area, which is already struggling to retain its open and colonial-era appeal. An alternative example: a two to three storey building with a sandstone heritage inspired facade would look like it had always been there (and support local skilled stonemasons, etc.). Furthermore, the Grand Chancellor is more red brick than Hobart ever needed';

-overdevelopment of site;

- 'way too big';  
 - 'ginormous monstrosity';  
 - 'limiting natural views from the properties to the mountain and city';  
 - 'The impact of this enormous development will be detrimental to our building but also to the rest of Battery Point';  
 - concern at impact on surrounding streetscapes;  
 - not compatible nor sympathetic to surrounding streetscape;  
 - 'This building is much too big for the area, and would impact significantly neighbouring premises in terms of their business relying on their outdoor area, which would be dwarfed by this unnecessarily large building';  
 - 'Impact on streetscape – By it's sheer size and bulk the proposed new development would have a huge visual impact and also be very visible from Sandy Bay Road, as well as James Street'.

#### Heritage

- concern at heritage impact;  
 - concern at excavation and potential damage to heritage properties;  
 - dampness of concern to heritage properties;  
 - adverse impact on adjacent Narryna;  
 - 'The proposed development should also have a setback at least equivalent to the majority of the existing heritage buildings';  
 - concern at towering over the other historic buildings of Battery Point;  
 - proposal should be 'sympathetic to the stature and style of the existing historic buildings';  
 - contradicts the historic aesthetic of the surrounding area;  
 - 'This building will visually destroy the heritage and cohesiveness of this architecturally pristine and historically important neighbourhood area given the sheer size of the building, modern facade and imposing presence of the proposed development. It does not match the long standing visual appeal of the area and will also have an impact on parking which is already strained locally at the best of times. This development will be an eyesore on a historically important part of Hobart compared to the surrounding buildings. If this is allowed to go ahead, irreparable damage will be made to an area of historical importance in Hobart';  
 - 'This building should be respectful or subservient to Heritage listed houses neighbouring it! This development is overbearing and not in keeping with the characteristics of surrounding heritage homes/buildings, the proposal should be in keeping and not detract from those characteristics of the place which contributes to its cultural significance.  
 This development should not go ahead in its present form'.

<p>Setbacks</p> <ul style="list-style-type: none"><li>-boundary setbacks inadequate;</li><li>-lacks of consideration for neighbours;</li><li>-'The proposed development should also have a setback at least equivalent to the majority of the existing heritage buildings';</li><li>-concerns at setbacks with regard to those prevailing in vicinity including on James Street;</li><li>-highly negative impact on neighbours amenity and overall streetscape, particularly with regard to 5 Knopwood Street;</li><li>-'Setback – the proposed development is on the edge of the site, so there is far more of the building adjoining the footpath, adding to the feeling of bulk'.</li></ul>
<p>Density</p> <ul style="list-style-type: none"><li>-concern at density of development;</li><li>-'Outdoor private space – there does not seem to be sufficient outdoor private space given the large number of residents'.</li></ul>

<p>Sunlight and Amenity</p> <p>-loss of sunlight</p> <p>-'Building a 7 story building next to an already very well established and loved venue, being Preachers, will have a huge impact on the ability to enjoy the venue. It will block out all afternoon sun and light from the beer garden. Not to mention towering over the other historic buildings of Battery Point';</p> <p>-overshadowing of adjacent business (Preachers). 'Please don't take our lovely sunny beer garden';</p> <p>-'the building will be so high that the historic beer garden next to it will never get any sun - Hobartians deserve spaces like the preachers beer garden to add to our quality of life in our little town';</p> <p>-'I object on the basis of unreasonable overshadowing of neighboring premises, discouraging current alfresco dining and entertainment through amenity impacts';</p> <p>-loss of sunlight and views;</p> <p>-blocking of sunlight and decreased street appeal;</p> <p>-'will overshadow our premises effectively killing it';</p> <p>-'Hobart is too cold for most of the year to allow the construction of buildings that block the sun from reaching the ground, concrete canyons do not belong here. Allowing this grotesque structure to irrevocably change the streetscape, atmosphere and character of Battery Point would set a dangerous precedent. This must not be allowed';</p> <p>-'I would like to see assurances that the sun and the shadow casting of whatever development occurs does not intrude on the outdoor areas of the pub, considering the pubs heritage the options for them to adjust and maintain a similar outdoor setting wouldnt I see be viable';</p> <p>-neighbouring building 'is totally overpowered on both sides by the development...We will lose sunlight and will be shaded by the height of these buildings';</p> <p>-'Overshadowing – Following on from my previous point the previous proposed development's lower height and sloped roof would have reduced the overshadowing of the surrounding buildings, particularly 'Preachers' but the new proposal being taller and squarer would cause far worse overshadowing';</p> <p>-'Loss of amenity – given the large volume of the proposed buildings there would be a loss of amenity to the neighbouring properties'.</p>
Overlooking
-overlooking of adjacent private open space of neighbouring site.



Impact on adjacent business

- 'This development will shelter Hobart's beloved Preacher's beer garden. It is an incredible pub - one of Hobart's finest, in fact. If you frequent there, you would know that during the Spring, Summer and even Autumn that Preacher's beer garden becomes a warm, sunny environment for the Hobart and wider community (including a prime hotspot for tourists) to come together and enjoy a delicious pint and burger. There's the iconic metro bus in the garden that when warmed by the sun, becomes just the prime place you want to be on a warm day. This development will block ALL sunlight from Preacher's. I ultimately believe this will cut down on business for this little local pub - and you know we all want to preserve local businesses as much as possible. No sun = cold beer garden 24/7 = no customers. That's not fair on a small business, let alone one that is so beloved by the Hobart community';

- will 'destroy' adjacent business by blocking sun from beer garden;

- would be 'suffocating surrounding businesses such as Preachers, impacting people's livelihood and safe spaces';

- will impact local business 'where people enjoy spending time together outside in the sun';

- would 'overshadow an iconic Hobart venue that is known for/reliant on the fact that it is a sunny spot to have a beer';

- loss of culture;

- loss of one of few spaces outside for families;

- 'Preachers has been an institution for a long time and this proposed development of the nearby multi-story building (which only a handful of wealthy people will be able to enjoy) will ruin the ambience of this much-loved place of social catch ups and general good times, enjoyed by thousands, by blocking out the sun and sky and basically turning it into a dark shadowy cold place, effectively ruining it. Please do not approve this development!';

- loss of sunny sanctuary;

- 'Please don't ruin my favourite drinking establishment';

- 'would bring to an end this culturally and socially relevant institution of the local hospitality sector';

- would lead to noise complaints and restrictions;

- 'placing apartments right next to the local pub (as well as near the other Salamanca nightlife), is inviting noise complaints from those that choose to live next to a bar, which will negatively affect Preachers and the other Salamanca nightlife businesses';

- 'will overshadow our business effectively killing it'.

Dampness
-dampness of concern to heritage properties.
Planning Scheme requirements
-proposal does not meet Planning Scheme requirements;
-award of discretion not warranted due to impact;
-'way too big under areas Planning Scheme';
-'Outdoor private space – there does not seem to be sufficient outdoor private space given the large number of residents'.
Inaccurate submission
-photographs and artists impressions inaccurate and misleading;
-'load of artistic license' used in submission;
-proposal is not complimentary to surroundings as suggested in submission;
-proposal 'riddled with errors' favouring applicant viewpoint;
-'There are major deceptive statements in the application to make the application look reasonable which it is not';
-'the Planning Report has a number of inaccuracies, assumptions, subjective statements (e.g. use of balconies in winter due to prevailing NW winds, P26), and references to Victorian standards and neighbouring buildings that are not relevant to the subject zoning and should not be recognised as reasons for approval';
-'the report is clearly an attempt to baffle professional planners through its verbosity, large number of pages, montages and use of ambiguous phrases, such as:
• Page 10 '... new buildings are more commonly considered in the context of immediately adjoining and nearby sites.'
• P16 'Due to the varied nature of the immediate surroundings and wider neighbourhood character, the proposed development is of an intensity which is respectful of the neighbourhood character.'
• P 24, '... is considered sufficient.' (By whom, we ask?)'.
Parking
-parking provision inadequate.

**Bicycle parking**

'As a resident of Hobart, I support this proposal in general, but would like to point out the inexplicably poor provision of bike parking facilities for the users of these new buildings – i.e. for the residents, their visitors and the staff of the proposed café/wine bar.

Given the location of these apartments so close to services, restaurants and CBD workplaces, and the eminently walkable and rideable streets surrounding the buildings, it is likely that a significant number of the people moving in will choose to be car-free and to walk and ride for their everyday transport and social outings.

Yet the proponent suggests it is more desirable to OVERSUPPLY with carparking spaces (almost two per apartment while the planning scheme suggests the number should be more like one per apartment) and to provide almost zero bike parking (there is a tiny "bicycle store" on the street level near the hospitality business). Where will people park their bikes?-

Bicycle Network has previously advised that the State Planning Scheme and individual Councils should mandate at least one secure bicycle parking space per dwelling, or at a minimum 0.5 bike parking space per dwelling. In this case, considering the highly walkable and rideable location, the minimum expectation should be for bike parking for 26 bikes for residents, and for 2 bikes for the hospitality staff.

Other important considerations are that the bike parking should be located close to the entrance of the building, the vehicular access ramps should not have lips that will catch bike wheels, and the bike parking options should not require lifting of bikes. The increasing popularity of heavier e-bikes and cargo bikes means that ground-mounted hoops or lockers are a better option than wall-mounted rails. A number of standard electrical outlets should be provided for convenient charging of e-bikes.

Bike parking could be offered via a bike locker, a security cage, via keycard access to a bicycle parking room, or within a keycard access car park. There should also be a communal space set aside for people to clean and repair their bikes, as regular transport riders need to clean their bikes frequently.

As a fellow inner city resident I know the value of having compliant and secure bike parking in my own apartment building, and also the importance of having somewhere safe and convenient to park my bike when I visit restaurants and my friends. I would hope that the City of Hobart would be prioritising these services in order to support our community's inevitable shift to more active, enjoyable, congestion-busting and healthy transport options'.

Excavation
-concern at excavation and potential damage to heritage properties.
Use and community
-no benefit to the community;
-would be 'killing the neighbourhood spirit and sense of community';
-'My wife and I have been visiting Preachers on a regular basis since they opened.
We now go with our two young children for Sunday lunch nearly every Sunday, rain hail or shine. It would be disappointing to allow the demise of a locally owned and long established business due to greed of both owner and council with the development of the proposed apartment block. This development should not go ahead if you want to keep local business and residents happy!';
-'Allowing this development will not be for the benefit of the community or greater Tasmania, it will be for the benefit of a few';
--'this construction will only continue to gentrify the area keeping locals of ordinary means from living in, or even coming to the area';
-'I feel that Hobart needs to hold onto its life force. I understand making more rooms for people to visit this great city. Simply if the accommodation planning takes away one of the best parts of the city. You lose much more than a beer garden. You lose the reasons people come visit. Build it somewhere else';
-'Preachers beer garden is a valuable asset to Hobart's night life. It would be an awful shame and quite effectively corrupt to let a private investment block out the sunlight for beer garden goers. Personally I've used the facility as a meeting point for volunteer endeavours, and it would be quite sad to see this business vanish.
Please consider the value this beer garden has to the locals before investing';
-'I want the ambience of one of the world's best beer gardens at Preachers to remain with sunlight and no more towering, overbearing buildings blocking the light that enriched the experience there. It will certainly reduce business for a venue that supports craft beer and businesses nationally';
-'socially and economically detrimental';
-'Preachers is an institution and one of our favourite places to visit. The beer garden is a key part of Preachers and to overshadow it with an excessively high property development goes against fair treatment of all properties and businesses in the vicinity. Fair treatment is exactly what the council should be ensuring';
-'Preachers is an absolute awesome place and contributes greatly to make Hobart so vibrant. Leave the street to them and keep Hobart

vibrant!';

-The sun light into Preachers in the afternoon and into the delightful summer evenings would be completely blocked by these tall apartment buildings. Preachers is a hub for connecting people with place, sharing weekly highlights and lowlights, and a great place to celebrate with friends and family. The proposed apartments would complete kill that great vibe we love it for. Please don't build anything that will block the sunlight. Hobart need more places like this, not less. At least allow preachers to set up on the roof of the apartments with the bus, fire pots, fake grass, festoon lights and relaxed vibe, if you insist on a high rise there!'

#### Housing supply and availability

-The proposed development will do nothing to provide adequate housing or accommodation in a city where real estate is already drastically overpriced (with Battery Point being the most expensive post code in Tasmania) especially in relation to the current living wage. It will instead kill the local businesses which are much beloved and vital to our hospitality industry nearby, and instead overinflate the real estate pricing even further, creating an unsustainable landscape for those seeking somewhere to live';

-this construction will only continue to gentrify the area keeping locals of ordinary means from living in, or even coming to the area';

- 'The apartments that are being proposed will be upper-scale places to rent (including top floor penthouses), which will simply add to the long list of unaffordable living places in this neighbourhood and will do nothing to alleviate the current housing crisis';

-We do not need more unaffordable apartments covering our city scape in darkness'.

#### Traffic concern

-The streets surrounding the block are small with blind corners and narrow footpaths, which make them dangerous for pedestrians under current traffic levels. The intersection with Sandy Bay Road is additionally already heavily misused, with cars travelling up Montpelier Retreat often making unsafe U-turns across the intersection to enter the larger street, at a junction where many pedestrians must cross without signage, lights, or crosswalks. The proposed development will increase traffic on these streets and make the situation worse. If approved, PL-21-719 will make the area less inviting to visit, work, and live in'.

#### Concern at Building Phase of Development regarding Access

We are submitting an objection and a request for further information about how the building phase of the development will impact our services. We are concerned that road closures to Montpellier Retreat and Knopwood Street to facilitate upgrade underground services to the proposed development will significantly impact urgent samples being delivered to our Battery Point laboratory. Part of the planning application includes documentation from Aldanmark engineers. On sheet C103, it clearly details upgrades are required to underground services in both Montpellier Retreat and Knopwood Street.

Hobart Pathology is situated at 2-4 Kirksway Place, Hobart, and services general practitioners, specialists, private hospitals and nursing homes in the southern region of Tasmania. At Hobart Pathology, we focus on offering a professional and comprehensive pathology service to our community: providing accurate results with fast and reliable turnaround times. Hobart Pathology is a member of the Sonic Healthcare group and has been providing quality pathology services to the Tasmanian community for over 50 years.

Hobart Pathology operates from 0600 to 0100 (the following day) 5 days a week and 0700 to 2200 Saturday and Sunday. Outside these hours we operate a 24/7 oncall roster where access is required to the laboratory at all times. As such, courier vehicles that deliver urgent samples to Kirksway Place laboratory in Battery Point need access to the carpark at the rear of the laboratory 24 hours a day, 7 days a week. These samples are often from critically ill patients in hospital requiring results from the laboratory to facilitate urgent treatment. We also provide lifesaving products which must be delivered back to the patient's bedside in a timely manner e.g. Cross Matched Blood, Fresh Frozen Plasma. The entrance to our carpark is accessed from Montpellier Retreat directly opposite 1 Knopwood Street Battery Point.

Should the building development gain approval and the subsequent upgrade to underground services impacts Hobart Pathologies ability to provide our service we would seek an alternative area to park our courier vehicles within a close proximity to 2-4 Kirksway place for the period of disruption. We have approximately 18 courier vehicles. We would however need foot access to our carpark above as this is the main staff entrance to the laboratory. Additionally we have a number of deliveries from external vendors that would require close access to Kirksway place.

## Other

-concern proposal places money making above other considerations;  
-Ill thought out development . Crushing for local tourism and will do nothing to solve housing problems'.

## Other comment

There are major deceptive statements in the application to make the application look reasonable which it is not.

The proposed development should also have a setback at least equivalent to the majority of the existing heritage buildings.

'The proposed new building will literally put the adjacent business in its shadow, completely killing the unique selling point for the business (Preachers). Ruining a local small business within a significant heritage building just for the sake of expensive apartments is not what the residents of Hobart and Salamanca want and we've shown that time and again. There is no legitimate reason to go ahead with this development and I'm sure many others see it this way as well'.

'I strongly oppose this development'.

'The proposed construction will have a severely detrimental impact on to a Hobart institution; Preachers. To sacrifice the quality of experience at such an iconic location in Hobart, a city that thrives on the tourism dollar, is short sighted. I urge you to look elsewhere to build your multiple dwellings and food services'.

'I do not believe that neighbours support this and I think that the livelihood of neighbours to this area should be consulted and respected'.

'Work with Preachers to come to a suitable resolution, covid has killed enough of our hospitality hotspots, will be no use having big buildings in town if there are no people wanting to be in the city'.

'This development will essentially end the local venue Preachers and Hobart will lose an iconic draw card in the scene. The developer has shown zero interest in protecting the local area in terms of character and providing better options since the last application'.

## Suggestions

'Take 20% off of the top' of the building.

'An alternative example: a two to three storey building with a sandstone heritage inspired facade'.

'Any development should be no taller or larger than the historical buildings in the immediate area'.

'Development could instead include 4 floors and a rooftop garden to add greenspace to the area and avoid overshadowing and poor aesthetics of upper penthouse floors'.

This proposal is generally very good with the exception of two major issues.

1. The scale of the proposal is too great for its surroundings. Both adjacent properties, being Preachers in Knopwood Street and the two conjoined residences in Montpelier street are two storeys in height. This proposal is seven storeys, and does not conform to the built form skyline as shown in Figure 13.

2. The proposal is over and above the Approved Built Form envelope of 4, stepping back to 5 storeys. ( See page 26 of the proposal). Containing the building to the approved envelope would be fine, and would allow the higher storeys to step back in accordance with the building envelope. This would give extra opportunity for outdoor living space as well as planting and softening on balconies. This would be a visual, architectural and aesthetic advantage.

The proposal would be fine providing the two top storeys are removed, limiting the development to 5 storeys. (See figure 13). The proposed 2 top storeys have an unnecessary vertical emphasis, and destroy any sympathy with surrounding buildings, and are not a compatible human scale in keeping with the Battery Point and Sullivans Cove area.

I understand that developers try to push the boundaries as far as they can, but this is a very sensitive and historic area . It only takes one building to set a height precedent, and then it's very difficult to manage future proposals.

Please do not approve the proposal in its present form'.

Although it is more appropriate than the previously approved Morris Nunn design, the development proposal is clearly an ambit claim.

The Planning consultant states that the immediate Heritage area encompasses predominately two storey structures. As a consequence, the development proposal ignores the impact the buildings will have on adjoining properties through over-shadowing, traffic movements, even open space requirements.

The proposed overall height is excessive and completely out of kilter with the surrounding buildings within the Inner Residential Zone Any reference to the two buildings opposite the proposed development, which in themselves are not worthy of comparison, is simply clutching at straws.

We strongly believe that the top three storeys of the development should be eliminated, which will will produce a much more appropriate structure.

The curved façade format, compatibility with other 'fenestrations', brick string courses, simplified built form, incorporation of brass



cladding and recessed glazing etc. do not justify the bulk of the proposed building. A seven-story building is completely out of place in what is widely acknowledged as a predominately 2 storey, heritage precinct'.

'I am not entirely opposed to the development, however I feel that the building on the corner of Montpelier Retreat would be far more appropriate as a three or four storey brick building without the extra three storey 'poptop' addition. The building on James Street also seems unnecessarily large'.

## 6. Assessment

- 6.1 The *Hobart Interim Planning Scheme 2015* is a performance based planning scheme. To meet an applicable standard, a proposal must demonstrate compliance with either an acceptable solution or a performance criterion. Where a proposal complies with a standard by relying on one or more performance criteria, the Council may approve or refuse the proposal on that basis. The ability to approve or refuse the proposal relates only to the performance criteria relied on.
- 6.2 The site is located within the Inner Residential Zone of the *Hobart Interim Planning Scheme 2015*.
- 6.3 The existing use is vacant/carparking. The proposed use is multiple dwellings and food services. The existing use is a permitted use in the zone. The proposed use is permitted (multiple dwellings) and discretionary (food services) use in the zone.
- 6.4 The proposal has been assessed against:
  - 6.4.1 Part D - 11 Inner Residential Zone
  - 6.4.2 E6.0 Parking and Access Code
  - 6.4.3 E5.0 Road and Railway Assets Code
  - 6.4.4 E7.0 Stormwater Management Code
  - 6.4.5 E13.0 Historic Heritage Code
  - 6.4.6 E2.0 Potentially Contaminated Land Code

- 6.4.7 E9.0 Attenuation Code
- 6.5 The proposal relies on the following performance criteria to comply with the applicable standards:
- 6.5.1 Inner Residential Zone Use and Development Standards:
- Food Services - Part D 11.2*  
*Private Open Space - Part D 11.4.3 P2*  
*Sunlight to Private Open Space of Multiple Dwellings - 11.4.4 P1*  
*Privacy - Part D 11.4.6 P1*
- 6.5.2 Parking and Access Code:
- Number of Parking Spaces - E6.6.1 P1*
- 6.5.3 Historic Heritage Code:
- Building and Works in a Heritage Precinct - E13.8.1 P1, E13.8.2 P1, and P4.*  
*Building and Works in Heritage Precinct BP1 - E13.8.4 P1, P3, P6, and P9.*  
*Subdivision - E13.8.3 P1 and P4*
- 6.5.4 Potentially Contaminated Land Code
- Management, Risk and Excavation - E2.5 P1 and E2.6.2 P1.*
- 6.5.5 Attenuation Code
- Late night music venues within 200 metres of site - E9.7.2 P1.*
- 6.6 Each performance criterion is assessed below.
- 6.7 Use
- 6.7.1 The proposal includes what is described in the planning report as:
- Commercial Use: A café/wine bar is proposed at ground level within the north-western podium, which will be open to the public and provide a key civic contribution to the immediate area. The café/wine bar will open out to Knopwood Street and Montpelier Retreat with a floor area of 183m<sup>2</sup>.

- 6.7.2 A cafe/wine bar is considered to be a food services use. Food Services is discretionary in the zone subject to the following qualification. If the qualification is not met, the use is prohibited.

*Only if in an existing building and not displacing a residential or visitor accommodation use, unless occupying floor area previously designed and used for non-residential commercial purposes (excluding visitor accommodation).*

- 6.7.3 The proposed food services would not be in an existing building and is therefore prohibited and cannot be approved. (It is noted that there are other uses that could be supported in the location of the cafe/wine bar, for instance an 'Art and Craft Centre'.)

6.8 Private Open Space Part D 11.4.3 P2

- 6.8.1 The acceptable solution at clause 11.4.3 A2 (ii) states private open space standards of 12 square metres per dwelling where the finished floor level is more than 1.8 metres above the finished ground level. All dwellings are above this height.

- 6.8.2 The proposal includes private open space not meeting the acceptable solution of 12 square metres per dwelling.

- 6.8.3 The proposal does not comply with the acceptable solution; therefore assessment against the performance criterion is relied on.

- 6.8.4 The performance criterion at clause P2 provides as follows:

P2

*A dwelling must have private open space that includes an area capable of serving as an extension of the dwelling for outdoor relaxation, dining, entertaining and children's play and is:*

- (a) conveniently located in relation to a living area of the dwelling; and  
(b) orientated to take advantage of sunlight.*

- 6.8.5 Assessment of the performance criterion follows.

All dwellings would have private open space in the form of decks.

A total of 12 of the proposed multiple dwellings would have private open space (as decks) below 12 square metres in area.

They are as follows:

- level 1 two dwellings in the northwest building at 9 square metres

- each;
- level 2 all four dwellings in the northwest building at 9 square metres each, one dwelling in the south east building facing James Street at 10 square metres;
- level 3 all four dwellings in the northwest building at 9 square metres each;
- level 4 one dwelling in the south east building facing James Street at 5 square metres.

All proposed private open space is considered to include areas capable of serving as an extension of the dwelling for outdoor relaxation, dining, entertaining and children's play and are conveniently located in relation to a living area of the dwelling.

Some of the decks would face east/southeast towards the central courtyard and James Street, and are therefore less orientated to the sun. The smallest private open space would be the deck of the level 4 dwelling fronting James Street, at 5 square metres. Despite the orientation, there remains likely a reasonable degree of morning sun to the dwelling and its deck. Again, the deck would be centrally positioned to main living areas of the dwelling.

There is substantial public open space existing in the vicinity, comprising Salamanca Place lawns and nearby open waterfront areas, St David's Park and Princes Park.

On balance, the proposal is considered reasonably acceptable in terms of private open space.

6.8.6 The proposal complies with the performance criterion.

6.9 Sunlight to Private Open Space of Multiple Dwellings Part D 11.4.4 P1

6.9.1 The acceptable solution at clause 11.4.4 A1 requires as follows.

*A multiple dwelling that is to the north of the private open space of another dwelling on the same site, required to satisfy A2 or P2 of clause 11.4.3, must satisfy (a) or (b), unless excluded by (c):*

*(a) the multiple dwelling is contained within a line projecting (see Figure 11.4):*

*(i) at a distance of 3m from the northern edge of the private open space; and*

*(ii) vertically to a height of 3m above existing ground level and then at an angle of 45 degrees from the horizontal.*

*(b) the multiple dwelling does not cause 50% of the private open space to receive less than 3 hours of sunlight within the hours of 9.00am to 3.00pm on 21st June.*

*(c) this Acceptable Solution excludes that part of a multiple dwelling consisting of:*

*(i) an outbuilding with a building height not more than 2.4m; or*

*(ii) protrusions that extend not more than 0.9m horizontally from the multiple dwelling.*

6.9.2 The proposal includes six areas of private open space located on the western side of the James Street building (that is, the southern east building).

6.9.3 The proposal does not comply with the acceptable solution; therefore assessment against the performance criterion is relied on.

6.9.4 The performance criterion at clause 11.4.4 P1 provides as follows:

*A multiple dwelling must be designed and sited to not cause an unreasonable loss of amenity by overshadowing the private open space, of another dwelling on the same site, which is required to satisfy A2 or P2 of clause 11.4.3 of this planning scheme.*

6.9.5 Assessment of the performance criterion follows.

The applicant notes under the submitted planning report that the six private open space areas on the west facing side of the James Street building would received around 2 hours of sunlight on June 21st. This is supported by the submitted sunshade diagrams.

The submitted planning report states in part as follows.

'Despite not receiving 3 or more hours of direct sunlight on June 21 st, the private open space to

apartments along the western elevation of the south-eastern podium will still receive approximately 1-2 hours of sunlight on June 21

st and will continue to receive ample light throughout the day.

It is notable that whilst June 21 st represents the worst day of the year in terms of sunlight access,

it is also during the middle of winter. During this time, the north-west / westerly facing

balconies/terraces are far less likely to be used, primarily due to the prevailing cold north-westerly

/westerly winds experienced during that time of the year.

Prior to, and immediately following June 21 st, the extent of sunlight received across these balconies will increase, ensuring that an appropriate level of sunlight is received throughout the year. As a result, the reduction in direct sunlight access has not been considered to result in an unreasonable impact on the amenity of residents'.

There would be some overshadowing of private open space, from the taller north west building fronting Montpelier Retreat and Knopwood Street, over the south east building fronting James Street. This to a degree is inevitable with any multiple storey residential development in separate main buildings on one site. On the other hand, the building separation across the central courtyard of 10 metres should serve to ensure a reasonable degree of light and air, as well as some sunlight, to private open space facing west in the James Street building. In this case, the degree of overshadowing is not considered unreasonable, and is not considered sufficient to warrant any recommendation of refusal on such grounds.

The proposal is considered acceptable in terms of sunlight to private open space of multiple dwellings.

6.9.6 The proposal complies with the performance criterion.

6.10 Privacy - Deck Part D 11.4.6 P1

6.10.1 The acceptable solution at clause 11.4.6 A1 provides privacy standards for decks including a three metre side boundary setback.

6.10.2 The proposal includes the provision of decks not meeting the acceptable solution. Specifically, the two dwellings on level 5 within the south east building would have a 1.4 metre setback to the side boundary of the neighbouring property at No.9-11 James Street.

6.10.3 The proposal does not comply with the acceptable solution; therefore assessment against the performance criterion is relied on.

6.10.4 The performance criterion at clause 10.4.6 P1 provides as follows:

*A balcony, deck, roof terrace, parking space or carport for a dwelling (whether freestanding or part of the dwelling) that has a finished surface or floor level more than 1m above existing ground level, must be*

*screened, or otherwise designed, to minimise overlooking of:*

- (a) a dwelling on an adjoining property or its private open space; or*
- (b) another dwelling on the same site or its private open space.*

6.10.5 Assessment of the performance criterion follows.,

As stated, the decks of the two dwellings on level 5 within the south east building would have a 1.4 metre setback to the side boundary of the neighbouring property at No.9-11 James Street.

The submitted plans indicate there would be planter bed screens to the edges of the decks at this level. The width of the screens is estimated as 0.6 of a metre, resulting in a two (2) metre side setback for the decks.

There may be some potential for overlooking of the neighbouring property. On the other hand, the width of the planter beds is likely to provide an effective buffer that would prevent any standing at the building edge. Further, the elevation of the decks above the neighbouring property is considered to increase the degree of separation between the neighbouring properties in terms of privacy.

On balance, the proposal is considered acceptable in terms of privacy.

6.10.6 The proposal complies with the performance criterion.

6.11 Parking and Access Code Part E 6.6.1 P1 (and Heritage Code E13.8.4 P9).

6.11.1 The Acceptable Solution under the Heritage Code clause E13.8.4 A9 states a car parking requirement of a maximum of one space per dwelling, resulting in a parking requirement for the residential component of not more than 26 spaces.

The Acceptable Solution under the Parking and Access Code clause E6.6.1 A1 refers to Table E6.1, which states a parking requirement for the food services component (based on a stated floor area of 183 square metres in area), of 28 spaces.

The total requirement under the respective Acceptable Solutions is 54 spaces.

6.11.2 The proposal includes the provision of 48 on site parking spaces.

6.11.3 The proposal does not comply with the acceptable solution; therefore

assessment against the performance criterion is relied on.

6.11.4 The performance criterion at clause E6.6.1 P1 provides as follows:

*The number of on-site car parking spaces must be sufficient to meet the reasonable needs of users, having regard to all of the following:*

- (a) car parking demand;*
- (b) the availability of on-street and public car parking in the locality;*
- (c) the availability and frequency of public transport within a 400m walking distance of the site;*
- (d) the availability and likely use of other modes of transport;*
- (e) the availability and suitability of alternative arrangements for car parking provision;*
- (f) any reduction in car parking demand due to the sharing of car parking spaces by multiple uses, either because of variation of car parking demand over time or because of efficiencies gained from the consolidation of shared car parking spaces;*
- (g) any car parking deficiency or surplus associated with the existing use of the land;*
- (h) any credit which should be allowed for a car parking demand deemed to have been provided in association with a use which existed before the change of parking requirement, except in the case of substantial redevelopment of a site;*
- (i) the appropriateness of a financial contribution in lieu of parking towards the cost of parking facilities or other transport facilities, where such facilities exist or are planned in the vicinity;*
- (j) any verified prior payment of a financial contribution in lieu of parking for the land;*
- (k) any relevant parking plan for the area adopted by Council;*
- (l) the impact on the historic cultural heritage significance of the site if subject to the Local Heritage Code;*
- (m) whether the provision of the parking would result in the loss, directly or indirectly, of one or more significant trees listed in the Significant Trees Code.*

The performance criterion at clause E13.8.4 P9 states as follows.

*Parking must not detract from the cultural heritage significance or the setting of existing dwellings.*

6.11.5 Assessment of the performance criterion follows.

The parking component under clause E13.8.4 P9 is considered by



Council's Cultural Heritage Officer under Part 6.15 of this report.

In terms of clause E6.6.1 P1, the site is centrally located in close proximity to Salamanca Place, waterfront attractions and the city centre.

The proposal is not considered likely to result in any excessive impact on the character and amenity of surroundings in terms of a lack of parking provision.

Council's Senior Cultural Heritage officer comment in this regard is addressed under Part 6.14 of this report.

Council's Development Engineer states as follows.

The empirical parking assessment indicates that the provision of 40 on-site car parking spaces will sufficiently meet the likely demands of the residential use associated with the development. A surplus is provided for the residential component of the use of 14 spaces. The TIA provided by Midson Traffic PTY LTD states the car parking demand of the cafe and wine bar can be accommodated for using the nearby on-street parking that consists of a mix of short term time restricted parking in the surrounding streets and area. Based on the above assessment and given the submitted documentation, the parking provision may be accepted under Performance Criteria P1:E6.6.1 of the Planning Scheme. This is particularly due to the actual parking demands that will be generated by the development.

6.11.6 The proposal complies with the performance criterion.

6.12 Building and Works in a Heritage Precinct - E13.8.1 P1, E13.8.2 P1, and P4, Building and Works in Heritage Precinct BP1 - E13.8.4 P1, P3, P6, and P9, Subdivision - E13.8.3 P1 and P4,

6.12.1 The proposal is for demolition, building, works, and subdivision (lot consolidation) within a heritage precinct, and within heritage precinct BP12. The Council's Senior Cultural Heritage Officer has provided the following assessment. The officer's report is provided in full as an Attachment to this report.

**Background:**

This application is for demolition and a new development for 26 multiple dwellings, food services and works within the Council road reserve.

The proposal is located within the Battery Point Heritage Precinct BP1 as

described in Table E13.1 in the Historic Heritage Code of the Hobart Interim Planning Scheme 2015.

The proposal is subject to consideration under E13.0 Historic Heritage Code.

Specifically, the demolition of all existing buildings on the subject site requires assessment against clause E13.8.1 P1.

The new development on the site requires assessment against E13.8.2 P1, E13.8.2 P4, E13.8.4 P1, E13.8.4 P3 and E13.8.4 P6.

Subdivision must be assessed against E13.8.3 P1 and E13.8.3 P4.

All other provisions in the Code satisfy the Acceptable Solutions or are not applicable.

**2015 Planning Application:**

In 2015, an application for development on this site was lodged. Council's Senior Cultural Heritage Officer undertook an assessment of the planning application PLN-15-00971-01 and concluded that the proposal failed to satisfy the following provisions E13.8.2 P1, E13.8.2 P2, E13.8.4 P1, E13.8.4 P3 and E13.8.4 P6. Council refused that permit. The SCHO's assessment concluded : 'It is as though the application assumes that the development standards associated with the nearby incongruous office buildings apply to the subject site. They don't. This site is within a different planning area, and within a Heritage Precinct. There are specific standards within the planning scheme to protect the character of the Heritage Precinct – which is one of the earliest developed parts of Hobart. With an understanding of the relevant heritage provisions relating to the subject site, approval of the proposed development in its current form is not warranted.'

Following Council's refusal, an appeal was lodged and mediation commenced. The proposal was modified by the applicant and the height and form was altered and lowered. Council's Senior Cultural Heritage Officer then determined that the proposal would be acceptable when assessed against the above provisions of the Historic Heritage Code. A permit was issued with a single heritage condition. HER 8 which required the documentation of the building on the corner of Montpelier Retreat and Knopwood Street.

**Current Application:**

Since the assessment of PLN-15-00971-01, there have been no amendments to change the clauses of the Historic Heritage Code of the Scheme against which this proposal must be assessed.

An earlier proposal was lodged with Council and a preliminary heritage assessment was undertaken for the UDAP meeting on 27 July 2021. Heritage advice/discussion was provided to UDAP meeting.

Revised submission (current proposal) was lodged with Council and a preliminary heritage assessment was presented to UDAP meeting 14 June 2022. Heritage advice/discussion was provided to UDAP.

No additional heritage advice or pre-application discussions has been sought by the applicant at any stage.

The application is supported by a Heritage Impact Statement by Sam Nichols, dated 22 November 2021 revision A.

**Representations:**

A total of 348 representations have been received - 342 objections, 4 in support and 2 have no position. The following heritage and streetscape issues are a summary of those raised with a full summary of concerns outlined in the Development Appraisal Planner's report.

"...this is a very sensitive and historic area . It only takes one building to set a height precedent, and then it's very difficult to manage future proposals."

"The scale of the proposal is too great for its surroundings. Both adjacent properties, being Preachers in Knopwood Street and the two conjoined residences in Montpelier street are two storeys in height. This proposal is seven storeys."

"this is a very sensitive and historic area."

"out of character and over height"

'neighbouring taller buildings are under different planning scheme and are irrelevant to this application"

"This development is far too tall. It is not in keeping with the area'; needs to be lower so as not to 'dwarf and shadow' "

" ....materiality not in context to existing surrounds..."

" Highly negative impact on neighbours amenity and overall streetscape, particularly with regard to 5 Knopwood St. Which is an important early colonial architectural example in Battery Point and is completely dwarfed by this development"

"The curved façade format, compatibility with other 'fenestrations', brick

string courses, simplified built form, incorporation of brass cladding and recessed glazing etc. do not justify the bulk of the proposed building. A seven story building is completely out of place in what is widely acknowledged as a predominately 2 storey, heritage precinct."

"to approve such a monstrosity and overpowering building would be a travesty of justice and sense."

"concern at impact on entrance to Battery Point"

"proposal 'too big' for the area and would ruin the charm and quaintness of Battery Point"

"This building is much too big for the area, and would impact significantly neighbouring premises in terms of their business relying on their outdoor area, which would be dwarfed by this unnecessarily large building"

"Impact on streetscape – By its sheer size and bulk the proposed new development would have a huge visual impact and also be very visible from Sandy Bay Road, as well as James Street"

"The proposed development should also have a setback at least equivalent to the majority of the existing heritage buildings."

"proposal should be 'sympathetic to the stature and style of the existing historic buildings"

"This building will visually destroy the heritage and cohesiveness of this architecturally pristine and historically important neighbourhood area given the sheer size of the building, modern facade and imposing presence of the proposed development. It does not match the long standing visual appeal of the area and will also have an impact on parking which is already strained locally at the best of times. This development will be an eyesore on a historically important part of Hobart compared to the surrounding buildings. If this is allowed to go ahead, irreparable damage will be made to an area of historical importance in Hobart."

"This building should be respectful or subservient to Heritage listed houses neighbouring it! This development is overbearing and not in keeping with the characteristics of surrounding heritage homes/buildings, the proposal should be in keeping and not detract from those characteristics of the place which contributes to its cultural significance. This development should not go ahead in its present form."

dampness of concern to heritage properties

concern at excavation and potential damage to heritage properties

"The building on James Street also seems unnecessarily large"

#### **Assessment:**

Table E13.2 of the Historic Heritage Code of the Scheme has the following Statements of Historic Cultural Heritage Significance for the BP1 Battery Point Precinct:

This precinct is significant for reasons including:

1. The wide variety of architectural styles and historic features ranging from entire streets of 19th century Colonial Georgian cottages, to Victorian, Edwardian and Pre and Post War examples of single and attached houses that are of historic and architectural merit, many of which demonstrate housing prior to mass car ownership.
2. It is primarily a residential area with a mix of large substantial homes and smaller workers cottages on separate lots, gardens, an unstructured street layout, and lot sizes that show successive re-subdivision into narrow lots that demonstrate early settlement patterns of Hobart.
3. The original and/or significant external detailing, finishes and materials demonstrating a high degree of integrity with a homogenous historic character.

The Objective of E13.8.2 is "To ensure that development undertaken within a heritage precinct is sympathetic to the characteristic of the precinct."

This application must be assessed against the following provisions:

E13.8.1 Demolition:

Objective:

To ensure that demolition in whole or in part of buildings or works within a heritage precinct does not result in the loss of historic cultural heritage values unless there are exceptional circumstances.

Clause E13.8.1 P1 states:

*Demolition must not result in the loss of any of the following:*

*(a) buildings or works that contribute to the historic cultural heritage significance of the precinct;*

*(b) fabric or landscape elements, including plants, trees, fences, paths, outbuildings and other items, that contribute to the historic cultural heritage significance of the precinct;*

*unless all of the following apply;*

*(i) there are, environmental, social, economic or safety reasons of greater value to the community than the historic cultural heritage values of the place;*

*(ii) there are no prudent or feasible alternatives;*

*(iii) opportunity is created for a replacement building that will be more complementary to the heritage values of the precinct.*

Response:

The site consists of a large open metal shed and a masonry building on the corner of Knopwood and Montpelier Streets. Demolition of these

structures is proposed along with the removal of concrete hard stand and fences and gates on the boundary.

In summary, none of the above buildings, fabric or landscape elements contribute to the significance of the precinct. It is considered that E13.8.1 P1 is satisfied.

#### E13.8.2 Buildings and Works other than Demolition

The Objective of E13.8.2 is "To ensure that development undertaken within a heritage precinct is sympathetic to the character of the precinct."

Clause E13.8.2 P1 states:

*Design and siting of buildings and works must not result in detriment to the historic cultural heritage significance of the precinct, as listed in Table E13.2.*

Response:

Detriment is 'damage or loss to such values or thing.' The height, scale, bulk and building form of the proposal must be considered. Battery Point has unique heritage characteristics, with buildings from the 19th and 20th century and a character and scale typical of this era. Any development must be undertaken in a careful and sensitive manner to reflect the purpose and objectives of the Code and development standards for the Battery Point Heritage Precinct. The heritage significance of battery Point is reflected in the fact that there additional heritage assessment clauses set out in E13.8.4. In consideration of the extent of detriment, the proposal will introduce a bulky, out of scale set of two buildings that are of a design, height and scale that will overpower heritage properties in Battery Point, such as 5 Knopwood Street (Preachers) and will result in detriment to the significance of the Battery Point Heritage Precinct, BP1. The proposal fails to satisfy E13.8.2 P1.

Clause E13.8.2 P4 states:

*New front fences and gates must be sympathetic in design, (including height, form, scale and materials), and setback to the style, period and characteristics of the precinct.*

Response:

The fence is located along James Street and provides a physical barrier between the street and the apartments set below the street level. It is shown as having a base as S1 - Stone Cladding - Solid Sandstone. The fence on top is an open framed fence measuring between 0.92 metres at one end and 1.15 metres at the end. At the higher end the fence has an

overall height of 1.81 metres. No gates are shown on the submitted plans along James Street and no materials are specified for the fence itself, although it has a high degree of transparency and is of a scale considered appropriate in a residential context. While, at the lowest point of the street, the fence plus base is relatively high at 1.8 metres, it is considered the height is mitigated by the transparency shown. The front fence on James Street is considered to satisfy E13.8.2 P4.

Subdivision:

Clause E13.8.3 P1 states:

*Subdivision must not result in any of the following:*

- (a) detriment to the historic cultural heritage significance of the precinct, as listed in Table E13.2;*
- (b) a pattern of subdivision unsympathetic to the historic cultural heritage significance of the precinct;*
- (c) potential for a confused understanding of the development of the precinct;*
- (d) an increased likelihood of future development that is incompatible with the historic cultural heritage significance of the precinct.*

Response:

This proposal is for the adhesion of the various titles required should construction occur across titles. The proposed adhesion, although technically a subdivision, will create a large single lot, but only should this development be approved. In this regard, the subdivision is not a separate entity that results in detriment to the significance of the precinct. The proposal is considered to satisfy E13.8.3 P1.

Clause E13.8.3 P4 states:

*Any new lot created in Heritage Precinct BP1 must not detract from the pattern of development that is a characteristic of the cultural heritage significance of the precinct in the vicinity of the site.*

Response:

As outlined above, the proposed satisfies E13.8.3 P4.

E13.8.4 Buildings and Works in Heritage Precinct BP1

Clause E13.8.4 P1 states:

*Site area per dwelling may be less if the development does not detract from the pattern of development that is a characteristic of the cultural heritage significance of the precinct in the vicinity of the site.*

Response:

The site area per dwelling is 55 square metres and therefore it does not satisfy the Acceptable Solution and must be assessed against the above clause. The resultant site area is, in part, a function of the number of dwellings in two apartment blocks. The pattern of development that is a characteristic of the cultural heritage significance of the precinct in the vicinity of the site, that is described in the statements of significance and in the vicinity of mix of site areas with large substantial homes (eg Narryna at 103 Hampden Road) and smaller workers cottages ( eg. the terraces at 105-111 Hampden Road.) as well as a wide variety of architectural styles ranging from Colonial Georgian cottages to Victorian, Edwardian and pre and post war examples of single and attached houses. While there are larger developments opposite, (2-8 Kirksway and 38 Montpelier St) they are not in and do not represent the character of Battery Point historic precinct. This proposal clearly detracts from the historic pattern of development in the block bounded by Knopwood, Montpelier, Hampden Road and James Street and the area to the east where the mix of larger substantial homes and smaller workers cottages continues.

The proposal does not satisfy E13.8.4 P1

Clause E13.8.4 P3 states:

*The height of development must neither be obtrusive in the streetscape nor detract from the pattern of development that is a characteristic of the cultural heritage significance of the precinct in the vicinity of the site.*

The proposal is made up of two towers. The height of the larger tower on the corner of Knopwood and Montpelier Street has a RL of 37.900 (plus lift overrun) over seven (7) floors (excluding basement carparking), the other tower is RL 34.800 (plus large lift overrun and roof plant) over five (5) floors (excluding basement carparking). In comparison Preachers has a height of an external wall along James Street to the eaves of 4.4 metres. This excludes the roof and dormer. The north elevation of the applicant's submission shows the disparity in scale of the proposal in relation to a building such as Preachers which is a typical example of a Battery Point house (although now used as a bar).

The height of the development is accentuated by the height of the three (3) storey penthouse on top of the four storey base. Its scale is over the top and its height does not even take its cues from the adjacent commercial buildings outside Battery Point. For all the heritage and architectural analysis undertaken by the applicant and submitted as part of this application, the result is something that fails to meet the Objective which states: "To ensure development undertaken within a heritage precinct is



sympathetic to the characteristic of the precinct." The result is obtrusive in the streetscape and detracts from the pattern of development that is a characteristic of the significance of the precinct, particular in the block in which it is situated and also within the vicinity. The proposal fails to satisfy E13.8.4 P3.

Clause E13.8.4 P6 states:

*The building must not detract from the pattern of development that is a characteristic of the cultural heritage significance of the Precinct in the vicinity of the site.*

Assessment of this clause, must be considered in relation to the Acceptable Solution which refers to height over site coverage. Given the proposal does not meet the Acceptable Solution it must be assessed against the above clause. The site coverage exceeds 40% and as articulated above, the height of the both proposed buildings are far greater than those in the precinct in the vicinity. The proposal does not satisfy E13.8.4 P6.

**Conclusion:**

This proposal can be considered to be a significant departure in terms of scale, bulk and height to the approval from 2015.

This block is characterised by houses and shops scaled to the Battery Point scale. Portsea Terraces are the tallest buildings in this block - two (2) stories and a basement. This proposal will dominate and detract from buildings in the Battery Point heritage precinct and therefore cause detriment. The proximity to buildings of a traditional type and incongruity of scale creates a visual detriment. This conclusion is irrespective of whatever the cladding, fenestration pattern or otherwise outward expression of the proposed building.

The proposal does not satisfy E13.8.2 P1, E13.8.4 P1, E13.8.4 P3, E13.8.4 P6 and is recommended for refusal.

- 6.12.2 The Urban Design Advisory Panel made the following comments with respect to heritage matters:

The Panel notes that the Heritage Code in the planning scheme takes precedence and so it would have been useful to have the proponents present to the heritage provisions, rather than frequently addressing the proposal in the context of the height and form of adjacent buildings that are in a different zone. The onus was on the applicant to make the

argument to how this proposal supports the heritage consideration of the Battery Point Heritage Precinct. The applicant focussed on the lower four stories when addressing the heritage precinct, presenting little justification for the upper three levels that significantly exceed the heritage precinct provisions.

The Panel notes that the property is at an important entry to the Battery Point Heritage Precinct in terms of townscape, and that a major intent of the planning scheme is that development of this site should clearly reflect the Battery Point townscape scale and character, not simply dealing with the Knopwood Street and Kirksway Place junction. The Panel felt that the projected view coming up Montpelier Retreat would not readily infer that there is a heritage precinct starting at that point. It would be completely at odds to have something as high as the proposal as the gateway to the heritage precinct. Accordingly, the Panel considered that the proposal doesn't assert itself as an appropriate entry to the Battery Point zone.

- 6.12.3 The proposal does comply with performance criteria E13.8.1 P1, E13.8.2 P4, E13.8.3 P1 and E13.8.3 P4.
- 6.12.4 The proposal does not comply with performance criteria E13.8.2 P1, E13.8.4 P1, E13.8.4 P3, and E13.8.4 P6. The proposal is recommended for refusal on that basis.
- 6.13 Potentially Contaminated Land Code Part E 2.5 P1 and E2.6.2 P1
  - 6.13.1 The acceptable solution at clause E2.5 A1 provides as follows.

*The Director, or a person approved by the Director for the purpose of this Code:*  
*(a) certifies that the land is suitable for the intended use; or*  
*(b) approves a plan to manage contamination and associated risk to human health or the environment that will ensure the land is suitable for the intended use.*
  - 6.13.2 There is no acceptable solution for E2.6.2 A1.
  - 6.13.3 The proposal includes works on a potentially contaminated site.
  - 6.13.4 The proposal does not comply with the acceptable solution E2.5 A1, and there is no acceptable solution E2.6.2 A1; therefore assessment against the performance criterion is relied on.

- 6.13.5 The performance criteria at clauses E2.5 P1 and E2.6.2 P1 provide as follows:

E2.5 P1

*Land is suitable for the intended use, having regard to:*

- (a) an environmental site assessment that demonstrates there is no evidence the land is contaminated; or*
- (b) an environmental site assessment that demonstrates that the level of contamination does not present a risk to human health or the environment; or*
- (c) a plan to manage contamination and associated risk to human health or the environment that includes:*
  - (i) an environmental site assessment;*
  - (ii) any specific remediation and protection measures required to be implemented before any use commences; and*
  - (iii) a statement that the land is suitable for the intended use.*

E2.6.2 P1

*Excavation does not adversely impact on health and the environment, having regard to:*

- (a) an environmental site assessment that demonstrates there is no evidence the land is contaminated; or*
- (b) a plan to manage contamination and associated risk to human health and the environment that includes:*
  - (i) an environmental site assessment;*
  - (ii) any specific remediation and protection measures required to be implemented before excavation commences; and*
  - (iii) a statement that the excavation does not adversely impact on human health or the environment.*

- 6.13.6 Assessment of the performance criterion by Council's Environmental Health Officer is as follows.

The site is listed on Council's potentially contaminated sites register due to its historic use as 'transport services' with hydrocarbons listed as the potential contaminants. A report titled 'Stage 2 – Environmental Site Assessment – Elliot Bros' completed by Geo-Environmental Solutions (GES), the objective of which was to investigate the extent of on-site soil and groundwater contamination was submitted as part of the development application. Also submitted was a 'Construction Environmental Management Plan – July 2015' also completed by GES. In the latter document, it stated 'the current interpretation of the results of all previous

reporting is that there is no residual site contamination that would constitute an undue risk to health or the environment or prevent the proposed development of the site'. However, it also stated 'it must be stressed that soil-sampling results reflect the actual conditions only for the time which sampling occurred'.

It has been noted, that the Environmental Site Assessment report was based on sampling that was undertaken in 2010, 2011 and 2012. To be deemed to meet the performance criterion, the Environmental Site Assessment report needs to reference and ensure compliance with levels stated in the National Environment Protection (Assessment of Site Contamination) Measure 1999, as amended in 2013. It also needs to take into consideration the current proposed development with regards to the proposed residential use.

Therefore, upon request of Manager Development Appraisal, Council's Environmental Health Unit has placed a condition on the planning permit requiring an Environmental Site Assessment report updated to meet current standards, along with any plans to manage contamination, be submitted prior to any building permits being issued and will be followed up as part of Council's Condition Endorsement Process.

- 6.13.7 The proposal does not currently comply with the performance criterion, however will likely comply once the condition is complied with.
- 6.14 Attenuation Code Part E 9.7.2 P1
  - 6.14.1 There is no acceptable solution for E9.7.2 A1.
  - 6.14.2 The proposal includes late night music venues within 200 metres of the proposal site.
  - 6.14.3 There is no acceptable solution; therefore assessment against the performance criterion is relied on.
  - 6.14.4 The performance criterion at clause 6.7.2 P1 provides as follows:

*Development for sensitive use, including subdivision of lots within a sensitive zone, must not result in potential to be impacted by environmental harm from use with potential to cause environmental harm, having regard to all of the following:  
(a) the nature of the use with potential to cause environmental harm; including:*

- (i) operational characteristics;*
- (ii) scale and intensity;*
- (iii) degree of hazard or pollution that may emitted from the activity;*
- (b) the degree of encroachment by the sensitive use into the Attenuation Area or the attenuation distance;*
- (c) measures in the design, layout and construction of the development for the sensitive use to eliminate, mitigate or manage effects of emissions*

6.14.5 Assessment of the performance criterion by Council's Environmental Development Planner follows.

Attenuation Code

The Code applies because development for sensitive use is proposed within the attenuation distance (200m) of two late night music venues at 21 Salamanca Place (Irish Murphy's) and 24 Salamanca Square (Botanica Bar). No Code exemptions apply.

The site is also adjacent Preachers bar and restaurant at 5 Knopwood Street, however this venue is not considered to be a 'late night music venue' as it does not operate after midnight and does not host music performances or play loud recorded music.

The relevant standards are under clause E9.7.2. There is no acceptable solution for A1. Performance criterion P1 states the following:

Development for sensitive use, including subdivision of lots within a sensitive zone, must not result in potential to be impacted by environmental harm from use with potential to cause environmental harm, having regard to all of the following:

- (a) the nature of the use with potential to cause environmental harm; including:
  - (i) operational characteristics;
  - (ii) scale and intensity;
  - (iii) degree of hazard or pollution that may emitted from the activity;
- (b) the degree of encroachment by the sensitive use into the Attenuation Area or the attenuation distance;
- (c) measures in the design, layout and construction of the development for the sensitive use to eliminate, mitigate or manage effects of emissions

Irish Murphy's opens from 11:00am and closes at 10:00pm on Mondays, Tuesdays, Thursdays and Sundays, 11:00pm on Thursdays and 1:00am on Fridays and Saturdays.

Live music is played inside the venue on Friday and Saturday nights from 9pm. There are tables for the venue in Salamanca Place, which would be used until 10pm.

Only a small part of the site is within 200m of Irish Murphy's. There are no specific noise mitigation measures identified in the application.

At this distance, given the nature of the venue, there is minimal risk of environmental nuisance being caused to occupants of the proposed development.

Botanica Bar includes both indoor and outdoor spaces. The approved hours of the indoor space are:

7:00 am until 3:00am Monday to Saturday

10:00am until 3:00am Sundays

The approved hours of the outdoor space are 11:00am until 3:00am every day.

The venue has the potential to generate significant noise through the playing of live and recorded music through loudspeakers (indoor and outdoor) and through patron's voices.

Speakers for the outdoor area are required to be turned off by 10pm. The venue is also subject to a Council-approved Noise Management Plan.

Some of the site is within 200m of Botanica Bar.

At this distance, given the nature of the venue, there is minimal risk of environmental nuisance being caused to occupants of the proposed development.

The exercise of discretion is recommended with regard to E9.7.2 P1.

6.14.6 The proposal complies with the performance criterion.

## 7. Discussion

- 7.1 Planning approval is sought for a partial demolition and new building for 26 Multiple Dwellings and food Services at 1 Knopwood Street Battery Point TAS 7004 and adjacent road reserve.
- 7.2 The application was advertised and received 348 representations, including 342 raising objection. (A total of 4 representations state support of the proposal, and two representations do not state an opinion). The representations stating objection raised concerns including with regard to height, scale, setbacks, excavation, loss of sunlight, parking, heritage, concern at dampness, concern at overshadowing impact on adjacent business, and concern at accuracy of information supplied in the application.
- 7.3 The proposal has been assessed against the relevant provisions of the planning scheme and is considered unacceptable in terms of heritage provisions under the Planning Scheme. The Food Services use is also prohibited in the zone because it would not be located in an existing building.
- 7.4 The proposal has been assessed by other Council officers, including the Council's Senior Cultural Heritage Officer, Development Engineer, Stormwater Services Engineer, Roads Engineer, Traffic Engineer, Environmental Health Officer, Environmental Development Planner and Manager Surveying Services.
- The Council's Senior Cultural Heritage Officer recommends refusal of the proposal on four grounds.
- The other officers have raised no objection to the proposal, subject to conditions.
- 7.5 The application was considered by the Urban Design Advisory Panel at its meeting of the 14th June 2022. The Panel's report is provided in full as an attachment to this report. In the context of the provisions on which they were asked to comment, the Panel was broadly not supportive of the proposal. In addition to the comments set out above in Background and in the heritage assessment, the Panel made the following comments:

The Panel believes that the height is also a major issue in terms of amenity. They wanted to see more information on the facades, particularly the façade behind Preachers, at 1 James Street. While this is a side façade, it will be prominent to people visiting Preachers and when viewed from Knopwood Street. The applicant was to provide clarification.

Overall, the Panel did not see enough of a change from the previous proposal presented to UDAP as a Pre-App, to warrant a change in their position that from an urban design point of view the proposal should not be supported. They remain concerned over a number of matters previously raised, including heritage, height and amenity.

The Panel unanimously agreed that the proposal is an overdevelopment of the site, particularly with regards to townscape scale. There was insufficient justification within the proposal for the height, materiality and form of the proposed upper levels. Whilst they were referred to as a "lighter top", the Panel felt strongly that the upper levels would be dominant elements in the townscape and thus at odds with the intent of the Planning Scheme. The Panel appreciate the proposal's strong streetscape analysis and the ambition for this to be a high quality building, but recognise townscape is the most important urban design issue with this site.

7.6 The applicant has granted an extension of time to allow Council consideration of the proposal.

7.7 The proposal is recommended for refusal.

## 8. Conclusion

8.1 The proposed partial demolition and new building for 26 Multiple Dwellings and food Services at 1 Knopwood Street Battery Point TAS 7004 and adjacent road reserve does not satisfy the relevant provisions of the *Hobart Interim Planning Scheme 2015*, and as such is recommended for refusal.



## 9. Recommendations

That: Pursuant to the *Hobart Interim Planning Scheme 2015*, the Council refuse the application for a partial demolition and new building for 26 Multiple Dwellings and food Services at 1 Knopwood Street Battery Point TAS 7004 for the following reasons:

- 1 The proposal does not meet the acceptable solution or the performance criterion with respect to clause E13.8.2 A1 or P1 of the Hobart Interim Planning Scheme 2015 because the design and siting of the buildings results in detriment to the historic cultural heritage significance of the precinct as described in Table E13.2.
- 2 The proposal does not meet the acceptable solution or the performance criterion with respect to clause E13.8.4 A1 or P1 of the Hobart Interim Planning Scheme 2015 because the site area per dwelling of the proposal detracts from the pattern of development that is a characteristic of the historic cultural heritage significance of the precinct in the vicinity of the site as described in Table E13.2.
- 3 The proposal does not meet the acceptable solution or the performance criterion with respect to clause E13.8.4 A3 or P3 of the Hobart Interim Planning Scheme 2015 because the building height is obtrusive in the streetscape and detracts from the pattern of development that is a characteristic of the precinct in the vicinity of the site as described in Table E13.2.
- 4 The proposal does not meet the acceptable solution or the performance criterion with respect to clause E13.8.4 A6 or P6 of the Hobart Interim Planning Scheme 2015 because the building detracts from the pattern of development that is a characteristic of the precinct in the vicinity of the site as described in Table E13.2.
- 5 The proposed cafe/wine bar is within the use class Food Services which is prohibited in the use Table at clause 11.2 of the Hobart Interim Planning Scheme 2015, because it is not within an existing building.



(Richard Bacon)

*As signatory to this report, I certify that, pursuant to Section 55(1) of the Local Government Act 1993, I hold no interest, as referred to in Section 49 of the Local Government Act 1993, in matters contained in this report.*



(Ben Ikin)

**Senior Statutory Planner**

*As signatory to this report, I certify that, pursuant to Section 55(1) of the Local Government Act 1993, I hold no interest, as referred to in Section 49 of the Local Government Act 1993, in matters contained in this report.*

Date of Report: 19 July 2022

**Attachment(s):**

Attachment B - CPC Agenda Documents

Attachment C - Planning Referral Officer Cultural Heritage Report

Attachment D - Planning Referral Officer Development Engineering Report

Attachment E - Urban Design Advisory Panel Report



FENDER KATSALIDIS

BATTERY POINT APARTMENTS  
1 KNOPWOOD STREET  
HOBART 21082

PROJECT NO: 21082

TOWN PLANNING

ITEM NO. 13

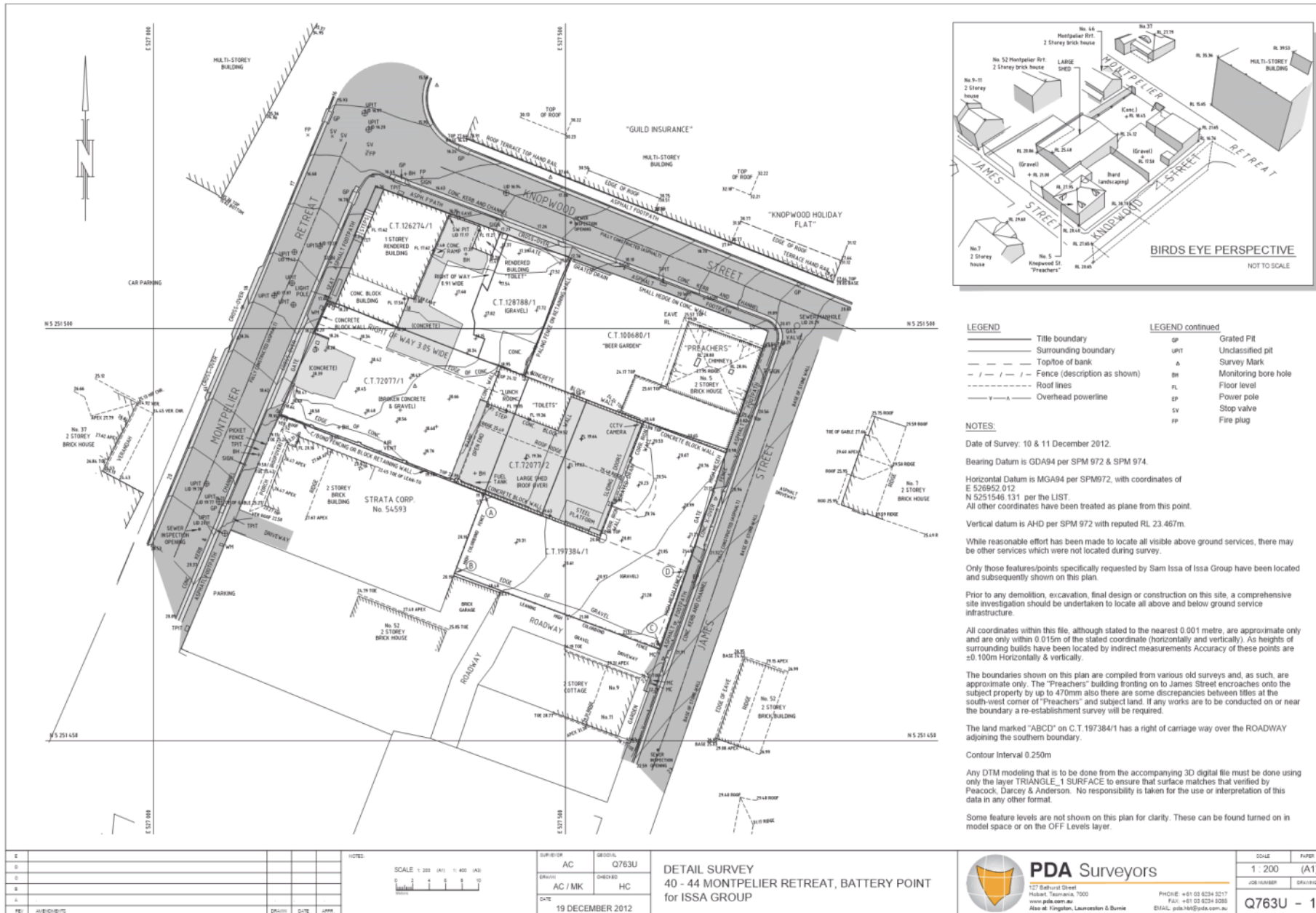
TP FLOOR PLANS

TP001	2	DEVELOPMENT SUMMARY	TOWN PLANNING
TP002	4	SITE PLAN EXCISING	TOWN PLANNING
TP003	2	SITE PLAN PROPOSED	TOWN PLANNING
TP009	2	BASEMENT	TOWN PLANNING
TP100	2	GROUNDWORK & GROUNDS	TOWN PLANNING
TP101	2	LEVEL 1	TOWN PLANNING
TP102	2	LEVEL 2	TOWN PLANNING
TP103	2	LEVEL 3	TOWN PLANNING
TP104	2	LEVEL 4	TOWN PLANNING
TP105	2	LEVEL 5	TOWN PLANNING
TP106	2	LEVEL 6	TOWN PLANNING
TP107	2	ROOF PLAN	TOWN PLANNING
TP200	2	MONTPELIER RETREAT ELEVATION	TOWN PLANNING
TP201	2	JAMES STREET ELEVATION	TOWN PLANNING
TP202	2	KNOPWOOD ST ELEVATION	TOWN PLANNING
TP203	2	WEST ELEVATION	TOWN PLANNING
TP204	2	EAST ELEVATION	TOWN PLANNING
TP205	2	NORTH ELEVATION	TOWN PLANNING
TP206	2	SOUTH ELEVATION	TOWN PLANNING
TP207	2	BUILDING A EAST ELEVATION	TOWN PLANNING
TP208	2	BUILDING B WEST ELEVATION	TOWN PLANNING
TP209	2	SECTION A/B	TOWN PLANNING
TP210	2	SECTION C/D	TOWN PLANNING
TP400	2	SHADING PROPOSED 22 SEPTEMBER	TOWN PLANNING
TP401	2	SHADING PROPOSED 22 SEPTEMBER	TOWN PLANNING
TP402	2	SHADING PROPOSED 21 DECEMBER	TOWN PLANNING
TP403	2	SHADING PROPOSED 21 JUNE	TOWN PLANNING



**LAPPOOL AND YOGA STUDIO / GYM : 110 M<sup>2</sup>**  
**SITE AREA : 1450 M<sup>2</sup>**

[illegible]







REVISION			
1	FOR COORDINATION	AM	11/07/2021
2	FOR COORDINATION	AM	12/08/2021
3	FOR COORDINATION	AM	15/08/2021
4	FINAL DRAFT FOR COORDINATION	AM	17/08/2021
5	FINAL DRAFT	AM	24/08/2021
6	TOWN PLANNING	AM	03/09/2021
7	NO RESPONSE PACKAGE	AM	16/10/2021
8	NO RESPONSE	AM	17/01/2022
9	NO	AM	17/01/2022
10	NO	AM	01/02/2022

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**QUALITY ASSURANCE** FENDER KATSLIDIS COMPANY TO ISO 9001:2015  
THIS PROJECT IS SUBJECT TO THE FENDER KATSLIDIS QUALITY ASSURANCE SYSTEM  
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□ DESIGN AND CONSTRUCTION REVIEW FOR THE PROJECT & NOT TO BE COMPLETED  
□ DESIGN CONSTRUCTION REVIEW FOR THE PROJECT & NOT TO BE COMPLETED  
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DESIGN CONSTRUCTION REVIEW FOR THE PROJECT & NOT TO BE COMPLETED

DATE	BY	DATE	BY	DATE	BY
02.05.2022	JP	02.05.2022	JP	02.05.2022	JP

**PROJECT**  
BATTERY POINT APARTMENTS  
1 KNOPWOOD STREET  
HOBART VICTORIA 21042

**DRAWING TITLE**  
SITE PLAN EXISTING

**DATE**  
TOWN PLANNING

**SCALE**  
1:200 @ A1

**PROJECT NO.**  
TP002



REVISION			
1	FOR COORDINATION	AW	17/07/2021
2	FOR COORDINATION	AW	20/08/2021
3	FOR COORDINATION	AW	20/08/2021
4	FINAL DRAFT FOR COORDINATION	AW	17/08/2021
5	FINAL DRAFT	AW	20/08/2021
6	TOWN COUNCIL	AW	08/10/2021
7	NO RESPONSE PACKAGE	AW	16/10/2021
8	NO RESPONSE	AW	17/07/2022
9	NO	AW	07/08/2022

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TELEPHONE: +61 3 9606 0066  
FENDER KATSALIDIS (AUSTRALIA) PTY LTD  
ACN 088 894 007



**QUALITY ASSURANCE** - PK is a certified company to ISO 9001:2015  
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☐ DOCUMENTS DESIGN REVIEW FOR THE PROJECT & NOT TO BE COMPLETED  
DESIGN AND/OR DESIGN REVIEW FOR THE PROJECT & NOT TO BE COMPLETED  
DESIGN DOCUMENTATION REVIEW FOR THE PROJECT & NOT TO BE COMPLETED  
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THEY WILL BE SUBMITTED TO THE COUNCIL & NOT TO BE COMPLETED  
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DESIGN DOCUMENTATION REVIEW FOR THE PROJECT & NOT TO BE COMPLETED  
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IF THE DRAWING IS SUBMITTED FOR REVIEW TO THE COUNCIL & NOT TO BE COMPLETED  
THEY WILL BE SUBMITTED TO THE COUNCIL & NOT TO BE COMPLETED

DATE	DATE	DATE	DATE	DATE
AM	02.05.2022	JP	02.05.2022	21/08/22

**PROJECT**  
BATTERY POINT APARTMENTS  
1 KNOPWOOD STREET  
HOBART VICTORIA 21042

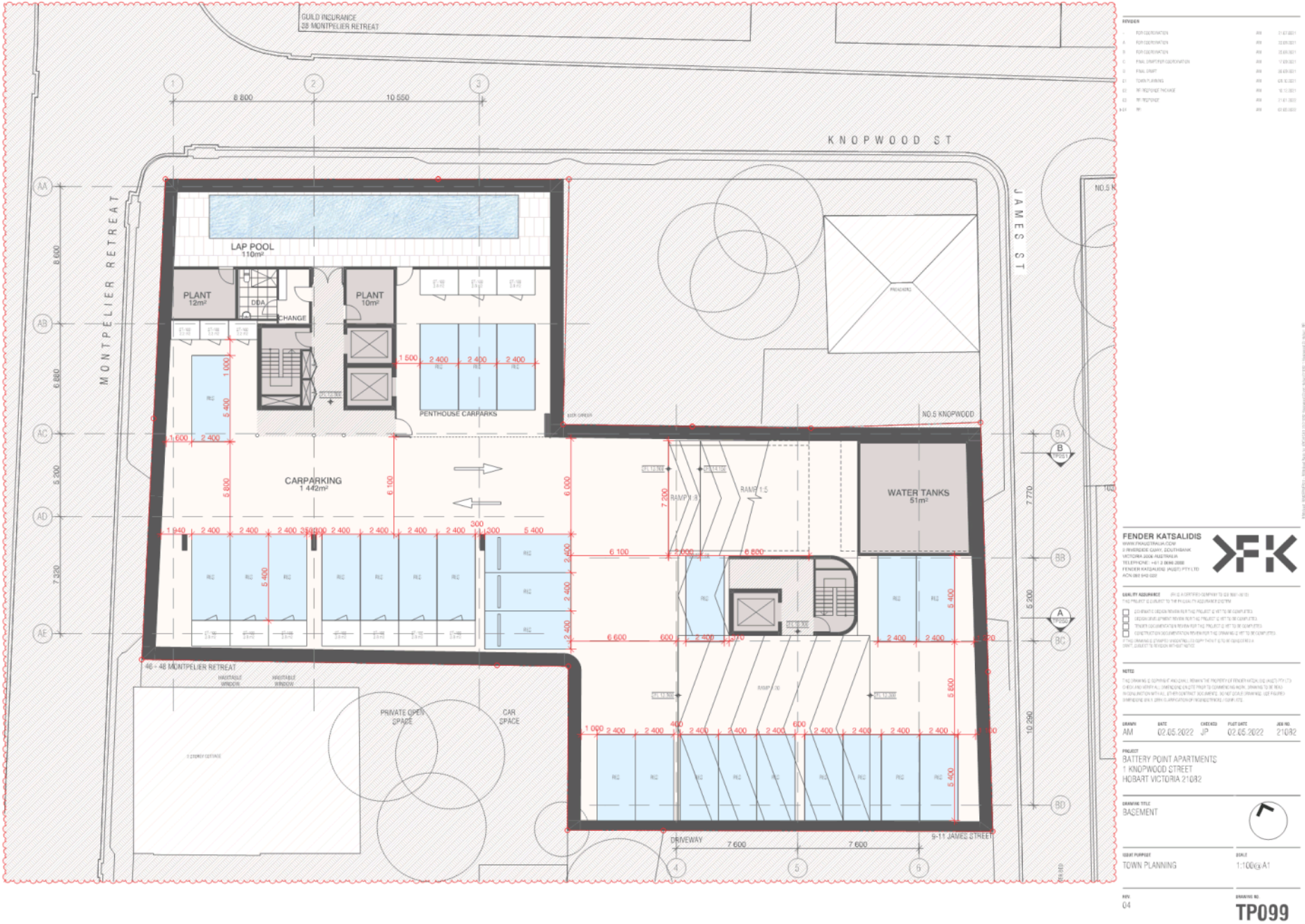
**DRAWING TITLE**  
SITE PLAN PROPOSED



**SCALE**  
TOWN PLANNING  
1:200 @ A1

**DATE**  
04  
**PROJECT NO.**  
TP003









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FENDER KATSALIDIS (AUSTRALIA) PTY LTD  
ACN 081 942 022

**QUALITY ASSURANCE** (4) (A CERTIFIED COMPANY TO Q3 (001-001))

THE PROJECT IS SUBJECT TO THE QUALITY ASSURANCE SYSTEM

☐ DOCUMENT DESIGN REVIEW FOR THIS PROJECT IS YET TO BE COMPLETED

☐ DOCUMENT DESIGN REVIEW FOR THIS PROJECT IS YET TO BE COMPLETED

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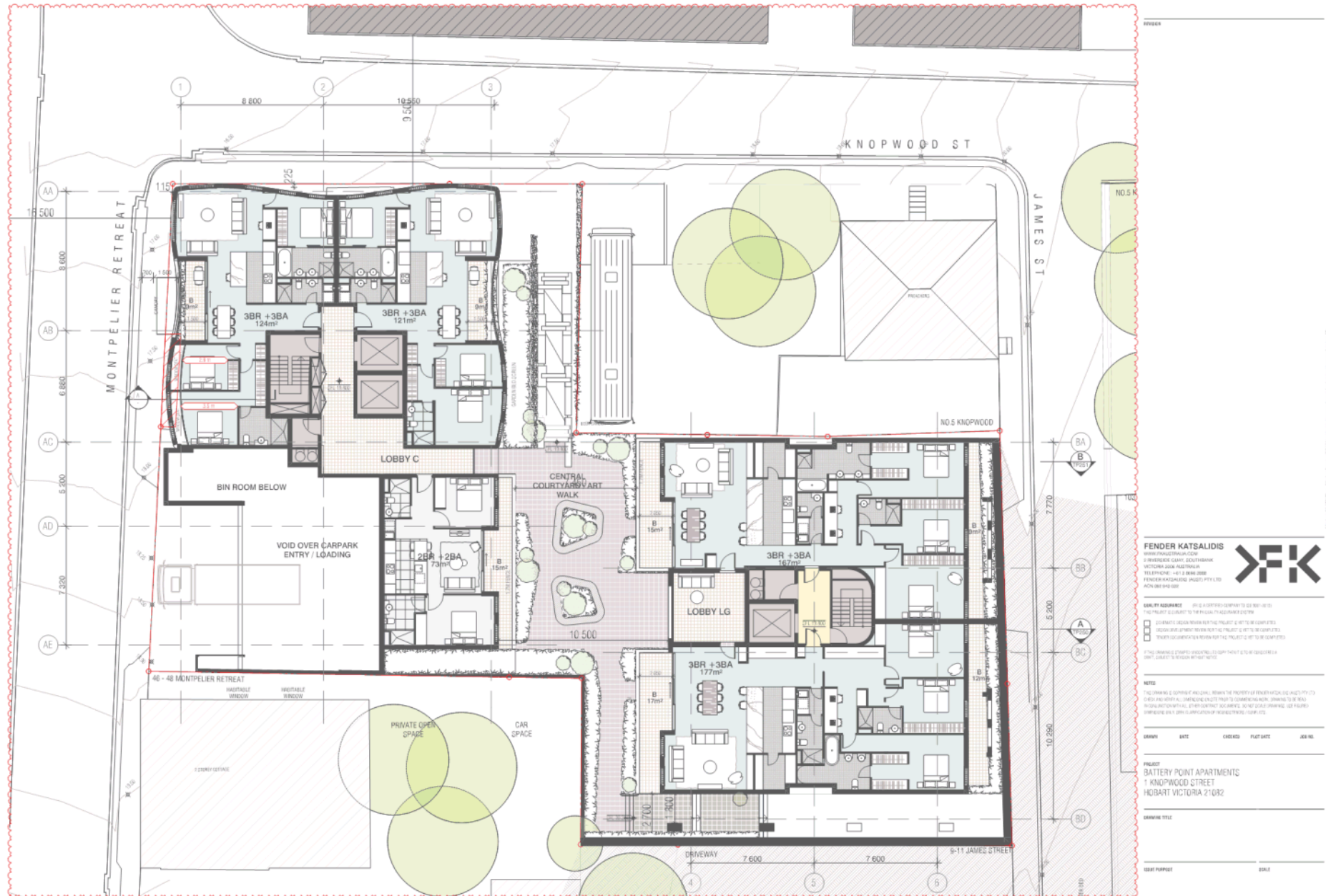
GRANDI	DATE	CHECKED	PLAT DATE	JOB NO.
AM	02.05.2022	JP	02.05.2022	21032

PROJECT  
BATTERY POINT APARTMENTS  
1 KNOPWOOD STREET  
HOBART VICTORIA 21082

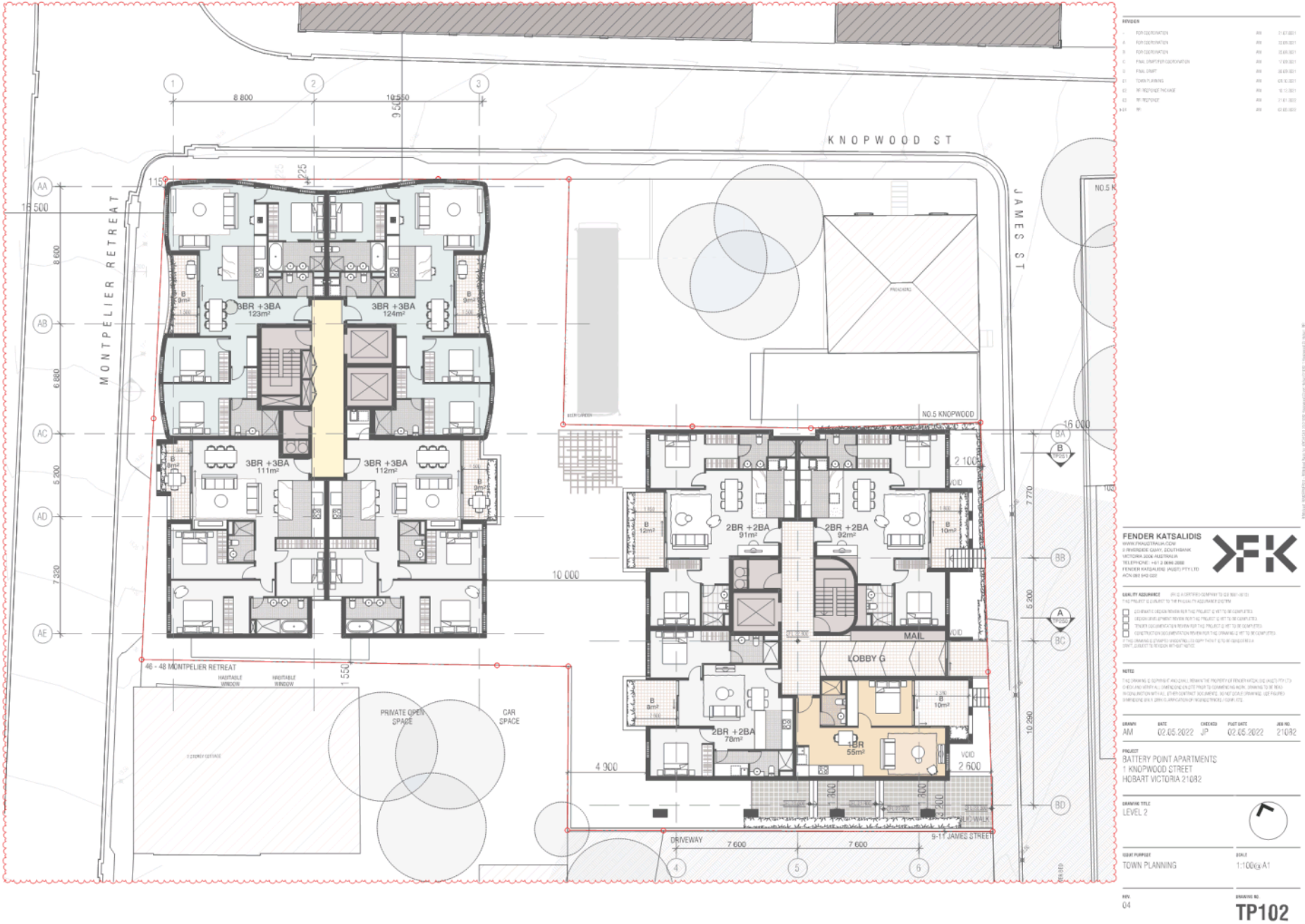
GROUND/LOWER GROUND

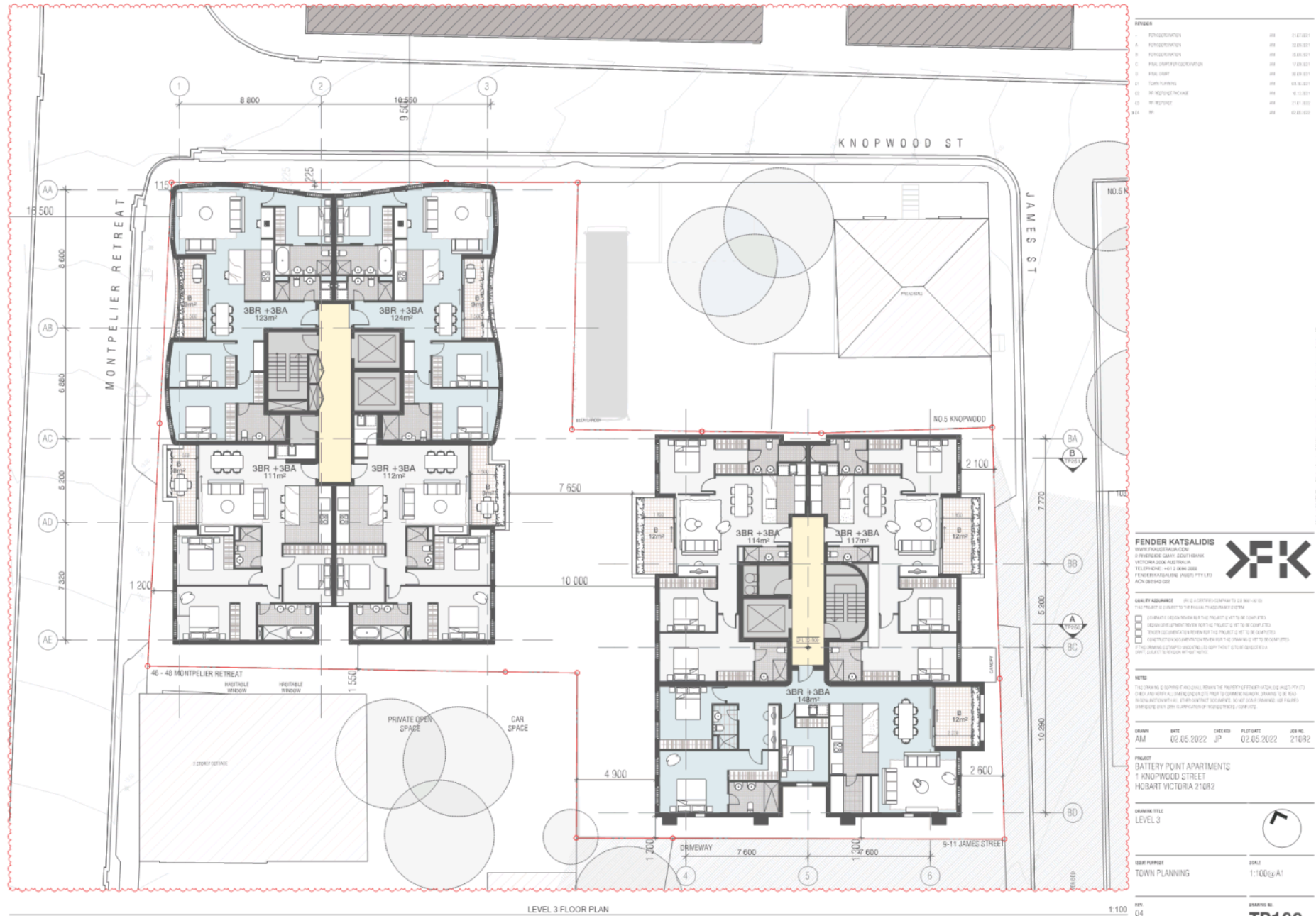
ISSUE PURPOSE	SCALE
TOWN PLANNING	1:100 @ A1

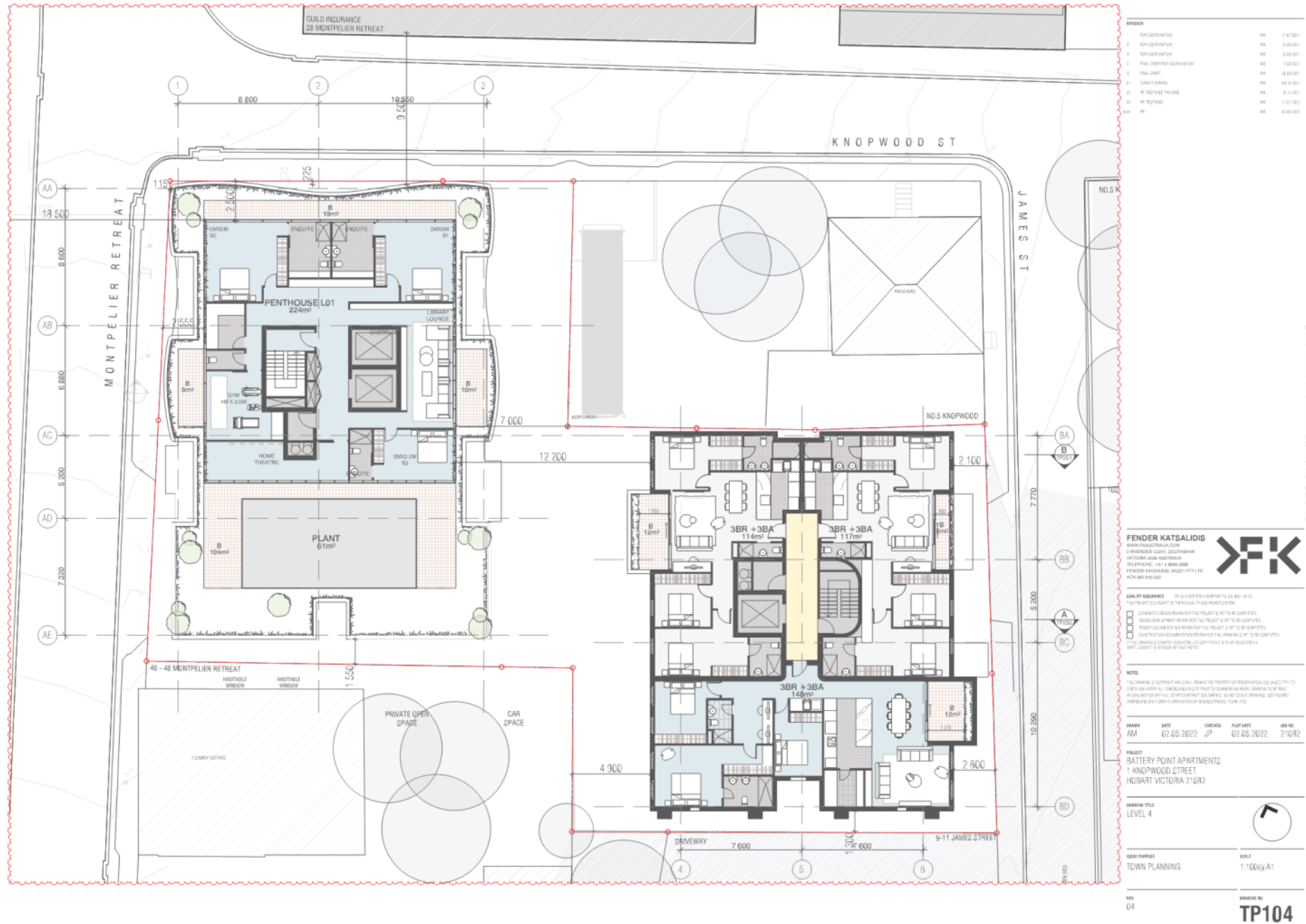
REV: 04  
DRAWING NO: TP100



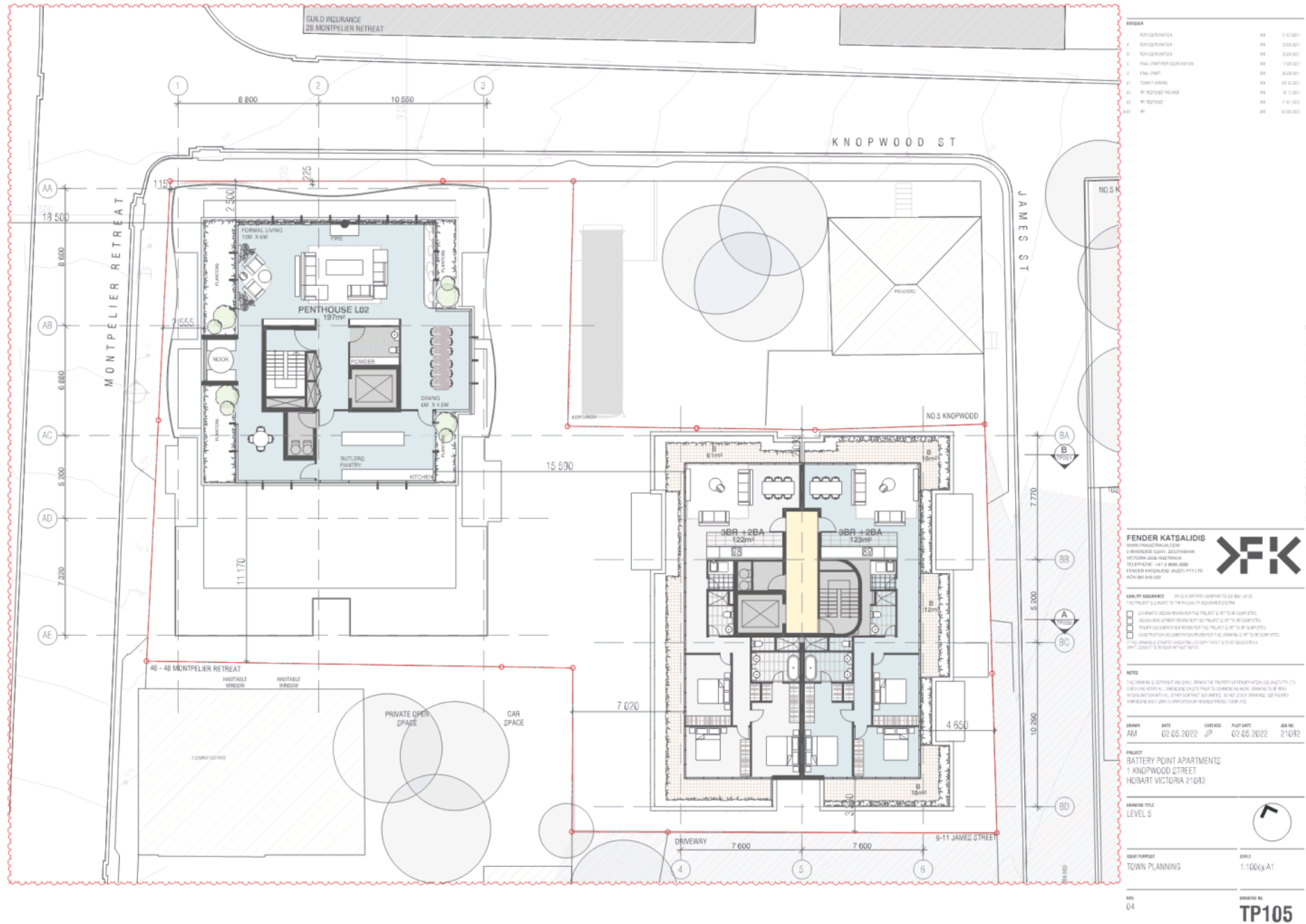


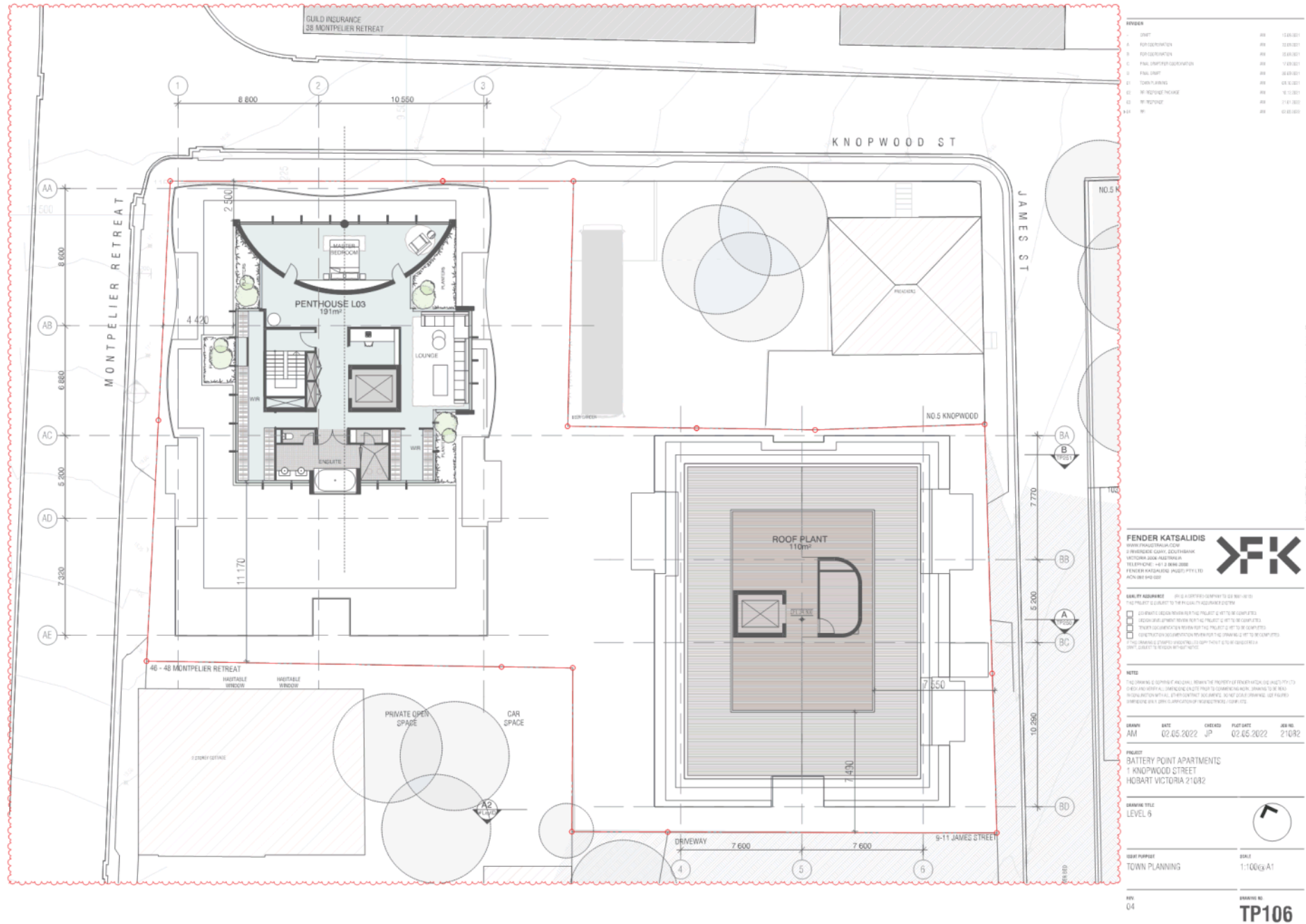


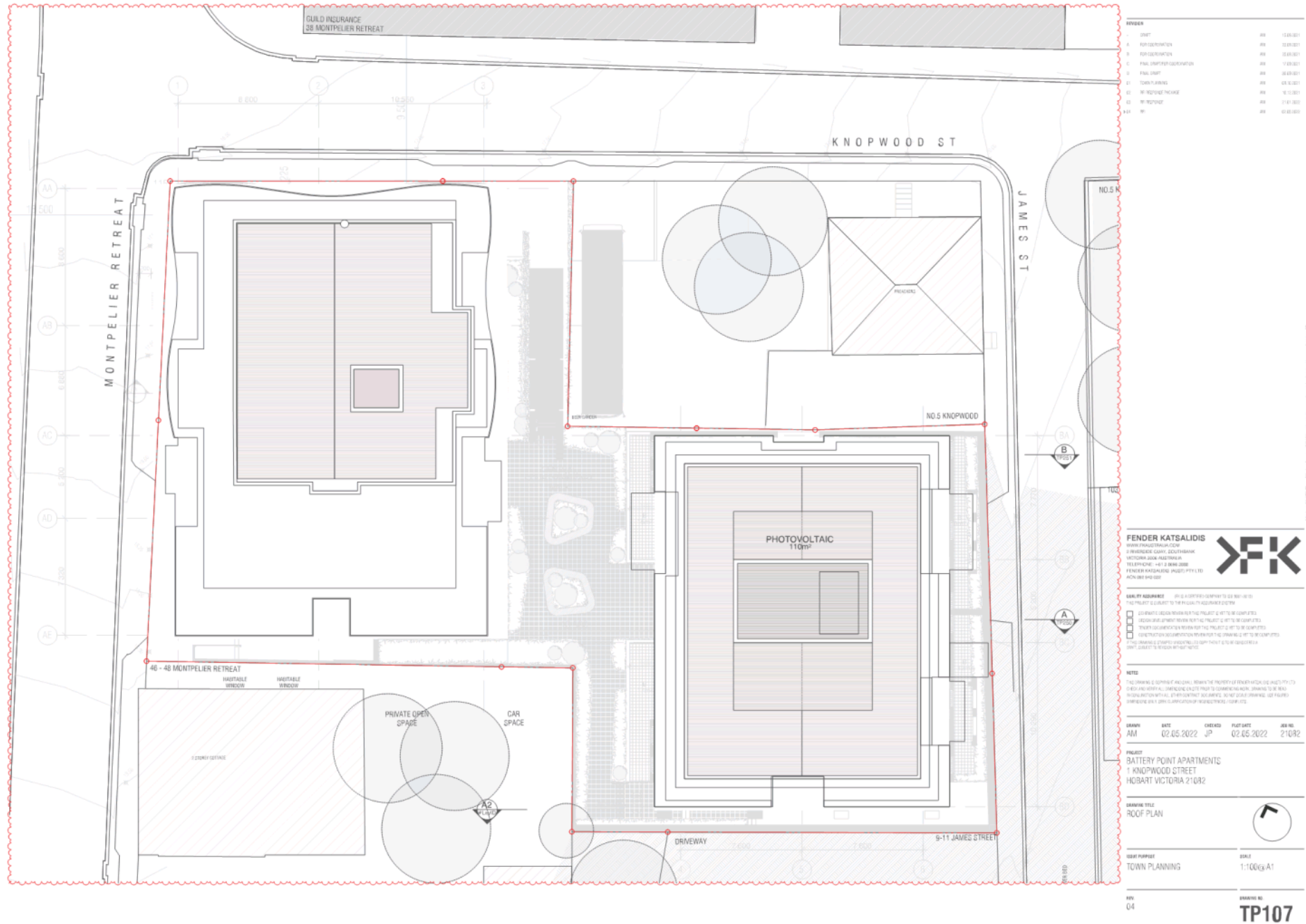
















REVENUE		
-	CHART	000 12.05.2007
A	FOR COORDINATION	000 02.09.2007
B	FOR COORDINATION	000 05.06.2007
C	FINAL CHARTER FOR COORDINATION	000 17.03.2007
D	FINAL CHART	000 05.09.2007
E1	TOUCH-UP JOURNAL	000 05.05.2007
E2	RF-RESPONSE PACKAGE	000 16.11.2007
E3	RF-RESPONSE	000 27.01.2008
B14	RF	000 05.05.2007

Received: 09/02/2012 - Approved: 04/03/2012 - Accepted: 21/03/2012 - Published: 21/03/2012 - Requested: 21/03/2012

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FENDER KATSALIDIS (AUSTR) PTY LTD  
ACN 082 942 022



**QUALITY ASSURANCE** (IN A CERTAIN COMPANY TO OUR BEST-OF-KNOWLEDGE)

THE QUALITY IS SUBJECT TO THE FOLLOWING QUALITY ASSURANCE SYSTEM

- ☐ ECONOMIC DESIGN REVIEW FOR THE PROJECT IS NOT TO BE COMPLETED
- ☐ DESIGN DEVELOPMENT REVIEW FOR THE PROJECT IS NOT TO BE COMPLETED
- ☐ TECHNICAL CONSTRUCTION REVIEW FOR THE PROJECT IS NOT TO BE COMPLETED
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CRASH	DATE	CHECKED	PLAT DATE	JOB NO.
AM	02.05.2022	JP	02.05.2022	21082

PROJECT  
BATTERY POINT APARTMENTS  
1 KNOPWOOD STREET  
HOBART VICTORIA 21082

DRAWING TITLE  
MONTPELIER RETREAT ELEVATION

ISSUE PURPOSE	SCALE
TOWN PLANNING	1:200 @ A1

REV. 04  
DRAWING NO. TP200

REV. 04  
DRAWING NO. TP201



1 KNOPWOOD STREETSCAPE ELEVATION  
SCALE: 1:200 (9/11)



**QUALITY ASSURANCE** (Is a Certified Company to be used?)  
 This project is subject to the Quality Assurance system

<input type="checkbox"/>	CONTRACTOR DESIGN REVIEW FOR THIS PROJECT IS SET TO BE COMPLETED
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<input type="checkbox"/>	TRUCKER COMMUNICATION REVIEW FOR THIS PROJECT IS SET TO BE COMPLETED
<input type="checkbox"/>	CONTRACTOR DESIGN/CONSTRUCTION REVIEW FOR THE UNKNOWN IS SET TO BE COMPLETED

IF THIS COMPANY IS APPROVED AND PROJECT IS QUALIFIED THEN IT IS TO BE APPROVED FOR  
 ONLY. SUBJECT TO DESIGN WITHOUT NOTICE

**NETS**

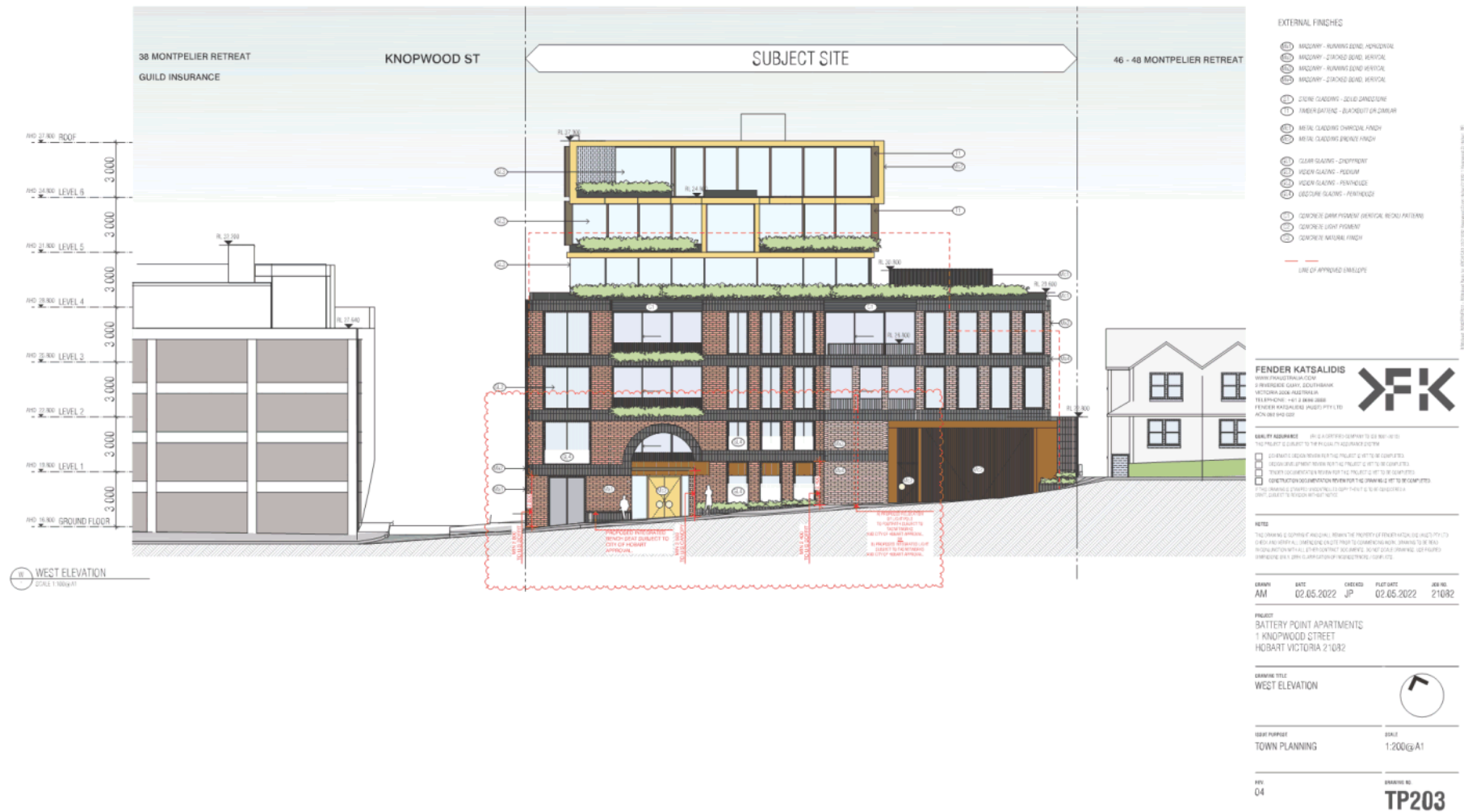
BRANCH	DATE	CHECKED	PLCT DATE	JOB NO.
AM	02.05.2022	JP	02.05.2022	21082

PROJECT  
BATTERY POINT APARTMENTS  
1 KNOPWOOD STREET  
HOBART VICTORIA 21082

DRAPING TITLE  
KNOPWOOD ST ELEVATION

DESIGN PURPOSE	SCALE
TOWN PLANNING	1:200 @ A1

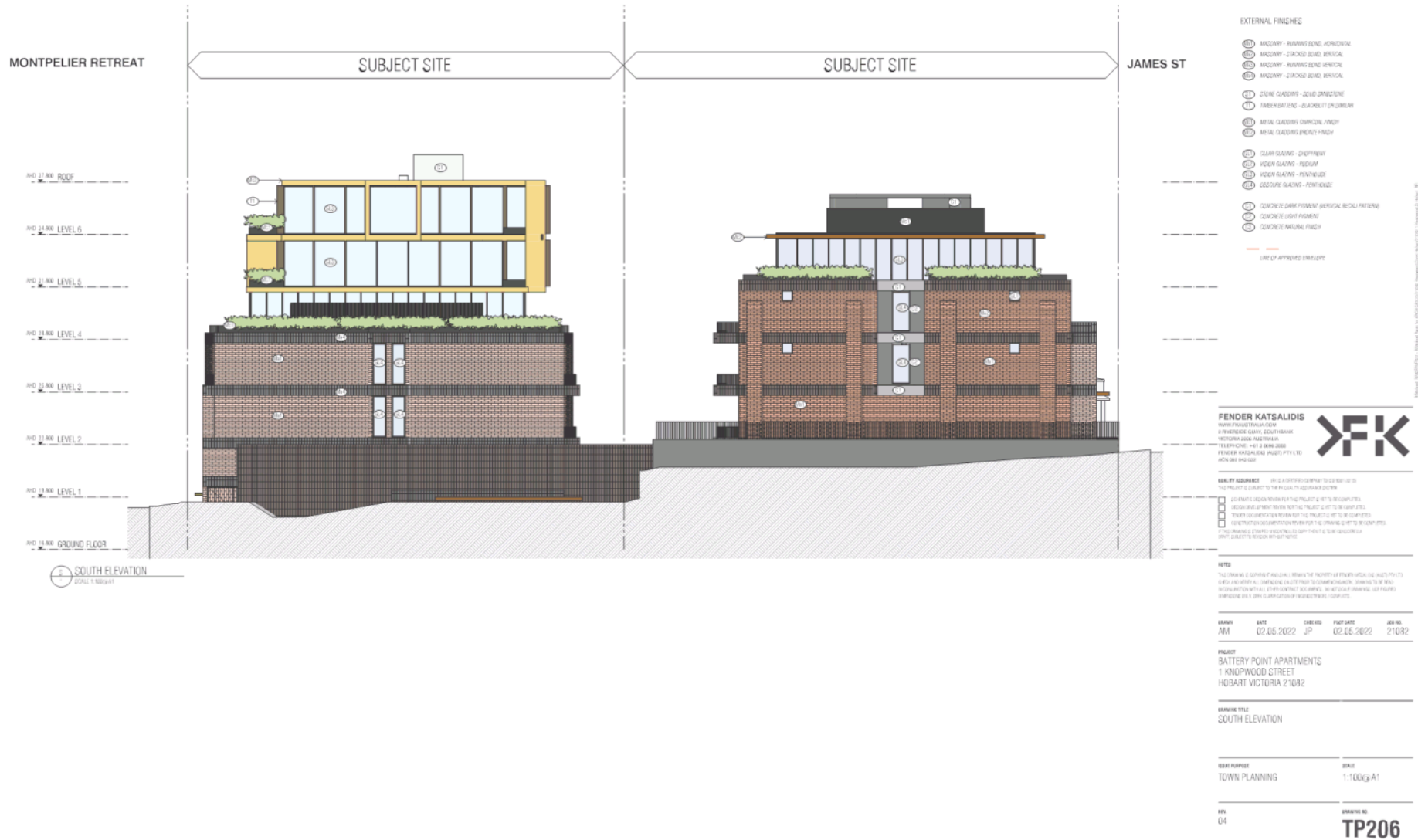
REV. 04  
DRAWING NO. TP202













REVISION			
1	TOWN PLANNING	AM	20.03.2021
A	FINAL DRAFT	AM	01.10.2021
E1	TOWN PLANNING	AM	04.10.2021
E2	RE-DESIGNED FACADE	AM	16.10.2021
E3	RE-DESIGNED	AM	17.01.2022
A14	RE	AM	02.05.2022

EXTERNAL FINISHES

- 101 BRICKWORK - RUNNING BOND, PERPENDICULAR
- 102 BRICKWORK - STITCHED BOND, HORIZONTAL
- 103 BRICKWORK - RUNNING BOND, HORIZONTAL
- 104 BRICKWORK - STITCHED BOND, HORIZONTAL
- 105 CLADDING GLAZING - SOLID GLAZING
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- 200 CLADDING GLAZING - CHARCOAL FINISH

LINE OF APPROVED ENVELOPE

FENDER KATSALIDIS

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VICTORIA AUSTRALIA  
TELEPHONE: +61 3 9586 0000  
FENDER KATSALIDIS (AUSTRALIA) PTY LTD  
ACN 088 040 007



QUALITY ASSURANCE

THE PROJECT IS SUBJECT TO THE QUALITY ASSURANCE SYSTEM

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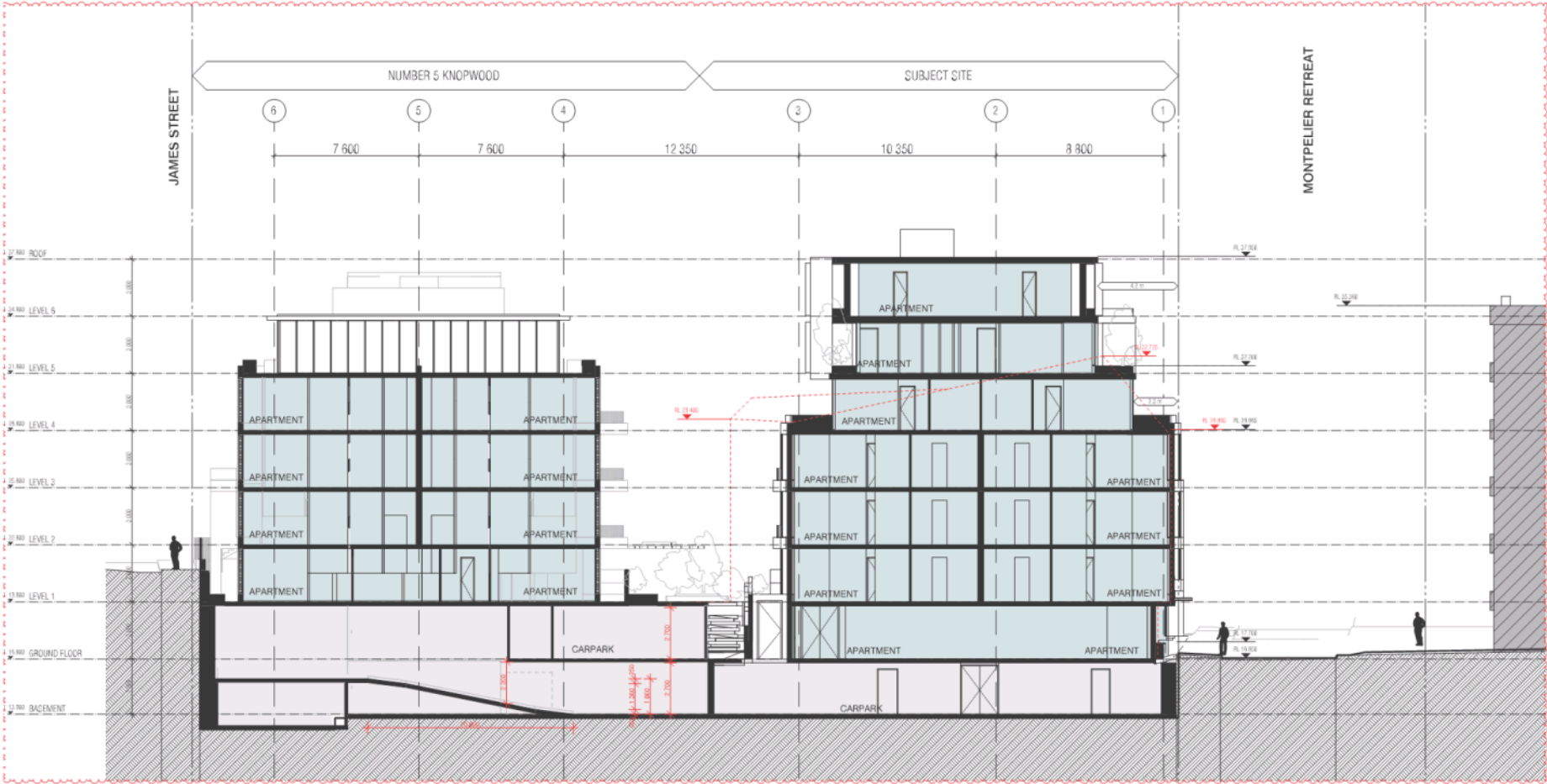
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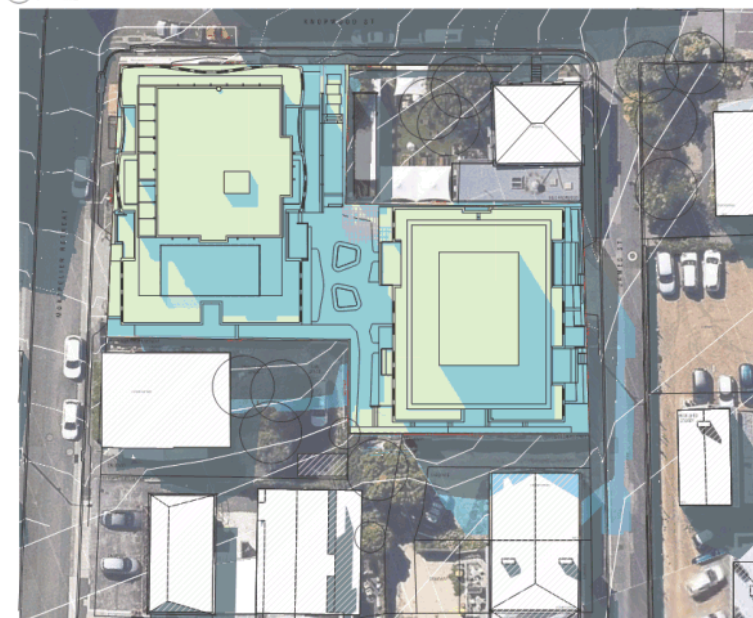
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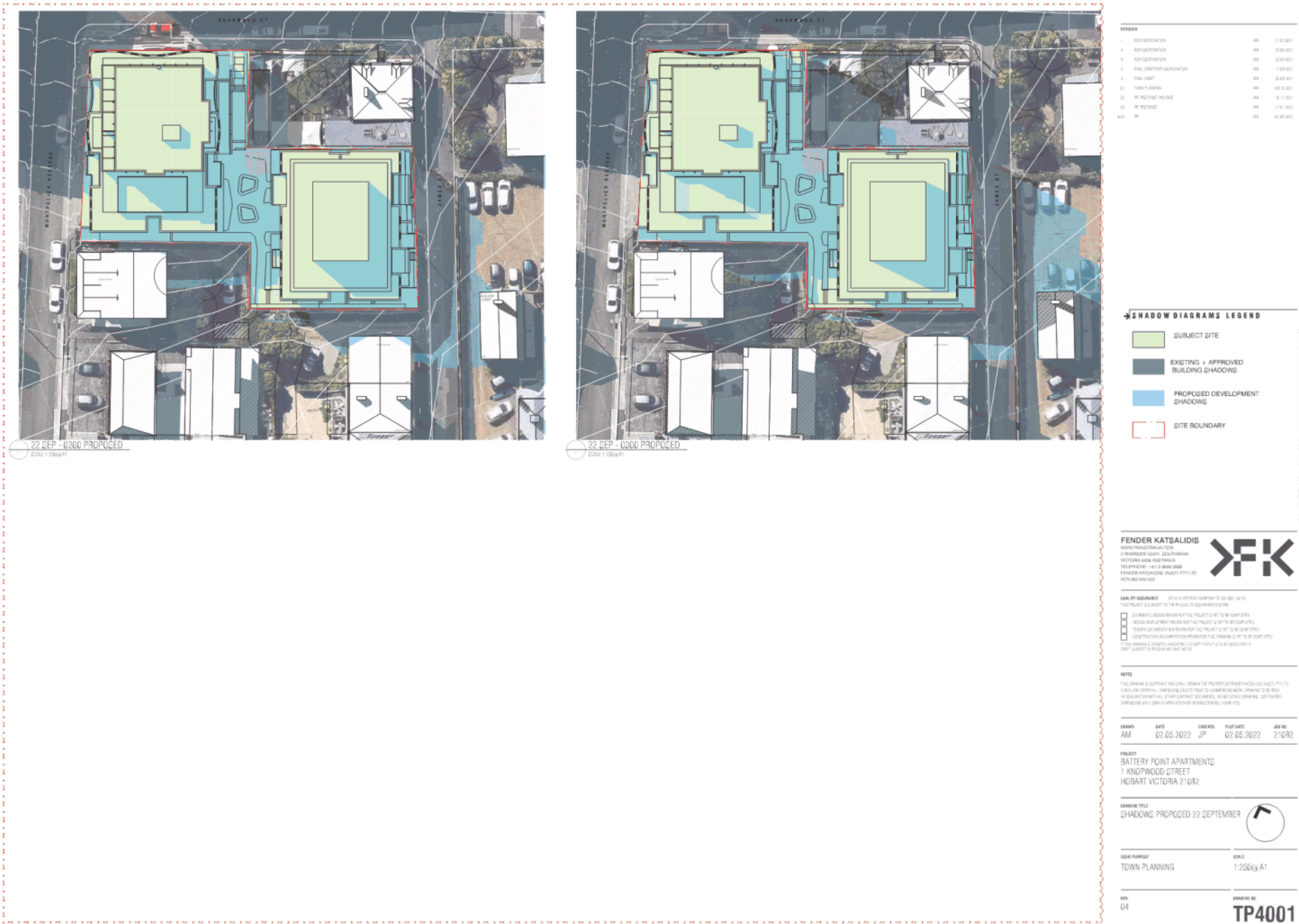


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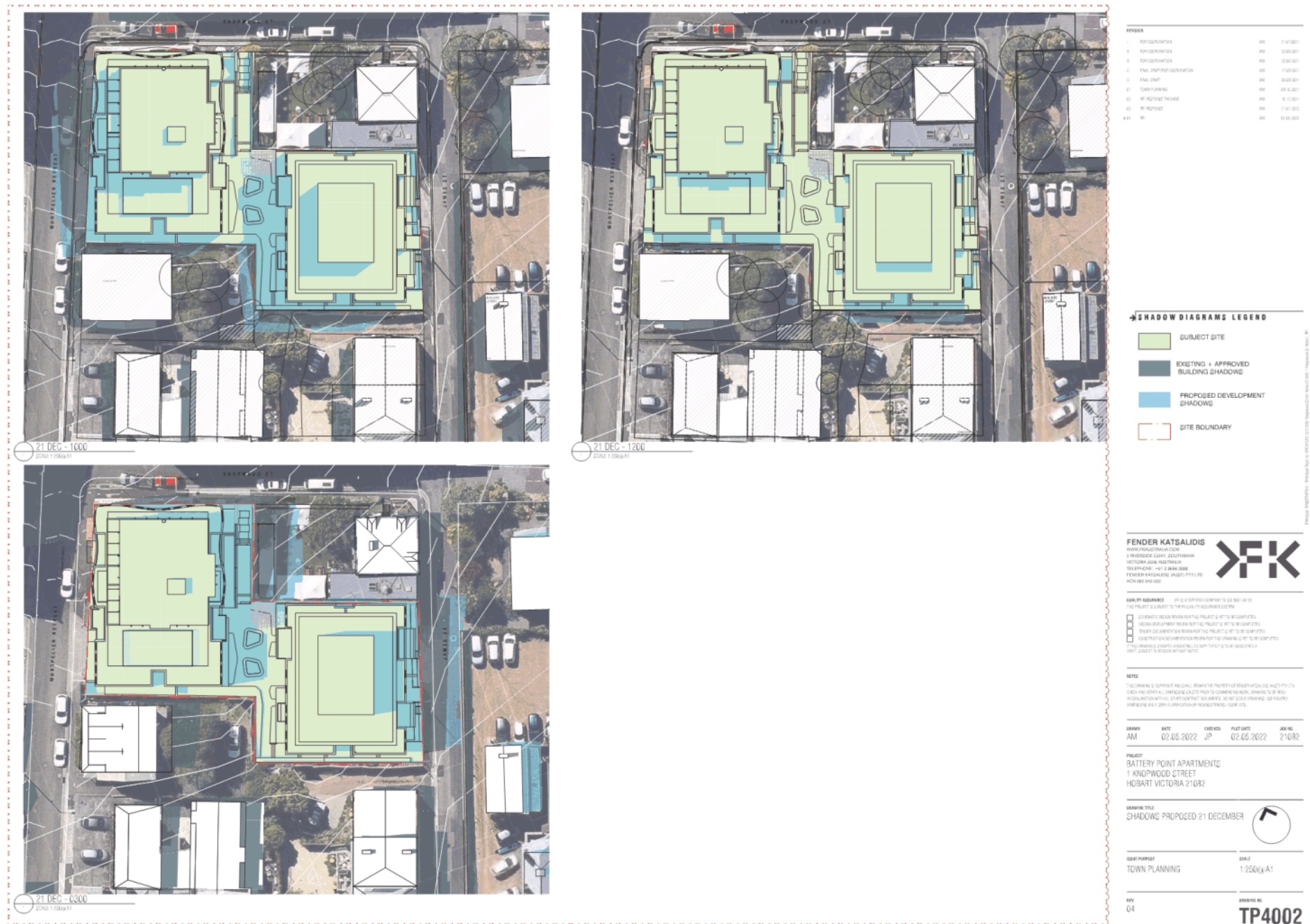
PROJECT: BATTERY POINT APARTMENTS 1 KNOXWOOD STREET HOBART VICTORIA 2102										FENDER KATSALIDIS 1000 KNOXWOOD STREET HOBART VICTORIA 2102 TEL: 03 9397 1000 WWW.FENDERKATSALIDIS.COM.AU										REV: 04 DRAWING NO: TP251																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			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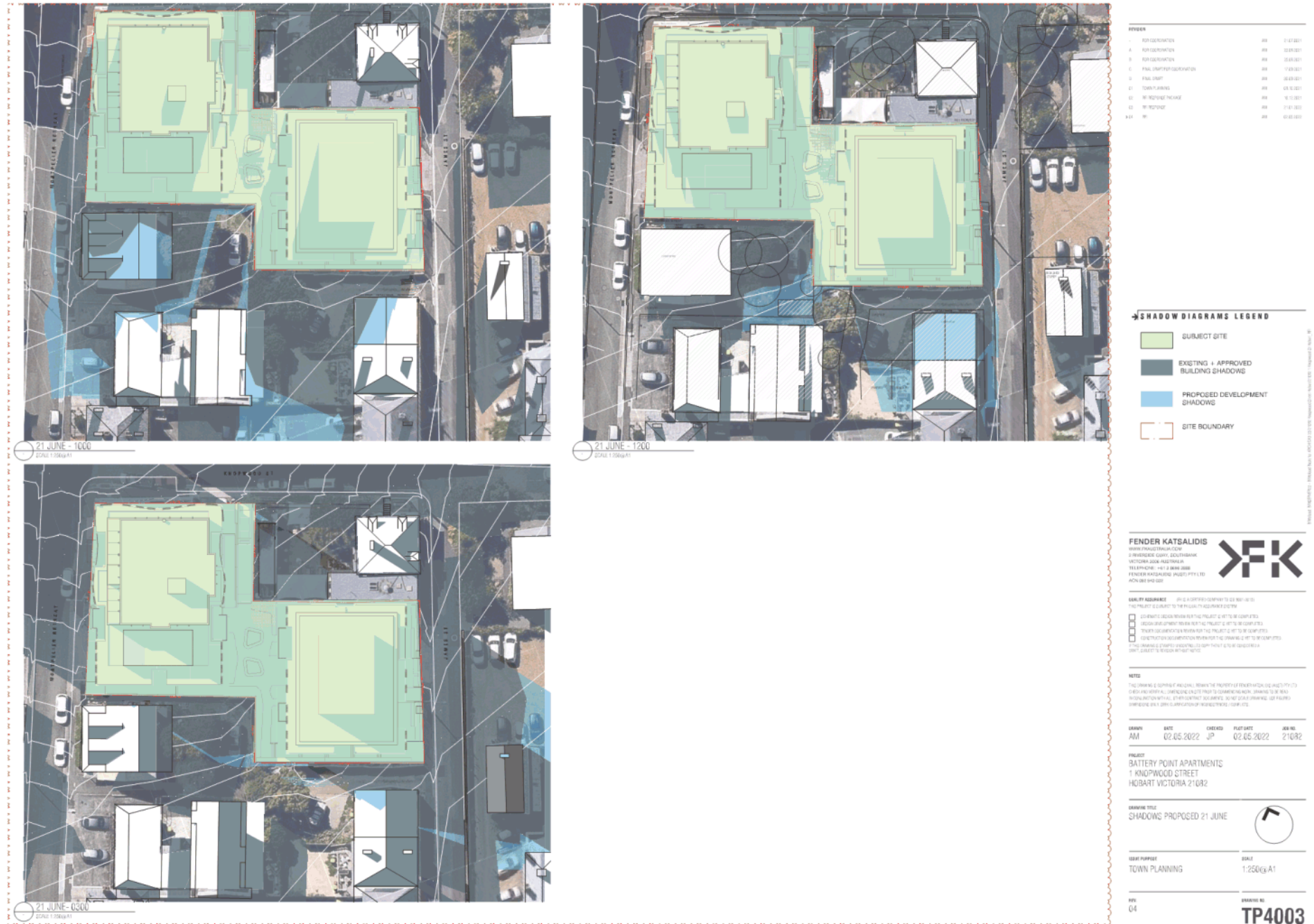


REV. 04  
DRAWING NO. TP4000











**PROPOSED RESIDENTIAL DEVELOPMENT  
1 KNOPWOOD STREET, HOBART  
CITY OF HOBART**

FOR BENSONS PROPERTY GROUP  
PROJECT NUMBER 21082

2/05/2022

FOR BENSONS PROPERTY GROUP  
PROJECT NUMBER 21082



**XFK**



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1.0 Introduction

2.0 Site Context

3.0 Site Analysis

4.0 Design Response

5.0 Civic Contribution

6.0 Perspective Views

7.0 Appendix

A - Architectural Drawings & Development Summary

B - Existing Site Survey

C - Planning Report

D - Heritage Impact Assessment

E - Landscape Report

G - Traffic Report

H - Services & Civil Report

1.1 THE TEAM

The consultant team has been assembled by Bensons Property Group to provide a consistent approach to the site with speciality advice reflecting the experience across each discipline.

Client:	Bensons Property Group
Architect:	Fender Katsalidis
Planning Consultant:	Irene Inc Planning
Heritage Consultant:	Sam Nichols
Civil Consultant:	Aldanmark
Traffic Consultant:	Midson Traffic
Consulting Architect:	Cumulus Studio

1.2 PROJECT OVERVIEW

Battery Point Apartments is a proposal that seeks to deliver carefully considered medium density dwelling to the precinct.

The proposal consists of 26 generous apartments, an F+B tenancy, 48 car spaces, storage, a lap pool and a central outdoor courtyard featuring local artists work and integrated landscaping.

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## 2.0 SITE CONTEXT

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Battery Point Apartments is a proposal that seeks to deliver carefully considered medium density dwelling to the precinct. The project uses a combination of carefully scaled massing, a fine grain of detailing, layered facades and gardens to control and filter levels of privacy within the site and with the neighbouring dwellings. The larger lot is broken down into two buildings, creating a site permeability that allows for a public art walk through the middle.

It is envisaged this will connect to the Battery Point Sculpture art trail and in doing so give back to the social fabric. A fine grain streetwall expression of 4 storeys responds to the human scale of the existing streetscapes to the south of the site.

A separate upper level expression is forward thinking with a contemporary aesthetic and softer facade reading with timber shading and integrated landscaping. The resultant expression is that of a tripartite composition of base, middle and top.

The proposed façade composition directly references existing fenestration rhythm. The material selection of finely crafted brick, sandstone and palisade balustrades to the streetwall acknowledge the rich material detail in the precinct. Integrated planting to the terraces and frames provide a softness and visual relief.

The proposal seeks to provide a collective of thoughtfully designed and generously proportioned residences that have the potential to both enliven street frontages and make a positive contribution to the neighbourhood. Battery Point apartments seeks to set a new precedent in medium density living that will offers a housing solution to Hobart's burgeoning population.

SITE CONTEXT  
2.1 INTRODUCTION



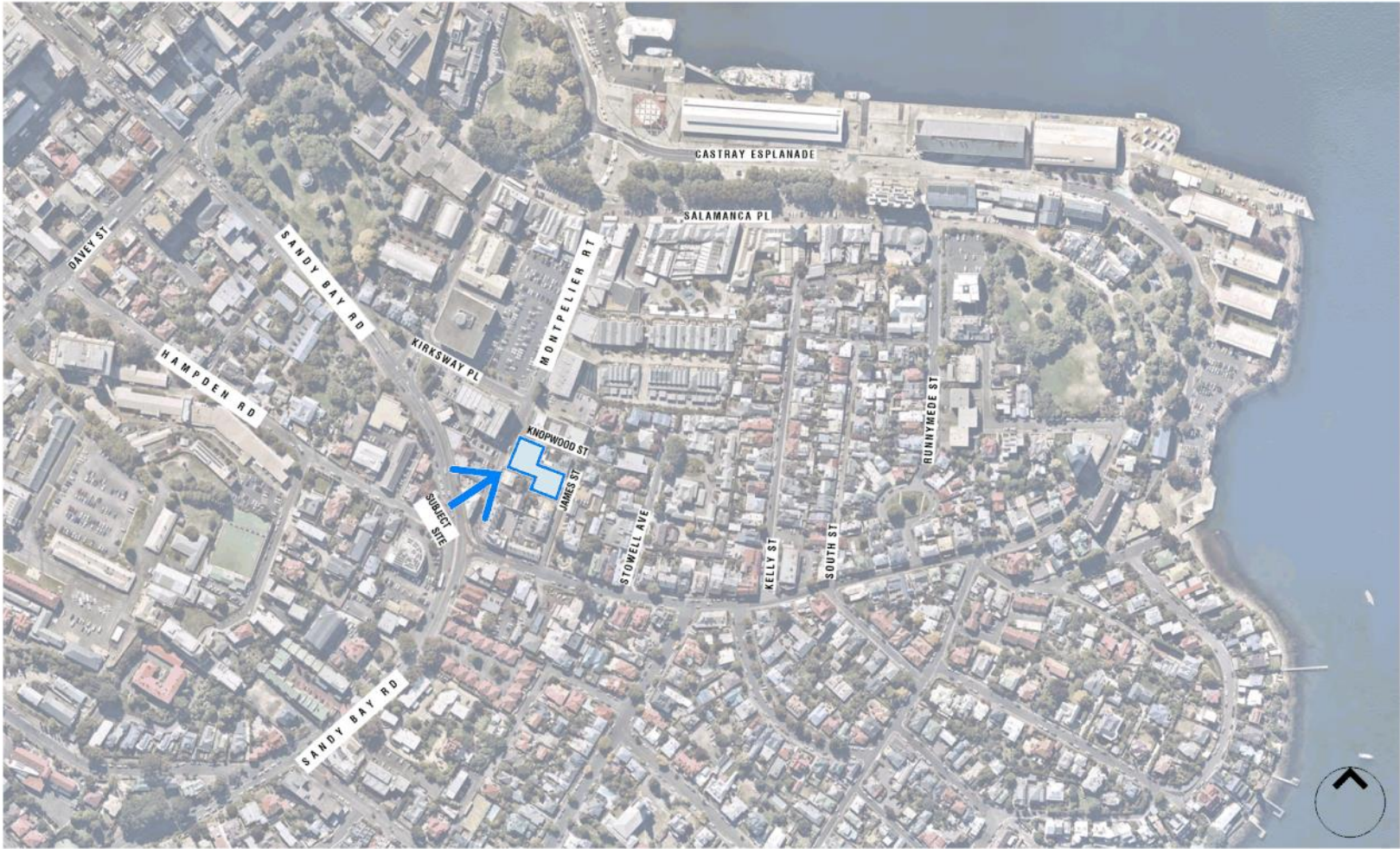


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SITE CONTEXT  
2.2 SITE AERIAL VIEW- MACRO



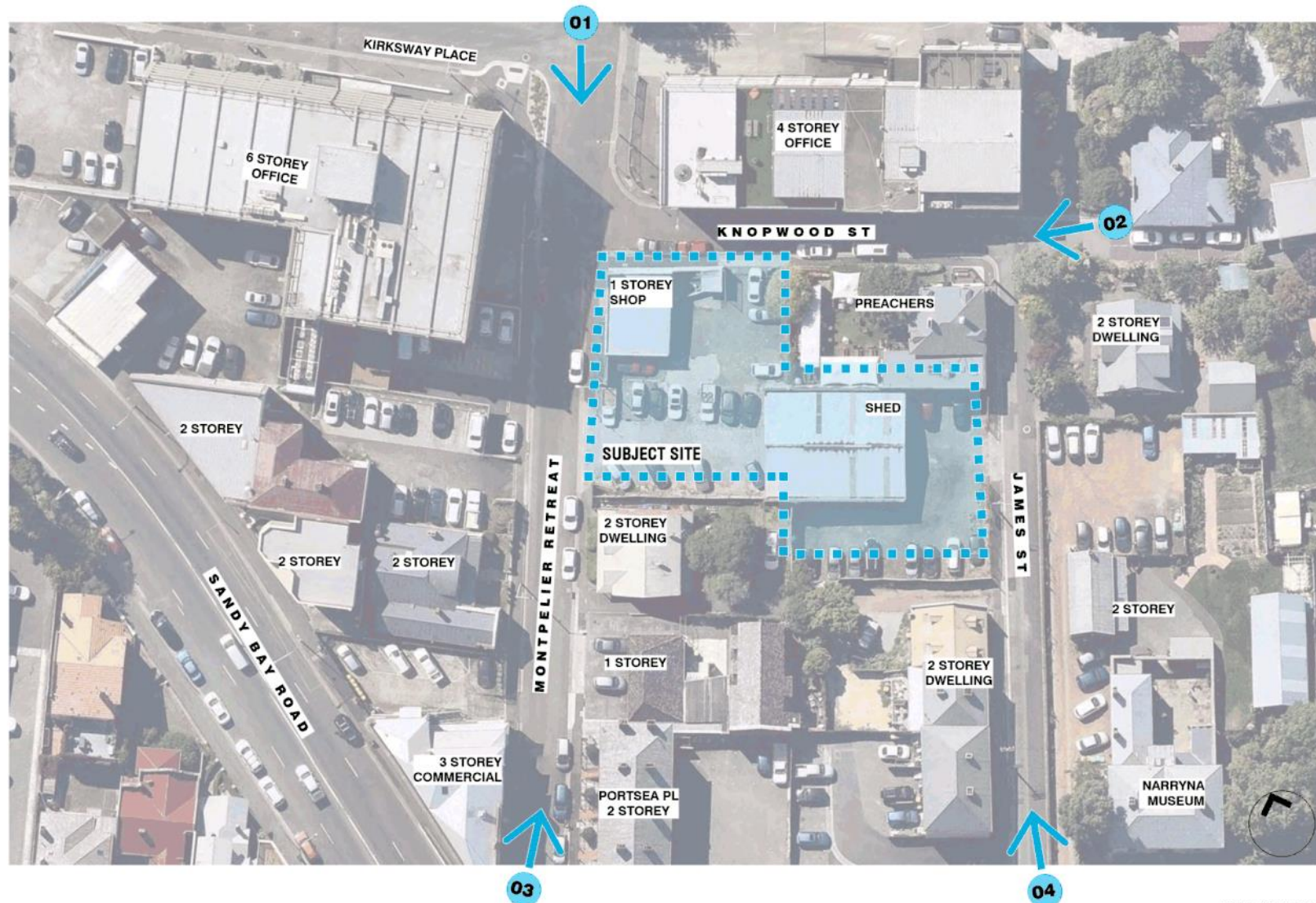


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### 2.3 SITE AERIAL VIEW - LOCAL



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01 VIEW FROM MONTEPELIER RT LOOKING SOUTH



02 CORNER OF HAMDEN RD AND JAMES ST



03 CORNER OF HAMDEN RD AND JAMES ST



04 VIEW FROM HAMDEN RD LOOKING NORTH





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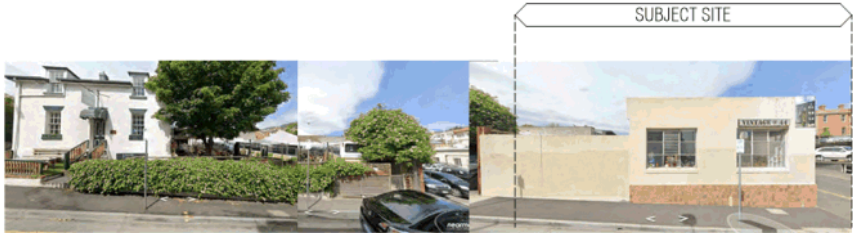
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NEWER BUILT FORM

HISTORIC BUILT FORM

**MONTPELIER RETREAT**



HERITAGE RESIDENCE / PUB

NEWER BUILT FORM

**KNOPWOOD ST**



MIX OF SINGLE STOREY AND DOUBLE STOREY COTTAGES

**JAMES ST**



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## 3.0 SITE ANALYSIS



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10**Location**

- 01 Subject Site, Battery Point TAS

**Local Amenity - Civic & Cultural**

- 02 Salamanca Arts Centre
- 03 Parliament House Gardens
- 04 Parliament House
- 05 St. Georges Anglican Church
- 06 Arthur Circus Park
- 07 Narryna Heritage Museum
- 08 Supreme Court of Tasmania
- 09 Saint Davids Park
- 10 National Institute of Education and Technology
- 11 Conservatorium of Music, University of Tasmania
- 12 Princess Wharf No.1
- 13 Markree House Museum and Garden

**Local Amenity - Food**

- 14 Salamanca Markets
- 15 Suwan Thai
- 16 Preachers Bar
- 17 Da Angelo Ristorante
- 18 The Brick Factory

**Local Amenity - Services**

- 19 Hobart Pathology Lab
- 20 Chemist Warehouse Salamanca
- 21 The Pharmacy Guild of Australia TAS Branch
- 22 Battery Point Medical
- 23 Repatriation General Hospital
- 24 Palliative Care Tasmania
- 25 1 Montpelier Retreat Parking

**Local Amenity - Public Services**

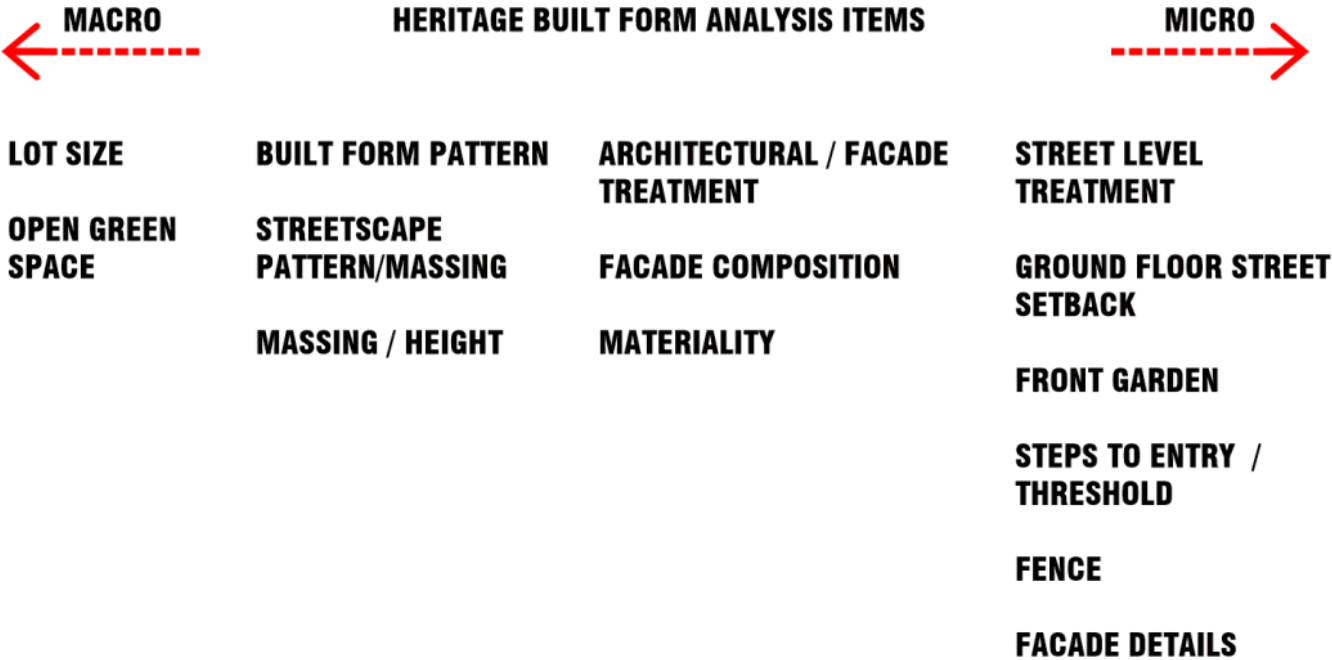
- 26 Bus Stops
- 27 Mona Ferry
- 28 Shuttle Bus
- 29 Taxi Rank
- 30 Public Toilets
- 31 Public Drinking Fountain

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SALAMANCA PLACE - SANDSTONE



31 MONTEPIER RETREAT  
PAINTED BRICK WITH SANDSTONE BASE  
(DEMOLISHED)



CNR MONTEPIER RT AND KNOPWOOD  
BRICK WITH SANDSTONE BASE  
(DEMOLISHED)



JAMES ST  
BRICK WITH SANDSTONE BASE



JAMES ST  
BRICK WITH SANDSTONE BASE



JAMES ST  
PAINTED BRICK WITH SANDSTONE BASE



PREACHERS  
PAINTED BRICK WITH SANDSTONE BASE





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WALKUP STAIR ENTRY  
GARDEN W/PICKET FENCE  
TO STREET

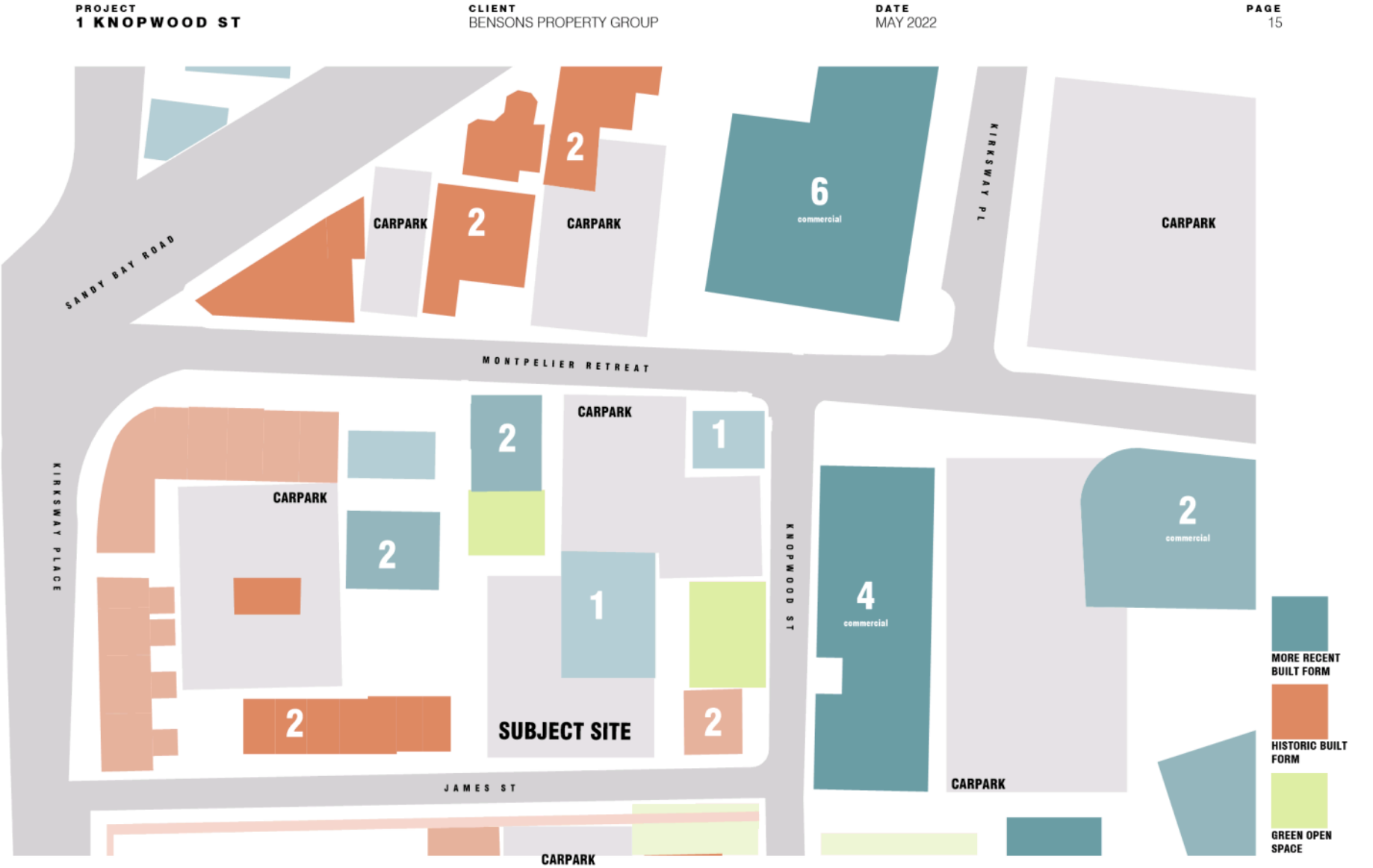


45 DEGREE  
CORNER  
SPLAY



HISTORIC BUILT  
FORM  
  
GREEN OPEN  
SPACE







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THE TASMAN HOTEL,  
HOBART



THE TASMAN HOTEL,  
HOBART



ROOFTOP EXTENSION,  
164 MACQUARIE

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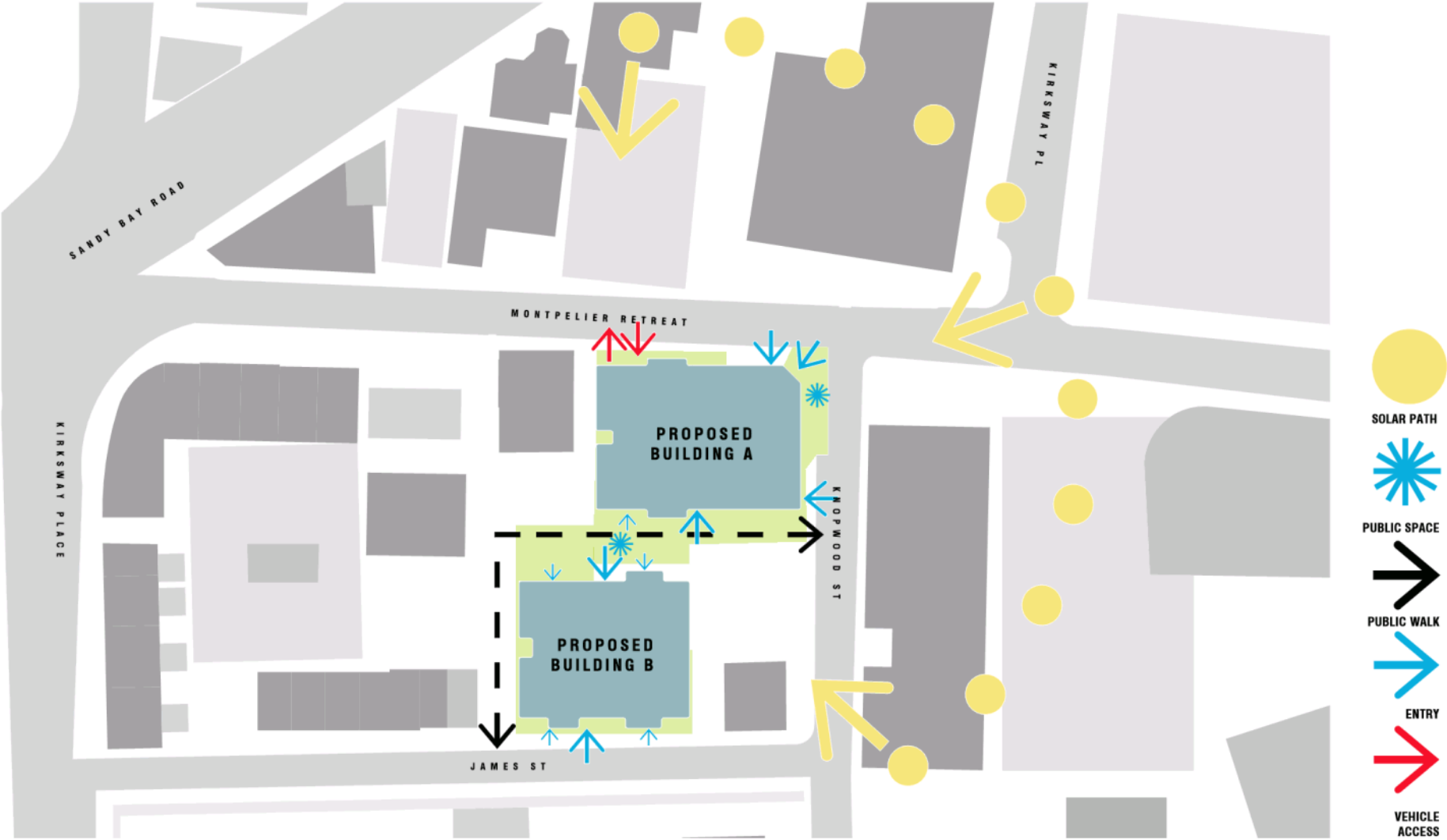
## **4.0 DESIGN RESPONSE**

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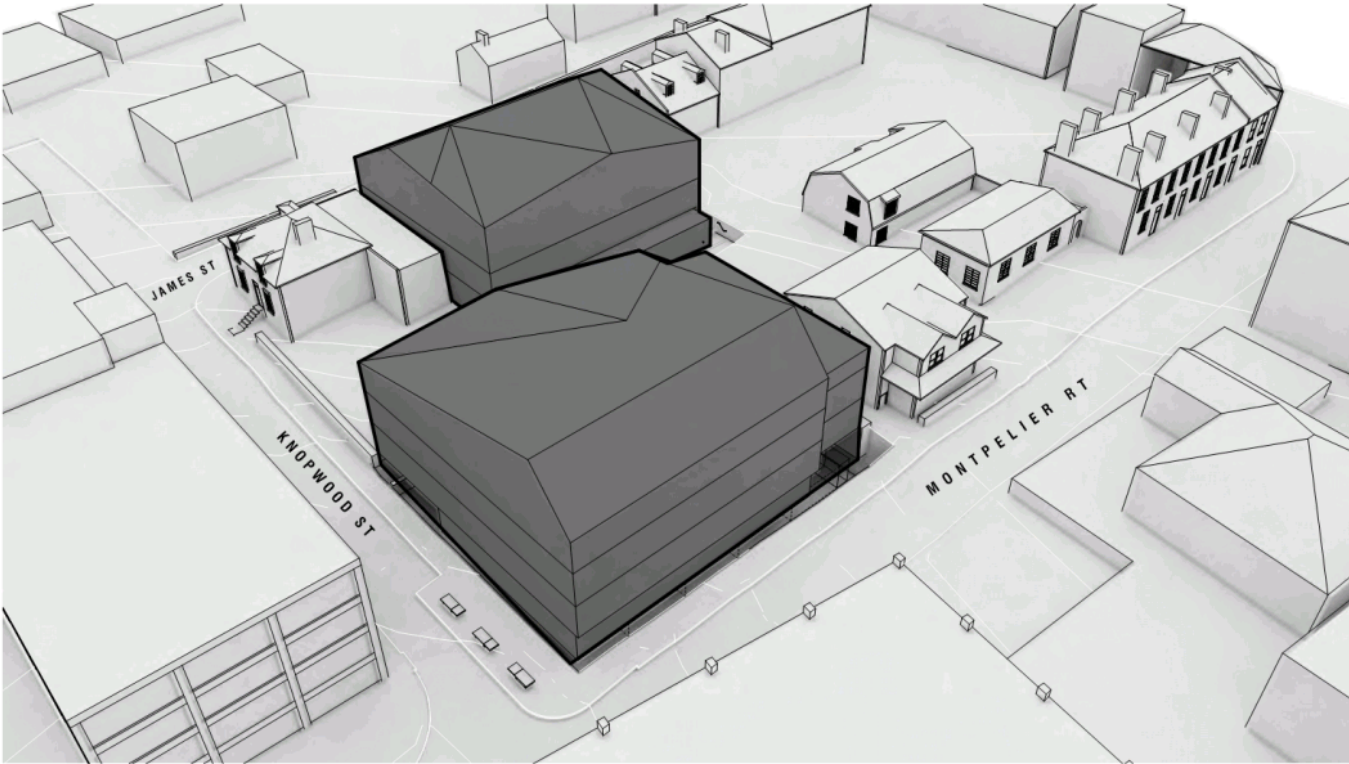


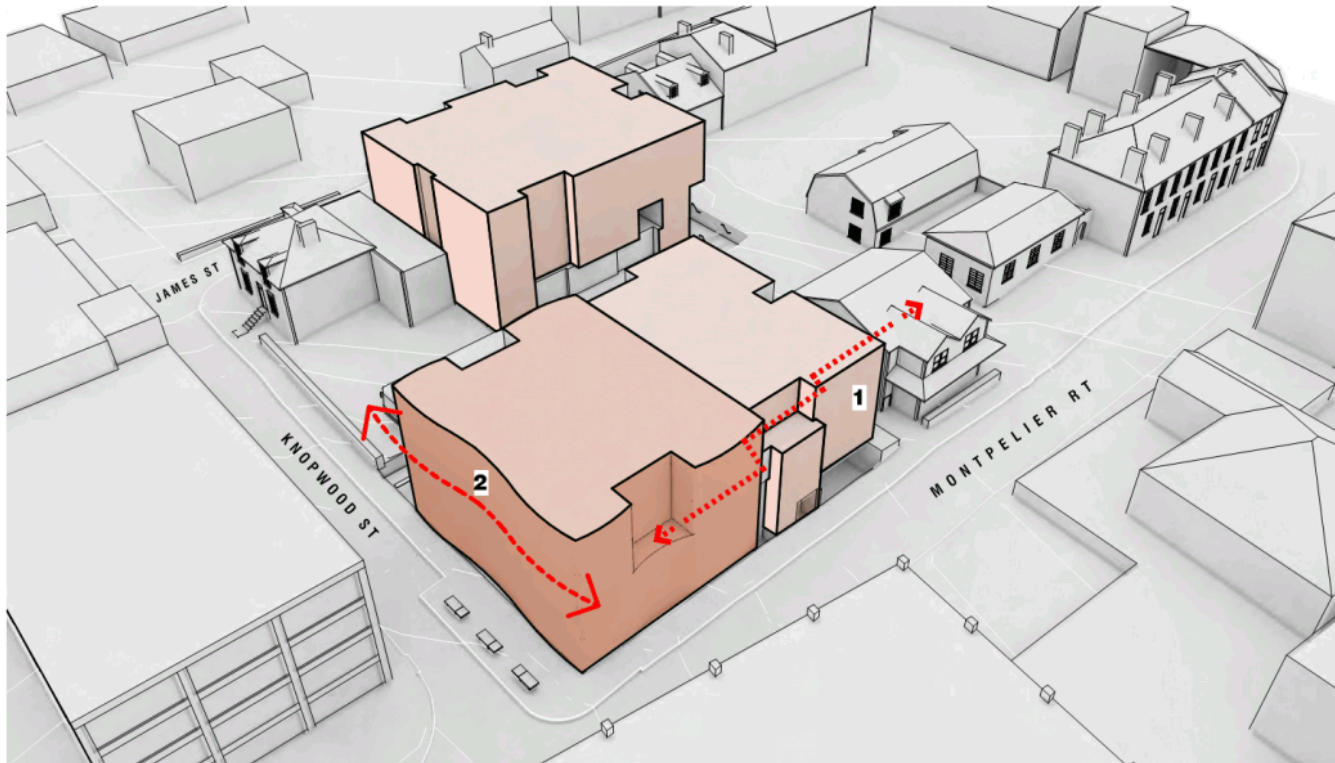
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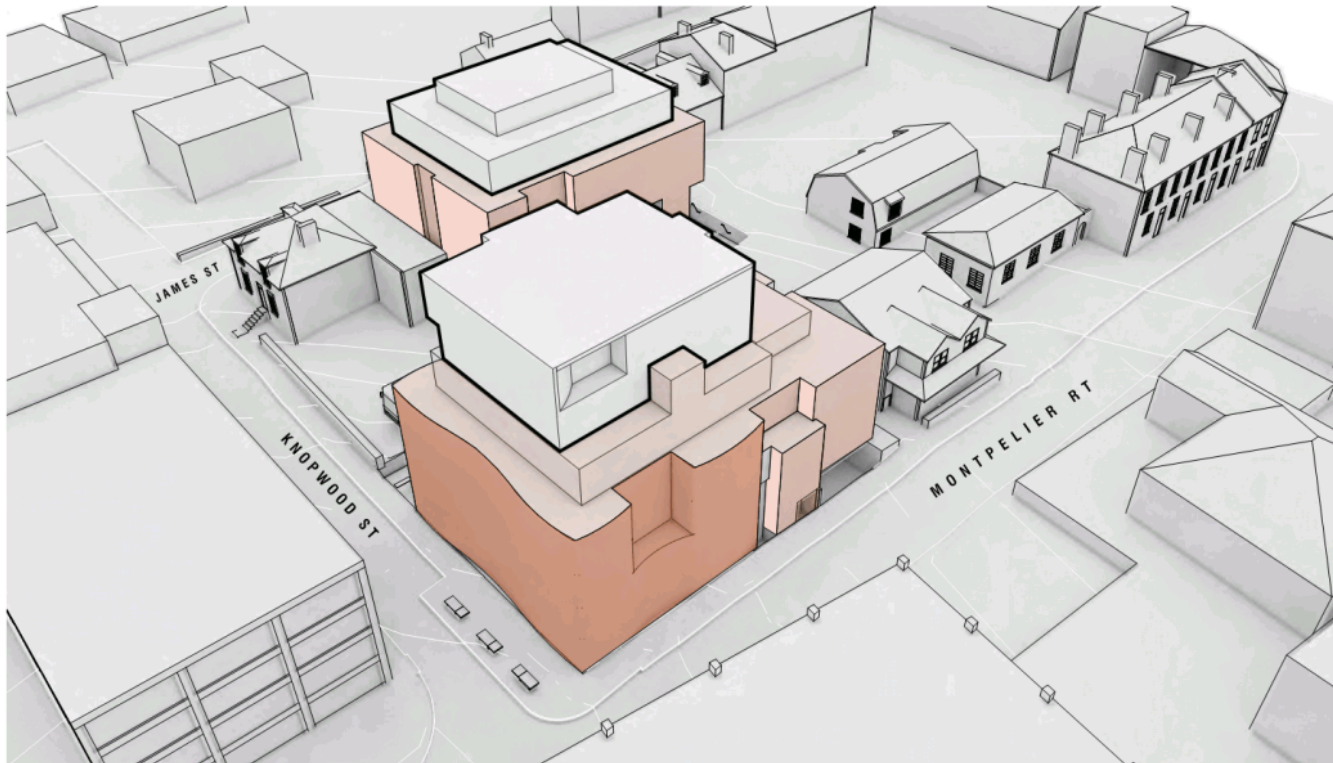


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**1. CREATE  
ARTICULATION TO THE  
STREETSCAPE FORM  
TO RESPOND TO FINER  
GRAIN OF THE  
EXISTING CONTEXT**

**2. CORNER OF  
MONTPELIER RETREAT  
EXPRESSED AS  
SCULPTURAL CORNER  
BUILDING - BUILT  
FORM GEOMETRY  
REFERENCES  
HISTORIC PRECINCT  
ARCHITECTURE.**



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UPPER LEVELS  
LIGHTER  
CONSTRUCTED WITH  
CLT PRESENT A  
LANDSCAPED  
"FUZZY" EDGE  
(LESS DOMINANT  
EXPRESSION)

BASE, MIDDLE, TOP  
EXPRESSION IS A  
TRADITIONAL  
COMPOSITION  
RESPONDING TO THE  
OLDER BUILT FORM OF  
THE PRECINCT

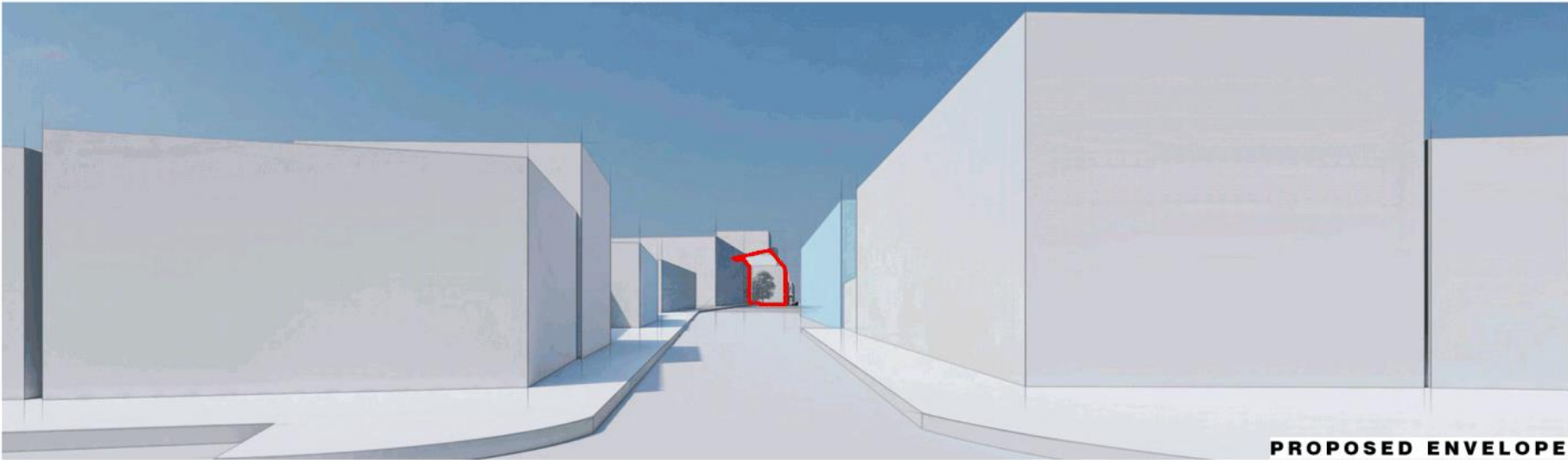
LOWER LEVEL  
EXPRESSION  
RESPONDS TO  
EXISTING  
STREETSCAPE  
CONTEXT. UPPER  
LEVELS HAVE A  
CONTEMPORARY FEEL.

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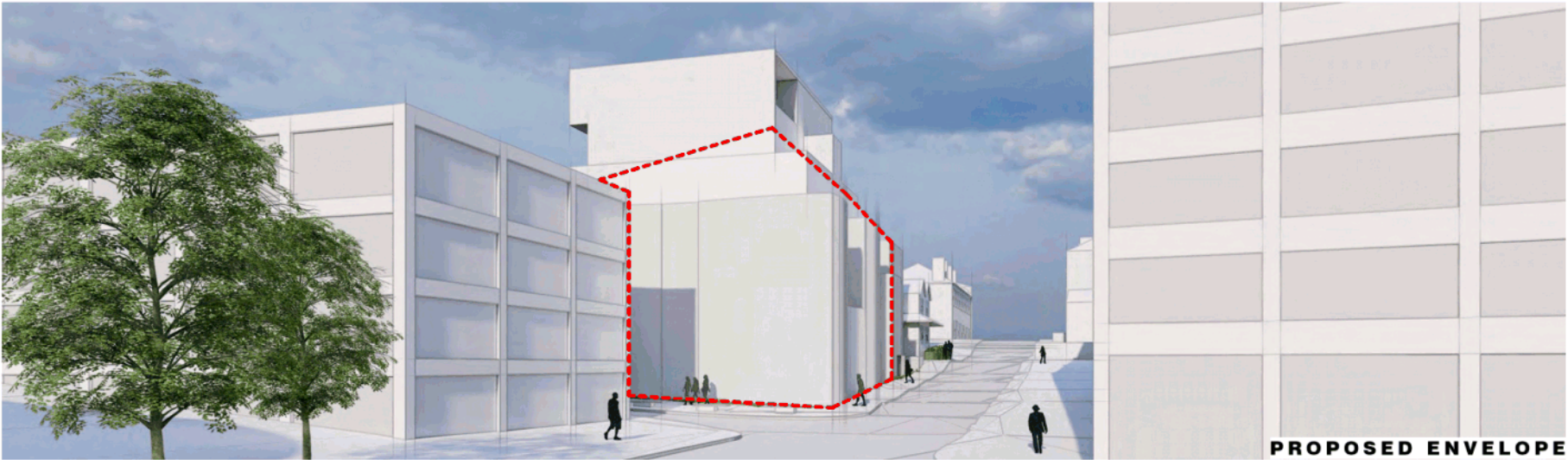
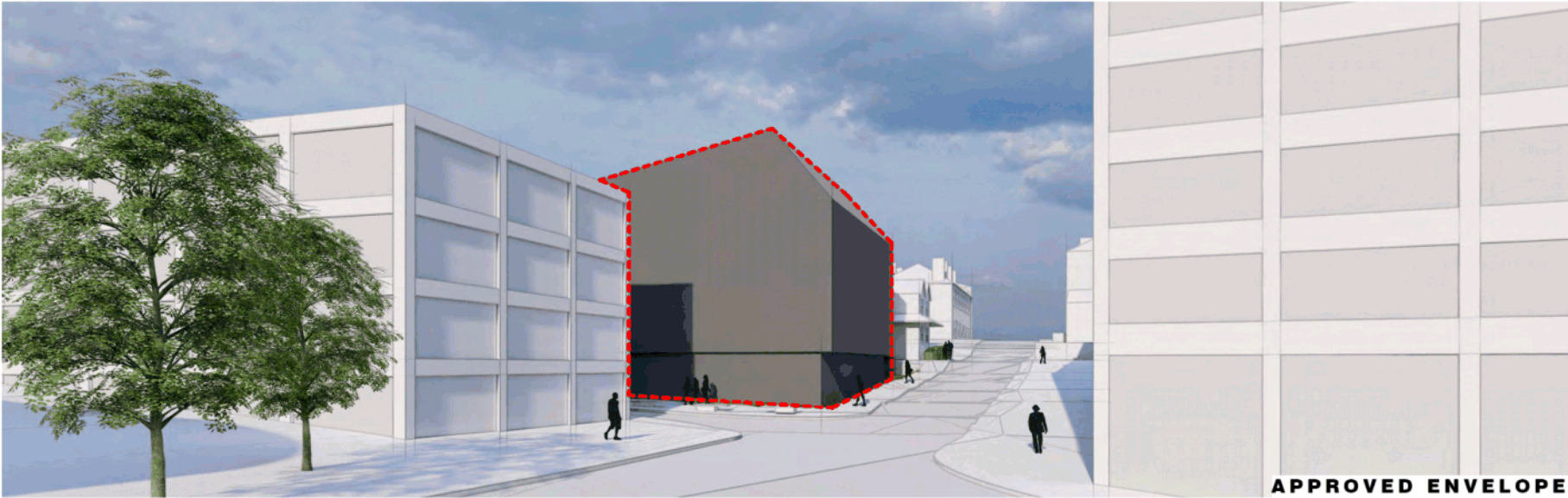


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DESIGN RESPONSE  
4.5 MONTELIER RETREAT - LOOKING NORTH



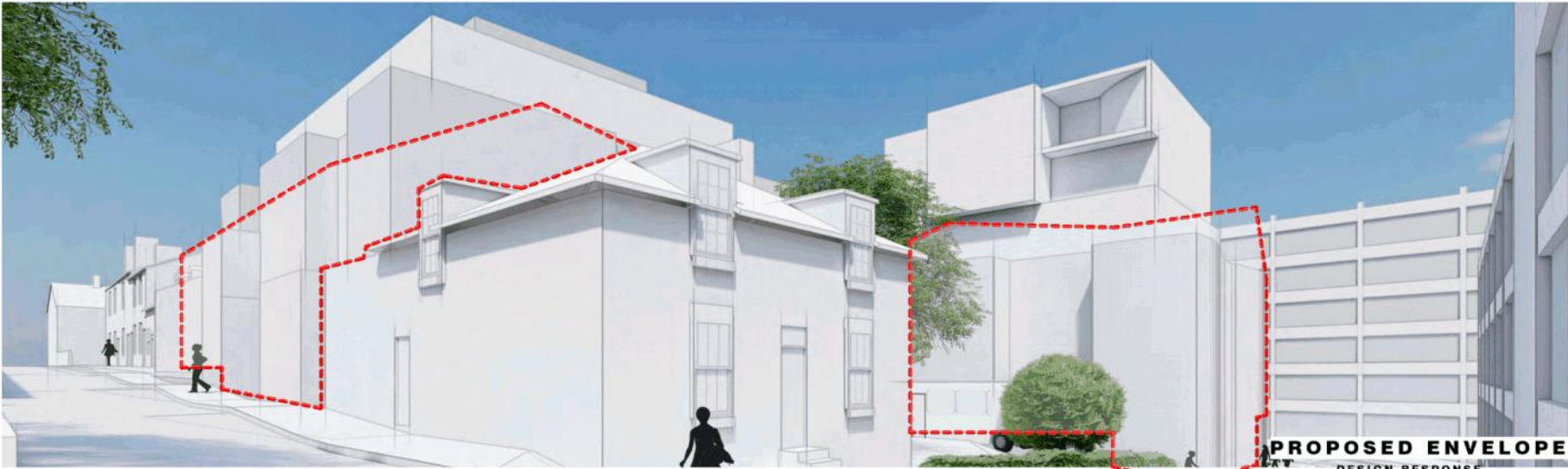
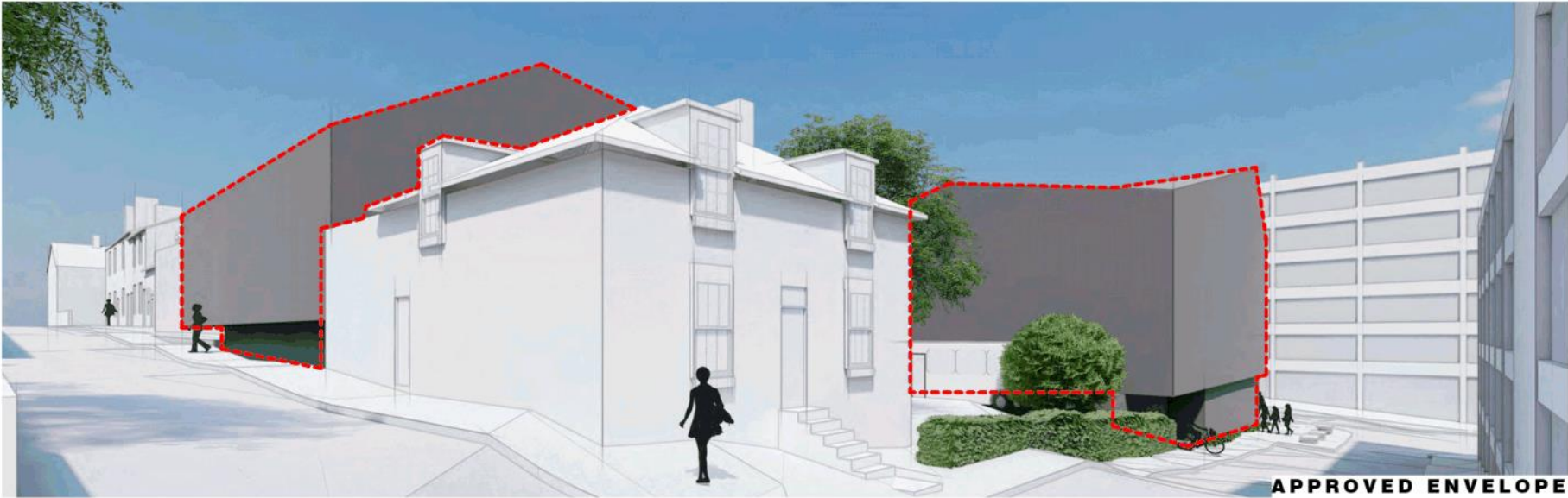


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4.6 JAMES ST / KNOPWOOD ST LOOKING NORTH

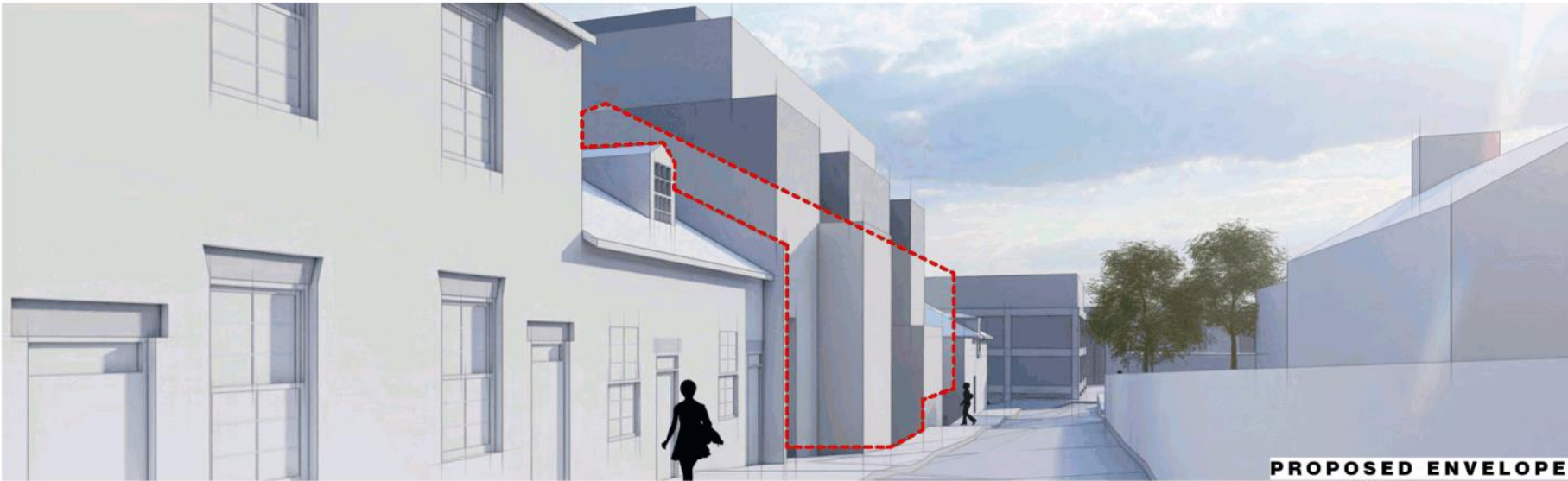
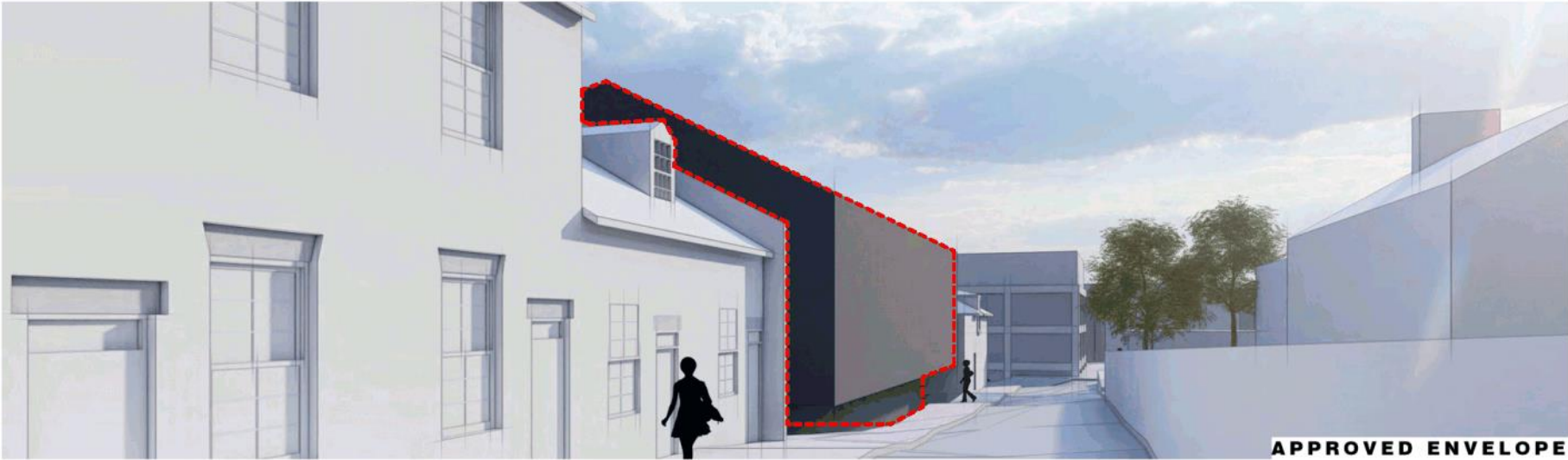


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VIEW FROM HAMDEN ROAD LOOKING UP JAMES STREET



VIEW FROM HAMDEN ROAD LOOKING UP MONTEPELIER RETREAT



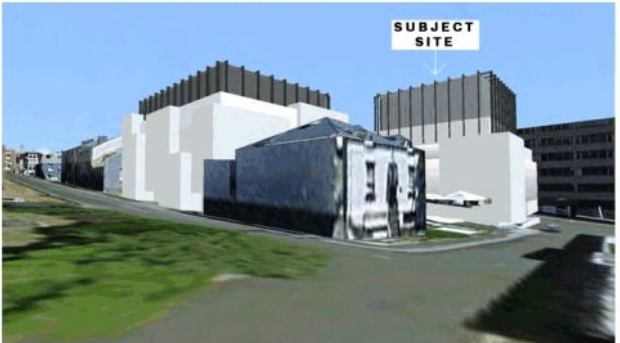
VIEW FROM HAMDEN ROAD LOOKING UP JAMES STREET WITH NARRYNA HOUSE



VIEW FROM MONTEPELIER RETREAT LOOKING SOUTH



DISTANT VIEW FROM CBD



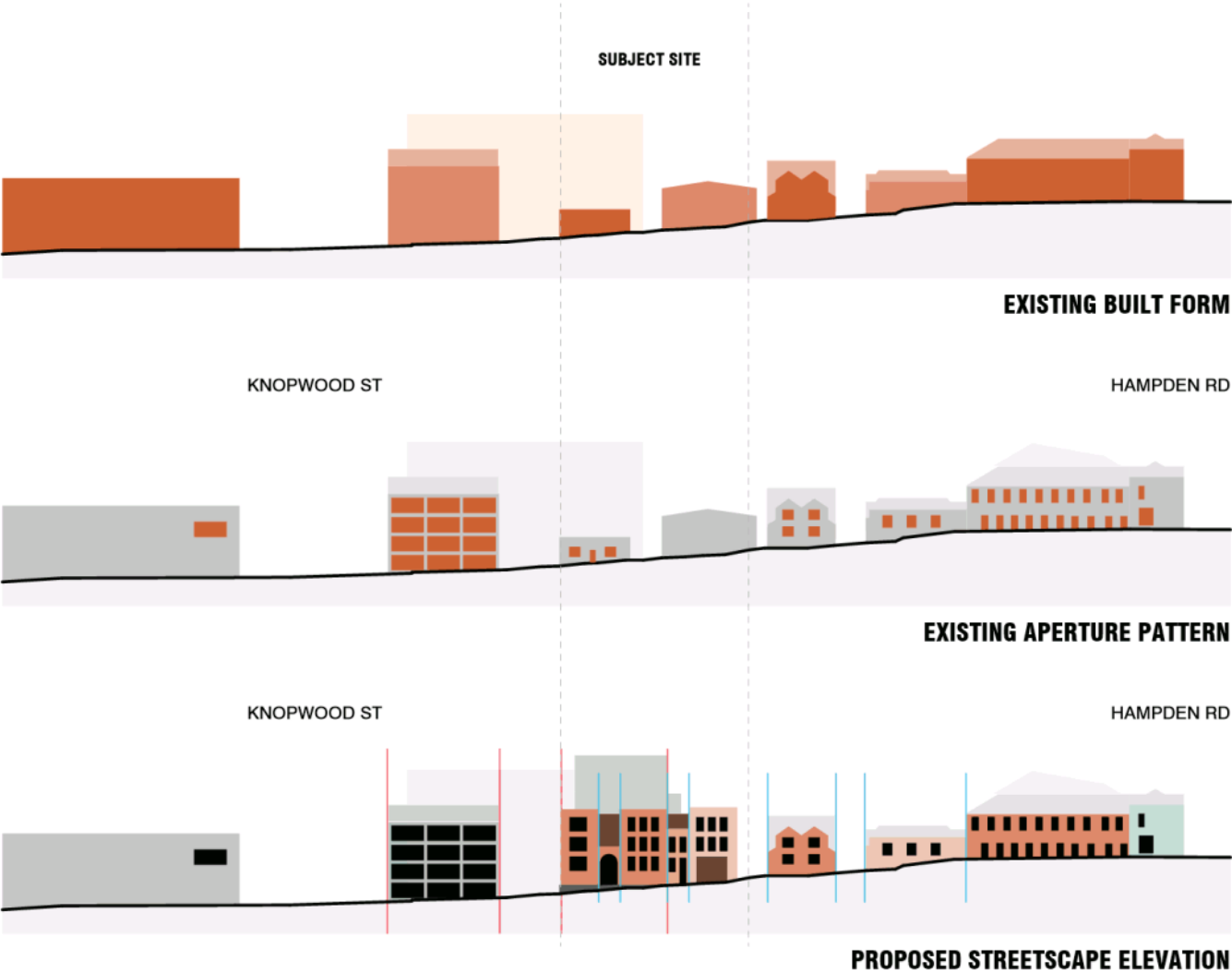
VIEW FROM CORNER OF JAMES STREET AND KNOPWOOD STREET

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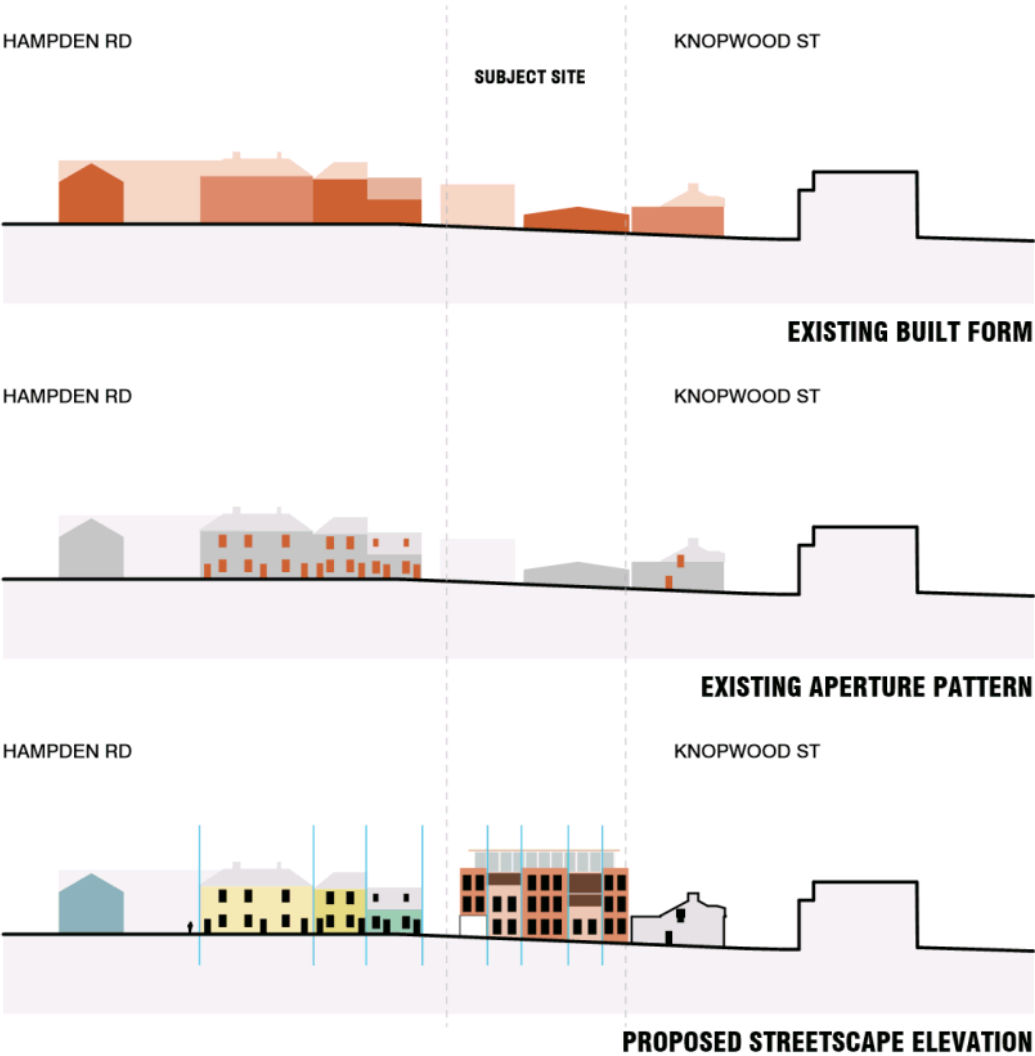


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CHAMFERED CORNER  
REFERENCES HISTORIC  
STREETSCAPE



MONTPELIER RETREAT  
ENTRY ARCHWAY



INTEGRATED LANDSCAPE  
TEXTURED CONCRETE

SCALE OF BUILT FORM  
REFERENCES HISTORIC  
HOUSING PROPORTIONS ON  
MONTPELIER RT

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**SANDSTONE TO PLANTERS  
REFERENCES HISTORIC  
SANDSTONE FOUNDATIONS.**

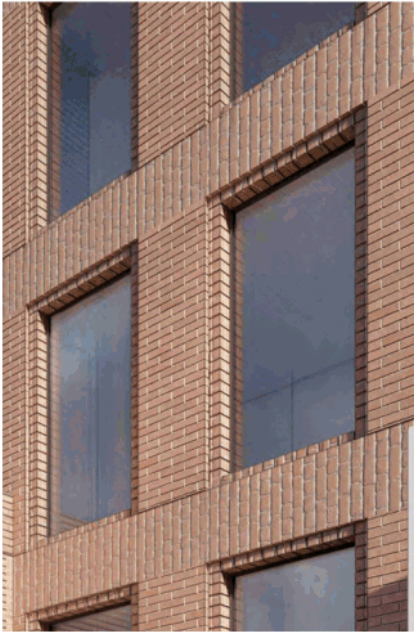
**PALISADE FENCING  
REFERENCE DETAIL OF  
RESIDENTIAL FENCING AND  
FRETWORK.**



**PRIVATE ENTRIES TO  
APARTMENTS FROM STREET  
OFFER THRESHOLD AND  
LAYERS TO STREETScape**



**SIGNIFICANT NATIVE  
LANDSCAPING TIES PROJECT  
TO NATURAL LANDSCAPE**



**BRICK DETAILING TO  
OPENING REFERENCES  
HISTORIC BRICKS OF  
PRECINCT IN A  
CONTEMPORARY MANNER**

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## 5.0 CIVIC CONTRIBUTION

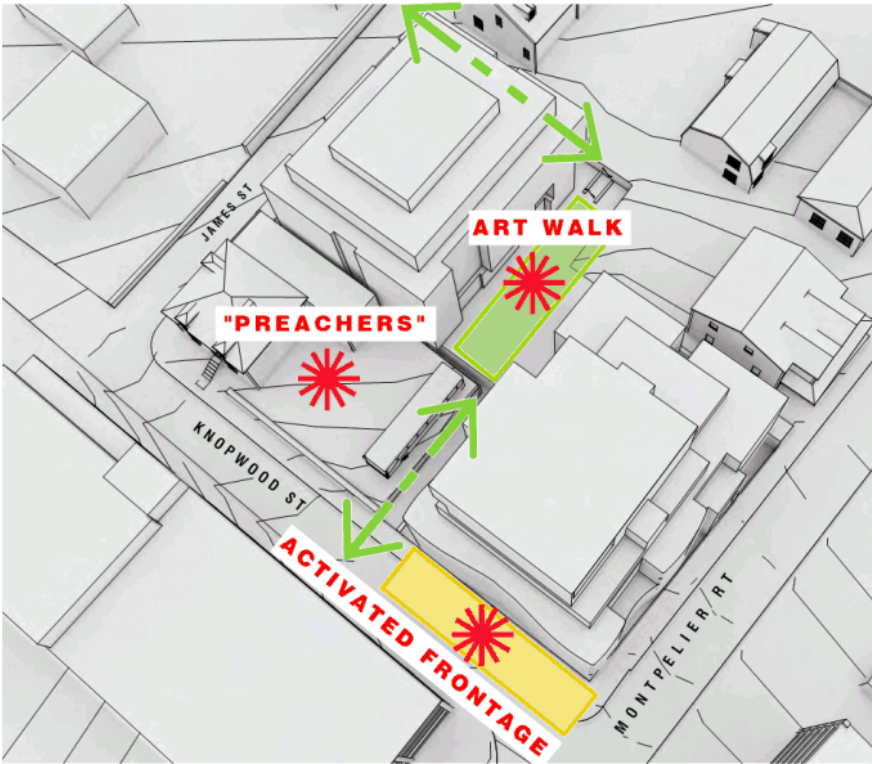


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\_WITH A LARGER SITE  
THERE IS THE  
OPPORTUNITY TO  
INTRODUCE A FINER  
GRAIN EXPERIENCE

\_PEDESTRIAN LINK  
PROVIDES  
OPPORTUNITIES FOR AN  
ART WALK BY LOCAL  
ARTISTS

\_OPPORTUNITY FOR  
INTEGRATED  
LANDSCAPE

\_ACTIVATED WINE BAR /  
CAFE  
FRONTAGE TO  
KNOPWOOD STREET  
INCREASES INTENSITY  
OF PEDESTRIAN  
ACTIVITY

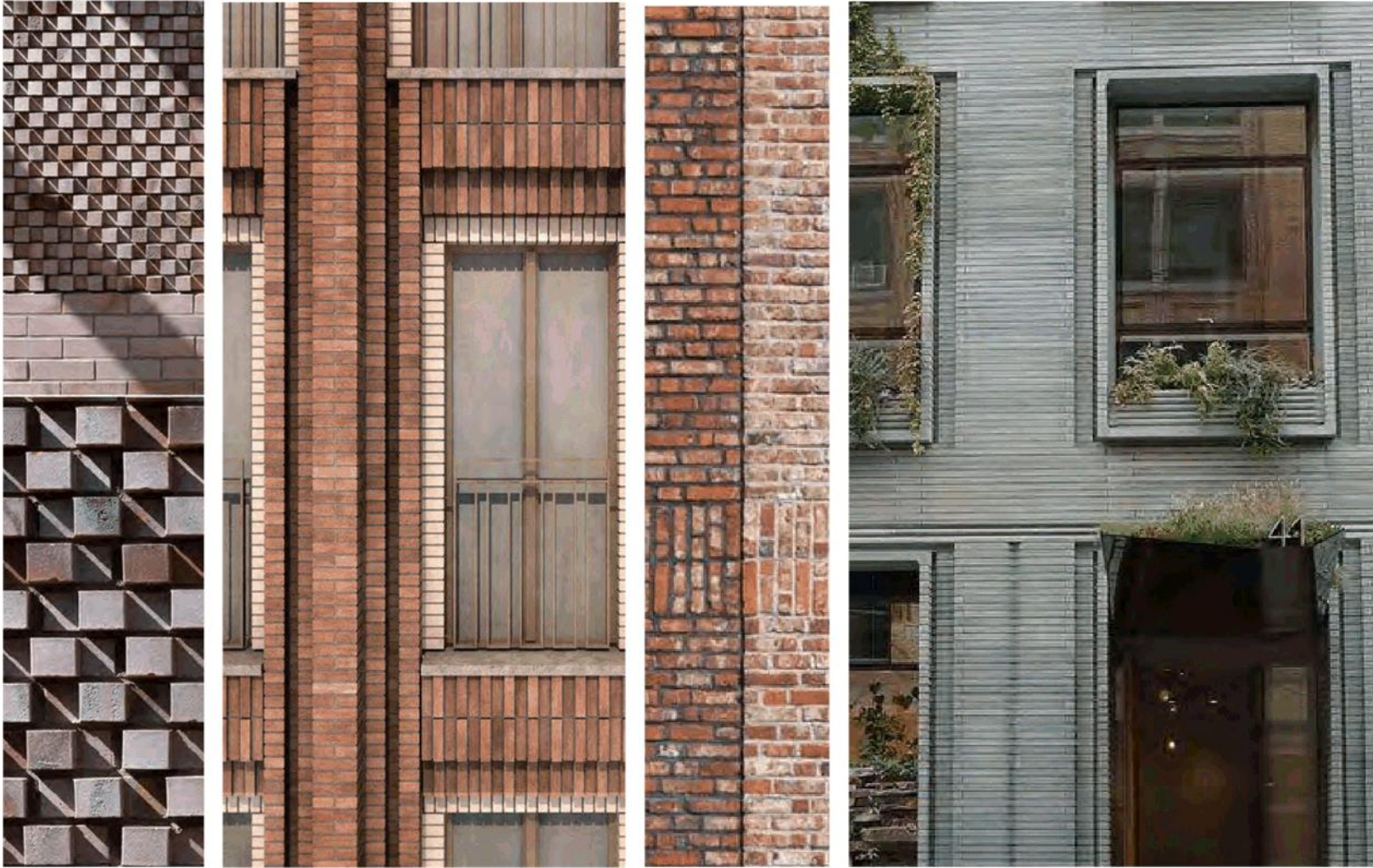


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5.3 4.6 EXEMPLARS- MASONRY WITH PUNCHED OPENINGS

DESIGN RESPONSE





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5.4 EXEMPLARS- SCULPTURAL MASONARY EXPRESSION

DESIGN RESPONSE





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DESIGN RESPONSE  
5.5 EXEMPLARS- GREENERY INTERGRATION



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Mc1  
CHARCOAL  
FINISH



Mc2  
BRASS FINISH



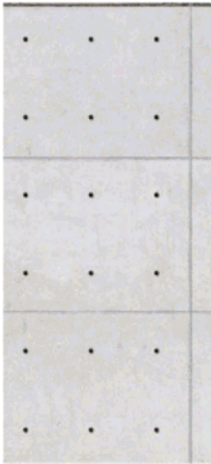
GL 1, GL2,  
GL3  
VISION  
GLAZING



GL 4  
OBSCURE  
GLAZING



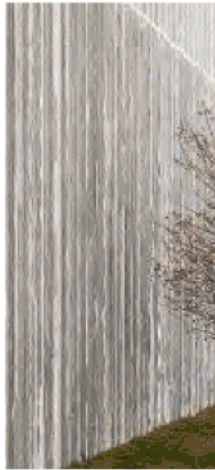
T01  
TIMBER BLADE  
SUSTAINABLY  
LOCALLY SOURCED  
TIMBER



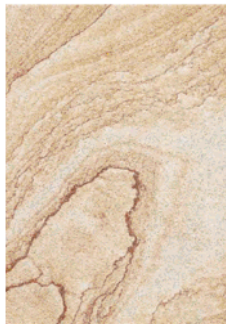
C2  
CONCRETE LIGHT  
PIGMENT



C2  
CONCRETE LIGHT  
PIGMENT



C1 VERTICAL  
TEXTURE TO  
PRECAST  
CONCRETE



S1  
SANDSTONE



MA1, MA2, MA3, MA4  
HERITAGE FORMAT BRICKWORK





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## 6.0 PERSPECTIVE VIEWS + MONTAGES



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PERSPECTIVE VIEWS  
6.2 MONTAGE 1 50MM LENS



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PERSPECTIVE VIEWS  
6.3 MONTAGE 2 50MM LENS





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PERSPECTIVE VIEWS  
6.6 MONTAGE 3 50MM LENS



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PERSPECTIVE VIEWS  
6.6 MONTAGE 4 50MM LENS





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PERSPECTIVE VIEWS  
6.6 MONTAGE 5 50MM LENS





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PERSPECTIVE VIEWS  
6.7 MONTAGE 6 50MM LENS



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PERSPECTIVE VIEWS  
6. 8 MONTAGE 7 50MM LENS



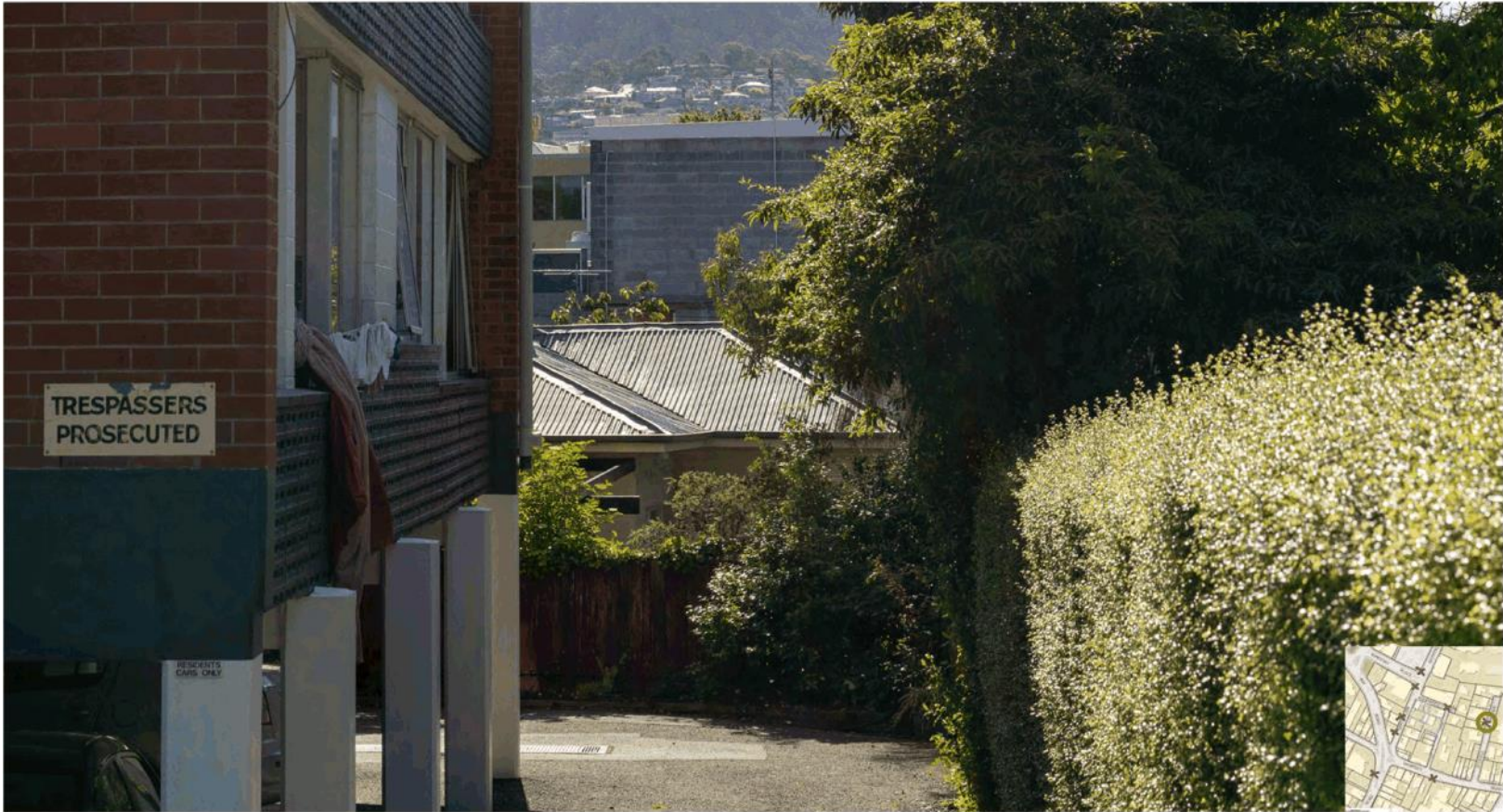


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PERSPECTIVE VIEWS  
6. 8 MONTAGE 8 50MM LENS





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PERSPECTIVE VIEWS  
6.1 VIEW FROM SALAMANCA PLACE / MONTPELIER  
RETREAT LOOKING SOUTH





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PERSPECTIVE VIEWS  
6.9 ARTISTS IMPRESSION - KNOPWOOD STREET - ENTRY  
TO THROUGH LINK





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PERSPECTIVE VIEWS  
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COURTYARD VIEW





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PERSPECTIVE VIEWS  
6.11 ARTISTS IMPRESSION - JAMES STREET LOOKING NORTH



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6.12 ARTISTS IMPRESSION - JAMES STREETSCAPE  
PERSPECTIVE VIEWS  
ELEVATION





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PERSPECTIVE VIEWS  
6.13 ARTISTS IMPRESSION - JAMES STREET LOOKING SOUTH



## 1 KNOPWOOD STREET



ireneinc & smithstreetstudio  
PLANNING & URBAN DESIGN

PLANNING TAS PTY LTD TRADING AS IRENEINC PLANNING & SMITH STREET STUDIO PLANNING & URBAN DESIGN ABN 78 114 905 074

## 1 KNOPWOOD STREET

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### Planning Report

Last Updated - May 2022

Author - Phil Gartrell

Reviewed - Irene Duckett

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**ireneinc** PLANNING & URBAN DESIGN

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## 1. INTRODUCTION

Ireneinc Planning & Urban Design has been engaged by FK Architects, to prepare a planning report to accompany an application for the site at 1 Knopwood Street, Battery Point.

### 1.1 THE SITE

The subject site is comprised of the following titles:

- CT 72077/1
- CT 126274/1
- CT 128788/1
- CT 72077/2; and
- CT 197384/1

The following figure describes the location of the site.



Figure 1: Site location (source: [www.theLIST.tas.gov.au](http://www.theLIST.tas.gov.au) © the State of Tasmania)

The site has a combined area of approximately 1,434m<sup>2</sup> with frontage to Knopwood Street, James Street and Montpelier Retreat. The site is primarily vacant, aside from a large commercial shed and shop front. The site was formerly used as a crane operation/hire business and is now used as informal car parking.

The site and adjoining blocks to the east within the Battery Point BP1 Heritage Precinct, and is characterised by generally narrow streets and access ways, with buildings generally built close to side and/or front boundaries which is a relatively consistent theme among most of Hobart's Heritage Precincts.

Former Tuck's Brewery (incl. stone wall on Sandy Bay Road and chimney)

Knopwood Street

Montpelier Retreat

Commercial Retail

Portsea Terrace

Portsea Terrace

Portsea Terrace

Portsea Terrace

Town House

Commercial Retail

Irwin Place (Conjoined Cottage)

Irwin Place (Conjoined Cottage)

Irwin Place (Conjoined Cottage)

Terrace House (13 James Street)

Terrace House (15 James Street)

Terrace House

Terrace House

Terrace House

Naryna Heritage Museum

Bristol House

Conjoined Townhouse

Conjoined Townhouse

Conjoined Townhouse

Conjoined Townhouse

Conjoined Townhouse

Stowell Avenue

The following section provides a preliminary urban design analysis, which will be developed further in consultation with the heritage consultant.

## 2. URBAN DESIGN ANALYSIS

### 2.1 EXISTING BUILT FORM AND CONTEXT

The site sits within the natural amphitheatre which rises from Sullivan's Cove to Sandy Bay and Hampden Roads and the Macquarie Street ridge to the west. The site is also located within the Battery Point Heritage Precinct BP1, which is significant for the following reasons:

- 1. The wide variety of architectural styles and historic features ranging from entire streets of 19th century Colonial Georgian cottages, to Victorian, Edwardian and Pre and Post War examples of single and attached houses that are of historic and architectural merit, many of which demonstrate housing prior to mass car ownership.*
- 2. It is primarily a residential area with a mix of large substantial homes and smaller workers cottages on separate lots, gardens, an unstructured street layout, and lot sizes that show successive re-subdivision into narrow lots that demonstrate early settlement patterns of Hobart.*
- 3. The original and/or significant external detailing, finishes and materials demonstrating a high degree of integrity with a homogenous historic character.*

The following diagram illustrates the extent of heritage buildings within the precinct, including existing development that is considered contributory or non-contributory to the character of the precinct.

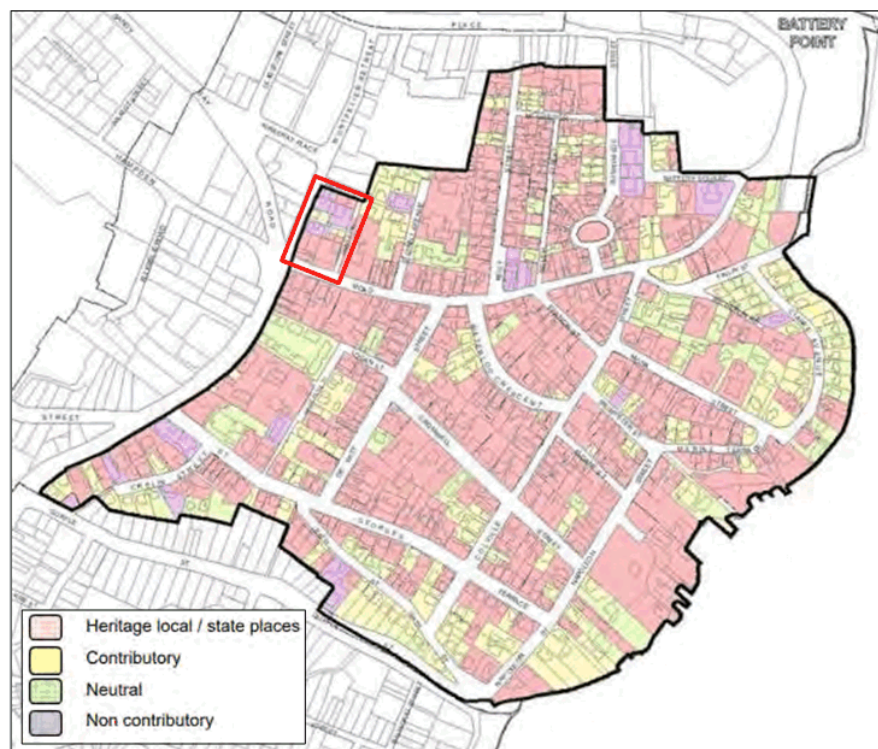


Figure 3: Battery Point Heritage Precinct Map (source: COH Local Heritage Precincts, 2019)



Whilst the site at 1 Knopwood Street clearly does not contribute to the heritage significance of the precinct currently, the location of the site on the edge of the precinct does allow for new development that references both the precinct values whilst acknowledging the presence of far more contemporary buildings within close proximity.

The following sections provide a brief analysis of the existing built form and context within the precinct as well as buildings outside of the precinct, which also inform the architectural styles of contemporary and historic forms.

#### 2.1.1 HEIGHT, FORM & FENESTRATION

The site is located within Battery Point district, but visually (and historically) forms the upper edges of Sullivan's Cove. This analysis recognises the importance of the site as part of the historic Battery Point district as well as the Sullivan's Cove amphitheatre. The Cove sits at approximately 5m AHD at the bottom of Montpelier Retreat, before gradually rising to 25m AHD at the intersection between Montpelier Retreat and Hampden Road.

This gradual increase informs the urban amphitheatre, with the overall height of buildings generally responding to this topographical change by stepping or terracing up and out of the Cove.

Battery Point sits on a knoll or headland which rises from the south before levelling out and dropping again to the north/north-east. Generally, buildings reinforce the topography.

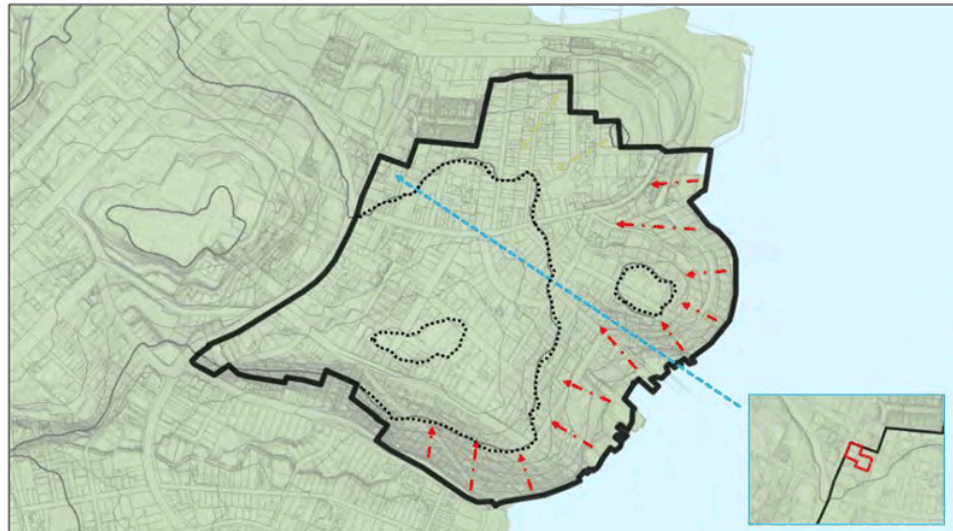


Figure 4: Topographical change - red arrows show steeper change, yellow arrows show flatter change - including site inset (source: [www.thelist.tas.gov.au](http://www.thelist.tas.gov.au) © State of Tasmania).

However, there are variations to this, where larger buildings have been constructed at lower points between the Cove and the escarpment areas at and below the Sandy Bay Road and Hampden Road ridges generally.

The immediate area surrounding the subject site is consistent with this, comprising of a mix of heritage buildings and more contemporary, taller developments both existing and proposed.

This is evident within the figure below, with heritage buildings generally consisting of smaller 1-2 storeys structures, whilst more contemporary development within the immediate area comprises of larger 3-5 storeys buildings.



The topographical change and urban amphitheatre allow new buildings to respond to the changing topography, which can be achieved by stepping or terracing building forms, as mentioned previously.

Whilst the topographical change does inform the height and form of both new and existing buildings, the landform begins to taper and flatten out around the intersection with Hampden Road and Sandy Bay Road, as illustrated by the contours in the figure above.

The figures also show the impact that the flattening of the topography has on the subject site and immediately adjoining buildings generally.



Figure 5: Existing building height analysis, subject site in black (source: Ireneinc)

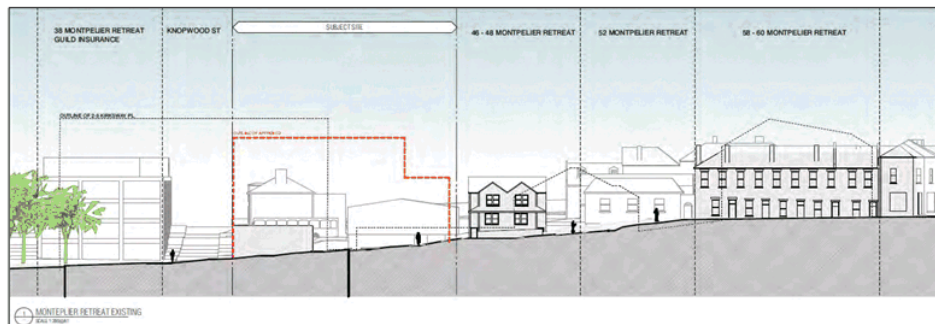


Figure 6: Montpelier Retreat section and site location (back) (source: FK Architects)

The diagrams and illustrations demonstrate that the existing and predominately heritage listed buildings within the block provide a degree of uniformity in height, however, existing more contemporary buildings also inform this pattern and provide a reasonable level of variation, particularly those buildings along Kirksway Place and Montpelier Retreat.

The larger contemporary buildings are also generally sited where the topography is noticeably increasing which substantially reduces the height discrepancy with the lower built forms located higher on the ridge where the topography begins to flatten.

The wider Battery Point Precinct is characterised by a pattern of generally 1-2 storey buildings which reflect a wide variety of architectural styles. A substantial portion of the 1-2 storey buildings are located within areas where there is less topographical change.

The subject site sits in an area where larger built forms exist and represents a very limited number of sites within Battery Point where larger built forms may be located.

The form and fenestration of existing buildings with the Battery Point Precinct are also relatively homogenous and reflects the historic pattern of development and architectural styles. Buildings are generally built right to the frontages and have predominately hipped or gable roofs with a mixture of dormer and square/rectangular windows, which reflects a dominant historical pattern.

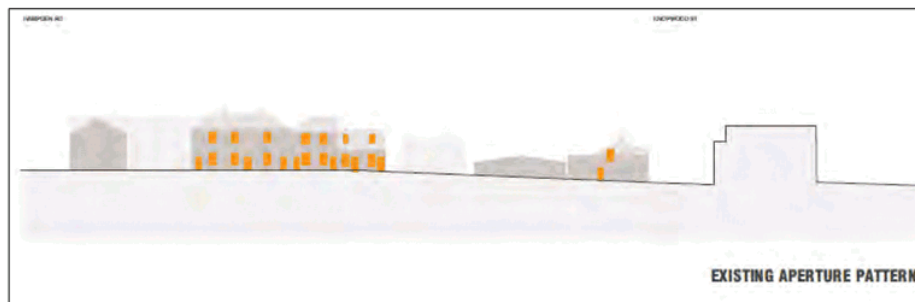


Figure 7: Existing built form and fenestration along James Street (source: FK Architects)

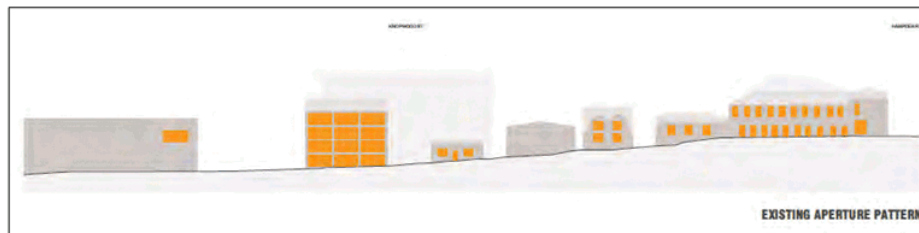


Figure 8: Fenestration of existing buildings along Montpelier Retreat (source: FK Architects)

This pattern can also be seen in a number of existing buildings within Battery Point, as shown below.



Figure 9: Examples of Colonial Georgian and Federation buildings within Battery Point (source: Google Street view)

Whilst there are many examples of other forms of historical architecture within the precinct, the Colonial Georgian style is the most prominent along James Street and the higher portions of Montpelier Retreat in which the subject site is located.

Although new development should be recognisably contemporary, the fenestration, finer grain and materiality that exists throughout the precinct can be incorporated into new buildings to acknowledge the historic context. This facilitates greater consistency with the overall character of the precinct.

Ultimately, the height, form and fenestration of the area varies, and new buildings are more commonly considered in the context of immediately adjoining and nearby sites.

#### 2.1.2 ALIGNMENT

The alignment of existing buildings within the block bounded by Hampden Road, James Street, Montpelier Retreat and Knopwood Street is relatively consistent, with openings generally provided only where vehicle access/parking and pedestrian access is required.

This is evident throughout Battery Point and is predominantly driven by historically small and narrow lots which has become a defining feature and characteristics of the suburb. Due to the predominant front boundary setbacks/alignments, the architectural and heritage features of the area create a much finer grain and fenestration.



Another key characteristic is the provision of small parks and areas of landscaping between dwellings and frontages within the precinct, along with larger courtyards and gardens that form part of the larger properties. One such example is Narryna, which sits opposite the subject site and extends along James Street.

As a result, strong street-edges and minimal openings for new development ensures a greater level of consistency with the character of the precinct, except where for pedestrian and vehicular access or provision of private/public open space.



Figure 10: Existing setback/alignment pattern within the immediate block and surrounds (source: [www.thelist.tas.gov.au](http://www.thelist.tas.gov.au) © State of Tasmania)



Figure 11: Extent of alignment vacant space within the subject block and immediately adjoining properties (source: [www.thelist.tas.gov.au](http://www.thelist.tas.gov.au) © State of Tasmania).



The current conditions of the subject site detract from the pattern of built form and alignment outlined above, however this provides a unique opportunity to redevelop a relatively large site with multiple frontages which is unique within the precinct.

#### 2.1.3 MATERIALITY

The materiality within the precinct also varies due the different architectural styles evident. However, some of the key materials include:

- Dwellings are generally constructed with a combination of weatherboards, and painted, stuccoed, or unpainted brickwork. There are a number of larger sandstone residences scattered throughout the precinct, with buildings also featuring rubble stone walls.
- Roofs are a mix of corrugated iron, tile, and slate and include prominent chimneys, dormer windows and projecting gables.

It has been accepted that incorporating modern interpretations of these materials is key in responding to the heritage characteristics of the precinct. The following is an extract from the City of Hobart Local Heritage Precincts Description, Statement of Local Historic Heritage Significance and Design Criteria/Conservation Policy - Battery Point.

Contributory elements	
1. Prominent chimneys	12. Small cottage-style front gardens
2. Unpainted brick and stone, stucco	13. Large residences and town houses
3. Original and traditional metal and timber detailing	14. Small modest cottages
4. Corrugated iron roofs	15. Groupings of houses sharing similar features
5. Tiled and slate roofs	16. Laneways
6. Traditional low picket, masonry, and metal fences that match the house	17. Conjoined cottages
7. Dormer windows	18. Community buildings and buildings constructed for uses other than residential
8. Projecting gables	19. Traditional and early 12 pane sash windows
9. Sandstone buildings	20. Architectural details
10. Sandstone, rubble stone and brick walling	21. Large finely detailed houses
11. Buildings with a consistent setback from the front boundary	

Figure 12: Extract outlining the contributory elements and materiality found within the precinct (source: HCC)

As illustrated in the accompanying documentation and in section 4.1.2 and 5.4 of this report, the proposed development draws on these contributory elements, providing a carefully considered response to the historic significance of the precinct.

The following section outlines the proposed development.

### 3. PROPOSAL

---

The application is for the construction of a residential apartment building within two distinct but interconnected podiums, consisting of 26 apartments varying in size from a minimum of 1 bedroom to 3 bedrooms. The proposal also includes a penthouse which occupies levels 4 to 6 of the north-western podium.

#### North-Western Podium

The north-western podium will have dual frontage to Montpelier Retreat and Knopwood Street and will appear as a 7-storey building. The basement level extends under both the north-western and south-eastern podiums and will provide car parking for residents, as well as a lap pool. Car parking will also be provided at ground floor level.

The lower ground/ground floor level will provide primary resident access and two entry lobbies, there will also be public access provided to the central courtyard from Knopwood Street.

Levels 1 to 3 will support 10 x 3-bedroom apartments, along with 1 x 2-bedroom apartment. Each apartment will be provided with balconies/terraces ranging from a minimum of 9m<sup>2</sup> to a maximum of 14m<sup>2</sup>.

Levels 4 to 6 will be occupied by a 4 x bedroom penthouse, along with outdoor terraces. These levels will be setback from the street edges to reduce the scale of the building and provide large areas of private open space. The southern side of Level 4 will also support the plant area.

#### South-Eastern Podium

The south-eastern podium will front James Street and will appear as a 3-storey building when viewed from James Street. Level 1 sits below natural ground level and will support 2 x 3-bedroom apartments, which will be accessed via the central courtyard and lifts from the basement car parking area. These apartments will each have two separate areas of private of space, one with a total of 24m<sup>2</sup> and the other having a total of 29m<sup>2</sup>.

Level 2 sits at ground level along James Street, and will support 2 x 2-bedroom apartments and 1 x 1 bedroom apartment. These apartments will be accessed via James Street, along with a stair and lifts to the basement level. Private open space will range from a minimum of 10m<sup>2</sup> to a maximum of 12m<sup>2</sup>.

Levels 3 & 4 will provide 6 x 3-bedroom apartments, with each level recessed back from the site boundaries. These apartments will be accessed via the internal lift and stair which provides access to James Street.

Level 5 will support 2 x 3-bedroom apartments, which are again setback further from the site boundaries, which provides additional private open space and reduces the scale of the podium. Level 6 supports the plant area.

#### Commercial Use

A café/wine bar is proposed at ground level within the north-western podium, which will be open to the public and provide a key civic contribution to the immediate area. The café/wine bar will open out to Knopwood Street and Montpelier Retreat with a floor area of 183m<sup>2</sup>.



Figure 13: Montage of the proposal from Montpelier Retreat (source: FX Architects)



Figure 14: Montage from Knopwood Street (source: FK Architects)

## 4. PLANNING SCHEME PROVISIONS

The area is within the *Hobart Interim Planning Scheme 2015*, and the following provisions are relevant to the site and proposed use and development.

### 4.1 INNER RESIDENTIAL ZONE

The subject land is zoned Inner Residential (red), whilst the immediately adjoining land to the north is zone Urban Mixed Use.

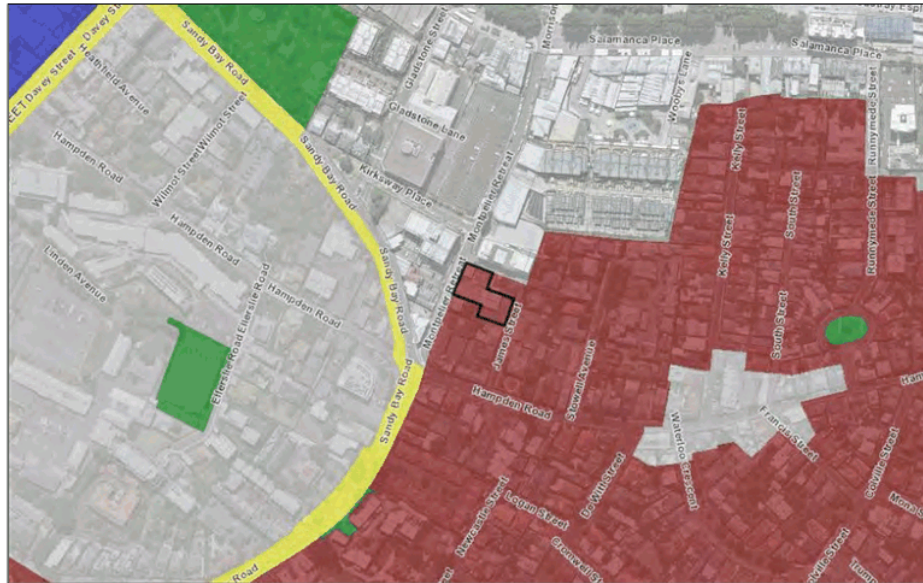


Figure 15: Zone plan and site location (source: [www.theLIST.tas.gov.au](http://www.theLIST.tas.gov.au) © the State of Tasmania)

#### 4.1.1 ZONE PURPOSE

The Purpose Statements for the zone are:

##### 11.1.1 Zone Purpose Statements

*11.1.1.1 - To provide for a variety of residential uses and dwelling types close to services and facilities in inner urban and historically established areas, which uses and types respect the existing variation and pattern in lot sizes, setback, and height.*

The proposal will provide a variety of 1, 2 and 3 bedroom apartments close to key services and facilities within Sullivan's Cove, Sandy Bay and the CBD. The site is within a well-established inner urban area where variations in lot size and building setback vary. Some streets provide strong street edges with buildings built close to both side and rear boundaries as well as frontages, whilst other streets provide greater variation, with larger lot sizes and greater setbacks.

Due to the heritage nature of the area, lot sizes are generally quite small and as a result, buildings generally have minimal setbacks to side and rear boundaries, whilst setbacks to frontage are also minimal and aid in creating strong street-edges which is characteristic within the wider Battery Point locality.



*11.1.1.2 - To provide for compatible non-residential uses that primarily serve the local community.*

A café/wine bar is proposed, which will be located at ground floor level, opening onto Knopwood Street and Montpelier Retreat. The café/wine bar is a compatible non-residential use which will provide additional social gathering/eating options for residents and members of the public.

Whilst the hours of operation for the café/wine bar have not yet been determined, it is anticipated the hours can be regulated to minimise noise emissions. However, it is noted that the site directly adjoins an existing bar/eating establishment, which has a substantial outdoor seating area. This establishment is likely to generate substantially higher noise emissions than the proposed café/wine bar.

*11.1.1.3 - To encourage residential development at higher densities in locations within walkable distance of services, facilities, employment and high frequency public transport corridors.*

The site is within close walking distance to Sullivans Cove and Salamanca Place in which ample services, facilities, employment and public transport corridors are easily accessible.

The site is also within walking distance of the CBD and Sandy Bay, which provide additional services and facilities.

*11.1.1.4 - To encourage residential development that respects the neighbourhood character.*

The immediate neighbourhood is highly varied and includes a number of existing businesses and eating establishments, interspersed with single and multiple dwellings further to the south.

The subject site serves as part of transition area, between the Cove and Battery Point.

More broadly, Battery Point as a locality is also quite varied - particularly along Hampden Road where there are numerous small businesses, providing professional services along with bars and restaurants. These areas are again interspersed with single and multiple dwellings.

Due to the varied nature of the immediate surroundings and wider neighbourhood character, the proposed development is of an intensity which is respectful of the neighbourhood character.

*11.1.1.5 - To provide a high standard of residential amenity.*

Each apartment will be provided with private open space suitable for the needs of the residents.

The provision of private open space is consistent with that generally provided for multi-storey apartment buildings within inner urban areas. The proposal also includes a lap pool for use by residents, along with a communal courtyard - which also provides a public link from James Street to Knopwood Street.

Amenity also relates to a number of other factors, including qualities such as access to prominent social/cultural spaces, parks and services/amenities. The site is within walking distance of Salamanca Place, a key socio-cultural space, along with several parks and other services/facilities within Sullivan's Cove and the CBD.

The two podiums have also been designed and sited to maximise solar access.

*11.1.1.6 - To allow commercial uses which provide services for the needs of residents of a neighbourhood and do not displace an existing residential use or adversely affect their amenity particularly through noise, traffic generation and movement, and impact of demand for on-street parking.*

The proposal includes a ground floor café/wine bar tenancy, consisting of approximately 183m<sup>2</sup> which will be open to residents and the public. The commercial tenancy will not displace any existing residential uses and will operate within appropriate hours to minimise amenity impacts on residents.

The location and orientation of the tenancy, which primarily opens out onto Knopwood Street ensures that pedestrian movements and street level activation is located on the streets which support lower vehicle movements.

There are no Local Area Objectives or Desired Future Character Statements for the Zone.

#### 4.1.2 USE STANDARDS

##### 11.3.1 - Non-Residential Use

*Objective: To ensure that non-residential use does not unreasonably impact residential amenity.*

##### SCHEME REQUIREMENTS

*A1 - Hours of operation must be within 8.00 am to 6.00 pm, except for office and administrative tasks or visitor accommodation.*

*P1 - Hours of operation must not have an unreasonable impact upon the residential amenity through commercial vehicle movements, noise or other emissions that are unreasonable in their timing, duration or extent.*

##### PROPOSAL RESPONSE

Whilst the hours of operation for the café/wine bar have not yet been established, for the purposes of this application the tenancy is likely to adopt similar hours of operation as the adjoining Preacher's bar/eating establishment, particularly the evening hours.

Pending approval of the application, and determination of a tenant for the café/wine bar, it is anticipated that an application to alter the hours of operation will be submitted.

On this basis, a response to P1 has been provided.

##### P1

The café/wine bar is likely to operate between 7am and 12pm, similar to the adjoining establishment at 5 Knopwood Street (Preachers).

However, the café/wine bar is to be located entirely within the building, ensuring that noise generated during the evening hours will be predominately screened by the building itself. This is in stark contrast to the adjoining establishment at 5 Knopwood Street which has an outdoor beer garden.

Given the above factors, the noise emissions generated by the proposal are unlikely to result in an unreasonable impact on residential amenity and can be managed via on-site methods such as closing doors and windows after certain hours.

*A1 - Noise emissions measured at the boundary of the site must not exceed the following:*

*(a) 55 dB(A) (LAeq) between the hours of 8.00 am to 6.00 pm;*

*(b) 5dB(A) above the background (LA90) level or 40dB(A) (LAeq), whichever is the lower, between the hours of 6.00 pm to 8.00 am;*

*(c) 65dB(A) (LAmx) at any time.*

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*Measurement of noise levels must be in accordance with the methods in the Tasmanian Noise Measurement Procedures Manual, issued by the Director of Environmental Management, including adjustment of noise levels for tonality and impulsiveness.*

*Noise levels are to be averaged over a 15 minute time interval.*

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*P1 - Noise emissions measured at the boundary of the site must not cause environmental harm.*

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**PROPOSAL RESPONSE**

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It will not be possible to determine noise emissions from the proposed café/wine bar until the development is approved and the tenancy begins operating.

Notwithstanding, it is anticipated that the noise generated by the activities on-site will be substantially lower than those already occurring on the immediately adjoining site at 5 Knopwood Street (Preachers), which has a large outdoor beer garden.

Noise emissions can also be managed through on-site mitigation measures, such as closing doors and windows beyond certain hours, given that the tenancy is entirely contained within the proposed building (i.e. no outdoor seating/drinking areas).

Given the nature of the use and surrounding use/development, the proposal is anticipated to comply with P1, if required.

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*A2 - External lighting must comply with all of the following:*

- (a) be turned off between 6:00 pm and 8:00 am, except for security lighting;*
- (b) security lighting must be baffled to ensure they do not cause emission of light into adjoining private land.*

*P2 - External lighting must not adversely affect existing or future residential amenity, having regard to all of the following:*

- (a) level of illumination and duration of lighting;*
- (b) distance to habitable rooms in an adjacent dwelling.*

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**PROPOSAL RESPONSE**

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No external lighting is proposed at this stage. However, it is anticipated that any external lighting would be for safety and security for residents, patrons and the public and is capable of being conditioned on the permit to ensure compliance with A2.

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*A3 - Commercial vehicle movements, (including loading and unloading and garbage removal) to or from a site must be limited to 20 vehicle movements per day and be within the hours of:*

- (a) 7.00 am to 5.00 pm Mondays to Fridays inclusive;*
- (b) 9.00 am to 12 noon Saturdays;*
- (c) nil on Sundays and Public Holidays.*

...

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**PROPOSAL RESPONSE**

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The café/wine bar will require deliveries and rubbish removal. However, given the size and nature of the tenancy, it is anticipated that it will only require 1-2 movements per day which can be undertaken within the hours specified under A3.

Further details are provided in the accompanying Waste Management Plan.

This can be conditioned on any subsequent permit.

#### 4.1.3 DEVELOPMENT STANDARDS

Clause 11.4.1, does not apply, as clause E13.8.2 A1 overrides.

##### **11.4.2 Setback and building envelope for all dwellings**

*Objective: That the siting and scale of dwellings:*

- (a) provides reasonably consistent separation between dwellings and their frontage within a street;*
- (b) provides consistency in the apparent scale, bulk, massing and proportion of dwellings; and*
- (c) provides separation between dwellings on adjoining properties to allow a reasonable opportunity for daylight and sunlight to enter habitable rooms and private open space.*

##### **SCHEME REQUIREMENTS**

*A1 - Unless within a building area on a sealed plan, a dwelling, excluding garages, carports and protrusions that extend not more than 0.9m into the frontage setback, must have a setback from a frontage that is:*

- (a) if the frontage is a primary frontage, not less than 3m, or, if the setback from the primary frontage is less than 3m, not less than the setback, from the primary frontage, of any existing dwelling on the site;*
- (b) if the frontage is not a primary frontage, not less than 2m, or, if the setback from the frontage is less than 2m, not less than the setback, from a frontage that is not a primary frontage, of any existing dwelling on the site;*
- (c) if for a vacant site and there are existing dwellings on adjoining properties on the same street, not more than the greater, or less than the lesser, setback for the equivalent frontage of the dwellings on the adjoining sites on the same street; or*
- (d) if located above a non-residential use at ground floor level, not less than the setback from the frontage of the ground floor level.*

*P1 - A dwelling must have a setback from a frontage that is compatible with the streetscape having regard to any topographical constraints.*

##### **PROPOSAL RESPONSE**

The site has frontage to three separate streets. The primary frontage is to Knopwood Street, as this has the shortest length. However, the site also has secondary frontages to Montpelier Retreat and James Street.

The proposal does not satisfy A1(a) as the proposed setback to primary and secondary frontages is less than 3m and does not satisfy A1(b) as the setbacks are less than 2m and there are no existing dwellings on the site.

A1(c) does not apply as the site is currently used as a public car parking area.

Therefore, a response to P1 has been provided.



P1

In order to comply with P1, the proposed setback to each frontage must be consistent with the evident within the streetscape.

Streetscape is defined in the Scheme as follows:

*means the visual quality of a street depicted by road width, street planting, characteristics and features, public utilities constructed within the road reserve, the setbacks of buildings and structures from the lot boundaries, the quality, scale, bulk and design of buildings and structures fronting the road reserve.*

*For the purposes of determining streetscape with respect to a particular site, the above factors are relevant if within 100 m of the site.*

The following diagram illustrates a 100m radius around the subject site. Given that the site has three frontages, the streetscape along Montpelier Retreat, Knopwood Street and James Street will be most relevant.

However, the 100m radius also allows consideration of the setback pattern along Hampden Road.



Figure 16: 100m radius from the centre of the subject site (source: [www.thelist.tas.gov.au](http://www.thelist.tas.gov.au) © State of Tasmania)

The alignment of existing buildings within the block bounded by Hampden Road, James Street, Montpelier Retreat and Knopwood Street is relatively consistent, with openings generally provided only where vehicle access/parking and pedestrian access is required. The following figure illustrates the strong street edges, interspersed with vehicle parking and access areas.



Figure 17: Existing setback/alignment pattern within the immediate block and surrounds (source: [www.thelist.tas.gov.au](http://www.thelist.tas.gov.au) © State of Tasmania)

#### Knopwood Street

Knopwood Street is a short and narrow one-way street with a total length of approximately 66m. Due to the width and one-way nature of the street, it functions more as a laneway and generally supports a higher degree of pedestrian movements.

There are currently six existing buildings which have frontage to this street, including the existing building on the subject site. The setback pattern is quite variable, with three of the six buildings located at the dead end of the street. As a result, these properties have larger setbacks from the road.

However, the existing cottage at 1 Knopwood Street, the adjoining building at 38 Montpelier Retreat and the existing building on the subject site occupy a much longer section of the street. Due to their streetscape presence, these buildings provide a dominant setback pattern that is more consistent with the found in the locality, as illustrated above.

#### Montpelier Retreat

The setback pattern along Montpelier Retreat is more varied, with setbacks along the western side of Montpelier Retreat particularly varied with large areas of vacant space, occupied by vehicle parking and access.

#### James Street

James Street is characterised by strong street edges with the properties at 13-15 James Street, 19 James Street and 9-11 James Street presenting as a solid built form to the street.

The opposite side of the street is characterised by a moderate height stone wall, which forms part of Narryna museum. Whilst the buildings on this property are setback from the secondary frontage to James Street, the wall itself is of a size and extent which reinforces the strong street-edge.

Whilst there are several large gaps in the building alignment along the street, these areas consist of car parking and vehicle access areas, which is consistent with that found along Montpelier Retreat and within the locality where on-site parking is provided.

#### Proposed Development

The proposal will be built to the boundaries along James Street, Knopwood Street and Montpelier Retreat. The proposed setbacks are compatible with the setback of adjoining buildings and generally maintains a continuous building line within each streetscape, based on the following:

#### James Street

- The adjoining buildings at 13-15 James Street and 9-11 James Street have setbacks no greater than 1m from the boundary, whilst the building at 105 Hampden Road has a 0m setback to James Street.
- The existing building at 5 Knopwood Street (Preachers) has a 0m setback from James Street.

These setbacks provide a generally consistent and continuous building line and whilst the proposed building has a 0m setback, the articulation to the façade, including openings and access ways ensures that proposed building maintains and enhances the building line evident within the street.

#### Knopwood Street

- The existing building line along Knopwood Street is similar to that along James Street. The office building on the adjacent side of Knopwood Street is built to the boundary, as is the existing shop front on the subject site.

Whilst the Preachers building is setback from the frontage in this location, the setback of the proposed building will reinforce the building line.

#### Montpelier Retreat

- The building alignment to Montpelier is again similar to that provided along James Street, with the exception of the vehicle access and a recess created to retain a section of user road, as outlined in the GM Consent approval.
- Notwithstanding, the proposal provides a setback and alignment that is generally consistent with that found on adjoining sites and reintroduces a strong street-edge which is a key characteristic of the precinct.

The provisions that apply for the Battery Point Heritage Precinct BP1, encourage strong street-edges and minimal setbacks from boundaries, except where the prevailing setback of buildings on the same side of the street is substantial, in which case the setback should conform to the general building line.

The proposal complies with P1.

#### A2

*A garage or carport for a dwelling must have a setback from a primary frontage of not less than:*

- (a) 4m, or alternatively 1m behind the building line;*
- (b) the same as the building line, if a portion of the dwelling gross floor area is located above the garage or carport; or*

(c) 1m, if the existing ground level slopes up or down at a gradient steeper than 1 in 5 for a distance of 10m from the frontage.

#### PROPOSAL RESPONSE

The proposal complies with A2. The garage is contained within the basement and ground floor of the building and the opening is aligned with the building.

Standards relating to height and setback provisions for heritage area BP1 are contained in the Historic Heritage Code - E13.8.4 Buildings and Works in Heritage Precinct BP1.

Therefore, clause 11.4.2 - A3 does not apply.

#### 11.4.3 Site coverage and private open space for all dwellings

*Objective: That dwellings are compatible with the amenity and character of the area and provide:*

- (a) for outdoor recreation and the operational needs of the residents;
- (b) opportunities for the planting of gardens and landscaping; and
- (c) private open space that is conveniently located and has access to sunlight

#### SCHEME REQUIREMENTS

##### A1

*Dwellings must have:*

- (a) a site coverage of not more than 65% (excluding eaves up to 0.6m wide); and
- (b) for multiple dwellings, a total area of private open space of not less than 40m<sup>2</sup> associated with each dwelling, unless the dwelling has a finished floor level that is entirely more than 1.8m above the ground level (excluding a garage, carport or entry foyer).

##### P1

*Dwellings must have:*

- (a) site coverage consistent with that existing on established properties in the area;
- (b) private open space that is of a size and with dimensions appropriate for the size of the dwelling and is able to accommodate:
  - (i) outdoor recreational space consistent with the projected requirements of the occupants and, for multiple dwellings, take into account any common open space provided for this purpose within the development; and
  - (ii) operational needs, such as clothes drying and storage; and
- (c) reasonable space for the planting of gardens and landscaping.

#### PROPOSAL RESPONSE

A1 (a) does not apply, as it is overridden by Clause E13.8.4 - A6 - which specifies that site coverage for buildings greater than 2 storeys must be no more than 40%.

Notwithstanding, the proposal does not comply with A1(b). Therefore, a response to P1 is required.

##### P1

(a) n/a - site coverage is assessed under the Heritage Code for buildings within Heritage Precinct BP1.

(b) The private open space provided for each of the apartments at ground level (i.e. not more than 1.8m above natural ground level) ranges from a minimum of 5m<sup>2</sup> to a maximum of 27m<sup>2</sup>.



When compared to other states such as Victoria, where the minimum provision for 'high-rise' apartments is 6.5m<sup>2</sup> per dwelling, the areas provided as part of the development are considered sufficient to meet the needs of users.

Given the location of the site and access to key public parks such as St. David's Park and Parliament Park, along with access to other recreational facilities such as gyms within close proximity of the site, the private open space provision is considered sufficient.

(c) each apartment will have sufficient area for plants where required or desired.

Further analysis will be provided as part of the development application.

#### A2

*A dwelling must have private open space that:*

*(a) is in one location and is not less than:*

*(i) 24m<sup>2</sup>; or*

*(ii) 12m<sup>2</sup>, if the dwelling is a multiple dwelling with a finished floor level that is entirely more than 1.8m above the finished ground level (excluding a garage, carport or entry foyer);*

*(b) has a minimum horizontal dimension of:*

*(i) 4m; or*

*(ii) 2m, if the dwelling is a multiple dwelling with a finished floor level that is entirely more than 1.8m above the finished ground level (excluding a garage, carport or entry foyer);*

*(c) is located between the dwelling and the frontage only if the frontage is orientated between 30 degrees west of true north and 30 degrees east of true north; and*

*(d) has a gradient not steeper than 1 in 10.*

#### P2

*A dwelling must have private open space that includes an area capable of serving as an extension of the dwelling for outdoor relaxation, dining, entertaining and children's play and is:*

*(a) conveniently located in relation to a living area of the dwelling; and*

*(b) orientated to take advantage of sunlight.*

#### PROPOSAL RESPONSE

The proposed apartments located entirely above 1.8m from finished ground level have private open space ranging from 6m<sup>2</sup> to a maximum of 42m<sup>2</sup>. There will be one apartment which is to have 3m<sup>2</sup> of private open space.

Whilst several of the upper-level apartments will comply with A2 (a) (ii), a response to the performance criteria is required for the remaining apartments.

#### P2

In response to P2(a), the balconies/terraces for each dwelling are located adjacent to and are directly accessible from the living areas of each dwelling.

Ten (10) of the apartments within the north-western podium will have 9m<sup>2</sup> terraces and are located more than 1.8m above ground level. The balconies/terraces for these apartments have been located and oriented to ensure ample access to sunlight. One apartment at ground floor level within the north-western podium will have an outdoor terrace comprising of 14m<sup>2</sup>.

The siting and orientation of the two podiums ensures that the balconies/terraces are appropriately orientated to take advantage of sunlight.

Of the fourteen (14) apartments within the south-eastern podium, five (5) do not comply with the acceptable solution.

The two apartments across level 1 have two separate areas of private open space, one area located on the north-western façade and one area located on the south-eastern façade, fronting James Street.

These areas combined provide between 24m<sup>2</sup> and 29m<sup>2</sup> respectively for each apartment. The provision of two areas of private open space on either side of the apartments ensures that these areas will receive ample sunlight throughout the day.

At level 2, one of the four apartments will have 10m<sup>2</sup> of private open space, which is located between the dwelling and the frontage. As shown in the accompanying shadow diagrams this area will receive sunlight during the morning period and is located adjacent to the living area.

There is also a 1 x bedroom apartment provided on level 2 which will have an area of private open space of 12m<sup>2</sup>, however it is located between the dwelling and the frontage. Notwithstanding, this area will receive sunlight for a large majority of the year.

It is worth noting that the Apartment Design Guidelines for Victoria provide the following guidance on the provision of private open space for residential apartment buildings:

*15.1 Configure balconies to support other internal apartment amenity objectives.*

→ *GUIDANCE: design solutions include:*

- *Continuous overhanging balconies to shade windows from direct summer sun.*
- *Inset balconies to allow living rooms to be located at the building edge increasing daylight to the room.*
- *Limiting the depth of south facing balconies where they are located to the front of living spaces.*
- *Inset or semi screened balconies, rather than projecting balconies, to provide greater wind protection.*
- *locate balconies to avoid exposure to noise sources.*
- *Wintergardens to reduce exposure to noisy conditions.<sup>1</sup>*

The proposed balconies/terraces are consistent with these guidelines, thereby striking a balance between a number of often conflicting amenity requirements, for example - to provide access to sunlight, but also reduce wind conditions.

Given the above and the nature of the development, the provision of private open space is considered reasonable to meet the needs of the users. Residents will also have access to the public courtyard at Level 1, which also provides pedestrian access from James Street through to Knopwood Street.

The proposal complies with P2.

<sup>1</sup> Apartment Design Guidelines for Victoria, State of Victoria (2017, p: 71)

**11.4.4 Sunlight to private open space of multiple dwellings**

*Objective: That the separation between multiple dwellings provides reasonable opportunity for sunlight to enter private open space for dwellings on the same site.*

**SCHEME REQUIREMENTS**

*A1 - A multiple dwelling that is to the north of the private open space of another dwelling on the same site, required to satisfy A2 or P2 of clause 11.4.3, must satisfy (a) or (b), unless excluded by (c):*

- (a) the multiple dwelling is contained within a line projecting (see Figure 11.4):*
  - (i) at a distance of 3m from the northern edge of the private open space; and*
  - (ii) vertically to a height of 3m above existing ground level and then at an angle of 45 degrees from the horizontal.*
- (b) the multiple dwelling does not cause 50% of the private open space to receive less than 3 hours of sunlight within the hours of 9.00am to 3.00pm on 21st June.*
- (c) this Acceptable Solution excludes that part of a multiple dwelling consisting of:*
  - (i) an outbuilding with a building height not more than 2.4m; or*
  - (ii) protrusions that extend not more than 0.9m horizontally from the multiple dwelling.*

*P1 - A multiple dwelling must be designed and sited to not cause an unreasonable loss of amenity by overshadowing the private open space, of another dwelling on the same site, which is required to satisfy A2 or P2 of clause 11.4.3 of this planning scheme.*

**PROPOSAL RESPONSE**

There are six separate areas of private open space located along the western façade of the south-eastern podium.

Whilst these areas will receive approximately 2 hours of sunlight on June 21st, a response to the performance criteria is required.

P1

Despite not receiving 3 or more hours of direct sunlight on June 21<sup>st</sup>, the private open space to apartments along the western elevation of the south-eastern podium will still receive approximately 1-2 hours of sunlight on June 21<sup>st</sup> and will continue to receive ample light throughout the day.

It is notable that whilst June 21<sup>st</sup> represents the worst day of the year in terms of sunlight access, it is also during the middle of winter. During this time, the north-west / westerly facing balconies/terraces are far less likely to be used, primarily due to the prevailing cold north-westerly /westerly winds experienced during that time of the year.

Prior to, and immediately following June 21<sup>st</sup>, the extent of sunlight received across these balconies will increase, ensuring that an appropriate level of sunlight is received throughout the year.

As a result, the reduction in direct sunlight access has not been considered to result in an unreasonable impact on the amenity of residents.

**11.4.6 Privacy for all dwellings***Objective: To provide a reasonable opportunity for privacy for dwellings.***SCHEME REQUIREMENTS**

*A1 - A balcony, deck, roof terrace, parking space, or carport for a dwelling (whether freestanding or part of the dwelling), that has a finished surface or floor level more than 1m above existing ground level must have a permanently fixed screen to a height of not less than 1.7m above the finished surface or floor level, with a uniform transparency of not more than 25%, along the sides facing a:*

- (a) side boundary, unless the balcony, deck, roof terrace, parking space, or carport has a setback of not less than 3m from the side boundary;*
- (b) rear boundary, unless the balcony, deck, roof terrace, parking space, or carport has a setback of not less than 4m from the rear boundary; and*
- (c) dwelling on the same site, unless the balcony, deck, roof terrace, parking space, or carport is not less than 6m:
 
  - (i) from a window or glazed door, to a habitable room of the other dwelling on the same site; or*
  - (ii) from a balcony, deck, roof terrace or the private open space, of the other dwelling on the same site.**

*P1 - A balcony, deck, roof terrace, parking space or carport for a dwelling (whether freestanding or part of the dwelling) that has a finished surface or floor level more than 1m above existing ground level, must be screened, or otherwise designed, to minimise overlooking of:*

- (a) a dwelling on an adjoining property or its private open space; or*
- (b) another dwelling on the same site or its private open space.*

**PROPOSAL RESPONSE**

The balconies provided for the apartments across levels 1 - 3 within the north-western podium do not require screening, as they are all setback greater than 3m from the side boundaries, noting that this podium has two frontages.

The roof terraces for the penthouse across levels 4-6 also comply, as they too are appropriately setback from the side boundaries.

With regard to A1(c), all dwellings within the north-western podium are separated from the adjoining apartments within the south-eastern podium by more than 6m.

With regard to the south-western podium, portions of the outdoor terraces for two apartments on Level 5 are not setback more than 3m from the northern and southern side boundaries. As no screening has been provided, a response to P1 is required for these apartments.

**P1**

The terraces for the two apartments across level 4, within the south-eastern podium have planter boxes which sit between the terrace and the edge of the building. This reduces the angle of view, thereby limiting the possibility to look down toward the balconies of adjoining dwellings within the site.

The separation distance between the two podiums also reduces the impact of overlooking and is not considered unreasonable when compared with similar dual podium apartment developments in larger cities on the mainland and the recently approved development at 5-7 Sandy Bay Road.



Notwithstanding the above, screening can be provided where necessary as a condition of any subsequent approval.

*A2 - A window or glazed door, to a habitable room of a dwelling that has a floor level more than 1m above existing ground level, must satisfy (a), unless it satisfies (b):*

*(a) the window or glazed door:*

- (i) is to have a setback of not less than 3m from a side boundary;*
- (ii) is to have a setback of not less than 4m from a rear boundary;*
- (iii) if the dwelling is a multiple dwelling, is to be not less than 6m from a window or glazed door, to a habitable room, of another dwelling on the same site; and*
- (iv) if the dwelling is a multiple dwelling, is to be not less than 6m from the private open space of another dwelling on the same site.*

*(b) the window or glazed door:*

- (i) is to be offset, in the horizontal plane, not less than 1.5m from the edge of a window or glazed door, to a habitable room of another dwelling;*
- (ii) is to have a sill height of not less than 1.7m above the floor level or have fixed obscure glazing extending to a height of at least 1.7m above the floor level; or*
- (iii) is to have a permanently fixed external screen for the full length of the window or glazed door, to a height of not less than 1.7m above floor level, with a uniform transparency of not more than 25%.*

*P2 - A window or glazed door, to a habitable room of dwelling, that has a floor level more than 1m above existing ground level, must be screened, or otherwise located or designed, to minimise direct views to:*

- (a) a window or glazed door, to a habitable room of another dwelling; and*
- (b) the private open space of another dwelling.*

#### PROPOSAL RESPONSE

The windows to habitable rooms with a floor level more than 1m from natural ground level, within the north-western podium comply with A2(a), as follows:

- The windows located along the northern and western elevations are not relevant as they do not face side or rear boundaries or face any adjoining dwellings on the same site.
- The windows along the eastern elevation are all setback well over 3m from the north-eastern side boundary (adjacent to 5 Knopwood Street).
- All windows are separated in the horizontal plane by more than 6m from the windows and private open space of the apartments within the adjoining podium to the south-east.

The south-eastern podium fronts James Street to the east and has windows along the northern, western and southern elevations.

- The windows along the northern elevation are limited to the two apartments on Level 4. Whilst these windows are setback less than 3m from the side boundary, they are oriented to the north and do not overlook the private open space or windows to habitable rooms of any other dwellings.

In the event that a response to the performance criteria is required for these windows, the orientation will ensure no direct views to windows or private open space of the adjoining dwellings within the north-western podium.

- The windows along the western elevation face internally within the site - toward the north-western podium, and therefore do not adjoin a side boundary.
- There is one window along the western elevation which faces the rear boundary. This window is setback well over 4m, in accordance with A2(a)(ii).
- All windows along the western elevation are separated in the horizontal plane by well over 6m from the windows to habitable rooms in the adjacent podium.

The south-western podium also has 6 windows to bedrooms along the southern elevation. Four of these windows have sill heights of 1.7m and comply with A2(b) (ii). Two of the windows are recessed and are setback over 3m from the southern side boundary and comply with A2(a).

The proposal complies with A2.

*A2 - A shared driveway or parking space (excluding a parking space allocated to that dwelling) must be separated from a window, or glazed door, to a habitable room of a multiple dwelling by a horizontal distance of not less than:*

*(a) 2.5m; or*

*(b) 1m if:*

*(i) it is separated by a screen of not less than 1.7m in height; or*

*(ii) the window, or glazed door, to a habitable room has a sill height of not less than 1.7m above the shared driveway or parking space, or has fixed obscure glazing extending to a height of not less than 1.7m above the floor level.*

...

#### PROPOSAL RESPONSE

There are no dwellings within the north-western podium which are located within 2.5m of the shared driveway.

The proposal complies with A2(a).

#### 11.4.7 - Frontage fences for all dwellings

*Objective: The height and transparency of frontage fences:*

*(a) provides adequate privacy and security for residents;*

*(b) allows the potential for mutual passive surveillance between the road and the dwelling; and*

*(c) is reasonably consistent with that on adjoining properties.*

#### SCHEME REQUIREMENTS

*P1 - A fence (including a free-standing wall) for a dwelling within 4.5m of a frontage must:*

*(a) provide for security and privacy while allowing for passive surveillance of the road; and*

*(b) be compatible with the height and transparency of fences in the street, having regard to:*

*(i) the topography of the site; and*

*(ii) traffic volumes on the adjoining road.*

**PROPOSAL RESPONSE**

The proposed fencing provides for security and passive surveillance and have been designed in response to the immediate vicinity of the subject site specifically and the heritage precinct generally.

The fences are low in height (max. 1.2m), appropriate in scale, are visually permeable allowing landscaping to permeate the streetscape, and are characteristic of the heritage precinct metal/timber on low sandstone plinth/retaining wall whilst being representative of their period of construction.

**11.4.8 - Waste storage for multiple dwellings**

*Objective: To provide for the storage of waste and recycling bins for multiple dwellings.*

**SCHEME REQUIREMENTS**

*A1 - A multiple dwelling must have a storage area, for waste and recycling bins, that is not less than 1.5m<sup>2</sup> per dwelling and is within one of the following locations:*

*(a) in an area for the exclusive use of each dwelling, excluding the area in front of the dwelling; or*

*(b) in a common storage area with an impervious surface that:*

*(i) has a setback of not less than 4.5m from a frontage;*

*(ii) is not less than 5.5m from any dwelling; and*

*(iii) is screened from the frontage and any dwelling by a wall to a height not less than 1.2m above the finished surface level of the storage area.*

*P1 - A multiple dwelling must have storage for waste and recycling bins that is:*

*(a) capable of storing the number of bins required for the site;*

*(b) screened from the frontage and dwellings; and*

*(c) if the storage area is a common storage area, separated from dwellings on the site to minimise impacts caused by odours and noise.*

**PROPOSAL RESPONSE**

Waste storage for the development will be provided in two locations within the ground floor car parking area.

The refuse area adjacent to the Montpelier lobby is technically within 4.5m of the frontage, however the area in which the bins will be stored is well over 4.5m from the frontage and the entire area is located within the building and will not be visible from any public spaces.

The second refuse area is located within the car park and complies with A1(b).

Clause 11.4.9, requires non-dwelling development to be assessed as if it were a dwelling. This relates to the café/wine bar, which is contained within the design and form of the proposed development. Therefore, it does not require separate assessment.

## 5. CODES

### 5.1 POTENTIALLY CONTAMINATED LAND CODE

The site was previously used as a crane hire business, which was identified as a potentially contaminating activity.

As part of the approved development application PLN xxxx, an Environmental Site Assessment and Contamination Management Plan was provided. These reports now form part of this application.

#### 5.1.1 USE STANDARDS

##### **E2.5 - Use Standards**

*Objective: To ensure that potentially contaminated land is suitable for the intended use.*

##### **SCHEME REQUIREMENTS**

**A1 - The Director, or a person approved by the Director for the purpose of this Code:**

- (a) certifies that the land is suitable for the intended use; or
- (b) approves a plan to manage contamination and associated risk to human health or the environment that will ensure the land is suitable for the intended use.

**P1 - Land is suitable for the intended use, having regard to:**

- (a) an environmental site assessment that demonstrates there is no evidence the land is contaminated; or
- (b) an environmental site assessment that demonstrates that the level of contamination does not present a risk to human health or the environment; or
- (c) a plan to manage contamination and associated risk to human health or the environment that includes:
  - (i) an environmental site assessment;
  - (ii) any specific remediation and protection measures required to be implemented before any use commences; and
  - (iii) a statement that the land is suitable for the intended use.

##### **RESPONSE**

As outlined in the accompanying documents, the proposal complies with P1(b) in that the reporting indicates that the level of contamination does not present a risk to human health or the environment.

Council have agreed to condition any subsequent permit, requiring a peer review/update of the accompanying contamination reports.

#### 5.1.2 DEVELOPMENT STANDARDS

##### **E2.6.2 - Excavation**

*Objective: To ensure that works involving excavation of potentially contaminated land does not adversely impact on human health or the environment.*

##### **SCHEME REQUIREMENTS**

**A1 - No acceptable solution.**



*P1 - Excavation does not adversely impact on health and the environment, having regard to:*  
*(a) an environmental site assessment that demonstrates there is no evidence the land is contaminated; or*  
*(b) a plan to manage contamination and associated risk to human health and the environment that includes:*  
*(i) an environmental site assessment;*  
*(ii) any specific remediation and protection measures required to be implemented before excavation commences; and*  
*(iii) a statement that the excavation does not adversely impact on human health or the environment.*

**RESPONSE**

As outlined previously, substantial historical testing and remediation has occurred on the site and the accompanying documents including an ESA and CEMP, demonstrate the site is suitable for the intended use, which is the same as that previously proposed and approved on the site.

Council have agreed to condition any subsequent permit, requiring an update/peer review of the abovementioned reports/plans.

**5.2 ROAD AND RAILWAY ASSETS CODE**

The development is subject to the following criteria under the Road and Railway Assets Code.

**5.2.1 USE STANDARDS****E5.5.1 - Existing Road Accesses and Junctions**

*Objective: To ensure the safety and efficiency of roads is not reduced by the increased use of existing accesses and junctions.*

**SCHEME REQUIREMENTS**

*A1 - The annual average daily traffic (AADT) of vehicle movements, to and from a site, using an existing access or junction, in an area subject to a speed limit of 60km/h or less, must not increase by more than 20% or 40 vehicle movements per day, whichever is the greater.*

*P1 - Any increase in vehicle traffic at an existing access or junction in an area subject to a speed limit of 60km/h or less, must be safe and not unreasonably impact on the efficiency of the road, having regard to:*

- (a) the increase in traffic caused by the use;*
- (b) the nature of the traffic generated by the use;*
- (c) the nature and efficiency of the access or the junction;*
- (d) the nature and category of the road;*
- (e) the speed limit and traffic flow of the road;*
- (f) any alternative access to a road;*
- (g) the need for the use;*
- (h) any traffic impact assessment; and*
- (i) any written advice received from the road authority.*

**RESPONSE**

The proposal will result in more than 40 vehicle movements per day. A response to P1 is required.

P1

(a) The increase in traffic will be approximately 250 vehicles per day. There will be little increase in peak traffic generation (increase of 3 vehicles per hour). The access and surrounding network can accommodate the relatively small peak hour traffic generation associated with the development.

(b) the nature of the traffic will be primarily residential, which is not anticipated to impact on the efficiency of the road.

(c) The access is designed to accommodate the vehicle movements associated with the development. The relatively small peak generation of 24 vehicles per hour can be accommodated by the access design, noting that the peak traffic volume utilising the site will be similar to the use of the existing access.

(d) Montpelier Retreat is a collector road that services commercial and residential properties along its length. The nature and category of the road is compatible with the traffic use associated with the proposed development.

(e) The general urban speed limit of 50-km/h applies to Montpelier Retreat. Traffic flow is one-way adjacent to the subject site, with traffic flow approximately 1,000 vehicles per day. The speed limit and traffic volumes are compatible with the traffic generation of the proposed development at the site's access.

(f) No alternative access was deemed necessary. Access is possible at Knopwood Street and James Street frontages, but these options were not considered appropriate due to the narrow road widths and one-way configuration of these roads.

(g) The access is required to service the on-site car parking of the development.

(h) A Traffic Impact Assessment has been provided with the application.

The proposal complies with P1.

#### 5.2.2 DEVELOPMENT STANDARDS

##### **E5.6.2 - Road Accesses and Junctions**

*Objective: To ensure the safety and efficiency of roads is not reduced by the creation of new accesses and junctions.*

##### **SCHEME REQUIREMENTS**

*A1 - No new access or junction to roads in an area subject to a speed limit of more than 60km/h.*

##### **RESPONSE**

The proposal will have one access, provided from Montpelier Retreat. This access replaces the existing vehicle access and crossover from Montpelier Retreat.

The proposal complies with A1.

*A2 - No more than one access providing both entry and exit, or two accesses providing separate entry and exit, to roads in an area subject to a speed limit of 60km/h or less.*

##### **RESPONSE**

The existing access to Montpelier Retreat will be retained and will provide both entry and exit.

The proposal complies with A2.

#### **E5.6.4 - Sight distance at accesses, junctions and level crossings**

*Objective: To ensure that accesses, junctions and level crossings provide sufficient sight distance between vehicles and between vehicles and trains to enable safe movement of traffic.*

#### **SCHEME REQUIREMENTS**

##### **A1 - Sight distances at:**

- (a) an access or junction must comply with the Safe Intersection Sight Distance shown in Table E5.1; and*
- (b) rail level crossings must comply with AS1742.7 Manual of uniform traffic control devices - Railway crossings, Standards Association of Australia.*

#### **RESPONSE**

As outlined in the accompanying TIA, the sight lines from the access point comply with the sight distances shown in table E5.1.

The proposal complies with A1.

### **5.3 PARKING AND ACCESS CODE**

#### **5.3.1 USE STANDARDS**

#### **E6.6.1 - Number of Car Parking Spaces**

*Objective: To ensure that:*

- (a) there is enough car parking to meet the reasonable needs of all users of a use or development, taking into account the level of parking available on or outside of the land and the access afforded by other modes of transport.*
- (b) a use or development does not detract from the amenity of users or the locality by:*
  - (i) preventing regular parking overspill;*
  - (ii) minimising the impact of car parking on heritage and local character.*

#### **SCHEME REQUIREMENTS**

##### **P1**

*The number of on-site car parking spaces must be sufficient to meet the reasonable needs of users, having regard to all of the following:*

- (a) car parking demand;*
- (b) the availability of on-street and public car parking in the locality;*
- (c) the availability and frequency of public transport within a 400m walking distance of the site;*
- (d) the availability and likely use of other modes of transport;*
- (e) the availability and suitability of alternative arrangements for car parking provision;*
- (f) any reduction in car parking demand due to the sharing of car parking spaces by multiple uses, either because of variation of car parking demand over time or because of efficiencies gained from the consolidation of shared car parking spaces;*
- (g) any car parking deficiency or surplus associated with the existing use of the land;*

- (h) any credit which should be allowed for a car parking demand deemed to have been provided in association with a use which existed before the change of parking requirement, except in the case of substantial redevelopment of a site;
- (i) the appropriateness of a financial contribution in lieu of parking towards the cost of parking facilities or other transport facilities, where such facilities exist or are planned in the vicinity;
- (j) any verified prior payment of a financial contribution in lieu of parking for the land;
- (k) any relevant parking plan for the area adopted by Council;
- (l) the impact on the historic cultural heritage significance of the site if subject to the Local Heritage Code;
- (m) whether the provision of the parking would result in the loss, directly or indirectly, of one or more significant trees listed in the Significant Trees Code.

**RESPONSE**

Whilst clause E6.6.1 sets out the requirements for various uses within the planning scheme, the car parking requirement for dwellings is overridden by Clause E13.8.4 A6, which states:

*A6 - There must be a maximum of one car space per dwelling.*

Given that there are 26 apartments, the proposal requires 26 car parking spaces for residents. The proposal currently provides 48 car parking spaces.

The proposal also includes a non-residential café/wine bar, which must be assessed against the provisions of E6.6.1 and Table E6.1.

The café/wine bar would fall within the food services use class, which requires the following:

*15 spaces for each 100m<sup>2</sup> of floor area, or 1 space for every 3 seats (whichever is the greater).*

The café/wine bar has a floor area of 183m<sup>2</sup>, which would require the following car parking provisions:

$$183 / 100 = 1.83 \times 15 = 27.4 \text{ (rounded to 27)}$$

The total car parking requirement based on Table E6.1 for the non-residential use and Acceptable Solution A6 to Clause E13.8.4 for the residential use, is 55 spaces.

The proposal provides a total of 48 car parking spaces, all of which are allocated to the residential dwellings. Therefore, a response to P1 is required in relation to the shortfall created by the café/wine bar. The discretion for residential car parking spaces will be assessed under Clause E13.8.4.

**P1**

(a) the proximity of the site to key services, employment and socio-cultural areas within Sullivan's Cove, Hobart CBD and Sandy Bay substantially reduces the anticipated demand for car parking spaces. The location of the site ensures that residents will be well within walking distance of these areas, where their anticipated needs can be met.

With regard to the shortfall of parking for the café/wine bar, the situation is similar, as patrons will continue to utilise car parking areas within Sullivan's Cove and the surrounding areas. Whilst the development provides an additional food/beverage attraction for the public, the same people will also be accessing other establishments within the immediate area, thereby not substantially increasing the demand for car parking spaces over existing.



(b) & (c) There is a substantial amount of on-street and public car parking in the locality that is suitable for patrons to the proposed café/wine bar. Most of the existing eating/drinking establishments within Sullivan's Cove and Battery Point rely upon on-street and/or public car parking areas.

However, patrons often use other forms of transport, such as taxi's and Uber services which reduces demand for finite public and on-street parking.

The site and immediate surrounds are also within close proximity (<400m) of primary bus routes along Sandy Bay Road and Davey Street.

(d) Given the location of the site, use of alternative modes of transport to and from the site, particularly for patrons to the café is highly probable. Patrons are likely to be in the area already, moving between other establishments in Sullivan's Cove and/or visiting residents.

The most likely alternative modes of transport, which would not require the use of on-site parking would be taxi and Uber services.

(e) n/a

(f) n/a

(g) n/a

(h) n/a

(i) n/a

(j) n/a

(k) n/a

(l) the car parking will be located within the building and will not be visible from any external or internal public spaces. Therefore, the impact on the historic heritage significance of the site as a result of the car parking is expected to be negligible.

(m) n/a.

The proposal complies with P1.

#### **E6.6.4 Number of Bicycle Parking Spaces**

*Objective: To ensure enough bicycle parking is provided to meet the needs of likely users and by so doing to encourage cycling as a healthy and environmentally friendly mode of transport for commuter, shopping and recreational trips.*

#### **SCHEME REQUIREMENTS**

##### **A1**

*The number of on-site bicycle parking spaces provided must be no less than the number specified in Table E6.2.*

##### **P1**

*The number of on-site bicycle parking spaces provided must have regard to all of the following:*

- (a) the nature of the use and its operations;*
- (b) the location of the use and its accessibility by cyclists;*

*(c) the balance of the potential need of both those working on a site and clients or other visitors coming to the site.*

#### RESPONSE

The café/wine bar generates a requirement for 2 bicycle spaces for staff. However, no bicycle spaces are provided, therefore a response to P1 has been provided.

P1

Given the location of the site, in close proximity to existing public transport routes and residential areas, the need for on-site bicycle parking is not considered to be necessary given the nature of the use.

Notwithstanding, the provision of 2 bicycle spaces can be a condition on any subsequent permit if deemed necessary.

### 5.3.2 DEVELOPMENT STANDARDS

#### E6.7.1 Number of Vehicular Accesses

*Objective: To ensure that:*

- (a) safe and efficient access is provided to all road network users, including, but not limited to: drivers, passengers, pedestrians, and cyclists, by minimising:*
  - (i) the number of vehicle access points; and*
  - (ii) loss of on-street car parking spaces;*
- (b) vehicle access points do not unreasonably detract from the amenity of adjoining land uses;*
- (c) vehicle access points do not have a dominating impact on local streetscape and character.*

#### SCHEME REQUIREMENTS

*A1 - The number of vehicle access points provided for each road frontage must be no more than 1 or the existing number of vehicle access points, whichever is the greater.*

#### RESPONSE

The site currently has three vehicle access points, one from James Street, Montpelier Retreat and Knopwood Street.

The proposed development will retain the access from Montpelier Retreat, for two-way entry and exit to the car parking levels. The proposal complies with A1.

#### E6.7.2 Design of Vehicular Accesses

*Objective: To ensure safe and efficient access for all users, including drivers, passengers, pedestrians and cyclists by locating, designing and constructing vehicle access points safely relative to the road network.*

#### SCHEME REQUIREMENTS

*A1 - Design of vehicle access points must comply with all of the following:*

- (a) in the case of non-commercial vehicle access; the location, sight distance, width and gradient of an access must be designed and constructed to comply with section 3 - "Access Facilities to Off-street Parking Areas and Queuing Areas" of AS/NZS 2890.1:2004 Parking Facilities Part 1: Off-street car parking;*

(b) ...

...

**RESPONSE**

The accompanying TIA specifies that the vehicle access has been designed in accordance with the relevant Australian Standards for non-commercial access.

The proposal complies with A1(a).

**E6.7.3 Vehicular Passing Areas Along an Access**

*Objective: To ensure that:*

- (a) the design and location of access and parking areas creates a safe environment for users by minimising the potential for conflicts involving vehicles, pedestrians and cyclists;
- (b) use or development does not adversely impact on the safety or efficiency of the road network as a result of delayed turning movements into a site.

**SCHEME REQUIREMENTS**

*A1 - Vehicular passing areas must:*

- (a) be provided if any of the following applies to an access:
  - (i) it serves more than 5 car parking spaces;
  - (ii) is more than 30m long;
  - (iii) it meets a road serving more than 6000 vehicles per day;
- (b) be 6m long, 5.5m wide, and taper to the width of the driveway;
- (c) have the first passing area constructed at the kerb;
- (d) be at intervals of no more than 30 m along the access.

...

**RESPONSE**

Given that the access and internal circulation areas have been designed as two-way, vehicle passing bays are not required.

**E6.7.4 On-Site Turning**

*Objective: To ensure safe, efficient and convenient access for all users, including drivers, passengers, pedestrians and cyclists, by generally requiring vehicles to enter and exit in a forward direction.*

**SCHEME REQUIREMENTS**

*A1 - On-site turning must be provided to enable vehicles to exit a site in a forward direction, except where the access complies with any of the following:*

- (a) it serves no more than two dwelling units;
- (b) it meets a road carrying less than 6000 vehicles per day.

**RESPONSE**

The proposed vehicle circulation within the basement and ground floor car parks ensures vehicles can turn on-site and enter and exit the site in a forward direction.

The proposal complies with A1.

**E6.7.5 Layout of Parking Areas**

*Objective: To ensure that parking areas for cars (including assessable parking spaces), motorcycles and bicycles are located, designed and constructed to enable safe, easy and efficient use.*

**SCHEME REQUIREMENTS**

*A1 - The layout of car parking spaces, access aisles, circulation roadways and ramps must be designed and constructed to comply with section 2 "Design of Parking Modules, Circulation Roadways and Ramps" of AS/NZS 2890.1:2004 Parking Facilities Part 1: Off-street car parking and must have sufficient headroom to comply with clause 5.3 "Headroom" of the same Standard.*

**RESPONSE**

As per the accompanying TIA, the car parking spaces, access aisles and ramps have been designed in accordance with the relevant Australian Standard and comply with A1.

**E6.7.6 Surface Treatment of Parking Areas**

*Objective: To ensure that parking spaces and vehicle circulation roadways do not detract from the amenity of users, adjoining occupiers or the environment by preventing dust, mud and sediment transport.*

**SCHEME REQUIREMENTS**

*A1 - Parking spaces and vehicle circulation roadways must be in accordance with all of the following;*

- (a) paved or treated with a durable all-weather pavement where within 75m of a property boundary or a sealed roadway;*
  - (b) drained to an approved stormwater system,*
- unless the road from which access is provided to the property is unsealed.*

**RESPONSE**

The parking areas will be paved with durable all-weather pavement and will be pumped to the existing public stormwater system.

The proposal complies with A1.

**E6.7.7 Lighting of Parking Areas**

*Objective: To ensure parking and vehicle circulation roadways and pedestrian paths used outside daylight hours are provided with lighting to a standard which:*

- (a) enables easy and efficient use;*
- (b) promotes the safety of users;*
- (c) minimises opportunities for crime or anti-social behaviour; and*
- (d) prevents unreasonable light overspill impacts.*

**SCHEME REQUIREMENT**

**A1**



*Parking and vehicle circulation roadways and pedestrian paths serving 5 or more car parking spaces, used outside daylight hours, must be provided with lighting in accordance with clause 3.1 "Basis of Design" and clause 3.6 "Car Parks" in AS/NZS 1158.3.1:2005 Lighting for roads and public spaces Part 3.1: Pedestrian area (Category P) lighting.*

#### RESPONSE

The internal car parking areas will be provided with lighting to comply with Australian Standards. The proposal is capable of compliance with A1.

#### E6.7.8 Landscaping of Parking Areas

*Objective: To ensure that large parking and circulation areas are landscaped to:*

- (a) relieve the visual impact on the streetscape of large expanses of hard surfaces;*
- (b) screen the boundary of car parking areas to soften the amenity impact on neighbouring properties;*
- (c) contribute to the creation of vibrant and liveable places;*
- (d) reduce opportunities for crime or anti-social behaviour by maintaining clear sightlines.*

#### SCHEME REQUIREMENTS

*P1 - Landscaping of parking and circulation areas accommodating more than 5 cars must satisfy all of the following:*

- (a) relieve the visual impact on the streetscape of large expanses of hard surfaces;*
- (b) soften the boundary of car parking areas to reduce the amenity impact on neighbouring properties and the streetscape;*
- (c) reduce opportunities for crime or anti-social behaviour by maintaining passive surveillance opportunities from nearby public spaces and buildings.*

#### RESPONSE

The application meets the performance criteria as follows:

- (a) due to the car parking being located within the basement levels, there will be no large expanses of hard surfaces visible from the road.
- (b) as per above, the parking areas will not be visible from the streetscape and existing and proposed landscaping along the Wilmot Street frontage will significantly improve the streetscape.
- (c) the parking areas are provided for residents and guests and will not be accessible by the public. The parking areas are not considered to result in any opportunities for crime or anti-social behaviour.

#### E6.7.10 Design of Bicycle Parking Facilities

*Objective: To encourage cycling as a healthy and environmentally friendly mode of transport for commuter, shopping and recreational trips by providing secure, accessible and convenient bicycle parking spaces.*

#### SCHEME REQUIREMENTS

- A1 - The design of bicycle parking facilities must comply with all the following;*
- (a) be provided in accordance with the requirements of Table E6.2;*

(b) be located within 30 m of the main entrance to the building.

*P1 - The design of bicycle parking facilities must provide safe, obvious and easy access for cyclists, having regard to all of the following:*

- (a) minimising the distance from the street to the bicycle parking area;*
- (c) providing clear sightlines from the building or the public road to provide adequate passive surveillance of the parking facility and the route from the parking facility to the building;*
- (d) avoiding creation of concealment points to minimise the risk.*

#### RESPONSE

The proposal generates a requirement for 2 bicycle spaces for employees for the café/wine bar. However, no bicycle parking spaces are proposed - therefore A1 is not relevant.

*A2 - The design of bicycle parking spaces must be to the class specified in table 1.1 of AS2890.3-1993 Parking facilities Part 3: Bicycle parking facilities in compliance with section 2 "Design of Parking Facilities" and clauses 3.1 "Security" and 3.3 "Ease of Use" of the same Standard. <sup>R1</sup>*

*P2 - The design of bicycle parking spaces must be sufficient to conveniently, efficiently and safely serve users without conflicting with vehicular or pedestrian movements or the safety of building occupants.*

#### RESPONSE

No bicycle parking spaces have been provided.

#### E6.7.11 Bicycle End of Trip Facilities

*Objective: To ensure that cyclists are provided with adequate end of trip facilities.*

#### SCHEME REQUIREMENTS

*A1 - For all new buildings where the use requires the provision of more than 5 bicycle parking spaces for employees under Table E6.2, 1 shower and change room facility must be provided, plus 1 additional shower for each 10 additional employee bicycle spaces thereafter.*

...

#### RESPONSE

The proposal does not generate a requirement for more than 5 bicycle parking spaces. Therefore, no facilities are required.

#### E6.7.13 Facilities for Commercial Vehicles

*Objective: To ensure that facilities for commercial vehicles are provided on site, as appropriate.*

#### SCHEME REQUIREMENTS

*A1 - Commercial vehicle facilities for loading, unloading or manoeuvring must be provided on-site in accordance with Australian Standard for Off-street Parking, Part 2 : Commercial Vehicle Facilities AS 2890.2:2002, unless:*

- (a) the delivery of all inward bound goods is by a single person from a vehicle parked in a dedicated loading zone within 50 m of the site;
- (b) the use is not primarily dependent on outward delivery of goods from the site.

*P1 - Commercial vehicle arrangements for loading, unloading or manoeuvring must not compromise the safety and convenience of vehicular traffic, cyclists, pedestrians and other road users.*

#### RESPONSE

The proposal is not reliant on the outward delivery of goods. However, inbound deliveries may be required for the proposed café/wine bar.

However, there is a dedicated loading zone located within 50m of the site, adjacent to the office building at 2-8 Kirksway Place.

Therefore, the proposal does not require on-site commercial vehicle facilities.

#### E6.7.14 Access to a Road

*Objective: To ensure that access to the road network is provided appropriately.*

#### SCHEME REQUIREMENTS

*A1 - Access to a road must be in accordance with the requirements of the road authority.*

#### RESPONSE

The site currently possesses three vehicle crossovers. The proposed development will utilise the existing crossover from Montpelier Retreat, which will continue to be undertaken in accordance with the relevant requirements of the road authority.

## 5.4 STORMWATER MANAGEMENT CODE

### 5.4.1 DEVELOPMENT STANDARDS

#### E7.7.1 Stormwater Drainage and Disposal

*Objective: To ensure that stormwater quality and quantity is managed appropriately.*

#### SCHEME REQUIREMENTS

*A1 - Stormwater from new impervious surfaces must be disposed of by gravity to public stormwater infrastructure.*

*P1 - Stormwater from new impervious surfaces must be managed by any of the following:*

- (a) disposed of on-site with soakage devices having regard to the suitability of the site, the system design and water sensitive urban design principles
- (b) collected for re-use on the site;
- (c) disposed of to public stormwater infrastructure via a pump system which is designed, maintained and managed to minimise the risk of failure to the satisfaction of the Council.

#### RESPONSE

Stormwater from impervious areas, including the car parking area will be drained to the basement level, where it will then be pumped up and discharged to the existing public infrastructure within Knopwood Street.

The proposal complies with P1(c).

*A2 - A stormwater system for a new development must incorporate water sensitive urban design principles<sup>R1</sup> for the treatment and disposal of stormwater if any of the following apply:*

- (a) the size of new impervious area is more than 600 m<sup>2</sup>;*
- (b) new car parking is provided for more than 6 cars;*
- (c) a subdivision is for more than 5 lots.*

*P2 - A stormwater system for a new development must incorporate a stormwater drainage system of a size and design sufficient to achieve the stormwater quality and quantity targets in accordance with the State Stormwater Strategy 2010, as detailed in Table E7.1 unless it is not feasible to do so.*

#### RESPONSE

The proposed stormwater system does not include any specific on-site water sensitive urban design principals, therefore a response to P2 is required.

#### P2

It is anticipated that the stormwater system will be capable of achieving the stormwater quality and quantity targets in accordance with the State Stormwater Strategy 2010. Further information will be provided as part of the RFI process.

*A3 - A minor stormwater drainage system must be designed to comply with all of the following:*

- (a) be able to accommodate a storm with an ARI of 20 years in the case of non-industrial zoned land and an ARI of 50 years in the case of industrial zoned land, when the land serviced by the system is fully developed;*
- (b) stormwater runoff will be no greater than pre-existing runoff or any increase can be accommodated within existing or upgraded public stormwater infrastructure.*

#### RESPONSE

It is anticipated that the proposed stormwater system will be capable of accommodating an ARI 20-year storm and that runoff will be no greater than existing, given that the site is largely impervious already with a combination of bitumen, packed gravel and concrete. The proposal complies with A3.

## 5.5 HISTORIC HERITAGE CODE

The site is not individually listed under the Code, however it is located within the Battery Point BP1 - Heritage Precinct.





Figure 18: Extent of BP1 Heritage Precinct and surrounding heritage listings (source: [www.thelist.tas.gov.au](http://www.thelist.tas.gov.au) © State Government of Tasmania)

#### 5.5.1 DEVELOPMENT STANDARDS FOR HERITAGE PRECINCTS

##### E13.8.1 - Demolition

*Objective: To ensure that demolition in whole or part of buildings or works within a heritage precinct does not result in the loss of historic cultural heritage values unless there are exceptional circumstances.*

##### SCHEME REQUIREMENTS

##### P1

*Demolition must not result in the loss of any of the following:*

- (a) *buildings or works that contribute to the historic cultural heritage significance of the precinct;*
- (b) *fabric or landscape elements, including plants, trees, fences, paths, outbuildings and other items, that contribute to the historic cultural heritage significance of the precinct; unless all of the following apply;*
  - (i) *there are, environmental, social, economic or safety reasons of greater value to the community than the historic cultural heritage values of the place;*
  - (ii) *there are no prudent or feasible alternatives;*
  - (iii) *opportunity is created for a replacement building that will be more complementary to the heritage values of the precinct.*

##### RESPONSE

The proposed development will require the demolition of the existing vacant shop front and warehouse on the site.

Neither of these buildings are individually listed in the HIPS 2015 or on the Tasmania Heritage Register and are not considered to contribute to the historic cultural heritage significance of the precinct as outlined in the accompanying Heritage Impact Assessment.

In response to P1(b), there is no identified fabric or landscape elements which contribute to the historic cultural heritage significance of the site.

Therefore, the proposed demolition of the existing buildings on the site will not result in any loss of buildings, works, fabric or landscape elements that contribute to the heritage significance of the precinct.

The proposal complies with P1.

#### **E13.8.2 - Buildings and works other than demolition**

*Objective: To ensure that development undertaken within a heritage precinct is sympathetic to the character of the precinct.*

#### **SCHEME REQUIREMENTS**

##### **P1**

*Design and siting of buildings and works must not result in detriment to the historic cultural heritage significance of the precinct, as listed in Table E13.2.*

#### **RESPONSE**

The precinct is significant for the following reasons:

- 1. The wide variety of architectural styles and historic features ranging from entire streets of 19th century Colonial Georgian cottages, to Victorian, Edwardian and Pre and Post War examples of single and attached houses that are of historic and architectural merit, many of which demonstrate housing prior to mass car ownership.*
- 2. It is primarily a residential area with a mix of large substantial homes and smaller workers cottages on separate lots, gardens, an unstructured street layout, and lot sizes that show successive re-subdivision into narrow lots that demonstrate early settlement patterns of Hobart.*
- 3. The original and/or significant external detailing, finishes and materials demonstrating a high degree of integrity with a homogenous historic character.*

The following diagram provided within the accompanying Architectural Design Report illustrates the variety of architectural styles and the individual detailing, as specified within the statements of significance.



Figure 19: Detailing and architectural design elements evident within the Battery Point - BP1 Heritage Precinct (source: FK Architects)

The proposed built form has been designed to complement the heritage context evident along James Street and the upper portion of Montpelier Retreat, whilst also acknowledging the mix of more contemporary buildings within the immediate surrounds.

For example, the façade along James Street is deliberately broken down into distinct rectangular forms which are a direct reference to the massing, form, and subdivision pattern of buildings within the precinct. Combined with the use of brick facades, interspersed with a consistent horizontal and vertical fenestration pattern, the proposal reintroduces several key elements into the streetscape, contributing to the variety of architectural styles in the precinct.



Figure 20: Artistic impression of the James Street elevation - illustrating the distinct vertical, rectangular forms (source: FK Architects)



Whilst it is acknowledged that the more contemporary inter-war period buildings along Montpelier Retreat do not substantially contribute to the overall character of the immediate area, they are still relevant in determining the form, scale, materiality, and suitability of new buildings.

The larger more contemporary buildings are not highly articulated, nor do they respond to the adjacent heritage buildings. However, a building of comparable scale to the contemporary buildings in the immediate vicinity, which does provide more nuanced detailing and articulation can serve to diffuse the brutalist qualities of the existing buildings and serve as a transitional element between the more contemporary development to the north and the significance heritage forms to the south.

The proposed development takes a design approach that has proved successful for many new buildings which are subject to heritage considerations or within heritage precincts.

This approach involves incorporating key materiality and fenestration elements into the design of the form and façade of the building. This then allows for more contemporary building materials and forms to be constructed above or alongside the historical elements, creating a complementary mix of old and new, whilst allowing the heritage characteristics to remain dominant. The proposed development achieves this in part through the deliberate, simplified built form and setback of the upper levels along with the incorporation of brass cladding and glazing to minimise the visual prominence of this part of the building.

The following diagram provides examples of the materiality, fenestration and overall form of buildings within the vicinity of the site, which have consequently informed the design of the proposed building (particularly the Montpelier Retreat façade).



Figure 21: From left - 'Anstruther House' at 5 Hampden Road, the proposed Montpelier Retreat façade and 'Irwin Place' at 105-111 Hampden Road (source: Heritage Impact Assessment)

As outlined in the heritage impact assessment, the arched opening of the front entry is a reference to the arched fan-lit entries of 'Irwin Place' within the immediate vicinity of the subject site. The proposed undulation of the façade, with the central entry flanked by curved bays serves to break down the massing of the façade, as does the use of brick stringcourses which is also a consistent theme found within the precinct.



The curved corner of the building, as the façade turns the corner between Montpelier Retreat and Knopwood Street, is also a direct response to the way in which many nineteenth century buildings within the precinct are oriented to address multiple street frontages.

Compared with the previously approved development on the site, the overall design is substantially more in-keeping, sympathetic and contributory to the streetscape and wider significance of the precinct. The design provides a contemporary interpretation of the external detailing, finishes and materials found within the precinct, which demonstrate a high degree of integrity with a homogenous historic character.

This is a distinct departure from the previously approved development on the site, which adopted a façade primarily clad with burnt-timber, with little or no setback across the upper levels.

This created a form of greater bulk and scale when interpreted from Montpelier Retreat. Whilst larger in overall form, the proposed development sets the taller, contemporary elements further back from the street, recessing the bulk of the building to a more central location within the site, as illustrated below.



Figure 22: Approved development vs Proposed development (source: Circa Morris-Nunn 2015 & FK Architects)

This allows the key brick podium elements to take centre stage, whilst the upper contemporary levels form a secondary, receding element in the streetscape.

Based on the above, the following conclusions can be drawn with reference to the statements of significance of the precinct.

1. *The wide variety of architectural styles and historic features ranging from entire streets of 19th century Colonial Georgian cottages, to Victorian, Edwardian and Pre and Post War examples of single and attached houses that are of historic and architectural merit, many of which demonstrate housing prior to mass car ownership.*
2. *It is primarily a residential area with a mix of large substantial homes and smaller workers cottages on separate lots, gardens, an unstructured street layout, and lot sizes that show successive re-subdivision into narrow lots that demonstrate early settlement patterns of Hobart.*
3. *The original and/or significant external detailing, finishes and materials demonstrating a high degree of integrity with a homogenous historic character.*

Given that the site currently does not contribute to the significance of the precinct, the proposed development carefully reintroduces elements of materiality and fine detailing that is dominant within the precinct, with a building form that adopts contemporary interpretations of key architectural features also evident within the precinct.

The Montpelier Retreat façade addresses this in a more literal manner, by providing an undulating façade with curved bays, brick stringcourses and the arched fan-lit entry. In contrast, the James Street façade responds to the more intricate building forms and rectangular lot patterns, as demonstrated with the breaking of the façade into smaller rectangular elements.

These elements combined serve to break down the mass of the façade, whilst also providing a contemporary take on the historic architectural design elements within the precinct.

As stated in the Heritage Impact Assessment:

*The proposal adopts individual design responses to the respective streetscapes it fronts, demonstrating a considered response to the immediate vicinity specifically and the heritage precinct generally. Consequently, it complements and continues the architectural narrative of the heritage precinct as an area of residential buildings of architectural merit.<sup>2</sup>*

As a result, the initial 4-storey brick podiums to James Street, Knopwood Street and Montpelier Retreat take precedence in the streetscape and provide a carefully considered contribution to the precinct, allowing the more contemporary upper levels to appropriately take a recessive place in the streetscape.

The proposal complies with P1.

#### P2

*Design and siting of buildings and works must comply with any relevant design criteria / conservation policy listed in Table E13.2, except if a heritage place of an architectural style different from that characterising the precinct.*

#### RESPONSE

There is no design criteria or conservation policy listed in Table E13.2.

#### P3

*Extensions to existing buildings must not detract from the historic cultural heritage significance of the precinct.*

#### RESPONSE

The proposal does not involve an extension to any existing building. Therefore, P3 is not relevant.

#### A4

*New front fences and gates must accord with original design, based on photographic, archaeological or other historical evidence.*

#### P4

*New front fences and gates must be sympathetic in design, (including height, form, scale and materials), and setback to the style, period and characteristics of the precinct.*

#### RESPONSE

<sup>2</sup> Heritage Impact Assessment, Sam Nichols (2021, p: 28)

As there is no record of front fences or gates on the subject site, a response to the performance criteria has been provided.

As outlined in the accompanying heritage impact assessment, the proposed fencing is considered an appropriate design response to the immediate vicinity of the subject site specifically and the heritage precinct generally.

The fences are low in height (max. 1.2m), appropriate in scale, are visually permeable allowing landscaping to permeate the streetscape, and are characteristic of the heritage precinct metal/timber on low sandstone plinth/retaining wall whilst being representative of their period of construction.

The proposal complies with P4.

A5

*Areas of landscaping between a dwelling and the street must be retained.*

RESPONSE

There are no existing areas of landscaping on the site.

#### E13.8.4 - Buildings and works within Heritage Precinct BP1

*Objective: To ensure that that development undertaken within Heritage Precinct BP1 is sympathetic to the character of the precinct.*

#### SCHEME REQUIREMENTS

A1

*Site area per dwelling unit in Heritage Precinct BP1 must be not less than 350m<sup>2</sup>.*

P1

*Site area per dwelling may be less if the development does not detract from the pattern of development that is a characteristic of the cultural heritage significance of the precinct in the vicinity of the site.*

RESPONSE

The site area per dwelling is less than 350m<sup>2</sup>. Therefore, a response to P1 is required.

P1

As outlined in the response to E13.8.2 P1, the design of the proposal specifically draws on the physical development patterns that characterise the significance of the precinct.

The precinct is largely significant due to the wide variety of architectural styles and historic features. The proposed development adds to the variety of built forms and materiality, through both contemporary design and interpretation of the historic built forms, detailing and modulation evident within the precinct.

The proposal is for residential multiple dwellings, which is consistent with the existing pattern of single and multiple dwelling development that characterises the broader precinct. The only key difference is that the dwellings proposed are located within two distinct built forms, rather than being provided within existing buildings or on larger development sites which allow for independent structures for each dwelling.

It is also important to consider the physical location of the subject site, within the broader extent of the precinct. The site is located on the very edge of the precinct where there is a clear and abrupt transition from relatively high density residential development on small to moderate lots, to an area which support primarily commercial development on much larger lots.

As a result, the proposal must respond to both development patterns. This is achieved by siting the smaller podium to the rear of the site, which is much closer and more entwined with the residential, domestic scale and pattern of development. The larger podium addressing Montpelier Retreat and Knopwood Street is then able to respond, in part, to the transition to a larger, commercial development pattern beyond the precinct.

Therefore, despite having a site area per dwelling less than 350m<sup>2</sup>, the development provides a positive contribution to the wider precinct and does not detract from the dominant development pattern in the precinct.

The proposal complies with P1.

#### P2

*Buildings should be close to the street frontage except where the prevailing setback on the same side of the street is substantial, in which case the setback shall conform to the general building line.*

#### RESPONSE

As outlined in the response to clause 11.4.2 P1, the proposed buildings are situated close to the street frontage, which is consistent with the setback/streetscape pattern evident along Knopwood Street, James Street and Montpelier Retreat.

The proposal complies with P2.

#### A3

*Building height (not including the basement or attic floor space with dormer windows) must not be greater than two storeys, or one storey if most buildings on the same side of the street in the immediate vicinity are single storey.*

#### P3

*The height of development must neither be obtrusive in the streetscape nor detract from the pattern of development that is a characteristic of the cultural heritage significance of the precinct in the vicinity of the site.*

#### RESPONSE

The proposed building height will be greater than two storeys and will require assessment against the performance criteria.

#### P3

The overall height of the proposed building has been designed in consideration of the existing built forms to the south, further along James Street and Montpelier Retreat. However, the design also acknowledges contemporary development located to the north of the site.

5-storey podium



The height of the five-storey podium which fronts James Street does not substantially exceed that of adjoining properties. The height and form across levels 1-3 (four storeys total) is two storeys higher than the immediately adjoining property at 9-11 James Street (excluding the attic and dormer windows) and one storey higher than the terrace/conjoined cottages at 21, 19, 18 James Street and 13-15 James Street.

The height and bulk of the building is broken down by the modulation of the building, with a series of narrow vertical rectangular forms which vary in height from one to three storeys. These elements are a direct response to the modulation and articulation evident within the adjacent nineteenth century terrace and detached housing in the streetscape and wider locality. These elements are highlighted using alternating brick work and textured cladding which is a reference to the sandstone elements evident with the precinct.

The upper 5<sup>th</sup> level of the building is then recessed back from the frontage, consisting of a simplified rectilinear built form which primarily consists of glazing which aids in reducing the visual mass of the building.

As a result, the 5-storey podium presents an appropriate form to James Street and reintroduces a consistent alignment/setback pattern and a materiality which is complimentary to the surrounding built form a wider character of the heritage precinct.



Figure 23: Artist impression of the proposal looking south along James Street (source: FK Architects)



Figure 24: Render from the intersection between James Street and Hampden Road - looking north along James Street (source: HCC 3D Model)

#### 7-storey podium

The height and form of the building along Knopwood Street seeks to respond to the higher contemporary built form on the opposite side of the street whilst also maintaining a lower brick podium element which provides a direct response to the smaller-scale building forms to the south of the site.



Figure 25: Render of the proposed built form the end of Kirksway Place - looking west (source: FK Architects)

Again, the upper levels are setback from the boundaries, which serves to reduce the overall visual bulk and scale of the building and emphasises the varying rectangular elements which also serve to break down the form.

Along Montpelier Retreat the proposed building responds to the changing topography and form of adjoining buildings through the provision of three distinct podium forms, which are broken up with three additional lower forms.

Whilst the podium forms sit higher than the immediately adjoining property at 48 Montpelier Retreat (higher side), the form generally responds to the increase in height with respect to the building at 54-60 Montpelier Retreat (lower side) and demonstrates a clear stepping/terracing of the building form.

The textured cladding (sandstone colour) elements, combined with the larger brick elements and screening substantially breaks down the façade of the building. These design considerations and elements allow the building to respond to the heritage character generally at street level/pedestrian level, where those elements can be best interpreted.



Figure 26: Extract from the accompanying Heritage Impact Assessment, illustrating the Montpelier Retreat façade which incorporates architectural elements which respond to similar examples provided within the wider precinct (source: Heritage Impact Assessment)

The HIA provides the following commentary regarding the above:

*Note the undulation of the façade, with central entry flanked by curved bays, as a means of breaking up the massing of the façade. The façade is further broken up through the use of brick stringcourses. This method of breaking up the visual mass of building façades is evidenced elsewhere in the heritage precinct, specifically 'Anstruther House' constructed c.1859. The arched opening of the front entry is a reference to the arched fan-lit entries of 'Irwin Place' within the immediate vicinity of the subject site.*

The upper levels are setback and generally consist of glazing, which reduces the visual scale bulk of the building. These elements in their structural form are most evident within the following diagram.



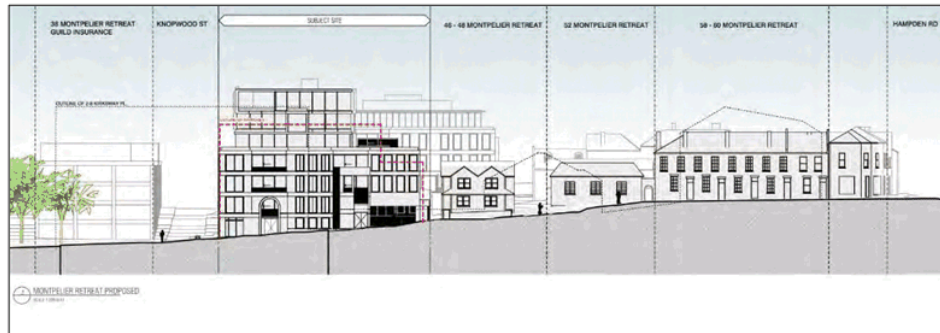


Figure 27: Montpelier Retreat elevation - illustrating how the upper levels are sited more centrally within the site to reduce the bulk and scale when viewed at street-level. This is also achieved through the distinct change in materials between the 4-storey podium and the upper levels (source: FK Architects - modified Ireneinc).

As can be seen within many historic cities; buildings, streetscapes and urban areas evolve according to the needs of their inhabitants. As a result, contemporary architecture plays an important role in facilitating such changes. However, it is also recognised that this must occur in ways that acknowledge and protect the heritage character of existing buildings.

As referenced in the accompanying HIA, the previous approved development on the site presented a substantially larger bulk and form to the streetscape. Whilst that building was lower in overall height, the street presence combined with the external materials presented a building form that was arguable far less sympathetic to the materiality and character evident within the streetscape and wider precinct, as illustrated below:



Figure 28: Approved development (left) in contrast with the proposed development (right) (source: Circa Morris-Nunn, 2015 & FK Architects)

The proposed development provides a more considered and sympathetic design that responds to and complements the key heritage characteristics of the precinct, whilst also acknowledging the position of the subject site on the edge of the precinct, where the proposal must also respond to the more contemporary development to the south.

The proposal complies with P3.

P4



*Where reasonable and practicable, a dwelling must substantially occupy the width of the frontage of a lot, except where the prevailing setbacks from side boundaries on the same side of the street are substantial and not so as to exclude a driveway or car parking at the side of the building.*

#### RESPONSE

The site has three frontages, one to Montpelier Retreat, James Street and Knopwood Street.

The proposal has been designed to substantially occupy each frontage of the lot and is appropriately setback from the side boundaries, aside from locations where pedestrian and vehicular access is provided.

Given the existing setback variations and alignment along Knopwood Street, Montpelier Retreat and James Street, the setback/alignment of the building to these frontages has been considered to be consistent with the prevailing setbacks in the abovementioned streets.

#### A5

*The rear setback of the principal building must be at least:*

- (a) 6 m for lots of up to 14 m in width;*
- (b) 5 m for lots greater than 14 m in width.*

#### P5

*The rear setback of the principal building must not detract from the layout pattern of development that contributes to the cultural heritage significance of the precinct and its contribution to private amenity facilitated by the 'house and garden' form of development.*

#### RESPONSE

'Principal building' is not a defined term within the scheme. The proposed development consists of two podiums, which are connected at ground level. The site has primary frontage to Knopwood Street (as this is the shortest boundary fronting a road). However, the site also has frontage to James Street and Montpelier Retreat.

In this instance, the rear boundary has been determined to be that shown in the figure below, as it is to the rear of each frontage. The remaining boundaries, that are not frontages, are taken to be side boundaries.



Figure 29: Rear boundary identified in red (source: [www.thelist.tas.gov.au](http://www.thelist.tas.gov.au) © State of Tasmania)

Notwithstanding the above, the basement and ground/lower ground floor are to be built to the boundary.

At Level 1, the building will be setback approximately 4m from the rear boundary.

Therefore, a response to the performance criteria is required.

#### P5

The proposed development provides two separate podium forms, interconnected at the basement and ground levels. The separation of the two forms substantially reduces the overall bulk of the development, whilst also allowing each façade to respond to the correspondence streets in which they face.

This combined with the architectural design features outlined in the accompanying documentation demonstrates that the proposal will not detract from the layout pattern of development that contributes to the significance of the precinct.

The division of the proposed development into two interconnected podiums allows the provision of a courtyard and landscaping through the centre of the site, which is consistent with the private amenity facilitated by the 'house and garden' development concept found throughout the precinct. The accompanying landscape report and plans have drawn on the existing Battery Point character in the design of the courtyard and landscaping, which is a contemporary interpretation of the 'house/garden' concept,

Each dwelling will also be provided with landscaping, which will form part of the private open space provision.



Figure 30: Aerial 3D impression of the proposed development, illustrating the extent of 'garden/landscaping' space, which is a contemporary interpretation of the 'house and garden' concept (source: FK Architects)

The proposal complies with P5.

*A6 - A site where the principal building, excluding the basement, in part or whole is:*

- (a) not more than one storey in height, or one storey comprising attic floor space with dormer windows, must have a site coverage of not more than 50%;*
- (b) two or more storeys must have a site coverage of not more than 40%.*

*P6 - The building must not detract from the pattern of development that is a characteristic of the cultural heritage significance of the Precinct in the vicinity of the site.*

#### RESPONSE

The proposed development is broken up into two podium forms, connected below ground level.

On this basis, the proposal is considered as one building, or the 'principal building' despite it appearing as two separate forms above ground level. As both podiums are greater than two storeys, A1(b) requires a site coverage of not more than 40%.

The total site coverage exceeds 40% of the total site area. A response to the performance criteria will be required.

#### P6

The pattern of development that is characteristic of the significance of the precinct is outlined in the following two statements of significance.

- 1. The wide variety of architectural styles and historic features ranging from entire streets of 19th century Colonial Georgian cottages, to Victorian, Edwardian and Pre*

*and Post War examples of single and attached houses that are of historic and architectural merit, many of which demonstrate housing prior to mass car ownership.*

*2. It is primarily a residential area with a mix of large substantial homes and smaller workers cottages on separate lots, gardens, an unstructured street layout, and lot sizes that show successive re-subdivision into narrow lots that demonstrate early settlement patterns of Hobart.*

These development patterns have been interpreted and adopted into the design of the building, by providing a multitude of apartments within two building forms. The outward expression of the proposal and each podium is one that respects the architectural design merits of houses prior to mass car ownership (i.e. by locating vehicle parking below ground level, with only one access point located off Montpelier Retreat).

This avoids the proliferation of vehicle crossovers, allowing each podium to be built to the frontages and present a strong street edge, which is consistent with other dwellings within the precinct, particularly those on smaller allotments which reflect the historical re-subdivision pattern.

As has been outlined in this report, under the various acceptable solutions and performance criteria in clauses E13.8.2 and E13.8.4, the proposed development presents as a well-resolved, site-specific design response that responds to the qualities of the immediate vicinity of the subject site and the heritage precinct.

*P7 - Land directly between a dwelling and the street shall not be designed or paved or used for the manoeuvring or parking of vehicles except to gain access.*

#### RESPONSE

No land directly between the proposed building and the street has been designed for manoeuvring or parking of vehicles, except for access. The proposal complies with P7.

*P8 - Each lot must have not more than one crossing over the footpath per frontage and have a maximum width of 3 m unless it can be demonstrated that the crossing and its width is essential and will:*

- (a) not detract from the historic cultural heritage significance of the precinct;*
- (b) provide a net benefit in parking quantum taking into account any loss in on-street parking required to facilitate the additional or wider access.*

#### RESPONSE

The only crossing over the footpath is from Montpelier Retreat, where vehicle access to the ground/lower ground and basement car parking is provided.

Whilst the access has a width greater than 3m, it is utilising an existing crossover and therefore is not anticipated to detract from the historic cultural heritage significance of the precinct and will not result in the loss of any on-street parking. The existing crossovers to Knopwood Street and James Street will no longer be used.



*A9 - Maximum of 1 parking space per dwelling.*

*P9 - Parking must not detract from the cultural heritage significance or the setting of existing dwellings.*

RESPONSE

The proposal provides a total of 48 car parking spaces, three of which are dedicated to the penthouse apartment.

This leaves 45 car parking spaces for the remaining 26 apartments, which equates to approximately 1.8 car parking spaces per dwelling. A response to the performance criteria is required.

P9

The car parking is to be located across the basement and ground floor level and will be entirely screened from view. As a result, the parking will not detract from the cultural heritage significance of the setting or existing dwellings.

The proposal complies with performance criteria.

## 6. SUMMARY

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The proposal is for the construction of a new multi-storey residential apartment building, comprised of two separate podiums containing a total of 26 apartments.

The north-western podium will support 11 apartments, along with a 4 x bedroom penthouse which occupies levels 4-6. The podium fronts Montpelier Retreat and Knopwood Street and supports a ground level café/wine bar, along with amenities for residents, including a swimming pool (below ground level) and a gym.

The south-eastern podium supports an additional 14 apartments and fronts James Street. Vehicle access to the site will be provided via Montpelier Retreat, with an internal public walkway joining James Street with Knopwood Street.

The site is located within the Battery Point BP1 - Heritage Precinct and the proposal has been designed to respond to the heritage character and provide a positive contribution to the precinct.



Landscape Summary  
27.04.2022  
D.A. Submission Rev. C

1 Knopwood St,  
Hobart  
Tasmania 7000

<b>1. Landscape Context</b>	<b>1</b>
Existing Landscape Character Statement .....	1
<b>2. Landscape Design Intent</b>	
Design Intent Statement .....	2
Planting Pallete .....	3
<b>3. Sculpture Trail</b>	
Existing Sculpture Trail .....	4
Sculpture Trail Opportunities .....	5
<b>4. Landscape Drawings</b>	
Landscape Plans	
Visualisations	



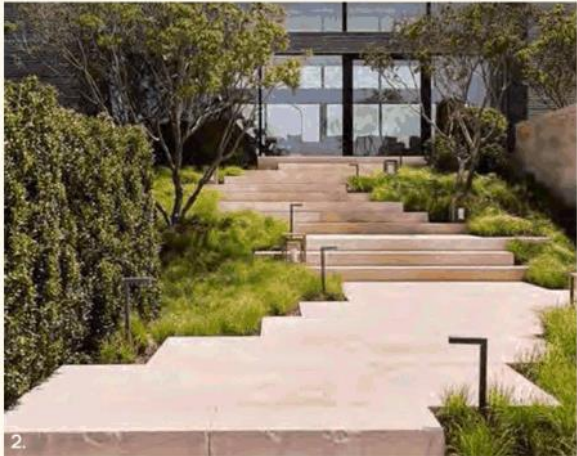
The landscape character of Battery Point has a high density built form, with little space for gardens. Where there are gardens they are typically of a 'cottage' sort. Greenery is found in the collection of European trees that dot the landscape, along with small pocket parks (such as Arthur's Circus, Battery Point Community Park), and larger scale public parks (St David's, Parliament & Salamanca Lawn, and Princes Park). There is a language of squares (Salamanca Square) and courtyards (Kelly's Garden and Salamanca Arts Courtyard), enclosed by stone or quarry face, and other built forms. Streets are narrow, and linked together by a series of laneways and steps.



Existing Landscape Character







The landscape design is a contemporary interpretation of the existing Battery Point character. The multi-terraced Kelly Steps (1) inspire a staggered landscape staircase (2) meandering through to a central courtyard (3). The masonry flanked space with its raised seating planters takes reference from the surrounding courtyard spaces; including the recent works within the Salamanca Arts Centre (4). The floriferous nature of the nearby cottage gardens are reflected by a diverse hue palette of flowering Australian endemic plants, relieved by pockets of evergreen vegetation (5). Flowering varieties proposed for street trees to match those growing in the vicinity. Pavement layout takes cues from the precinct's stretcherbond brick patterns and the contemporary surfaces across Salamanca; with a particular use of Tasmanian produced recycled glass pavers (6).



Landscape Design Intent

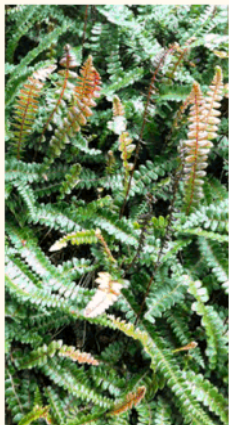




Planting Palette



*Dichondra repens* - kidney weed  
0.3m H x 1m W



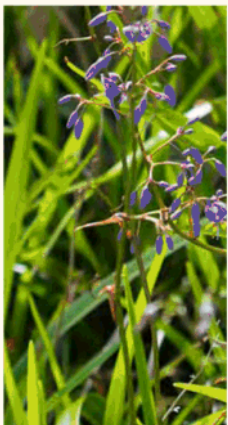
*Penna marina* - alpine water fern  
0.2m H x 1.5m W



*Mycoporum parvifolium* - creeping boobialla  
0.3m H x 1m W



*Senecio rowleyanus* - string of pearls  
0.1m H x 3m W



*Dianella revoluta* - blue flax lily  
1m H x 1.5m W



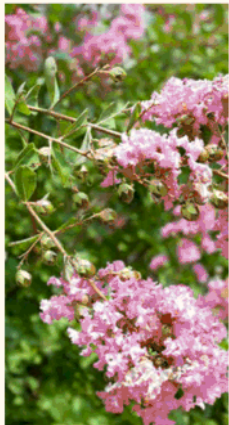
*Helichrysum bracteatum* - paper daisies  
0.5m H x 0.5m W



*Banksia spinulosa* - bush candles  
0.5m H x 1.5m W



*Dicksonia antarctica* - soft tree fern  
4.5m H x 2m W



*Lagerstroemia indica* x 'L.Fauriei' 'Biloxi'  
- crepe myrtle 8m H x 5m W



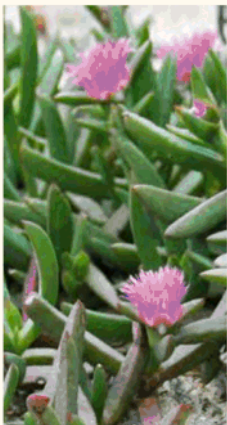
*Asplenium australasicum* - bird's nest fern  
1.5m H x 1.5m W



*Lomandra confertifolia* - little con  
0.3m H x 0.3m W



*Westringia fruticosa* - grey box  
0.5m H x 0.5m W



*Carpobrotus rossii* - pigface  
0.4m H x 1m W



*Grevillea rhytidota* - cherry cluster  
0.5m H x 0.8m W







Sculpture Trail Opportunities





# Landscape Drawings

LANDSCAPE DEVELOPMENT APPLICATION DRAWINGS

21-41 1 KNOPWOOD STREET  
BATTERY POINT, HOBART,  
TASMANIA 7000

DWG NO.	REV.	DRAWING TITLE	DATE ISSUED
L000	C	COVER SHEET	27.01.22
L00	C	GROUND FLOOR - PLANTING PLAN	27.04.22
L01	A	LEVEL 1 - PLANTING PLAN	10.12.21
L02	A	LEVEL 2 - PLANTING PLAN	10.12.21
L03	A	LEVEL 3 - PLANTING PLAN	10.12.21
L04	A	LEVEL 4 - PLANTING PLAN	10.12.21
L05	A	LEVEL 5 - PLANTING PLAN	10.12.21
L06	A	LEVEL 6 - PLANTING PLAN	10.12.21
L10	C	GROUND FLOOR - SURFACES PLAN	27.04.22
L11	A	LEVEL 1 - SURFACES PLAN	10.12.21



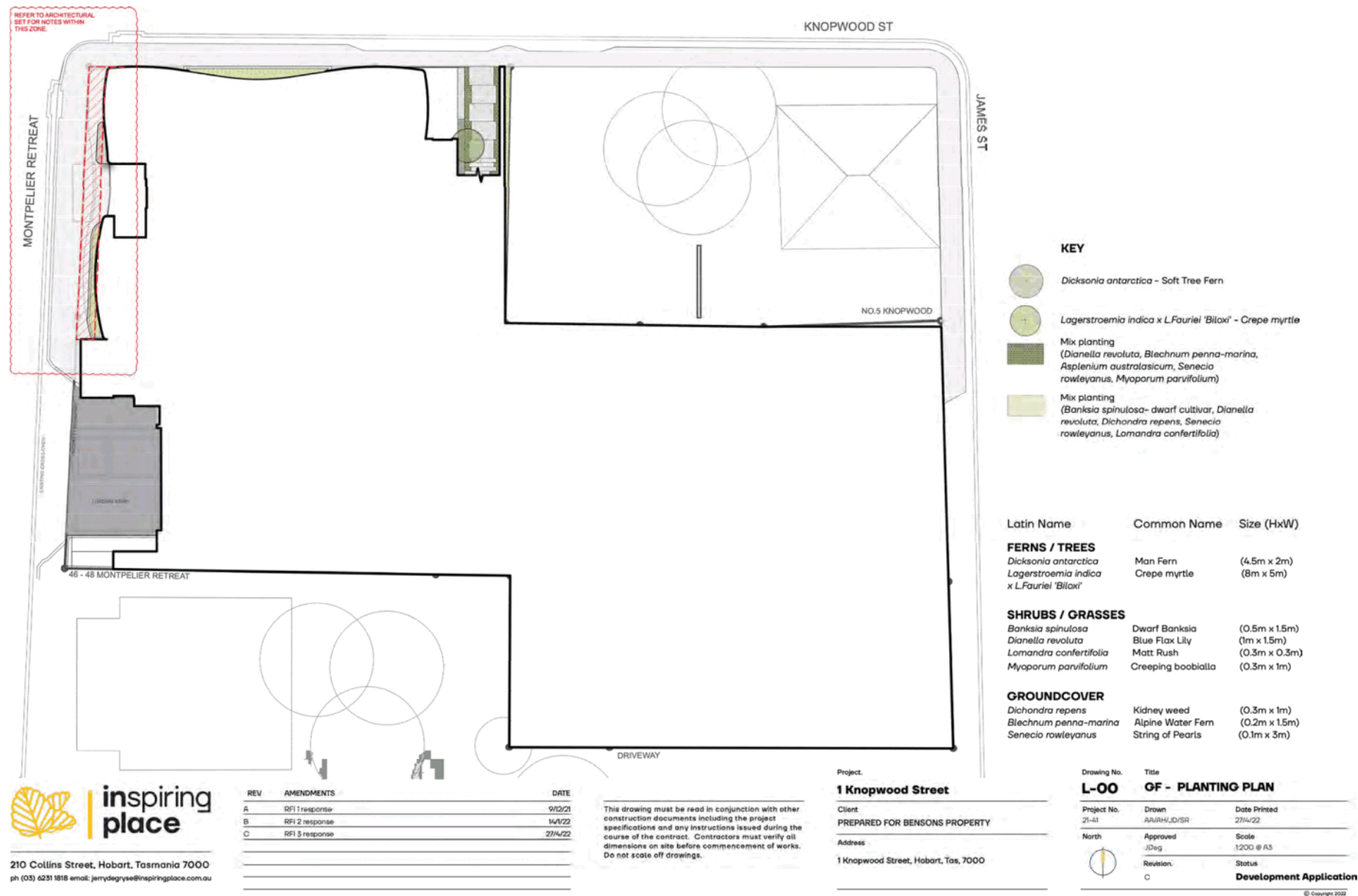
210 Collins Street, Hobart, Tasmania 7000  
ph (03) 6231 1818 email: jerrydegryse@inspiringplace.com.au

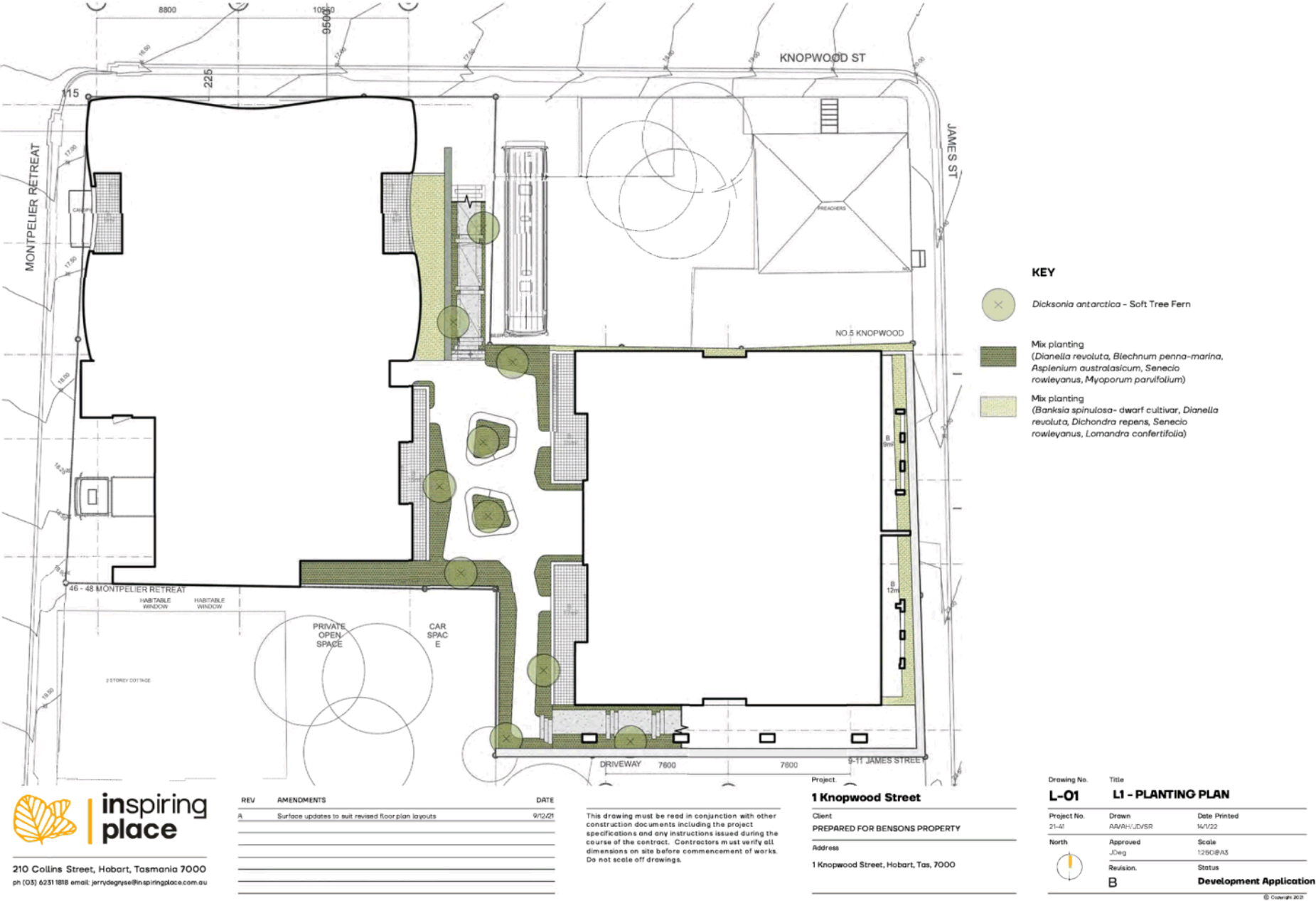
REV	AMENDMENTS	DATE
A	RFI 1 response	9/12/21
B	RFI 2 response	14/1/22
C	RFI 3 response	27/4/22

This drawing must be read in conjunction with other construction documents including the project specifications and any instructions issued during the course of the contract. Contractors must verify all dimensions on site before commencement of works. Do not scale off drawings.

Project.	1 Knopwood Street
Client	PREPARED FOR BENSONS PROPERTY
Address	1 Knopwood Street, Hobart, Tas, 7000

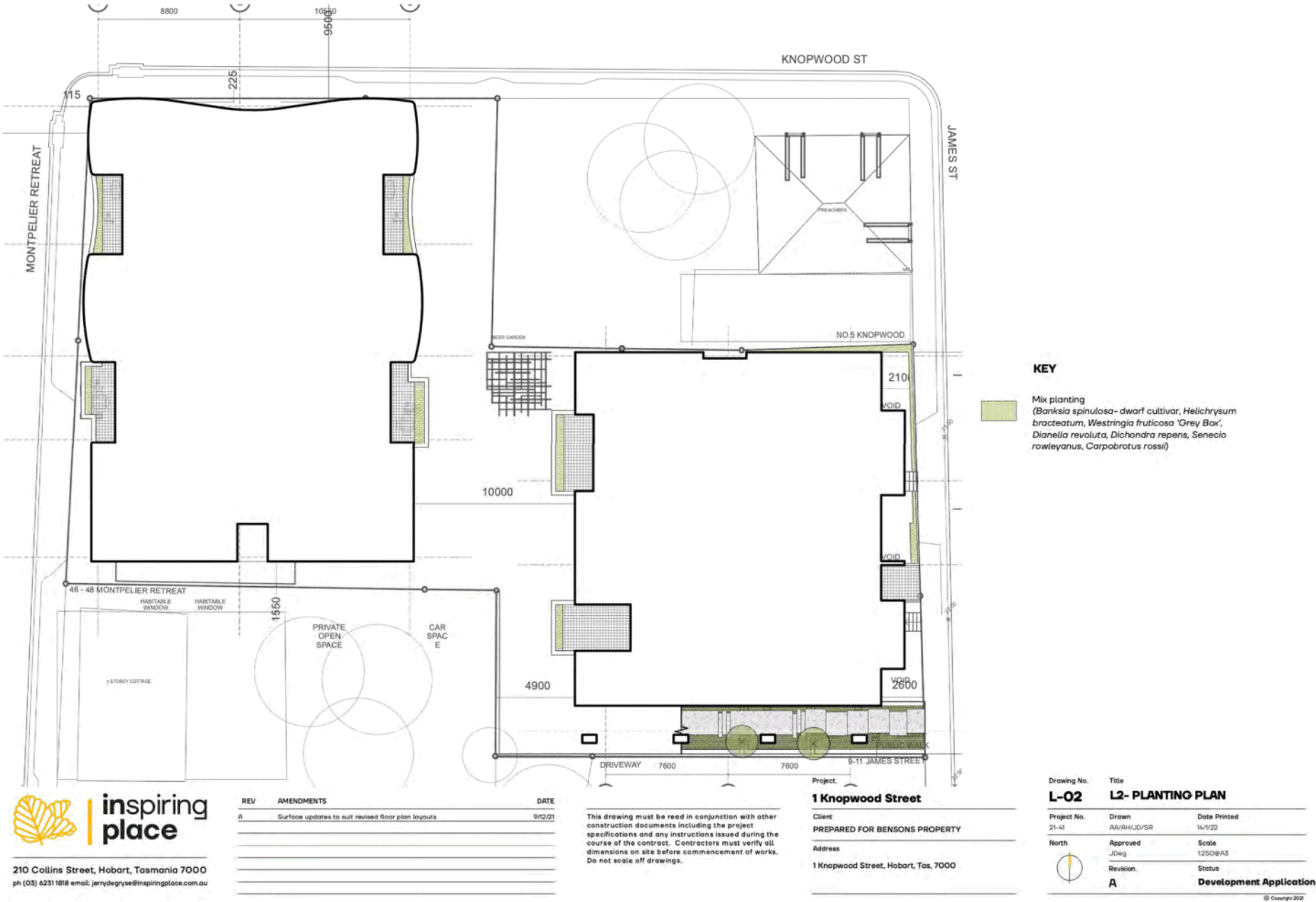
Drawing No.	Title	
L-000	COVER SHEET	
Project No.	Drawn	Date Printed
21-41	AA/AN/JD/SR	27/4/22
North	Approved	Scale
	JDeg	
	Revision	Status
	B	Development Application

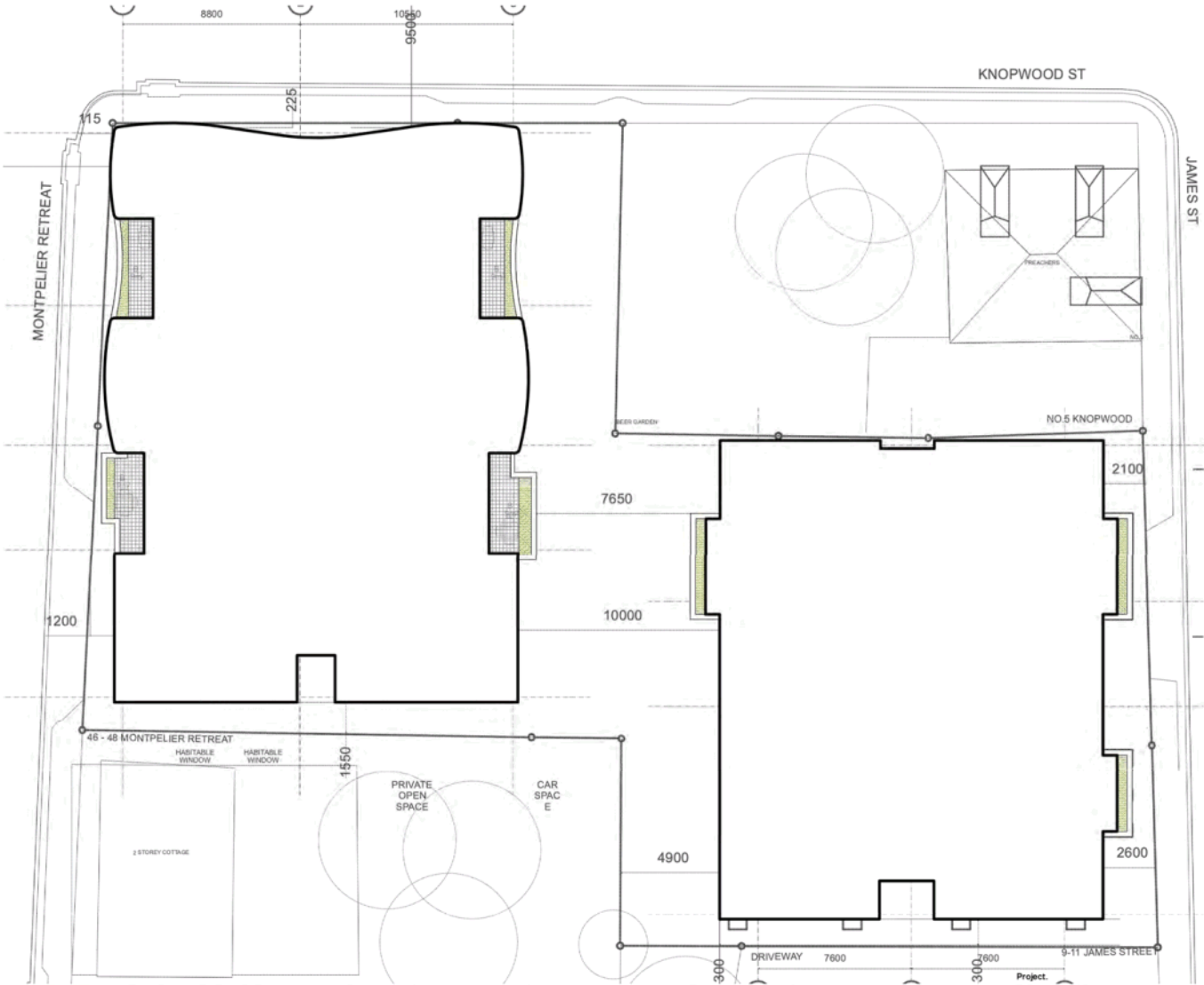




210 Collins Street, Hobart, Tasmania 7000  
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ph (03) 4231 1818 email: jerrydegryse@inspiringplace.com.au

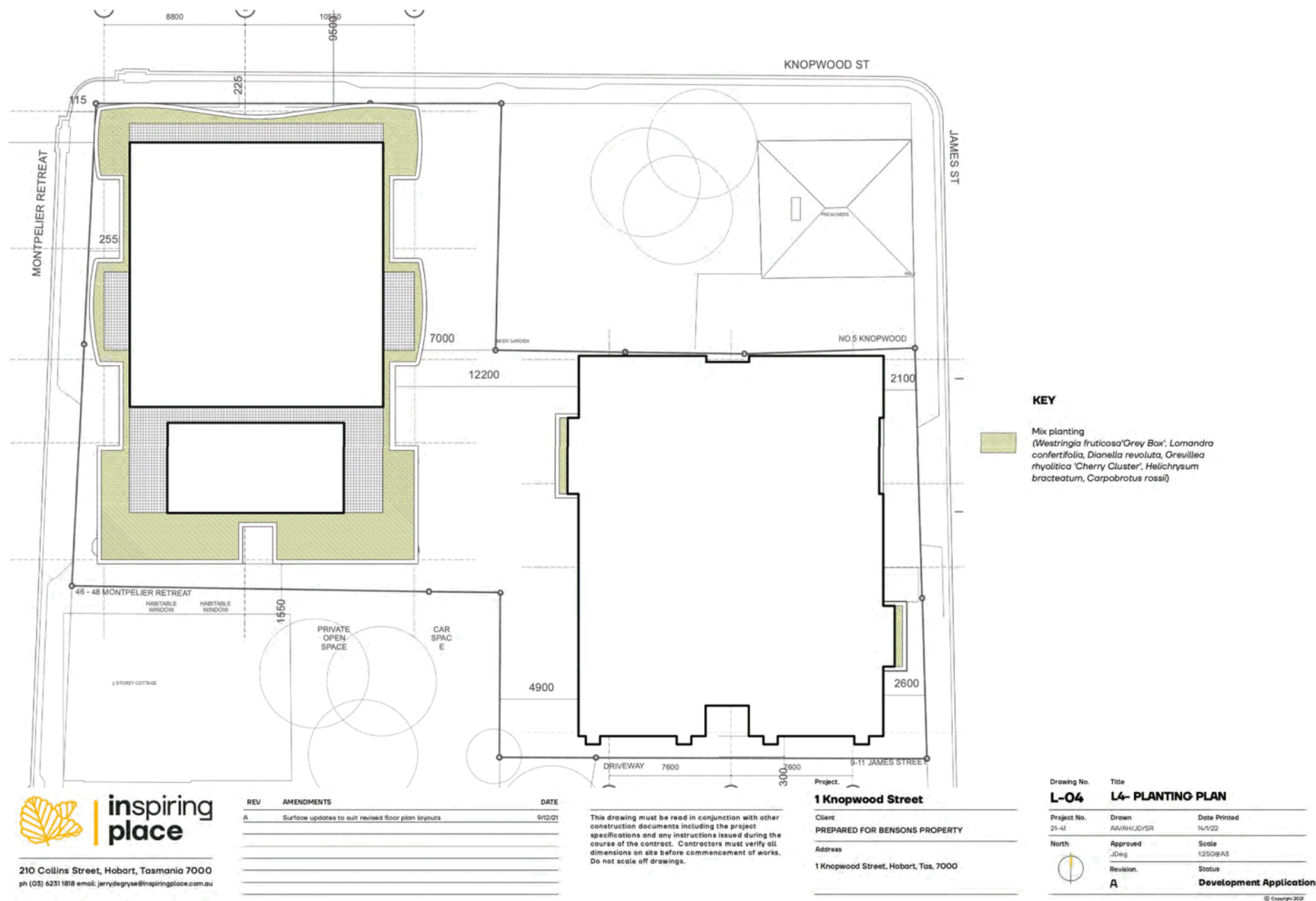
REV	AMENDMENTS	DATE
A	Surface updates to suit revised floor plan layouts	9/12/21

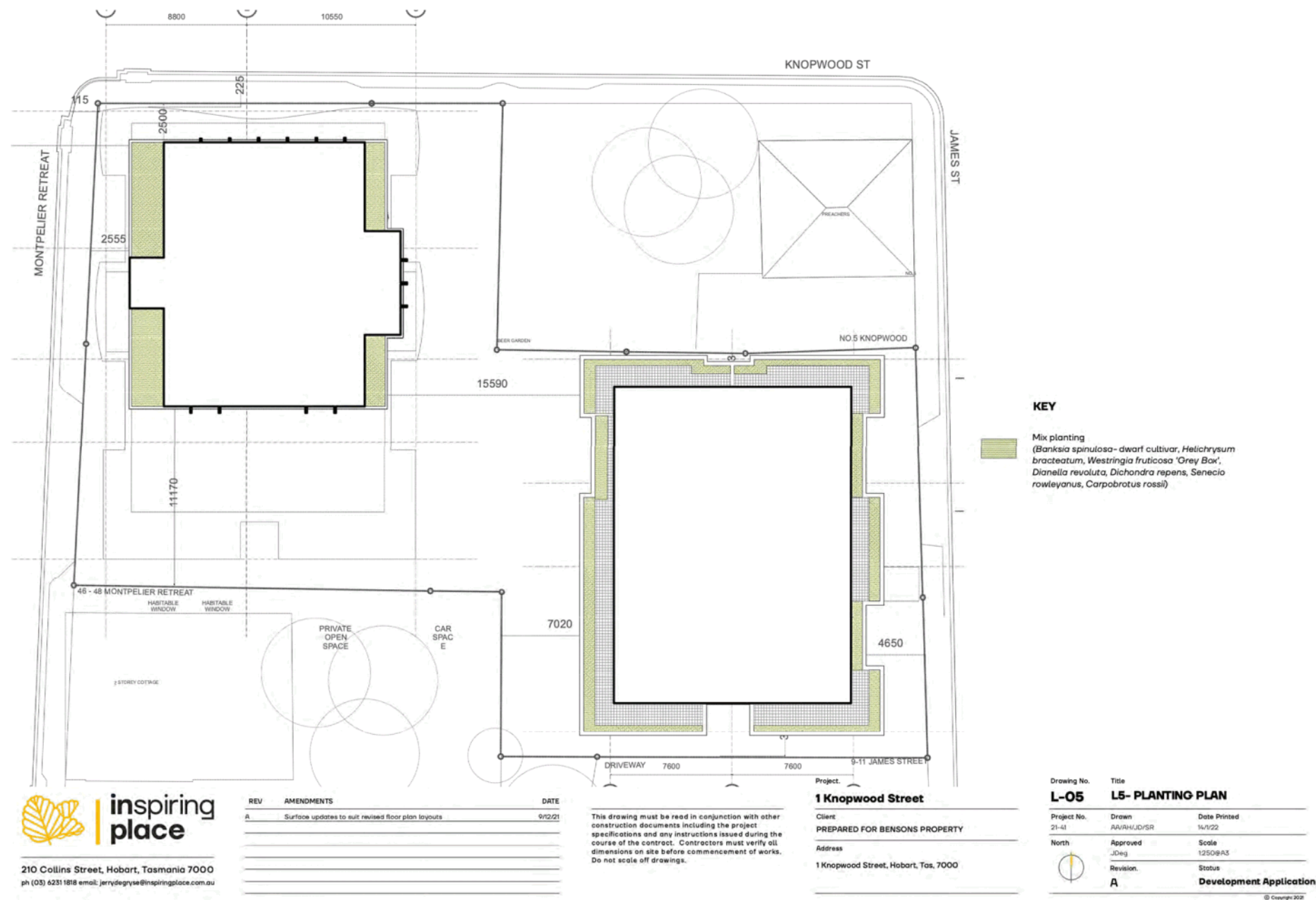
This drawing must be read in conjunction with other construction documents including the project specifications and any instructions issued during the course of the contract. Contractors must verify all dimensions on site before commencement of works. Do not scale off drawings.

1 Knopwood Street

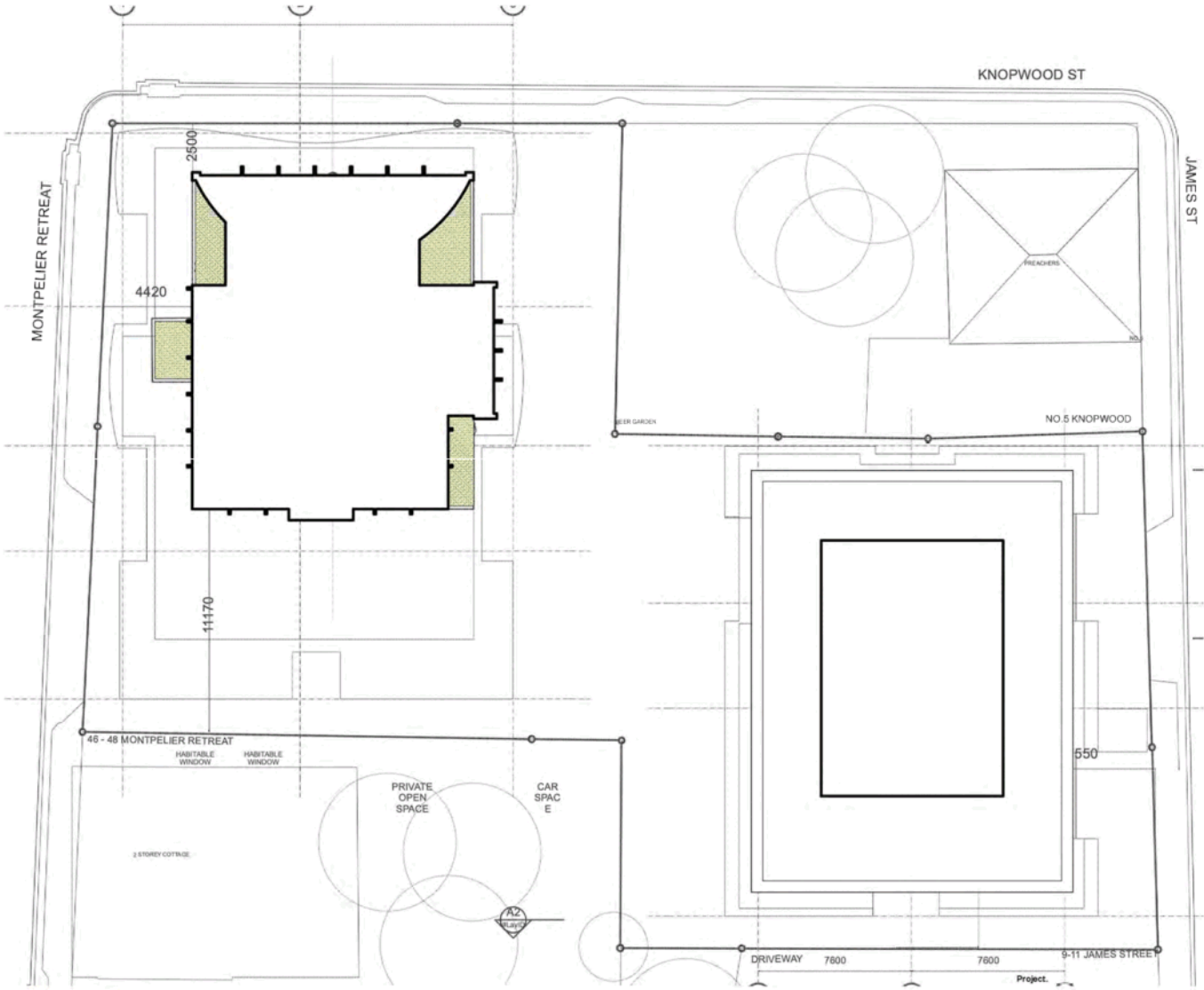
Client:  
PREPARED FOR BENSONS PROPERTY  
Address:  
1 Knopwood Street, Hobart, Tas, 7000

Drawing No.	Title		
L-03	L3- PLANTING PLAN		
Project No.	Drawn	Date Printed	
21-41	AA/AH/JD/SR	14/1/22	
North	Approved	Scale	
	J.Deg	1:250 @ A3	
Revision	Status		
A	Development Application		









KEY

Mix planting  
(*Banksia spinulosa*-dwarf cultivar, *Helichrysum bracteatum*, *Westringia fruticosa* 'Grey Box', *Dianella revoluta*, *Dichondra repens*, *Senecio rowleyanus*, *Carpobrotus rossii*)



210 Collins Street, Hobart, Tasmania 7000  
ph (03) 6231 1818 email: jerrydegryse@inspiringplace.com.au

REV	AMENDMENTS	DATE
A	Surface updates to suit revised floor plan layouts	9/12/21

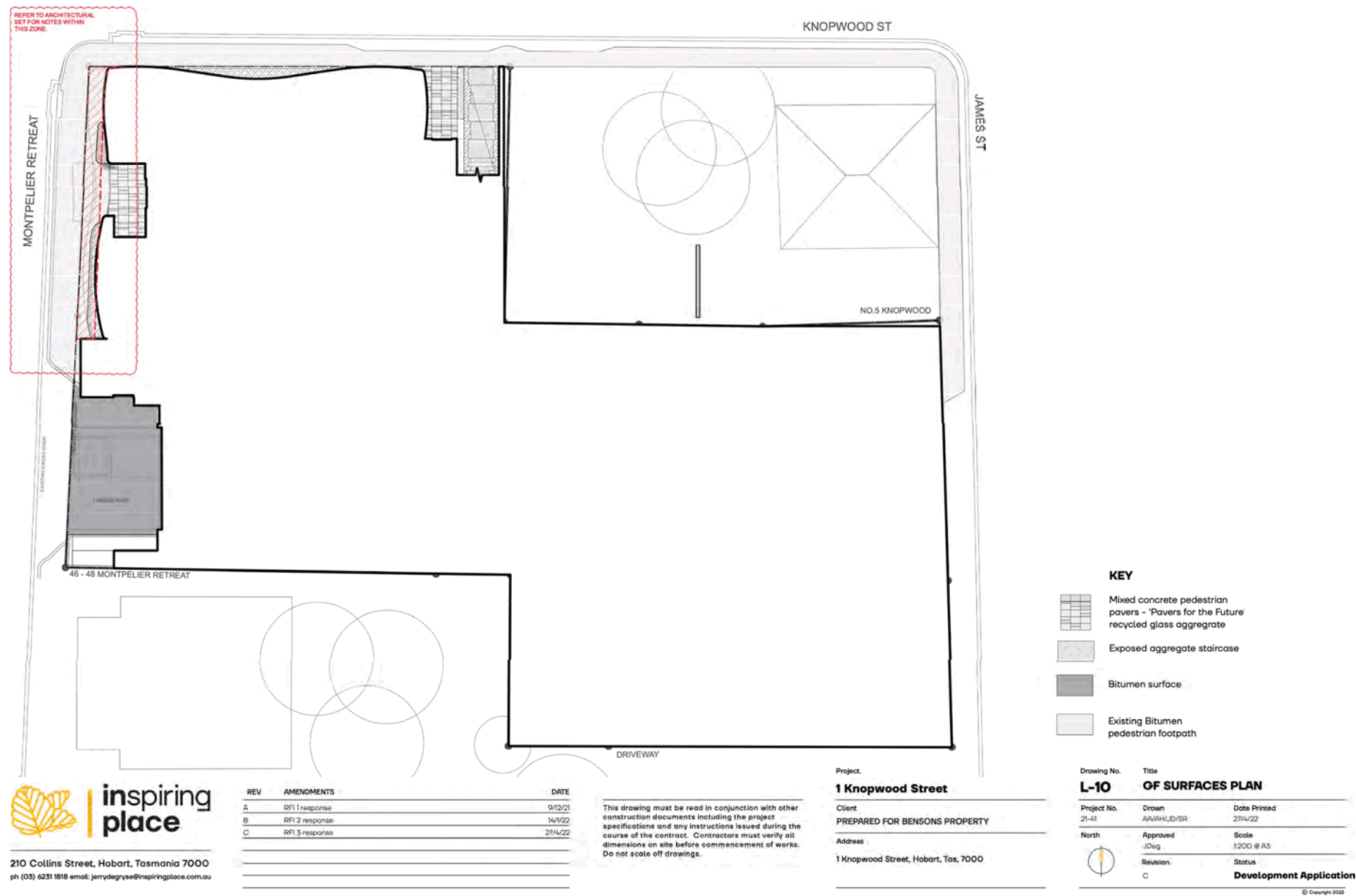
This drawing must be read in conjunction with other construction documents including the project specifications and any instructions issued during the course of the contract. Contractors must verify all dimensions on site before commencement of works. Do not scale off drawings.

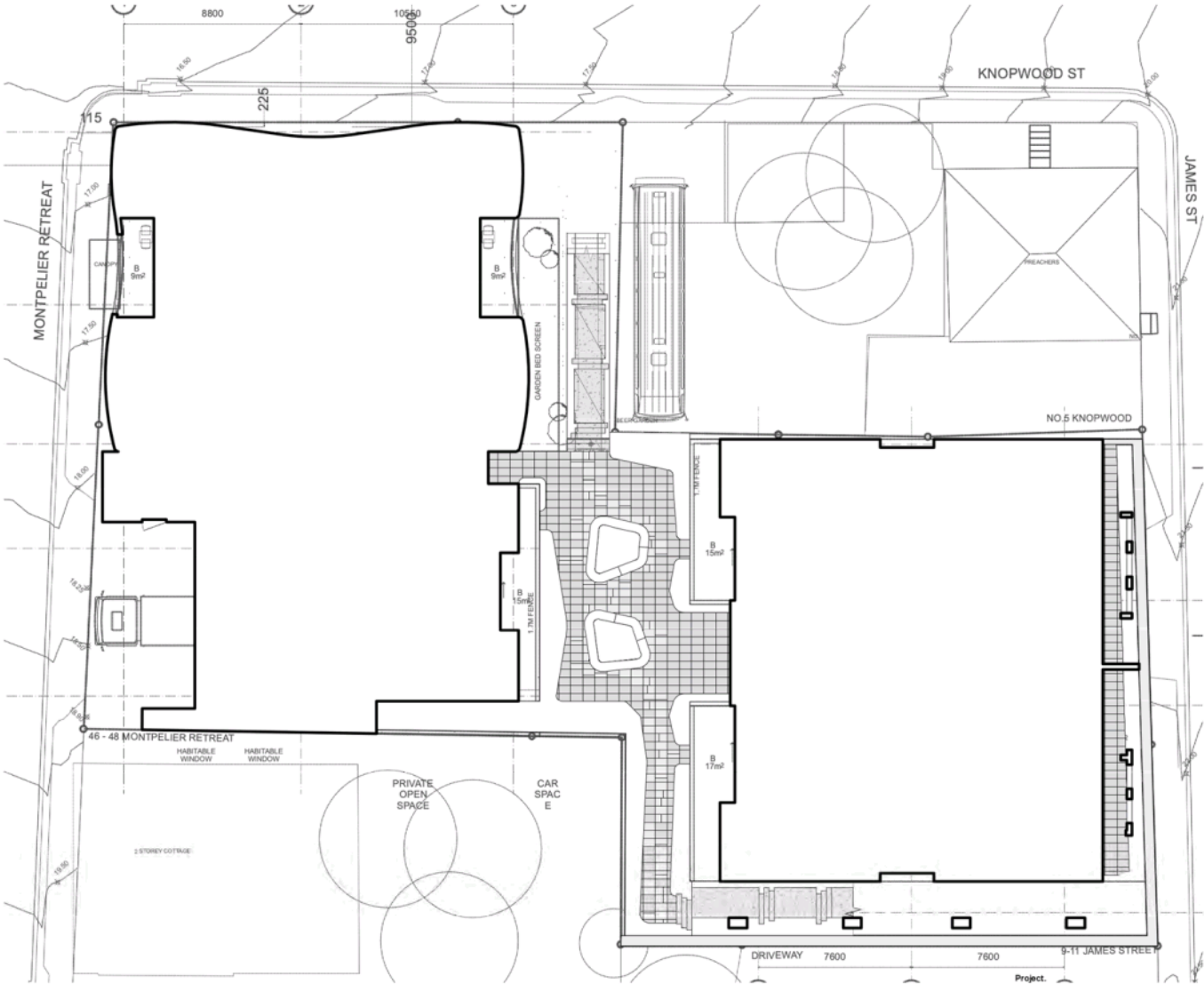
Project:  
**1 Knopwood Street**

Client:  
**PREPARED FOR BENSONS PROPERTY**

Address:  
**1 Knopwood Street, Hobart, Tas, 7000**

Drawing No.	Title		
<b>L-06</b>	<b>L6- PLANTING PLAN</b>		
Project No.	Drawn	Date Printed	
21-41	AA/AH/JC/SR	14/1/22	
North	Approved	Scale	
	J.Deg	1:250 @ A3	
Revision	Status		
<b>A</b>		<b>Development Application</b>	





210 Collins Street, Hobart, Tasmania 7000  
ph (03) 4231 1818 email: jerrydegryse@inspiringplace.com.au

REV	AMENDMENTS	DATE
A	Surface updates to suit revised floor plan layouts	9/12/21

This drawing must be read in conjunction with other construction documents including the project specifications and any instructions issued during the course of the contract. Contractors must verify all dimensions on site before commencement of works. Do not scale off drawings.

Project:  
**1 Knopwood Street**

Client:  
**PREPARED FOR BENSONS PROPERTY**

Address:  
**1 Knopwood Street, Hobart, Tas, 7000**

KEY	
	Mixed concrete pedestrian pavers - 'Pavers for the Future' recycled glass aggregate
	Exposed aggregate staircase
	Bitumen surface

Drawing No.	Title		
<b>L-11</b>	<b>L1 SURFACES PLAN</b>		
Project No.	Drawn	Date Printed	
21-41	AA/AH/JD/SR	14/1/22	
North	Approved	Scale	
	J.Deg	1:250 @ A3	
	Revision	Status	
	<b>A</b>	<b>Development Application</b>	

# Visualisations





Staggered stairs entry



Internal courtyard



Enquiries to: City Life  
Phone: (03) 6238 2711  
Email: coh@hobartcity.com.au

5 May 2022

(Bensons Property, by their Agent, Ireneinc Planning)  
c/o 49 Tasma Street  
NORTH HOBART TAS 7000

mailto: phil@ireneinc.com.au

Dear Sir/Madam

**1 KNOPWOOD STREET, BATTERY POINT - WORKS IN ROAD RESERVE NOTICE OF  
LAND OWNER CONSENT TO LODGE A PLANNING APPLICATION - GMC-21-65**

**Site Address:**

1 Knopwood Street and adjacent road reserve

**Description of Proposal:**

Stormwater, sewer and water infrastructure works in the road reserve

**Applicant Name:**

Bensons Property, by their agent, Ireneinc Planning

**PLN (if applicable):**

PLN-21-719

I write to advise that pursuant to Section 52 of the *Land Use Planning and Approvals Act 1993*, I grant my consent on behalf of the Hobart City Council as the owner/administrator of the above land for you to make application to the City for a planning permit for the development described above and as per the attached documents. I granted consent pursuant to delegation, a copy of which is enclosed.

Please note that the granting of the consent is only for the making of the application and in no way should such consent be seen as prejudicing any decision the Council is required to make as the statutory planning authority.

Hobart Town Hall  
50 Macquarie Street  
Hobart TAS 7000

Hobart Council Centre  
16 Elizabeth Street  
Hobart TAS 7000

City of Hobart  
GPO Box 503  
Hobart TAS 7001

T 03 6238 2711  
F 03 6234 7109  
E coh@hobartcity.com.au  
W hobartcity.com.au

CityofHobartOfficial  
ABN 39 055 343 428  
Hobart City Council



This consent does not constitute an approval to undertake any works and does not authorise the owner, developer or their agents any right to enter or conduct works on any Council managed land whether subject to this consent or not.

If planning approval is granted by the planning authority, you will be required to seek approvals and permits from the City as both landlord, land manager, or under other statutory powers (such as other legislation or City By-Laws) that are not granted with the issue of a planning permit under a planning scheme. This includes the requirement for you to reapply for a permit to occupy a public space under the City's Public Spaces By-law if the proposal relates to such an area.

Accordingly, I encourage you to continue to engage with the City about these potential requirements.

Yours faithfully



(Glenn Doyle)

**HEAD OF CITY PROJECTS**

Relevant documents/plans:


Letter requesting Council consent dated 7 April 2022 from Ireninc  
Drawings TP100 & TP201 dated 21/02/2022 from Fender Katsalidis  
Drawings C001, C0002, C101 to C116, C201, C301 & C302 dated 28/01/2020 from Aldanmark

Hobart Town Hall  
50 Macquarie Street  
Hobart TAS 7000

Hobart Council Centre  
16 Elizabeth Street  
Hobart TAS 7000

City of Hobart  
GPO Box 503  
Hobart TAS 7001

T 03 6238 2711  
F 03 6234 7109  
E [coh@hobartcity.com.au](mailto:coh@hobartcity.com.au)  
W [hobartcity.com.au](http://hobartcity.com.au)

 CityofHobartOfficial  
ABN 39 055 343 428  
Hobart City Council





## City of Hobart

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### INSTRUMENT OF DELEGATION

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#### General Delegation

#### Head of Intergovernmental Relations and Partnerships

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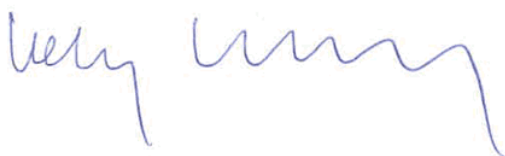
##### *Section 64 of the Local Government Act 1993*

I, Kelly Grigsby, Chief Executive Officer, being the General Manager as appointed by Council pursuant to Section 61 of the *Local Government Act 1993 (Tas)* ("the Act") hereby delegate pursuant to Section 64 of the Act, the following powers and functions to the Head of City Projects:

1. to sign an application; and
2. to provide written permission to make an application;

pursuant to section 52(1B) of the *Land Use Planning and Approvals Act 1993*, except where an application pursuant to that section is recommended for refusal by Council officers.

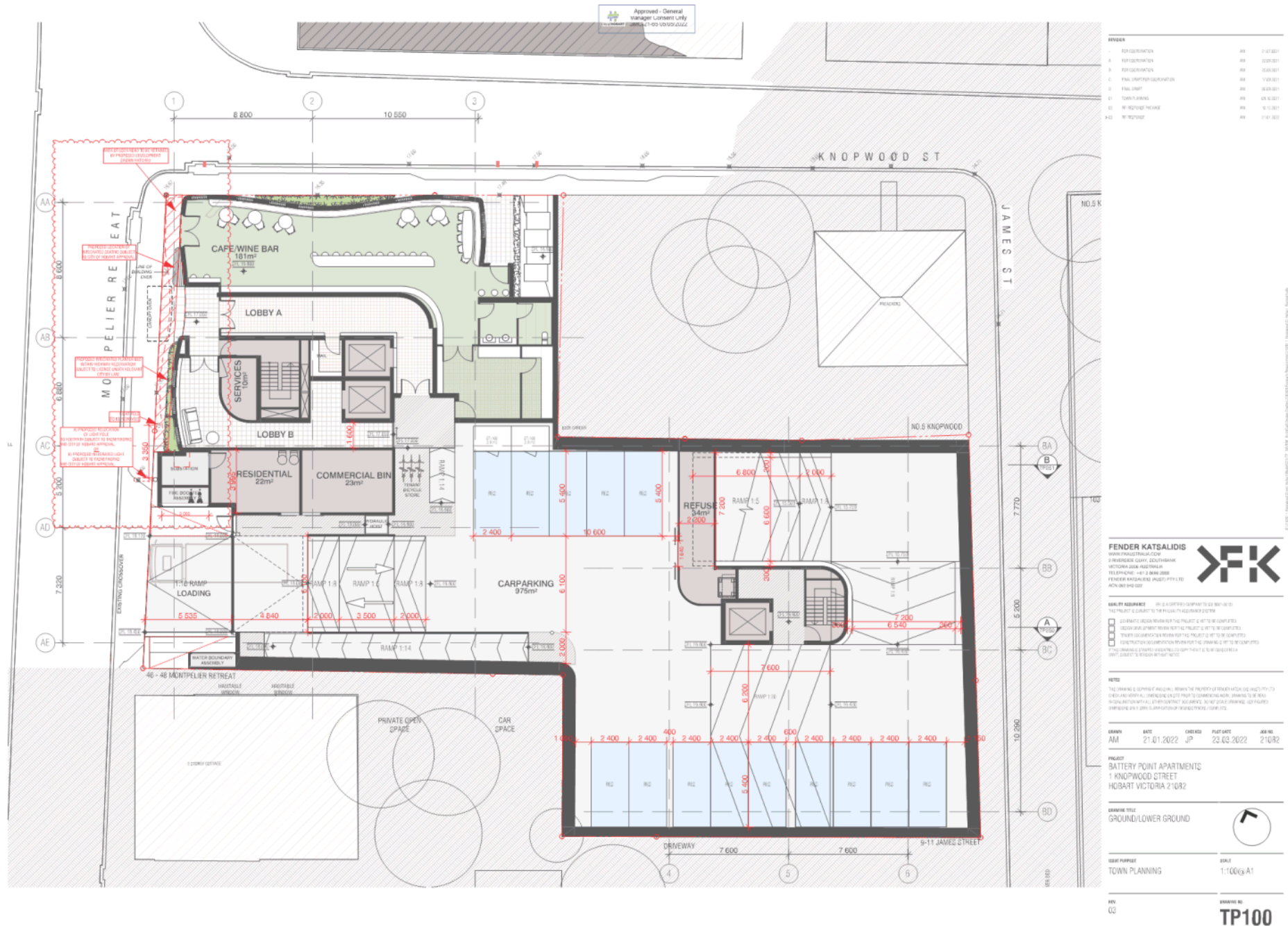
Dated this 24th day of February 2022

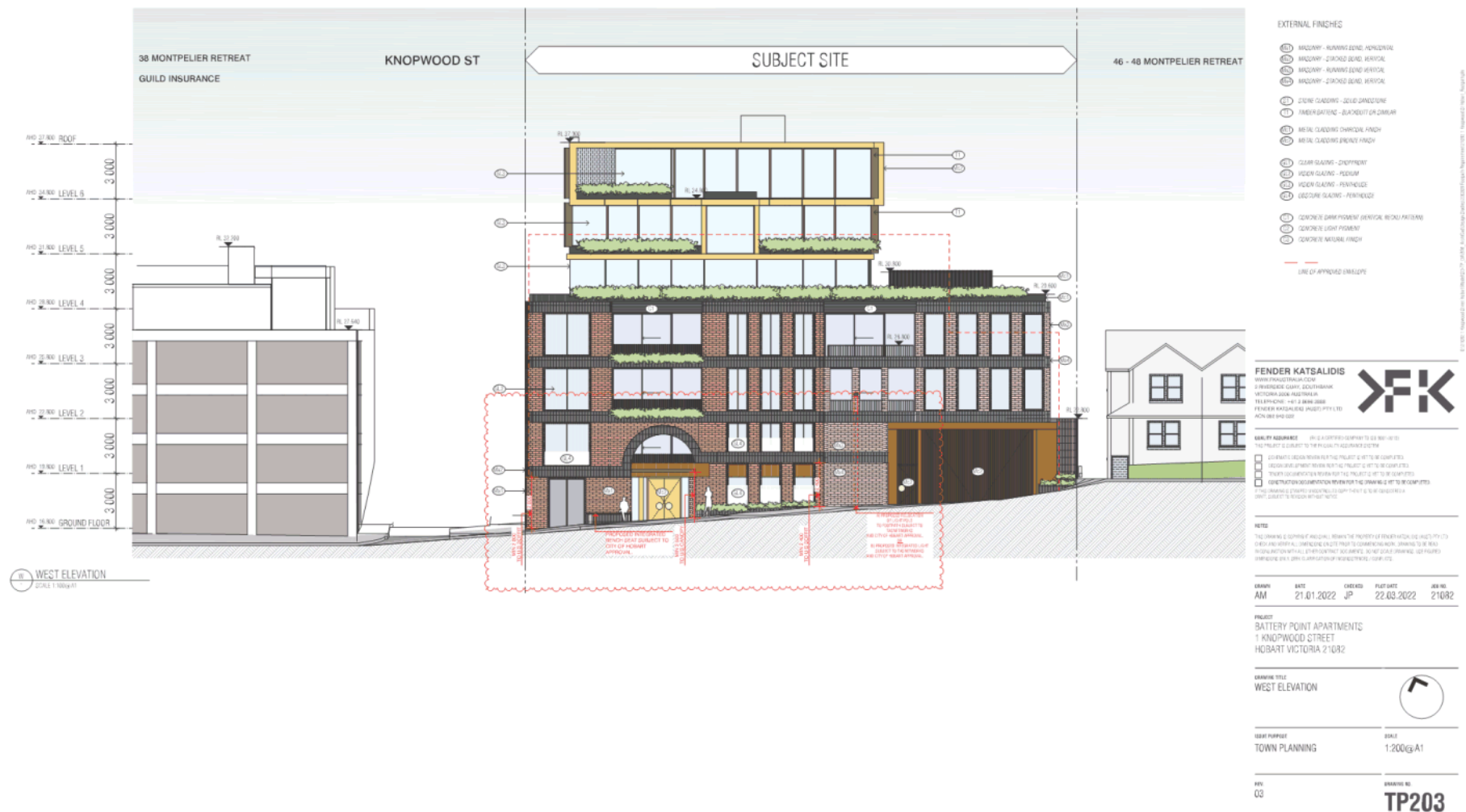


**SIGNED**

Kelly Grigsby  
(Chief Executive Officer)

Being the General Manager as appointed by Council pursuant to section 61 of the *Local Government Act 1993 (Tas)*







CIVIL DRAWINGS  
BATTERY POINT APARTMENTS  
1 KNOPWOOD STREET

C001	COVER	F	28/01/2022
C002	ENGINEERING NOTES	E	28/01/2022
C101	LOCALITY PLAN	E	28/01/2022
C102	BASEMENT LAYOUT PLAN	F	28/01/2022
C103	GROUND LAYOUT PLAN	F	28/01/2022
C104	BASEMENT PARKING DIMENSIONS PLAN	E	28/01/2022
C105	GROUND PARKING DIMENSION PLAN	E	28/01/2022
C106	SIGHT LINE PLAN	E	28/01/2022
C107	BASEMENT TURNPATH PLAN - SHEET 1	E	28/01/2022
C108	BASEMENT TURNPATH PLAN - SHEET 2	E	28/01/2022
C109	BASEMENT TURNPATH PLAN - SHEET 3	E	28/01/2022
C110	BASEMENT TURNPATH PLAN - SHEET 4	E	28/01/2022
C111	BASEMENT TURNPATH PLAN - SHEET 5	E	28/01/2022
C112	GROUND TURNPATH PLAN - SHEET 1	E	28/01/2022
C113	GROUND TURNPATH PLAN - SHEET 2	E	28/01/2022
C114	GROUND TURNPATH PLAN - SHEET 3	E	28/01/2022
C115	GROUND TURNPATH PLAN - SHEET 4	E	28/01/2022
C116	GROUND TURNPATH PLAN - SHEET 5	E	28/01/2022
C201	ELEVATIONS	E	28/01/2022
C301	SECTIONS - SHEET 1	E	28/01/2022
C302	SECTIONS - SHEET 2	E	28/01/2022

E	DEVELOPMENT APPROVAL - RP1 RESPONSE	28/01/2022	DRAWN	DE
D	DEVELOPMENT APPROVAL - RP1 RESPONSE	22/12/2021	CHECKED	MM
C	DEVELOPMENT APPROVAL - RP1 RESPONSE	9/12/2021	DESIGN	DE
B	DEVELOPMENT APPROVAL - CON RP1 RESPONSE	28/10/2021	CHECKED	MM
F	DEVELOPMENT APPROVAL - TRENCH DRAIN ADDITION	28/03/2022	VERIFIED	-
REV	ISSUE	DATE	APPROVAL	



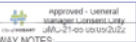
**ALDANMARK**

CONSULTING ENGINEERS

Lower Ground  
199 Macquarie Street  
Hobart TAS 7000  
03 6234 8666  
mail@aldanmark.com.au  
www.aldanmark.com.au

PROJECT: BATTERY POINT APARTMENTS	ADDRESS: 1 KINOPWOOD STREET, BATTERY POINT, TAS, 7004	SHEET: COVER			
			CLIENT: FENDER KATSALIDIS	SCALE: AS INDICATED	TOTAL SHEETS: 21
			PROJECT NO: 21E99-114	SHEET: C001	REV: F





GENERAL NOTES:

1. THESE DRAWINGS ARE TO BE READ IN CONJUNCTION WITH THE ARCHITECTURAL, MECHANICAL AND ELECTRICAL DRAWINGS AND SPECIFICATIONS. STANDARD REFERENCES ARE TO BE THE MOST CURRENT VERSION.
2. THESE DRAWINGS SHALL NOT BE USED FOR CONSTRUCTION UNLESS INCORPORATED FOR CONSTRUCTION AND AUTHORIZED FOR ISSUE ACCORDINGLY.
3. ALL WORKS TO BE CARRIED OUT IN ACCORDANCE WITH PRELIMINARY STANDARD DRAWINGS AND SPECIFICATIONS, AUSTRALIAN STANDARDS, VISA DRAWING CODES OF AUSTRALIA & WATER SUPPLY CODE OF AUSTRALIA AND TO THE SATISFACTION OF COUNCIL'S DEVELOPMENT ENGINEER.
4. PRELIMINARY STANDARD DRAWINGS TO BE READ IN CONJUNCTION WITH COUNCIL EXCLUSION SHEETS TSD-REV-A & TSD-REV-B.
5. ALL WORKS TO BE CARRIED OUT IN ACCORDANCE WITH THE REQUIREMENTS OF COUNCIL.
6. CONTRACTOR TO OBTAIN APPROVAL, SERVICE COORDINATES AND COORDINATE WORK WITH ALL RELEVANT AUTHORITIES PRIOR TO COMMENCEMENT.
7. A STATE OF ADDRESS NOTIFICATION MUST BE OBTAINED FROM COUNCIL PRIOR TO ANY WORKS COMMENCED.
8. SURVEY DATA UNDERSTANDS AND PROVIDED BY FENDER KATSALIDIS.
9. FENDER KATSALIDIS SHALL BE RESPONSIBLE FOR ANY SURVEY DATA BASED ON THESE.

WORKPLACE HEALTH & SAFETY NOTES:

- BEFORE THE CONTRACTOR COMMENCES WORK THE CONTRACTOR SHALL UNDERTAKE A SITE SPECIFIC PROJECT PRELIMINARY RISK ANALYSIS (SEE SAFETY ANALYSIS LOG) WHICH SHALL IDENTIFY IN DOCUMENTED FORM:
- THE TYPE OF WORK.
  - HAZARDS AND RISK TO HEALTH AND SAFETY.
  - THE CONTROLS TO BE APPLIED IN ORDER TO ELIMINATE OR MINIMIZE THE RISK POSED BY THE IDENTIFIED HAZARDS.
  - THE NUMBER IN WHICH THE RISK CONTROL MEASURES ARE TO BE IMPLEMENTED.

THESE ARE TO BE SUBMITTED TO THE SUPERINTENDENT AND/OR OTHER RELEVANT WORKPLACE SAFETY OFFICERS.

- FOR THIS PROJECT POSSIBLE HAZARDS INCLUDE BUT ARE NOT LIMITED TO:
- EXCAVATION OF ANY TYPE & DEPTHS.
  - CONTAMINATED SOILS.
  - CONSTRUCTION ON OR ABOVE EXISTING WATER TABLE.
  - FELLING, LIFTING OR REMOVAL OF EXISTING TREES/VEGETATION.
  - UNDERGROUND STRUCTURES (MANHOLES, TUNNELS, ETC).
  - EXISTING SERVICES.
  - OVERHEAD POWER LINES.
  - UNDERGROUND STORAGE TANKS, WATER AND SEWER PIPES.
  - TELECOMMUNICATIONS CABLES, BOTH UNDERGROUND & OVERHEAD.
  - ELECTRICAL POWER CABLES, BOTH UNDERGROUND & OVERHEAD.
  - CORROSIVE MATERIALS.
  - WORKING WITH ASBESTOS CONTAINING MATERIALS.
  - TRAFFIC MANAGEMENT.

EARTHWORKS & DRIVEWAY NOTES:

1. ALL EARTHWORKS SHALL BE IN ACCORDANCE WITH ASBESTOS 'TOLERANCES' FOR EARTHWORKS FOR COMMERCIAL AND RESIDENTIAL DEVELOPMENT.
2. ALL EXISTING AND PROPOSED SHALL BE STRIPPED AND REMOVED IN THE AREA OF PROPOSED WORKS.
3. NEW OR EXISTING DRIVEWAY CROSSLINGS SHALL BE IN ACCORDANCE WITH PRELIMINARY STANDARD DRAWINGS TSD-REV-A AND TSD-REV-B AND APPROVED BY COUNCIL.
4. EXISTING AND IMPORTED MATERIAL USED AS FILL IS TO BE APPROVED BY THE ENGINEER PRIOR TO INSTALLATION.
5. FILL MATERIAL SHALL BE WELL SPORED AND FREE OF Boulders OR COBBLES EXCEEDING 150MM IN DIAMETER UNLESS APPROVED TO BE OTHERWISE.
6. FILL REQUIRED TO SUPPORT DRIVEWAYS INCLUDING FILL IN SUBSEQUENTS THAT SUPPORT DRIVEWAYS SHALL BE INSTALLED IN ACCORDANCE WITH THE FOLLOWING REQUIREMENTS:
  - TOP SOIL AND DRIVING LAYER SHALL BE STRIPPED TO A MINIMUM OF 150MM.
  - THE SUBGRADE SHALL HAVE A MINIMUM BEARING CAPACITY OF 100 KPa.
  - FILL IN SUBSEQUENTS SHALL BE KEPT TO 150MM IFC NATURAL DRIVING.
  - THE FILL SHALL BE COMPACTED IN 150MM LAYERS OF NOT MORE THAN 200MM.
  - EACH LAYER SHALL BE COMPACTED TO A MINIMUM DENSITY RATIO OF 98% IFC, IT IS THE BUILDER'S RESPONSIBILITY TO ENSURE THAT THIS IS ACHIEVED.
7. WHERE THE ABOVE REQUIREMENTS CANNOT BE ACHIEVED, THE ENGINEER SHALL BE CONSULTED AND THE PORTION SHALL BE PROPOSED UNDER SUPERVISION OF THE ENGINEER TO COMPLY AN APPROVED BASE.
8. CONCRETE PAVEMENTS SHALL BE LINED FOR A MINIMUM OF 3 DAYS USING A CURRENT BEST PRACTICE METHOD.
9. DRAIN CONTROL JOINTS SHALL BE CONSTRUCTED AS SOON AS POSSIBLE WITHOUT PAVED THE JOINT, GENERALLY THIS SHALL BE WITHIN 24 HOURS.
10. BATTERS SHALL BE SET TO A SAFE ANGLE OF REPOSE IN ACCORDANCE WITH THE BCA VOLUME 2 AS NOTICED BELOW.

SOIL TYPE (* REFER BCA 3.2.4)	EMBANKMENT SLOPES HL	
	COMPACTED FILL	OUT
STABLE ROCK (AT)	2:3	8:1
BANK (AT)	1:2	1:2
SILT (PT)	1:4	1:4
CLAY	FRAGILE CLAY	1:2
	SOFT CLAY	NOT SUITABLE
SOFT BROWN SILT	NOT SUITABLE	NOT SUITABLE

NOTE: WHERE SITE CONDITIONS ARE UNSUITABLE FOR A BATTERED BANK CONSULT THE ENGINEER FOR A SUITABLE RETENTION WALL DESIGN. EMBANKMENTS THAT ARE TO BE LEFT EXPOSED MUST BE STABILISED BY VEGETATION OR SUGAR CANES TO PREVENT SOIL EROSION.

DRAINAGE AND SERVICES NOTES:

1. ALL WORKS ASSOCIATED WITH PUBLIC DRAINAGE INFRASTRUCTURE IS TO BE CARRIED OUT IN ACCORDANCE WITH THE LATEST STANDARD DRAWINGS AND SPECIFICATIONS AND TO THE SATISFACTION OF COUNCIL.
2. ALL WORKS ASSOCIATED WITH PUBLIC SEWER AND WATER IS TO BE CARRIED OUT IN ACCORDANCE WITH THE LATEST PARTS 2 & 3 OF THE AUSTRALIAN STANDARDS CODES OF AUSTRALIA, TOLERANCE SUPPLEMENTS TO THE SAME, AND TO THE SATISFACTION OF TABULATOR.
3. ALL CONNECTIONS TO EXISTING MAINS TO BE CARRIED OUT BY THE REGULATED AUTHORITY AT COST TO BUILDER UNLESS APPROVED OTHERWISE.
4. HYDRAULIC LAYOUT TO BE COORDINATED WITH OTHER SERVICES HYDRAULIC LAYOUT AS SHOWN IN DETAIL, LAYOUT TO BE COORDINATED TO SITE.
5. ALL DRAINAGE SERVICES TO BE LOCATED ON SITE PRIOR TO THE COMMENCEMENT OF WORK.
6. GENERAL HYDRAULIC INSTALLATION TESTS SHALL COMPLY WITH AS 4800 AND THE NEW VOLUME 3 (P2).
7. INSTALL ALL SUB-SOIL DRAINS TO THE REQUIREMENTS OF AS 4800, PART 1.1.3 OF THE NEW VOLUME 3 (P2) AND PART 1.1.3 OF THE NEW VOLUME 3 (P2).
8. MAINTENANCE AND REPAIRS ARE TO BE CARRIED OUT BY THE BUILDER AT A MINIMUM OF 150MM TO THE DRAINAGE DISCHARGE POINT.
9. ALL PIPE WORK UNDER TRAFFICABLE AREAS INCLUDING DRIVEWAYS IS TO BE BACKFILLED WITH COMPACTED FILL.
10. DRAINAGE PIPES TO BE UN-UVIC CLASS BVA PIPES UNDER TRAFFICABLE AREAS TO BE BVA UN-UVIC.
11. UN-UVIC PIPES FOR PRIVATE DRAINAGE PIPES SHALL BE IN FOR EXISTING AND 150MM FOR NEW UN-UVIC.
12. UN-UVIC PIPES FOR PRIVATE DRAINAGE PIPES SHALL BE 150MM FOR EXISTING AND 150MM FOR NEW UN-UVIC.
13. EXISTING SEWER MAINS TO BE UN-UVIC CLASS BVA UN-UVIC EXISTING AND 150MM FOR NEW UN-UVIC.
14. EXISTING WATER MAINS TO BE UN-UVIC CLASS BVA UN-UVIC EXISTING AND 150MM FOR NEW UN-UVIC.
15. WATER PIPES TO BE UN-UVIC CLASS BVA UN-UVIC EXISTING AND 150MM FOR NEW UN-UVIC.
16. WATER CONNECTIONS SHALL BE PROVIDED WITH VENTILATION AND BACKFLOW PREVENTION AS PER TABULATOR STANDARD DRAWINGS TSD-REV-A.
17. ALL PIPES TO BE INSTALLED BY LOCALITY PRIOR TO BACKFILL.
18. ALL DRAINAGE SERVICES HAVE BEEN DESIGNED BY FENDER KATSALIDIS. THESE PIPES MAY NEED TO BE DEEPENED IN MINIMUM 150MM DEPTH DUE TO THE DEPTH AS PER AS 4800.3 AS PER TABLE BELOW (WHICH IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE COMPLIANCE TO AS 4800).

DEPTH TO SUBSET OF DRAIN	MINIMUM MINIMUM DRAINAGE DEPTH	
	DEPTH	LENGTH
0-100	400	400
100-200	600	600
200-300	800	800
300-400	1000	1000
400-500	1200	1200

REV	ISSUE	DATE	APPROVAL
E	DEVELOPMENT APPROVAL - RFI RESPONSE	28/11/2022	DRAWN DE
D	DEVELOPMENT APPROVAL - RFI RESPONSE	22/12/2021	CHECKED MAM
C	DEVELOPMENT APPROVAL - RFI RESPONSE	9/12/2021	DESIGN DE
B	DEVELOPMENT APPROVAL - CON RFI RESPONSE	28/10/2021	CHECKED MAM
A	DEVELOPMENT APPROVAL	11/10/2021	VERIFIED -



Lower Ground  
199 Macquarie Street  
Hobart TAS 7000  
03 6234 8666  
mail@aldanmark.com.au  
www.aldanmark.com.au

PROJECT:	BATTERY POINT APARTMENTS
ADDRESS:	1 KNOXWOOD STREET BATTERY POINT, TAS, 7004
CLIENT:	FENDER KATSALIDIS

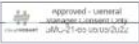
SHEET:	ENGINEERING NOTES
SCALE:	AS INDICATED
TOTAL SHEETS:	21
SIZE:	A1
PROJECT NO:	21E99-114
SHEET:	C002
REV:	E



THESE DRAWINGS SHALL BE APPROVED BY RELEVANT AUTHORITIES (INC. COUNCIL & TABULATOR) PRIOR TO CONSTRUCTION.

THIS DRAWING MUST ONLY BE DISTRIBUTED IN FULL. CONSULTING ENGINEERS ACCEPTS NO LIABILITY ARISING FROM FAILURE TO COMPLY WITH THIS REQUIREMENT.

REMARKS OF UNDERGROUND SERVICES:  
THE LOCATION OF EXISTING SERVICES ARE APPROXIMATE ONLY AND THEIR EXACT LOCATION SHOULD BE PROVIDED ON SITE BY THE RELEVANT AUTHORITY. NO GUARANTEE IS GIVEN THAT ALL SERVICES ARE SHOWN.



**DON'T FORGET YOU DIG**

THESE DRAWINGS SHALL BE APPROVED BY RELEVANT AUTHORITIES (INC. COUNCIL) & TOLERATED PRIOR TO CONSTRUCTION.

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**BEWARE OF UNDERGROUND SERVICES**

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LOCALITY PLAN  
SCALE 1:500 (A1)

E	DEVELOPMENT APPROVAL - RPI RESPONSE	28/11/2022	DRAWN	DE
D	DEVELOPMENT APPROVAL - RPI RESPONSE	22/12/2021	CHECKED	MM
C	DEVELOPMENT APPROVAL - RPI RESPONSE	9/12/2021	DESIGN	DE
B	DEVELOPMENT APPROVAL - COH RPI RESPONSE	28/10/2021	CHECKED	MM
A	DEVELOPMENT APPROVAL	11/10/2021	VERIFIED	-
REV	ISSUE	DATE	APPROVAL	



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Hobart TAS 7000  
03 6234 8866  
m@aldanmark.com.au  
www.aldanmark.com.au

PROJECT: BATTERY POINT APARTMENTS

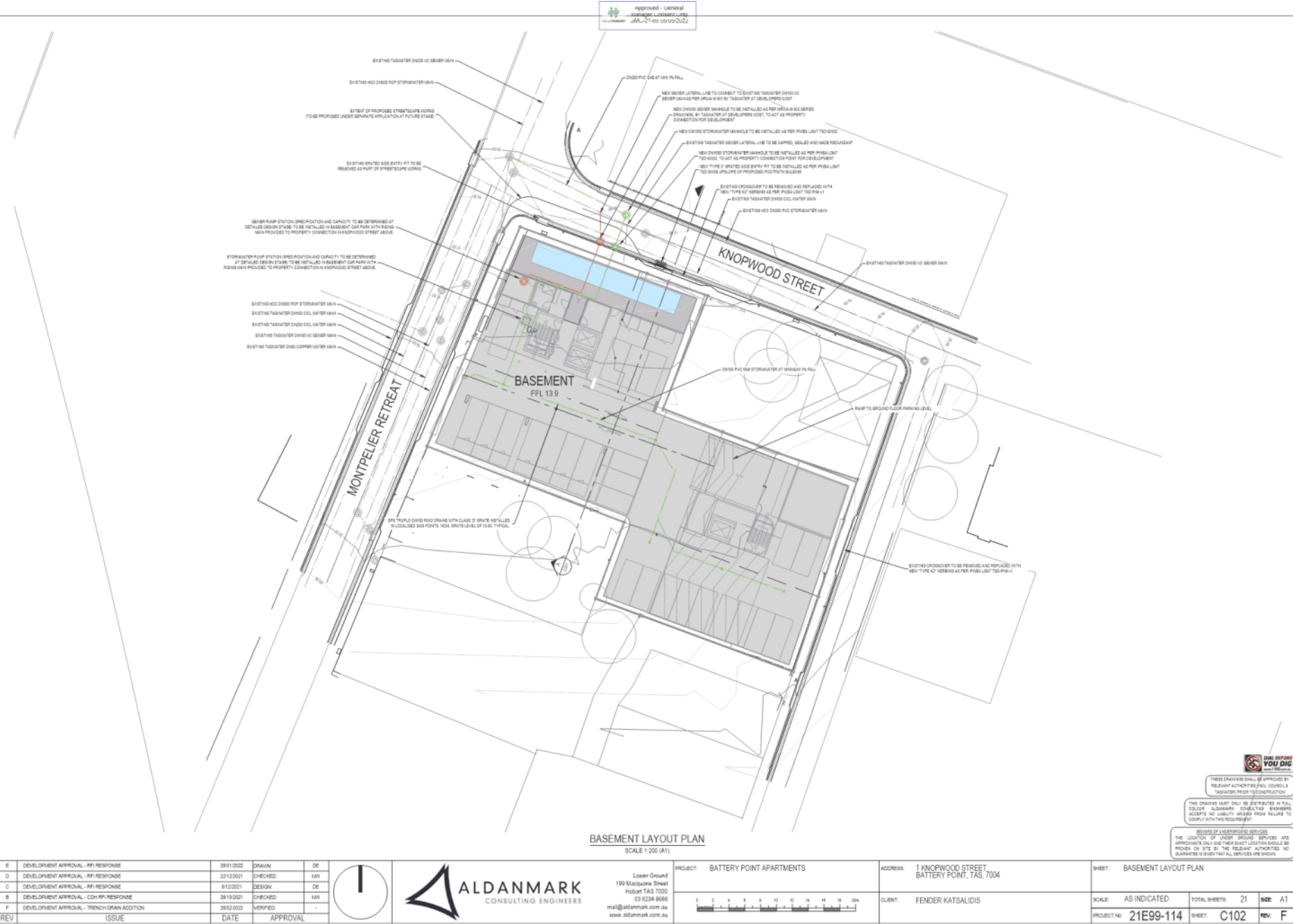


ADDRESS: 1 KNOXWOOD STREET  
BATTERY POINT, TAS. 7004

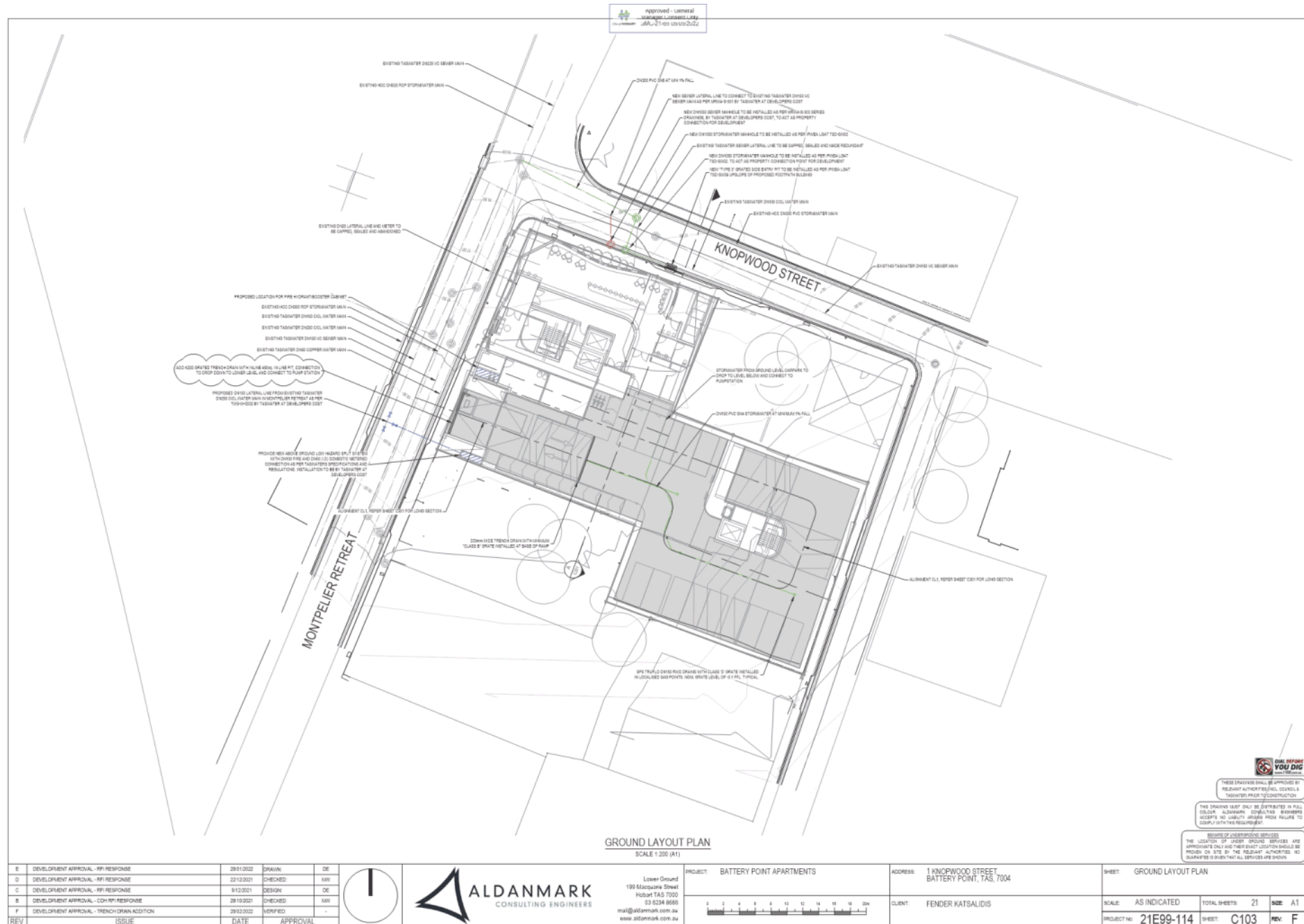
CLIENT: FENDER KATSALIDIS

SHEET: LOCALITY PLAN

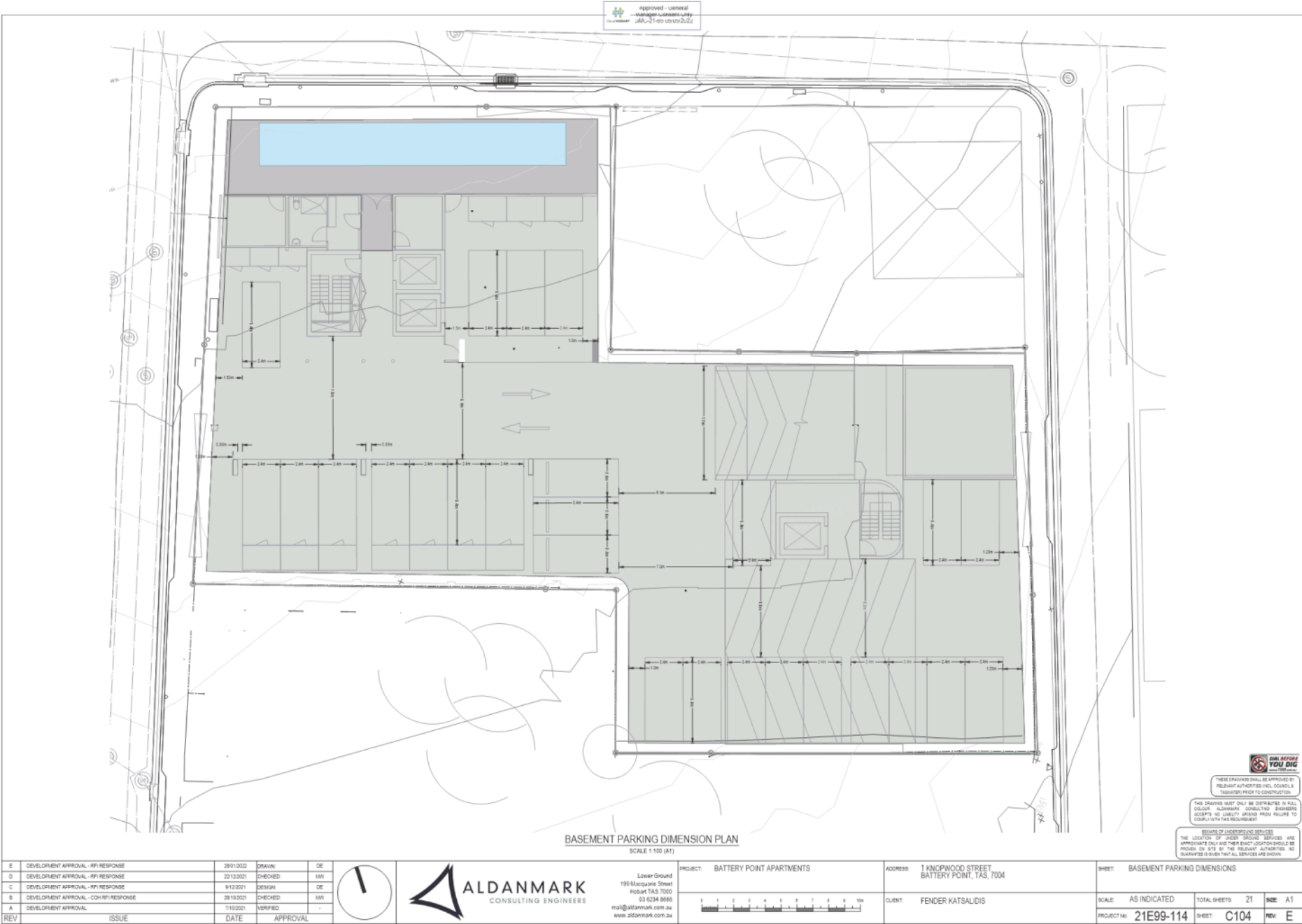
SCALE: AS INDICATED  
PROJECT NO: 21E99-114  
TOTAL SHEETS: 21  
SHEET: C101  
SIZE: A1  
REV: E

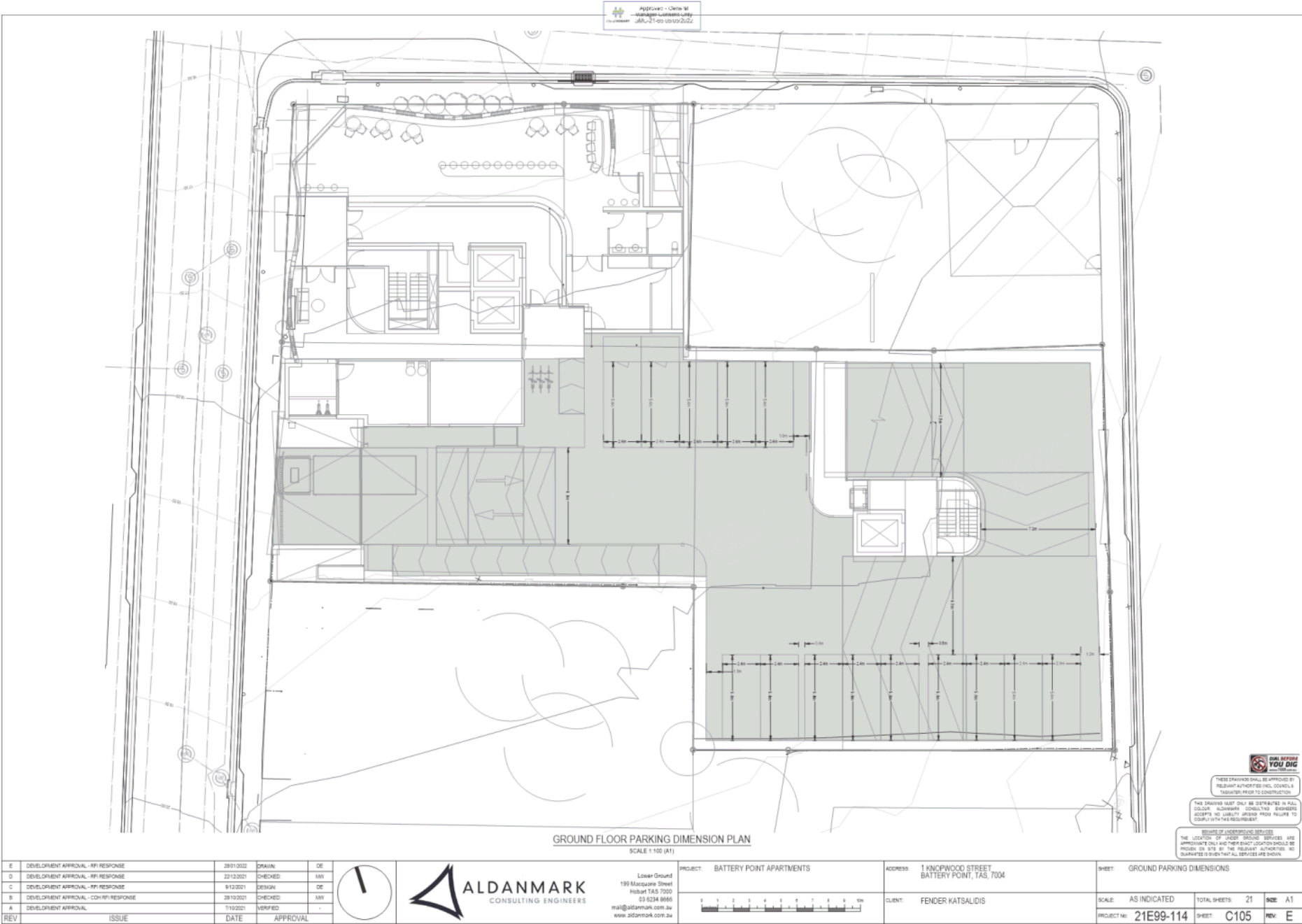






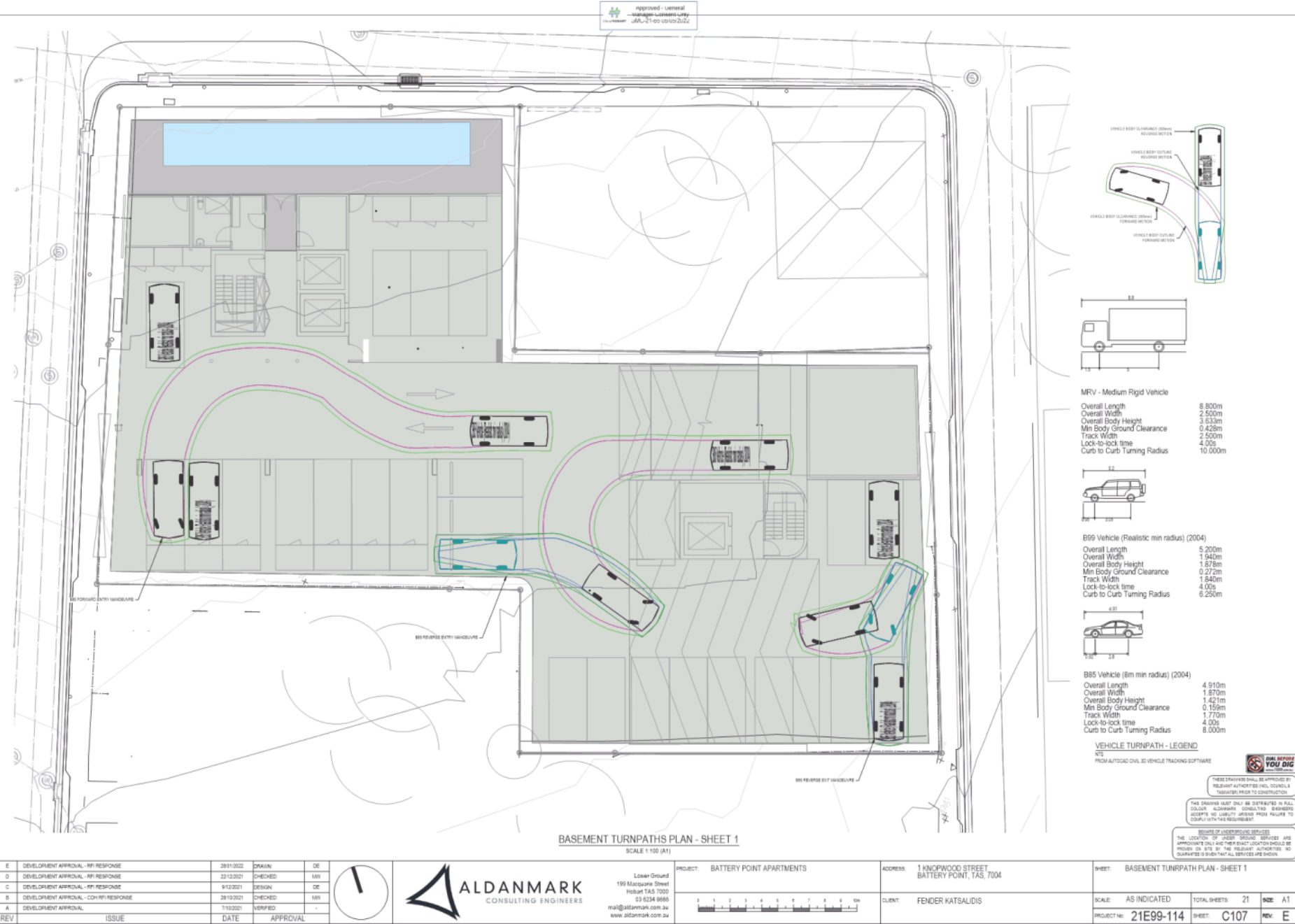




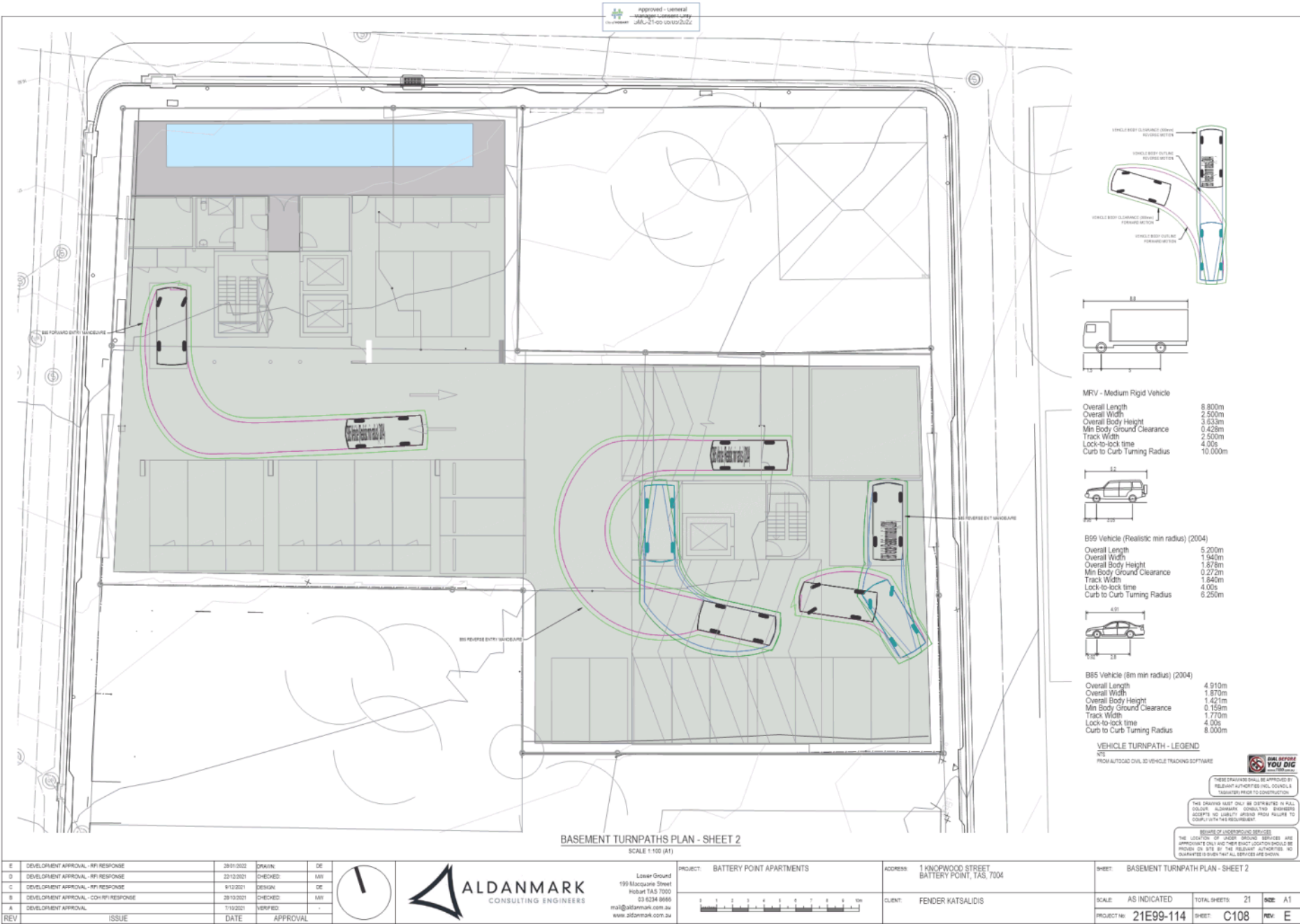


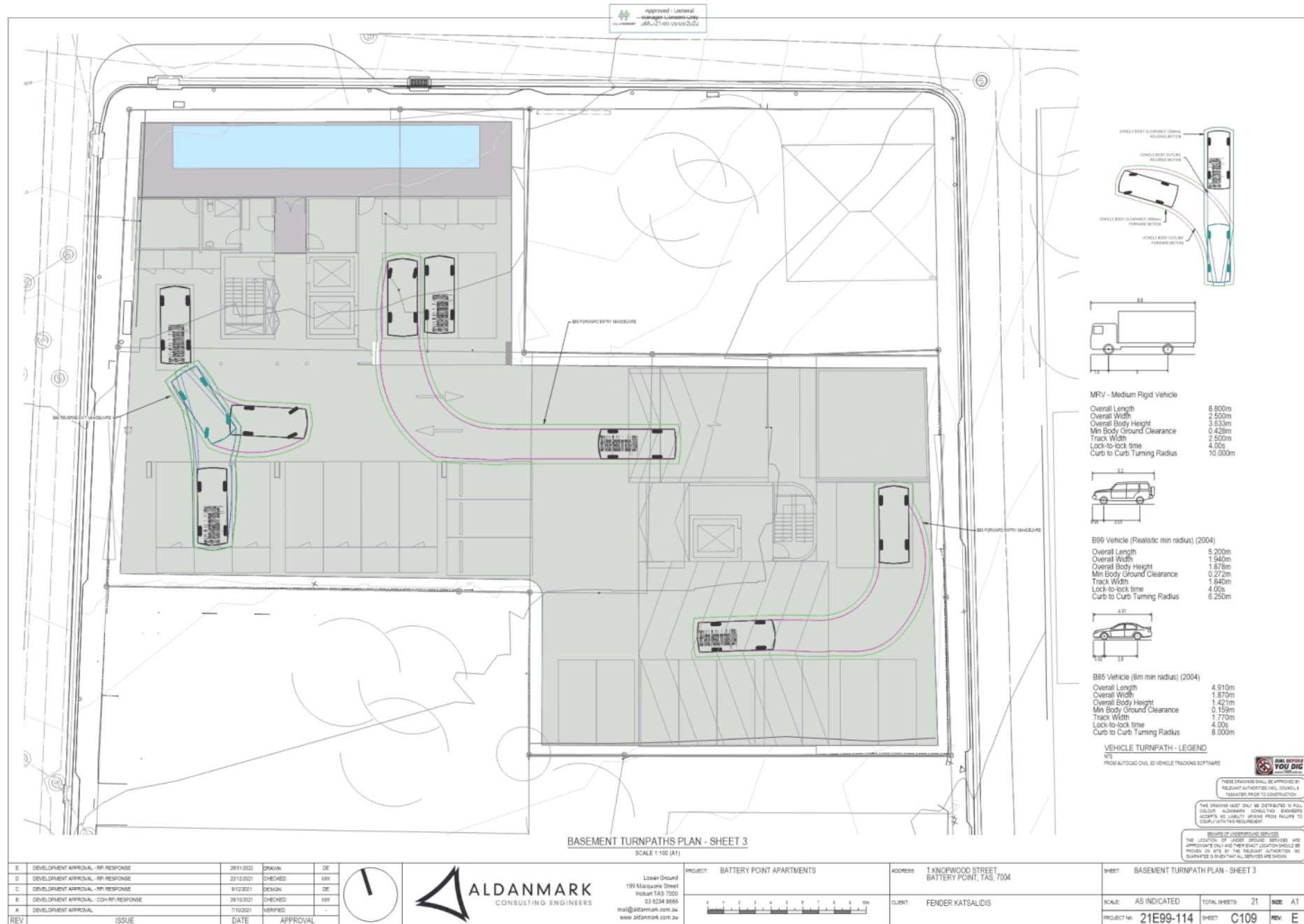


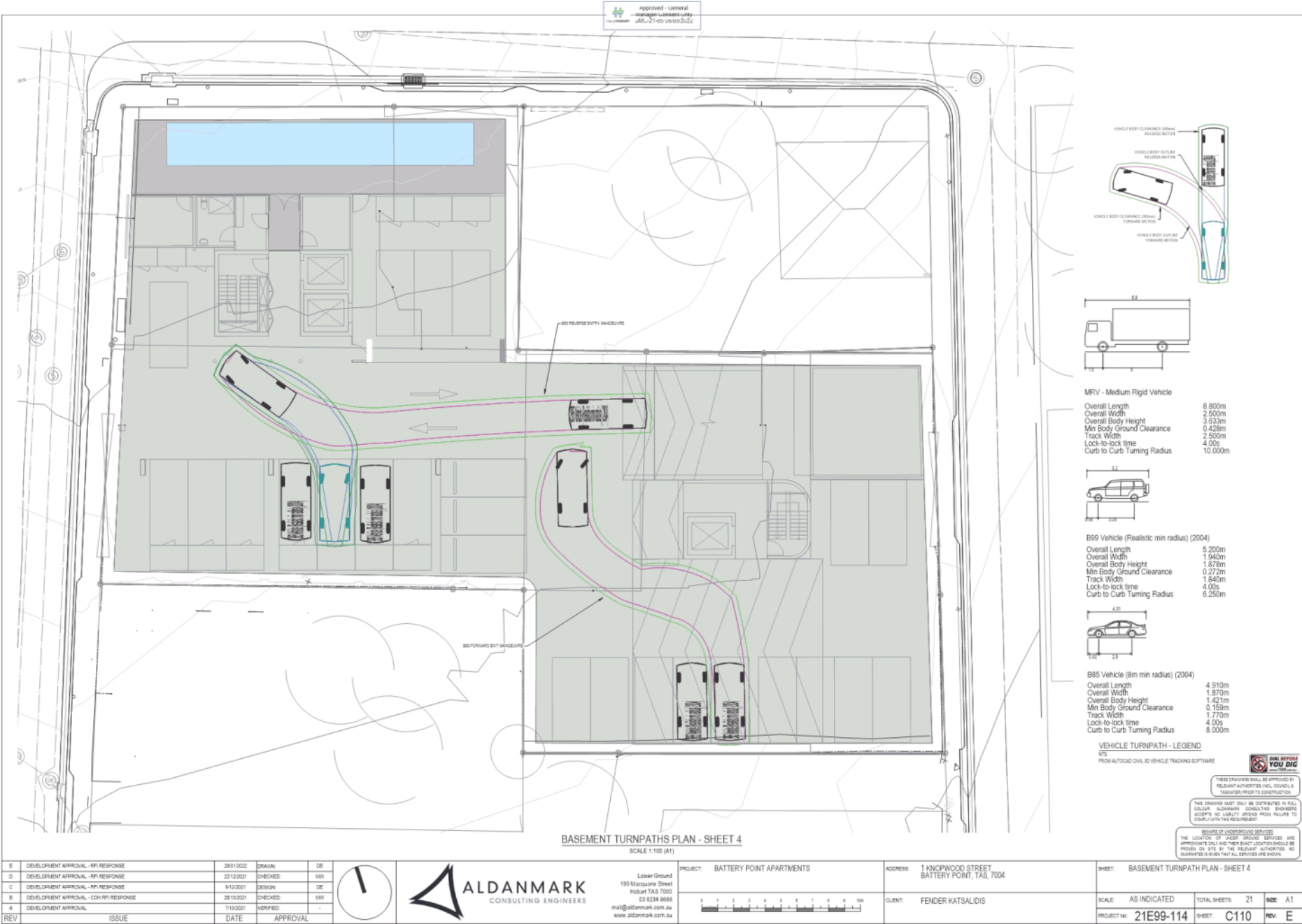
DEVELOPMENT APPROVAL - RP RESPONSE 29/11/2021 DRAWN DE		  <p><b>ALDANMARK</b> CONSULTING ENGINEERS</p>	Lower Ground 199 Marquise Street Hobart TAS 7000 03 6234 6666 mail@aldanmark.com.au www.aldanmark.com.au	PROJECT: BATTERY POINT APARTMENTS	ADDRESS: 1 KNOPWOOD STREET BATTERY POINT, TAS, 7004	SHEET: SIGHT LINE PLAN
DEVELOPMENT APPROVAL - RP RESPONSE 22/12/2021 CHECKED DE				PROJECT: BATTERY POINT APARTMENTS	ADDRESS: 1 KNOPWOOD STREET BATTERY POINT, TAS, 7004	SHEET: SIGHT LINE PLAN
DEVELOPMENT APPROVAL - RP RESPONSE 9/12/2021 DESIGN DE				PROJECT: BATTERY POINT APARTMENTS	ADDRESS: 1 KNOPWOOD STREET BATTERY POINT, TAS, 7004	SHEET: SIGHT LINE PLAN
DEVELOPMENT APPROVAL - COH RP RESPONSE 28/10/2021 CHECKED MN				PROJECT: BATTERY POINT APARTMENTS	ADDRESS: 1 KNOPWOOD STREET BATTERY POINT, TAS, 7004	SHEET: SIGHT LINE PLAN
DEVELOPMENT APPROVAL 1/10/2021 VERIFIED -				PROJECT: BATTERY POINT APARTMENTS	ADDRESS: 1 KNOPWOOD STREET BATTERY POINT, TAS, 7004	SHEET: SIGHT LINE PLAN
REV	ISSUE	DATE	APPROVAL		CLIENT: FENDER KATSAIDIS	SCALE: AS INDICATED PROJECT NO: 21E99-114 SHEET: C106 REV: E

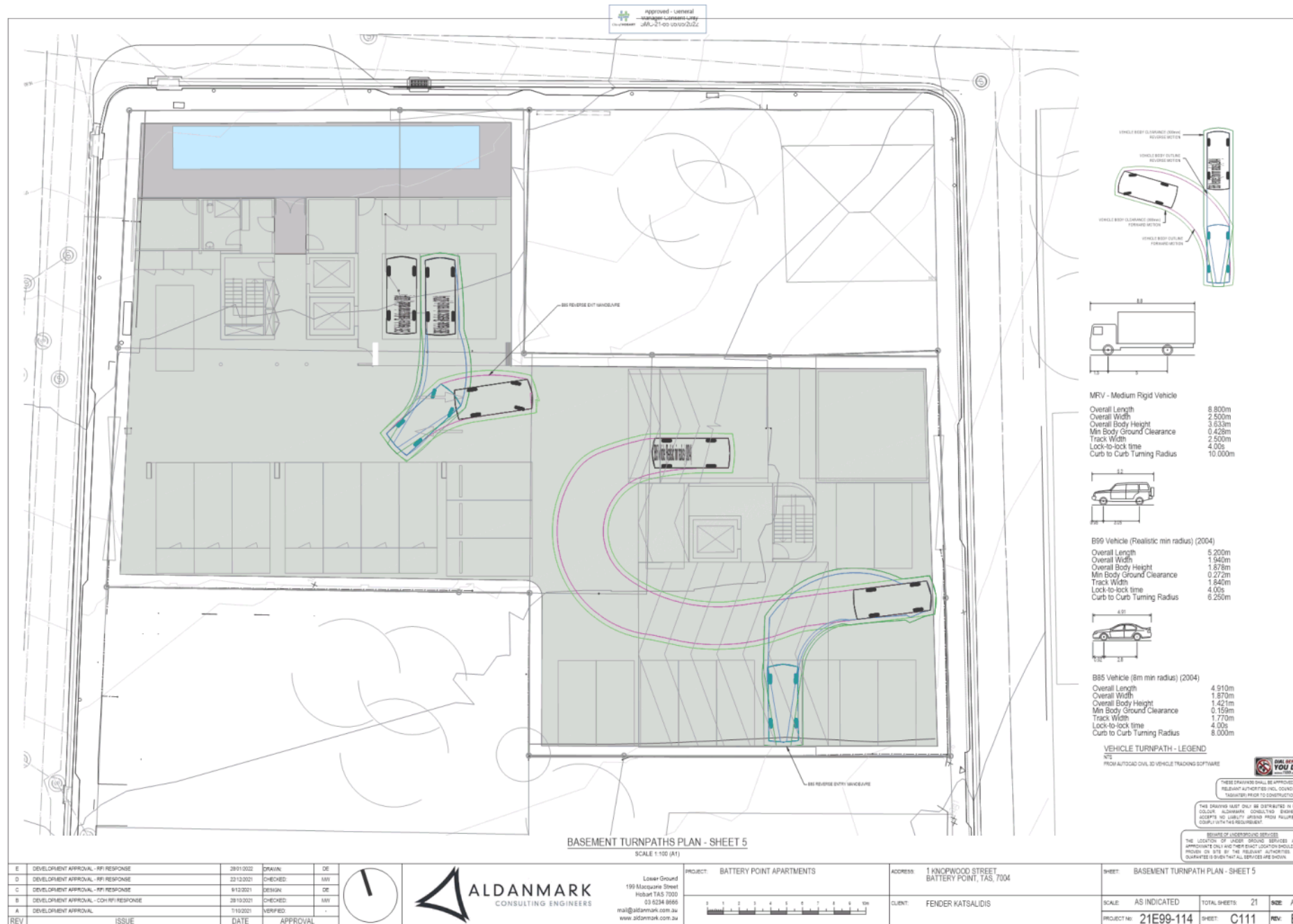




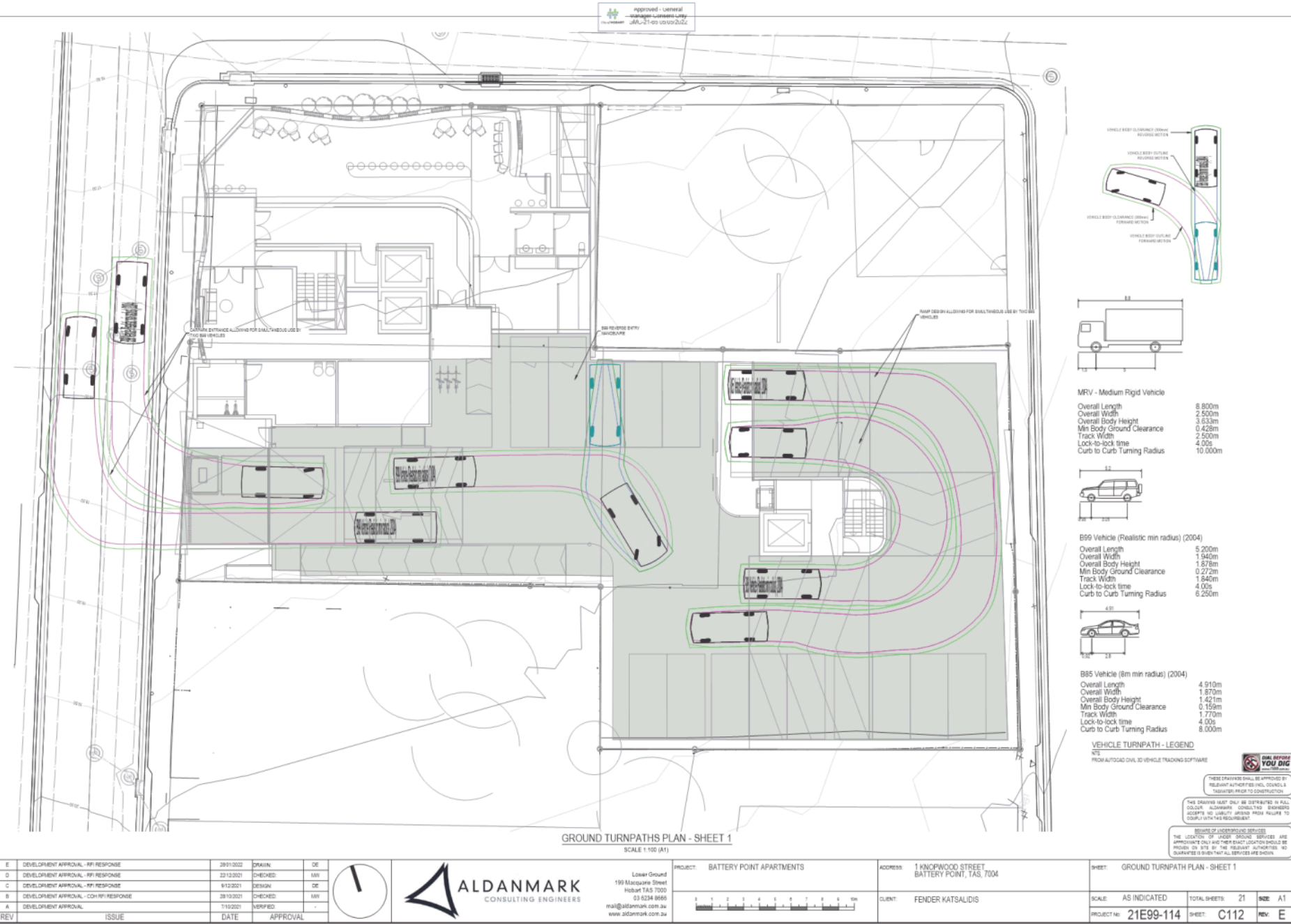


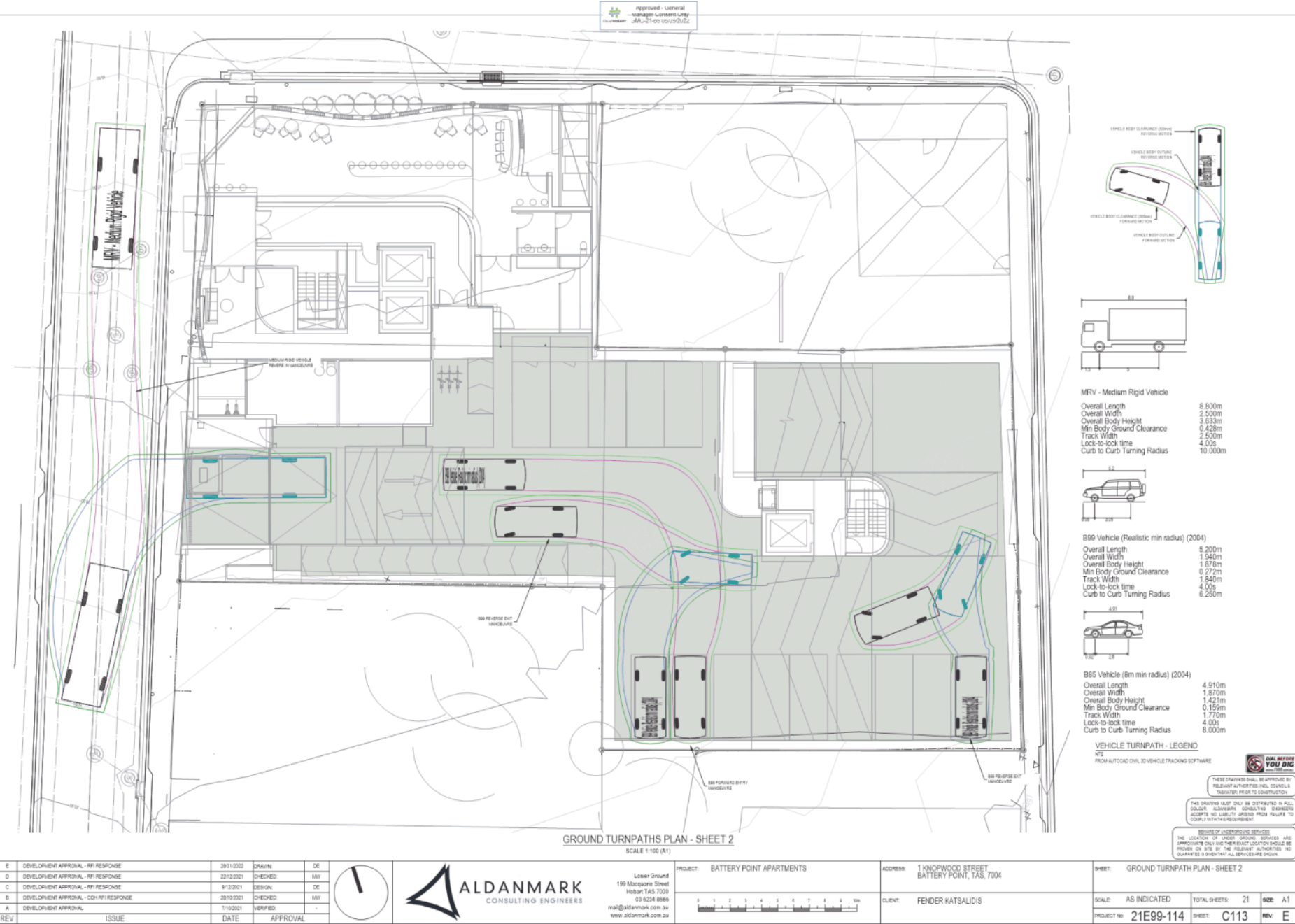


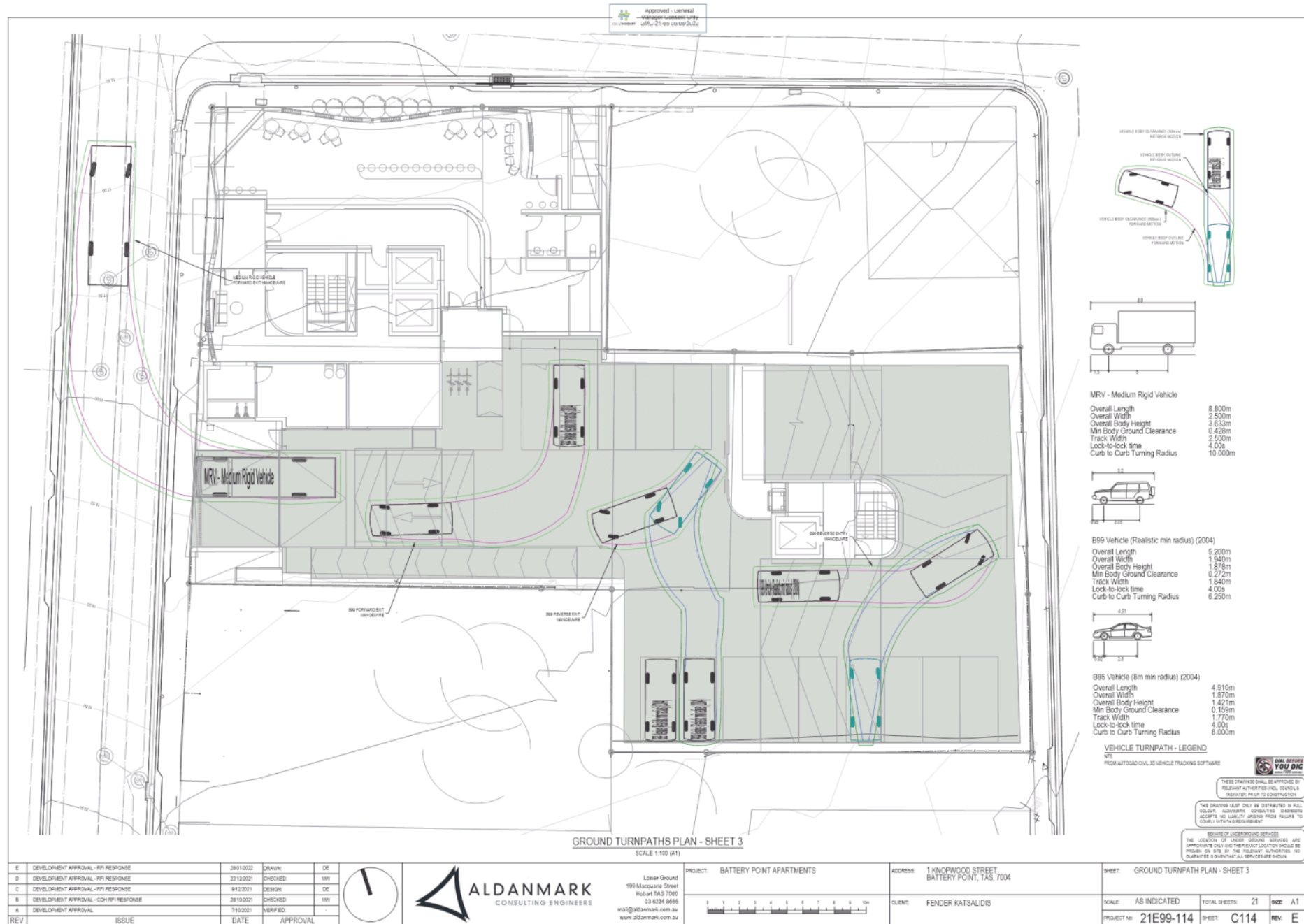


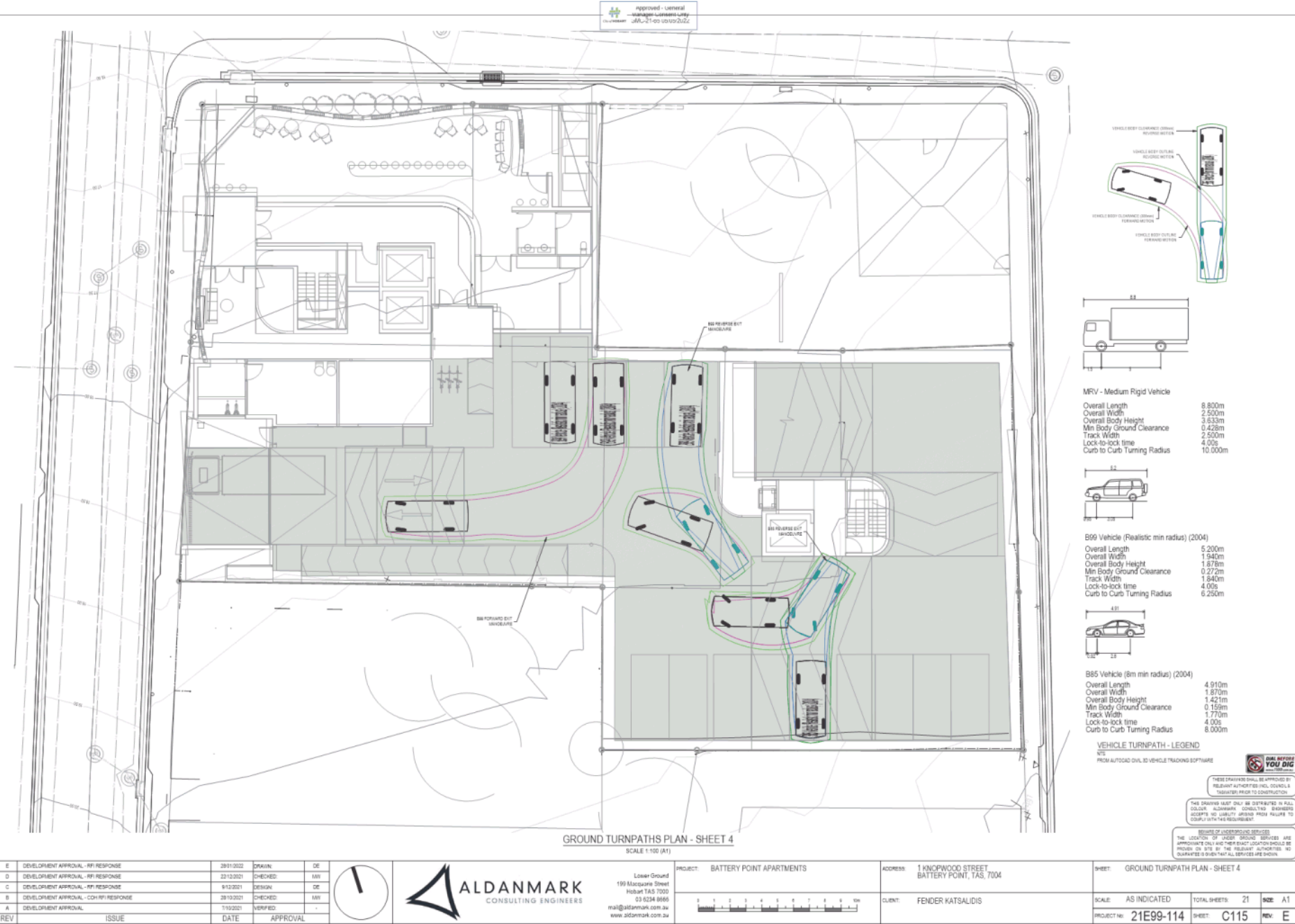




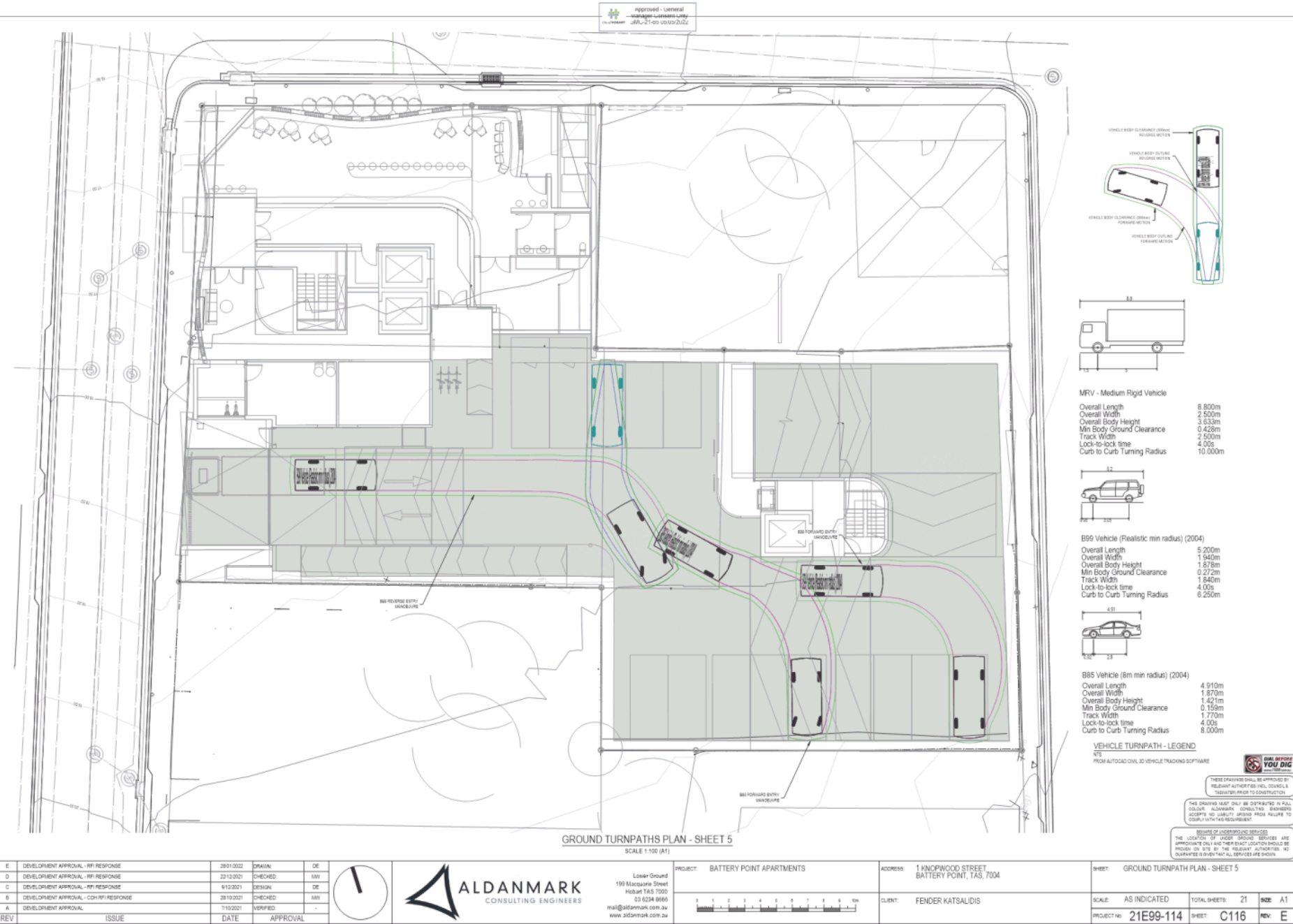


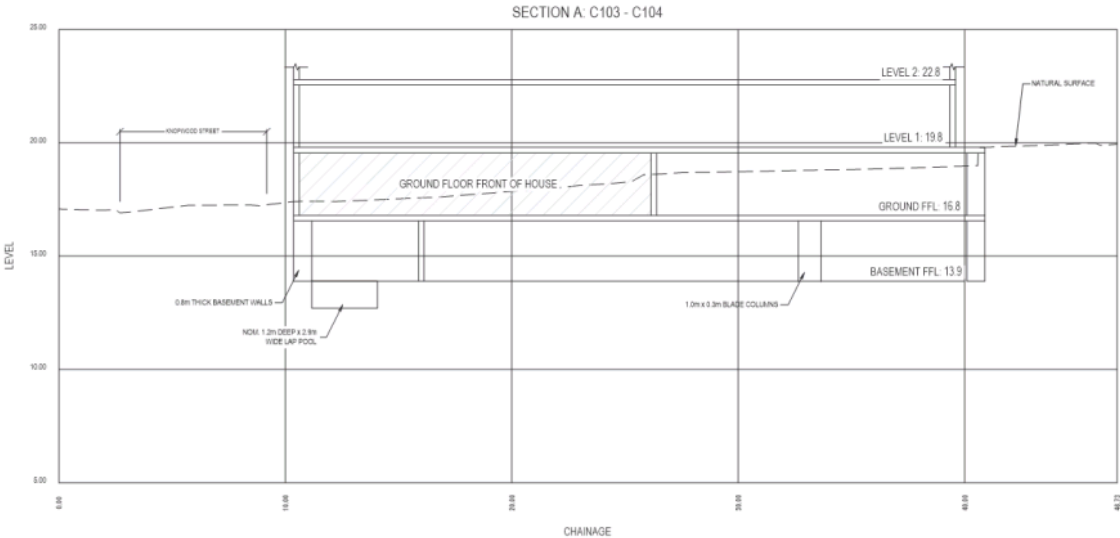












ELEVATIONS: SECTION A  
SCALE 1:100 (A1)

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E	DEVELOPMENT APPROVAL - RFI RESPONSE	28/11/2022	DRAWN	DE
D	DEVELOPMENT APPROVAL - RFI RESPONSE	22/12/2021	CHECKED	MM
C	DEVELOPMENT APPROVAL - RFI RESPONSE	C201 PLAN	DESIGN	DE
B	DEVELOPMENT APPROVAL - COH RFI RESPONSE	28/10/2021	CHECKED	MM
A	DEVELOPMENT APPROVAL	11/10/2021	VERIFIED	-
REV	ISSUE	DATE	APPROVAL	



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199 Macquarie Street  
Hobart TAS 7000  
03 6234 8666  
mail@aldanmark.com.au  
www.aldanmark.com.au

PROJECT: BATTERY POINT APARTMENTS



ADDRESS: 1 KNOXWOOD STREET  
BATTERY POINT, TAS. 7004

CLIENT: FENDER KATSALIDIS

SHEET: ELEVATIONS

SCALE: AS INDICATED

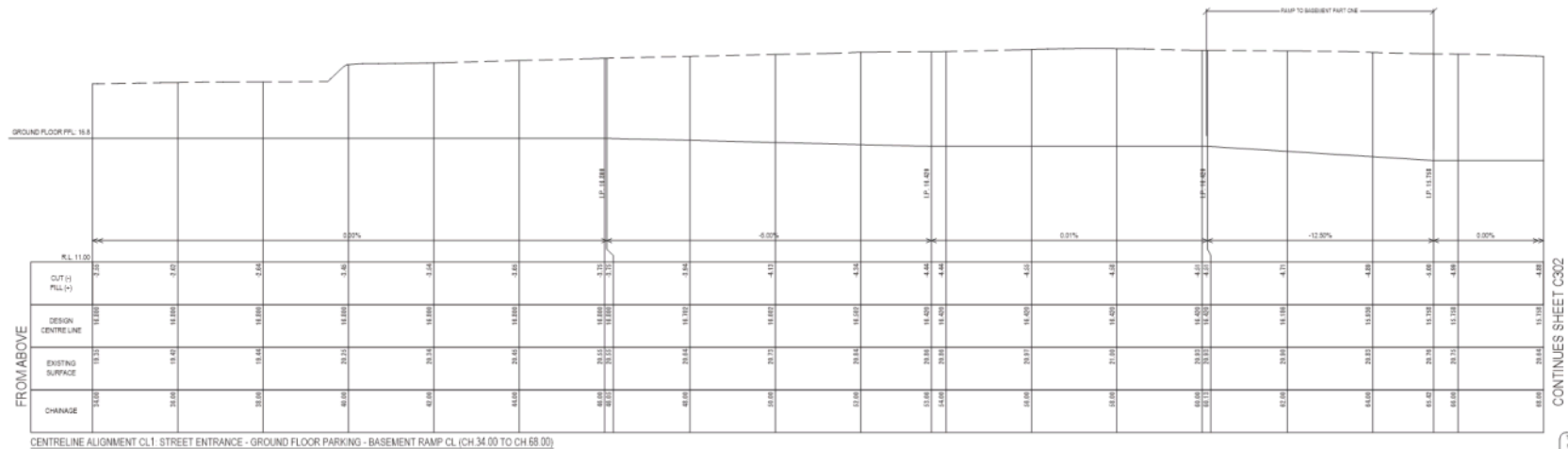
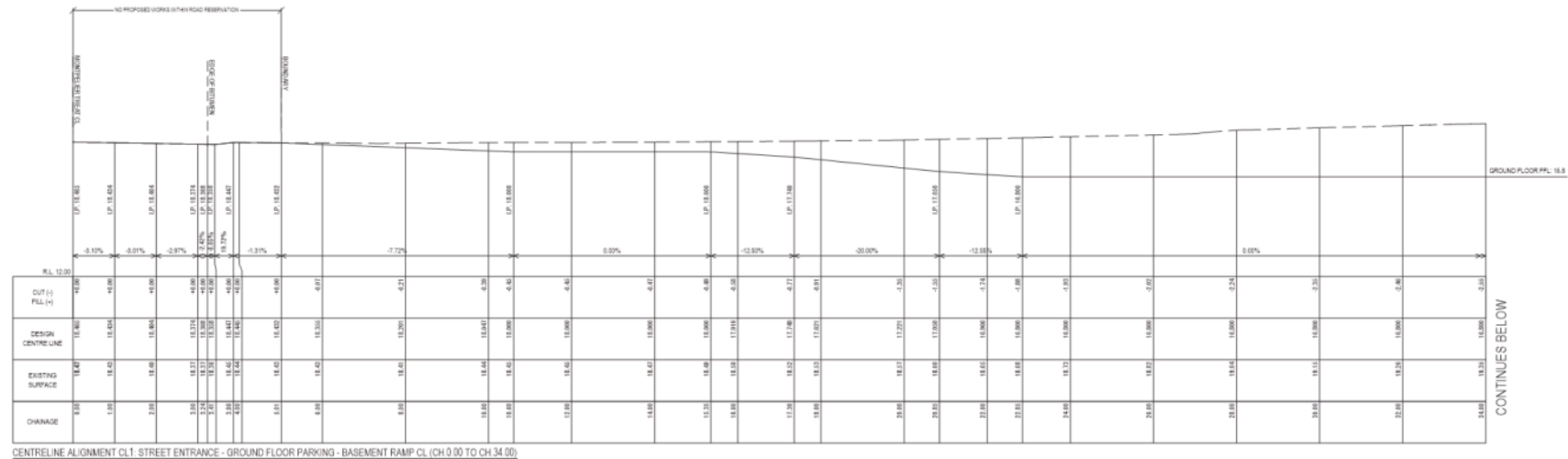
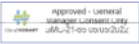
TOTAL SHEETS: 21

SIZE: A1

PROJECT NO: 21E99-114

SHEET: C201

REV: E



CL1 - STREET ENTRANCE - GROUND FLOOR PARKING - BASEMENT RAMP CL

SCALE 1:50 (A1) HORIZ  
SCALE 1:100 (A1) VERT

E	DEVELOPMENT APPROVAL - RFI RESPONSE	28/11/2022	DRAWN	DE
D	DEVELOPMENT APPROVAL - RFI RESPONSE	22/12/2021	CHECKED	NAV
C	DEVELOPMENT APPROVAL - RFI RESPONSE	9/12/2021	DESIGN	DE
B	DEVELOPMENT APPROVAL - CON RFI RESPONSE	28/10/2021	CHECKED	NAV
A	DEVELOPMENT APPROVAL	7/10/2021	VERIFIED	-
REV	ISSUE	DATE	APPROVAL	



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03 6234 8666  
mail@aldanmark.com.au  
www.aldanmark.com.au

PROJECT: BATTERY POINT APARTMENTS

AS INDICATED

ADDRESS: 1 KNOXWOOD STREET  
BATTERY POINT, TAS, 7004

CLIENT: FENDER KATSALIDIS

SHEET: SECTIONS - SHEET 1

SCALE: AS INDICATED

PROJECT NO: 21E99-114

TOTAL SHEETS: 21

SHEET: C301

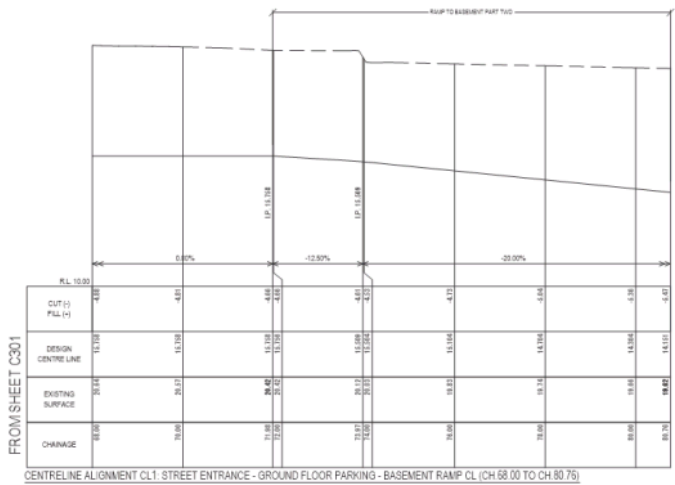
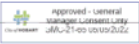
SIZE: A1

REV: E

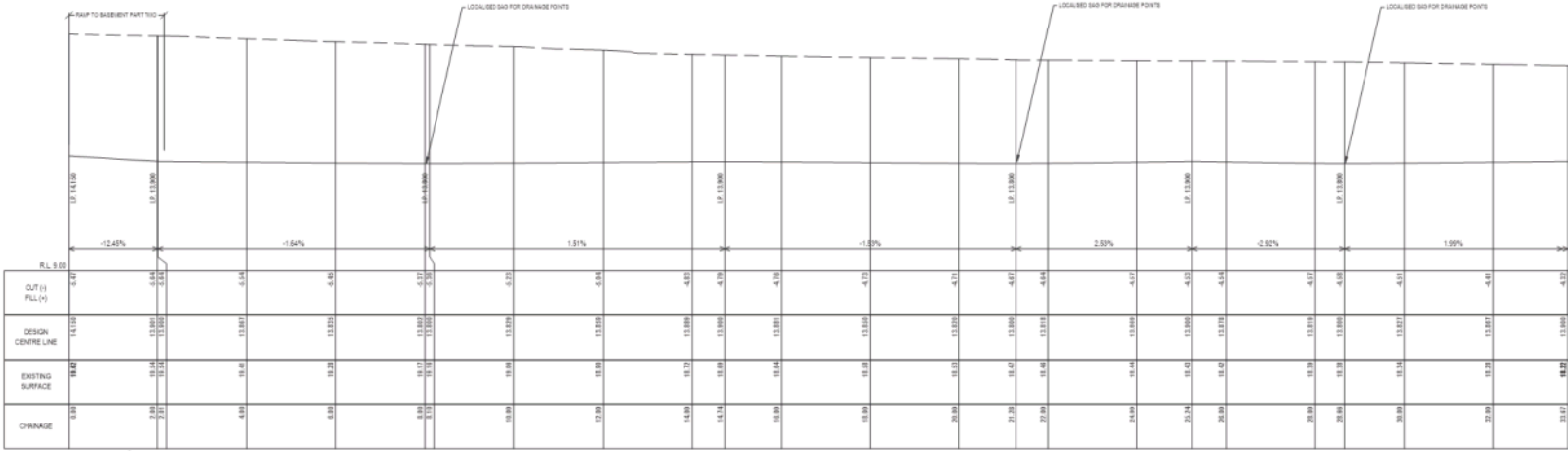
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BEFORE OF UNDERGROUND SERVICES  
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GUARANTEE IS GIVEN THAT ALL SERVICES ARE SHOWN.



CENTRELINE ALIGNMENT CL1: STREET ENTRANCE - GROUND FLOOR PARKING - BASEMENT RAMP CL (CH 68.00 TO CH 80.75)



CENTRELINE ALIGNMENT CL2: BASEMENT RAMP - BASEMENT CL

CL2 - BASEMENT RAMP - BASEMENT CL  
SCALE 1:50 (A1) HORIZ  
SCALE 1:100 (A1) VERT

REV	ISSUE	DATE	APPROVAL
E	DEVELOPMENT APPROVAL - RPI RESPONSE	28/11/2022	DRAWN: DE
D	DEVELOPMENT APPROVAL - RPI RESPONSE	22/12/2021	CHECKED: MMY
C	DEVELOPMENT APPROVAL - RPI RESPONSE	9/12/2021	DESIGN: DE
B	DEVELOPMENT APPROVAL - COH RPI RESPONSE	28/10/2021	CHECKED: MMY
A	DEVELOPMENT APPROVAL	1/10/2021	VERIFIED: -



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199 Macquarie Street  
Hobart TAS 7000  
03 6234 8666  
mail@aldanmark.com.au  
www.aldanmark.com.au

PROJECT:	BATTERY POINT APARTMENTS	ADDRESS:	1 KNOPIWOOD STREET BATTERY POINT, TAS, 7004	SHEET:	SECTIONS - SHEET 2			
AS INDICATED	CLIENT:	FENDER KATSALIDIS	SCALE:	AS INDICATED	TOTAL SHEETS:	21	SIZE:	A1
			PROJECT NO:	21E99-114	SHEET:	C302	REV:	E



**RESULT OF SEARCH**

RECORDER OF TITLES

*Issued Pursuant to the Land Titles Act 1980*

## SEARCH OF TORRENS TITLE

VOLUME 72077	FOLIO 1
EDITION 4	DATE OF ISSUE 14-Dec-2012

SEARCH DATE : 08-Oct-2021

SEARCH TIME : 02.14 PM

DESCRIPTION OF LAND

City of HOBART  
Lot 1 on Diagram 72077 (formerly being 135-18D)  
Derivation : Part of 3 Acres Gtd to J Grant  
Prior CT 2748/14

SCHEDULE 1

D65999 TRANSFER to MIMOSA CORPORATION PTY LTD and MILDARA  
ENTERPRISES PTY LTD as tenants in common in equal  
shares Registered 14-Dec-2012 at 12.01 PM

SCHEDULE 2

Reservations and conditions in the Crown Grant if any  
BURDENING EASEMENT: A right of carriageway for the owner of  
Lot 2 on Diagram No. 72077 over the Roadway 10 feet  
wide on Diagram No. 72077  
D71547 MORTGAGE to National Australia Bank Limited  
Registered 14-Dec-2012 at 12.02 PM  
M908961 CAVEAT by First Battery Point Pty Ltd Registered  
16-Jul-2021 at noon

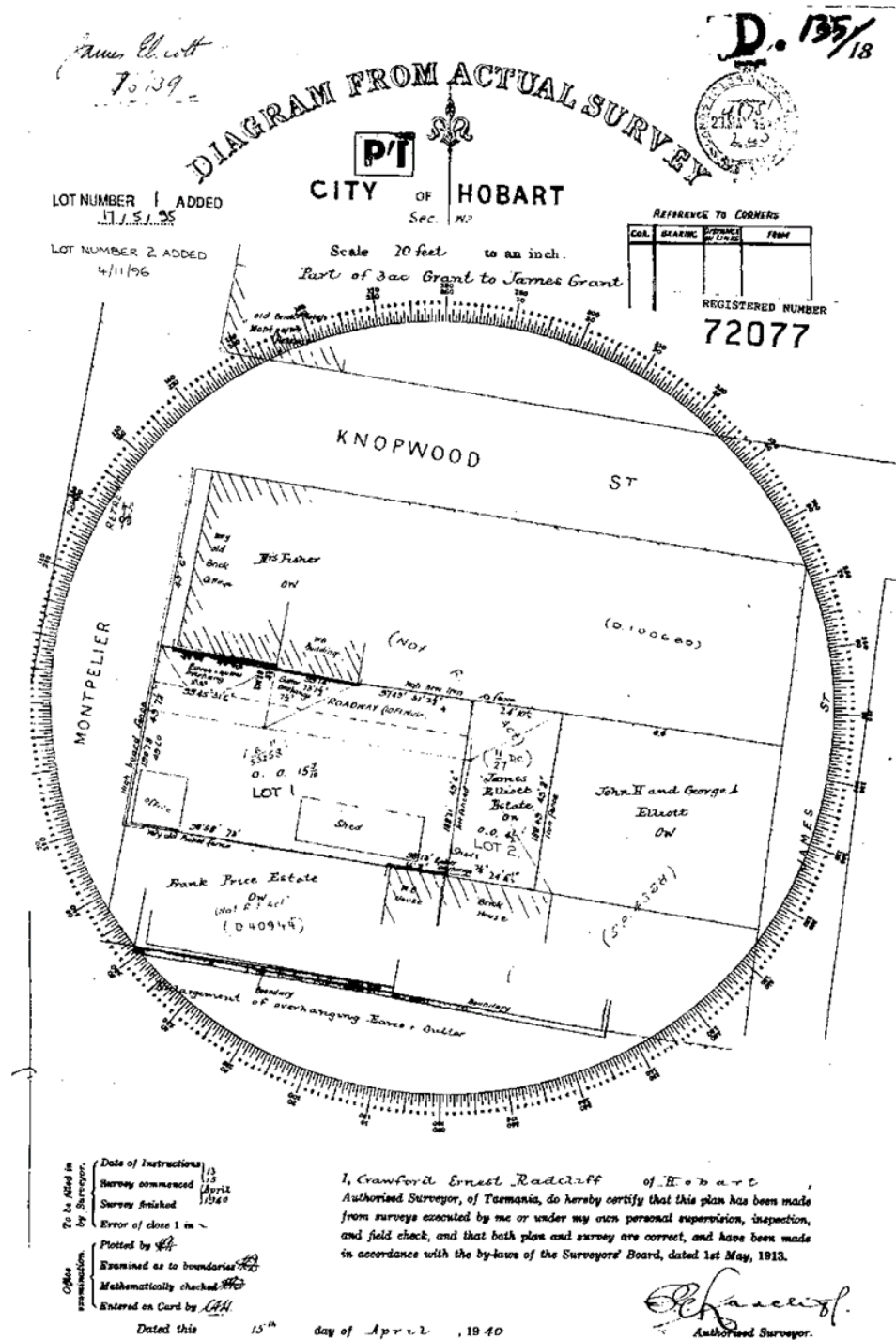
UNREGISTERED DEALINGS AND NOTATIONS

No unregistered dealings or other notations

## FOLIO PLAN

RECORDED OF TITLES

*Issued Pursuant to the Land Titles Act 1980*



**RESULT OF SEARCH**

RECORDER OF TITLES

*Issued Pursuant to the Land Titles Act 1980*

## SEARCH OF TORRENS TITLE

VOLUME 72077	FOLIO 2
EDITION 4	DATE OF ISSUE 14-Dec-2012

SEARCH DATE : 08-Oct-2021

SEARCH TIME : 02.14 PM

DESCRIPTION OF LAND

City of HOBART

Lot 2 on Diagram 72077 (formerly being 135-18D)

Derivation : Part of 3 acres. Granted to James Grant.

Derived from A16819

SCHEDULE 1

D65999 TRANSFER to MIMOSA CORPORATION PTY LTD and MILDARA  
ENTERPRISES PTY LTD as tenants in common in equal  
shares Registered 14-Dec-2012 at 12.01 PM

SCHEDULE 2

Reservations and conditions in the Crown Grant if any

D71547 MORTGAGE to National Australia Bank Limited

Registered 14-Dec-2012 at 12.02 PM

M908961 CAVEAT by First Battery Point Pty Ltd Registered

16-Jul-2021 at noon

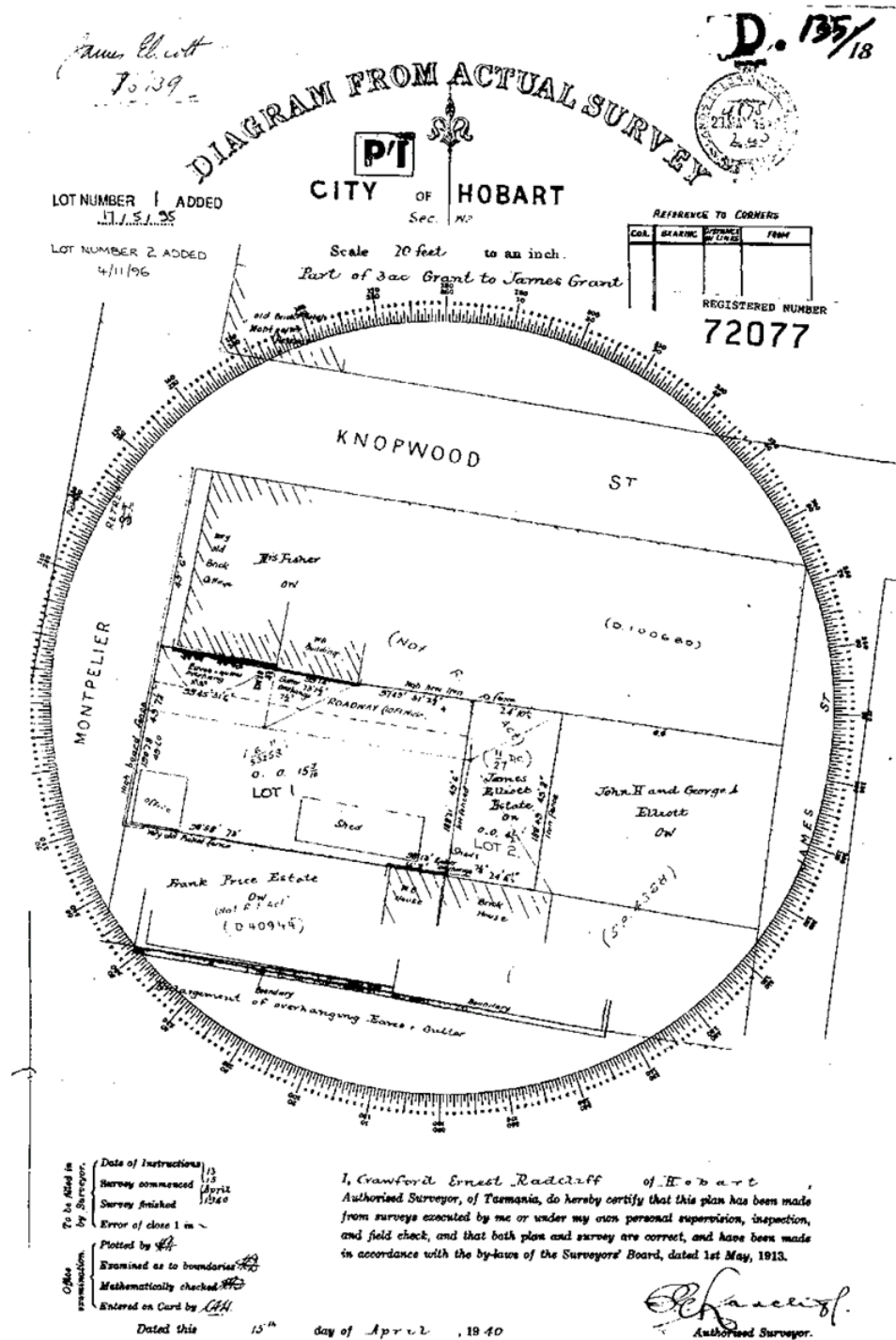
UNREGISTERED DEALINGS AND NOTATIONS

No unregistered dealings or other notations

## FOLIO PLAN

RECORDED OF TITLES

*Issued Pursuant to the Land Titles Act 1980*





**RESULT OF SEARCH**

RECORDER OF TITLES

Issued Pursuant to the Land Titles Act 1980



## SEARCH OF TORRENS TITLE

VOLUME 126274	FOLIO 1
EDITION 4	DATE OF ISSUE 14-Dec-2012

SEARCH DATE : 08-Oct-2021

SEARCH TIME : 02.13 PM

DESCRIPTION OF LAND

City of HOBART  
Lot 1 on Plan 126274  
Being the land described in Conveyance 34/1550  
Derivation : Part of 3 acres. Granted to James Grant.  
Derived from A16819

SCHEDULE 1

D65999 TRANSFER to MIMOSA CORPORATION PTY LTD and MILDARA  
ENTERPRISES PTY LTD as tenants in common in equal  
shares Registered 14-Dec-2012 at 12.01 PM

SCHEDULE 2

Reservations and conditions in the Crown Grant if any  
34/1550 CONVEYANCE: Burdening Easement: Right to pass and  
repass (for Thomas Henry Carr) over the right of way  
shown on Plan 126274  
D71547 MORTGAGE to National Australia Bank Limited  
Registered 14-Dec-2012 at 12.02 PM  
M908961 CAVEAT by First Battery Point Pty Ltd Registered  
16-Jul-2021 at noon

UNREGISTERED DEALINGS AND NOTATIONS

No unregistered dealings or other notations



## FOLIO PLAN

RECORDER OF TITLES

Issued Pursuant to the Land Titles Act 1980



FILE NUMBER A.16819		<b>CONVERSION PLAN</b>		REGISTERED NUMBER <b>P126274</b>
GRANTEE PART OF 3.0.0 GTD. TO JAMES GRANT		LOCATION CITY OF HOBART	SEC. W3	APPROVED 11 NOV 1996 <i>Michael Olin</i> Recorder of Titles
		CONVERTED FROM 34/1550	NOT TO SCALE	LENGTHS IN METRES
MAPSHEET MUNICIPAL CODE No. 114	LAST UPI No.	ALL EXISTING SURVEY NUMBERS TO BE CROSS REFERENCED ON THIS PLAN		DRAWN C.L.

**SKETCH BY WAY OF ILLUSTRATION ONLY**  
"EXCEPTED LANDS"

**RESULT OF SEARCH**

RECORDER OF TITLES

*Issued Pursuant to the Land Titles Act 1980*

## SEARCH OF TORRENS TITLE

VOLUME	FOLIO
128788	1
EDITION	DATE OF ISSUE
4	14-Dec-2012

SEARCH DATE : 08-Oct-2021

SEARCH TIME : 02.13 PM

DESCRIPTION OF LAND

City of HOBART

Lot 1 on Plan 128788

Being the land described in Conveyance No. 37/9065

Derivation : Part of 3 Acres Gtd to James Grant

Derived from A17052

SCHEDULE 1

D65999    TRANSFER to MIMOSA CORPORATION PTY LTD and MILDARA  
ENTERPRISES PTY LTD as tenants in common in equal  
shares    Registered 14-Dec-2012 at 12.01 PM

SCHEDULE 2

Reservations and conditions in the Crown Grant if any  
37/9065    CONVEYANCE: BENEFITING EASEMENT: Right to pass and  
              repass over the land marked Right of Way 0.91 wide on  
              Plan No. 128788  
D71547    MORTGAGE to National Australia Bank Limited  
              Registered 14-Dec-2012 at 12.02 PM  
M908961    CAVEAT by First Battery Point Pty Ltd    Registered  
              16-Jul-2021 at noon

UNREGISTERED DEALINGS AND NOTATIONS

No unregistered dealings or other notations



## FOLIO PLAN

RECORDER OF TITLES

Issued Pursuant to the Land Titles Act 1980



FILE NUMBER A.17052		<b>CONVERSION PLAN</b>		Registered Number <b>P 128788</b>	
GRANTEE PART OF 3-0-0 GTD TO JAMES GRANT		LOCATION CITY OF HOBART SEC W3		APPROVED 3 NOV 1997 <i>Michael Dine</i> Recorder of Titles	
		CONVERTED FROM 37/9065			
		NOT TO SCALE		LENGTHS IN METRES	
MAPSHEET MUNICIPAL CODE No. 114 (5225)	LAST UPI No. -	ALL EXISTING SURVEY NUMBERS TO BE CROSS REFERENCED ON THIS PLAN			DRAWN JCPW
<p>SKETCH BY WAY OF ILLUSTRATION ONLY "EXCEPTED LANDS"</p>					



**RESULT OF SEARCH**

RECORDER OF TITLES

*Issued Pursuant to the Land Titles Act 1980*

## SEARCH OF TORRENS TITLE

VOLUME 197384	FOLIO 1
EDITION 4	DATE OF ISSUE 14-Dec-2012

SEARCH DATE : 08-Oct-2021

SEARCH TIME : 02.14 PM

DESCRIPTION OF LAND

City of HOBART

Lot 1 on Plan 197384

Derivation : Part of 3 Acres (Section W.3.) Gtd. to J. Grant.

Prior CT 3466/91

SCHEDULE 1

D65999    TRANSFER to MIMOSA CORPORATION PTY LTD and MILDARA  
ENTERPRISES PTY LTD as tenants in common in equal  
shares    Registered 14-Dec-2012 at 12.01 PM

SCHEDULE 2

Reservations and conditions in the Crown Grant if any  
BENEFITING EASEMENT: (appurtenant to the land marked A.B.C.D.  
on Plan No. 197384) a right of carriage way over the  
Roadway shown on Plan No. 197384.

D71547    MORTGAGE to National Australia Bank Limited  
Registered 14-Dec-2012 at 12.02 PM

M908961    CAVEAT by First Battery Point Pty Ltd    Registered  
16-Jul-2021 at noon

UNREGISTERED DEALINGS AND NOTATIONS

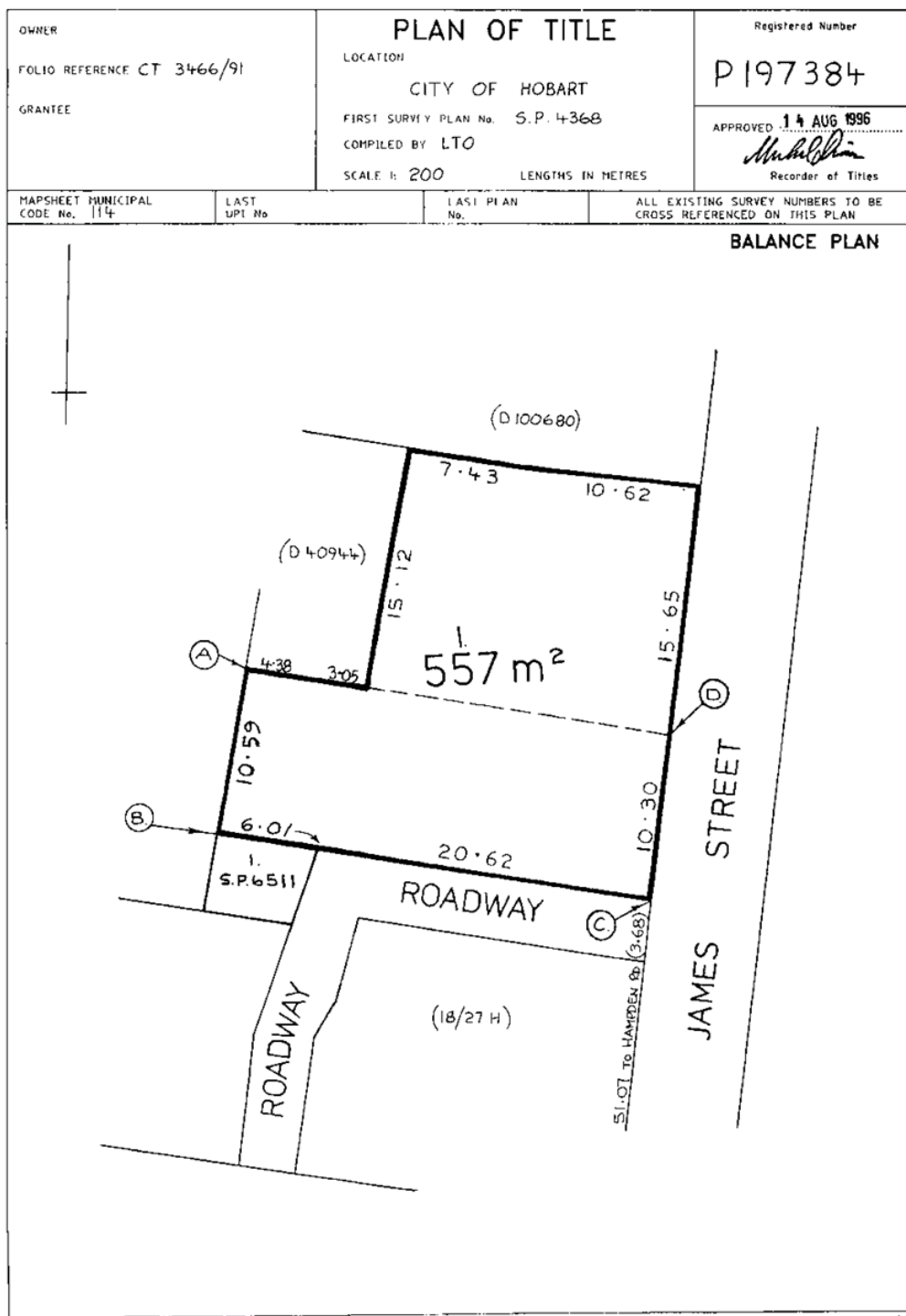
No unregistered dealings or other notations



## FOLIO PLAN

RECORDER OF TITLES

Issued Pursuant to the Land Titles Act 1980



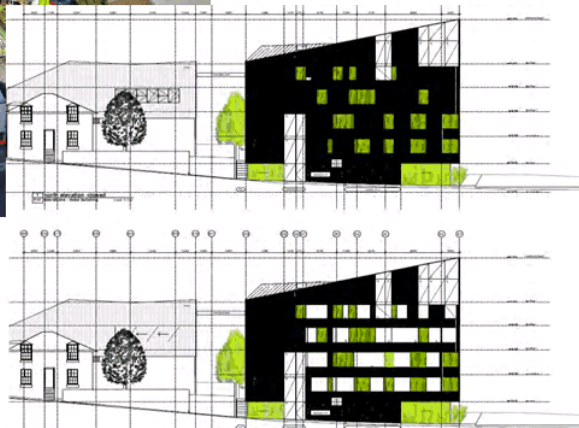


## CONSTRUCTION ENVIRONMENTAL MANAGEMENT PLAN

*40-44 Montpelier Retreat Battery Point*



July 2015



*Geo-Environmental Solutions P/L 86 Queen Street Sandy Bay 7005. Ph 6223 1839 Fax 6223 4539*



CONSTRUCTION EMP - 40-44 MONTPELLIER RETREAT

1. EXECUTIVE SUMMARY ..... 2

2. INTRODUCTION ..... 3

1.1. Site Location ..... 3

3. OBJECTIVES ..... 6

4. KNOWN GROUNDWATER AND SOIL CONTAMINATION ..... 7

5. RISK REGISTER ..... 9

6. IDENTIFICATION OF SOIL CONTAMINATION ..... 10

7. DECISION SUPPPORT FLOW CHART ..... 11

8. SUMMARY OF ROLES AND RESPONSIBILITY ..... 12

9. LIMITATIONS STATEMENT ..... 13





## CONSTRUCTION EMP - 40-44 MONTPELLIER RETREAT

**1. EXECUTIVE SUMMARY**

Geo-Environmental Solutions Pty. Ltd. (GES) were engaged by Sam Issa to prepare a Construction Environmental Management Plan (CEMP) at the former Elliot's Crane Yard site at 40-44 Montpellier Retreat, Tasmania (the 'site'). The site is currently vacant following the decommissioning and removal of all former underground petroleum storage system (UPSS) infrastructure in 2012.

There have been five individual soil and groundwater sampling events at the site:

- An initial investigation was undertaken in November 2010, which identified soil contamination associated with the storage and dispensing of hydrocarbons at the site from eleven (11) boreholes taken from the site.
- From this information, all three USTs were excavated and decommissioned in March 2011. UST pit samples were taken to assess the nature of contamination associated with fuel storage at the site. Samples around UST 1 and UST 2 suggested further investigation was required.
- A second phase ESA was then initiated, and samples taken from a further nine (9) borehole locations across the site in October 2012. The second phase assessment identified small areas of residual contamination associated with the fuel bowzers and the triple interceptor trap, and recommended further excavation and sampling be undertaken
- Three groundwater wells were installed and sampled in November 2012. All analytical results were below the limits of detection of the analytical equipment. It was therefore concluded that there is a low and acceptable risk to human health at the site and immediately down gradient, and that the present risk to ecological receptors is also low and acceptable.
- A final excavation of soil identified as being above HILs for a Commercial/Industrial setting was then undertaken in mid-November 2012. This included the removal of three fuel bowzers and the triple interceptor trap. Validation sampling suggested the excavations on site had been successful in removing the identified contamination.
- The current interpretation of the results of all previous reporting is that there is no residual site contamination that would constitute an undue risk to health or the environment or prevent the proposed development of the site

Although every effort was taken to excavate the affected soils, sewerage and stormwater services at the site are noted to have been prohibitive to complete excavation. It is therefore possible that a small amount of soil contamination surrounding services is not delineated or excavated. It is the purpose of this report to outline a management plan and methods of risk management for working in the vicinity of this material, as these material pose a potential risk to people working at the site as it is developed. Appropriate sampling, classification and management of any identified contamination will be required with associated reporting to regulatory authorities to ensure environmental compliance.

This Construction Environmental Management Plan (CEMP) includes information regarding the management of potential residual soil contamination that may be encountered on site during future excavation works including a decision support framework. The CEMP should be kept on file by the site manager/tenants and by the site owners, and the supporting documents should also be made available by the site owners as required.



## CONSTRUCTION EMP - 40-44 MONTPELLIER RETREAT

## 2. INTRODUCTION

Geo-Environmental Solutions Pty. Ltd. (GES) were engaged by Sam Issa to prepare a Construction Environmental Management Plan (CEMP) at the former Elliot's Crane Yard site at 40-44 Montpellier Retreat, Tasmania (the 'site'). The site is currently vacant following the decommissioning and removal of all former underground petroleum storage system (UPSS) infrastructure in 2012.

There have been five individual soil and groundwater sampling events at the site:

- An initial investigation was undertaken in November 2010, which identified soil contamination associated with the storage and dispensing of hydrocarbons at the site from eleven (11) boreholes taken from the site.
- From this information, all three USTs were excavated and decommissioned in March 2011. UST pit samples were taken to assess the nature of contamination associated with fuel storage at the site. Samples around UST 1 and UST 2 suggested further investigation was required.
- A second phase ESA was then initiated, and samples taken from a further nine (9) borehole locations across the site in October 2012.
- Three groundwater wells were installed and sampled in November 2012. All analytical results were below the limits of detection of the analytical equipment suggesting no groundwater contamination at the site.
- A final excavation of soil identified as being above HILs for a Commercial/Industrial setting was then undertaken in mid-November 2012. This included the removal of three fuel bowsers and the triple interceptor trap. Validation sampling suggested the excavations on site had been successful in removing the identified contamination.
- The current interpretation of the results of all previous reporting is that there is no residual site contamination that would constitute an undue risk to health or the environment or prevent the proposed development of the site

Although every effort was taken to excavate the affected soils, sewerage and stormwater services at the site are noted to have been prohibitive to excavation. It is therefore feasible that there was some unidentified lateral movement of contamination that has not yet been delineated or excavated. It is the purpose of this report to outline a management plan and methods of risk management for working in the vicinity of this material, as these material pose a potential risk to people working at the site as it is developed.

### 1.1. Site Location

The subject site is located approximately 0.5km south of Salamanca Place in Hobart, on land that slopes gently towards the north. Residential premises surround the site to the south and east, while commercial properties border the site to the west and north. The site consists of 5 titles, with a total approximate area of 1448m<sup>2</sup>, as indicated by the extract from the listmap in figure 1.



CONSTRUCTION EMP - 40-44 MONTELLIER RETREAT



Figure 1: Site Location on Montpellier Retreat with title illustrated in red (source, TheLIST)





## CONSTRUCTION EMP - 40-44 MONTPELLIER RETREAT



**Figure 2 -Aerial photo showing the location of former infrastructure including USTs, bowser locations, triple interceptor trap plus the groundwater monitoring wells.**





## CONSTRUCTION EMP - 40-44 MONTPELLIER RETREAT

**3. OBJECTIVES**

The scope of the construction environmental management plan (CEMP) is to document the current and future site management requirements relating to the potential presence of residual soil and groundwater contamination at the site. The main objective of the plan is to provide a framework for addressing the potential soil contamination so as to ensure a safe working environment and avoid an unacceptable risk to people working at the site and to the environment.

It is the opinion of GES that whilst soil hydrocarbon contamination may be encountered during future site works in the areas identified it is unlikely that the contamination will present an unacceptable risk provided appropriate procedures for handling and disposal are followed. It has also been concluded from previous reporting (GES 2012) that the risk to current site users is also low and acceptable and does not require any active intervention or management.

The successful implementation of the CEMP requires the appropriate briefing and site OHS induction of personnel or contractors who may uncover the potential site contamination. It is proposed that the briefing will include a review of this CEMP and the associated decision support flow chart.

This CEMP also describes reporting procedures and lines of responsibility. The nominated professionals should include those with experience in the investigation and management of contamination on the site, and include access to the documents detailing the assessment of contamination on the site.



## CONSTRUCTION EMP - 40-44 MONTPELLIER RETREAT

**4. KNOWN GROUNDWATER AND SOIL CONTAMINATION**

The site is currently considered free from any significant soil and groundwater contamination. Information regarding historical contamination at the site is available in the previous reporting undertaken by GES.

The only potential area of residual contamination is adjacent stormwater and sewer services that could not be disturbed as part of excavation and validation works undertaken at the site in 2012 (immediately surrounding the excavation area of UST 2 as shown in figure 2). Sewer and stormwater infrastructure were both encountered during excavations in this area of the site, and given the large scale excavation planned for the basement carpark it is likely that small volumes of contaminated soil will be encountered if the services are excavated.

It must be noted that the results obtained for soil from each location represent the actual conditions at each site at the time of sampling. Contaminants in soil are able to migrate, taking this into account it may be possible that in the future contamination may:

- Migrate to locations, which previously showed no indication of contamination.
- Migrate onto the site from an off-site source.

Natural processes or activities performed by man can change the sub-surface conditions of a site. As a consequence of this, samples, taken from a specific location, which have been assessed and found to be uncontaminated, may subsequently become contaminated if subjected to such activities. It must be stressed that soil-sampling results reflect the actual conditions only for the time, which the sampling occurred.



## CONSTRUCTION EMP - 40-44 MONTELLIER RETREAT



Figure 2– Location of potential residual soil contamination at the site following decommissioning works (GES 2012) – areas indicated with red shading in the vicinity of UST 2.



## CONSTRUCTION EMP - 40-44 MONTPELLIER RETREAT

**5. RISK REGISTER**

Soil and groundwater analysis results have been compared with the applicable NEPM Health Screening Levels (HSL) and the risk associated with the identified contamination on site is summarised in below.

Essentially, the risk is:

- Direct contact (dermal) and vapour health risk from soil hydrocarbons for intrusive maintenance workers for excavation works greater than 2m in depth in the vicinity of the former UST pit 2 and associated infrastructure

The areas of site contamination are identified on the site plan in figure 2.





## CONSTRUCTION EMP - 40-44 MONTPELLIER RETREAT

**6. IDENTIFICATION OF SOIL CONTAMINATION**

Potential soil contamination may be identified in the field by:

- Discolouration of soil
- Odours emanating from soil
- The presence of foreign materials

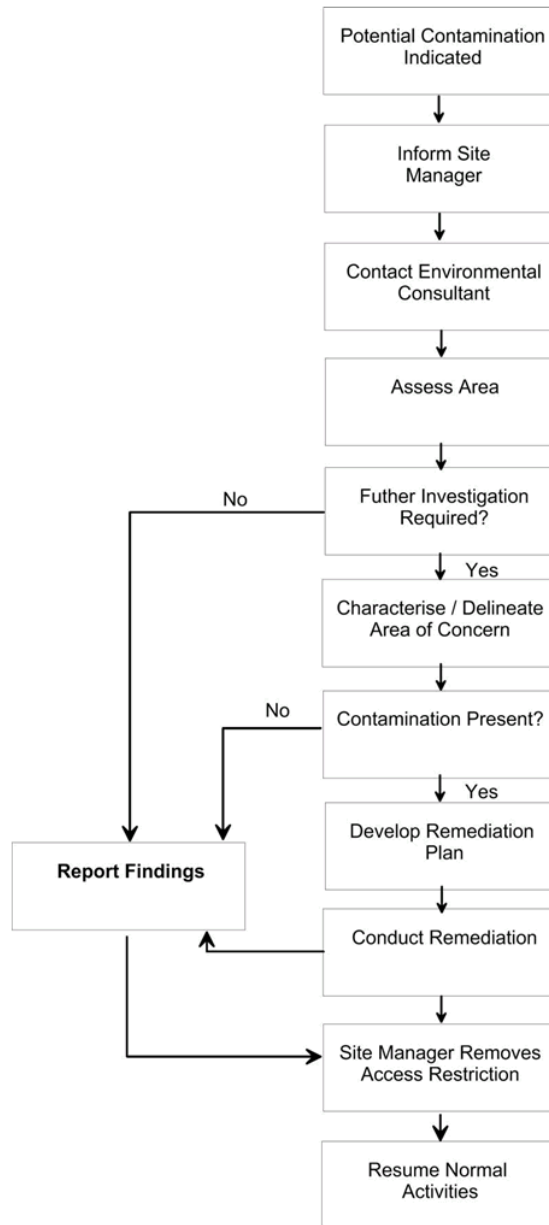
If the site managers consider soil in the area of any planned excavation works to be potentially contaminated the area will be quarantined off and a suitably qualified environmental consultant contacted. The environmental consultant will be responsible for sampling, testing, delineating and assessing the contamination and guiding any remedial works as required. If deemed necessary by the environmental consultant contamination will be removed from site in accordance with controlled waste handling regulations by an appropriately licenced contractor. If the area is deemed by the environmental consultant to not be contaminated, or the sampling analysis results meet the relevant site criteria the site manager will be notified that works can commence. The environmental consultant will prepare a report on the investigation and the conclusions made.



## CONSTRUCTION EMP - 40-44 MONTPELLIER RETREAT

**7. DECISION SUPPORT FLOW CHART**

The following flowchart has been prepared to aid site management decisions and identify critical control points and personnel responsible for site management.





## CONSTRUCTION EMP - 40-44 MONTPELLIER RETREAT

**8. SUMMARY OF ROLES AND RESPONSIBILITY**

Environmental Consultant	Once called to the site, the Environmental Consultant will be responsible for assessing the potential hydrocarbon contamination find, undertaking any necessary sampling and delineation, if required, developing a remedial scope and validating remediation to render the site suitable for residential development. The Environmental Consultant may, as appropriate, have expertise in environmental assessment. All findings and conclusions will be reported, as appropriate, to the satisfaction of the Site Manager and the Site Owner
Site Manager	Responsible for the preliminary assessment of potential contamination discovered and assessing whether further action is required. The Site Manager is responsible for ensuring the induction of Site Operatives, assessing the adequacy of quarantine measures and contacting the relevant Consultant and/or Contractors where appropriate.  Once an area is declared free of the contamination, the Site Manager's role will be to remove the quarantine and allow site works to proceed
Site Operatives	During the works, the Site Operative will be vigilant for potential contamination. Where potential contamination is identified, Site Operatives will quarantine the area and inform the Site Manager



## CONSTRUCTION EMP - 40-44 MONTPELLIER RETREAT

**9. LIMITATIONS STATEMENT**

This Management Plan has been prepared in accordance with the scope of services between Geo-Environmental Solutions Pty. Ltd. (GES) and Sam Issa. ('the Client'). To the best of GES's knowledge, the information presented herein represents the Client's requirements at the time of printing of the Report. However, the passage of time, manifestation of latent conditions or impacts of future events may result in findings differing from that described in this Report. In preparing this Report, GES has relied upon data, surveys, analyses, designs, plans and other information provided by the Client and other individuals and organisations referenced herein. Except as otherwise stated in this Report, GES has not verified the accuracy or completeness of such data, surveys, analyses, designs, plans and other information.

The scope of this study does not allow for the review of every possible soil and groundwater contaminant over the whole area of the site. Soil samples collected from the investigation area are assumed to be representative of the areas from where they were collected and indicative of the contamination status of the site. The conclusions described within this report are based on these samples, the results of their analysis and an assessment of their contamination status.

This report does not purport to provide legal advice. Readers of the report should engage professional legal practitioners for this purpose as required.

No responsibility is accepted for use of any part of this report in any other context or for any other purpose by third party.





## STAGE 2 – ENVIRONMENTAL SITE ASSESSMENT – ELLIOTT BROS

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## STAGE 2 – ENVIRONMENTAL SITE ASSESSMENT – ELLIOTT BROS

**EXECUTIVE SUMMARY**

Geo-Environmental Solutions Pty Ltd (GES) was engaged by the Sam Issa in October 2012 to undertake a soil and groundwater sampling program for a stage 2 Environmental Site Assessment (ESA) at the former Elliott Brothers Site. This followed on from the initial ESA in November 2010 and the decommissioning of Underground Storage Tanks (UST's) in March 2011. The Elliot Bros site is located at 40-44 Montpelier Retreat, Battery Point, Tasmania (Title References: 126274/1, 72077/1, 128788/1, 72077/2, 197384/1). The objective of the soil sampling program was to assess the nature and extent of potential soil contamination across the whole site, and in particular around the fuel bowsers which had not been previously tested.

The conclusions and recommendations in this report are based only on information which was obtained during compilation of site history and on analytical results obtained during this assessment. Some of the conclusions and recommendations contained herein may change if the information upon which they are based is later found to be incorrect or incomplete and/or if additional information is subsequently found.

The assessment was designed to include soil sampling in accordance with the “*Underground Storage Tank Decommissioning Guidelines*” (DTAE Information Bulletin No. 109, 2010). The results of this current assessment have provided further detail to the preliminary site assessment (ESA) undertaken in November 2010 and the decommissioning report undertaken in April 2011.

The results of chemical testing of the soil from all three assessments found that, in general, sample locations showed low to nil levels of contamination and where detected contaminants were below respective Health Investigation Levels (HILs) for commercial land use (73 of 77 samples). Four (4) samples from shallow depths below the removed fuel bowsers returned values above guideline levels for commercial or industrial sites (NEPM 1999 setting F) for aromatic TPH. Three (3) samples taken during the UST decommission report from UST pit 1 (samples N wall, W wall, and packing sand) had significant contamination in excess of relevant residential guideline criteria (commercial criteria not determined but possibly exceeded). A further one (1) sample from the base of UST pit 2 returned levels of TPH C<sub>6</sub>-C<sub>9</sub> and C<sub>15</sub>-C<sub>36</sub> contamination above the residential guideline limits, and two (2) samples East wall and West wall returned lead contamination above the residential guideline.

The majority of contamination detected by this assessment and the previous assessments appears to be confined to soil immediately adjacent to UST pit 1 to the North and West, in the base of UST pit 2, and immediately underneath bowsers 1-3. Most of the contamination detected is likely to be classified as low level (level 2) contaminated soil for disposal according to EPA IB105, with a small volume immediately underneath bowsers 1-3 classified as level 3 to 4 contaminated soil for disposal/remediation.

The results of the groundwater investigation failed to reveal any evidence of hydrocarbon contamination in groundwater at the site. The investigation revealed low level lead in groundwater which based upon the limitations of the sampling and reporting is unlikely to be a significant site impact.

A number of conclusions recommendations have been made and are discussed in Section 12.



## STAGE 2 – ENVIRONMENTAL SITE ASSESSMENT – ELLIOTT BROS

**1. INTRODUCTION****1.1. Background**

Geo-Environmental Solutions Pty. Ltd. (GES) were engaged by Sam Issa to complete a stage 2 Environmental Site Assessment (ESA) of the former Elliot Brothers Crane Yard, located at 40-44 Montpelier Retreat, Battery Point (the 'site'). The purpose of the assessment is to provide information as to the nature and extent of any soil or groundwater contamination that might have originated through the site being used as a crane depot for many years. This assessment has been developed based on an investigation into the prior uses of the site, the removal and decommissioning three underground storage tanks in April 2011 and the preliminary ESA completed in November 2010.

**Table 1 Site Details**

<b>SITE LOCATION:</b> 40-44 Montpelier Retreat Battery Point Tasmania
<b>TITLE REFERENCES:</b> 126274/1, 72077/1, 128788/1, 72077/2, 197384/1
<b>CURRENT LAND USE:</b> Crane/cartage depot
<b>PROPOSED LAND USE:</b> Possible commercial or residential re-development
<b>ASSESSMENT STAFF:</b> John Paul Cumming – Geo-Environmental Solutions Pty. Ltd. Grant McDonald - Geo-Environmental Solutions Pty. Ltd.

**1.2. Objectives**

The objective of the ESA is to investigate the extent of on-site soil and groundwater contamination. The ESA involved the following works:

- Desktop preparation of site information.
- Development of a geo-referenced site plan and sampling protocol for the site.
- Soil sampling at the site as specified in the sampling protocols
- Installation, development and sampling of three groundwater monitoring wells
- Submission of all samples to NATA accredited laboratories (ALS Melbourne).
- Review and interpretation of analytical results.
- Production of an ESA report containing all methodologies, analytical results, summary and discussion of results, and conclusions and recommendations for any additional site works as necessary.

**1.3. Site Details****1.3.1. Location**

The subject site is located approximately 0.5km south of Salamanca Place in Hobart, on land that slopes gently towards the north. Residential premises surround the site to the south and east,





## STAGE 2 – ENVIRONMENTAL SITE ASSESSMENT – ELLIOTT BROS

while commercial properties border the site to the west and north. The site consists of 5 titles, with a total approximate area of 1448m<sup>2</sup>, as indicated by the extract from the listmap in figure 1.

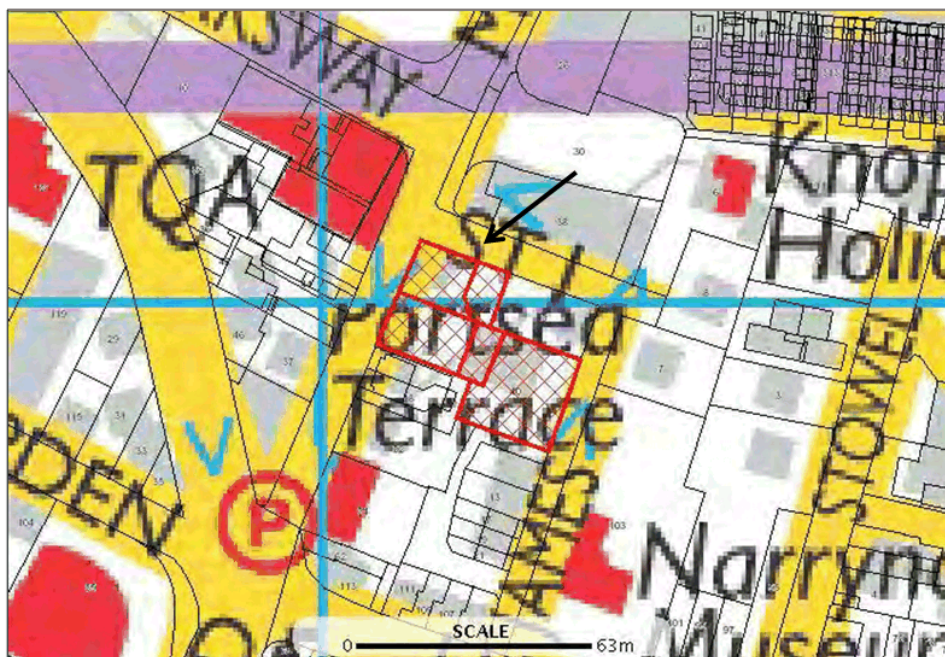


Figure 1: Site Location on Montpelier Retreat with title illustrated in red (source, TheLIST)

### 1.3.2. Zoning

The Elliot Bros site is zoned '*Residential 1*' under the Battery Point Planning Scheme 1979 as administered by the Hobart City Council.

### 1.4. Current Site Layout

Currently the site consists of:

- Open areas of concrete hardstand and gravel parking/storage (approx 1100m<sup>2</sup>)
- A site office with storage shed
- A large vehicle and machinery shed with workshop and staff facilities



## STAGE 2 – ENVIRONMENTAL SITE ASSESSMENT – ELLIOTT BROS



Figure 2: Site layout during operation with approximate boundary in red.

### 1.5. Site Owners

As of November 2012 the site is owned by Elliott Brothers Pty Ltd, who is also the previous operator of the site.

### 1.6. Delegated Responsibilities

Site works were undertaken by Geo-Environmental Solutions Pty Ltd, with the exception of the following:

- Installation of groundwater monitoring wells by Tas Drilling.



## STAGE 2 – ENVIRONMENTAL SITE ASSESSMENT – ELLIOTT BROS

**2. SCOPE OF WORKS**

The scope of the project involved an assessment of the following:

**2.1. Groundwater Monitoring Well Installation**

A total of 3 groundwater monitoring wells were drilled onsite (MW1 to MW3). The installation process included the following processes:

- Drilling of three groundwater monitoring wells to required depths.
- Installation of a single piezometer within each monitoring well.
- Well development
- Analysis of groundwater and QC samples from all monitoring wells for the following analytes:
  - Total Petroleum Hydrocarbon (TPH)
  - Benzene, Toluene, Ethylbenzene, Toluene & Naphthalene (BTEXN)
  - Lead (Pb)

**2.2. Soil Sampling Assessment**

A soil contamination assessment was undertaken according to the minimum sampling points required for site characterisation as defined in Table E1 of AS 4482.1 (2005): Guide to the sampling and investigation of potentially contaminated soil.

- Soil samples collected were analysed for the following analytes:
  - Total Petroleum Hydrocarbon (TPH)
  - Benzene, Toluene, Ethylbenzene, Toluene & Naphthalene (BTEXN)
  - Poly Aromatic Hydrocarbons (PAH)
  - Phenols
  - NEPM 13 Heavy Metals.



### 3. SITE CHARACTERISATION

A desktop study was undertaken which included a review of local scale physical characteristics including topography, hydrology, geology and hydrogeology. Information was obtained from LIDAR imagery (where available), published maps, and from the online Land Information Services Tasmania website (The LIST).

#### 3.1. Topography and Hydrology

The site is gently sloping (10-15%) to the north west at an elevation of approximately 20m above sea level. It is assumed that the groundwater gradient follows the surface contours in a north to north westerly direction.



Figure 3: Topography of the site showing LIDAR ground contours at 1m intervals.





## STAGE 2 – ENVIRONMENTAL SITE ASSESSMENT – ELLIOTT BROS

### 3.2. Geology

According the Department of Mines 1:25 K geology map (Hobart), the site is characterised by Jurassic Dolerite – Jd. Based on the drilling results, it is apparent that the ground conditions are consistent with the MRT 1:25,000 mapping (MW installation logs presented in Appendix 1). The soil profile was consistent with the dolerite parent material.

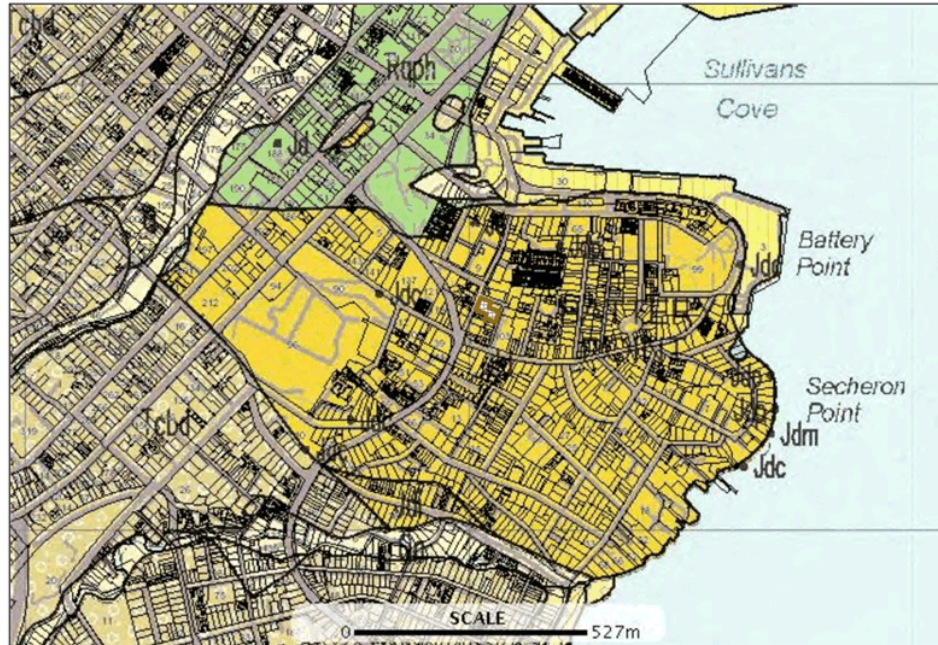


Figure 4: Geology of the site showing 'The LIST' 1:25,000 Hobart Geology Map



STAGE 2 – ENVIRONMENTAL SITE ASSESSMENT – ELLIOTT BROS

### 3.3. Hydrogeology

Hydrogeology was assessed using inferred groundwater flow direction established with the use of LIDAR contour imagery available for the site.



Figure 5: Inferred groundwater flow direction and locations of monitoring wells



## STAGE 2 – ENVIRONMENTAL SITE ASSESSMENT – ELLIOTT BROS

**4. HISTORICAL INFORMATION AND SITE HISTORY**

Establishing a site history involved an investigation into the site's prior uses and potential for the presence of contaminating activities. An investigation into the history of the site was conducted to locate external areas of potential contamination, prior to site closure and decommissioning for a possible future change to residential land use. Any areas of potentially contaminating activities identified have made the focus of the sampling program. No investigation has been made into the potential for building contaminants such as asbestos or lead based paints.

The site history investigation has been based primarily on:

- Site visit on Thursday 4th of November 2010
- Review of the dangerous goods file held at Workplace Standards Tasmania
- (WST) pertaining to the storage of dangerous goods on site.
- Review of the Land Title Information (126274/1, 72077/1, 128788/1, 72077/2, 197384/1)
- Conversations with Mr Don Elliot and Mr Tony Edmondson

The site appears to have been in use since the 1860's by Members of the Elliot family as a cartage and haulage yard, with further expansion and development of the site in the 1900's as mechanised machinery became more prevalent. As a result of continued light industrial use for approximately 150 years it is likely that a number of potential contaminants may be present on the site. In particular the storage of dangerous goods such as fuel and lubricating oils that may have contributed to possible soil contamination on the site. As a result a search of dangerous goods licenses for the site has been undertaken and integrated in the brief site history.

**4.1. Sources of Historical Information**

A number of sources of information pertaining to the past uses of the site have been investigated. The findings of these investigations are summarised below.

**4.2. WST Dangerous Goods File**

A Freedom of Information (FOI) Request was submitted to Workplace Standards Tasmania (WST) by GES on the 5th of November 2010 seeking copies of any historical and/or current documents relating to the storage of dangerous goods at the site. There is one record stating replacement or removal of one of the UST's and any remaining tanks are assumed to be the original installations. There was also no record found of the original 500 gallon tank possibly installed in 1934 by Caltex, although the 1940 records show the location of the original tank

The information contained within the file is summarised in Table 2 below.



## STAGE 2 – ENVIRONMENTAL SITE ASSESSMENT – ELLIOTT BROS

Table 2: Summary of WST Dangerous Goods Records

DATE	COMMENT
07/03/1940	Approval granted for 1 x 500 gallon underground UST. Note – records show one 500 Gallon UST already in place
03/07/1957	Application to license: 4000 gallon UST
06/09/1957	Approval granted for: 1 x 1000 Gallon diesel UST to replace one 500 gallon UST
25/09/1961	Application to license: 1 x Dual electric pump 1 x single electric pump
25/05/1989	Inspection Report site plan indicates: 1 x 4500L petrol UST 1 x 2270L diesel UST 2 x single-electric pumps Removal of 1 x dual electric pump Removal of 1 x dual manual pump 1 x 4000 gallon waste oil tank
30/06/2005	Dangerous Goods Keepers License indicates: 2270 L of distillate in a UST. 4500 L of petrol in a UST. 18180L of waste oil in a UST. *note site inspection revealed the 2270L UST is actually waste oil and the 18180L UST is actually diesel*

**4.3. EPA Property Information Request**

At the time of preparation of this report a formal Property Information Request (PIR) has not been submitted to the Contaminated Sites Unit of the Environment Protection Authority (EPA).

However, based upon recent conversations and correspondence with the EPA the site is not currently listed as a contaminated site and does not currently have an investigation notice or environmental notice in force. The recent correspondence does however note the presence of the fuel bowers following UST decommissioning and that the site was placed on a register of potentially contaminated sites. A copy of the EPA correspondence may be found in appendix 8.





## STAGE 2 – ENVIRONMENTAL SITE ASSESSMENT – ELLIOTT BROS

**4.4. Anecdotal Evidence**

The following observations in relation to potential contamination were made by GES during the site visit and discussions with Tony Edmondson (Elliott Bros) on the 4th of November 2010:

- The location of the three UST's on site were confirmed and filler caps noted
- Two single electric pumps were identified on site
- A triple interceptor trap with oil staining in the main yard was identified
- Machinery such as trucks and cranes were parked on site
- Localised oil staining on the ground surface was noted
- Significant oil staining on concrete surrounding the waste oil filler was noted
- Small quantities of lubricating oils and hydraulic fluid were present in the shed
- Remnant footings from former buildings were noted

**4.5. Previous Reporting****4.5.1. UST decommissioning – April 2011**

In April 2011, three UST's were excavated on site from three separate tank pits. Soil samples were collected from the packing sands around each UST, and from the walls and base of each tank pit.

The analytical results of the soil found that, in general, sample locations showed low to nil levels of contamination and where detected contaminants were below respective Health Investigation Levels (HILs) for residential land use (13 of 19 samples). No samples returned values above guideline levels for commercial or industrial sites (NEPM 1999 setting F). Three (3) samples from UST pit 1 (samples N wall, W wall, and packing sand) had significant contamination in excess of relevant residential guideline criteria. In this location petroleum hydrocarbon levels (TPH C6-C9 & C15-C36) were found to be in excess of the relevant residential guideline criteria.

A further one (1) sample from the base of UST pit 2 returned levels of TPH C<sub>6</sub>-C<sub>9</sub> and C<sub>15</sub>-C<sub>36</sub> contamination above the relevant guideline limits, and two (2) samples East wall and West wall returned lead contamination above the relevant guidelines. This sample location and UST pit 2 are in close proximity to the prior sample location 3 in the preliminary ESA which returned TPH levels in excess of guideline criteria. Unfortunately the presence of storm water and sewer infrastructure prevented further excavation to the north of UST pit 2 such that the degree of contamination could not be fully delineated. Therefore it is likely that some soil contamination exists at depth (approximately 2-2.5m) in the vicinity of UST pit 2 which will require further investigation.

The majority of contamination detected by this assessment appears to be confined to soil immediately adjacent to UST pit 1 to the North and West, in the base of UST pit 2, and possibly immediately to the north of UST 2.

Based upon the current assessment results, and the current industrial use, the site does not represent an environmental nuisance and does not appear to be causing serious environmental harm. Further investigation and appropriate reporting is however recommended to confirm the contamination status of the site, with particular reference to possible conversion of the site to a more sensitive land use.



## STAGE 2 – ENVIRONMENTAL SITE ASSESSMENT – ELLIOTT BROS

**4.5.2. Preliminary ESA – November 2010**

In April 2010, in association with the removal of underground petroleum storage infrastructure, a total of eleven bore hole locations (BH1-11) were excavated on site and twenty five soil samples taken.

The analytical results of the soil found that, in general, sample locations showed low to nil levels of contamination and where detected contaminants were below respective Health Investigation Levels (HILs) for residential land use (17 of 25 samples). One (1) sample location (BH3 –samples 3a,3b,3c) adjacent to UST-2 had significant contamination in excess of relevant guideline criteria. In this location petroleum hydrocarbon levels (TPH C6-C9 & C15-C36) and lead were found to be in excess of the relevant guideline criteria.

A further four (4) locations sampled returned levels of TPH C<sub>15</sub>-C<sub>36</sub> contamination above the relevant guideline limits. The levels exceeded criteria in the surface (0-0.3m) samples from 4a, 5a,&11a, and in the deeper (1.0m) sample from location 2b. Three (3) sample locations consisting of 6 samples, 2b, 3a&b, 4a, 5a, and 8a also had lead contamination in excess guideline criteria. An additional two (2) sample locations 1a and 5a had benzene (and toluene in sample 5a) contamination slightly above the relevant guideline criteria.

The majority of contamination detected appears to be confined to shallow surface contamination, as indicated by the analysis results. The obvious exception is possible deep contamination detected in the vicinity of BH 2 & 3 which may be associated with UST-2, and possible past filling and pump installations in that area of the site.

**5. GROUNDWATER AND SOIL CONTAMINATION****5.1. Potential Offsite contamination**

According to the groundwater flow directions estimated in Figure 5, the site is potentially down gradient from 'Bob and Tom's' petrol station on the corner of Sandy Bay Road and Hampden Road. Since the Bob and Tom petrol station has been in use for many years, there is potential for localized groundwater impacts from hydrocarbons. .

**5.2. Areas of Potential Contamination**

The site history investigation indicated that any potential land contaminating activities associated with the site would be in relation to the former use of the site as a haulage yard and in particular:

- Storage of petroleum products in underground tank/s (UST's)
- Maintenance and storage of machinery

**5.3. Contaminants of Potential Concern**

Contaminants of potential concern in the soil on site include:

- Total Petroleum Hydrocarbon (TPH)
- Benzene, Toluene, Ethylbenzene, Toluene & Naphthalene (BTEXN)
- Poly Aromatic Hydrocarbons (PAH)



## STAGE 2 – ENVIRONMENTAL SITE ASSESSMENT – ELLIOTT BROS

- Heavy Metals.
- Phenols

**5.4. Contamination Assessment Strategy****5.4.1. Soil**

A systematic soil sampling strategy was undertaken to assess the presence or level of contaminants of potential concern at the site. The sample density was calculated with reference to Table E1 of AS 4482.1 (2005): Guide to the sampling and investigation of potentially contaminated soil. The assessment was also designed to target area of potential contamination not previously assessed (i.e. fuel bowzers).

**5.4.2. Groundwater**

Three groundwater monitoring wells were installed to triangulate the groundwater flow direction and to assess hydrocarbon and lead contamination of the groundwater. The wells were installed by Tas Drilling, were developed shortly after and sampled one week after development.



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**6. FIELD PROCEDURES****6.1. Drilling and Analysis**

On October 29th 2012, Tas Drilling used a truck mounted auger drive and percussion rig to drill a total of 3 groundwater monitoring wells on site (MW1 to MW3). Drilling procedure included:

- All holes were checked for underground services prior establishing drilling locations.
- All soil bores were drilled to at least 3m below the water table.
- Holes were initiated with auger and swapped to percussion drilling following refusal on bedrock
- Soil bores were logged in accordance USCS guidelines (logs presented in Appendix 1)

**6.2. Groundwater Well Installation & Development**

- Groundwater monitoring well establishment involved:
- Monitoring wells were installed at least 1 m below the water table and screened within a discrete confined or unconfined unit.
- Well installation was done in accordance with Minimum Construction Guidelines for Water Bores in Australia (2012).
- After drilling, the bores were fully developed 12V Typhoon groundwater purge pump until groundwater became clear.
- Surveyors were engaged to determine monitoring well locations (GDA94 grid) and surface elevations (mAHD).

**6.3. Groundwater Monitoring**

A groundwater monitoring event was initiated more than 7 days after the groundwater well purging on the 5<sup>th</sup> of November 2012 as follows:

All monitoring wells (MW1 to MW3) were:

- Gauged from surveyed datum using an oil/water interface probe (IP)
- Purged 3 times the volume of the well (6 x water column) or purged dry
- Monitored for physiochemical parameters (PCP) whilst purging:
  - Oxidation / Reduction Potential (RedOx or ORP)
  - Temperature
  - pH
  - Electrical Conductivity (EC)
- Sampled once PCP's had stabilised within 10% of previous sample

**6.4. Groundwater Sampling and Analysis**

The following samples were collected, labelled, chilled, and delivered with a Chain of Custody (COC) to Analytical Laboratory Services (ALS) in Melbourne for analysis within the ALS turnaround time:

- 3 monitoring well samples
- 1 duplicate
- 1 rinse blank





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Analytes selected for reporting included the following:

- TPH
- BTEXN
- Lead (Pb)

#### 6.5. Soil Sampling and Analysis

While the sampling plan was designed to be systematic, ultimately the location of each of the bore holes was dependent upon safety (e.g. location of underground services) and access. Samples were taken under existing buildings and open areas in the yard where concrete coring allowed for sampling.

Soil sampling conducted for the purpose of this ESA was undertaken utilising recognised standard protocols. Soil sampling was conducted in accordance with the:

- National Environment Protection (Assessment of Site Contamination) Measure, 1999 made by the National Environment Protection Council under the National Environment Protection Act 1994 (Commonwealth).
- AS 4482.1-2005, Guide to the sampling and investigation of potentially contaminated soil, Part 1: Non-volatile and semi-volatile compounds, Standards Australia, 2005.
- AS 4482.2-1999, Guide to the sampling and investigation of potentially contaminated soil, Part 2: Volatile substances, Standards Australia, 1999.

The following soil samples were collected, labeled, chilled and delivered with a Chain of Custody to Analytical Laboratory Services (ALS) in Melbourne for analysis within the ALS turnaround time:

- 33 soil samples
- 2 duplicates

Analytes selected for reporting included the following:

- BTEX;
- TPH;
- PAH's;
- Phenols
- Heavy Metals



## 7. ENVIRONMENTAL INVESTIGATION LEVELS

### 7.1. Soil Investigation Levels

Soil samples were assessed primarily against the NEPM (1999) guidelines for setting F – Commercial/Industrial use, and EPA Information Bulletin IB 105 as required (Table 2). The investigation levels were chosen based upon the current land zoning and the future possible land use of the site. The appropriate levels are outlined below in Table 3.

### 7.2. Groundwater Investigation Levels

Investigation Limits (IL) for groundwater (including ranges for disposal purposes), are outlined in Table 4. The requirement for further investigation is based on limits set in Tasmanian and National Guidelines. Specific IL's adopted for a particular site may be refined as more information becomes available regarding the:

- Groundwater flow directions,
- The spread of contamination, and
- The potential receptor risks

Groundwater samples were primarily assessed against the following investigation criteria:

- NEPM (1999) Aquatic Ecosystems – Fresh National Environment Protection Council, National Environment Protection (Assessment of Site Contamination) Measure: Schedule B (1) Guideline on the Investigation Levels for soil and groundwater
- Australian and New Zealand Guidelines for Fresh and Marine Water Quality, Australian and New Zealand Environment and Conservation Council, October 2000 – Fresh Water (95% Trigger)

The investigation levels have been selected on the basis that any contamination will intercept groundwater which is specifically defined as opposed to marine. Marine guidelines are not considered as the scope of this investigation is more localised. Localised aquifers will need to be assessed to determine if they are considered a source of fresh water for the region. As more information becomes available, more weight may be drawn towards IL's which have a larger risk.



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**Table 3: Summary of TPH Fraction, OCOP, PCB and Phenol Investigation Levels (Site IL Shaded Grey) for Soil**

LIMITS (mg/kg)	THP >C16- C35 Aromatic Species	THP >C16- C35 Aliphatic Species	THP >C35 Aliphatic Species	Total PAH	Benzo(a) pyrene	PCB	Phenols	Aldrin + Dieldrin	DDT + DDD + DDE
NEPM Guidelines1: HIL Residential 'A'	90	5,600	56,000	20	1	1	1	1	1
NEPM Guidelines1: HIL Residential 'D'	360	22,400	224,000	80	4	4	4	4	4
NEPM Guidelines1 – Parks / Recreational Open Space 'E'	180	11,200	11,200	40	2	2	2	2	2
NEPM Guidelines1 – Commercial/Industrial 'F'	450	28,000	280,000	100	5	5	5	5	5
EPA Tas2 2010 Level 1 – Fill Material	NA	NA	NA	<20	<0.08	<2	<25	<2	<2
EPA Tas2 2010 Level 2 – Low Level Contaminated Soil	NA	NA	NA	20-40	0.08-2	2-20	25-500	2-20	2-200
EPA Tas2 2010 Level 3 – Contaminated Soil	NA	NA	NA	40-200	2-20	20-50	500-2,000	20-50	200-1,000
EPA Tas2 2010 Level 4 – Contaminated soil for remediation	NA	NA	NA	>200	>20	>50	>2,000	>50	>1,000
Key									
HIL – Health Investigation Level.									
'A' Residential – 'Standard' residential with garden/accessible soil.									
'D' Residential – Residential with minimal opportunities for soil access: includes dwellings with fully and permanently paved yard space.									
'E' Parks, recreational open space and playing fields: includes secondary schools.									
'F' Commercial/Industrial: includes premises such as shops and offices as well as factories and industrial sites									
References									
1- National Environment Protection Council, National Environment Protection (Assessment of Site Contamination) Measure: Schedule B (1) Guideline on the Investigation Levels for Soil and Groundwater, (NEPM, 1999).									
2- Environmental Protection Authority Tasmania, Information Bulletin No. 105 Classification and Management of Contaminated Soil for Disposal, (EPA, November, 2010).									



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Table 4 Summary of BTEXN Investigation Levels for Water

LIMITS (µg/L)	Lead	Benzene	Toluene	Ethyl- benzene	O Xylene	P Xylene	Xylene (Total)	Naphthal- ene	Phenols	Benzo (a) PAH's Pyrene	
NSW EPA1 1994 Health	10	10	800	300			300		2	0.01	
NSW EPA1 1994 Fresh Water	1+5	300	300	140			380		50		3
NSW EPA1 1994 Marine	5	300					380		50		3
ANZECC2 (2000) Recreational	50	10								0.01	
ANZECC2 (2000) Fresh Water (95% trigger)	13 (24)	950			350	200		16	320		
ANZECC2 (2000) Marine Water (95% trigger)		700						70	400		
NHMRC3 (2011) Drinking Water	10	1	800	300			600			0.01	0.01
NHMRC3 (2011) Aesthetic			25	3			20				
TAS EPA IB1094 Drinking Water	3.4	1	25	3			20		320		
TAS EPA IB1094 Aquatic Ecosystems	3.4	30	300	150			70		320		

Key:

Blank cell indicates there is no IL available for the particular analyte

References:

- 1- NSW Environment Protection Authority Soil Threshold Concentration for Sensitive Lands Uses from Contaminated Sites: Guidelines for Assessing Service Station Sites, (NSW EPA, 2000)
- 2- Australian and New Zealand Guidelines for Fresh and Marine Water Quality, Australian and New Zealand Environment and Conservation Council, October 2000
- 3- Australian Drinking Water Quality Guidelines, National Health and Marine Research Council 2011
- 4- Department of Tourism, Arts and Environment, Information Bulletin No. 109: Underground Storage Tank Decommissioning Guidelines, (EPA, 2010).





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**8. SOIL ANALYTICAL RESULTS**

Soil sampling results are compiled in table 5 & 6. The appropriate regulatory guidelines and levels (where they exist) are also presented in Table 3 or in the tables of results. Certificate of analysis and COC documentation is presented in Appendix 4 & 5.

Soil analytical results were compared against NEPM Health Investigation Levels Setting F – Commercial/Industrial and EPA IB105. The results from all three sets of site investigation are also represented in figure 6.

**8.1. NEPM 13 Heavy Metals**

Heavy metals and in particular lead was detected in a number of samples with all samples below the chosen NEPM setting F commercial guideline except two samples (bowser 1 & 3 at 0.5m depth) exceeding NEPM setting F guidelines. The majority of the heavy metal contamination on site would also be classified as low level contaminated soil for disposal according to EPA IB105.

**8.2. BTEX and TPH**

Residual BTEX or TPH compounds were detected at low levels in a number of samples on site. Four samples (bowser 1, 2, and 3 at 0.5m depth and bowser 1 at 2m depth) exceeded NEPM setting F guideline levels for aromatic TPH. Given the residual concentrations of TPH in the vicinity of UST 1 & 2, it is likely that TPH concentrations in that area are also above the chosen guideline (results not specified for comparison). The majority of TPH contamination detected in the vicinity of UST 1 & 2, and bowsers 1-3 is classified according to EPA IB105 as level 2 – low level contaminated soil for disposal. A small volume of soil immediately under the former bowsers (less than 1m depth) is classified as level 3 to 4 contaminated soil for disposal/remediation.

**8.3. PAH and Phenols**

Although detected in a small number of samples, no phenol or PAH values exceeded the investigation thresholds defined under NEPM F setting guidelines.



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Figure 6: Site plan with soil sampling locations and classification



## STAGE 2 – ENVIRONMENTAL SITE ASSESSMENT – ELLIOTT BROS

Table 5 – Tabulated soil results (compared to IB105 for soil disposal)

		EG005T: Total Metals by ICP-AES							EG035T: EP075(SIM)A: Phenolic Compounds									
		Arsenic	Cadmium	Chromium	Copper	Lead	Nickel	Zinc	Mercury	Phenol	Benzo(a)pyrene	Sum of PAH	Benzene	Toluene	Ethylbenzene	Total Xylenes	C5 - C9 Fraction	C10 - C35 Fraction (sum)
Unit		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
LOR		5	1	2	5	5	2	5	0.1	0.5	0.5	0.5	0.2	0.5	0.5	0.5	10	50
Investigation Level Selected																		
IB105 Level 1		20	3	50	100	300	60	200	1	25	0.08	20	1	1	3	14	65	1000
IB105 Level 2		200	40	500	2000	1200	600	14000	30	500	2	40	5	100	100	180	650	5000
IB105 Level 3		750	400	5000	7500	3000	3000	50000	110	2000	20	200	50	1000	1080	1800	1000	10000
IB105 Level 4		>750	>400	>5000	>7500	>3000	>3000	>50000	>110	>2000	>20	>200	>50	>1000	>1080	>1800	>1000	>10000
11/11/2010	BH01a	7	<1	23	49	189	14	130	0.9				<0.2	<0.5	<0.5	<0.5	<10	150
11/11/2010	BH01b	<5	<1	8	44	52	18	36	<0.1				<0.2	<0.5	<0.5	<0.5	<10	600
11/11/2010	BH02a	14	12	24	88	269	24	175	2				<0.2	<0.5	<0.5	<0.5	<10	<50
11/11/2010	BH02b	18	2	16	178	1110	22	490	1.4				<0.2	<0.5	<0.5	<0.5	<10	1400
11/11/2010	BH03a	11	4	26	196	967	21	977	0.9				<0.2	<0.5	<0.5	<0.5	<10	1460
11/11/2010	BH03b	<5	1	16	86	444	15	404	0.1				<0.2	<0.5	<0.5	<0.5	12	1440
11/11/2010	BH03c	<5	1	11	74	101	19	96	0.1				<0.2	<0.5	<0.5	<0.5	68	5020
11/11/2010	BH04a	<5	<1	13	114	305	25	272	0.8				<0.2	<0.5	<0.5	<0.5	<10	1470
11/11/2010	BH04b	5	<1	12	121	257	17	145	0.6				<0.2	<0.5	<0.5	<0.5	<10	<50
11/11/2010	BH05a	<5	<1	10	276	495	14	182	0.7				1.3	1.8	0.6	2.7	12	1300
11/11/2010	BH05b	<5	<1	12	57	9	18	30	<0.1				<0.2	<0.5	<0.5	<0.5	<10	<50
11/11/2010	BH05c	<5	<1	24	70	<5	18	30	<0.1				<0.2	<0.5	<0.5	<0.5	<10	<50
11/11/2010	BH06a	<5	<1	11	94	259	16	129	0.7				<0.2	<0.5	<0.5	<0.5	<10	<50
11/11/2010	BH06b	<5	<1	18	54	8	20	21	<0.1				<0.2	<0.5	<0.5	<0.5	<10	140
11/11/2010	BH07a	<5	<1	8	44	68	18	48	0.2				<0.2	<0.5	<0.5	<0.5	<10	<50
11/11/2010	BH07b	<5	<1	12	30	72	11	18	<0.1				<0.2	<0.5	<0.5	<0.5	<10	100
11/11/2010	BH08a	<5	<1	20	101	782	12	621	0.6				<0.2	<0.5	<0.5	<0.5	<10	120
11/11/2010	BH08b	<5	<1	14	60	52	16	103	0.7				<0.2	<0.5	<0.5	<0.5	<10	220
11/11/2010	BH09a	<5	<1	15	40	10	10	27	<0.1				<0.2	<0.5	<0.5	<0.5	<10	660
11/11/2010	BH09b	<5	<1	24	52	<5	31	17	<0.1				<0.2	<0.5	<0.5	<0.5	<10	<50
11/11/2010	BH10a	<5	<1	10	71	250	12	284	0.3				<0.2	<0.5	<0.5	<0.5	<10	240
11/11/2010	BH10b	<5	<1	8	78	5	24	32	0.3				<0.2	<0.5	<0.5	<0.5	<10	<50



## STAGE 2 – ENVIRONMENTAL SITE ASSESSMENT – ELLIOTT BROS

		EG005T: Total Metals by ICP-AES								EG035T:	EP075(SIM)A: Phenolic Compounds											
		Arsenic	Cadmium	Chromium	Copper	Lead	Nickel	Zinc	Mercury	Phenol	Benzo(a)pyrene	Sum of PAH	Benzene	Toluene	Ethylbenzene	Total Xylenes	C6 - C9 Fraction	CL0 - C36 Fraction (sum)				
Unit		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg				
LOR		5	1	2	5	5	2	5	0.1	0.5	0.5	0.5	0.2	0.5	0.5	0.5	10	50				
Investigation Level Selected																						
IB105 Level 1		20	3	50	100	300	60	200	1	25	0.08	20	1	1	3	14	65	1000				
IB105 Level 2		200	40	500	2000	1200	600	14000	30	500	2	40	5	100	100	180	650	5000				
IB105 Level 3		750	400	5000	7500	3000	3000	50000	110	2000	20	200	50	1000	1080	1800	1000	10000				
IB105 Level 4		>750	>400	>5000	>7500	>3000	>3000	>50000	>110	>2000	>20	>200	>50	>1000	>1080	>1800	>1000	>10000				
11/11/2010	BH11a	<5	<1	9	59	195	9	456	0.7				<0.2	<0.5	<0.5	0.5	<10	1220				
11/11/2010	BH11b	<5	<1	11	65	123	21	169	0.4				<0.2	<0.5	<0.5	<0.5	<10	<50				
28/03/2011	UST 1 Base	<5	<1	<2	62	<5	10	21	0.2				<0.2	<0.5	<0.5	<0.5	<10	160				
28/03/2011	UST 1 E Wall	<5	<1	10	37	97	13	14	<0.1				0.7	<0.5	<0.5	0.9	60	340				
28/03/2011	UST 1 N Wall	<5	<1	8	33	53	12	15	<0.1				2.1	1.1	0.9	9.1	443	7780				
28/03/2011	UST 1 Pack Sand	<5	<1	<2	<5	9	<2	11	<0.1				<0.2	<0.5	<0.5	1.1	47	4860				
28/03/2011	UST 1 S Wall	<5	<1	4	26	6	8	8	<0.1				<0.2	<0.5	<0.5	<0.5	<10	<50				
28/03/2011	UST 1 W Wall	<5	<1	4	23	6	5	8	<0.1				0.4	<0.5	<0.5	1.1	117	2130				
28/03/2011	UST 2 Base	<5	<1	8	75	7	22	38	<0.1				<0.2	<0.5	<0.5	<0.5	162	2750				
28/03/2011	UST 2 E Wall	<5	<1	14	79	377	17	188	1.4				<0.2	<0.5	<0.5	<0.5	<10	<50				
28/03/2011	UST 2 N Wall	<5	<1	10	33	7	8	12	<0.1				<0.2	<0.5	<0.5	<0.5	<10	<50				
28/03/2011	UST 2 Pack Sand	<5	<1	4	28	74	4	172	<0.1				<0.2	<0.5	<0.5	<0.5	<10	470				
28/03/2011	UST 2 S Wall	<5	<1	16	41	121	21	41	0.3				<0.2	<0.5	<0.5	<0.5	<10	<50				
28/03/2011	UST 2 W Wall	<5	<1	10	38	358	13	58	0.5				<0.2	<0.5	<0.5	<0.5	<10	<50				
28/03/2011	UST 3 Base	<5	<1	3	32	9	8	27	<0.1				<0.2	<0.5	<0.5	<0.5	<10	<50				
28/03/2011	UST 3 E Wall	<5	<1	17	48	6	18	19	<0.1				<0.2	<0.5	<0.5	<0.5	<10	<50				
28/03/2011	UST 3 N Wall	<5	<1	13	49	8	18	25	<0.1				<0.2	<0.5	<0.5	<0.5	<10	<50				
28/03/2011	UST 3 Pack Sand	<5	<1	<2	<5	<5	<2	66	<0.1				<0.2	<0.5	<0.5	<0.5	<10	<50				
28/03/2011	UST 3 S Wall	<5	<1	10	35	5	15	13	<0.1				<0.2	<0.5	<0.5	<0.5	<10	<50				
28/03/2011	UST 3 W Wall	<5	<1	10	33	6	13	11	<0.1				<0.2	<0.5	<0.5	<0.5	<10	<50				
23/10/2012	BH01-0.5	<5	<1	21	62	41	22	60		<0.5	0.5	0.5			0.5	<0.5	<10	<50				
23/10/2012	BH02-0.5	<5	<1	16	41	<5	19	19	<0.1	<0.5						<0.5	<10	<50				
23/10/2012	BH03-0.5	<5	<1	16	82	325	16	184	0.9	<0.5	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<10	<50				





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		EG005T: Total Metals by ICP-AES										EG035T: EP075(SIM)A: Phenolic Compounds											
		Arsenic	Cadmium	Chromium	Copper	Lead	Nickel	Zinc	Mercury	Phenol	Benzo(a)pyrene	Sum of PAH	Benzene	Toluene	Ethylbenzene	Total Xylenes	C6 - C9 Fraction	C10 - C35 Fraction (sum)					
Unit		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg					
LOR		5	1	2	5	5	2	5	0.1	0.5	0.5	0.5	0.2	0.5	0.5	0.5	10	50					
Investigation Level Selected																							
IB105 Level 1		20	3	50	100	300	60	200	1	25	0.08	20	1	1	3	14	65	1000					
IB105 Level 2		200	40	500	2000	1200	600	14000	30	500	2	40	5	100	100	180	650	5000					
IB105 Level 3		750	400	5000	7500	3000	3000	50000	110	2000	20	200	50	1000	1080	1800	1000	10000					
IB105 Level 4		>750	>400	>5000	>7500	>3000	>3000	>50000	>110	>2000	>20	>200	>50	>1000	>1080	>1800	>1000	>10000					
23/10/2012	BH04-0.5	<5	<1	11	49	20	14	29	0.1	<0.5	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<10	<50					
23/10/2012	BH04-1.0	<5	<1	12	70	<5	25	24	<0.1	<0.5	1.5	16.9	<0.2	<0.5	<0.5	<0.5	<10	<50					
23/10/2012	BH04-1.5					<5					<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<10	<50					
23/10/2012	BH04-2					<5					<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<10	<50					
23/10/2012	BH05-0.5	<5	<1	24	49	8	19	881	<0.1	<0.5			<0.2	<0.5	<0.5	<0.5	<10	<50					
23/10/2012	BH06-0.5	<5	<1	7	77	<5	18	32	<0.1	<0.5			<0.2	<0.5	<0.5	<0.5	<10	<50					
23/10/2012	BH07-0					34					<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<10	<50					
23/10/2012	BH07-0.5					58					<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<10	<50					
23/10/2012	BH07-1					7							<0.2	<0.5	<0.5	<0.5	<10	<50					
23/10/2012	BH07-1.5					7							<0.2	<0.5	<0.5	<0.5	<10	<50					
23/10/2012	BH07-2					<5							<0.2	<0.5	<0.5	<0.5	<10	290					
23/10/2012	BH08-0.5	<5	<1	7	56	211	12	140	0.5	<0.5			<0.2	<0.5	<0.5	<0.5	<10	<50					
23/10/2012	BH08-1	<5	<1	23	71	16	33	30	<0.1	<0.5			<0.2	<0.5	<0.5	<0.5	<10	160					
23/10/2012	BH08-1.5					<5					0.9	9.7	<0.2	<0.5	<0.5	<0.5	<10	<50					
23/10/2012	BH08-2					84					<0.5	2.7	<0.2	<0.5	<0.5	<0.5	<10	1430					
23/10/2012	BH08-2.5					<5							<0.2	<0.5	<0.5	<0.5	<10	<50					
23/10/2012	Bowser 1					52300							<0.2	<0.5	<0.5	2.9	70	23200					
23/10/2012	Bowser 2					216					<0.5	0.6	<0.2	<0.5	<0.5	<0.5	38	7010					
23/10/2012	Bowser 3					3490							0.4	<0.5	1	<0.5	12	15100					
5/11/2012	BH09-0.5					104							0.9	<0.5	0.6	1.2	152	1900					
5/11/2012	BH09-1.0					5							<0.2	<0.5	<0.5	<0.5	25	140					
5/11/2012	Bowser 1-1.0					95							1.2	0.8	3.4	7.7	96	1000					
5/11/2012	Bowser 1-2.0					71							2.2	2.5	2	5.9	851	4530					
5/11/2012	Bowser 2-1.0					231							<0.2	<0.5	<0.5	<0.5	30	1080					
5/11/2012	Bowser 2-2.0					8							<0.2	<0.5	<0.5	<0.5	<10	600					
5/11/2012	Bowser 3-1.0					17							<0.2	<0.5	<0.5	<0.5	<10	240					
5/11/2012	Bowser 3-1.5					15							<0.2	<0.5	<0.5	<0.5	17	1270					



## STAGE 2 – ENVIRONMENTAL SITE ASSESSMENT – ELLIOTT BROS

Table 6 – Tabulated soil results (compared to NEPM setting F)

		Arsenic	Cadmium	Chromium	Copper	Lead	Nickel	Zinc	Mercury	Phenol	Benzo(a)pyrene	Sum of PAH	Benzene	Toluene	Ethylbenzene	Sum of BTEX	Total Xylenes	C6 - C9 Fraction	C10 - C14 Fraction	C15 - C28 Fraction	C29 - C35 Fraction	C10 - C35 Fraction (sum)	>C10 - C40 Fraction (sum)	Aliphatic C16-C35	Aliphatic > C35	Aromatic C16-C35
Unit		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
LOR		5	1	2	5	5	2	5	0.1	0.5	0.5	0.5	0.2	0.5	0.5	0.2	0.5	10	50	100	100	50	50	100	100	90
Investigation Level Selected																										
NEPM 1999 HIL F (Ind/Com)		500	100		5000	1500	3000	35000	75	4E+05	5	100												28000	280000	450
IB109 UST Decommissioning						300				40			1	1.4	3.1		14	65				1000				
NSW EPA (1994) Terrestrial Organisms						300					1	20	1	1.4	3.1		14	65					1000			
NSW EPA (1994) Human Health						300					1	20	1	130	50		25	65					1000			
11/11/2010	BH01a	7	<1	23	49	189	14	130	0.9				<0.2	<0.5	<0.5	<0.5	<0.5	<10	<50	<100	150	150				
11/11/2010	BH01b	<5	<1	8	44	52	18	36	<0.1				<0.2	<0.5	<0.5	<0.5	<0.5	45	220	380	<100	600				
11/11/2010	BH02a	14	12	24	88	269	24	175	2				<0.2	<0.5	<0.5	<0.5	<0.5	<10	<50	<100	<100	<50				
11/11/2010	BH02b	18	2	16	178	1110	22	490	1.4				<0.2	<0.5	<0.5	<0.5	<0.5	<10	<50	660	740	1400				
11/11/2010	BH03a	11	4	26	196	967	21	977	0.9				<0.2	<0.5	<0.5	<0.5	<0.5	<10	<50	480	980	1460				
11/11/2010	BH03b	<5	1	16	86	444	15	404	0.1				<0.2	<0.5	<0.5	<0.5	<0.5	12	420	1020	<100	1440				
11/11/2010	BH03c	<5	1	11	74	101	19	96	0.1				<0.2	<0.5	<0.5	<0.5	<0.5	68	1740	3160	120	5020				
11/11/2010	BH04a	<5	<1	13	114	305	25	272	0.8				<0.2	<0.5	<0.5	<0.5	<0.5	<10	<50	510	960	1470				
11/11/2010	BH04b	5	<1	12	121	257	17	145	0.6				<0.2	<0.5	<0.5	<0.5	<0.5	<10	<50	<100	<100	<50				
11/11/2010	BH05a	<5	<1	10	276	495	14	182	0.7				1.3	1.8	0.6	6.4	2.7	12	480	410	410	1300				
11/11/2010	BH05b	<5	<1	12	57	9	18	30	<0.1				<0.2	<0.5	<0.5	<0.5	<0.5	<10	<50	<100	<100	<50				
11/11/2010	BH05c	<5	<1	24	70	<5	18	30	<0.1				<0.2	<0.5	<0.5	<0.5	<0.5	<10	<50	<100	<100	<50				
11/11/2010	BH06a	<5	<1	11	94	259	16	129	0.7				<0.2	<0.5	<0.5	<0.5	<0.5	<10	<50	<100	<100	<50				
11/11/2010	BH06b	<5	<1	18	54	8	20	21	<0.1				<0.2	<0.5	<0.5	<0.5	<0.5	<10	<50	<100	140	140				
11/11/2010	BH07a	<5	<1	8	44	68	18	48	0.2				<0.2	<0.5	<0.5	<0.5	<0.5	<10	<50	<100	<100	<50				
11/11/2010	BH07b	<5	<1	12	30	72	11	18	<0.1				<0.2	<0.5	<0.5	<0.5	<0.5	<10	<50	<100	100	100				
11/11/2010	BH08a	<5	<1	20	101	782	12	621	0.6				<0.2	<0.5	<0.5	<0.5	<0.5	<10	<50	<100	120	120				
11/11/2010	BH08b	<5	<1	14	60	52	16	103	0.7				<0.2	<0.5	<0.5	<0.5	<0.5	<10	<50	110	110	220				
11/11/2010	BH09a	<5	<1	15	40	10	10	27	<0.1				<0.2	<0.5	<0.5	<0.5	<0.5	<10	<50	360	300	660				
11/11/2010	BH09b	<5	<1	24	52	<5	31	17	<0.1				<0.2	<0.5	<0.5	<0.5	<0.5	<10	<50	<100	<100	<50				
11/11/2010	BH10a	<5	<1	10	71	250	12	284	0.3				<0.2	<0.5	<0.5	<0.5	<0.5	<10	<50	100	140	240				
11/11/2010	BH10b	<5	<1	8	78	5	24	32	0.3				<0.2	<0.5	<0.5	<0.5	<0.5	<10	<50	<100	<100	<50				
11/11/2010	BH11a	<5	<1	9	59	195	9	456	0.7				<0.2	<0.5	<0.5	0.5	0.5	<10	<50	340	880	1220				
11/11/2010	BH11b	<5	<1	11	65	123	21	169	0.4				<0.2	<0.5	<0.5	<0.5	<0.5	<10	<50	<100	<100	<50				



## STAGE 2 – ENVIRONMENTAL SITE ASSESSMENT – ELLIOTT BROS

		Arsenic	Cadmium	Chromium	Copper	Lead	Nickel	Zinc	Mercury	Phenol	Benzolalpyrene	Sum of PAH	Benzene	Toluene	Ethylbenzene	Sum of BTEX	Total Xylenes	C6 - C9 Fraction	C10 - C14 Fraction	C15 - C28 Fraction	C29 - C35 Fraction	C10 - C35 Fraction (sum)	>C10 - C40 Fraction (sum)	Aliphatic C16-C35	Aliphatic > C35	Aromatic C16-C35
Unit		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
LOR		5	1	2	5	5	2	5	0.1	0.5	0.5	0.5	0.2	0.5	0.5	0.2	0.5	10	50	100	100	50	50	100	100	90
Investigation Level Selected																										
NEPM 1999 HIL F (Ind/Com)		500	100		5000	1500	3000	35000	75	4E+05	5	100												28000	280000	450
IB109 UST Decommissioning						300				40			1	1.4	3.1		14	65				1000				
NSW EPA (1994) Terrestrial Organisms						300					1	20	1	1.4	3.1		14	65					1000			
NSW EPA (1994) Human Health						300					1	20	1	130	50		25	65					1000			
28/03/2011	UST 1 Base	<5	<1	<2	62	<5	10	21	0.2				<0.2	<0.5	<0.5	<0.5	<0.5	<10	<50	160	<100	160				
28/03/2011	UST 1 E Wall	<5	<1	10	37	97	13	14	<0.1				0.7	<0.5	<0.5	1.6	0.9	60	80	260	<100	340				
28/03/2011	UST 1 N Wall	<5	<1	8	33	53	12	15	<0.1				2.1	1.1	0.9	13.2	9.1	443	2430	5350	<100	7780				
28/03/2011	UST 1 Pack Sand	<5	<1	<2	<5	9	<2	11	<0.1				<0.2	<0.5	<0.5	1.1	1.1	47	1280	3480	100	4860				
28/03/2011	UST 1 S Wall	<5	<1	4	26	6	8	8	<0.1				<0.2	<0.5	<0.5	<0.5	<0.5	<10	<50	<100	<100	<50				
28/03/2011	UST 1 W Wall	<5	<1	4	23	6	5	8	<0.1				0.4	<0.5	<0.5	1.5	1.1	117	620	1510	<100	2130				
28/03/2011	UST 2 Base	<5	<1	8	75	7	22	38	<0.1				<0.2	<0.5	<0.5	<0.5	<0.5	162	820	1930	<100	2750				
28/03/2011	UST 2 E Wall	<5	<1	14	79	377	17	188	1.4				<0.2	<0.5	<0.5	<0.5	<0.5	<10	<50	<100	<100	<50				
28/03/2011	UST 2 N Wall	<5	<1	10	33	7	8	12	<0.1				<0.2	<0.5	<0.5	<0.5	<0.5	<10	<50	<100	<100	<50				
28/03/2011	UST 2 Pack Sand	<5	<1	4	28	74	4	172	<0.1				<0.2	<0.5	<0.5	<0.5	<0.5	<10	<50	370	100	470				
28/03/2011	UST 2 S Wall	<5	<1	16	41	121	21	41	0.3				<0.2	<0.5	<0.5	<0.5	<0.5	<10	<50	<100	<100	<50				
28/03/2011	UST 2 W Wall	<5	<1	10	38	358	13	58	0.5				<0.2	<0.5	<0.5	<0.5	<0.5	<10	<50	<100	<100	<50				
28/03/2011	UST 3 Base	<5	<1	3	32	9	8	27	<0.1				<0.2	<0.5	<0.5	<0.5	<0.5	<10	<50	<100	<100	<50				
28/03/2011	UST 3 E Wall	<5	<1	17	48	6	18	19	<0.1				<0.2	<0.5	<0.5	<0.5	<0.5	<10	<50	<100	<100	<50				
28/03/2011	UST 3 N Wall	<5	<1	13	49	8	18	25	<0.1				<0.2	<0.5	<0.5	<0.5	<0.5	<10	<50	<100	<100	<50				
28/03/2011	UST 3 Pack Sand	<5	<1	<2	<5	<5	<2	66	<0.1				<0.2	<0.5	<0.5	<0.5	<0.5	<10	<50	<100	<100	<50				
28/03/2011	UST 3 S Wall	<5	<1	10	35	5	15	13	<0.1				<0.2	<0.5	<0.5	<0.5	<0.5	<10	<50	<100	<100	<50				
28/03/2011	UST 3 W Wall	<5	<1	10	33	6	13	11	<0.1				<0.2	<0.5	<0.5	<0.5	<0.5	<10	<50	<100	<100	<50				
23/10/2012	BH01-0.5	<5	<1	21	62	41	22	60	0.1	<0.5	0.5	0.5	0.2	0.5	0.5	<0.2	<0.5	<10	<50	<100	<100	<50	<50			
23/10/2012	BH02-0.5	<5	<1	16	41	<5	19	19	<0.1	<0.5			<0.2	<0.5	<0.5	<0.2	<0.5	<10	<50	<100	<100	<50	<50			
23/10/2012	BH03-0.5	<5	<1	16	82	325	16	184	0.9	<0.5	<0.5	<0.5	<0.2	<0.5	<0.5	<0.2	<0.5	<10	<50	<100	<100	<50	<50			
23/10/2012	BH04-0.5	<5	<1	11	49	20	14	29	0.1	<0.5	<0.5	<0.5	<0.2	<0.5	<0.5	<0.2	<0.5	<10	<50	<100	<100	<50	110			



## STAGE 2 – ENVIRONMENTAL SITE ASSESSMENT – ELLIOTT BROS

		Arsenic	Cadmium	Chromium	Copper	Lead	Nickel	Zinc	Mercury	Phenol	Benzo(a)pyrene	Sum of PAH	Benzene	Toluene	Ethylbenzene	Sum of BTEX	Total Xylenes	C6 - C9 Fraction	C10 - C14 Fraction	C15 - C28 Fraction	C29 - C35 Fraction	C10 - C35 Fraction (sum)	>C10 - C40 Fraction (sum)	Aliphatic C16-C35	Aliphatic > C35	Aromatic C16-C35
Unit		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
LOR		5	1	2	5	5	2	5	0.1	0.5	0.5	0.5	0.2	0.5	0.5	0.2	0.5	10	50	100	100	50	50	100	100	90
Investigation Level Selected																										
NEPM 1999 HIL F (Ind/Com)		500	100		5000	1500	3000	35000	75	4E+05	5	100												28000	280000	450
IB109 UST Decommissioning						300				40			1	1.4	3.1		14	65				1000				
NSW EPA (1994) Terrestrial Organisms						300					1	20	1	1.4	3.1		14	65					1000			
NSW EPA (1994) Human Health						300					1	20	1	130	50		25	65					1000			
23/10/2012 BH04-1.0		<5	<1	12	70	<5	25	24	<0.1	<0.5	1.5	16.9	<0.2	<0.5	<0.5	<0.2	<0.5	<10	<50	<100	<100	<50	<50			
23/10/2012 BH04-1.5						<5					<0.5	<0.5	<0.2	<0.5	<0.5	<0.2	<0.5	<10	<50	<100	<100	<50	<50			
23/10/2012 BH04-2						<5					<0.5	<0.5	<0.2	<0.5	<0.5	<0.2	<0.5	<10	<50	<100	<100	<50	<50			
23/10/2012 BH05-0.5		<5	<1	24	49	8	19	881	<0.1	<0.5			<0.2	<0.5	<0.5	<0.2	<0.5	<10	<50	<100	<100	<50	<50			
23/10/2012 BH06-0.5		<5	<1	7	77	<5	18	32	<0.1	<0.5			<0.2	<0.5	<0.5	<0.2	<0.5	<10	<50	<100	<100	<50	<50			
23/10/2012 BH07-0						34					<0.5	<0.5	<0.2	<0.5	<0.5	<0.2	<0.5	<10	<50	<100	<100	<50	<50			
23/10/2012 BH07-0.5						58					<0.5	<0.5	<0.2	<0.5	<0.5	<0.2	<0.5	<10	<50	<100	<100	<50	<50			
23/10/2012 BH07-1						7							<0.2	<0.5	<0.5	<0.2	<0.5	<10	<50	<100	<100	<50	<50			
23/10/2012 BH07-1.5						7							<0.2	<0.5	<0.5	<0.2	<0.5	<10	<50	<100	<100	<50	<50			
23/10/2012 BH07-2						<5							<0.2	<0.5	<0.5	<0.2	<0.5	<10	80	210	<100	290	180			
23/10/2012 BH08-0.5		<5	<1	7	56	211	12	140	0.5	<0.5			<0.2	<0.5	<0.5	<0.2	<0.5	<10	<50	<100	<100	<50	<50			
23/10/2012 BH08-1		<5	<1	23	71	16	33	30	<0.1	<0.5			<0.2	<0.5	<0.5	<0.2	<0.5	<10	<50	<100	160	160	320			
23/10/2012 BH08-1.5						<5					0.9	9.7	<0.2	<0.5	<0.5	<0.2	<0.5	<10	<50	<100	<100	<50	<50			
23/10/2012 BH08-2						84					<0.5	2.7	<0.2	<0.5	<0.5	<0.2	<0.5	<10	<50	510	920	1430	2010			239*
23/10/2012 BH08-2.5						<5							<0.2	<0.5	<0.5	<0.2	<0.5	<10	<50	<100	<100	<50	<50			
23/10/2012 Bowser 1						52300							<0.2	<0.5	<0.5	4.3	2.9	70	5310	16400	1440	23200	25600			2991*
23/10/2012 Bowser 2						216					<0.5	0.6	<0.2	<0.5	<0.5	<0.2	<0.5	38	2020	4820	170	7010	7690			836*
23/10/2012 Bowser 3						3490							0.4	<0.5	1	<0.2	<0.5	12	3760	11000	320	15100	16500			1898*
5/11/2012 BH09-0.5						104							0.9	<0.5	0.6	2.7	1.2	152	540	1360	<100	1900	2120			318*
5/11/2012 BH09-1.0						5							<0.2	<0.5	<0.5	<0.2	<0.5	25	<50	140	<100	140	90			
5/11/2012 Bowser 1-1.0						95							1.2	0.8	3.4	13.1	7.7	96	250	750	<100	1000	1100			125*
5/11/2012 Bowser 1-2.0						71							2.2	2.5	2	12.6	5.9	851	1360	3170	<100	4530	4570	1000	<100	760
5/11/2012 Bowser 2-1.0						231							<0.2	<0.5	<0.5	<0.2	<0.5	30	280	800	<100	1080	1210			181*
5/11/2012 Bowser 2-2.0						8							<0.2	<0.5	<0.5	<0.2	<0.5	<10	180	420	<100	600	670	100	<100	<90
5/11/2012 Bowser 3-1.0						17							<0.2	<0.5	<0.5	<0.2	<0.5	<10	50	190	<100	240	260			
5/11/2012 Bowser 3-1.5						15							<0.2	<0.5	<0.5	<0.2	<0.5	17	290	980	<100	1270	1420			212*





## 9. GROUNDWATER OBSERVATIONS

### 9.1. Physical Hydrogeology

Groundwater levels collected for the site is used to infer groundwater flow directions and to assess any contamination present (Table 5).

**Table 5: Summary of groundwater wells at the site**

Monitoring Well	MW1	MW2	MW3	Ave
Well Depth (m)	7.00	7.00	8.00	7.33
Top of Casing (TOC) Height (m AHD)	20.475	16.411	18.535	18.474
TOC Easting (GDA94)	527046.975	527030.549	527022.498	N/A
TOC Northing (GDA94)	5251475.104	5251518.768	5251488.046	N/A
Azimuth (degrees)	0	0	197	N/A
Dip (degrees)	90	90	65	N/A
Groundwater Depth from TOC (m)	1.673	1.530	1.204	1.469
Corrected Groundwater Easting (GDA94) <sup>1</sup>	527046.975	527030.549	527022.349	N/A
Corrected Groundwater Northing (GDA94) <sup>1</sup>	5251475.104	5251518.768	5251487.559	N/A
Corrected Groundwater Elevation (m AHD) <sup>1</sup>	18.802	14.881	17.444	17.042
PSH Thickness (mm)	0	0	0	N/A
PSH Corrected Groundwater Elevation (m AHD) <sup>2</sup>	18.802	14.881	17.444	17.042

<sup>1</sup> Position of water table in MW3 differs from the collar position due to piezometer inclination

<sup>2</sup> Where PSH is present, potentiometric surfaces are calculated from groundwater level + PSH thickness x PSH specific gravity

Groundwater flow directions are presented in Figure 7, with groundwater indicated to flow to the north north west. Groundwater yields were relatively high, and are generally free from clay and silt.

### 9.2. Physiochemical Hydrogeology

Full volumes of groundwater were purged from the wells according to appropriate Australian Standard guidelines. Physiochemical parameters were collected whilst purging and the stabilized values are presented in Table 6 and Appendix 2. The stabilized values are indicative of true groundwater conditions rather than any effects which may have been caused by residual water build up within the well annulus. Findings indicate that the groundwater is relatively basic, mostly fresh and highly oxidizing.

**Table 6: Physiochemical groundwater properties collected from on-site bores**

Monitoring Well	MW1	MW2	MW3	Ave
Well Flow Rate (L/min)	>1.0	>1.0	>1.0	N/A
Purge Volume (L)	32	33	41	35
Temp (°C)	14.2	15	15.8	15
pH	7.78	7.84	7.71	7.8
ORP (mV)	357	248.5	178.7	261
EC (ms/cm)	1095	1142	1242	1160

### 9.3. Potential Receptors & Investigation Levels

Based on the low electrical conductivity values, it has been established that the groundwater is of beneficial use. According to the State Policy on Water Quality Management (1997), groundwater at



## STAGE 2 – ENVIRONMENTAL SITE ASSESSMENT – ELLIOTT BROS

the site falls within the highest level of quality (Segment A) and will require the following aspects to be protected:

- Drinking Water
- Irrigation
- Industry
- Stock; and
- Ecosystem protection (Fresh and Marine Waters)

As properties and industry in the area are serviced with mains drinking water, is it unlikely that groundwater will be utilized as a potable water supply.

Given that there is a lower risk of ecosystem impact and drinking water usage, the ANZECC 95% Fresh Water Species Protection (2000) fresh water guidelines are recommended as a primary investigation level for the site.



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## 10. GROUNDWATER ANALYTICAL RESULTS

Groundwater sampling results are compiled in figure 7 below. The appropriate regulatory guidelines and levels (where they exist) are also presented in Table 4. Certificate of analysis and COC documentation is presented in Appendix 3, 4 & 5.

All analytical results for the three groundwater samples returned levels of TPH and BTEX below the limits of reporting for the analytical equipment. Lead was detected in two out of three monitoring wells.

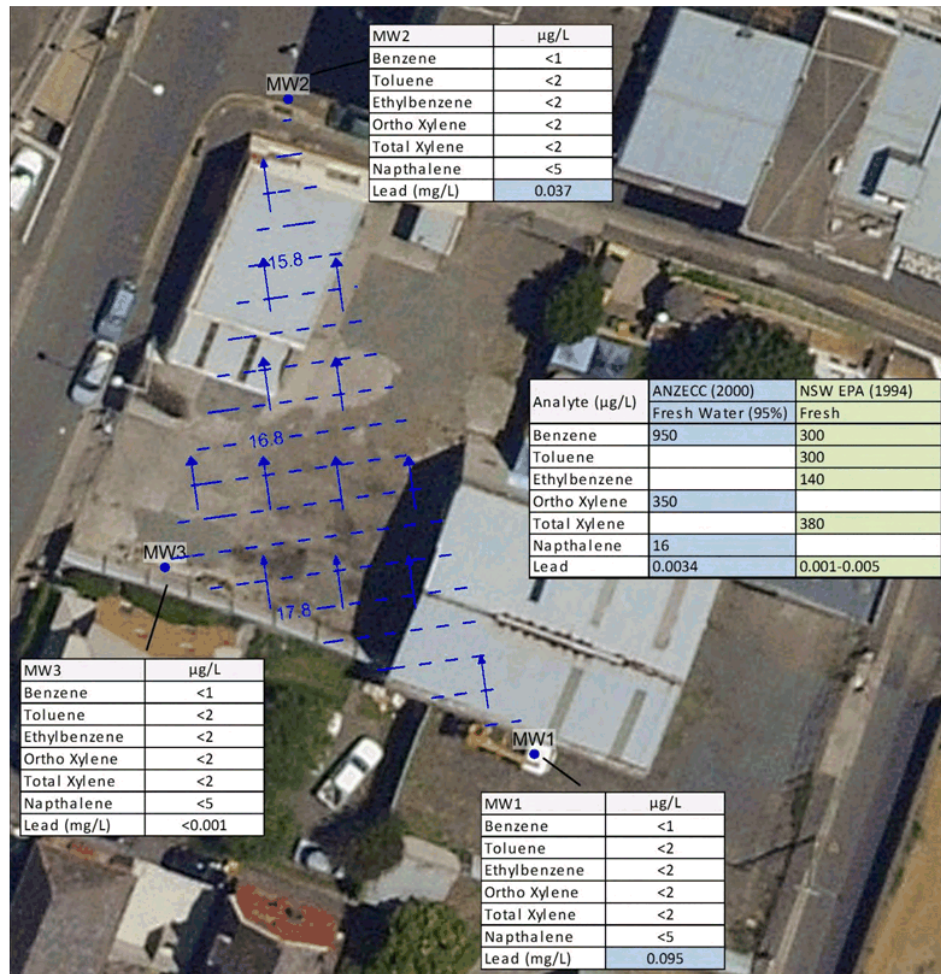


Figure 7: Site Plan showing groundwater monitoring well locations, groundwater flow direction and analytical results (note water samples were not filtered therefore direct comparison with dissolved guidelines for lead is not applicable).

### 10.1. BTEX and Napthalene

All analytical results returned levels of BTEX and Napthalene below the limits of reporting for the analytical equipment.



## STAGE 2 – ENVIRONMENTAL SITE ASSESSMENT – ELLIOTT BROS

**10.2. Lead (Pb)**

Two out of three monitoring wells returned analytical results for lead above the limits of reporting for the analytical equipment. The results are above the ANZECC (2000) limit for dissolved lead for 95% fresh water species protection, however given the samples were not filtered direct comparison with the guideline is not applicable. It is therefore considered that the dissolved lead concentration is likely to be less than the applicable guideline and the groundwater at the site is not considered to be impacted.

**Table 7 – Tabulated groundwater results**

Investigation Levels		Benzene	Toluene	Ethyl- benzene	Xylene			Naph- alene	TPH Carbon Chain Fractions					Metal
		µg/L	µg/L	µg/L	M	P	O	Total	6 - 9	10 - 14	15 - 28	29 - 36	10 - 36	Pb
		µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mg/L
ANZECC (2000)	Fresh Water (95%)	950					350	16						0.0034
NSW EPA (1994)	Fresh	300	300	140			380							0.001-0.005
Date Collected	Water Sample													
5/11/2012	MW1	<1	<2	<2	<2	<2	<2	<5	<20	<50	<100	<50	<50	0.095
5/11/2012	MW2	<1	<2	<2	<2	<2	<2	<5	<20	<50	<100	<50	<50	0.037
5/11/2012	MW3	<1	<2	<2	<2	<2	<2	<5	<20	<50	<100	<50	<50	<0.001





## 11. QUALITY CONTROL AND DATA EVALUATION

### 11.1. Blind Replicate and Split Samples (Duplicates and Triplicates)

It is standard to expect up to 10% error in field duplication and up to 10% laboratory error. Therefore in theory up to 20% error can be assumed on duplicate analysis. Some variation may exist in soil and groundwater because even though all efforts are made to split samples homogeneously, fragments of materials may bias samples in certain elements.

Relative Percentage Differences (RPDs) for the field duplicate samples and the intra- laboratory duplicate samples will be calculated using the method outlined below:

$$RPD = (\text{Result 1} - \text{Result 2}) / \text{Mean Result} * 100$$

The acceptance criteria used for the RPDs depend on the levels of contaminants detected and the laboratory's Method Detection Limits. The closer the levels detected are to the MDL the greater the acceptable RPD.

RPDs are calculated as follows:

- RPD <50% for low level results (<20 \* MDL)
- RPD <30% for medium level results (20-100 \* MDL)
- RPD <15% for high level results (>100 \* MDL)
- No limit applies at <2 \* MDL (Method Detection Limit)

One duplicate was taken during the groundwater sampling event (MW2). Both samples returned analytical results below the limits of reporting and as such a RPD cannot be calculated for the groundwater results. Two duplicates were taken during the soil sampling program and the calculated RPD's can be found in Appendix 6. The results indicate general conformity with some heterogeneity in the soil materials.

### 11.2. Rinsate blank

One rinse blank was taken during both soil and groundwater sampling from equipment rinsed with deionised water and the analytical results failed to yield any results above detection limits. Therefore it is concluded that the sampling was free from potential cross contamination.



STAGE 2 – ENVIRONMENTAL SITE ASSESSMENT – ELLIOTT BROS

## 12. CONCLUSION AND RECOMMENDATIONS

The results of chemical testing of the soil from all three assessments found that, in general, sample locations showed low to nil levels of contamination and where detected contaminants were below respective Health Investigation Levels (HILs) for commercial land use (73 of 77 samples). Four (4) samples from shallow depths below the removed fuel bowers returned values above guideline levels for commercial or industrial sites (NEPM 1999 setting F) for aromatic TPH. Three (3) samples taken during the UST decommission report from UST pit 1 (samples N wall, W wall, and packing sand) had significant contamination in excess of relevant residential guideline criteria (commercial criteria not determined but possibly exceeded). A further one (1) sample from the base of UST pit 2 returned levels of TPH C<sub>6</sub>-C<sub>9</sub> and C<sub>15</sub>-C<sub>36</sub> contamination above the residential guideline limits, and two (2) samples East wall and West wall returned lead contamination above the residential guideline.

The majority of contamination detected by this assessment and the previous assessments appears to be confined to soil immediately adjacent to UST pit 1 to the North and West, in the base of UST pit 2, and immediately underneath bowers 1-3. Most of the contamination detected is likely to be classified as low level (level 2) contaminated soil for disposal according to EPA IB105, with a small volume immediately underneath bowers 1-3 classified as level 3 to 4 contaminated soil for disposal/remediation. The volume of contaminated soil underneath the removed fuel bowers in excess of the NEPM commercial guideline is estimated to be in the vicinity of 5-10m<sup>3</sup>, such that it would be prudent for this soil to be removed from site. However, it would be recommended that the soil excavation program also include all contaminated material in the vicinity of UST 1 & 2 to ensure all material suspected of exceeding NEPM commercial guidelines is removed (possibly 30-50m<sup>3</sup>).

The results of the groundwater investigation failed to reveal any evidence of hydrocarbon contamination in groundwater at the site. The investigation revealed low level lead in groundwater which based upon the limitations of the sampling and reporting is unlikely to be a significant site impact.

Given the localised soil contamination in the vicinity of UST 1 & 2 and bowers 1-3 and the lack of groundwater impact it is concluded the site does not represent an environmental nuisance and does not appear to be causing serious environmental harm. It is however recommended that the soil identified as exceeding NEPM setting F guidelines is removed and an appropriate validation program completed to prevent the site being classified as a contaminated site. Thought should also be given to possible future land use (i.e. conversion to residential) and if further excavation and management of contaminated soil would be required for such future conversion of the site.

Sincerely,

A handwritten signature in blue ink, consisting of a stylized, cursive 'J' followed by a horizontal line that extends to the right and then curves back up to complete the signature.

Dr John Paul Cumming B.Agr.Sc (hons) PhD CPSS GAICD  
*Environmental Soil Scientist*



STAGE 2 – ENVIRONMENTAL SITE ASSESSMENT – ELLIOTT BROS

### 13. REFERENCES

- AS 4482:2005 Guide to the sampling and investigation of potentially contaminated soil – Part 1: Non-volatile and semi-volatile compounds, Standards Australia, 2005.
- AS/NZS 5667.1:1998 Water quality – Sampling, Part 1: Guidance on the design of sampling programs, sampling techniques and the preservation and handling of samples, Standards Australia, 1998.
- AS/NZS 5667.11:1998 Water quality – Sampling, Part 11: Guidance on the sampling of groundwater, Standards Australia, 1998.
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- Ministry of Housing, Spatial Planning and the Environment. 1994. Environmental Quality Objectives in the Netherlands: A review of environmental quality objectives and their policy framework in the Netherlands. Prepared by Risk Assessment & Environmental Quality Division, Directorate for Chemicals, External Safety & Radiation Protection, Bilthoven, The Netherlands.



STAGE 2 – ENVIRONMENTAL SITE ASSESSMENT – ELLIOTT BROS

#### 14. LIMITATIONS STATEMENT

This ESA Report has been prepared in accordance with the scope of services between Geo-Environmental Solutions Pty. Ltd. (GES) and the Sam Issa ('the Client'). To the best of GES's knowledge, the information presented herein represents the Client's requirements at the time of printing of the Report. However, the passage of time, manifestation of latent conditions or impacts of future events may result in findings differing from that described in this Report. In preparing this Report, GES has relied upon data, surveys, analyses, designs, plans and other information provided by the Client and other individuals and organisations referenced herein. Except as otherwise stated in this Report, GES has not verified the accuracy or completeness of such data, surveys, analyses, designs, plans and other information.

The scope of this study does not allow for the review of every possible soil and groundwater contaminant over the whole area of the site. Soil samples collected from the investigation area are assumed to be representative of the areas from where they were collected and indicative of the contamination status of the site. The conclusions described within this report are based on these samples, the results of their analysis and an assessment of their contamination status.

This report does not purport to provide legal advice. Readers of the report should engage professional legal practitioners for this purpose as required.

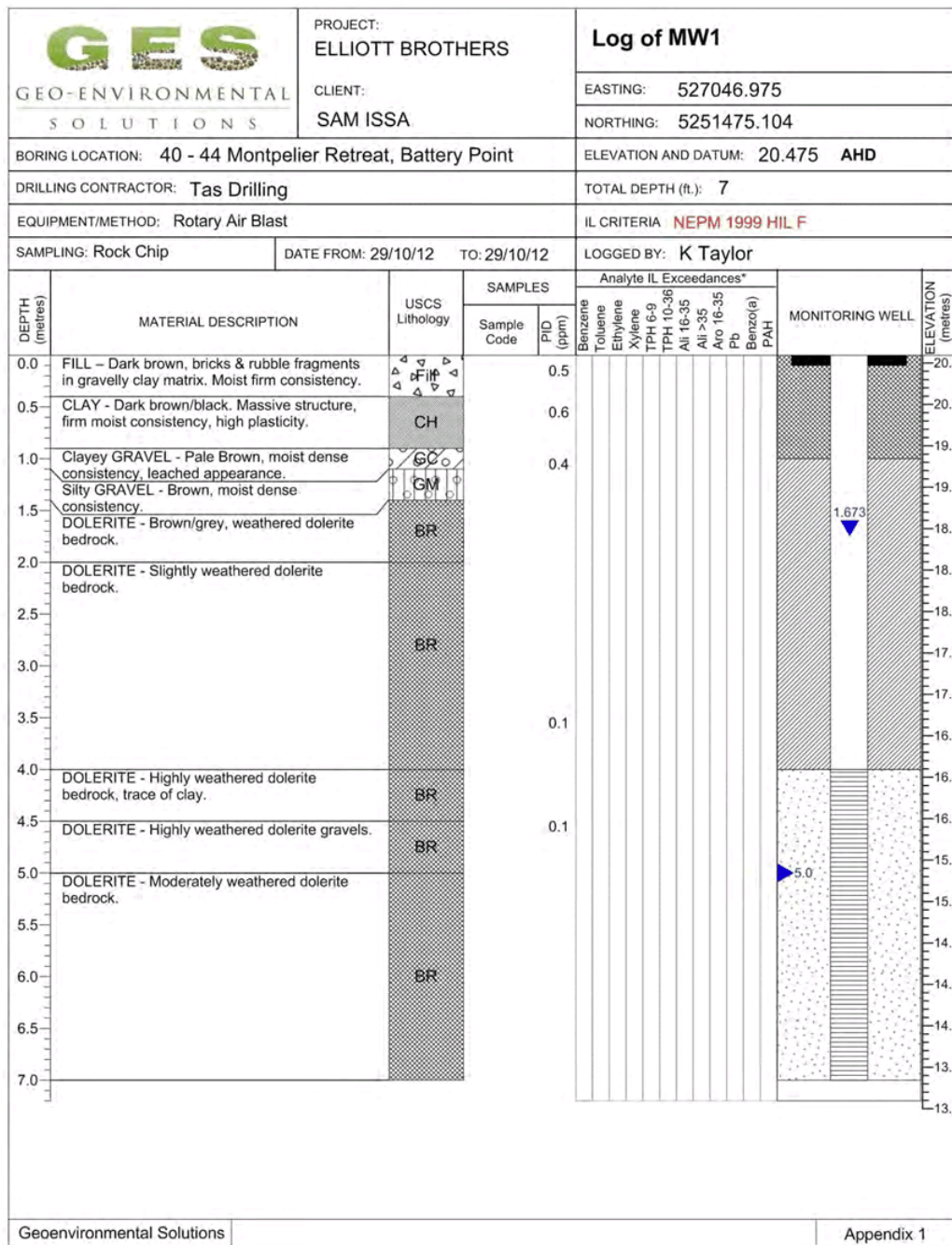
No responsibility is accepted for use of any part of this report in any other context or for any other purpose by third party.





## STAGE 2 – ENVIRONMENTAL SITE ASSESSMENT – ELLIOTT BROS

## Appendix 1 - Monitoring Well Installation and Soil Bore Logs





## STAGE 2 – ENVIRONMENTAL SITE ASSESSMENT – ELLIOTT BROS

 <b>GES</b> GEO-ENVIRONMENTAL SOLUTIONS		PROJECT: ELLIOTT BROTHERS		Log of MW2															
		CLIENT: SAM ISSA		EASTING: 527030.549 NORTHING: 5251518.768															
BORING LOCATION: 40 - 44 Montpelier Retreat, Battery Point				ELEVATION AND DATUM: 16.411 AHD															
DRILLING CONTRACTOR: Tas Drilling				TOTAL DEPTH (ft.): 7															
EQUIPMENT/METHOD: Rotary Air Blast				IL CRITERIA NEPM 1999 HIL F															
SAMPLING: Rock Chip		DATE FROM: 29/10/12 TO: 29/10/12		LOGGED BY: K Taylor															
DEPTH (metres)	MATERIAL DESCRIPTION	USCS Lithology	SAMPLES		Analyte IL Exceedances*										MONITORING WELL	ELEVATION (metres)			
			Sample Code	PID (ppm)	Benzene	Toluene	Ethylene	Xylene	TPH 6-9	TPH 10-36	Alk 16-35	Alk >35	Aro 16-35	Pb			Benzo(a)	PAH	
0.0	BITUMEN	Fill		0.8														16.4	
0.5	FILL – Coarse dolerite road base and FCR gravels.		Fill		0.7														16.0
1.0	CLAY - Dark brown/black. Massive structure, firm moist consistency, high plasticity.	CH		0.4														15.6	
1.5	DOLERITE - Intermittent bands of clay and moderately to highly weathered dolerite.	BR		0.3														14.8	
2.0				0.1														14.4	
2.5																			14.0
3.0																			13.6
3.5																		13.2	
4.0																		12.8	
4.5																		12.4	
5.0																		12.0	
5.5																		11.6	
6.0																		11.2	
6.5																		10.8	
7.0																		10.4	
																		10.0	
																		9.6	
																		9.2	

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Appendix 1



## STAGE 2 – ENVIRONMENTAL SITE ASSESSMENT – ELLIOTT BROS

 <b>GES</b> GEO-ENVIRONMENTAL SOLUTIONS		PROJECT: ELLIOTT BROTHERS		<b>Log of MW3</b>													
		CLIENT: SAM ISSA		EASTING: 527022.498 NORTHING: 5251488.046													
BORING LOCATION: 40 - 44 Montpelier Retreat, Battery Point				ELEVATION AND DATUM: 18.535 AHD													
DRILLING CONTRACTOR: Tas Drilling				TOTAL DEPTH (ft.): 8													
EQUIPMENT/METHOD: Rotary Air Blast				IL CRITERIA <b>NEPM 1999 HIL F</b>													
SAMPLING: Rock Chip		DATE FROM: 29/10/12 TO: 29/10/12		LOGGED BY: K Taylor													
DEPTH (metres)	MATERIAL DESCRIPTION	USCS Lithology	SAMPLES		Analyte IL Exceedances*										MONITORING WELL	ELEVATION (metres)	
			Sample Code	PID (ppm)	Benzene	Toluene	Ethylene	Xylene	TPH 6-9	TPH 10-36	AlI 16-35	AlI >35	Aro 16-35	Pb			Benzo(a)
0.0	FILL – Dark brown, bricks & rubble fragments in gravelly clay matrix. Moist firm consistency.	FI		0.8													
0.5	CLAY - Dark brown/black. Massive structure, firm moist consistency, high plasticity.	CH		0.7													
1.0				0.4													
1.5	Clayey GRAVEL - Pale Brown, moist dense consistency, leached appearance.	GC		0.3													
2.0	DOLERITE - Slightly weathered dolerite bedrock.	BR		0.1													
2.5																	
3.0																	
3.5																	
4.0																	
4.5	DOLERITE - Highly weathered dolerite bedrock, trace of clay.	BR															
5.0																	
5.5																	
6.0																	
6.5	DOLERITE BEDROCK.	BR															
7.0																	
7.5																	
8.0																	

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Appendix 1



## STAGE 2 – ENVIRONMENTAL SITE ASSESSMENT – ELLIOTT BROS

PROJECT: <b>ELLIOTT BROTHERS ESA</b>		<b>Soil Bore SB01</b>	
CLIENT: <b>ELLIOTT BROTHERS</b>		ELEVATION AND DATUM:	
BORING LOCATION: <b>44 Montpelier Retreat</b>	EASTING:	NORTHING:	
DRILLING CONTRACTOR: <b>K Taylor</b>	TOTAL DEPTH (ft.): <b>1.9</b>	MEASURING POINT: <b>0</b>	
DRILLING METHOD: <b>Hand Auger</b>	DEPTH WATER STRUCK:		
DRILLING EQUIPMENT: <b>Earthprobe 200</b>	STANDING WATER LEVEL:		
STARTED:	FINISHED:	LOGGED BY: <b>K Taylor</b>	

DEPTH (metres)	MATERIAL DESCRIPTION	PID VALUE	USC Lithology	DEPTH (metres)
0.0	FILL. FCR and house bricks.		Fill	0.0
0.5	CLAY. Dark Olive Brown. Massive.	1.9	CH	0.5
1.0				1.0
1.5	GRAVEL. Olive Yellow weathered dolerite gravels.	2.1	Gc	1.5

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## STAGE 2 – ENVIRONMENTAL SITE ASSESSMENT – ELLIOTT BROS

PROJECT: <b>ELLIOTT BROTHERS ESA</b>		<b>Soil Bore SB02</b>	
CLIENT: <b>ELLIOTT BROTHERS</b>		ELEVATION AND DATUM:	
BORING LOCATION: <b>44 Montpelier Retreat</b>		EASTING:	NORTHING:
DRILLING CONTRACTOR: <b>K Taylor</b>		TOTAL DEPTH (ft.): <b>1.9</b>	MEASURING POINT: <b>0</b>
DRILLING METHOD: <b>Hand Auger</b>		DEPTH WATER STRUCK:	
DRILLING EQUIPMENT: <b>Earthprobe 200</b>		STANDING WATER LEVEL:	
STARTED:	FINISHED:	LOGGED BY: <b>K Taylor</b>	

DEPTH (metres)	MATERIAL DESCRIPTION	PID VALUE	USC Lithology	DEPTH (metres)
0.0	FILL. FCR gravels.		Fill	0.0
	CLAY. Dark Brown and Grayish Brown. Massive.	0.5	CH	
0.5				0.5
	GRAVEL. Olive Yellow weathered dolerite gravels.		GC	
1.0				1.0
		1.8		
1.5				1.5

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## STAGE 2 – ENVIRONMENTAL SITE ASSESSMENT – ELLIOTT BROS

PROJECT: <b>ELLIOTT BROTHERS ESA</b>		<b>Soil Bore SB03</b>	
CLIENT: <b>ELLIOTT BROTHERS</b>		ELEVATION AND DATUM:	
BORING LOCATION: <b>44 Montpelier Retreat</b>	EASTING:	NORTHING:	
DRILLING CONTRACTOR: <b>K Taylor</b>	TOTAL DEPTH (ft.): <b>1.9</b>	MEASURING POINT: <b>0</b>	
DRILLING METHOD: <b>Hand Auger</b>	DEPTH WATER STRUCK:		
DRILLING EQUIPMENT: <b>Earthprobe 200</b>	STANDING WATER LEVEL:		
STARTED:	FINISHED:	LOGGED BY: <b>K Taylor</b>	

DEPTH (metres)	MATERIAL DESCRIPTION	PID VALUE	USC Lithology	DEPTH (metres)
0.0	FILL. FCR gravels.		Fill	0.0
	CLAY. Very Dark Grayish Brown. Massive.		CH	
0.5		0.5		0.5
	GRAVEL. Olive Yellow weathered dolerite gravels.		GG	
1.0				1.0
		1.2		
1.5				1.5

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## STAGE 2 – ENVIRONMENTAL SITE ASSESSMENT – ELLIOTT BROS

PROJECT: ELLIOTT BROTHERS ESA		<b>Soil Bore SB04</b>	
CLIENT: ELLIOTT BROTHERS		ELEVATION AND DATUM:	
BORING LOCATION: 44 Montpelier Retreat	EASTING:	NORTHING:	
DRILLING CONTRACTOR: K Taylor	TOTAL DEPTH (ft.): 1.9	MEASURING POINT: 0	
DRILLING METHOD: Hand Auger	DEPTH WATER STRUCK:		
DRILLING EQUIPMENT: Earthprobe 200	STANDING WATER LEVEL:		
STARTED:	FINISHED:	LOGGED BY: K Taylor	

DEPTH (metres)	MATERIAL DESCRIPTION	PID VALUE	USC Lithology	DEPTH (metres)
0.0	CONCRETE		Fill	0.0
	FILL. SANDY CLAY. Dark Grayish Brown.	20	Fill	
0.5		1.2		0.5
	CLAY. Dark Olive Brown. Massive.		CH	
1.0				1.0
	GRAVELS. Green weathered dolerite gravels in clay matrix.		GC	
1.5		16		1.5

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## STAGE 2 – ENVIRONMENTAL SITE ASSESSMENT – ELLIOTT BROS

PROJECT: ELLIOTT BROTHERS ESA		Soil Bore SB05		
CLIENT: ELLIOTT BROTHERS		ELEVATION AND DATUM:		
BORING LOCATION: 44 Montpelier Retreat	EASTING:	NORTHING:		
DRILLING CONTRACTOR: K Taylor	TOTAL DEPTH (ft.): 1.9	MEASURING POINT: 0		
DRILLING METHOD: Hand Auger	DEPTH WATER STRUCK:			
DRILLING EQUIPMENT: Earthprobe 200	STANDING WATER LEVEL:			
STARTED:	FINISHED:	LOGGED BY: K Taylor		

DEPTH (metres)	MATERIAL DESCRIPTION	PID VALUE	USC Lithology	DEPTH (metres)
0.0	CONCRETE		Fill	0.0
		0.9		
0.5	CLAY. Dark Olive Brown. Massive.		CH	0.5
1.0	GRAVEL. Olive Yellow weathered dolerite gravels.		GC	1.0
1.5		6.3		1.5

Geoenvironmental Solutions	Appendix 1
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## STAGE 2 – ENVIRONMENTAL SITE ASSESSMENT – ELLIOTT BROS

PROJECT: ELLIOTT BROTHERS ESA		<b>Soil Bore SB06</b>	
CLIENT: ELLIOTT BROTHERS		ELEVATION AND DATUM:	
BORING LOCATION: 44 Montpelier Retreat	EASTING:	NORTHING:	
DRILLING CONTRACTOR: K Taylor	TOTAL DEPTH (ft.): 1.9	MEASURING POINT: 0	
DRILLING METHOD: Hand Auger	DEPTH WATER STRUCK:		
DRILLING EQUIPMENT: Earthprobe 200	STANDING WATER LEVEL:		
STARTED:	FINISHED:	LOGGED BY: K Taylor	

DEPTH (metres)	MATERIAL DESCRIPTION	PID VALUE	USC Lithology	DEPTH (metres)
0.0	CONCRETE		Fill	0.0
	FILL. FCR gravels.	4.2	Fill	
0.5	GRAVEL. Olive Yellow weathered dolerite gravels.		GC	0.5
1.0	GRAVEL. Olive Brown. Highly weathered dolerite gravels. Carbonate nodules.	2.3	GC	1.0
1.5			GC	1.5

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## STAGE 2 – ENVIRONMENTAL SITE ASSESSMENT – ELLIOTT BROS

PROJECT: ELLIOTT BROTHERS ESA		<b>Soil Bore SB07</b>	
CLIENT: ELLIOTT BROTHERS		ELEVATION AND DATUM:	
BORING LOCATION: 44 Montpelier Retreat	EASTING:	NORTHING:	
DRILLING CONTRACTOR: K Taylor	TOTAL DEPTH (ft.): 2.1	MEASURING POINT: 0	
DRILLING METHOD: Hand Auger	DEPTH WATER STRUCK:		
DRILLING EQUIPMENT: Earthprobe 200	STANDING WATER LEVEL:		
STARTED:	FINISHED:	LOGGED BY: K Taylor	

DEPTH (metres)	MATERIAL DESCRIPTION	PID VALUE	USC Lithology	DEPTH (metres)
0.0	FILL. Cement and house bricks.	5	Fill	0.0
0.5	CLAY. Very Dark Grayish Brown. Massive.	12	CH	0.5
1.0	CLAY. Dark Olive Brown. Massive.	70	CH	1.0
1.5	GRAVELS. Green weathered dolerite gravels in clay matrix.	60	GC	1.5
		130		
2.0				

Geoenvironmental Solutions	Appendix 1
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## STAGE 2 – ENVIRONMENTAL SITE ASSESSMENT – ELLIOTT BROS

PROJECT: ELLIOTT BROTHERS ESA		Soil Bore SB08		
CLIENT: ELLIOTT BROTHERS		ELEVATION AND DATUM:		
BORING LOCATION: 44 Montpelier Retreat	EASTING:	NORTHING:		
DRILLING CONTRACTOR: K Taylor	TOTAL DEPTH (ft.): 2.8	MEASURING POINT: 0		
DRILLING METHOD: Hand Auger	DEPTH WATER STRUCK:			
DRILLING EQUIPMENT: Earthprobe 200	STANDING WATER LEVEL:			
STARTED:	FINISHED:	LOGGED BY: K Taylor		

DEPTH (metres)	MATERIAL DESCRIPTION	PID VALUE	USC Lithology	DEPTH (metres)
0.0	FILL. FCR gravels.		Fill	0.0
	FILL. SANDY CLAY. Dark Grayish Brown.	5.6	Fill	
0.5	FILL. Black SANDY CLAY. House bricks.		Fill	0.5
	CLAY. Dark Olive Brown. Massive.	1.2	CH	1.0
1.5	GRAVEL. Olive Brown. Highly weathered dolerite gravels. Carbonate nodules.		SC	1.5
2.0	GRAVELLY SAND. Olive Yellow Gravelly Sand.	6.3	GP	2.0
2.5				2.5

Geoenvironmental Solutions	Appendix 1
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## STAGE 2 – ENVIRONMENTAL SITE ASSESSMENT – ELLIOTT BROS

## Appendix 2 - Groundwater Purge Record

**GES** **GROUNDWATER MONITORING LOG**  
GEO-ENVIRONMENTAL Client: Elliott Brothers Date/Time: 5/11/2012  
SOLUTIONS Job No: 00000000 Sampled by: G McDonald

Borehole No: MW1 Easting: 527044.572 Northing: 5251477.99  
Surface RL (m): 20.2514314 Estimated Bore Yield (l/m): >1.0 Weather Conditions: Overcast  
Hole Depth RL (m): 7 Height of Collar (mm): 7 Temperature: 23/01/1900  
Groundwater Depth RL (m): 7 Diameter of Bore (mm): 50 Rainfall 7 Days (mm): 3/01/1900  
(50mm/65mm) Station: Elersie Rd

**Measurements from top of collar:** Bore Water Purging:  
Borehole Depth (m): 7 A Purging Method: Geopump  
Groundwater Depth (m): 1.673 B 5.49 Sampling Method: Peristaltic  
Water Column Volume: 11 (A-B) x F x3 = Volume to be Purged (L): 33  
50mm: F=2 / 65mm: F=x3.3 (Min. x3 Water Volume)

**Purging Cycles:**

	Cycle 1	Cycle 2	Cycle 3	Total Volume Purged (L)
Start Time				
Finish Time				
Minutes				
Volume (L)	<u>10</u>	<u>20</u>	<u>30</u>	<u>30</u>
Recovery Time Minutes				

**Site Water Quality Measurements:**

	Cycle 1	Cycle 2	Cycle 3	Calibration	Comments
Temperature (oC)	<u>14.0</u>	<u>13.8</u>	<u>14.2</u>		
pH (units)	<u>7.91</u>	<u>7.76</u>	<u>7.78</u>		
Redox Potential (mV)	<u>352</u>	<u>356</u>	<u>357</u>		
Conductivity (uS/cm)	<u>1084</u>	<u>1087</u>	<u>1095</u>		
Salinity (mg/L)					
Dissolved Oxygen (%)					
Dissolved Oxygen (mg/L)					
Turbidity					
Odour					
Colour					
Sheen					

**Sampling Details:**

Sample Number: \_\_\_\_\_ Sample Bottles: Total No. \_\_\_\_\_

Sampling Time: \_\_\_\_\_

1000mL plastic (non-pres) x1 Green 250mL plastic (Cd Nitrate) x1 Blue /Add NaOH  
500mL amber glass (non-pres) x1 Orange 125mL plastic (sulph acid) x1 Purple  
40mL amber glass (sulph acid) x2 Maroon 60mL plastic (non-pres) x2 Red/Green  
40mL amber glass (sulph acid) x1 Purple 600mL plastic (Na bisulph) x1 Grey

General Comments: \_\_\_\_\_

**GES** **GROUNDWATER MONITORING LOG**  
GEO-ENVIRONMENTAL Client: Elliott Brothers Date/Time: 5/11/2012  
SOLUTIONS Job No: 00000000 Sampled by: G McDonald

Borehole No: MW2 Easting: 527029.285 Northing: 5251521.444  
Surface RL (m): 16.2507045 Estimated Bore Yield (l/m): >1.0 Weather Conditions: Overcast  
Hole Depth RL (m): 7 Height of Collar (mm): 7 Temperature: 23/01/1900  
Groundwater Depth RL (m): 7 Diameter of Bore (mm): 50 Rainfall 7 Days (mm): 3/01/1900  
(50mm/65mm) Station: Elersie Rd

**Measurements from top of collar:** Bore Water Purging:  
Borehole Depth (m): 7 A Purging Method: Geopump  
Groundwater Depth (m): 1.536 B 5.02 Sampling Method: Peristaltic  
Water Column Volume: 11 (A-B) x F x3 = Volume to be Purged (L): 33  
50mm: F=2 / 65mm: F=x3.3 (Min. x3 Water Volume)

**Purging Cycles:**

	Cycle 1	Cycle 2	Cycle 3	Total Volume Purged (L)
Start Time	<u>3:02</u>	<u>3:09</u>	<u>3:20</u>	
Finish Time				
Minutes				
Volume (L)	<u>10</u>	<u>20</u>	<u>30</u>	
Recovery Time Minutes				

**Site Water Quality Measurements:**

	Cycle 1	Cycle 2	Cycle 3	Calibration	Comments
Temperature (oC)	<u>15.2</u>	<u>14.8</u>	<u>15.0</u>		
pH (units)	<u>7.85</u>	<u>7.80</u>	<u>7.84</u>		
Redox Potential (mV)	<u>256.2</u>	<u>241.3</u>	<u>248.5</u>		
Conductivity (uS/cm)	<u>1140</u>	<u>1137</u>	<u>1142</u>		
Salinity (mg/L)					
Dissolved Oxygen (%)					
Dissolved Oxygen (mg/L)					
Turbidity					
Odour					
Colour					
Sheen					

**Sampling Details:**

Sample Number: \_\_\_\_\_ Sample Bottles: Total No. \_\_\_\_\_

Sampling Time: \_\_\_\_\_

1000mL plastic (non-pres) x1 Green 250mL plastic (Cd Nitrate) x1 Blue /Add NaOH  
500mL amber glass (non-pres) x1 Orange 125mL plastic (sulph acid) x1 Purple  
40mL amber glass (sulph acid) x2 Maroon 60mL plastic (non-pres) x2 Red/Green  
40mL amber glass (sulph acid) x1 Purple 600mL plastic (Na bisulph) x1 Grey

General Comments: \_\_\_\_\_

Duplicate Sample Collected



GES

## STAGE 2 – ENVIRONMENTAL SITE ASSESSMENT – ELLIOTT BROS

6-8 13.6

**GES** **GROUNDWATER MONITORING LOG**

GEO-ENVIRONMENTAL Client: Elliott Bros Date/Time: 5/11/2012  
SOLUTIONS Job No: \_\_\_\_\_ Sampled by: G McDonald

Borehole No: MW3 Easting: 527022.347 Northing: 5251490.99  
Surface RL (m): 18.4927934 Estimated Bore Yield (l/m): >1.0 Weather Conditions: Overcast  
Hole Depth RL (m): 8 Height of Collar (mm): 7 Temperature: 23/01/1900  
Groundwater Depth RL (m): ? Diameter of Bore (mm): 50 Rainfall 7 Days (mm): 3/01/1900  
(50mm/65mm) Station: Elerslie Rd

**Measurements from top of collar:** **Bore Water Purging:**  
Borehole Depth (m): 8 A Purging Method: Geopump  
Groundwater Depth (m): 1.204 B 3.95 Sampling Method: Peristaltic  
Water Column Volume: 13.6 (A-B) x F x3 = Volume to be Purged (L): 40 L  
50mm: F=2 / 65mm: F=3.3 (Min. x3 Water Volume)

**Purging Cycles:**

	Cycle 1	Cycle 2	Cycle 3	
Start Time	<u>2:30</u>	<u>2:37</u>	<u>2:45</u>	
Finish Time				
Minutes				
Volume (L)	<u>13 L</u>	<u>26 L</u>	<u>39 L</u>	Total Volume Purged (L) <u>39</u>
Recovery Time Minutes				Recovery Rate (L/m)

**Site Water Quality Measurements:** Calibration: \_\_\_\_\_ Comments: \_\_\_\_\_

	Cycle 1	Cycle 2	Cycle 3
Temperature (°C)	<u>17.1</u>	<u>16.0</u>	<u>15.8</u>
pH (units)	<u>7.73</u>	<u>7.76</u>	<u>7.71</u>
Redox Potential (mV)	<u>155.3</u>	<u>168.7</u>	<u>178.7</u>
Conductivity (uS/cm)	<u>122.6</u>	<u>124.4</u>	<u>124.2</u>
Salinity (mg/L)			
Dissolved Oxygen (%)			
Dissolved Oxygen (mg/L)			
Turbidity			
Odour			
Colour			
Shen			

**Sampling Details:**

Sample Number: \_\_\_\_\_ Sample Bottles: Total No. \_\_\_\_\_

Sampling Time: \_\_\_\_\_

1000mL plastic (non-pres)	x1 Green	250mL plastic (Cd Nitrate)	x1 Blue	/Add NaOH
500mL amber glass (non-pres)	x1 Orange	125mL plastic (sulph acid)	x1 Purple	
40mL amber glass (sulph acid)	x2 Maroon	60mL plastic (non-pres)	x2 Red/Green	
40mL amber glass (sulph acid)	x1 Purple	600mL plastic (Na bisulph)	x1 Grey	

General Comments: \_\_\_\_\_

**GES** **GROUNDWATER MONITORING LOG**

GEO-ENVIRONMENTAL Client: 0/01/1900 Date/Time: 5/11/2012  
SOLUTIONS Job No: \_\_\_\_\_ Sampled by: G McDonald

Borehole No: MW4 Easting: 0 Northing: 0  
Surface RL (m): 0 Estimated Bore Yield (l/m): 0 Weather Conditions: Overcast  
Hole Depth RL (m): 0 Height of Collar (mm): 0 Temperature: 23/01/1900  
Groundwater Depth RL (m): 0 Diameter of Bore (mm): 0 Rainfall 7 Days (mm): 3/01/1900  
(50mm/65mm) Station: Elerslie Rd

**Measurements from top of collar:** **Bore Water Purging:**  
Borehole Depth (m): 0 A Purging Method: 0  
Groundwater Depth (m): 0 B Sampling Method: 0  
Water Column Volume: 0 (A-B) x F x3 = Volume to be Purged (L): 0  
50mm: F=2 / 65mm: F=3.3 (Min. x3 Water Volume)

**Purging Cycles:**

	Cycle 1	Cycle 2	Cycle 3	
Start Time				
Finish Time				
Minutes				
Volume (L)				Total Volume Purged (L)
Recovery Time Minutes				Recovery Rate (L/m)

**Site Water Quality Measurements:** Calibration: \_\_\_\_\_ Comments: \_\_\_\_\_

	Cycle 1	Cycle 2	Cycle 3
Temperature (°C)			
pH (units)			
Redox Potential (mV)			
Conductivity (uS/cm)			
Salinity (mg/L)			
Dissolved Oxygen (%)			
Dissolved Oxygen (mg/L)			
Turbidity			
Odour			
Colour			
Shen			

**Sampling Details:**

Sample Number: \_\_\_\_\_ Sample Bottles: Total No. \_\_\_\_\_

Sampling Time: \_\_\_\_\_

1000mL plastic (non-pres)	x1 Green	250mL plastic (Cd Nitrate)	x1 Blue	/Add NaOH
500mL amber glass (non-pres)	x1 Orange	125mL plastic (sulph acid)	x1 Purple	
40mL amber glass (sulph acid)	x2 Maroon	60mL plastic (non-pres)	x2 Red/Green	
40mL amber glass (sulph acid)	x1 Purple	600mL plastic (Na bisulph)	x1 Grey	

General Comments: \_\_\_\_\_



## STAGE 2 – ENVIRONMENTAL SITE ASSESSMENT – ELLIOTT BROS

## Appendix 3 - ALS Chain of Custody Sheets

**CHAIN OF CUSTODY**  
ALS Laboratory: please tick →

**CLIENT:** Geoenvironmental Solutions  
**OFFICE:** Elliott Brothers (E. Bros)  
**PROJECT:** J. Cumming  
**ORDER NUMBER:**  
**PROJECT MANAGER:** J. Cumming  
**SAMPLER:**  
**COC emailed to ALS? (YES / NO):**  
**Email Reports to (will default to PM if no other addresses are listed):**  
**Email Invoice to:** jcumming@geosolutions.net.au  
**COMMENTS/SPECIAL HANDLING/STORAGE OR DISPOSAL:**

**TURNAROUND REQUIREMENTS:**  
Standard TAT may be longer for some tests e.g. Ultra Trace Organics  
☒ Standard TAT (List due date):  
☐ Non Standard or urgent TAT (List due date):

**ALS QUOTE NO.:**  
**SAMPLER MOBILE:** 0435545551  
**RELINQUISHED BY:** [Signature]  
**DATE/TIME:** 23.10.12

**COC SEQUENCE NUMBER (Circle):**  
COC: 1 2 3 4 5 6 7  
GP: 1 2 3 4 5 6 7

**RECEIVED BY:** [Signature]  
**DATE/TIME:** 23.10.12

**RELINQUISHED BY:** [Signature]  
**DATE/TIME:** 23.10.12

**FOR LABORATORY USE ONLY (Circle):**  
N/A


ALS USE ONLY		SAMPLE DETAILS MATRIX: Solid(S) Water(W)		CONTAINER INFORMATION		ANALYSIS REQUIRED including SUITES (NB. Suite Codes must be listed to attract suite price) Where Metals are required, specify Total (unfiltered bottle required) or Dissolved (filtered bottle required)										Additional Information	
LAB ID	SAMPLE ID	DATE / TIME	MATRIX	TYPE & PRESERVATIVE (refer to codes below)	TOTAL BOTTLES	8 Metals, TPH, BTEX, Phenols, PAH	TPH, BTEX/PS										
1	BH1 - 0	23.10.12															
2	" - 0.5																
3	" - 1																
4	" - 1.5																
5	" - 2																
6	BH2 - 0	23.10.12															
7	" - 0.5																
8	" - 1																
9	" - 1.5																
10	" - 2																
TOTAL																	

**Environmental Division  
Melbourne  
Work Order  
EM1212601**  
Telephone: +61-3-8549 9600

**Water Container Codes:** P = Unpreserved Plastic; N = Nitric Preserved Plastic; ORC = Nitric Preserved ORC; SH = Sodium Hydroxide/Cl<sub>2</sub> Preserved; S = Sodium Hydroxide Preserved Plastic; AG = Amber Glass Unpreserved; AP = Airtight Unpreserved Plastic;  
V = VOA Vial HCl Preserved; VS = VOA Vial Sodium Bisulfate Preserved; VS = VOA Vial Sulfuric Preserved; AV = Airtight Unpreserved Vial SD = Sulfuric Preserved Amber Glass; H = HCl Preserved Plastic; HS = HCl Preserved Specimen bottle; SP = Sulfuric Preserved Plastic; F = Formaldehyde Preserved Glass;  
Z = Zinc Acetate Preserved Bottle; E = EDTA Preserved Bottle; ST = Sterile Bottle; ASS = Plastic Bag for Acid Substrate Solids; U = Unpreserved Bag



STAGE 2 – ENVIRONMENTAL SITE ASSESSMENT – ELLIOTT BROS



# CHAIN OF CUSTODY

ALS Laboratory: please tick →

☐ Sydney: 1777 Westpark Rd, Smithfield NSW 2121  
Ph: 02 9294 5555 E: samples.sydney@als.com.au

☐ Brisbane: 30 Ebbett St, Eastford QLD 4057  
Ph: 07 3243 7222 E: samples.brisbane@als.com.au

☐ Newcastle: 5 Rossington Rd, Waratah NSW 2304  
Ph: 02 4983 9433 E: samples.newcastle@als.com.au

☐ Melbourne: 2-4 Waeber Rd, Springvale VIC 3171  
Ph: 03 8548 5555 E: samples.melbourne@als.com.au

☐ Adelaide: 2-1 Burno Rd, Poonrika SA 5005  
Ph: 08 8359 5859 E: samples.adelaide@als.com.au

☐ Perth: 10 Peel Way, Malaga WA 6050  
Ph: 08 9429 7555 E: samples.perth@als.com.au

☐ Launceston: 27 Wallington St, Launceston TAS 7250  
Ph: 03 6331 2158 E: samples.launceston@als.com.au


<b>CLIENT:</b> Geoenvironmental Solutions		<b>TURNAROUND REQUIREMENTS:</b> <input type="checkbox"/> Standard TAT (List due date): <input type="checkbox"/> Non Standard or urgent TAT (List due date):		<b>FOR LABORATORY USE ONLY (Circle)</b> COC: 1 2 3 4 5 6 7 OP: 1 2 3 4 5 6 7	
<b>OFFICE:</b>		<b>PROJECT:</b>		<b>RECEIVED BY:</b>	
<b>ORDER NUMBER:</b>		<b>ALS QUOTE NO.:</b>		<b>RELINQUISHED BY:</b>	
<b>PROJECT MANAGER:</b>		<b>SAMPLER MOBILE:</b>		<b>DATE/TIME:</b>	
<b>COC emailed to ALS? (YES / NO)</b>		<b>EDD FORMAT (or default):</b>		<b>DATE/TIME:</b>	
<b>Comments to (will default to PM if no other addresses are listed):</b>					
<b>Email Invoice to:</b> jcumming@geosolutions.net.au					
<b>COMMENTS/SPECIAL HANDLING/STORAGE OR DISPOSAL:</b>					

ALS USE ONLY		SAMPLE DETAILS MATRIX: Solid(S) Water(W)		CONTAINER INFORMATION		ANALYSIS REQUIRED including SUITES (NB: Suite Codes must be listed to attract suite price) Where Metals are required, specify Total (unfiltered bottle required) or Dissolved (field filtered bottle required)						Additional Information		
LAB ID	SAMPLE ID	DATE / TIME	MATRIX	TYPE & PRESERVATIVE (refer to codes below)	TOTAL BOTTLES	8 Metals, TPH, BTEX, Phenols, PAH	TPH, BTEX, Pb						Hold	Comments on likely contaminant levels, dilutions, or samples requiring specific QC analysis etc.
11	BH3 - 0	23.10.12											✓	
12	" - 0.5	↓				✓							✓	
13	" - 1												✓	
14	" - 1.5												✓	
15	" - 2												✓	
16	BH4 - 0.5	23.10.12				✓								
17	" - 1.0	↓				✓								
18	" - 1.5													
19	" - 2	↓												

**Water Container Codes:** P = Unpreserved Plastic; N = Nitric Preserved Plastic; ORC = Nitric Preserved ORC; SH = Sodium Hydroxide/Cd Preserved; S = Sodium Hydroxide Preserved Plastic; AG = Amber Glass Unpreserved; AP = Airfreight Unpreserved Plastic  
V = VOA Vol HCl Preserved; VB = VOA Vol Sodium Bisphosphate Preserved; VS = VOA Vol Sulfuric Preserved; AV = Airfreight Unpreserved Vol SQ = Sulfuric Preserved Amber Glass; H = HCl Preserved Plastic; HS = HCl Preserved Spedation bottle; SP = Sulfuric Preserved Plastic; F = Formaldehyde Preserved Glass



STAGE 2 – ENVIRONMENTAL SITE ASSESSMENT – ELLIOTT BROS



# CHAIN OF CUSTODY

ALS Laboratory: *please tick* →

☐ 277 Woodson Rd, Southfield NSW 2176  
Ph: 02 8791 8555 E: samples.adrian@alsenviro.com

☐ Newcastle: 5 Rivington Rd, Warialla NSW 2304  
Ph: 02 4568 9420 E: samples.newcastle@alsenviro.com

☐ Brisbane: 30 Skene St, Southport QLD 4215  
Ph: 07 3241 7222 E: samples.brisbane@alsenviro.com

☐ Townsville: 14-15 Duomo Ct, Bickleigh QLD 4818  
Ph: 07 4796 0600 E: samples.townsville@alsenviro.com

☒ Adelaide: 2-4 Wood Rd, Springdale VIC 3171  
Ph: 03 9249 9900 E: samples.melbourne@alsenviro.com

☐ Perth: 10 Hood Way, Midvale WA 6009  
Ph: 08 9299 7650 E: samples.perth@alsenviro.com

☐ Launceston: 27 Wallington St, Launceston TAS 7250  
Ph: 03 6331 2159 E: samples.launceston@alsenviro.com

<b>CLIENT:</b> Geoenvironmental Solutions <b>OFFICE:</b> <b>PROJECT:</b> <b>ORDER NUMBER:</b> <b>PROJECT MANAGER:</b>		<b>TURNAROUND REQUIREMENTS:</b> (Standard TAT may be longer for some tests e.g. Ultra Trace Organics) <b>ALS QUOTE NO.:</b>		<input type="checkbox"/> Standard TAT (List due date): <input type="checkbox"/> Non Standard or urgent TAT (List due date):		<b>FOR LABORATORY USE ONLY (Circle)</b> COC SEQUENCE NUMBER (Circle) COC: 1 2 3 4 5 6 7 OF: 1 2 3 4 5 6 7	
<b>SAMPLER:</b> _____ <b>SAMPLER MOBILE:</b> _____ <b>COC emailed to ALS? (YES / NO)</b> _____ <b>EDD FORMAT (or default):</b> _____ <b>Email Reports to (will default to PM if no other addresses are listed):</b> _____ <b>Email Invoice to:</b> jcumming@geosolutions.net.au		<b>RELINQUISHED BY:</b> _____ <b>DATE/TIME:</b> _____		<b>RECEIVED BY:</b> _____ <b>DATE/TIME:</b> _____		<b>RELINQUISHED BY:</b> _____ <b>DATE/TIME:</b> _____	
<b>COMMENTS/SPECIAL HANDLING/STORAGE OR DISPOSAL:</b>							

ALS USE ONLY		SAMPLE DETAILS MATRIX: Solid(S) Water(W)		CONTAINER INFORMATION		ANALYSIS REQUIRED including SUITES (NB: Suite Codes must be listed to attract suite price) Where Metals are required, specify Total (unfiltered bottle required) or Dissolved (filtered bottle required)										Additional Information	
LAB ID	SAMPLE ID	DATE / TIME	MATRIX	TYPE & PRESERVATIVE (refer to codes below)	TOTAL BOTTLES	8 Metals, TPH, BTEX, Phenols, PAH	TPH, BTEX, Pb										Comments on likely contaminant levels, dilutions, or samples requiring specific QC analysis etc.
20	BH5 - 0.5	23-10-12				✓											
21	" - 1																
22	" - 1.5																
23	" - 2																
24	BH6 - 0.5	23-10-12				✓											
25	" - 1																
26	" - 1.5																
27	" - 2																
<b>TOTAL</b>																	

Water Container Codes: P = Unpreserved Plastic; N = Nitric Preserved Plastic; ORC = Nitric Preserved ORC; SH = Sodium Hydroxide/Cd Preserved; S = Sodium Hydroxide Preserved Plastic; AG = Amber Glass Unpreserved; AP = Air-tight Unpreserved Plastic;  
 V = VOA Vial HCl Preserved; VB = VOA Vial Sodium Borohydride Preserved; VS = VOA Vial Sulfuric Preserved; AV = Air-tight Unpreserved Vial SG = Sulfuric Preserved Amber Glass; H = HCl Preserved Plastic; HS = HCl Preserved Speciation bottle; SP = Sulfuric Preserved Plastic; F = Formaldehyde Preserved Glass





## STAGE 2 – ENVIRONMENTAL SITE ASSESSMENT – ELLIOTT BROS

**CHAIN OF CUSTODY**  
ALS Laboratory: please tick →

**CLIENT:** Geoenvironmental Solutions  
**OFFICE:**  
**PROJECT:**  
**ORDER NUMBER:**  
**PROJECT MANAGER:**  
**SAMPLER:**  
**COC emailed to ALS? (YES / NO)**  
**Email Reports to (will default to PM if no other addresses are listed):**  
**Email Invoice to:** jcumming@geosolutions.net.au

**TURNAROUND REQUIREMENTS:**  
(Standard TAT may be longer for some tests e.g. Ultra Trace Organics)  
☐ Standard TAT (List due date):  
☐ Non Standard or urgent TAT (List due date):

**ALS QUOTE NO.:**  
**COC SEQUENCE NUMBER (Circle)**  
COC: 1 2 3 4 5 6 7  
OF: 1 2 3 4 5 6 7

**FOR LABORATORY USE ONLY (Circle)**  
Custody: ☒ ☐  
Recovery: ☒ ☐  
Analysis: ☒ ☐  
Random Sample: ☒ ☐  
SPW: ☒ ☐

**RECEIVED BY:** *Done*  
**DATE/TIME:** 25/10 14:30

**COMMENTS/SPECIAL HANDLING/STORAGE OR DISPOSAL:**

ALS USE ONLY		SAMPLE DETAILS MATRIX: Solid(S) Water(W)		CONTAINER INFORMATION		ANALYSIS REQUIRED including SUITES (NB, Suite Codes must be listed to attract suite price) Where Metals are required, specify Total (unfiltered bottle required) or Dissolved (filtered bottle required)										Additional Information	
LAB ID	SAMPLE ID	DATE / TIME	MATRIX	TYPE & PRESERVATIVE (refer to codes below)	TOTAL BOTTLES	8 Metals, TPH, BTEX, Phenols, PAH	TPH, BTEX, Pb										Comments on likely contaminant levels, dilutions, or samples requiring specific QC analysis etc.
28	BH7 - 0	23.10.12					✓										
29	" - 0.5	↓					✓										
30	" - 1	↓					✓										
31	" - 1.5	↓					✓										
32	" - 2	↓					✓										
33	BH8 - 0.5	23.10.12				✓											
34	" - 1	↓				✓											
35	" - 1.5	↓					✓										
36	" - 2	↓					✓										
37	" - 2.5	↓					✓										
					TOTAL												

Water Container Codes: P = Unpreserved Plastic; N = Nitric Preserved Plastic; ORC = Nitric Preserved ORC; SH = Sodium Hydroxide/Ca Preserved; S = Sodium Hydroxide Preserved Plastic; AG = Amber Glass Unpreserved; AP = Airfreight Unpreserved Plastic  
V = VOA Vial HCl Preserved; VB = VOA Vial Sodium Bisulphate Preserved; VS = VOA Vial Sulfuric Preserved; AV = Airfreight Unpreserved Vial SG = Sulfuric Preserved Amber Glass; H = HCl preserved Plastic; HS = HCl preserved Speciation bottle; SP = Sulfuric Preserved Plastic; F = Formaldehyde Preserved Glass;  
Z = Zinc Acetate Preserved Bottle; E = EDTA Preserved Bottles; ST = Sterile Bottle; ASS = Plastic Bag for Acid Sulphate Soils; B = Unpreserved Bag

GES

STAGE 2 – ENVIRONMENTAL SITE ASSESSMENT – ELLIOTT BROS

**ALS** CHAIN OF CUSTODY

ALS Laboratory: please tick →

☐ Sydney: 277 Wentworth Rd, Smithfield NSW 2176  
 Ph: 02 4753 8555 E: samples.syd@als.com.au  
☐ Brisbane: 32 Shovel St, Stafford Qld 4053  
 Ph: 07 3443 7222 E: samples.bris@als.com.au  
☐ Melbourne: 2-4 Vaseau Rd, Springvale VIC 3171  
 Ph: 03 9579 9000 E: samples.mel@als.com.au  
☐ Perth: 10 Hoof Way, Malaga WA 6060  
 Ph: 08 9209 7885 E: samples.perth@als.com.au  
☐ Newcastle: 5 Rotundas Rd, Warabrook NSW 2304  
 Ph: 02 4908 9439 E: samples.newcastle@als.com.au  
☐ Townsville: 16-18 Dumas Ct, Debra QLD 4815  
 Ph: 07 4706 0800 E: samples.townsville@als.com.au  
☐ Adelaide: 2-1 Buena Rd, Plympton SA 5095  
 Ph: 08 8350 0889 E: samples.adelaide@als.com.au  
☐ Launceston: 17 Wellington St, Launceston TAS 7250  
 Ph: 03 6331 2158 E: samples.launceston@als.com.au

CLIENT: Geoenvironmental Solutions  
 OFFICE:   
 PROJECT:   
 ORDER NUMBER:   
 PROJECT MANAGER:   
 SAMPLER:   
 COC emailed to ALS? (YES / NO)   
 Email Reports to (will default to PM if no other addresses are listed):   
 Email Invoice to: jcumming@geosolutions.net.au

TURNAROUND REQUIREMENTS:   
 (Standard TAT may be longer for some tests e.g. Ultra Trace Organics)   
☐ Standard TAT (List due date):   
☐ Non Standard or urgent TAT (List due date):   
 ALS QUOTE NO.:   
 COC SEQUENCE NUMBER (Circle)   
 COC: 1 2 3 4 5 6 7   
 OF: 1 2 3 4 5 6 7

FOR LABORATORY USE ONLY (COC)   
 RECEIVED BY:   
 DATE/TIME: 23/10 10:30

COMMENTS/SPECIAL HANDLING/STORAGE OR DISPOSAL:   
 COMMENTS:

ALS USE ONLY		SAMPLE DETAILS MATRIX: Solid(S) Water(W)		CONTAINER INFORMATION		ANALYSIS REQUIRED including SUITES (NB. Suite Codes must be listed to attract suite price) Where Metals are required, specify Total (unfiltered bottle required) or Dissolved (filtered bottle required)										Additional Information		
LAB ID	SAMPLE ID	DATE / TIME	MATRIX	TYPE & PRESERVATIVE (refer to codes below)	TOTAL BOTTLES	8 Metals, TPH, BTEX, Phenols, PAH	TPH, BTEX, Pb											Comments on likely contaminant levels, dilutions, or samples requiring specific QC analysis etc.
38	Duplicate 1	23-10-12																
39	Duplicate 2	23-10-12																
40	Rinsate	23-10-12																
	extra sample																	
C-M 41	Bowser 1	23/10/12																
25/10 42	Bowser 2	"																
43	Bowser 3	"																
					TOTAL													

Water Container Codes: P = Unpreserved Plastic; N = Nitric Preserved Plastic; ORC = Nitric Preserved ORC; SH = Sodium Hydroxide/Cd Preserved; S = Sodium Hydroxide Preserved Plastic; AG = Amber Glass Unpreserved; AP = Airtight Unpreserved Plastic  
 V = VOA Vial HCl Preserved; VB = VOA Vial Sodium Bisulphate Preserved; VS = VOA Vial Sulfuric Preserved; AV = Airtight Unpreserved Vial SG = Sulfuric Preserved Amber Glass; H = HCl preserved Plastic; HS = HCl preserved Speciation bottle; SP = Sulfuric Preserved Plastic; F = Formaldehyde Preserved Glass;  
 Z = Zinc Acetate Preserved Bottle; E = EDTA Preserved Bottles; ST = Sterile Bottle; ASS = Plastic Bag for Acid Sulphate Soils; B = Unpreserved Bag



STAGE 2 – ENVIRONMENTAL SITE ASSESSMENT – ELLIOTT BROS

**Samples Melbourne**

**From:** Shirley LeCornu  
**Sent:** Friday, 26 October 2012 10:21 AM  
**To:** Samples Melbourne  
**Cc:** Peter Ravlic; Herman Lin  
**Subject:** FW: Geoenvironmental Solutions Elliot Brothers (E.bros) EM1212601  
**Attachments:** img-X25164143-0001.pdf

Please analyse all 3 extra samples for TPH/BTEX/Pb

As per JP

Thanks

How was your customer experience? Please send us your feedback Shirley LeCornu CLIENT SERVICES OFFICER ALS | Environmental (General Environmental Group)

**Address**  
4 Westall Road  
Springvale VIC 3171

**PHONE** +61 3 8549 9600  
**FAX** +61 3 8549 9601

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P Please consider the environment before printing this email.

-----Original Message-----

**From:** Samples Melbourne  
**Sent:** Thursday, 25 October 2012 5:48 PM  
**To:** Shirley LeCornu  
**Subject:** Geoenvironmental Solutions Elliot Brothers (E.bros) EM1212601

Hi Shirley,

WE receive 3 extra samples. Bowser 1, 2 & 3.

Thanks,  
Chris

56





## STAGE 2 – ENVIRONMENTAL SITE ASSESSMENT – ELLIOTT BROS

**CHAIN OF CUSTODY** ALS Laboratory: please tick →

**CLIENT:** Geo-Environmental Solutions **TURNAROUND REQUIREMENTS:** ☒ Standard TAT (List due date): **OFFICE:** 86 Queen Street Sandy Bay **Non Standard or urgent TAT (List due date):** **PROJECT:** 40-44 Montpellier Retreat **ALS QUOTE NO.:** N/A **COC SEQUENCE NUMBER (Circle):** 1 2 3 4 5 6 7 **ORDER NUMBER:** **PROJECT MANAGER:** Kris Taylor **CONTACT PH:** 0438 253 475 **SAMPLER:** G McDonald **SAMPLER MOBILE:** 0427 007 887 **RELINQUISHED BY:** G McDonald **RECEIVED BY:** **DATE/TIME:** **RECEIVED BY:** CHRIS **DATE/TIME:** 7/11 8:46

**COMMENTS/SPECIAL HANDLING/STORAGE OR DISPOSAL:**

LAB ID	SAMPLE ID	DATE / TIME	MATRIX	TYPE & PRESERVATIVE (refer to codes below)	TOTAL BOTTLES	ANALYSIS REQUIRED including SUITES (H8. Suite Codes must be listed to attract suite price) Where Metals are required, specify Total (unfiltered bottles required) or Dissolved (filtered bottles required)	Additional Information
3	MW1	5/11/2012	W	1AP,2AV,1AG	4	X	
4	MW2	5/11/2012	W	1AP,2AV,1AG	4	X	1AV for BTEX & 1AV for Methane
5	MW3	5/11/2012	W	1AP,2AV,1AG	4	X	1AV for BTEX & 1AV for Methane
6	Bowser 1-1.0	5/11/12	S	Jar	1	X	
7	Bowser 1-2.0					X	
8	Bowser 2-1.0					X	
9	" 1-2.0					X	
10	Bowser 3-1.0					X	
11	" 1-1.5					X	1AV for BTEX & 1AV for Methane
12	BH09-0.5					X	
13	" 1-1.0					X	
TOTAL							

**Water Container Codes:** P = Unpreserved Plastic; N = Nitric Preserved Plastic; ORC = Nitric Preserved ORC; SH = Sodium Hydroxide/Cd Preserved; S = Sodium Hydroxide Preserved Plastic; AG = Amber Glass Unpreserved; AP = Airfreight Unpreserved Plastic; V = VOA Vial HCl Preserved; VB = VOA Vial Sodium Bisulphate Preserved; VS = VOA Vial Sulfuric Preserved; AV = Airfreight Unpreserved Vial SG = Sulfuric Preserved Amber Glass; H = HCl preserved Plastic; HS = HCl preserved Speciation bottle; SP = Sulfuric Preserved Plastic; F = Formaldehyde Preserved Glass; Z = Zinc Acetate Preserved Bottle; E = EDTA Preserved Bottles; ST = Sterile Bottle; ASS = Plastic Bag for Acid Sulphate Solids; B = Unpreserved Bag.



 <b>CHAIN OF CUSTODY</b> ALS Laboratory please tick →		<input type="checkbox"/> Perth: 177 Woodman Rd, Southport NSW 4176 Ph: 02 8761 8555 E: samples.perth@als.com.au		<input type="checkbox"/> Brisbane: 32 Grand St, Stafford QLD 4053 Ph: 07 3261 7223 E: samples.brisbane@als.com.au		<input checked="" type="checkbox"/> Sydney: 2-4 Hazel Rd, Spence NSW 2171 Ph: 02 9519 9601 E: samples.syd@als.com.au		<input type="checkbox"/> Perth: 10 Hookey Way, Midvale WA 6105 Ph: 08 9209 7655 E: samples.perth@als.com.au	
		<input type="checkbox"/> Newcastle: 5 Fitzroy Rd, Watsons Bay NSW 2061 Ph: 02 9632 4153 E: samples.newcastle@als.com.au		<input type="checkbox"/> Townsville: 14-15 Deane Ct, Burda QLD 4816 Ph: 07 4759 0801 E: samples.townsville@als.com.au		<input type="checkbox"/> Adelaide: 2-1 Burnside Rd, Plympton SA 5065 Ph: 08 8209 0800 E: samples.adelaide@als.com.au		<input type="checkbox"/> Liverpool: 37 Widdowson St, Loughborough TAS 7220 Ph: 03 6321 2156 E: samples.liverpool@als.com.au	

<b>CLIENT:</b> Geo-Environmental Solutions		<b>TURNAROUND REQUIREMENTS:</b>		<input checked="" type="checkbox"/> Standard TAT (List due date):			
<b>OFFICE:</b> 86 Queen Street Sandy Bay		(Standard TAT may be longer for some tests e.g., Ultra Trace Elements)		<input type="checkbox"/> Non Standard or urgent TAT (List due date):			
<b>PROJECT:</b> 40-44 Montpelier Retreat		<b>ALS QUOTE NO.:</b> N/A					
<b>ORDER NUMBER:</b>				<b>COC REFERENCE NUMBER (Circle)</b>			
<b>PROJECT MANAGER:</b> Krie Taylor		<b>CONTACT PH:</b> 0438 253 475		<b>COC:</b> 1 2 3 4 5 6 7			
<b>SAMPLER:</b> G McDonald		<b>SAMPLER MOBILE:</b> 0427 007 887		<b>OF:</b> 1 2 3 4 5 6 7			
<b>COC emailed to ALS? (YES / NO):</b> YES / NO		<b>EDD FORMAT (if default):</b>		<b>RELINQUISHED BY:</b>		<b>RECEIVED BY:</b>	
<b>Email Reports to:</b> gmcDonald@gcosolutions.net.au, ktaylor@gcosolutions.net.au & J Cumming				<b>G McDonald</b>		<b>CHES</b>	
<b>Email Invoiced to:</b> jcumming@gcosolutions.net.au				<b>DATE/TIME:</b>		<b>DATE/TIME:</b>	
						<b>8:46</b>	

COMMENTS/SPECIAL HANDLING/STORAGE OR DISPOSAL:						ANALYSIS REQUIRED including SUITES (NB. Suite Codes must be listed to attract suite price) <small>When Metals are required, specify Total (allotted bottles required) or Dissolved (fold filtered bottle required).</small>				Additional Information	
SAMPLE DETAILS MATRIX: Solid(S) Water(W)						CONTAINER INFORMATION					
LAB ID	SAMPLE ID	DATE / TIME	MATRIX	TYPE & PRESERVATIVE <small>(refer to codes below)</small>	TOTAL BOTTLES	SEI (TPH6-36 BTEX PAU Pb)	SG (TPH6-36 BTEX Pb)	VGB Metalls Abatement			
1	Rinseate Blank		W	1AP, 2AV, 1AG	4	X					
2	Duplicate 1		W	1AP, 2AV, 1AG	4	X					

Environmental Division  
Melbourne  
Work Order  
**EM1213114**

Telephone : + 61-3-8549 9600

**Water Generator Codes:** P = Unpreserved Plastic; N = Nitrate Preserved Plastic; DRD = Nitro Preserved Plastic; SH = Sodium Hydroxide/Cd Preserved; S = Sodium Hydroxide Preserved Plastic; AD = Amber Glass Unpreserved; AP = Airtight Unpreserved Plastic

V = VOA Vol HCl Preserved; VB = VOA Vol Sodaen Bisphosphate Preserved; VS = VOA Vol Sulfuric Acid Preserved; AV = Airtight Unpreserved Vol SG = Sulfuric Preserved Amber Glass; H = HCl preserved Plastic; HS = HCl preserved Speciation bottle; SP = Sulfuric Preserved Plastic; F = Formaldehyde Preserved Glass;

Z = Zinc Ascorbic Preserved Bottle; B = EDTA Preserved Bottle; BT = Borate Butte; AUSS = Plastic; line for AMP Substrate Solis; B = Unpreserved Plastic

Amended COC received. HL. 8/11 3:36pm



## STAGE 2 – ENVIRONMENTAL SITE ASSESSMENT – ELLIOTT BROS

**CHAIN OF CUSTODY**  
ALS Laboratory: please click →

(1) Sydney: 277 Woodford Rd, Smithfield NSW 2116  
 Ph: 02 8704 8055 E: samples.sydney@als.com.au  
 (2) Newcastle: 5 Ridgely Rd, Warrawee NSW 2254  
 Ph: 02 4901 9470 E: samples.newcastle@als.com.au  
 (3) Brisbane: 32 Shand St, Seelbach QLD 4053  
 Ph: 07 2543 7222 E: samples.brisbane@als.com.au  
 (4) Melbourne: 14-15 Queens Ct, Box Hill VIC 3115  
 Ph: 03 9581 3000 E: samples.melbourne@als.com.au  
 (5) Adelaide: 2-4 Westall Rd, Springvale VIC 3171  
 Ph: 08 9501 5601 E: samples.adelaide@als.com.au  
 (6) Perth: 19 Wood Way, Midvale WA 6005  
 Ph: 08 9459 7655 E: samples.perth@als.com.au  
 (7) Launceston: 27 Wellington St, Launceston TAS 7250  
 Ph: 03 6331 2101 E: samples.launceston@als.com.au

CLIENT: Geo-Environmental Solutions  
 OFFICE: 88 Queen Street Sandy Bay  
 PROJECT: 46-44 Montpellier Retreat  
 ORDER NUMBER:  
 PROJECT MANAGER: Krie Taylor  
 CONTACT PH: 0438 253 476  
 SAMPLER: G McDonald  
 SAMPLER MOBILE: 0427 907 887  
 COC emailed to ALS? (YES / NO) YES  
 Email Reports to: jcumming@geosolutions.net.au, gmcDonald@geosolutions.net.au  
 Email Invoice to: jcumming@geosolutions.net.au

TURNAROUND REQUIREMENTS: ☒ Standard TAT (List due date):  
 (Standard TAT may be longer for some tests e.g. Ultra Trace Organics)  
☐ Non Standard or urgent TAT (List due date):  
 N/A  
 ALI QUOTE NO.:

COC SEQUENCE NUMBER (Circle)  
 CODE: 1 2 3 4 5 6 7  
 OR: 1 2 3 4 5 6 7

RECEIVED BY: G McDonald  
 DATE/TIME: 7/11 8:46  
 RELINQUISHED BY: G McDonald  
 DATE/TIME:

COMMENTS/SPECIAL HANDLING/STORAGE OR DISPOSAL:

LAB ID	SAMPLE DETAILS MATRIX: Solid(S) Water(W)			MATRIX	TYPE & PRESERVATIVE (refer to codes below)	TOTAL BOTTLES	ANALYSIS REQUIRED including SUITES (NB: Suite Codes must be listed to attract suite price) When Matrix is required, specify Total (unfiltered bottle required) or Dissolved (filtered bottle required)				Additional Information	
	SAMPLE ID	DATE / TIME	S21 (TPH&S-BTEX PAH Pb)				S6 (TPH&S-BTEX PAH)	W28 Natural Attenuation	Special Ion	Trace		Small & field
3	MW1	5/11/2012	W	1AP,2AV,1AG	4		X					
4	MW2	5/11/2012	W	1AP,2AV,1AG	4		X					1AV for BTEX & 1AV for Methane
5	MW3	5/11/2012	W	1AP,2AV,1AG	4		X					1AV for BTEX & 1AV for Methane
6	Bowser 1-1.0	5/11/12	S	Jar	1		X					
7	Bowser 1-2.0						X		X			
8	Bowser 2-1.0						X					
9	" 1-2.0						X		X			
10	Bowser 3-1.0						X					
11	" 1-1.5						X					1AV for BTEX & 1AV for Methane
12	BH09-0.5						X					
13	" 1-1.0						X					
TOTAL												

Water Container Codes: P = Unpreserved Plastic; N = Nitric Preserved Plastic; ORC = Nitric Preserved ORC; SH = Sodium Hydroxide Preserved; S = Sodium Hydroxide Preserved Plastic; AG = Amber Glass Unpreserved; AP = Air-tight Unpreserved Plastic  
 V = VOA Vol HCl Preserved; VB = VOA Vol Sodium Bisulfate Preserved; VS = VOA Vol Sulfuric Preserved; AV = Air-tight Unpreserved Vol SO<sub>2</sub> = Sulfuric Preserved; Amber Glass; H = HCl preserved Plastic; HS = HCl preserved Speciation bottle; GP = Sulfuric Preserved Plastic; P = Potassium Dichromate Preserved Glass  
 T = 20% Acetone Preserved Bottle; E = EDTA Preserved Bottle; BT = Barium Bottle; ASS = Plastic Tray for Aqueous Substrate Solids; S = Unpreserved Resin

STAGE 2 – ENVIRONMENTAL SITE ASSESSMENT – ELLIOTT BROS

Herman Lin

**From:** Shirley LeCornu  
**Sent:** Thursday, 8 November 2012 9:21 AM  
**To:** Herman Lin, Peter Ravlic  
**Subject:** FW: Your Reference : 40-44 Montpeller Retreat. COC/SRN for ALSE Workorder : EM1213114  
**Attachments:** EM1213114\_COC.pdf, ATT00001.htm; EM1213114\_0\_SRN.pdf, ATT00002.htm

Hi Herman & Pete

Please organise changes to analysis request as per emails below.

Herman can we put these through on a three day TAT?

Thanks

Shirley

How was your customer experience? Please send us your feedback

Shirley LeCornu

CLIENT SERVICES OFFICER

ALS | Environmental (General Environmental Group)

**Address**  
4 Westall Road  
Springvale VIC 3171  
**PHONE** +61 3 8549 9600  
**FAX** +61 3 8549 9601

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Reduction in Sample Volumes – Improving quality, safety, efficiency and sustainability in environmental practices



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**From:** Kris Taylor [mailto:KTaylor@geosolutions.net.au]  
**Sent:** Wednesday, 7 November 2012 5:43 PM  
**To:** Shirley LeCornu  
**Cc:** J Cumming  
**Subject:** FW: Your Reference : 40-44 Montpeller Retreat. COC/SRN for ALSE Workorder : EM1213114

Hi Shirley,  
Sorry but I made a bit of a mess of the COC, it is obvious that I was not clear thinking the other day,

We were actually after a 3 day turnaround  
The samples Bowsert-2.0 & Bowsert2-2.0 should be sampled for Speciation not natural attenuation



## STAGE 2 – ENVIRONMENTAL SITE ASSESSMENT – ELLIOTT BROS

The held samples all need to be analysed for the requested, but held for speciation analysis if required at a later date

I am so sorry about the mix up.

Regards,

Kris Taylor B.Sc (hons)

Senior Engineering & Environmental Geologist  
Geo-Environmental Solutions P/L  
86 Queen Street  
Sandy Bay 7005

P: 03 6223 1839  
F: 03 6223 4539  
M: 0438 253 475  
E: [ktaylor@geosolutions.net.au](mailto:ktaylor@geosolutions.net.au)  
W: [www.geosolutions.net.au](http://www.geosolutions.net.au)

**GES**  
GEO-ENVIRONMENTAL  
SOLUTIONS

**From:** J Cumming  
**Sent:** Wednesday, 7 November 2012 5:20 PM  
**To:** Kris Taylor  
**Cc:** Shirley LeCornu  
**Subject:** Fwd: Your Reference : 40-44 Montpellier Retreat. COC/SRN for ALSE Workorder : EM1213114

Shirley we need all samples analyzed asap . The COC is not correct. Kris - look at the COC. All samples for TPH/BTEX/Pb. And two samples for TPH speciation think it was bowser 1 2m and bowser 2 1m. They all should be three day if possible

Thanks

John Paul Cumming PHD CPSS

Director  
Geo-Environmental Solutions  
86 Queen Street Sandy Bay  
Tasmania 7005  
Ph:03 6223 1839  
Fax:03 6223 4539  
M:0413 541 531

Begin forwarded message:

**From:** "alse.melbourne.aus@als.com.au" <[alse.melbourne.aus@als.com.au](mailto:alse.melbourne.aus@als.com.au)>  
**Date:** 7 November 2012 5:07:57 PM AEDT  
**To:** J Cumming <[cumming@geosolutions.net.au](mailto:cumming@geosolutions.net.au)>  
**Subject:** Your Reference : 40-44 Montpellier Retreat. COC/SRN for ALSE Workorder

**GES**



STAGE 2 – ENVIRONMENTAL SITE ASSESSMENT – ELLIOTT BROS

: EM1213114  
Reply-To: "crem@alsglobal.com" <crem@alsglobal.com>  
-- PLEASE DO NOT REPLY --

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\*\*\*

ALS Group: Click [here](#) to report this email as spam.



## STAGE 2 – ENVIRONMENTAL SITE ASSESSMENT – ELLIOTT BROS

---

**Herman Lin**


---

**From:** Shirley LeCornu  
**Sent:** Thursday, 8 November 2012 1:42 PM  
**To:** Herman Lin  
**Subject:** FW: Your Reference : 40-44 Montpellier Retreat. COC/SRN for ALSE Workorder : EM1213114  
**Attachments:** EM1213114\_COC.pdf; EM1213114\_0\_SRN.pdf; img-y08121721.pdf

Hi Herman

Can you please organise for the corrected COC to be added.

Thanks

Shirley

How was your customer experience? Please send us your feedback Shirley LeCornu CLIENT SERVICES OFFICER ALS | Environmental (General Environmental Group)

**Address**  
 4 Westall Road  
 Springvale VIC 3171

**PHONE** +61 3 8549 9600  
**FAX** +61 3 8549 9601

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-----Original Message-----

**From:** J Cumming [mailto:jcumming@geosolutions.net.au]  
**Sent:** Thursday, 8 November 2012 1:36 PM  
**To:** Shirley LeCornu  
**CC:** Kris Taylor  
**Subject:** FW: Your Reference : 40-44 Montpellier Retreat. COC/SRN for ALSE Workorder : EM1213114

Shirley the SRN still has hold on some samples.....I have amended the COC to now be correct and scanned it is also attached. we need all samples analysed and two speculated.  
 Thanks JP

-----Original Message-----

**From:** alse.melbourne.aus@als.com.au [mailto:alse.melbourne.aus@als.com.au]  
**Sent:** Thursday, 8 November 2012 1:18 PM  
**To:** J Cumming  
**Subject:** Your Reference : 40-44 Montpellier Retreat. COC/SRN for ALSE Workorder : EM1213114

This e-mail has been automatically generated.

1

CIVIL DRAWINGS  
BATTERY POINT APARTMENTS  
1 KNOPWOOD STREET

C001	COVER	G	20/05/2022
C002	ENGINEERING NOTES	G	20/05/2022
C101	LOCALITY PLAN	G	20/05/2022
C102	BASEMENT LAYOUT PLAN	G	20/05/2022
C103	GROUND LAYOUT PLAN	G	20/05/2022
C104	BASEMENT PARKING DIMENSIONS PLAN	G	20/05/2022
C105	GROUND PARKING DIMENSION PLAN	G	20/05/2022
C106	SIGHT LINE PLAN	G	20/05/2022
C107	BASEMENT TURNPATH PLAN - SHEET 1	G	20/05/2022
C108	BASEMENT TURNPATH PLAN - SHEET 2	G	20/05/2022
C109	BASEMENT TURNPATH PLAN - SHEET 3	G	20/05/2022
C110	BASEMENT TURNPATH PLAN - SHEET 4	G	20/05/2022
C111	BASEMENT TURNPATH PLAN - SHEET 5	G	20/05/2022
C112	GROUND TURNPATH PLAN - SHEET 1	G	20/05/2022
C113	GROUND TURNPATH PLAN - SHEET 2	G	20/05/2022
C114	GROUND TURNPATH PLAN - SHEET 3	G	20/05/2022
C115	GROUND TURNPATH PLAN - SHEET 4	G	20/05/2022
C116	GROUND TURNPATH PLAN - SHEET 5	G	20/05/2022
C201	ELEVATIONS	G	20/05/2022
C301	SECTIONS - SHEET 1	G	20/05/2022
C302	SECTIONS - SHEET 2	G	20/05/2022

E	DEVELOPMENT APPROVAL - RP1 RESPONSE	28/01/2022	DRAWN	DE
D	DEVELOPMENT APPROVAL - RP1 RESPONSE	22/12/2021	CHECKED	MA
C	DEVELOPMENT APPROVAL - RP1 RESPONSE	19/12/2021	DESIGN	DE
B	DEVELOPMENT APPROVAL - COH RP1 RESPONSE	28/10/2021	CHECKED	MA
G	DEVELOPMENT APPROVAL	26/09/2022	VERIFIED	-
REV	ISSUE	DATE	APPROVAL	



**ALDANMARK**  
CONSULTING ENGINEERS

Lower Ground  
199 Macquarie Street  
Hobart TAS 7000  
03 6234 8666  
ma@aldanmark.com.au  
www.aldanmark.com.au

PROJECT: BATTERY POINT APARTMENTS

ADDRESS: 1 KNOPWOOD STREET  
BATTERY POINT, TAS, 7004

SHEET: COVER

CLIENT: FENDER KATSLIDIS

SCALE: AS INDICATED

TOTAL SHEETS: 21

SIZE: A1

PROJECT NO: 21E99-114

SHEET: C001

REV: G



**GENERAL NOTES:**

1. THESE DRAWINGS ARE TO BE READ IN CONJUNCTION WITH THE ARCHITECTURAL, HYDRAULIC AND STRUCTURAL DRAWINGS AND SPECIFICATIONS. STANDARDS REFERENCED ARE TO BE THE LATEST CURRENT VERSION.
2. THESE DRAWINGS SHALL NOT BE USED FOR CONSTRUCTION UNLESS ENDORSED FOR CONSTRUCTION AND AUTHORIZED FOR ISSUE ACCORDINGLY.
3. ALL WORKING TO BE CARRIED OUT IN ACCORDANCE WITH PUBLISHED STANDARDS, DRAWINGS AND SPECIFICATIONS, AUSTRALIAN STANDARDS, USUAL REPAIRS CODE OF AUSTRALIA & WATER SUPPLY CODE OF AUSTRALIA AND TO THE SATISFACTION OF COUNCIL'S DEVELOPMENT ENGINEER.
4. PAVEMENT STRUCTURE DRAWINGS TO BE READ IN CONJUNCTION WITH COUNCIL EXCLUSION SHEETS TYPEDOUT & TIED BACK.
5. ALL WORKING ARE TO BE MAINTAINED IN SAFE CONDITION.
6. CONTRACTOR SHALL ADVISE PRIOR TO THE COMMENCEMENT OF WORKS.
7. CONTRACTOR TO OBTAIN APPROVAL, SERVICE CLEARANCES AND COORDINATE WORK WITH ALL RELEVANT AUTHORITIES PRIOR TO COMMENCEMENT.
8. A START OF WORKS NOTICE MUST BE OBTAINED FROM COUNCIL PRIOR TO ANY WORKS COMMENCING.
9. SURVEY DATA UNDERSTAND AND PROVIDED BY PSA SURVEYORS.
10. ARCHITECTURAL, CIVIL AND SITE LAYOUT UNDERSTAND AND PROVIDED BY FENDER KATSALIDIS.
11. FLOOR LEVELS SET BY INSTALLED DRAINAGE BASED ON THESE.

**WORKPLACE HEALTH & SAFETY NOTES:**

- BEFORE THE CONTRACTOR COMMENCES WORK THE CONTRACTOR SHALL UNDERTAKE A SITE SPECIFIC PROJECT RISK ASSESSMENT. JOB SAFETY ANALYSIS (JSA) (WHICH SHALL IDENTIFY HAZARDOUS WORKS) IS DOCUMENTED FORM:
- THE TYPE OF WORK.
  - HAZARDS AND RISKS TO HEALTH AND SAFETY.
  - THE CONTROLS TO BE APPLIED IN ORDER ELIMINATE OR MINIMIZE THE RISK POSSED BY THE IDENTIFIED HAZARDS.
  - THE MEASURES IN ORDER THE RISK CONTROL MEASURES ARE TO BE IMPLEMENTED.

THESE ARE TO BE SUBMITTED TO THE SUPERINTENDENT AND/OR OTHER RELEVANT WORKPLACE SAFETY OFFICERS.

FOR THIS PROJECT, POSSIBLE HAZARDS INCLUDE BUT ARE NOT LIMITED TO:

- EXCAVATION OF ANY TYPE & DEPTHS
- COMPACTED SOILS
- CONSTRUCTION IN PROGRESS WITH HIGH WATER TABLE
- FELLING, LIFTING OR REMOVAL OF EXISTING TREES/VEGETATION
- UNDERGROUND STRUCTURES (MANHOLES, SLIPS, ETC)
- COMPACTED SPACES
- OVERHEAD POWER LINES
- UNDERGROUND STORAGE TANKS, WATER AND SEWER PIPES
- TELECOMMUNICATION CABLES, BOTH UNDERGROUND & OVERHEAD
- ELECTRICAL POWER CABLES - BOTH UNDERGROUND & OVERHEAD
- OVERHEAD WIRING
- WORKING WITH ASBESTOS CONTAINING MATERIALS
- TRAFFIC UNRESTRICTED

**EARTHWORKS & DRIVEWAY NOTES:**

1. ALL EARTHWORKS SHALL BE IN ACCORDANCE WITH AUSTIN "GUIDELINES ON EARTHWORKS FOR COMMERCIAL AND RESIDENTIAL DEVELOPMENTS".
2. ALL EXCAVATION AND TRENCHES SHALL BE STRIPPED AND DRAINED IN THE AREA OF PROPOSED WORKS.
3. NEW OR MODIFIED DRIVEWAY CROSSSECTIONS SHALL BE IN ACCORDANCE WITH PUBLISHED STANDARDS DRAINED TO RIDE AND MUST BE IMPROVED AND APPROVED BY COUNCIL.
4. EXCAVATED AND IMPORTED MATERIAL USED AS FILL IS TO BE APPROVED BY THE ENGINEER PRIOR TO INSTALLATION.
5. FILL MATERIAL SHALL BE WELL SPORED AND FREE OF BOLLERS OR COMBES EXPOSED WHEN IN DIAMETER UNLESS APPROVED BY THE ENGINEER.
6. FILL REQUIRED TO SUPPORT DRIVEWAYS INCLUDING FILL IN SUBGRAVITYS THAT SUPPORT DRIVEWAYS SHALL BE IMPROVED IN ACCORDANCE WITH THE FOLLOWING REQUIREMENTS:
  - TOP SOIL AND ORANGE WATER SHALL BE STRIPPED TO A MINIMUM OF 150MM
  - THE SUB GRAVITY SHALL HAVE A MINIMUM BURNED CAPACITY OF 100MM
  - FILL IN EMBANKMENTS SHALL BE KEPT TO A MINIMUM OF 100MM
  - THE FILL SHALL BE COMPACTED IN HORIZONTAL LAYERS OF NOT MORE THAN 200MM
  - EACH LAYER SHALL BE COMPACTED TO A MINIMUM DENSITY RATIO OF 90% (S.T.C.) IT IS THE BUILDER'S RESPONSIBILITY TO ENSURE THAT THIS IS ACHIEVED
7. WHERE THE ABOVE REQUIREMENTS CANNOT BE ACHIEVED THE ENGINEER SHALL BE CONSULTED AND THE FORMATION SHALL BE PROPOSED UNDER SUPERVISION OF THE ENGINEER TO CORRESPOND APPROVED BASE.
8. CONCRETE PAVEMENTS SHALL BE CURED FOR A MINIMUM OF 3 DAYS USING A CURRENT BEST PRACTICE METHOD.
9. DRAIN CONTROL JOINTS SHALL BE CONSTRUCTED AS GOOD AS POSSIBLE WITHOUT TRAVELLING THE JOINT, GENERALLY THIS SHALL BE 100MM JOINTS.
10. BATTERS SHALL BE SET TO A SLOPE ANGLE OF 1:1 UNLESS OTHERWISE SPECIFIED WITH THE BOLL VOL 2 AS INDICATED BELOW.

SOIL TYPE (* REFER BCA 324)	EMBANKMENT SLOPES H:L	
	COMPACTED FILL	CUT
STABLE ROCK (RT)	2:1	8:1
SAND (RT)	1:2	1:2
SILT (PT)	1:4	1:4
CLAY	FINES CLAY	1:2
	COARSE CLAY	1:1
SOFT SOIL (PT)	SOFT BUTTLE	2:1
	SOFT BUTTLE	1:1

NOTE: WHERE SITE CONDITIONS ARE UNFAVOURABLE FOR A BATTERED BANK CONSULT THE ENGINEER FOR A SUITABLE RETENTION WALL DESIGN. EMBANKMENTS THAT ARE TO BE LEFT EXPOSED MUST BE STABILISED BY VEGETATION OR SLOUGH WORKS TO PREVENT SOIL EROSION.

**DRAINAGE AND SERVICES NOTES:**

1. ALL WORKS ASSOCIATED WITH PUBLIC STORMWATER INFRASTRUCTURE IS TO BE CARRIED OUT IN ACCORDANCE WITH PUBLISHED LATEST STANDARDS DRAWINGS AND SPECIFICATIONS AND TO THE SATISFACTION OF COUNCIL.
2. ALL WORKS ASSOCIATED WITH PUBLIC SEWER AND WATER IS TO BE CARRIED OUT IN ACCORDANCE WITH THE SAME PARTS 2 & 3 OF WATER AND SEWERAGE CODES OF AUSTRALIA, TABULATOR SUPPLEMENTS TO THE SAME AND TO THE SATISFACTION OF TABULATOR.
3. ALL CONNECTIONS TO EXISTING WORKS TO BE CARRIED OUT BY THE REGULATORY AUTHORITY AT COST TO BUILDER UNLESS APPROVED OTHERWISE.
4. HYDRAULIC LAYOUT TO BE COORDINATED WITH OTHER SERVICES HYDRAULIC LAYOUT AS SHOWN IN SECTION, LAYOUT TO BE COORDINATED TO SITE.
5. ALL EXISTING SERVICES TO BE LOCATED ON SITE PRIOR TO THE COMMENCEMENT OF WORKS.
6. GENERAL MATERIALS INSTALLATION TESTING SHALL COMPLY WITH ASHRAE AND THE NEW VOLUME 3 (PCH) MATERIAL ALL SUBMITTALS DRAWING TO THE REQUIREMENTS OF ASHRAE, PART 3.1.3 OF THE NEW VOLUME 3 (PCH) AND PART 3.1.3 OF THE NEW VOLUME 3.
7. PAVEMENT AND HARDSPACING AREAS SHALL HAVE AT A MINIMUM OF 1% TO 1.5% TOWARDS AN APPROVED DRAINAGE POINT.
8. ALL PIPES WORK UNDER TRAFFICABLE AREAS INCLUDING DRIVEWAYS IS TO BE PROTECTED WITH COMPACTED FILL.
9. DRAINAGE PIPES TO BE 150MM UIC CLASS BOLL PIPES UNDER TRAFFICABLE AREAS TO BE 150MM UIC.
10. MINIMUM SPACES FOR PRIVATE DRAINAGE PIPES SHALL BE 150MM FOR STORMWATER AND 150MM FOR SEWER LINES.
11. MINIMUM COVER FOR PRIVATE DRAINAGE PIPES SHALL BE 150MM FOR STORMWATER AND 150MM FOR SEWER LINES.
12. TABULATOR BATTER SHALL BE IN MINIMUM UIC CLASS BOLL AND 150MM FOR SEWER LINES.
13. TABULATOR BATTER SHALL BE IN MINIMUM UIC CLASS BOLL AND 150MM FOR SEWER LINES.
14. TABULATOR BATTER SHALL BE IN MINIMUM UIC CLASS BOLL AND 150MM FOR SEWER LINES.
15. WATER PIPES TO BE 150MM UIC POLY PIPES AND ATTACHED TO BE MIN CLASS BOLL.
16. UNDER CONNECTIONS SHALL BE PROVIDED WITH METERS AND BOLLERS UNDER CONNECTIONS AS PER TABULATOR STANDARD DRAWING TYPEDOUT.
17. ALL PIPESWORK TO BE NESTED BY COUNCIL PRIOR TO INSTALL.
18. FIT DIMENSIONS SHOWN HAVE BEEN DERIVED BY FIT CAPACITY TABLES. THESE FITS MAY NEED TO BE MODIFIED IN MINIMUM FITTING. SEE ALSO TO THE DEPTH AS PER ASHRAE 3.1.3 AS PER TABLE BELOW. THESE ARE THE CONTRACTOR'S RESPONSIBILITY TO ENSURE COMPLIANCE TO ASHRAE.

DEPTH TO INSET OF OUTLET	MINIMUM INTERNAL DIMENSIONS (MM)	
	WIDTH	LENGTH
0-100	400	400
100-150	500	500
150-200	600	600
200-250	700	700
250-300	800	800



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REV	ISSUE	DATE	APPROVAL
E	DEVELOPMENT APPROVAL - RFI RESPONSE	28/01/2022	DRAWN: DE
D	DEVELOPMENT APPROVAL - RFI RESPONSE	22/12/2021	CHECKED: MAI
C	DEVELOPMENT APPROVAL - RFI RESPONSE	9/12/2021	DESIGN: DE
B	DEVELOPMENT APPROVAL - COHAR RESPONSE	28/10/2021	CHECKED: MAI
G	DEVELOPMENT APPROVAL	28/09/2021	VERIFIED: -



Lower Ground  
199 Macquarie Street  
Hobart TAS 7000  
03 6234 8666  
mail@aldanmark.com.au  
www.aldanmark.com.au

PROJECT:	BATTERY POINT APARTMENTS	ADDRESS:	1 KNOPWOOD STREET BATTERY POINT, TAS, 7004	SHEET:	ENGINEERING NOTES
CLIENT:	FENDER KATSALIDIS	SCALE:	AS INDICATED	TOTAL SHEETS:	21
PROJECT NO:	21E99-114	SHEET:	C002	SIZE:	A1
				REV:	G



**BEFORE YOU DIG**

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LOCALITY PLAN  
SCALE 1:500 (A1)

E DEVELOPMENT APPROVAL - RP RESPONSE		28/01/2022	DRAWN:	DE		PROJECT: BATTERY POINT APARTMENTS	ADDRESS: 1 KNOPWOOD STREET, BATTERY POINT, TAS, 7004	SHEET: LOCALITY PLAN
D DEVELOPMENT APPROVAL - RP RESPONSE		22/12/2021	CHECKED:	MAV				
C DEVELOPMENT APPROVAL - RP RESPONSE		9/12/2021	DESIGN:	DE				
B DEVELOPMENT APPROVAL - COHAR RESPONSE		28/10/2021	CHECKED:	MAV				
G DEVELOPMENT APPROVAL		28/09/2022	VERIFIED:	-				
REV	ISSUE	DATE	APPROVAL					

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0 5 10 15 20 25 30 35 40 45 50m

CLIENT: FENDER KATSALIDIS

SCALE: AS INDICATED

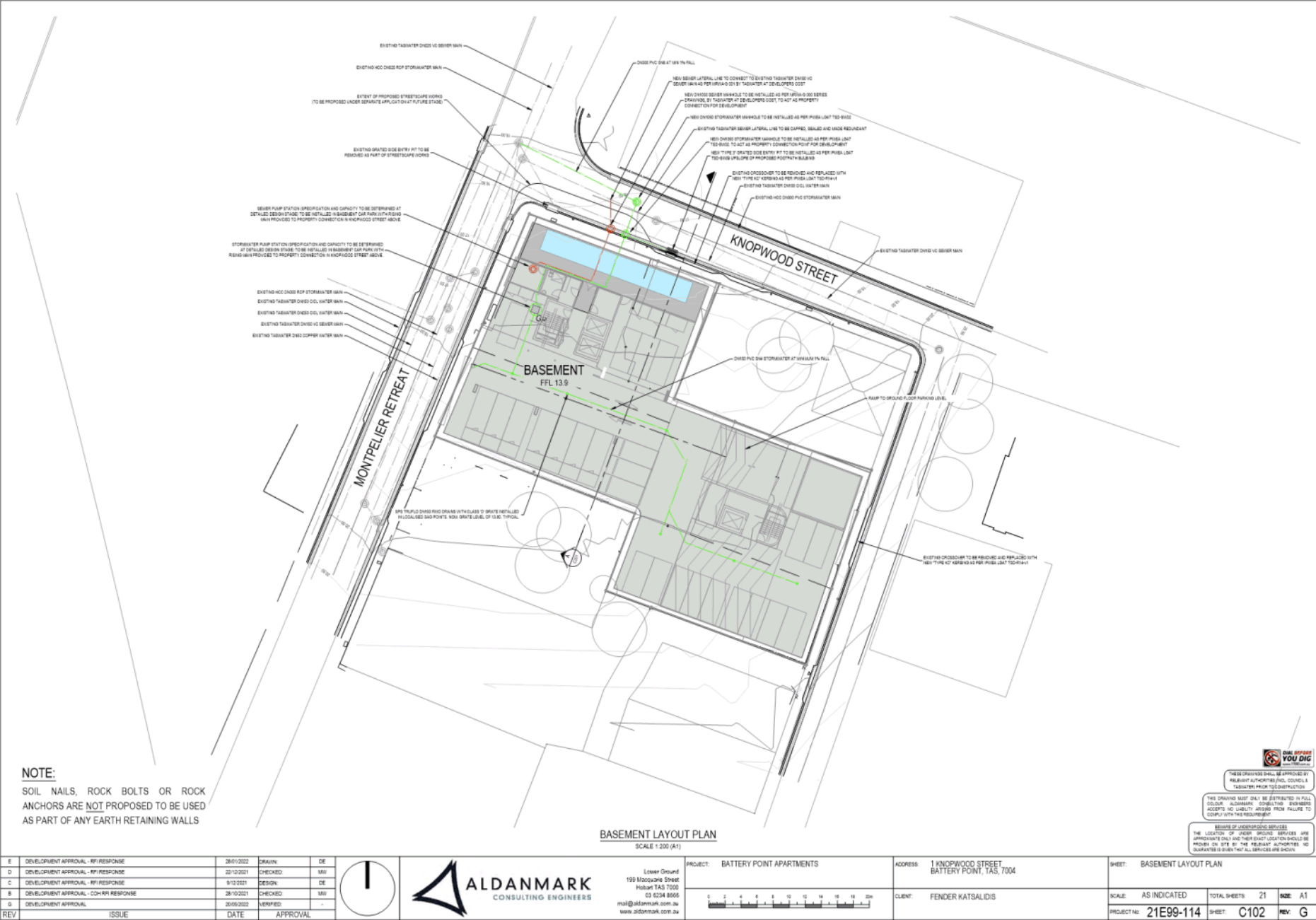
PROJECT NO: 21E99-114

TOTAL SHEETS: 21

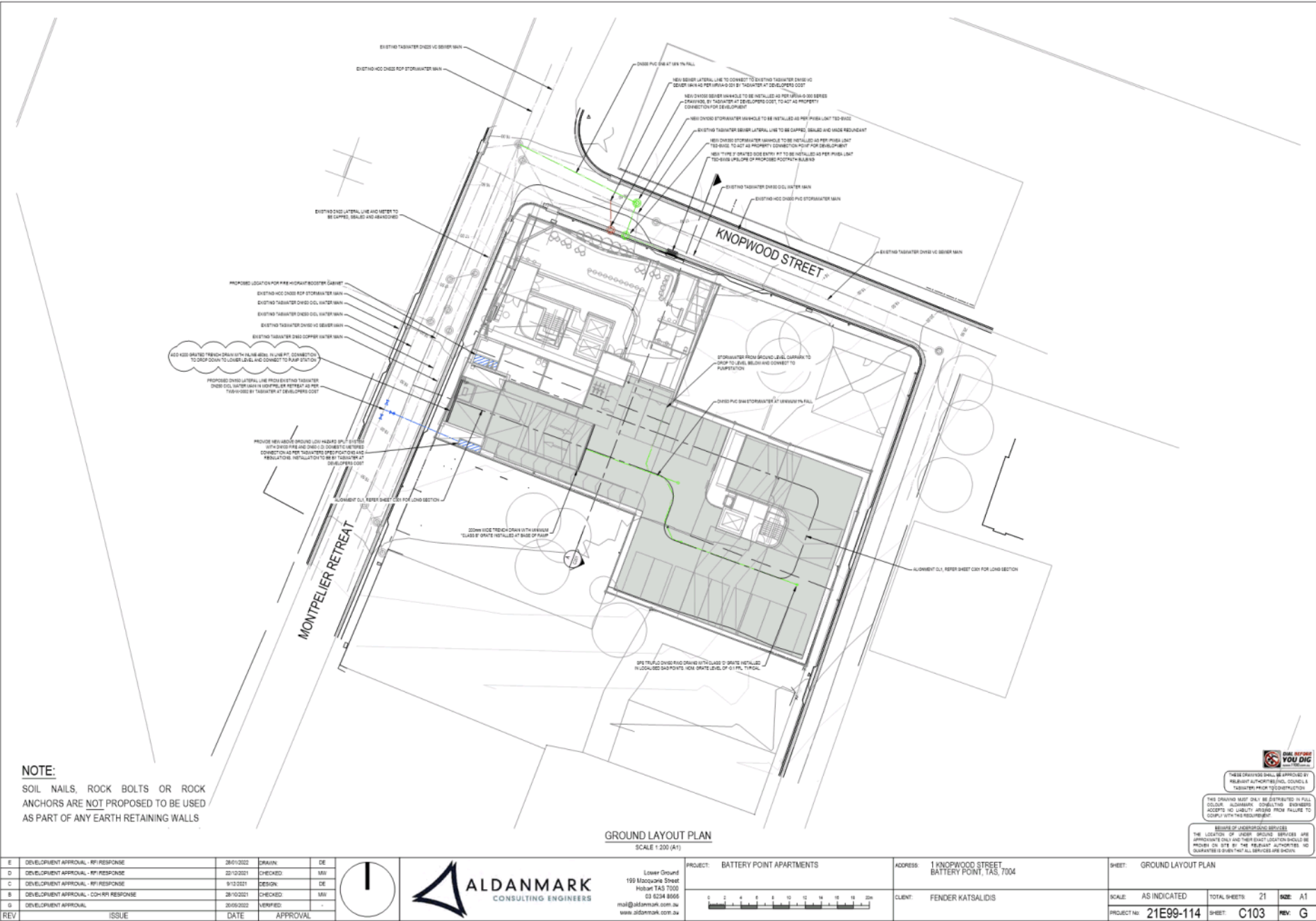
SHEET: C101

SIZE: A1

REV: G

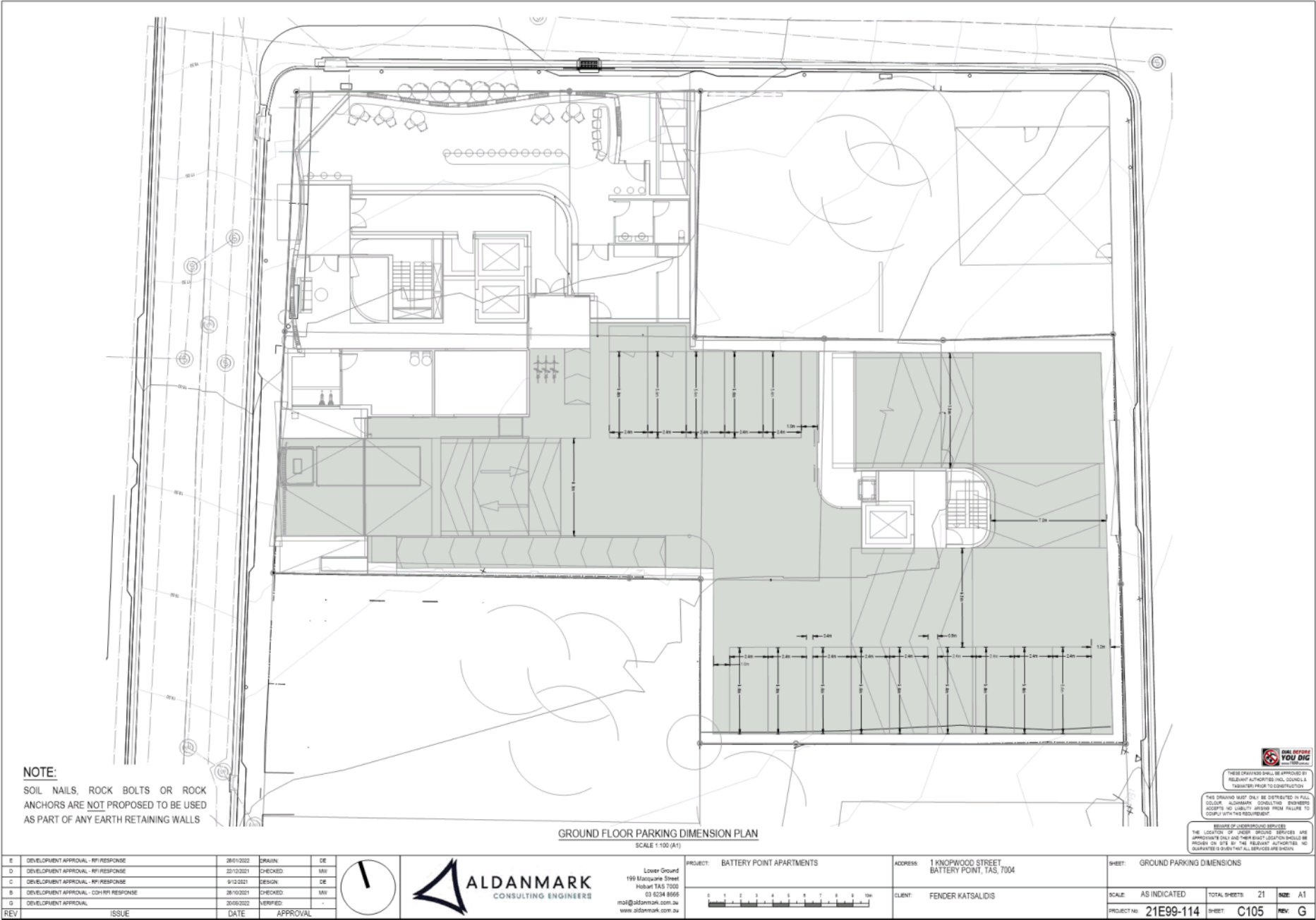














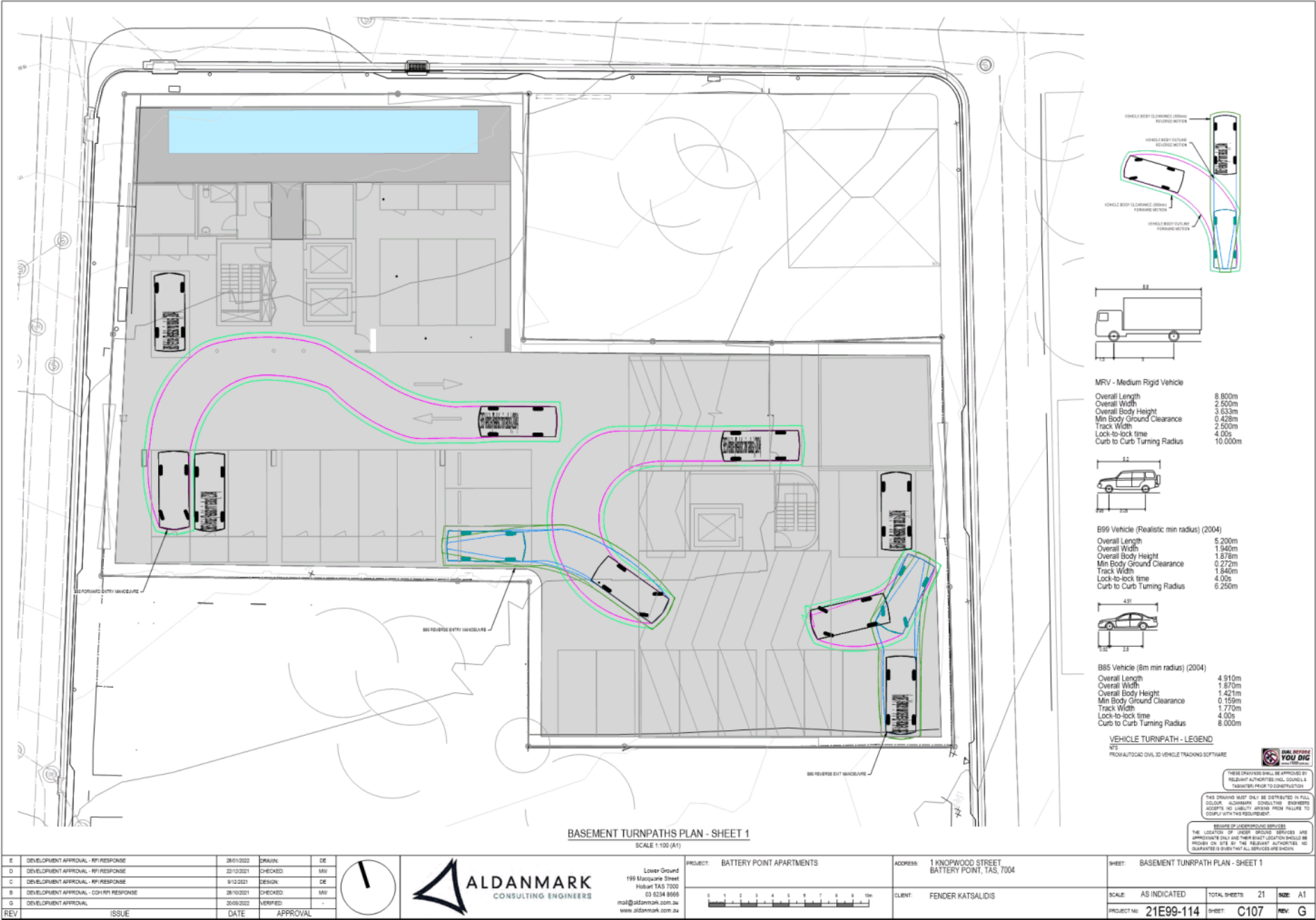
SIGHT LINE PLAN  
SCALE 1:200 (A1)

REV		ISSUE	DATE	APPROVAL		<p>Lower Ground 199 Macquarie Street Hobart TAS 7000 03 6234 8666 mca@aldanmark.com.au www.aldanmark.com.au</p>	PROJECT: BATTERY POINT APARTMENTS	ADDRESS: 1 KNOXWOOD STREET BATTERY POINT, TAS, 7004	CLIENT: FENDER KATSALIDIS	SHEET: SIGHT LINE PLAN	SCALE: AS INDICATED	TOTAL SHEETS: 21	SIZE: A1	REV: G

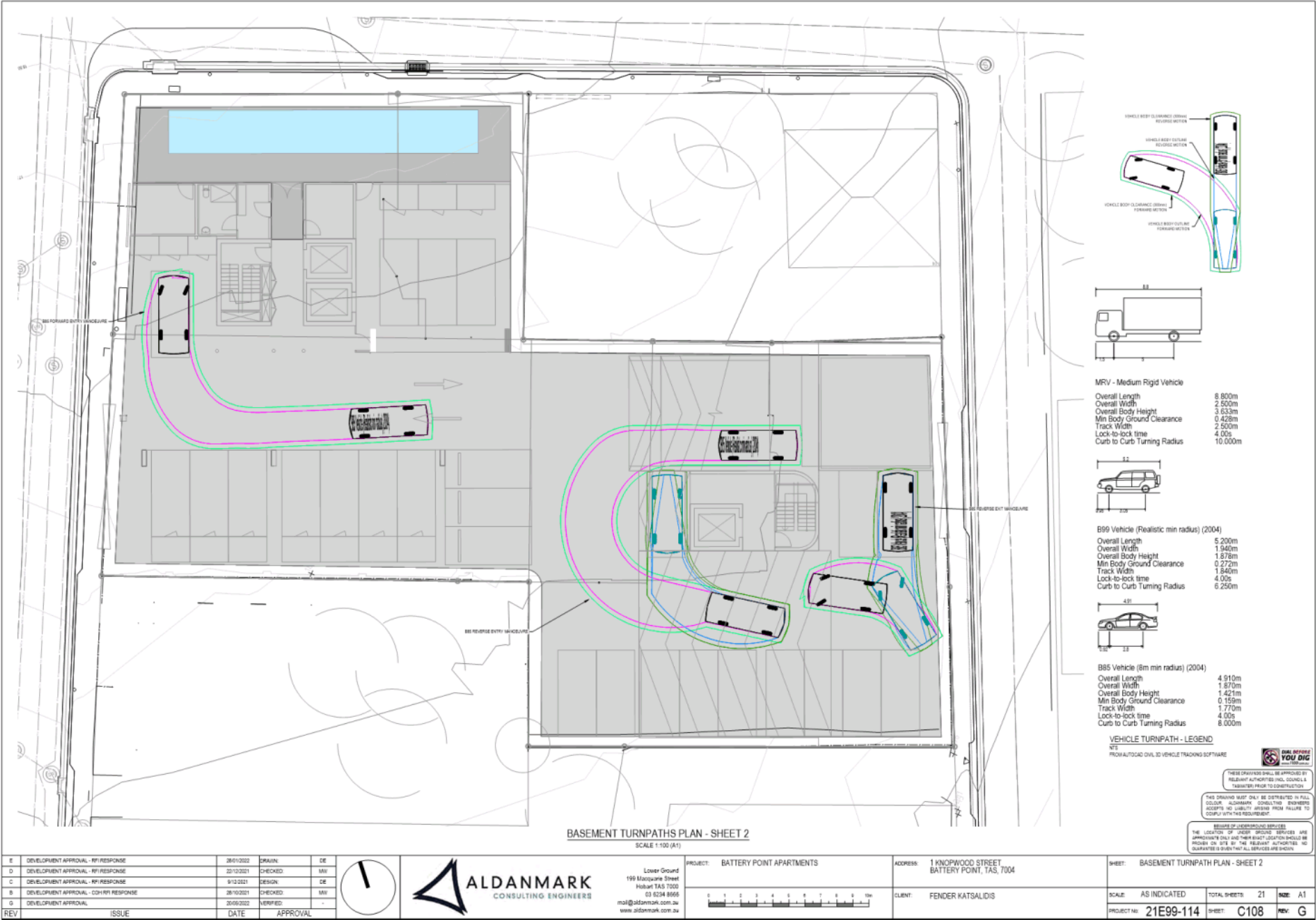


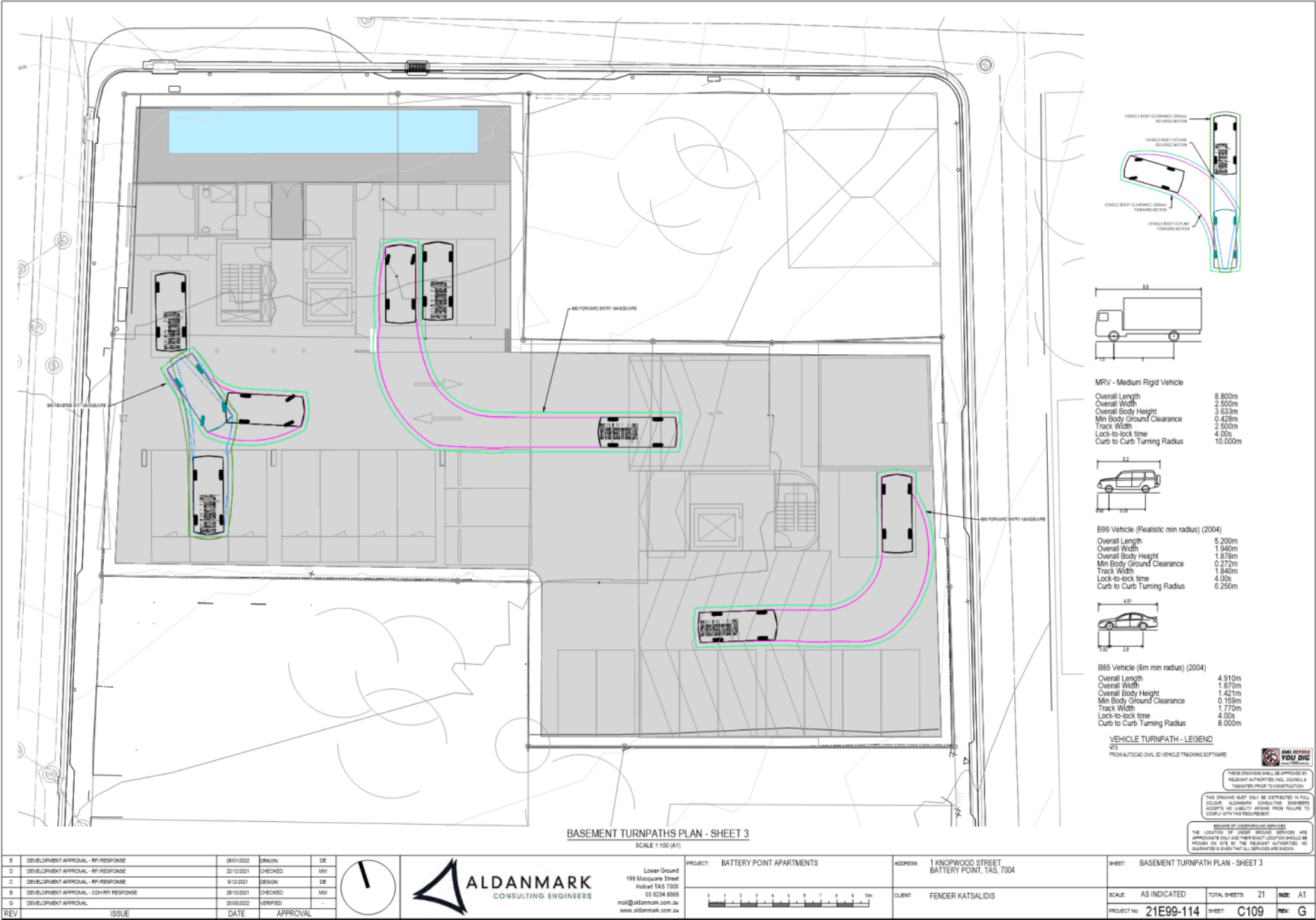
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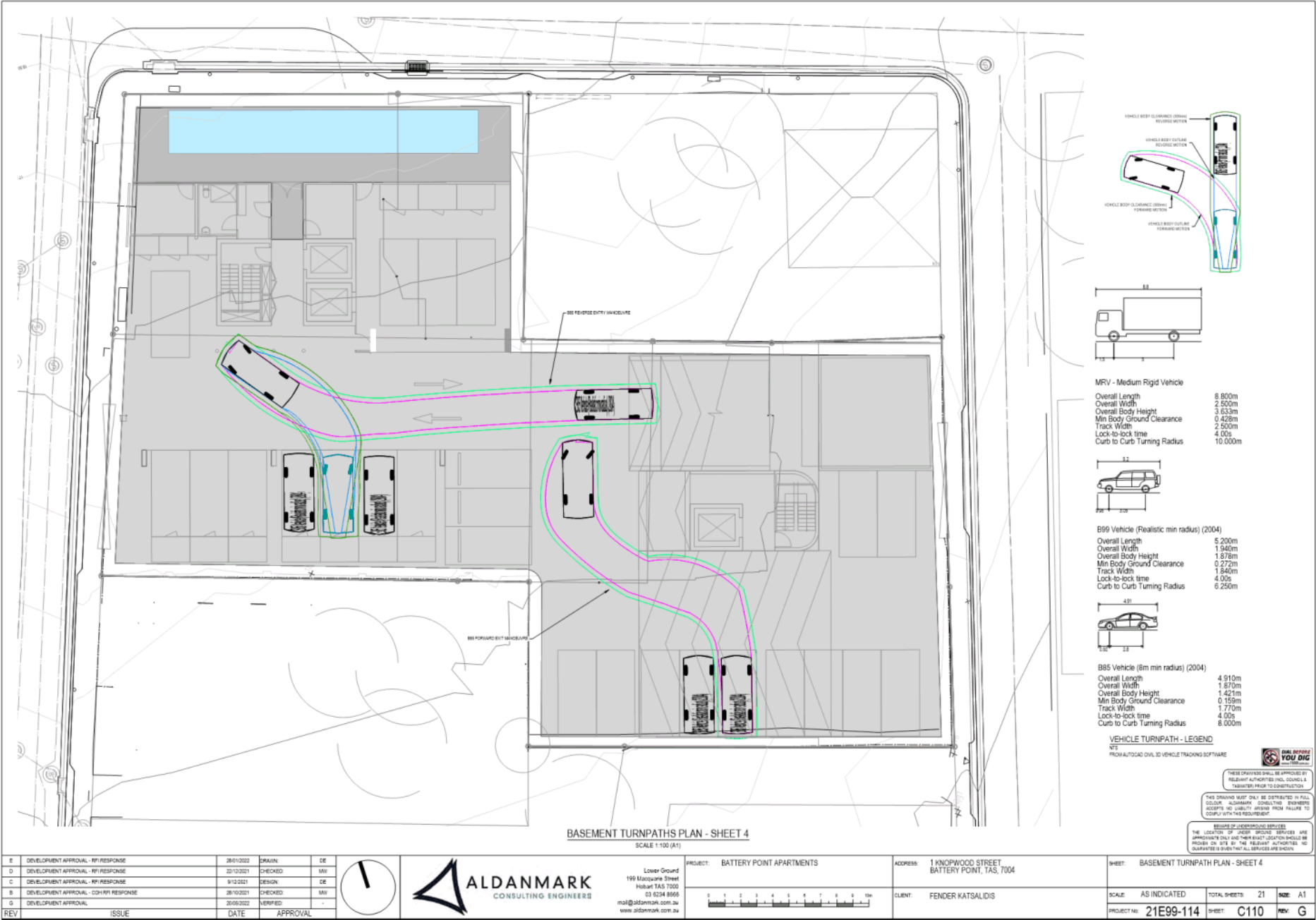


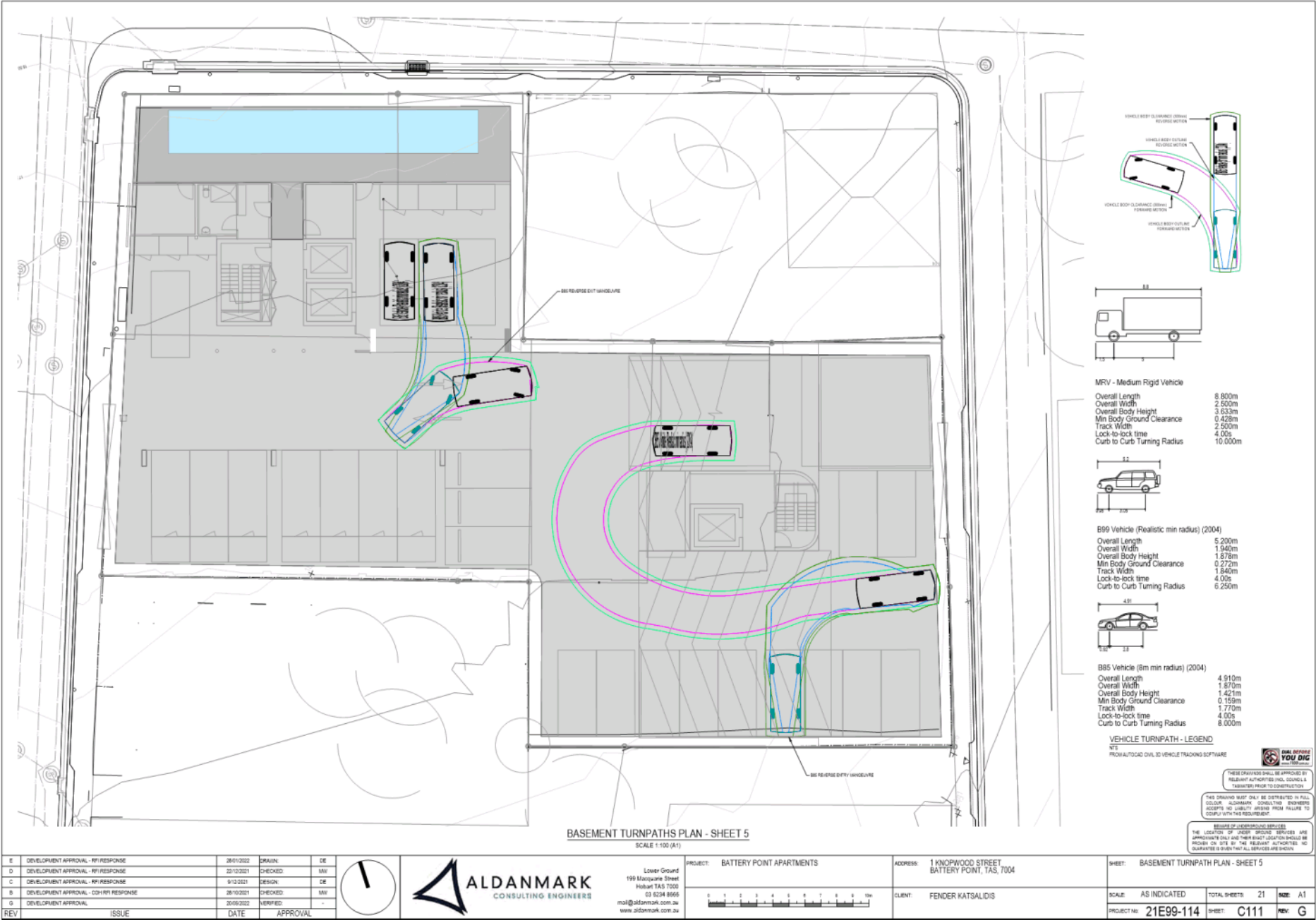




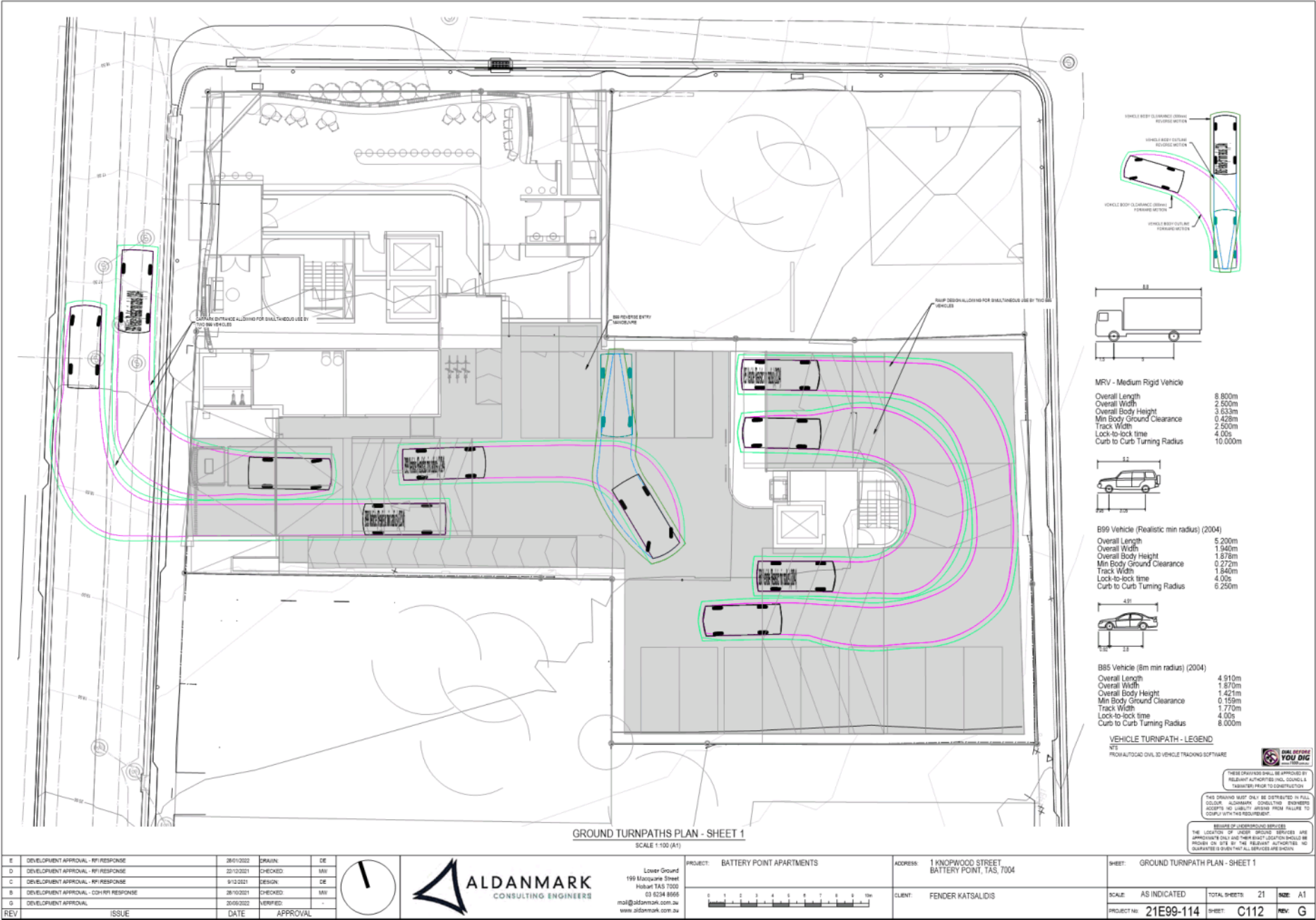


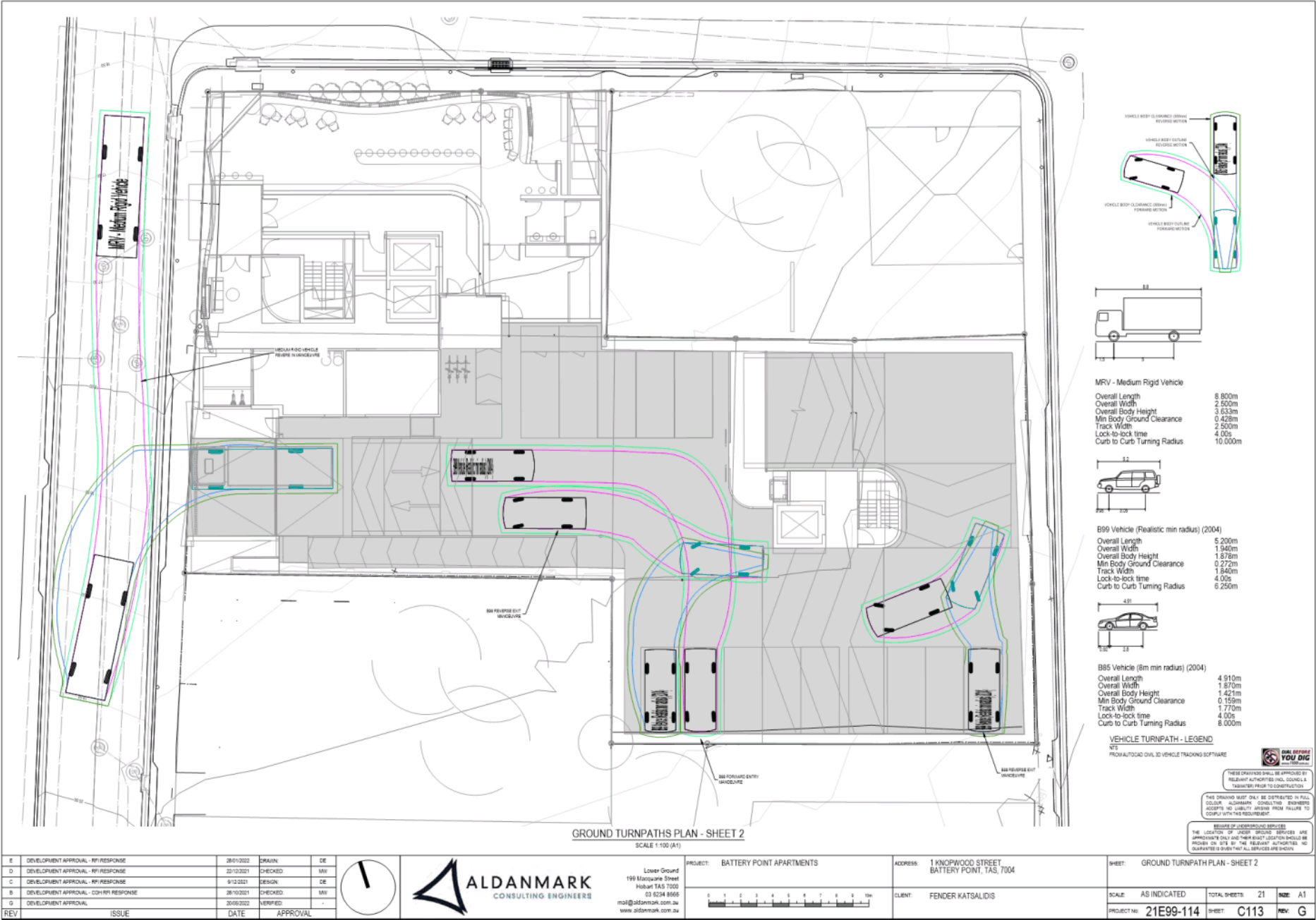


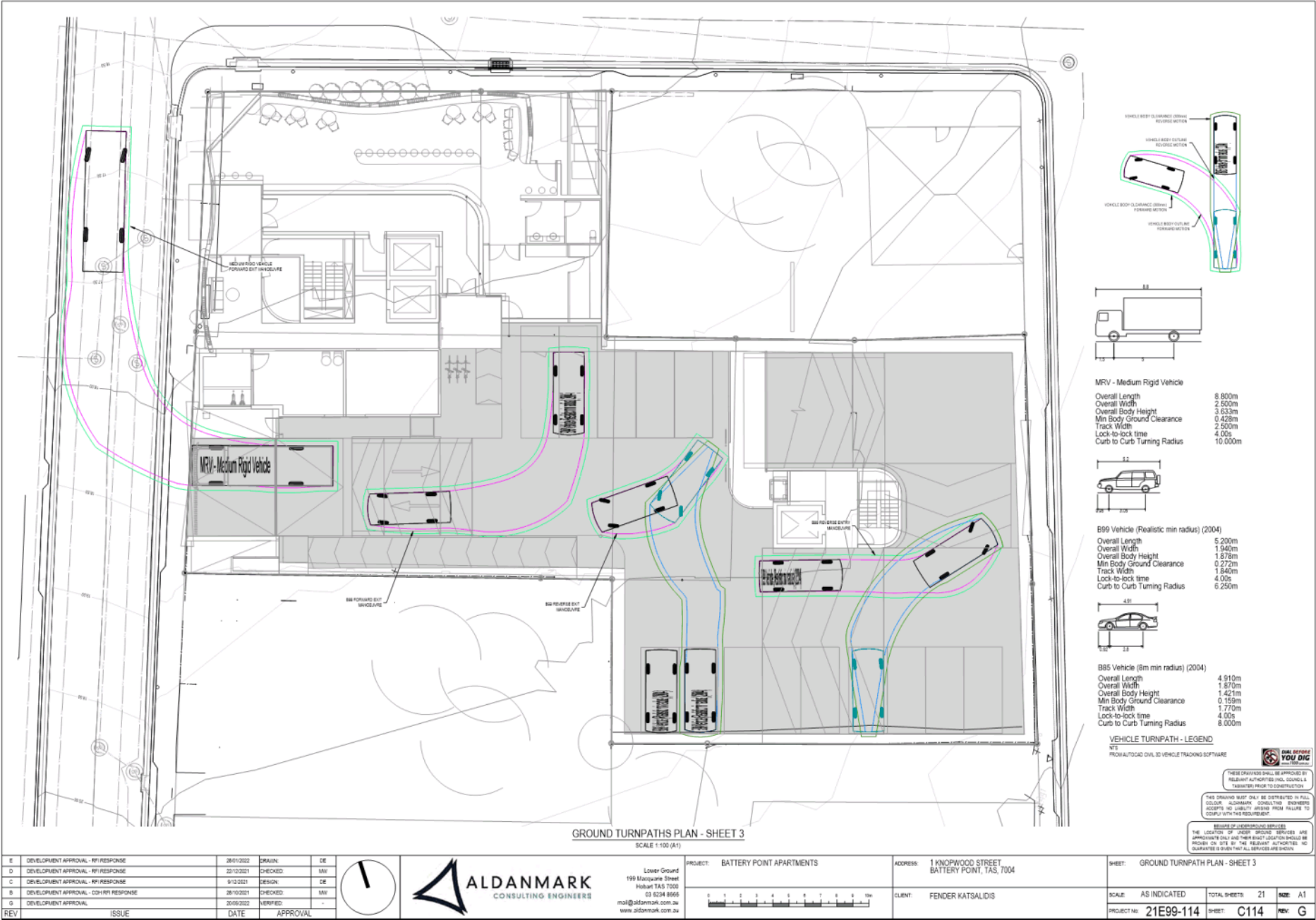


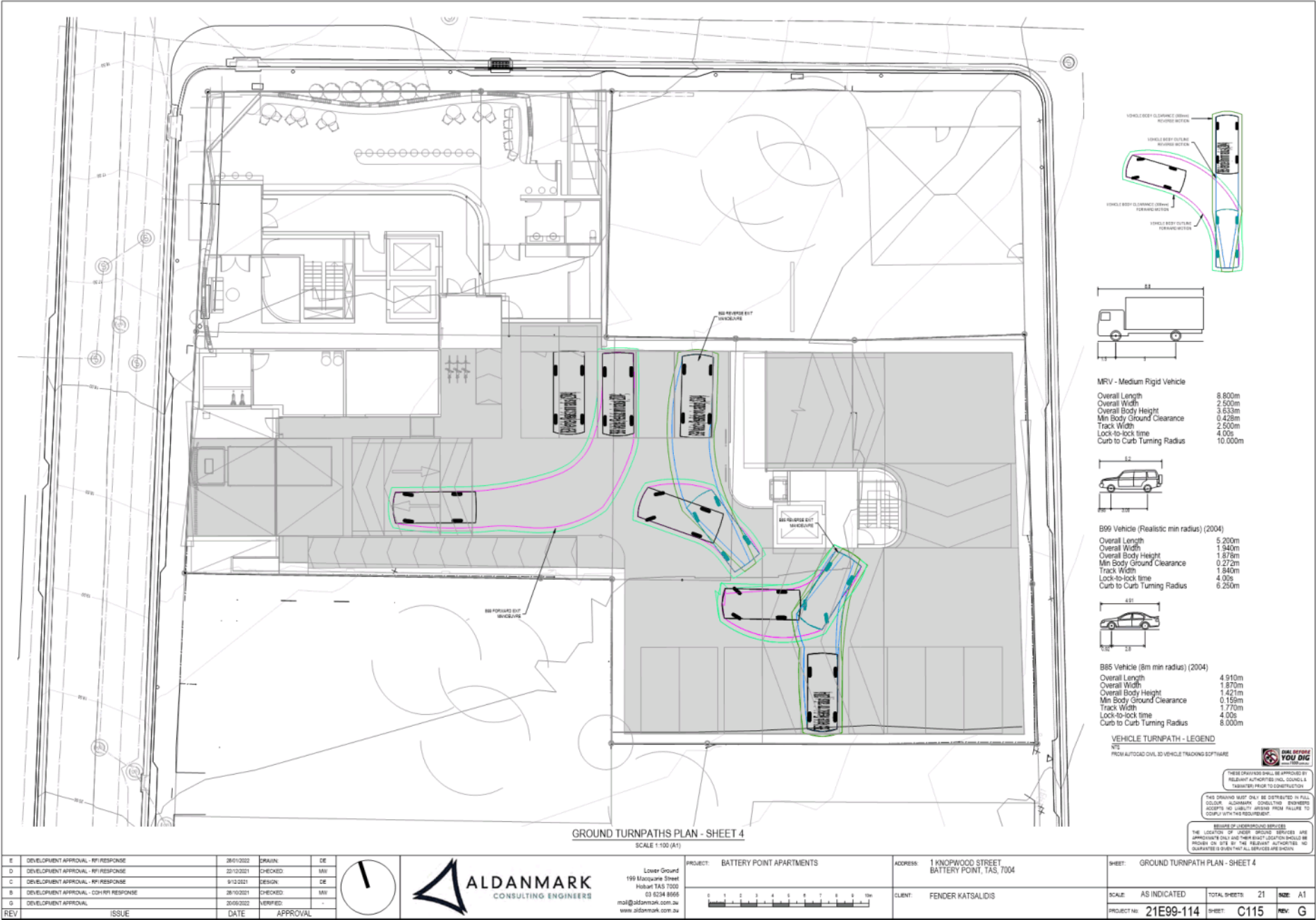




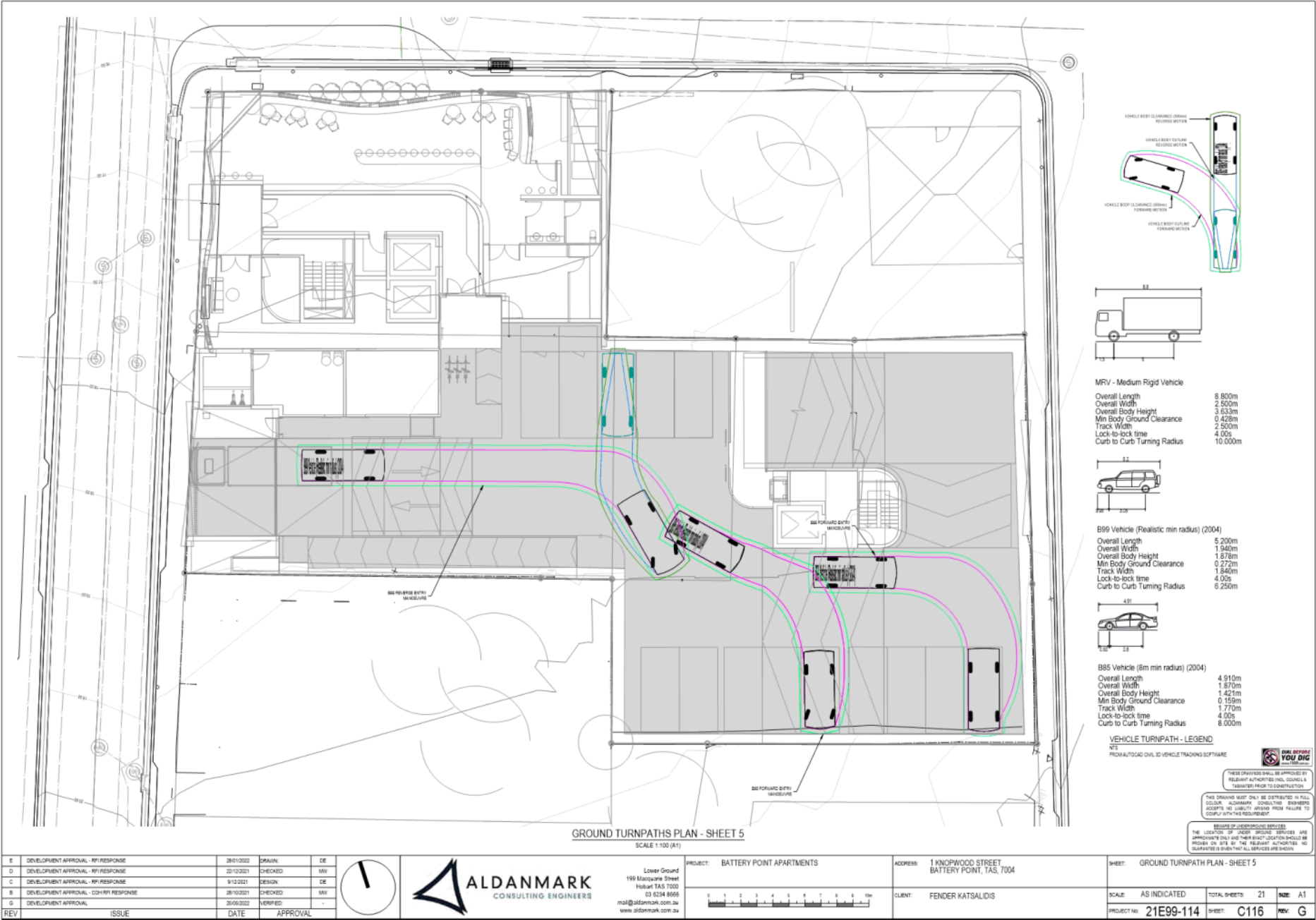


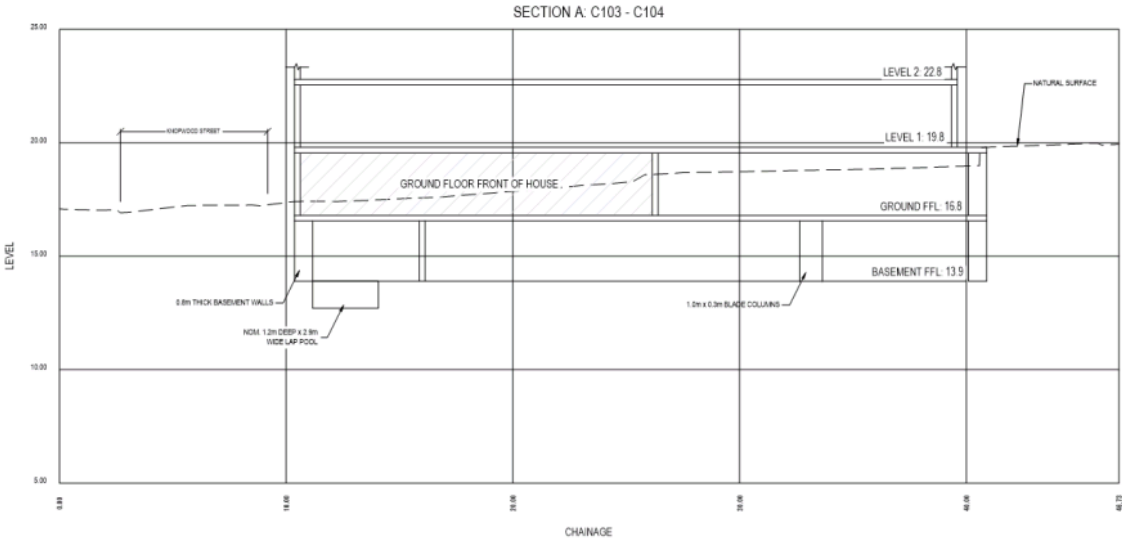












ELEVATIONS: SECTION A  
SCALE 1:100 (A1)

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D	DEVELOPMENT APPROVAL - RP RESPONSE	22/12/2021	CHECKED:	MAV
C	DEVELOPMENT APPROVAL - RP RESPONSE	C201 PLAN	DESIGN:	DE
B	DEVELOPMENT APPROVAL - COHAR RESPONSE	28/10/2021	CHECKED:	MAV
G	DEVELOPMENT APPROVAL	28/09/2022	VERIFIED:	-
REV	ISSUE	DATE	APPROVAL	



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www.aldanmark.com.au

PROJECT: BATTERY POINT APARTMENTS



ADDRESS: 1 KNOXWOOD STREET  
BATTERY POINT, TAS, 7004

CLIENT: FENDER KATSAIDIS

SHEET: ELEVATIONS

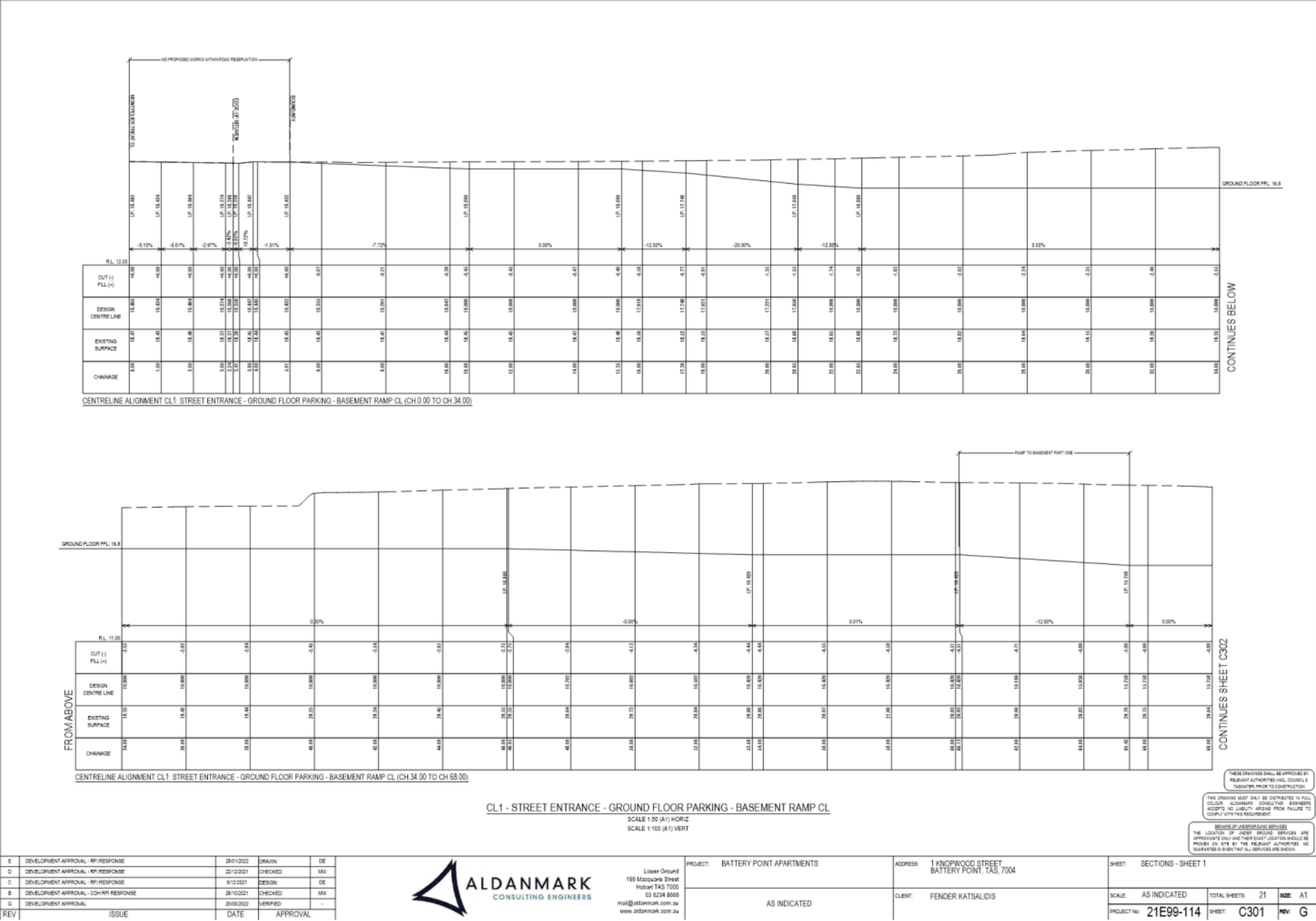
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PROJECT NO: 21E99-114  
TOTAL SHEETS: 21  
SHEET: C201  
SIZE: A1  
REV: G

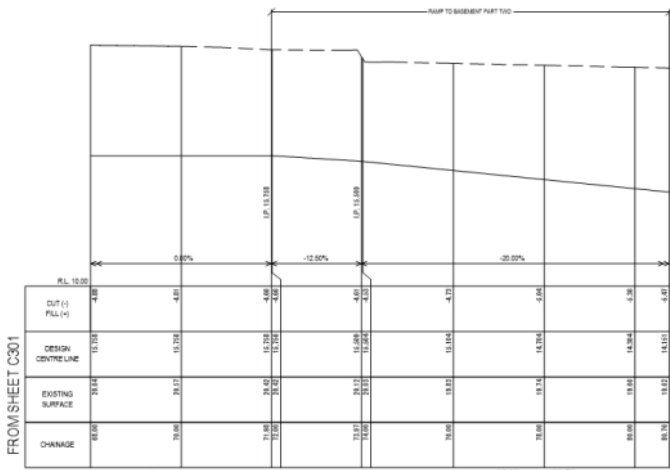


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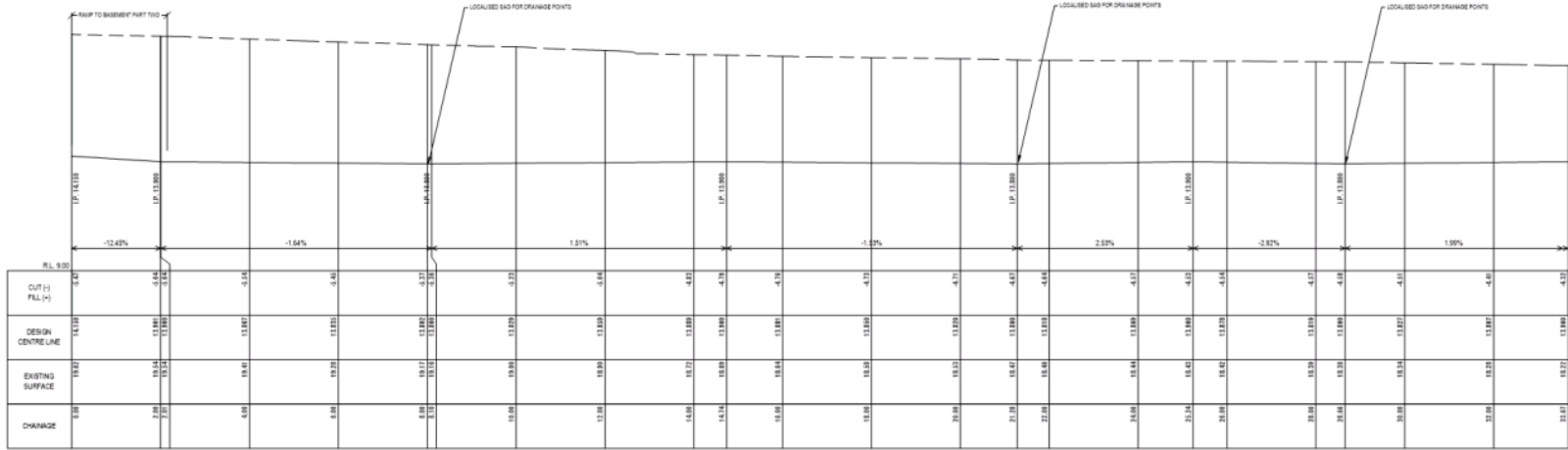
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CENTRELINE ALIGNMENT CL1. STREET ENTRANCE - GROUND FLOOR PARKING - BASEMENT RAMP CL. (CH 68.00 TO CH 80.76)



CENTRELINE ALIGNMENT CL2. BASEMENT RAMP - BASEMENT CL.

CL2 - BASEMENT RAMP - BASEMENT CL.

SCALE 1:50 (A1) HORIZ  
SCALE 1:100 (A1) VERT

REV	ISSUE	DATE	APPROVAL
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C	DEVELOPMENT APPROVAL - RFI RESPONSE	9/12/2021	DESIGN: DE
B	DEVELOPMENT APPROVAL - COH/RP RESPONSE	28/10/2021	CHECKED: MAY
A	DEVELOPMENT APPROVAL	20/09/2022	VERIFIED: -



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199 Macquarie Street  
Sydney TAS 7000  
03 6234 8666  
m@aldanmark.com.au  
www.aldanmark.com.au

PROJECT: BATTERY POINT APARTMENTS

ADDRESS: 1 KNOXWOOD STREET  
BATTERY POINT, TAS, 7004

SHEET: SECTIONS - SHEET 2

AS INDICATED

CLIENT: FENDER KATSAIDIS

SCALE: AS INDICATED

TOTAL SHEETS: 21

SIZE: A1

PROJECT NO: 21E99-114

SHEET: C302

REV: G

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## HERITAGE IMPACT STATEMENT

regarding the heritage issues pursuant to the proposed

**Demolition and new works**

at

**1 KNOPWOOD STREET, BATTERY POINT**



**Revision A**

**22 November 2021**

Sam Nichols B. Arch. M. ICOMOS

**SAM NICHOLS**  
DESIGN | HERITAGE | CONSERVATION

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## 1. Introduction

### 1.1 Purpose

This Heritage Impact Statement (HIS) forms part of a planning permit application for proposed works at 1 Knopwood Street, Battery Point (refer Figure 1) – hereafter referred to as the subject site.

The subject site is comprised of five titles:

- CT 72077/1
- CT 126274/1
- CT 128788/1
- CT 72077/2; and
- CT 197384/1.

The proposed works include:

- Demolition of all existing buildings, structures and hard and soft landscaping on the subject site; and
- Construction of a multi-storey residential development, with ground floor retail and basement carparking, including associated hard and soft landscaping.

This assessment has been commissioned by Bensons Property Group.

The author of the assessment is Sam Nichols.

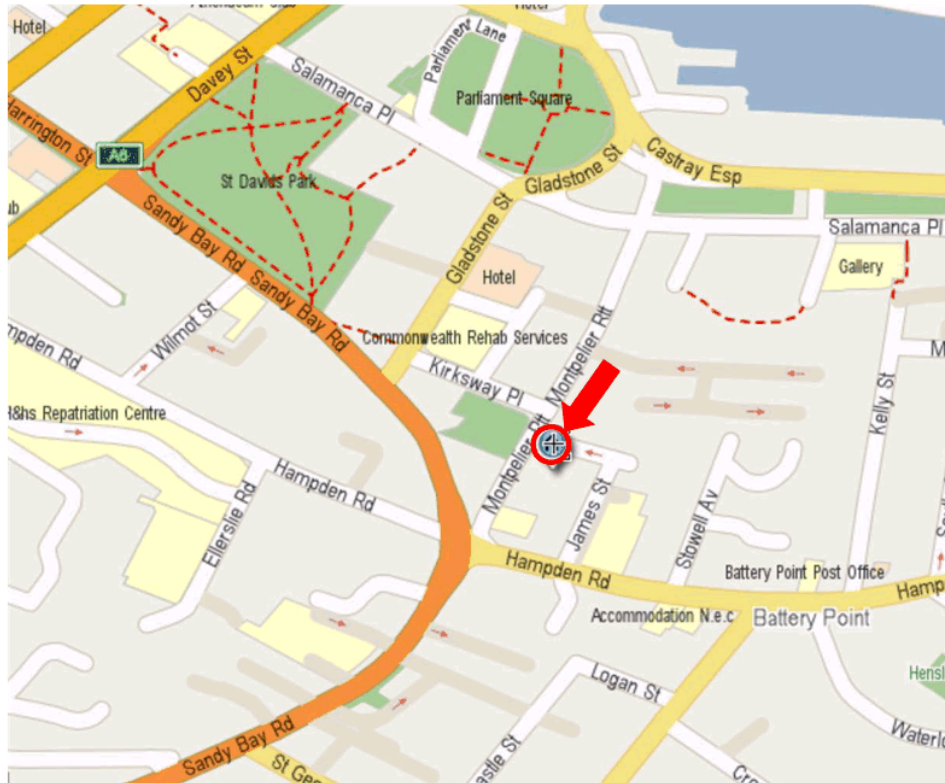


Figure 1 Location map of the subject property within the context of Battery Point; the location of the subject property is indicated.  
Source: [www.street-directory.com.au](http://www.street-directory.com.au)

**1.2 Reference documents**

The following architectural documentation has been referenced in the preparation of this HIS:

*Proposed residential development  
1 Knopwood Street, Hobart  
City of Hobart*

*For Bensons  
Project number 21082  
Issued for town planning*

The architectural documentation was prepared by Fender Katsalidis architects (FK), dated 23 September 2021. The documentation comprises the following:

- 1.0 Contents
- 2.0 Site context
- 3.0 Site analysis / heritage response
- 4.0 Design response
- 5.0 Civic contribution; and
- 6.0 Perspective views.

The following documentation associated with an existing development application (PLN-15-00971-01) for the subject site has also been referenced:

- 40 – 44 Montpelier Retreat, Elliot's Apartments: Town Planning Report and "Statement of Compliance" (Kate Loveday Planning Consultant, 6 August 2015)
- Elliott's Apartments: An architectural report to Accompany the DA Proposal (Circa Morris-Nunn, Architects, July 2015); and
- Elliott's Apartments, 40-44 Montpelier Retreat, Battery Point TAS. (Circa Morris- Nunn, architects, 10 August 2015):
  - 1413 DA00 Location Plan Rev. A
  - 1413 DA02 Demolition Plan Rev. A
  - 1413 DA06 Level 02 Rev. A
  - 1413 DA07 Level 03 + 04 Rev. A
  - 1413 DA08 Roof plan Rev. A
  - 1413 DA09 North elevations Rev. A
  - 1413 DA10 East elevation – building one Rev. A
  - 1413 DA11 South elevation Rev. A
  - 1413 DA13 East elevation – building two Rev. A
  - 1413 DA14 Cross 01-03 Rev. A
  - 1413 DA15 Shadow diagrams Rev. A
  - 1413 DA16 Montages Rev. A; and
  - 1413 DA17 Montages Rev. A.

## 2. Planning controls

### 2.1 Statutory heritage controls

#### 2.1.1 Hobart Interim Planning Scheme 2015

##### Historic Heritage Code (HHC)

The subject site is included within heritage overlay BP1 (*Battery Point* precinct) – hereafter referred to as the heritage precinct (refer Figure 2).

The *Hobart Interim Planning Scheme 2015* – hereafter referred to as the Planning Scheme – defines heritage precincts as:

*Means an area shown on the planning scheme maps as a heritage precinct and described in Table E13.2 as having particular historical cultural heritage significance because of the collective heritage value of individual places as a group for their streetscape or townscape values.<sup>1</sup>*

The heritage precinct is identified on Table E13.2 (Heritage Precincts).<sup>2</sup>

##### Statement of Historic Cultural Heritage Significance

When undertaking assessment of an application, the City of Hobart – hereafter referred to as Council – will consider whether an application responds to the historic cultural heritage significance of the heritage precinct – hereafter referred to as the Statement of Significance.<sup>3</sup> Historic cultural heritage significance is defined in the Planning Scheme as:

*means as defined in the Historic Cultural Heritage Act 1995. For precincts, historical cultural heritage significance is informed by the statements of historical cultural heritage significance in Tables E13.3 and E13.4.<sup>4</sup>*

The Statement of Significance states the heritage precinct is of significance for the following reasons:<sup>5</sup>

1. *The wide variety of architectural styles and historic features ranging from entire streets of 19th century Colonial Georgian cottages, to Victorian, Edwardian and Pre and Post War examples of single and attached houses that are of historic and architectural merit, many of which demonstrate housing prior to mass car ownership.*
2. *It is primarily a residential area with a mix of large substantial homes and smaller workers cottages on separate lots, gardens, an unstructured street layout, and lot sizes that show successive re-subdivision into narrow lots that demonstrate early settlement patterns of Hobart.*
3. *The original and/or significant external detailing, finishes and materials demonstrating a high degree of integrity with a homogenous historic character.*

Council's Conservation Policy includes a secondary non-statutory Statement of Significance, which is included at section 7.1 (Appendix B) of the HIS.

<sup>1</sup> Hobart Interim Planning Scheme 2015, Code E.13.0 (Historic Heritage Code) – Part E13.3 (Definition of Terms).

<sup>2</sup> Hobart Interim Planning Scheme 2015, Code E.13.0 (Historic Heritage Code) – Table E.13.2 (Heritage Precincts).

<sup>3</sup> Hobart Interim Planning Scheme 2015, Code E.13.0 (Historic Heritage Code) – Part E13.1.1 (Purpose).

<sup>4</sup> Hobart Interim Planning Scheme 2015, Code E.13.0 (Historic Heritage Code) – Part E13.3 (Definition of Terms).

<sup>5</sup> Hobart Interim Planning Scheme 2015, Code E.13.0 (Historic Heritage Code) – Part E13.2 (Heritage Precincts), BP1 (Battery Point).

## 2.2 Non-statutory heritage controls

### 2.2.1 City of Hobart Conservation Policy

#### Property grading

The subject site is graded **non-contributory** in the heritage precinct (refer Figure 2).

Council's *Statement of Local Heritage Significance and Design Criteria / Conservation Policy* (January 2019) – hereafter referred to as the Conservation Policy – defines **contributory** as:

*A building, site, structure, or object that adds to the historical associations, historic architectural and streetscape qualities of a Heritage Precinct. Contributory buildings and structures will generally have a good level of intactness in their external form and materials with only visible minor changes or buildings that have been altered but are still identifiable as dating from a key period of significance.<sup>6</sup>*

In the context of this definition, the subject site is non-contributory as it does not possess these qualities.

The Conservation Policy identifies 'non-contributory elements may be removed to enhance the character of the precinct'.<sup>7</sup>

### 2.2.2 Register of the National Estate (RNE)

The subject site is included on the now archived RNE as RNE11397 (*Battery Point Urban Conservation Area*) – hereafter referred to as the conservation area. The conservation area was registered<sup>8</sup> on the 21 October 1980. The significance of the conservation area is defined as:<sup>9</sup>

*Defined geographical unity which has ensured its preservation as a homogenous historic precinct. Wide variety of architectural styles ranging from early 19<sup>th</sup> Colonial Georgian [sic] through to Victorian and Edwardian period preserved intact as a continuous townscape. Contains a significant number of individual buildings of great architectural and historic merit.*

The RNE was closed in 2007 and is no longer a statutory list. The RNE is maintained on a non-statutory basis as a publicly available archive and educational resource.<sup>10</sup> A copy of the RNE datasheet is included at section 7.2 (Appendix B) of the HIS.

While having no legal recourse, such listings are customarily considered by local authorities when making planning decisions as they are considered representative of heritage values in the community.

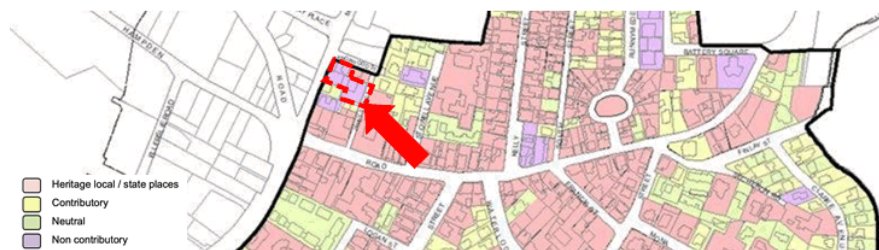


Figure 2 Extract of HOB-C6.2.1.1 (Heritage Precinct – Map), indicating the extent of the heritage precinct (BP1); the subject site is indicated in red. The key at bottom right indicates the subject site is graded non-contributory.  
Source: *Statement of Local Heritage Significance and Design Criteria / Conservation Policy* (City of Hobart, 2019:14)

<sup>6</sup> City of Hobart, *Statement of Local Heritage Significance and Design Criteria / Conservation Policy*, 2019, p. 5.

<sup>7</sup> Ibid., p. 16.

<sup>8</sup> Registered: The place was entered in the RNE prior to its closure in 2007. The existence of an entry for a place in the RNE does not in itself create a requirement to protect the place under Commonwealth law. Nevertheless, information in the register may continue to be current and may be relevant to statutory decisions about protection. (Legal definition per the Australian Government Department of Agriculture, Water and Environment, Legal status and heritage precinct lists, Register of the National Estate, viewed 29 August 2021: <https://www.environment.gov.au/heritage/publications/australian-heritage-database/legal-status>)

<sup>9</sup> 'Battery Point Urban Conservation Area', Australian Heritage Database, Australian Government Department of Agriculture, Water and Environment, accessed online 29 August 2021.

<sup>10</sup> Department of Agriculture, Water and Environment; Legal status and heritage precinct lists; Register of the National Estate, 29 August 2021.



### 3. Location, context and site

#### 3.1 Location

The subject site is located within that part of Battery Point bound by Salamanca Place, Runnymede Street, Hampden Road and Montpelier Retreat to the north, east, south and west respectively.

The subject site is bordered by Knopwood Street and James Street to the north and east; and Montpelier Retreat to the west. It is bordered by the adjoining properties 46, 48 and 52 Montpelier Retreat to the south. It also adjoins a rear service lane/right of way, to the south, extending along the rear of the properties at 9 to 21 James Street (refer Figure 3).



Figure 3 Aerial view of Battery Point, showing the area bound by Montpelier Retreat, Knopwood Street, James Street and Hampden Road; the subject property is indicated in red.  
Source: Google Maps, 2021

## 3.2 Context

### 3.2.1 Historical context

The first European settlement in lutruwita/Van Diemen's Land (Tasmania) occurred at Risdon in 1803, on the eastern shore of the River Derwent. Hobart was settled in 1804, following the relocation of the Risdon settlement to Sullivan's Cove, by Lieutenant-Governor David Collins (1756-1810).<sup>11</sup>

The majority of the area constituting modern day Battery Point initially comprised two land grants: a 30-acre grant to the Reverend Robert Knopwood in 1806, and a 90-acre grant to Lieutenant-Governor William Sorell (1775-1848) in 1819.<sup>12</sup>

The Reverend Bobby Knopwood (1763-1838) was a naval chaplain who arrived with Lieutenant-Governor Collins. Subsequently Van Diemen's Land's first clergyman, he performed the first Christian service on the island at Hobart in February 1804.<sup>13</sup> On 1 January 1806, the Governor of New South Wales and Van Diemen's Land, Philip Gidley King (1758-1808), made a land grant to Knopwood that today approximately comprises all that area bound by Salamanca Place and Runnymede Street to the north and east; and Hampden Road and St David's Park to the south and west. Knopwood named his property 'Cottage Green'.<sup>14</sup>

In 1824, heavily indebted, Knopwood subdivided 'Cottage Green', creating a series of allotments on the south-east bank of the small stream that ran through the property to Sullivan's Cove. The further sale of land by Knopwood saw the remainder of 'Cottage Green' eventually come into the possession of Lieutenant-Governor Sorell's successor, Lieutenant-Governor George Arthur (1784-1854), by 1829.<sup>15</sup>

In 1831, the path of the stream was widened to create Montpelier Retreat, connecting the New Wharf (Salamanca Place) with Hampden Road.<sup>16</sup> At the intersection of Hampden Road and Montpelier Retreat, a circus was named 'Quatre Bras' was formed and at its centre a fountain and circular reservoir erected named 'Napoleon's Fountain' (refer Figure 4).<sup>17</sup> The covered reservoir surrounded by an iron fence<sup>18</sup> was constructed in c.1830-31 to supply shipping in the harbour with fresh water; the reservoir supplemented by a dam across the Wellington Rivulet on the slopes of kunanyi/Mount Wellington, a tributary of the Hobart Rivulet, via a system of covered timber aqueducts and underground pipes.<sup>19</sup> The fountain and reservoir were demolished c.1859 (refer Figure 5).<sup>20</sup>

The formation of Montpelier Retreat and Quatre Bras was representative of a period of steady development and improvement of Battery Point, including the erection of residences for Hobart's prosperous middle class in Hampden Road, including 'Stowell' c.1831-35<sup>21</sup> for colonial secretary John Montagu,<sup>22</sup> 'Narryna' c.1835-40 for merchant Captain Andrew Haig<sup>23</sup> (refer Figure 13) and 'Anstruther House' c.1859<sup>24</sup> for William McRobie (refer Figure 14).<sup>25</sup> St George's Church, atop Kermode's Hill, in

<sup>11</sup> Wilfred Hugh Hudspeth, 'Note on Cottage Green', Papers and Proceedings of the Royal Society of Tasmania, 1945, pp. 130-131.

<sup>12</sup> Des Hanlon, 'Battery Point', Companion to Tasmanian History, Centre for Tasmanian Historical Studies, University of Tasmania, 2017; accessed online 23 September 2021: <https://www.utas.edu.au/tasmanian-companion/biogs/E000087b.htm>

<sup>13</sup> Linda Monks, 'Knopwood, Robert (Bobby) (1763-1838)', Australian Dictionary of Biography, National Centre of Biography, Australian National University, 1967; accessed online 23 September 2021: <https://adb.anu.edu.au/biography/knopwood-robert-bobby-2314/text13003>

<sup>14</sup> 'Note on Cottage Green', 1945, pp. 130-131.

<sup>15</sup> 'Note on Cottage Green', 1945, pp. 131-133.

<sup>16</sup> 'Note on Cottage Green', 1945, pp. 131-133.

<sup>17</sup> The naming of 'Quatre Bras' and 'Napoleon's Fountain' are detailed on surveyor George Frankland's 1832 map *Detailed drawing of Sullivan's Cove and Battery Point, Hobart* (Hobart 110) in the Tasmanian Archive and Heritage Office (AF394/1/112).

<sup>18</sup> 'Hobart and the South', The Mercury, 12 September 1903, p. 5; <http://nla.gov.au/nla.news-article12261853>

<sup>19</sup> 'Hobart Waterworks', Tasmanian News, 11 September 1888, p. 3; <http://nla.gov.au/nla.news-article163545947>

<sup>20</sup> 'General Intelligence', The Courier, 7 December 1858, p. 2; <http://nla.gov.au/nla.news-article2465554>

<sup>21</sup> 'Supreme Court', The Hobart Town Courier, 10 July 1835, p. 2; <http://nla.gov.au/nla.news-article4180171>

<sup>22</sup> John Reynolds, 'Montagu, John (1797-1853)', Australian Dictionary of Biography, National Centre of Biography, Australian National University, 1967; accessed online 23 September 2021: <https://adb.anu.edu.au/biography/montagu-john-2471>

<sup>23</sup> Tasmanian Museum and Art Gallery (TMAG), *Narryna, 103 Hampden Road, Battery Point, Significance Assessment*, undated, accessed online 23 September 2021: [https://www.tmag.tas.gov.au/\\_data/assets/word\\_doc/0016/100825/Narryna\\_-\\_significance.docx](https://www.tmag.tas.gov.au/_data/assets/word_doc/0016/100825/Narryna_-_significance.docx)

<sup>24</sup> 'Local', The Tasmanian Telegraph, 6 April 1859, p. 5; <http://nla.gov.au/nla.news-article232805626>

<sup>25</sup> 'Hobart in Other Days', Critic, 17 November 1916, p. 6; <http://nla.gov.au/nla.news-article169025842>

1836-38,<sup>26</sup> and hotels, including the Prince of Wales, at the corner of Hampden Road and Kelly Street, in 1843 (refer Figure 17 and Figure 18), and the Crown Hotel and Duke of York, on either corner of Hampden Road and Runnymede Street, in 1834 and 1856 respectively (refer Figure 19 and Figure 20).<sup>27</sup>

Adjoining 'Narryna', at the corner of Hampden Road and Montpelier Retreat, was a small cottage on a three-acre allotment extending to Salamanca Place sold by the Reverend Knopwood on 6 May 1824. It was purchased by Scottish merchant James Grant (1786-1870),<sup>28</sup> the Hobart agent for Lloyd's of London, upon his arrival in Hobart in 1824 (refer Figure 6).<sup>29</sup> Grant subsequently extended the cottage into a 12 room house, naming it 'Cottage Green' after Knopwood's farm. Knopwood's original 'Cottage Green' was demolished after 1838.<sup>30</sup>

Between 1840 and 1850, Grant subdivided his property, creating two streets: St James Street, extending south-west from Hampden Road, and Grant Street (Knopwood Street) extending north-west from Montpelier Retreat (refer Figure 7).<sup>31</sup> Grant Street subsequently disappeared from local nomenclature with the two streets collectively referred to as St James Street by 1856,<sup>32</sup> with the latter commonly known as James Street by 1858.<sup>33</sup> The northern part of James Street was renamed Knopwood Street in 1939.<sup>34</sup>

In 1848, Grant advertised the whole of the property for sale as a series of allotments, fronting the New Wharf (Salamanca Place), Montpelier Retreat and Hampden Road. In 1850, he sold the land on the northern side of James Street, including 'Cottage Green' house, to William Richardson.<sup>35</sup> The land on the southern side of the street, bound by James Street, Montpelier Retreat and Hampden Road was eventually disposed of by 1851.<sup>36</sup> This land was subsequently developed by its purchasers for speculative housing, the allotment at the corner of Montpelier Retreat and James Street having three residences developed upon it by 1858: a pair of conjoined cottages fronting Montpelier Retreat and a timber cottage behind fronting James Street (refer Figure 11).<sup>37</sup> The cottages at the corner of Montpelier Retreat and James Street were subsequently numbered 40 and 42 Montpelier Retreat and the cottage behind 1 Grant Street (refer Figure 8). Further speculative housing was developed in the form of terraces, including 'Portsea Place' in Montpelier Retreat, 'Irwin Place' in Hampden Road and a terrace at James Street by the 1860s (refer Figure 5, Figure 9 and Figure 12).

The subject site, comprising the collective properties 40, 42 and 44 Montpelier Retreat; 1 Knopwood Street, and 7, 9, 11 and 13 James Street (refer Figure 8), was cleared and redeveloped c.1977.<sup>38</sup>

<sup>26</sup> St George's Anglican Church, 'A brief history of the church building', St George's Battery Point, undated, accessed online 23 September 2021: <http://stgeorgesbatterypoint.org/history.php>

<sup>27</sup> David J. Bryce, *Pubs in Hobart: from 1807*, Rosny Park, Tas: Davadia Publishing, 1997, pp. 42-52.

<sup>28</sup> 'Note on Cottage Green', pp. 134-135.

<sup>29</sup> 'The late James Grant, esq.', *The Cornwall Chronicle*, 10 December 1870, p. 9: <http://nla.gov.au/nla.news-article67112822>

<sup>30</sup> 'Note on Cottage Green', pp. 134-136.

<sup>31</sup> 'Note on Cottage Green', p. 135.

<sup>32</sup> 'To the Editor of The Tasmanian Daily News', *The Tasmanian Daily News*, 13 February 1856, p. 2: <http://nla.gov.au/nla.news-article202386140>

<sup>33</sup> 'Family Notices', *The Hobart Town Daily Mercury*, 20 September 1858, p. 2: <http://nla.gov.au/nla.news-article3250578>

<sup>34</sup> 'Hobart street name changes', *Libraries Tasmania*, accessed online 23 September 2021: <https://www.libraries.tas.gov.au/archive-heritage/guides-records/Pages/hobart-street-name-changes.aspx>

<sup>35</sup> 'Note on Cottage Green', pp. 135-137.

<sup>36</sup> 'Note on Cottage Green', pp. 135-137.

<sup>37</sup> 'Advertising', *The Tasmanian Daily News*, 10 November 1856, p. 3: <http://nla.gov.au/nla.news-article202390885>

<sup>38</sup> The attribution of the date 1977 is based on the date period 1957-1977 for a photograph of the cottage at 1 Knopwood Street, Battery Point, in the Tasmanian Archive and Heritage Office (LPIC1/3/54).





Figure 4 Extract from *Hobart Town Drawing*, c.1850, by Charles Cumberland (artist).  
View of Quatre Bras, the intersection of Hampden Road and Montpelier Retreat, Battery Point, looking north-east. The object at the centre is Napoleon's Fountain, a covered reservoir surrounded by a metal palisade fence. The house at right is 'Narryna'. The subject site is concealed from view by the trees in the foreground.  
Source: Allport Library and Museum of Fine Arts, State Library of Tasmania (SL\_ILS:86347); reproduced with permission.



Figure 5 Extract from *Corner of Montpelier Retreat and Hampden Road* c.1860s; unknown photographer.  
View of Quatre Bras, looking east from the intersection of Hampden and Ellerslie roads, following the clearing of the reservoir and fountain c.1859. The terrace in the foreground is 'Portsea Place' at 54-60 Montpelier Retreat. The former cottage at 7 James Street is indicated by the red arrow.  
Source: Tasmanian Museum and Art Gallery (Q2001.15.7.16), from the website *In Bobby's Footsteps*, accessed 23 September 2021: <https://www.batterypointwalk.com.au/locations/montpelier-retreat/>



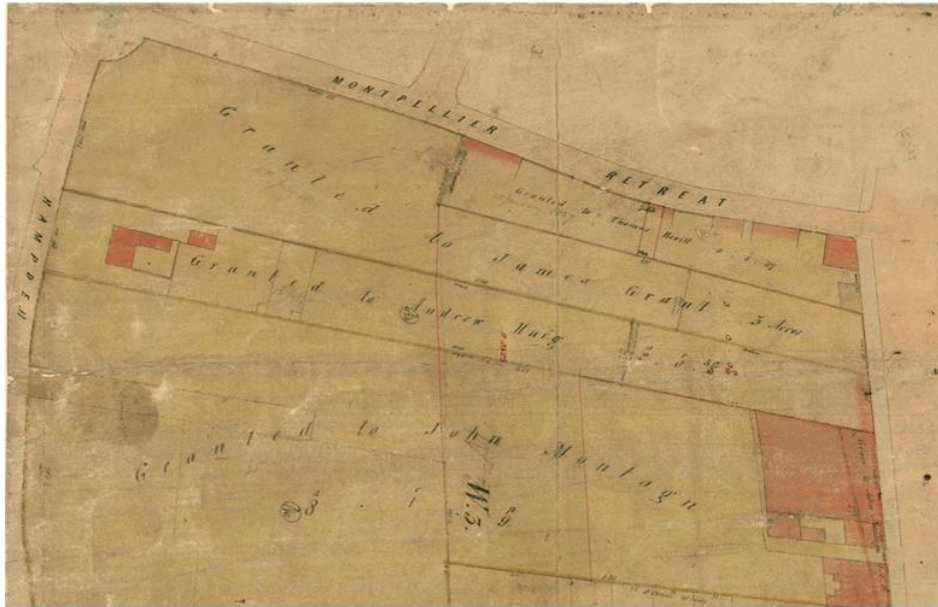


Figure 6 Extract from Sprent's Page 31 – Plan of Sections X3 and W3 bounded by Hampden Rd and Montpellier Retreat, Hobart, and allotment grated to the officers of Her Majesty's Ordnance, c.1841, by James Sprent, Surveyor-General. The map legend indicates red as representing masonry, and grey timber, construction of buildings and structures. The masonry building at bottom left of the subject site is 'Narryna' at 103 Hampden Road. North-west is up the page. Source: Tasmanian Archives, Libraries Tasmania (AF394/1/114); reproduced with permission.

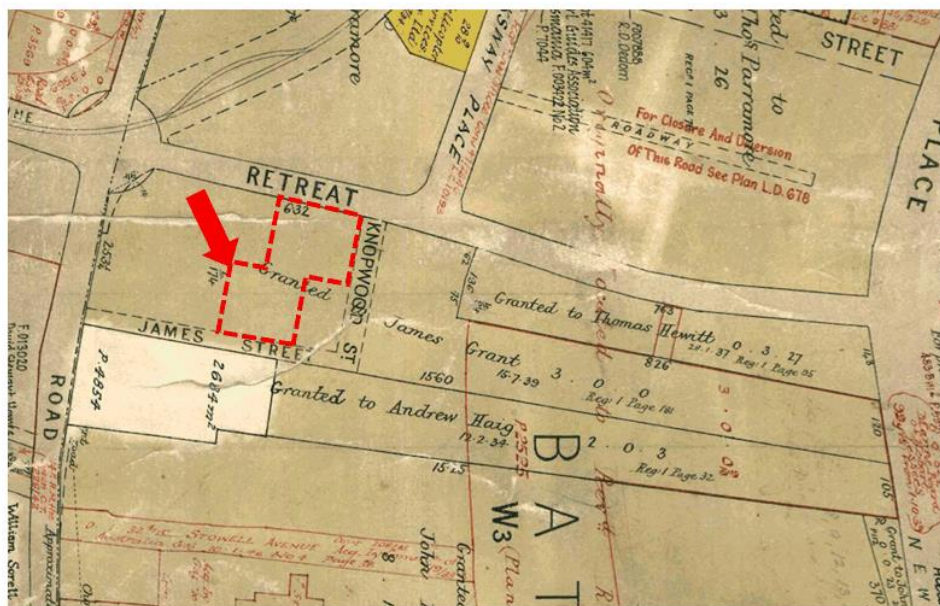


Figure 7 Extract from map City of Hobart, 1895, by the Tasmanian Government Department of Surveys. The location of James and Knopwood streets have overlaid across the earlier allotment. The approximate location of the subject site is indicated in red. North-west is up the page. Source: Tasmanian Archives, Libraries Tasmania (AF819/1/135); reproduced with permission.

## HERITAGE IMPACT STATEMENT

1 KNOPWOOD STREET, BATTERY POINT

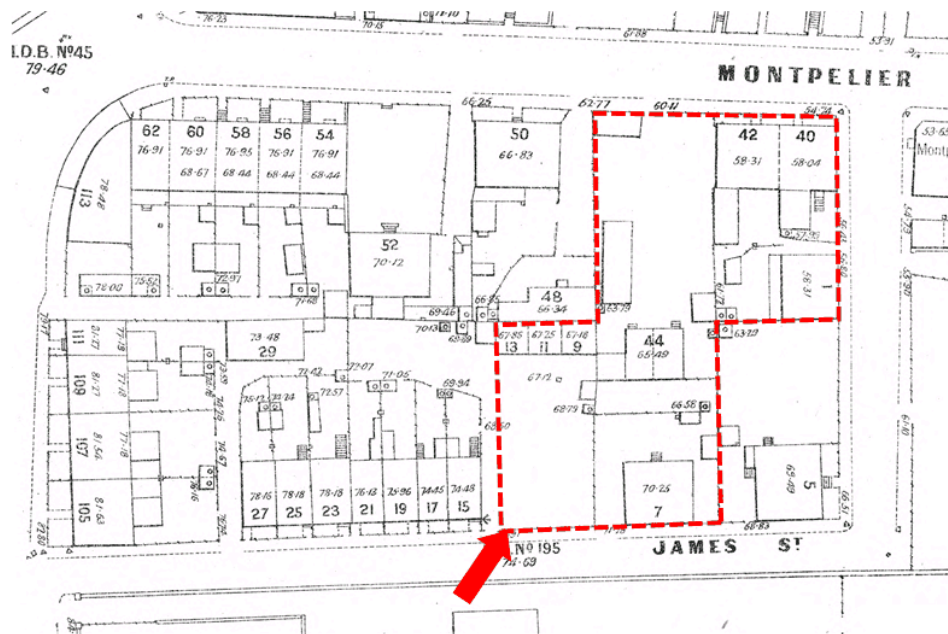


Figure 8 Extract of the Metropolitan Drainage Board (MDB) Detail Plan No. 33 (City of Hobart), c.1909, by John Vail, Government Printer. Showing the area of Battery Point bound by Montpelier Retreat, Hampden Road, and Knopwood (Grant) and James (St James) streets. The approximate extent of the subject site is indicated in red. North-west is up the page.  
Source: Libraries Tasmania (SD\_ILS:553788); reproduced with permission.

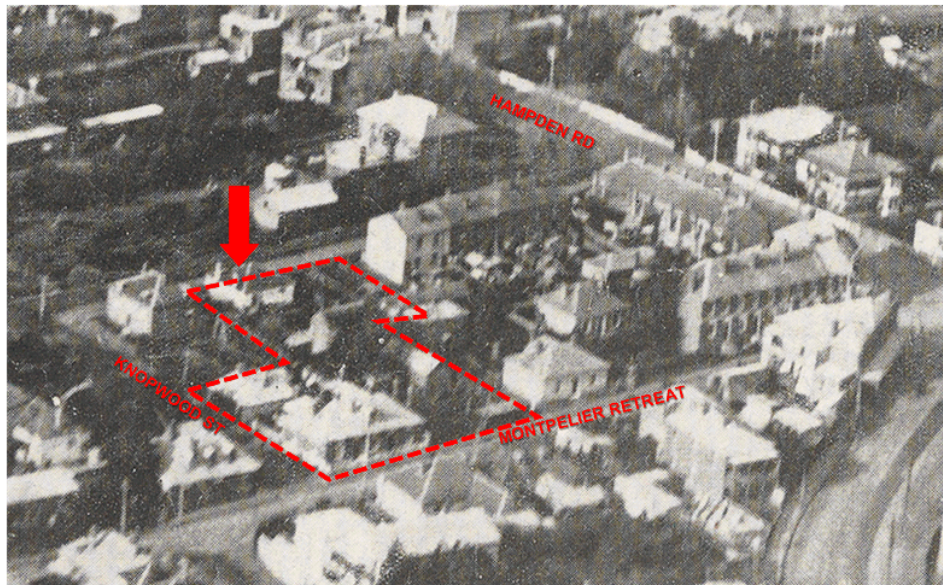


Figure 9 Extract of the photograph Aerial views of Hobart: This picture shows Battery Point and Sandy Bay, two of Hobart's attractive residential suburbs, c.1921, by H.J. King (photographer) from Captain F. Huxley's aeroplane (pilot). The former cottage at 7 James Street is indicated by the red arrow. South-west is up the page.  
Source: *The Weekly Courier*, 21 July 1921, p. 23 (Libraries Tasmania (SD\_ILS:1010593)); reproduced with permission.





Figure 10 Looking north, showing Montpelier Retreat Hotel, corner James Street (now Knopwood Street), c.1920, unknown photographer.  
Former view of the Montpelier Retreat streetscape, immediately north of the subject site.  
Source: Mercury Historical Collection, Tasmanian Archives, Libraries Tasmania (NS4023/1/201); reproduced with permission.



Figure 11 Former cottage, 1 Knopwood Street, Battery Point, c.1856; demolished c.1957-c.1977.  
A once typical working class residence within this part of Battery Point. Note the construction to street edge with no landscaped front setback.  
Source: Thomas E. Burns Collection, Tasmanian Archives, Libraries Tasmania (LPIC1/3/54); reproduced with permission.



Figure 12 'Irwin Place', 105-111 Hampden Road, Battery Point, undated; unknown photographer.  
A view of the terrace at the corner of Hampden Road and James Street, prior to its rendering in the late twentieth century. The gardens of 'Narryna' are visible in the background. Compare with Figure 23 of the building today.  
Source: Queen Victoria Museum and Art Gallery Collection (QVM:1991:P:3194)

### 3.2.2 Physical context

#### Battery Point precinct (BP1)

The *Battery Point* precinct (hereafter referred to as the heritage precinct) is a large and historically diverse residential precinct of Georgian and Victorian-era working and middle class housing, with an historic high street possessing a combination of residential and commercial and hotel buildings; with isolated examples of former commercial and hotel buildings located at prominent intersections throughout the heritage precinct. Bound by the River Derwent and major arterial road Sandy Bay Road to the east and west respectively, and collector road Quayle Street to the south, its west boundary is partially defined by the collector road Montpelier Retreat. The northern boundary is defined by individual property boundaries along the cliff-top of Battery Point, above Salamanca Place. Hampden Road is the primary thoroughfare of the heritage precinct, off which a hierarchy of streets and narrow lanes extend throughout the heritage precinct.

The earliest phases of development within the heritage precinct are evident along Hampden Road and the street hierarchy extending off this towards Salamanca Place. Hampden Road is defined by a variety of late Georgian and early Victorian buildings constructed for early Hobart's middle classes that are architecturally aspirational in their pretensions, including merchant villas (refer Figure 13) townhouses (refer Figure 14 and Figure 15), terraces (refer Figure 12 and Figure 22) and hotels (refer Figure 17, Figure 18, Figure 19 and Figure 20), interspersed with late-Victorian commercial buildings and middle class villas and terraces (refer Figure 21) from the latter part of the nineteenth century. Off Hampden Road, the typology is primarily residential, comprising early detached and conjoined cottages and terraces, on confined lots with varying setbacks from the street edge.

Extending north-east to south-west, Montpelier Retreat is a primary road bordering the heritage precinct, off which a series of minor streets (James and Knopwood streets) provide an alternative route to Hampden Road. Subsequently, James and Knopwood streets are narrow with constrained view lines, that are enforced by buildings constructed to boundary with narrow front setbacks within the respective streetscapes. Some houses in these streetscapes, since demolished, possessed no front setback and were constructed to the street edge (refer Figure 11). This built character is enforced by the boundary wall of 'Narryna' which extends the majority of the eastern side of James Street, the gutter of the street immediately abutting the wall (refer Figure 23, Figure 24 and Figure 25).

James Street maintains its historic two-storey built form as a result of mid and late-twentieth century infill development of sympathetic scale with landscaped setbacks. Development at the east end of Knopwood Street in the mid-twentieth century (Interwar and post-war housing) also incorporates these contributory characteristics; however, the remainder of that streetscape, extending into Montpelier Retreat, is defined by unsympathetic late-twentieth century multi-storey development, uncharacteristic hard paved setbacks and off street carparking along the front property boundary (refer Figure 23 and Figure 25). At the southern end of Montpelier Retreat, at Hampden Road, the integrity of the historic two-storey streetscape is maintained in the form of the 1850s terrace 'Portsea Place' at 54-60 Montpelier Retreat, supplemented by early twentieth century buildings of complementary scale and detail.

Fencing in the heritage precinct typically comprises low-set, visually permeable timber and metal fences. Early fences are primarily timber picket/dowel in a variety of styles. Early examples of metal fences, like the palisade fence of 'Narryna', also exist. Later examples of metal fences are associated with Interwar and post-war development. Depending on streetscape topography, some fences are constructed atop masonry retaining walls (typically sandstone and/or brick). Fencing associated with later post-war development, while incorporating design and construction representative of their period, maintain the characteristics of the heritage precinct (i.e. low set and visually permeable). Within the vicinity of the subject site, existing fencing is concentrated to properties in Hampden Road and the north-east end of Knopwood Street. Within the immediate vicinity of the site, Knopwood Street possesses examples of late twentieth century fencing, including modern aluminium pool fence atop 19<sup>th</sup> and late 20<sup>th</sup> century retaining walls (at 7 Knopwood Street) and modern timber slat with timber capping rail at 5 Knopwood Street (Figure 25).





Figure 13 'Narryna', 103 Hampden Road, Battery Point, c.1835-40; looking north-west from Hampden Road. Note the façade articulation as a series of vertical bays utilising stone pilasters. The terrace in the background is 13-21 James Street.  
Source: Sam Nichols, 2021



Figure 14 'Anstruther House', 5 Hampden Road, Battery Point, c.1859; looking north-east from Hampden Road. Note the façade articulation utilising curved bays creating a vertical emphasis, while the painted stone string course creates a horizontal emphasis to offset the curved vertical bays.  
Source: Sam Nichols, 2021

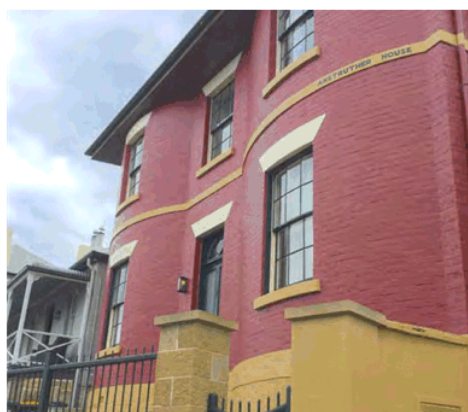


Figure 15 'Anstruther House', 5 Hampden Road, Battery Point, c.1859. Looking north-west from Hampden Road. A detail view of the façade articulation utilising curved bays and string courses.  
Source: Sam Nichols, 2021



Figure 16 Commercial terrace, 22 Francis Street, Battery Point, unknown construction date; looking south-west from the corner of Hampden Road and South Street. Note the curved corner of the building as a contextual response to its prominent street corner location and corner entry to capture passing foot traffic from the surrounding streets.  
Source: Sam Nichols, 2021

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Figure 17 Prince of Wales hotel, 55 Hampden Road, Battery Point, c.1843; looking north-east from the intersection of Hampden Road and Waterloo Crescent. Note the curved corner of the building, a contextual response to its street corner location and the bar entry to capture passing foot traffic from both Hampden Road and Kelly Street. The hotel and cottages at left of the image were demolished in 1966 for the current hotel building. Source: Queen Victoria Museum and Art Gallery Collection (QVM:1991:P:3194)



Figure 18 Prince of Wales hotel, 55 Hampden Road, Battery Point, c.1843; looking south-east from Kelly Street. Note curved corner as a contextual response that orients the façade of the hotel down Kelly Street and the approaching foot traffic from Salamanca Place via Kelly's Steps. The date 1843 is evident on the string course at the top of the curved section. Source: Queen Victoria Museum and Art Gallery Collection (QVM:1991:P:3194)



Figure 19 Duke of York hotel (former), 31 Hampden Road, Battery Point, c.1856; looking north-east from the intersection of Hampden Road and Runnymede Street. Like the old Prince of Wales (refer Figure 17), note the curved corner of the building to respond to its location and corner bar entry. The painted stone string breaks up the mass of the façade while reinforcing a horizontal emphasis to counter the vertical emphasis created by the curved corner and fenestration pattern. Source: Sam Nichols, 2021



Figure 20 Crown hotel (former), 33-35 Hampden Road, Battery Point, c.1834; looking north-west from the intersection of Hampden Road and Runnymede Street. Like the old Duke of York opposite, note the curved corner to respond to its location and corner bar entry. Like the Duke of York opposite, the façades have a strong vertical emphasis as a result of the curved bay and fenestration pattern, offset by a horizontal string course. The corner of the building has been altered.<sup>39</sup> Source: Sam Nichols, 2021

<sup>39</sup> An early sketch of the Crown Hotel c.1850, by A. Fleury, in the Tasmanian Archive and Heritage Office (PH30/1/2889), illustrates the former corner entry arrangement of the building.



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Figure 21 View of Hampden Road, Battery Point, looking south east from James Street.  
The streetscape in this part of the road is majority defined by development from the late nineteenth and early twentieth centuries.  
Source: Google Street View, 2019 (accessed online 23 September 2021)



Figure 22 View of Montpellier Retreat, looking north-east from Hampden and Sandy Bay roads, Battery Point.  
'Portsea Place', 54-60 Montpellier Retreat, at right of the image, is an early Victorian residential terrace (refer Figure 5). Note the use of sandstone stringcourses to the façade of 'Portsea Place' to break up the mass of the façade. The buildings in the foreground date from the late nineteenth to early twentieth century.  
Source: Fender Katsalidis, 2021



Figure 23 View of James Street, Battery Point, looking north-east from Hampden Road.

Note the change in hierarchy of the streetscape evident in its narrow width, constrained residential lots and small landscaped front setbacks. The entrance gates of 'Narryna', and the house itself, are visible at right of the image. 'Irwin Place' is partially visible at left of the image. The multi-storey at the end of the street is in Knopwood Street.  
Source: Fender Katsalidis, 2021



Figure 24 View of James Street, Battery Point, looking south-west from Knopwood Street.  
Note the construction of the house at 5 Knopwood Street to the boundary with James Street, while adopting a landscaped front setback to Knopwood Street. The low wall at left of the image was part of the original boundary wall of 'Narryna', now a garden wall for 7 Knopwood Street. A modern aluminium fence extends along the top of the wall for additional height.  
Source: Sam Nichols, 2021



Figure 25 View of Knopwood Street, Battery Point, looking north-west toward Montpelier Retreat.  
Note the different character at either end of the streetscape: residential foreground (east end) versus urban background (west end). The multi-storey building at right of the image is visible at the end of James Street in Figure 23. Note the variety of fencing in the streetscape, including modern timber slat to 5 Knopwood Street and the aluminium pool fence atop a masonry retaining wall to the front 7 Knopwood Street.  
Source: Fender Katsalidis, 2021



### 3.3 The subject site at 1 Knopwood Street, Battery Point

The subject site comprises a former light industrial site on the south-east corner of Montpelier Retreat and Knopwood Street, Battery Point. The north and west boundaries are bordered by Knopwood Street and Montpelier Retreat respectively; the east boundary is bordered by James Street. A gravel service lane, off James Street, partially extends along the south boundary. The topography of the site falls from south-east to north-west, from James Street down to Montpelier Retreat.

Buildings and structures on the site comprise a c.1977 single-storey commercial building and single-storey warehouse. A hardstand area with gravel infill extends across the majority of the site, not otherwise occupied by the footprint of the existing buildings. The hardstand areas are accessed via crossovers to Montpelier Retreat and Knopwood and James streets.

The site is contained by wire security fencing and gates along the respective street boundaries, and a low paling fence along the boundary with the service lane.



Figure 26 Panorama of the subject site, viewed from the elevated parking deck on the opposite side of the street at 35 Montpelier Retreat, looking north-east. The commercial building is in the foreground and warehouse in the background. The multi-storey building at left of the image is that visible in Figure 23 and Figure 25.  
Source: Sam Nichols, 2021



Figure 27 View of the subject site from the corner of Montpelier Retreat and Kirksway Place; looking south-east.  
Source: Sam Nichols, 2021

Figure 28 View of the subject site from James Street; looking north-west. The gravel service lane is visible at left of the image.  
Source: Sam Nichols, 2021

## 4. Proposal

### 4.1 Proposed works

The proposal comprises the following works:

#### 1. Demolition

- a. Removal of all existing buildings, structures and vegetation on the subject site; and
- b. Site excavation for two basement levels.

#### 2. New works

Construction of a residential apartment development, comprising:

- a. Two levels of basement carparking and service areas
- b. A six-storey apartment building
- c. A seven-storey apartment building
- d. Incorporation of an internal pedestrian laneway, extending north-east to south-west, off Knopwood Street between the two apartment buildings; and
- e. External hard and soft landscaped areas to the internal laneway, respective street frontages; and balconies and terraces.

### 4.2 Design rationale

#### 1. Five storey apartment building

The five-storey building addressing James Street, comprises:

- a. A three-storey masonry podium, with sub-basement residential level (four storeys total), comprising:
  - i. Adoption of a contemporary built form and traditional material palette as a response to the significance of the heritage precinct while avoiding contrive to the historical development of James Street specifically and the heritage precinct generally
  - ii. Articulation of the podium as a series of five narrow vertical built forms, varying in height from one to three-storeys, in reference to the narrow re-subdivision pattern that is representative of the early settlement pattern of James and Knopwood streets specifically and this part of the heritage precinct generally (refer section 2.1.1 (Statement of Significance) and Figure 29)
  - iii. Adoption of simple rectilinear built forms to minimise visual bulk and excessive height within the streetscape
  - iv. Adoption of a regular fenestration pattern of full height vertical openings referencing adjacent nineteenth century terrace and detached housing in the streetscape specifically and the prevailing character of the heritage precinct generally
  - v. Concealment of balconies behind brickwork walls (with openings forming part of the fenestration pattern) or recessed between vertical brickwork built forms to minimise visual prominence
  - vi. A material palette comprising:
    - Singular use of brickwork in elements readily visible in the streetscape in response to the prevailing brickwork construction of nineteenth century housing within the immediate vicinity of the subject site, including terrace housing in James Street, detached housing in Knopwood Street; and terraces in Hampden Road ('Irwin Place'; refer Figure 12) and Montpelier Retreat ('Portsea Place'; refer Figure 22)
    - Incorporation of soldier course brickwork details as a series of stringcourses to assist articulation and break up the mass of the façade, per historic details within the immediate vicinity of the subject site and the heritage place generally (refer Figure 14, Figure 19 and Figure 22); and
    - Use of fluted precast concrete in recessed façade elements to emphasise the majority brickwork construction of the façade specifically and streetscape generally
    - General adoption of fine grain external detailing, finishes and materials that possess the ability to patina, therefore contributing rather than contrasting with the existing integrity and homogenous historic character of the

- immediate vicinity specifically and the heritage precinct generally (refer section 2.1.1 (Statement of Significance)).
- vii. Low-height (max. 1.2m height), including:
    - Incorporation of plinth as a method of response to street topography and conceal retaining walls below street level
    - Construction of plinth from sandstone as the prevailing material in this type of detail (refer section 3.2.2 (Physical context))
    - Use of metal blades as a contemporary design response to the traditional timber picket/dowel fences of the heritage precinct; and
    - Overall design enabling a visually permeable built form to the landscaped front setback of the subject site, per the prevailing character of the immediate vicinity specifically and the heritage precinct generally.
  - b. A single-storey glazed upper-level (above podium level), comprising:
    - i. Simplified rectilinear built form to emphasise visual recessiveness and minimise visibility in the immediate streetscapes and overall townscape of the heritage precinct (refer 2.1.1 (Historic Heritage Code) and Figure 30)
    - ii. Continuous setback to the perimeter of the storey to emphasise the visual recessiveness of the built form
    - iii. Setback of wall planes behind the line of the roof fascia to create shadow and emphasise lightness of structure, minimising visual bulk and encouraging visual recessiveness
    - iv. Incorporation of majority glazed construction to wall planes to emphasise lightness of construction, contributing to the minimisation of visual bulk
    - v. Incorporation of solid brass cladding to fascia details to facilitate patina and further contribute to the visual recessiveness of this part of the proposal as a whole.



Figure 29 View of the proposed James Street building, from the corner of James and Knopwood streets; looking south-west. Note the break-up of the façade massing, emphasising the traditional subdivision pattern of the streetscape, utilising alternating built forms and brick string courses. The consistent fenestration pattern is also informed by the prevailing character of the streetscape. Where balconies exist, these are between the vertical brick elements of the façade and recessed. The front fence is a contemporary interpretation of the prevailing timber picket/dowel fences with sandstone plinths/retain walls of the heritage precinct. Source: Fender Katsalidis, 2021





Figure 30 View of the proposed James Street building, looking north-west.

An additional view of the façade noting its massing, emphasising the traditional subdivision pattern of the streetscape, utilising alternating built forms and brick string courses.

The design response to the concealment of balconies is more readily evident.

Note the simplified built form and recessed glazing to minimise the visual prominence of this part of the building.

Source: Fender Katsalidis, 2021



Figure 31 View of the proposed James Street building, from the corner of James and Hampden Road, looking north-east.

Note the existing undulating built form of the streetscape and the proposed buildings interpretation of this prevailing character. The building at left in the foreground is 'Irwin Place' (refer Figure 12) and the terrace immediately behind 13-21 James Street (refer Figure 23).

Source: Fender Katsalidis, 2021



**2. Seven storey apartment building**

The seven-storey building, addressing Montpelier Retreat and Knopwood Street, comprises:

- a. A four-storey masonry podium, comprising:
  - i. Adoption of a contemporary built form and traditional material palette as a response to the significance of the heritage precinct while avoiding contrive to the historical development of Montpelier Retreat and Knopwood Street specifically and the heritage precinct generally
  - ii. Articulation of the podium as a series of three built forms, varying in height from two to four-storeys, in reference to the narrow re-subdivision pattern that is representative of the early settlement pattern of Montpelier Retreat and James Street specifically and this part of the heritage precinct generally (refer section 2.1.1 (Statement of Significance) and Figure 32)
  - iii. Adoption of a regular fenestration pattern of full height vertical openings referencing adjacent nineteenth century terrace housing in the streetscape specifically and the prevailing character of the heritage precinct generally
  - iv. Concealment of balconies behind brickwork balustrades or recessed between vertical brickwork built forms (refer Figure 32)
  - v. Adoption of simple rectilinear built forms incorporating curved edges as a design response to the prevailing historic character of higher density buildings in the heritage precinct located on prominent corners, such as hotels and commercial buildings, incorporating curved corners to respond to multiple street frontages (refer Figure 33 and section 3.2.2 (Physical context))
  - vi. Incorporation of large arched entry as a reference to the traditional arched fan-lit entries of residences in the heritage precinct, while assisting with façade articulation and way finding (refer Figure 34); and
  - vii. A material palette comprising:
    - Singular use of brickwork in elements readily visible in the streetscape in response to the prevailing brickwork construction of nineteenth century housing within the immediate vicinity of the subject site, including terrace housing in James Street, detached housing in Knopwood Street; and terraces in Hampden Road ('Irwin Place'; refer Figure 12) and Montpelier Retreat ('Portsea Place'; refer Figure 22)
    - Incorporation of soldier course brickwork details as a series of stringcourses to assist articulation and break up the mass of the façade, per historic details within the immediate vicinity of the subject site and the heritage place generally (refer Figure 14, Figure 19 and Figure 22); and
    - General adoption of fine grain external detailing, finishes and materials that possess the ability to patina, therefore contributing rather than contrasting with the existing integrity and homogenous historic character of the immediate vicinity specifically and the heritage precinct generally (refer section 2.1.1 (Statement of Significance)).
- b. A three-storey glazed upper-level (above podium level), comprising:
  - i. Simplified rectilinear built form to minimise the visual prominence of this part of the proposal in the immediate streetscapes and overall townscape of the heritage precinct (refer 2.1.1 (Historic Heritage Code) and Figure 32)
  - ii. Incorporation of expressed and inset wall planes behind the line of the fascia line to create shadow and emphasise lightness of structure, minimising visual bulk and reducing visual prominence
  - iii. Incorporation of majority glazed construction to wall planes to emphasise lightness of construction, contributing to the minimisation of visual bulk
  - iv. Incorporation of solid brass cladding to fascia details to facilitate patina and further contribute to the minimisation of visual prominence in this part of the proposal as a whole.



Figure 32 View of the proposed Montpellier Street building, from the corner of Montpellier and James Street; looking south-west. Note the undulation of built forms stepping down the street as a response to the narrow subdivision pattern of this part of the streetscape in the form of terrace housing. The use of brick string courses further assists with façade articulation and the characteristics of the streetscape. Where balconies exist, these are between the vertical brick elements of the façade and recessed. Note the simplified built form of the upper levels, and incorporation of brass cladding encourage the development of patina to these upper levels; and recessed glazing to minimise the visual prominence of this part of the building. Source: Fender Katsalidis, 2021



Figure 33 Detail view of the Knopwood Street and Montpellier Retreat corner of the proposed Montpellier Retreat building. Note the curved corner as a response to the built character of the heritage precinct's nineteenth century hotel and commercial buildings and the historic use of these detail as a means of orienting the building to multiple street frontages. Sources: Fender Katsalidis, 2021 (image 01); Queen Victoria Museum Collection (QVM:1991:P:3204) (image 2).





Figure 34 Detail view of the Montpellier Retreat façade of the proposed Montpellier Retreat building.

Note the undulation of the façade, with central entry flanked by curved bays, as a means of breaking up the massing of the façade. The façade is further broken up through the use of brick stringcourses. This method of breaking up the visual mass of building façades is evidenced elsewhere in the heritage precinct, specifically 'Anstruther House' constructed c.1859. The arched opening of the front entry is a reference to the arched fan-lit entries of 'Irwin Place' within the immediate vicinity of the subject site (refer Figure 23).

Sources: Sam Nichols, 2021 (image 01); Fender Katsalidis, 2021 (image 02); Queen Victoria Museum Collection (QVM:1983.P:1392) (image 3).



Figure 35 View of the proposed Montpellier Retreat building, from the corner of Knopwood and James streets, looking west.

Note the heaviness of the building base, in response to the streetscape, thereby emphasising the lightness of the upper storeys. The cottage in the foreground is 5 Knopwood Street. The James Street building is evident in the background of the cottage.

Source: Fender Katsalidis, 2021

**4.3 Existing approval (PLN-15-00971-01)**

A heritage impact statement prepared by a suitably qualified heritage consultant, assessing the proposal against the Historic Heritage Code of the Planning Scheme, was not cited as forming part of the documentation package informing the approved application.<sup>40</sup>

The existing approval for the subject site comprises the following works:

**1. Demolition and new works**

- a. Removal of all existing buildings, structures and vegetation on the subject site; and
- b. Site excavation for one basement level
- c. Construction of a residential apartment development, comprising:
  - i. One level of basement carparking and service areas
  - ii. A four-storey apartment building (inclusive of mezzanine level)
  - iii. A five-storey apartment building
  - iv. Incorporation of an internal pedestrian laneway, extending north-east to south-west, off Knopwood Street between the two apartment buildings; and
  - v. External hard and soft landscaped areas to the internal laneway, respective street frontages.

**2. Design rationale**

The approved development comprises a series of skillion and faceted gable built forms, rising from a minimum height of three-storeys (third-storey concealed in the roof space) fronting James Street to a maximum height of five-storeys at the building apex (maximum-height of the overall built form) at the corner of Montpelier Retreat and Knopwood Street.

Fronting James Street, the proposal is constructed hard to boundary, with a landscaped undercroft space at footpath level created by the cantilevering of the upper storeys. The remainder of the development is built hard to boundary in its interface with Knopwood Street and Montpelier Retreat.

The design of the built forms are informed by perspective lines taken from adjacent historic buildings, namely 'Portsea Place' at 54-60 Montpelier Retreat, where views toward the subject site from the northern end of Montpelier Retreat, near Salamanca Place, create an eave datum informed by the eave line of 'Portsea Place' (refer Figure 36). As a result, a conflict with the historic built form of Montpelier Retreat specifically and the heritage precinct generally is created. The historic built form of the heritage precinct and streetscapes immediate to the site comprise an undulation of built forms that collectively step down in height in line with the topography of the streetscape. In comparison, the approved design steps upwards against the natural and built topography of the heritage precinct. Equally, the historic re-subdivision pattern of narrow lots, that constitute part of the significance of the heritage precinct, are not readily interpretable in the façade articulation of the approved development, further contributing to conflict with the existing context (refer Figure 37).

The material palette of the proposal is informed by traditional Japanese architecture, including exposed aggregate masonry and timber screens incorporating the technique of Shou-sugi-ban or 'the burning of Japanese cypress – sugi'.<sup>41</sup> The subsequent result are buildings clad with fibre-cement sheet linings over which galvanised-steel frames supporting charred-timber lattice screens are hung. The use of dark grey corrugated sheet metal roofing is an assumed design response to the charred-timber facades of the approved development. As a result, the material palette presents as singularly consistent aesthetic as an individual development, however, that is at odds with built character of the immediate historic context of the heritage precinct specifically, which is overwhelming face brick.

All considered, the proposal is not considered an appropriate design to the context that has been informed by the significance of the heritage precinct. It is representative of a non-site specific design that could be constructed on alternative site, beyond the curtilage of the heritage precinct, with a similar degree of architectural response to context.

<sup>40</sup> Loveday, 2015, pp. 3-4.

<sup>41</sup> Circa Morris-Nunn, *Elliott's Apartments: An Architectural Report to Accompany the DA Proposal*, 2015, p. 12.





Figure 36 View of the approved Montpellier Retreat building, from the corner of Montpellier Retreat and Kirksway Place; looking south-west. Note the prominent built form and its reference to the perspective lines of 'Portsea Place' in the background. The visual prominence of the approved building is exacerbated by the lack of break-up of built form and conflicting material palette that is at odds with the prevailing character of the streetscape specifically and the heritage precinct generally. Compare this with the same view and proposed building at Figure 38  
Source: Circa Morris-Nunn, 2015



Figure 37 View of the approved Montpellier Retreat building, from the corner of Montpellier Retreat and Hampden Road; looking north-east. Note the conflict of built form of the approval with the prevailing character of the streetscape, the latter defined by undulating built forms that step down the street in accordance with the natural topography of the street. The sheer built form and conflicting material palette of the approved building exacerbates the visually prominent rather than visually recessive nature of the approved building in the streetscape.  
Source: Circa Morris-Nunn, 2015



Figure 38 View of the proposed Montpellier Retreat building, from the corner of Montpellier Retreat and Kirksway Place; looking south-west. Note the break-up of built form and façade articulation, reducing the visual prominence of the proposed building. The material palette in the response to the streetscape character assists in further minimising the prominence of the proposal building.  
Source: Fender Katsalidis, 2021



Figure 39 View of the proposed Montpellier Retreat building, from the corner of Montpellier Retreat and Hampden Road; looking north-east. Note the existing undulating built form of the streetscape and the proposed buildings continuation of this prevailing character. The terrace at right in the foreground is 'Portsea Place' at 54-60 Montpellier Retreat.  
Source: Fender Katsalidis, 2021

## 5. Analysis of the proposal against the Hobart Interim Planning Scheme 2015

### 5.1 Statutory framework

In assessing the heritage impact of the proposed development, relevant heritage policies to the *Hobart Interim Planning Scheme 2015* have been referenced. These policies include:

- Code E13.0 Historic Heritage Code.

In conjunction with these policies, consideration has also been given to the objectives of the *City of Hobart Local Heritage Precincts: Description, Statement of Local Historic Heritage Significance and Design Criteria / Conservation Policy* (2019). The status of this document is identified at section 2.1.1 (Hobart Interim Planning Scheme 2015) of the HIS.

### 5.2 Analysis of heritage impacts

The following section provides an analysis of the proposed development in relation to part E13.8 (Development Standards for Heritage Precincts) of the Historic Heritage Code of the Planning Scheme; refer to Table 1.

For the benefit of this analysis, the heritage precinct is BP1 (*Battery Point* precinct).

Table 1. Assessable performance outcomes for development of local heritage precincts as set out at part E13.8 (Development Standards for Heritage Precincts) of the Hobart Interim Planning Scheme 2015

Performance criteria	Acceptable outcomes	Proposal response(s)
<b>Part E.13.8.1 Demolition</b>		
<b>Objective</b>		
To ensure that demolition in whole or in part of buildings or works within a heritage precinct does not result in the loss of historic cultural heritage values unless there are exceptional circumstances.		
<b>P1</b> Demolition must not result in the loss of any of the following: (a) buildings or works that contribute to the historic cultural heritage significance of the precinct; (b) fabric or landscape elements, including plants, trees, fences, paths, outbuildings and other items that contribute to the historic cultural heritage significance of the precinct; unless all of the following apply: (i) there are, environmental, social, economic or safety reasons of greater value to the community than the historic cultural heritage values of the place; (ii) there are no prudent or feasible alternatives; (iii) opportunity is created for a replacement building that will be more complementary to the heritage values of the precinct.	No acceptable solution is prescribed.	The subject site is identified as non-contributory on map HOB-C6.2.1.1 (Heritage Precinct – Map) in Council's Conservation Policy for the heritage precinct.  The Conservation Policy identifies demolition of non-contributory elements as acceptable.  Refer section 2.2.1 (Property grading) of the HIS.



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**Part E.13.8.2 Buildings and Works other than Demolition****Objective**

To ensure that development undertaken within a heritage precinct is sympathetic to the character of the precinct.

<b>P1</b> Design and siting of buildings and works must not result in detriment to the historic cultural heritage significance of the precinct, as listed in Table E.13.2.	No acceptable solution is prescribed.	<p>The design and siting of the proposal is not considered of detriment to the significance of the heritage precinct.</p> <p>The proposal adopts individual design responses to the respective streetscapes it fronts, demonstrating a considered response to the immediate vicinity specifically and the heritage precinct generally. Consequently, it complements and continues the architectural narrative of the heritage precinct as an area of residential buildings of architectural merit, dating from the nineteenth century to post-war period. (Point 1, BP1 Statement of Historic Cultural Significance; refer section 2.1.1 (Statement of Significance))</p> <p>The proposal adopts an articulation of individual built forms of varying heights in reference to the narrow re-subdivision pattern that is representative of the early settlement pattern of Montpelier Retreat and James and Knopwood streets specifically and this part of the heritage precinct generally. (Point 2, BP1 Statement of Historic Cultural Significance; refer section 2.1.1 (Statement of Significance))</p> <p>While contemporary in its design intent so as to avoid contrive to the historical development of the heritage precinct, the incorporation of traditional materials designed to patina, including the reference of historical design features, results in a design response that is informed by and integrates with the homogeneity of the historic character of the context. (Point 3, BP1 Statement of Historic Cultural Significance; refer section 2.1.1 (Statement of Significance))</p> <p>Refer section 4.2 (Design rationale) of the HIS for detailed analysis.</p>
<b>P2</b> Design and siting of buildings and works must comply with any relevant design / criteria / conservation policy listed in Table E13.2, except if a heritage precinct of an architectural style different from that characterising the precinct.	No acceptable solution is prescribed.	<p>The performance outcome is not applicable.</p> <p>No design criteria / conservation policy is listed in Table E13.2.</p> <p>The Conservation Policy identified at section 2.1.1 of the HIS is not identified as an incorporated or referenced document to the Planning Scheme.</p>
<b>P3</b> Extensions to existing buildings must not detract from the historic cultural significance of the precinct.	No acceptable solution is prescribed.	<p>The performance outcome is not applicable.</p> <p>No existing buildings are being retained.</p> <p>Refer section 2.2.1 (Property grading) of the HIS.</p>
<b>P4</b> New front fences and gates must be sympathetic in design, (including height, form, scale and materials), and setback to the style, period and characteristics of the precinct.	New front fences and gates must accord with original design, based on photographic, archaeological or other historical evidence.	<p>The proposed fencing is considered an appropriate design response to the immediate vicinity of the subject site specifically and the heritage precinct generally.</p> <p>The fences are low in height (max. 1.2m), appropriate in scale, are visually permeable allowing landscaping to permeate the streetscape, and are characteristic of the heritage precinct metal/timber on low sandstone plinth/retaining wall whilst being representative of their period of construction.</p>



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<p><b>P5</b></p> <p>The removal of areas of landscaping between a dwelling and the street must not result in the loss of elements of landscaping that contribute to the historic cultural significance or the streetscape and character of the precinct.</p>	<p>Areas of landscaping between a dwelling and the street must be retained.</p>	<p>The performance outcome is not applicable.</p> <p>No existing landscaping is being retained.</p> <p>Refer section 2.2.1 (Property grading) of the HIS.</p>
<p><b>Part E.13.8.3 Subdivision</b></p>		
<p><b>Objective</b></p> <p>To ensure that subdivision within a heritage precinct is consistent with historic patterns of development and does not create potential for future incompatible development.</p>		
<p><b>P1</b></p> <p>Subdivision must not result in any of the following:</p> <ul style="list-style-type: none"> <li>(a) detriment to the historic cultural heritage significance of the precinct, as listed in Table E.13.2;</li> <li>(b) a pattern of subdivision unsympathetic to the historic cultural heritage significance of the precinct;</li> <li>(c) potential for a confused understanding of the development of the precinct;</li> <li>(d) an increased likelihood of future development that is incompatible with the historic cultural heritage significance of the precinct.</li> </ul>	<p>No acceptable solution is prescribed.</p>	<p>Refer section 4.2 (Design rationale) of the HIS regarding analysis relating to points (a), (b) and (c).</p> <p>Regarding point (d), the location of the subject on the periphery of the heritage precinct, and the established built character of the immediate vicinity of the subject site, is not considered conducive to an increased likelihood of development incompatible with the significance of the heritage precinct.</p>
<p><b>P2</b></p> <p>Subdivision must comply with any relevant design criteria/conservation policy listed in Table E.13.2.</p>	<p>No acceptable solution is prescribed.</p>	<p>The performance outcome is not applicable.</p> <p>No design criteria / conservation policy is listed in Table E.13.2.</p> <p>The Conservation Policy identified at section 2.1.1 of the HIS is not identified as an incorporated or referenced document to the Planning Scheme.</p>
<p><b>P3</b></p> <p>In Heritage Precincts SB1 (Quayle-King Street) and SB4 (Ashfield Street) residential properties must not be subdivided, other than for boundary adjustments that do not increase the development potential of lots.</p>	<p>No acceptable solution is prescribed.</p>	<p>The performance outcome is not applicable.</p> <p>The relevant heritage precinct is BP1 (<i>Battery Point</i> precinct).</p> <p>Refer section 2.1.1 (Historic Heritage Code) of the HIS.</p>
<p><b>P4</b></p> <p>Any new lot created in Heritage Precinct BP1 must not detract from the pattern of development that is characteristic of the cultural heritage significance of the precinct in the vicinity of the site.</p>	<p>In Heritage Precinct BP1 any new lot created must be:</p> <p>Subdivision must not result in any of the following:</p> <ul style="list-style-type: none"> <li>(a) not less than: <ul style="list-style-type: none"> <li>(i) 400m<sup>2</sup> for a lot with an existing dwelling;</li> <li>(ii) 300m<sup>2</sup> for a vacant lot;</li> </ul> </li> </ul>	<p>Refer section 4.2 (Design rationale) of the HIS for analysis of the proposal with regard to the pattern of development of the precinct in the immediate vicinity of the subject site.</p>

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(iii) not more  
than 500m2.**Part E.13.8.4 Buildings and Works in Heritage Precinct BP1****Objective**

To ensure that development undertaken within a heritage precinct is sympathetic to the character of the precinct.

<b>P1</b> Site area per dwelling may be less if the development does not detract from the pattern of development that is characteristic of the cultural heritage significance of the precinct in the vicinity of the site.	Site area per dwelling unit in Heritage Precinct BP1 must be not less than 350m2.	Refer section 4.2 (Design rationale) of the HIS for analysis of the proposal with regard to the pattern of development of the precinct in the immediate vicinity of the subject site.
<b>P2</b> Buildings should be close to the street frontage except where the prevailing setback on the same side of the street is substantial, in which case the setback shall conform to the general buildings line.	No acceptable solution is prescribed.	Given the existing setback variations and alignment along Knopwood Street, Montpelier Retreat and James Street, the setback/alignment of the proposal to these frontages has been considered to be consistent with the prevailing setbacks in the abovementioned streets.
<b>P3</b> The height of the development must neither be obtrusive in the streetscape nor detract from the pattern of development that is characteristic of the cultural heritage significance of the precinct in the vicinity of the site.	Building height (not including basement or attic floor space with dormer windows) must not be greater than two storeys, or one storey if most buildings on the same side of the street in the immediate vicinity are single storey.	Refer section 4.2 (Design rationale) of the HIS for analysis of the proposal with regard to the pattern of development of the precinct in the immediate vicinity of the subject site.
<b>P4</b> Where reasonable and practicable, a dwelling must substantially occupy the width of the frontage of the lot, except where the prevailing setbacks from side boundaries on the same side of the street are substantial and not so as to exclude a driveway or car parking at the side of the building.	No acceptable solution is prescribed.	<p>The site has three frontages: one to Montpelier Retreat, one to James Street and one to Knopwood Street.</p> <p>The proposal has been designed to substantially occupy each frontage of the lot and is appropriately setback from the side boundaries, aside from locations where pedestrian and vehicular access is provided.</p> <p>Given the existing setback variations and alignment along Knopwood Street, Montpelier Retreat and James Street, the setback/alignment of the proposal to these frontages has been considered to be consistent with the prevailing setbacks in the abovementioned streets.</p> <p>Refer section 4.2 (Design rationale) for additional analysis.</p>
<b>P5</b> The rear setback of the principal building must not detract from the layout pattern of development that contributes to the cultural heritage significance of the precinct and its contribution to private amenity facilitated by the 'house and garden' form of development.	Subdivision must not result in any of the following: (a) 6m for lots of up 14m in width;	Refer section 4.2 (Design rationale) of the HIS for analysis of the proposal with regard to the pattern of development of the precinct in the immediate vicinity of the subject site.

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	(b) 5m for lots greater than 14m in width.	
<p><b>P6</b></p> <p>The building must not detract from the pattern of development that is a characteristic of the cultural significance of the Precinct in the vicinity of the site.</p>	<p>A site where the principal building, excluding the basement, in part or whole is:</p> <p>(a) not more than one storey in height, or one storey comprising attic floor space with dormer windows, must have a site coverage of not more than 50%;</p> <p>(b) two or more storeys must have a site coverage of not more than 40%.</p>	<p>Refer section 4.2 (Design rationale) of the HIS for analysis of the proposal with regard to the pattern of development of the precinct in the immediate vicinity of the subject site.</p>
<p><b>P7</b></p> <p>Land directly between a dwelling and the street shall not be designed or paved or used for the manoeuvring or parking of vehicles except to gain access.</p>	<p>No acceptable solution is prescribed.</p>	<p>The performance outcome has been satisfied.</p> <p>The proposal incorporates space for the manoeuvring of vehicles on the Montpelier Retreat frontage only, in the context of gaining access to the basement car park.</p>
<p><b>P8</b></p> <p>Each lot must have not more than one crossing over the footpath per frontage and have a maximum width of 3m unless it can be demonstrated that the crossing and its width is essential and will:</p> <p>(a) not detract from the historical cultural heritage significance of the precinct;</p> <p>(b) provide a net benefit in parking quantum taking into account any loss in on-street parking required to facilitate the additional or wider access.</p>	<p>No acceptable solution is prescribed.</p>	<p>The performance outcome has been satisfied.</p> <p>The proposal incorporates one crossing over the footpath in Montpelier Retreat in the context of gaining access to the basement car park only.</p>
<p><b>P9</b></p> <p>Parking must not detract from the cultural heritage significance or the setting of existing dwellings.</p>	<p>Maximum of 1 parking space per dwelling.</p>	<p>The performance outcome has been satisfied.</p> <p>The proposal incorporates basement carparking, therefore concealing carparking from view and avoiding detracting to the cultural heritage significance and setting of existing dwellings specifically and the heritage precinct generally.</p>

## 6. Conclusion

The proposal is considered demonstrative of a minimal impact on the ascribed significance of BP1 (*Battery Point* precinct).

The extent of proposed demolition is considered of negligible impact due to the non-contributory grading of the subject site.

The considered and informed design of the proposal is evident in:

- Its design as two separate buildings, each with a specific design response to the prevailing character of their respective streetscapes, evident in the interpretation of the historical nineteenth century re-subdivision pattern in the articulation of the building facades
- The articulation of the building facades as undulating built forms to respond to the existing respective streetscape characters immediate to the subject site and the townscape generally
- The design of upper-levels as visually recessive elements through the use of simplified built forms, shadow and appropriate materials to minimise visual prominence
- Incorporation of nineteenth century design details as a fine grain design response to the heritage precinct; and
- The incorporation of a considered material palette of materials designed to patina, resulting in a design that will mature and age in place.

Overall, the proposal is considered a well-resolved, site-specific design response that responds to the qualities of the immediate vicinity of the subject site specifically and the heritage precinct generally. It is considered a vast improvement on the existing approval (PLN-15-00971-01) for the subject site.



## **7. Appendices**

HERITAGE IMPACT STATEMENT

1 KNOPWOOD STREET, BATTERY POINT

**7.1 Appendix A – City of Hobart heritage precinct datasheet (non-statutory)**

HERITAGE IMPACT STATEMENT

1 KNOPWOOD STREET, BATTERY POINT



**City of Hobart Local Heritage Precincts  
Description, Statement of Local Historic Heritage Significance and  
Design Criteria / Conservation Policy  
January 2019**

**HOB-C6.2.1.1  
Battery Point**



**DESCRIPTION****Component streets:**

Arthur Circus	Francis Street	Quayle Street
Bath Street	Hampden Road	Runnymede Street
Battery Square	James Street	Sandy Bay Road
Clarke Avenue	Logan Street	Secheron Road
Colville Street	McGregor Street	Sloane Street
Crelin Street	Marine Terrace	South Street
Cromwell Street	Mona Street	Stowell Street
De Witt Street	Napoleon Street	Trumpeter Street
Finlay Street	Newcastle Street	Waterloo Crescent

**Historical background:**

Battery Point is located on the southern shore of Sullivans Cove. The first residence outside the early town camp of the Hobart settlement was Rev Robert Knopwood's residence 'Cottage Green' that was built in 1805 on a grant of 30 acres in modern day Battery Point. Knopwood's grant plus 90 acres granted to William Sorell covered almost the entire area of Battery Point.

The area derives its name from the site of the first battery of guns and defence fortification established in Hobart by Lt-Governor David Collins in 1818. In 1824 Sorell and Knopwood's land grants were sold and subdivided, this subdivision saw a number of wealthy settlers move to Battery Point and of a series of estates were developed along Hampden Road these included; Narryna, Stowell, and Secheron. Battery Point was also home to a large working class population with many whalers, boat builders, shipyard workers, sailors, and tradesmen living in the area. By the mid-19<sup>th</sup> century Battery Point was home to a number of inns, taverns, and pubs. Establishments that operated in the area included The Prince of Wales, The Crown Hotel, The Barley Mow, The Shipwright's Arms, The Star of Tasmania Inn, and The Duke of York. Two prominent structures built in Battery Point in the 1830s included James Luckman's windmill built in 1835 that was demolished in the 1880s, and St George's Church commenced construction in 1836 with the tower added in 1847 remaining a key Hobart landmark today.

The 1970s saw Battery Point in the headlines with a battle of developers versus residents and heritage protection groups. After a high profile struggle the historic fabric of the area was largely spared from unsuitable development. With its historic cottages, large town houses, and maritime history, Battery Point is now a key tourist attraction for Hobart and a desirable inner city suburb.



James Luckman's windmill with St Georges Church in background c1850s (AOT NS1013-1-620)



Arthur's Circus with children playing c.1930s (AOT NS4023-1-197)



View of St Georges Hill from Quayle Street c.1900 (AOT NS1013-1-977)



Shipwrights Arms Hotel corner of Colville and Trumpeter Streets c.1936 (AOT PH30-1-7587)

**Precinct character and features:*****Streetscape and townscape*****Design and topography**

Battery Point has a Colonial / Early Victorian street layout, and is comprised of a few principle streets, narrow streets, and the occasional pedestrian laneway. The main road is Hampden Road and joins Sandy Bay Road with the eastern end of Battery Point curving gently downhill till its intersection with Battery Square and Princes Park. Between Kelly's Steps and Hampden Road are the narrow cottage lined streets of Kelly, South and Runnymede Streets. Arthur Circus which forms part of Runnymede Street is a village green surrounded by circular streetscape of modest single storey cottages. The streets along the waterfront generally have housing of a larger scale this includes Napoleon Street, Clarke Avenue, Marine Terrace, and Derwent Lane. Napoleon Street features the Battery Point Slipways with sections of the site remaining in use today. Trumpeter and Sloane Streets run between Colville Street and slope down to intersect with Napoleon Street, whilst St Georges Terrace runs from Sandy Bay Road and gently slopes downwards to meet with Napoleon Street on the waterfront.

**Vegetation**

Vegetated areas within the precinct include Princes Park, Henslowe Park, Arthur Circus, Napoleon Street playground, the grounds of St George's Church. Street plantings are a feature of many streets, and a number of the large houses and mansions including Narryna, Secheron, and Beaumaris retain remnants of substantial gardens.

**Views and vistas**

The western end of the precinct holds views westerly towards kunanyi/Mount Wellington. The eastern end of the precinct provides views and vistas of the River Derwent, whilst Napoleon, and Bath Street hold views over Sandy Bay and the foreshore along Marieville Esplanade.

***Built form*****Materials**

Houses are a mix of weatherboards, and brickwork, painted, stuccoed, or unpainted brickwork. There are a number of larger sandstone residences scattered throughout the precinct, with buildings also featuring rubble stone walls. Roofs are a mix of corrugated iron, tile, and slate.

**Architectural styles and scales**

Battery Point has buildings of varying scales ranging from small Georgian cottages to town houses and mansions. Architectural styles within the precinct include Colonial Georgian, Old Colonial Regency, Old Colonial Grecian, Victorian Georgian, Victorian Italianate, Victorian Rustic Gothic, Victorian Free Gothic, Victorian Domestic, Federation Queen Anne, Federation Arts and Crafts, Federation Carpenter Gothic, Inter-War Georgian Revival, Inter-War Functionalist, Inter-War Art Deco, Inter-War Old English, Inter-War Californian Bungalow, and significant Post War Architectural styles.

**Orientation**

Houses are primarily orientated towards the street and there is a high degree of consistency in some streets. Setbacks vary across the precinct depending on the period in which the building was built, subdivision patterns, street design and topography.

**Building stock**

There are several large buildings within the precinct such as 13 Newcastle Street, Beaumaris House, a two storey stucco Victorian Gothic mansion. It features a verandah with iron lace frieze, decorative mouldings and bargeboards, and truncated dormers. Secheron House at 21 Secheron Road, is a single storey Old Colonial Regency sandstone residence which features a central protruding bay, verandah with fine trellis columns, iron hipped roof and a stone service wing with parapet. Narryna located at 103 Hampden Road is a two storey brick Georgian residence with a stone facade that was constructed in 1836. Two storey pilasters define three front bays with central entry. Corona at 35 De Witt Street, is a two storey sandstone Victorian townhouse with a verandah on two sides, a bay window over two levels, and hipped roofs. There are significant groupings of Colonial and Victorian cottages in addition to modest residences from later periods which contribute to a homogenous historic character. These include but are not limited to groupings of conjoined and detached Georgian brick cottages along South Street, Kelly Street and Runnymede Street. As well as the groupings of medium scale and larger Victorian and Federation residences along Colville, Cromwell, and Napoleon Street. Other significant building stock includes original stables, pubs, inns, slipyards, churches and community buildings.

**Fencing**

Fencing is typically low traditional fencing, such as Victorian timber picket, Victorian stone and brick walling, Federation timber picket, Federation brick and stone walling, Inter-War brick and ironwork fences.



**Contributory elements**

1. Prominent chimneys
2. Unpainted brick and stone, stucco
3. Original and traditional metal and timber detailing
4. Corrugated iron roofs
5. Tiled and slate roofs
6. Traditional low picket, masonry, and metal fences that match the house
7. Dormer windows
8. Projecting gables
9. Sandstone buildings
10. Sandstone, rubble stone and brick walling
11. Buildings with a consistent setback from the front boundary
12. Small cottage-style front gardens
13. Large residences and town houses
14. Small modest cottages
15. Groupings of houses sharing similar features
16. Laneways
17. Conjoined cottages
18. Community buildings and buildings constructed for uses other than residential
19. Traditional and early 12 pane sash windows
20. Architectural details
21. Large finely detailed houses



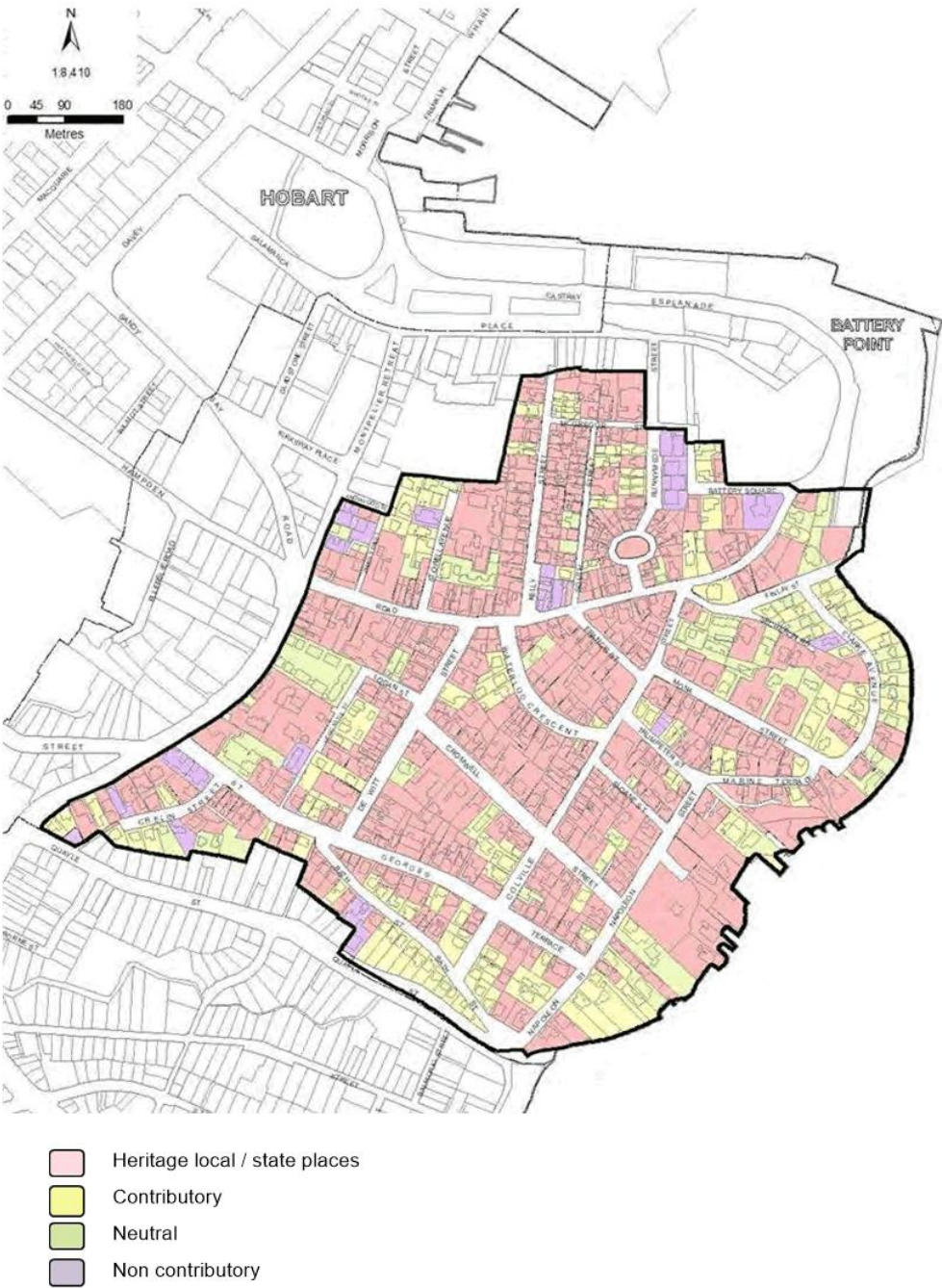
**Non contributory elements**

1. Off street parking structures that are incompatible with the scale and form of traditional buildings.
2. Large sections of hard surface parking areas in front of or adjacent to residential properties.
3. Solid and/or high fences that obscure and prevent appreciation of houses and gardens that are not traditional in scale, material and form.
4. Large buildings, such as blocks of flats that do not follow the orientation, setback, bulk, and siting of contributory buildings and infill development that does not relate to past architectural styles and are unsympathetic to the streetscape and contributory characteristics of the precinct.





HOB-C6.2.1.1 Heritage Precinct - Map



**STATEMENT OF LOCAL HISTORIC HERITAGE SIGNIFICANCE**

Significance because of the collective heritage value of individual places as a group for their streetscape or townscape values and the precinct's role in, representation of, or potential for contributing to the understanding of:

**For contributing to the understanding of local history**

- The precinct is primarily a residential area with a rich maritime history and a historical mix of large substantial homes through to smaller workers cottages, but with layers of subdivision and successive development, all with a traditional character.
- Battery Point features an unstructured street layout, and lot sizes that show successive re-subdivision into narrow lots that demonstrate early settlement patterns of the area.
- The significant and extensive collection of Colonial buildings that represent the first phases of development within the Battery Point area.

**For the representation of aesthetic characteristics**

- The original and/or significant external detailing, finishes and materials that demonstrate intact examples of architectural styles with a high degree of integrity.
- The front and rear gardens of properties, street trees, parks, and established vegetation are significant visual features that reinforce the precincts residential character.
- The foreshore views and remaining boat building industries within the precinct contribute to the understanding of the significant maritime history of Battery Point.
- The area is significant because it contains a unified group of one and two-storey buildings and has a distinctive townscape, with tight urban spaces and consistently detailed buildings forming an overall homogenous historic precinct.

**For the representation of a class of building or place**

- The wide variety of architectural styles and historic features including additions, landscape elements, and outbuildings from 19th century Colonial Georgian, Victorian, Federation, Inter-War, and Post War examples of single and attached houses and buildings that are of historic and architectural merit.
- Highly intact streetscapes that demonstrate consistent 19th century Colonial and Victorian Georgian architecture.
- A recognisable streetscape which demonstrates housing prior to mass car ownership proximity to the city. The area has a distinctive townscape with tight urban spaces and consistently detailed buildings forming an overall homogenous historic precinct.

**For the association with a particular community or cultural group for social or spiritual reasons**

- The area has social significance to the local and broader community due to the location of the former Queen Alexandra Hospital, The Battery Point Community Hall, Narryna Heritage Museum, and the Battery Point Slip Yards within the precinct.
- The area has social and spiritual significance to the local and broader community due to the location of the St George's Church and hall within the precinct.



**DESIGN CRITERIA / CONSERVATION POLICY**

1. Elements which contribute to the precinct must be retained and conserved.
2. Non-contributory elements may be removed to enhance the character of the precinct.
3. Alterations and additions are not to dominate or detract from the original building.
4. New buildings, extensions or structures must be compatible with and sympathetic to the height, bulk, setback, materials and finishes, and general character of contributory and heritage listed places.
5. New buildings and extensions to contributory and heritage listed buildings must be compatible and visually subservient when viewed from any road or public open space.
6. Fences and gates should be appropriate in form, scale, height and materials appropriate to the architecture of the main building and should match its architectural style. Styles include Federation/Victorian timber picket, Inter-War masonry, brick and ironwork fences and gates. Detailed design guidance may be found in the City of Hobart publication, New fences for old houses.
7. Alterations and additions are to respect the uniformity of properties which form part of a consistent row, semi-pair or group of buildings.
8. Established and/or significant planted garden settings, hedges, and visually prominent trees must be retained.
9. Garages, carports, and ancillary structures are to be setback from the principal facade to enable the original building form to remain unobscured and prominent within the streetscape.
10. Driveways and hard stand areas are to be located at the side of the house.
11. Unpainted and unrendered masonry and brick exterior surfaces must remain as such.
12. All sandstone construction, generally seen in walls, kerbing or other site elements shall be retained.
13. Maintain a curtilage/usable open space to provide an appropriate setting to the scale of house.
14. New development must not interrupt building patterns where a subdivision pattern has resulted in a distinctive built form.
15. Lot boundary changes should not occur in areas where the original subdivision pattern is significant and remains intact.
16. Infill development shall respond to and not obscure the topography of the area.
17. All original and early stables and outbuildings should be retained.

**References**

Archives Office of Tasmania Subject Index, AOT, Hobart.

Dennison, C. 2008, Here's Cheers: A Pictorial History of Hotels, Taverns and Inns in Hobart, Hobart City Council, Hobart.

Hobart City Council, Battery Point Heritage Review, Main Report Volume 1 & 2, September 2000.

Rowntree, A. Battery Point Today and Yesterday, Education Department Tasmanian, 1968.

**7.2 Appendix B – Register of the National Estate datasheet (non-statutory)**





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Australian Heritage Database

## Place Details

[Send Feedback](#)

### Battery Point Urban Conservation Area, Battery Point, TAS, Australia

#### Photographs



<b>List</b>	Register of the National Estate (Non-statutory archive)
<b>Class</b>	Historic
<b>Legal Status</b>	<a href="#">Registered</a> (21/10/1980)
<b>Place ID</b>	11397
<b>Place File No</b>	6/01/004/0238

#### Statement of Significance

Defined geographical unity which has ensured its preservation as a homogeneous historic precinct. Wide variety of architectural styles ranging from early 19th Colonial Georgian through to Victorian and Edwardian period preserved intact as a continuous townscape. Contains a significant number of individual buildings of great architectural and historic merit.

(The Commission is in the process of developing and/or upgrading official statements for places listed prior to 1991. The above data was mainly provided by the nominator and has not yet been revised by the Commission.)

#### Official Values Not Available

#### Description

Mostly small cottages built with a variety of materials (stone, brick and weatherboard) also larger 'stately homes'. Architectural styles range from Georgian, Victorian Edwardian. Village shopping centre and 'Arthur's Circus' provide a natural and historic focal point for the precinct.

#### History Not Available

#### Condition and Integrity

The precinct as a whole is unified and intact however the scale of the region means that there is considerable variation in the condition and integrity of individual buildings.

#### Location

About 76ha, comprising all that area of Battery Point and environs bounded by a line along the centres of Quayle Street, Sandy Bay Road, Davey Street, Murray Street, then to include the Murray Street Pier and via the foreshore to include all piers and slipways to the eastern end of Quayle Street.

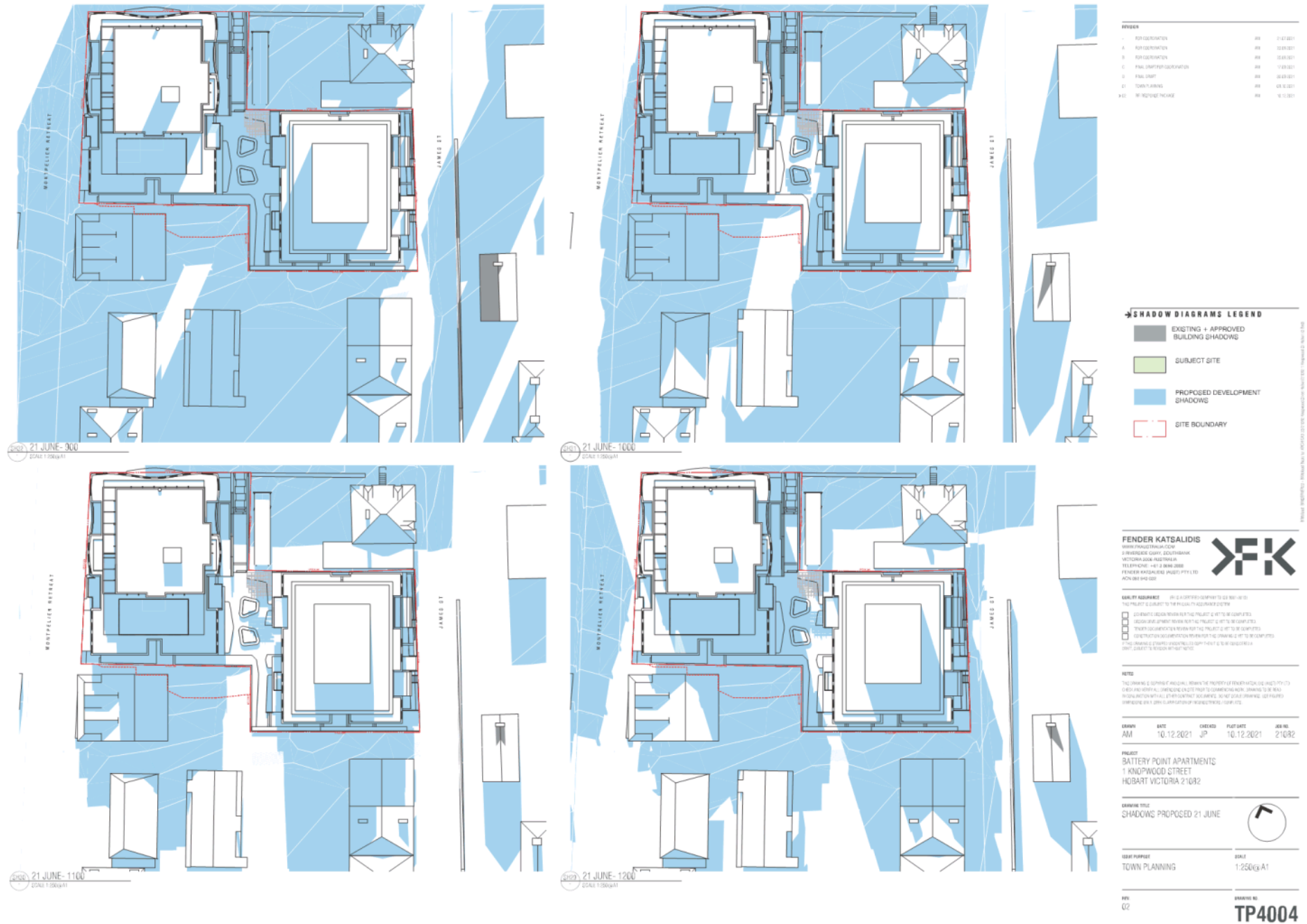
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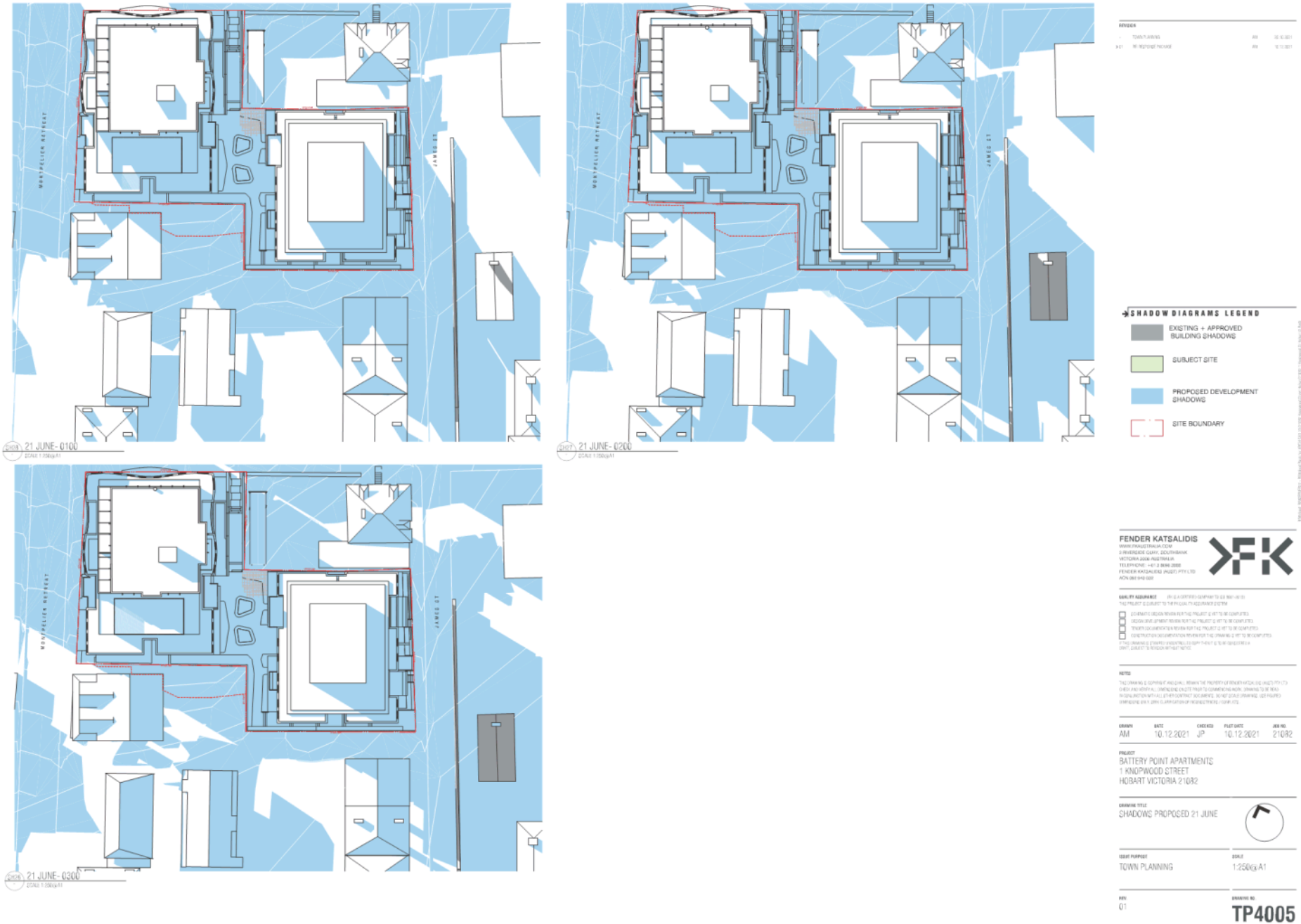
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Australian Heritage Database

MAP OF AREA: BATTERY POINT PLANNING SCHEME 1979. 'LETS TALK ABOUT BATTERY POINT' SUNDRY PHOTOGRAPHS OF A SELECTION OF PROMINENT BUILDINGS.

Report Produced Thu Sep 30 12:55:14 2021







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D DEVELOPMENT APPROVAL - RP1 RESPONSE	22/12/2021	CHECKED:	MM	CLIENT: FENDER KATSALIDIS		SCALE:	AS INDICATED	TOTAL SHEETS:	21	SIZE:	A1	
C DEVELOPMENT APPROVAL - RP1 RESPONSE	9/12/2021	DESIGN:	DE			PROJECT NO:	21E99-114	SHEET:	C001	REV:	E	
B DEVELOPMENT APPROVAL - RP1 RESPONSE	28/10/2021	CHECKED:	MM									
A DEVELOPMENT APPROVAL - CDH RP1 RESPONSE	19/02/2021	VERIFIED:	-									
REV	ISSUE	DATE	APPROVAL									





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LOCALITY PLAN  
SCALE 1:500 (A1)

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B DEVELOPMENT APPROVAL - COH RPI RESPONSE		28/10/2021	CHECKED	MM
A DEVELOPMENT APPROVAL		11/10/2021	VERIFIED	-
REV	ISSUE	DATE	APPROVAL	



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199 Macquarie Street  
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PROJECT: BATTERY POINT APARTMENTS



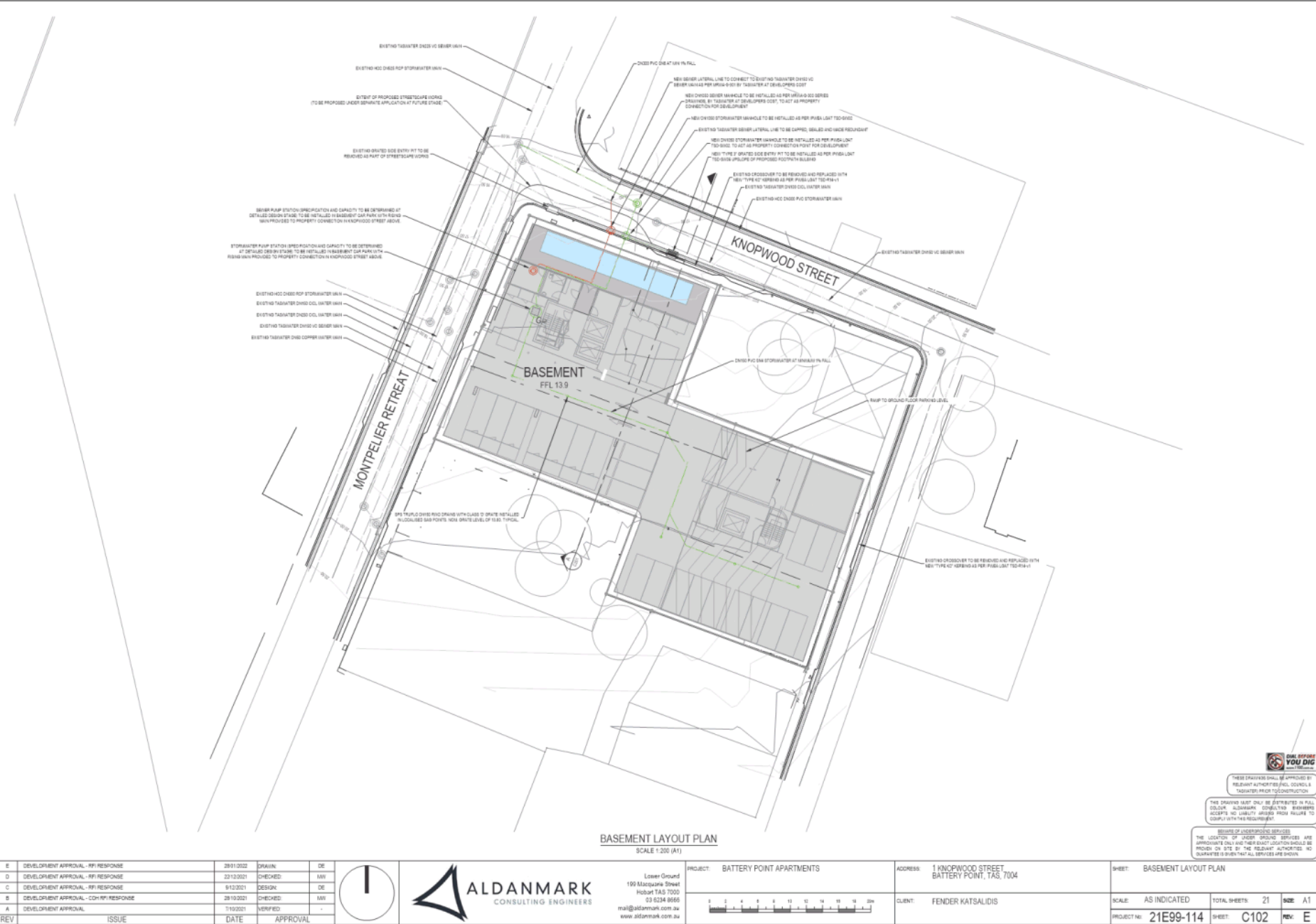
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BATTERY POINT, TAS. 7004

CLIENT: FENDER KATSALIDIS

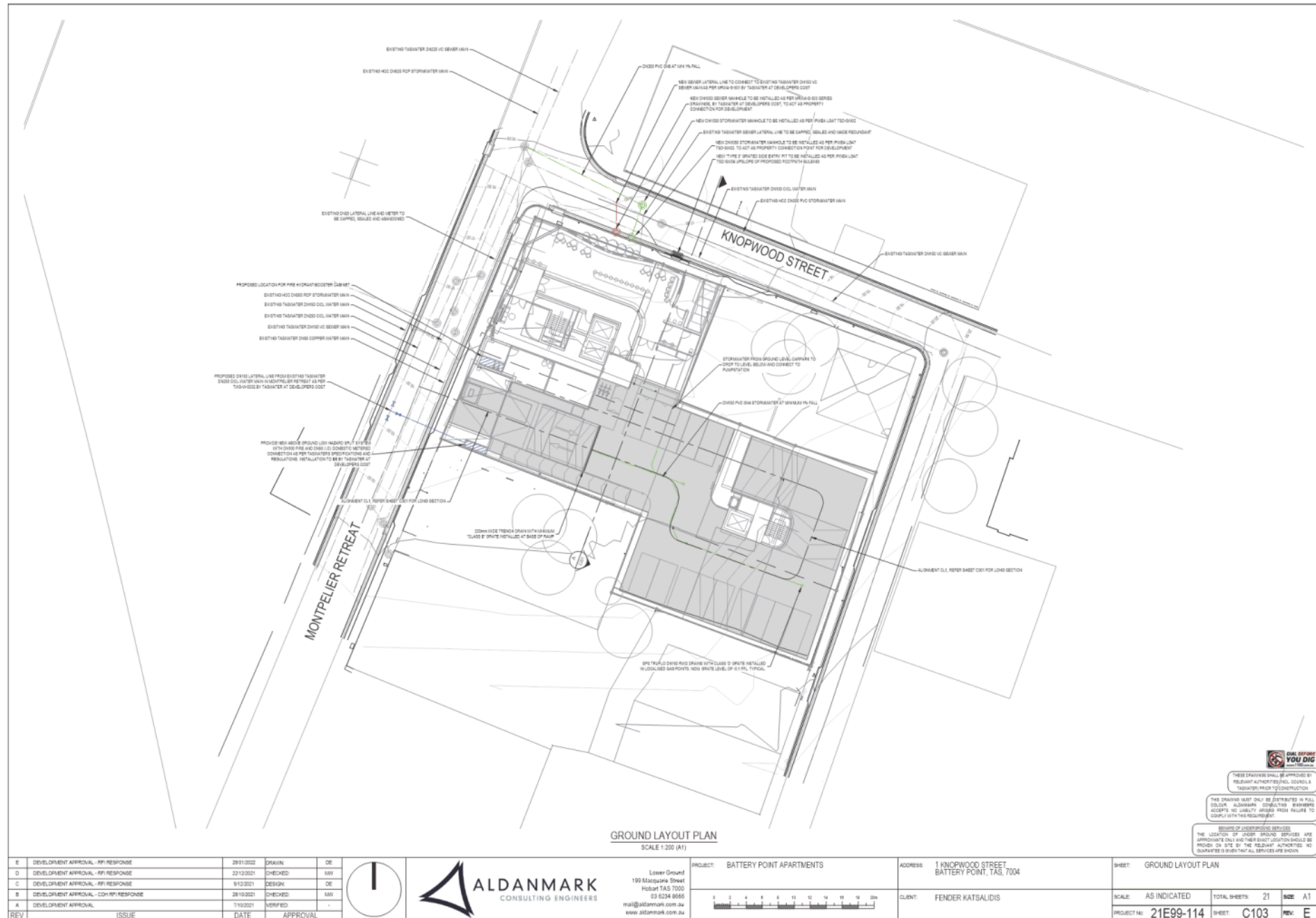
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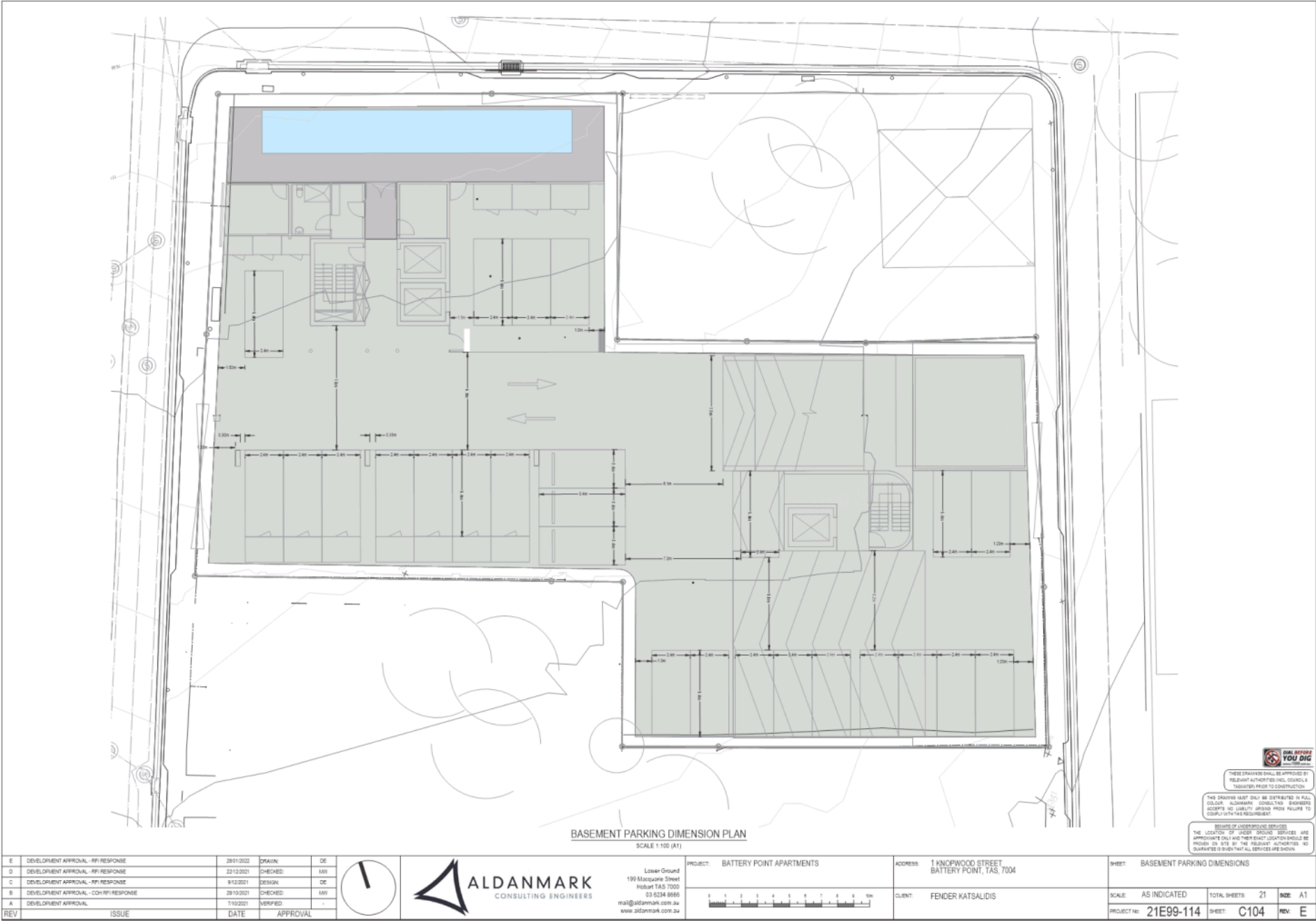
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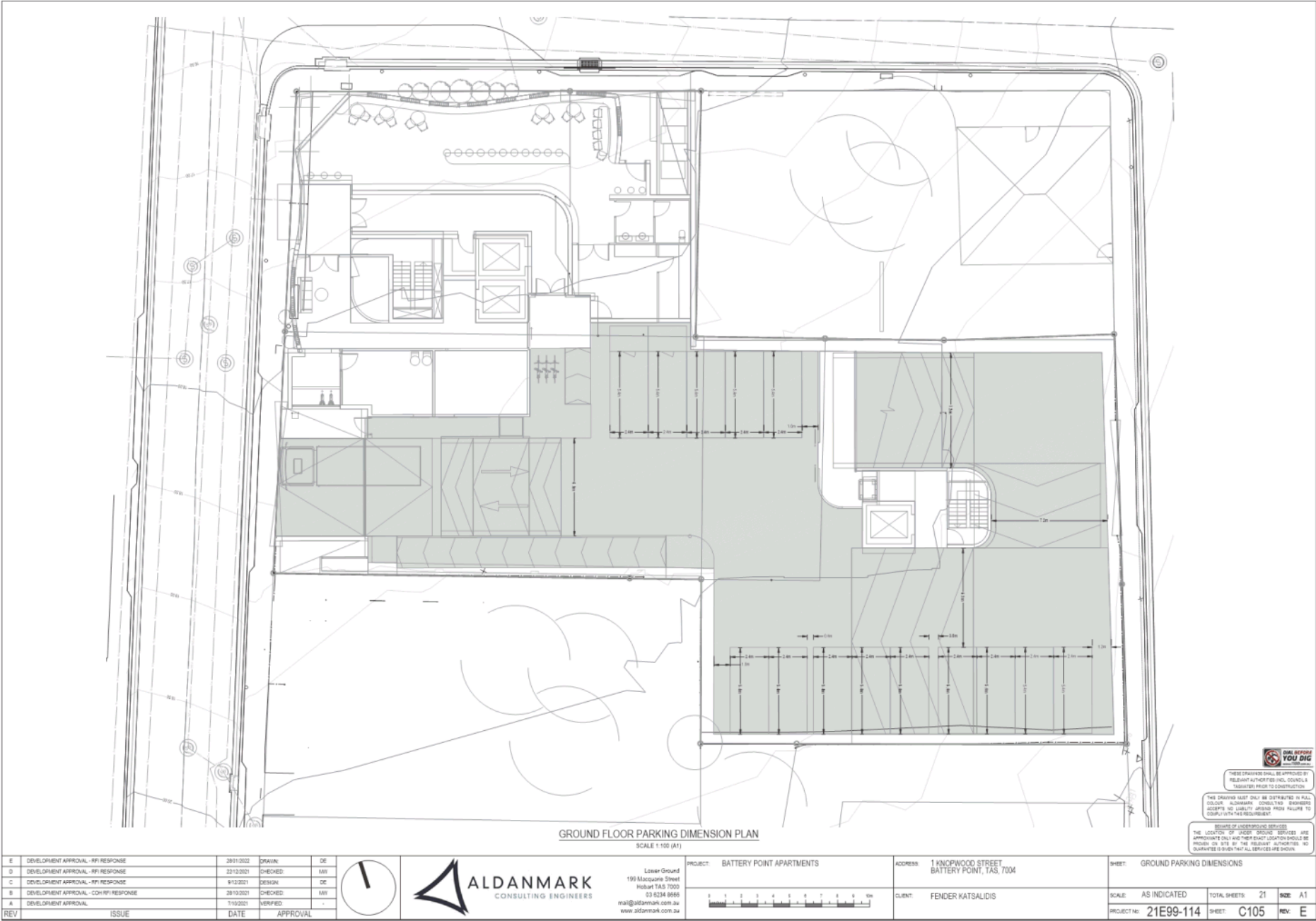
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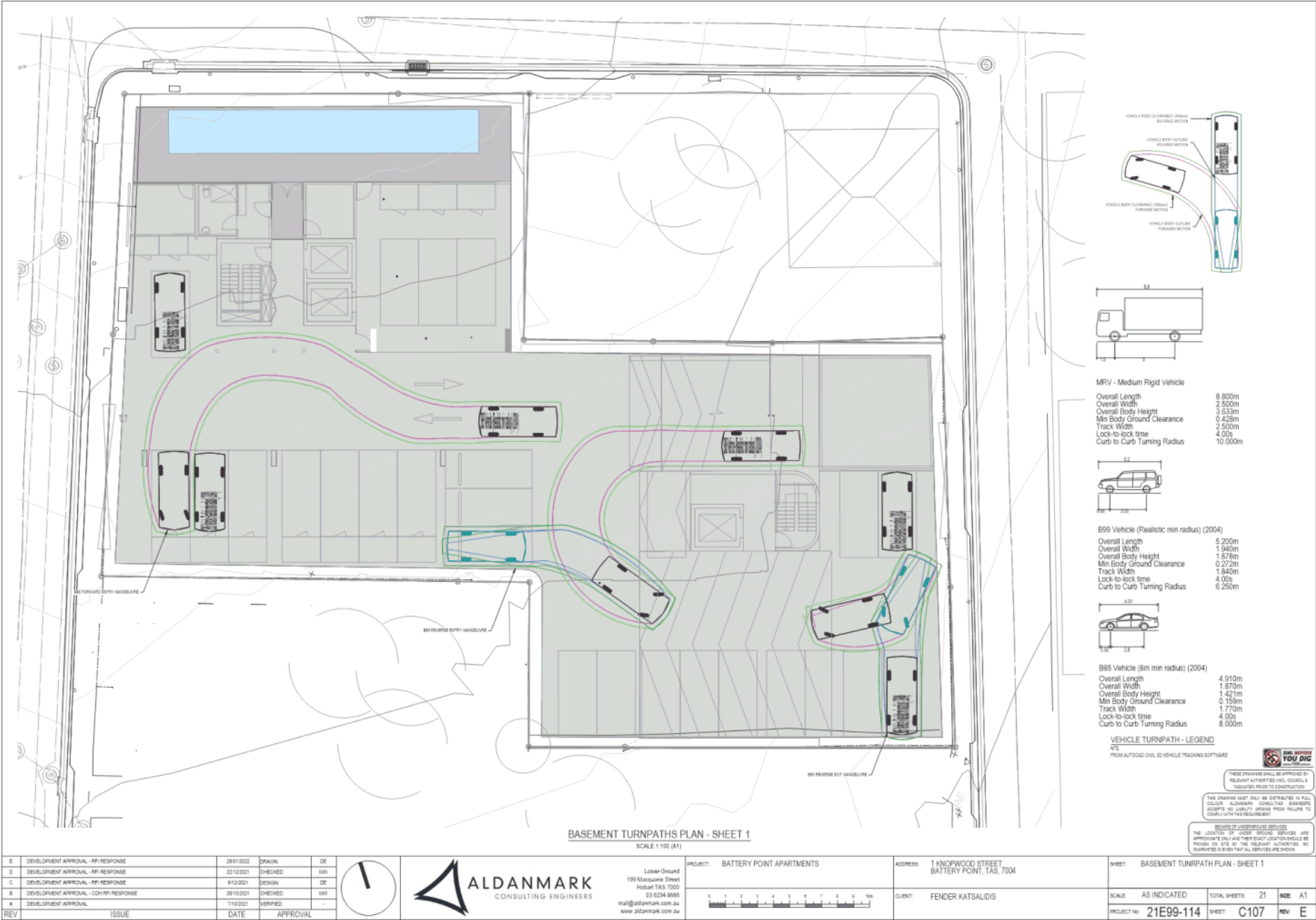
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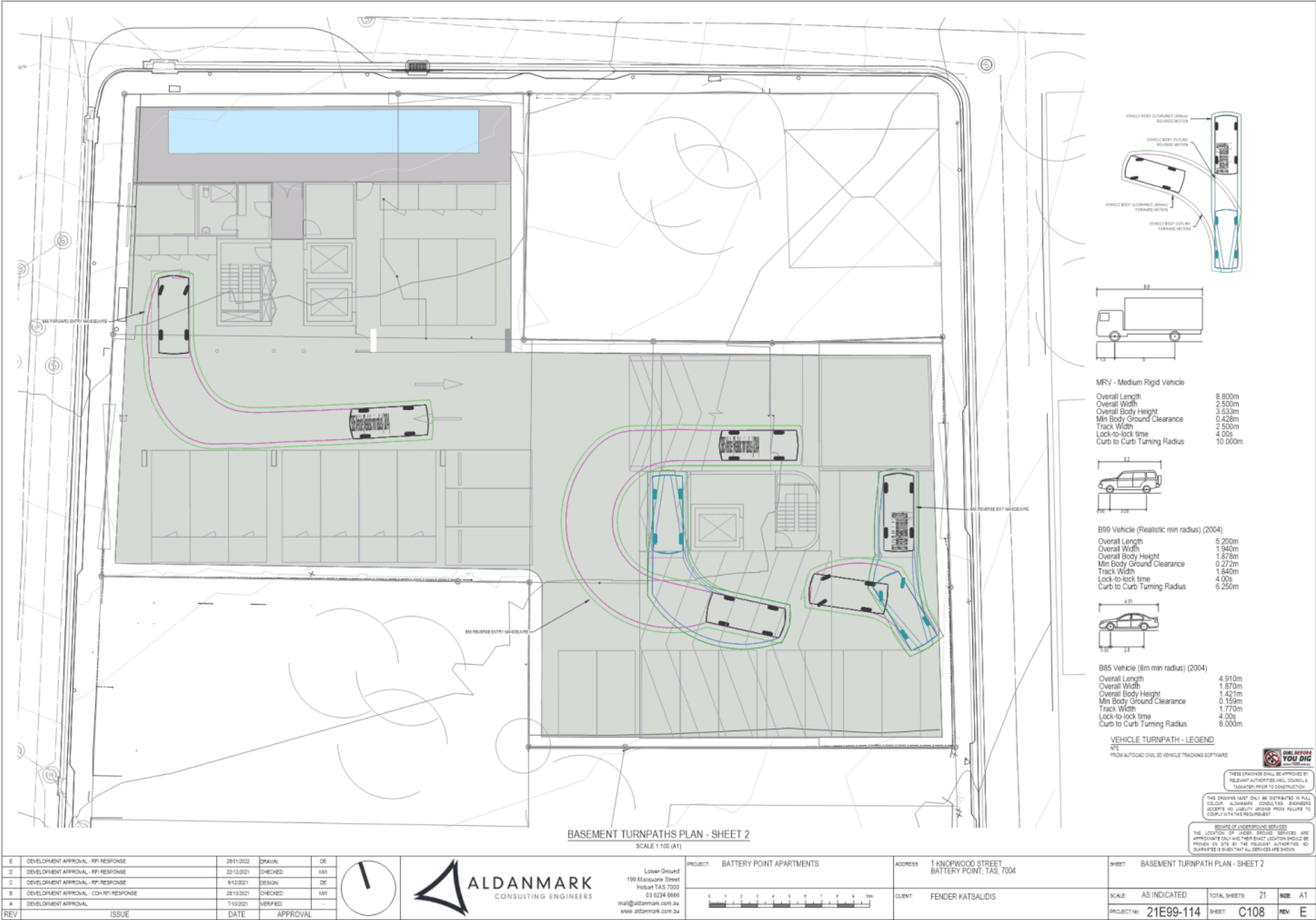
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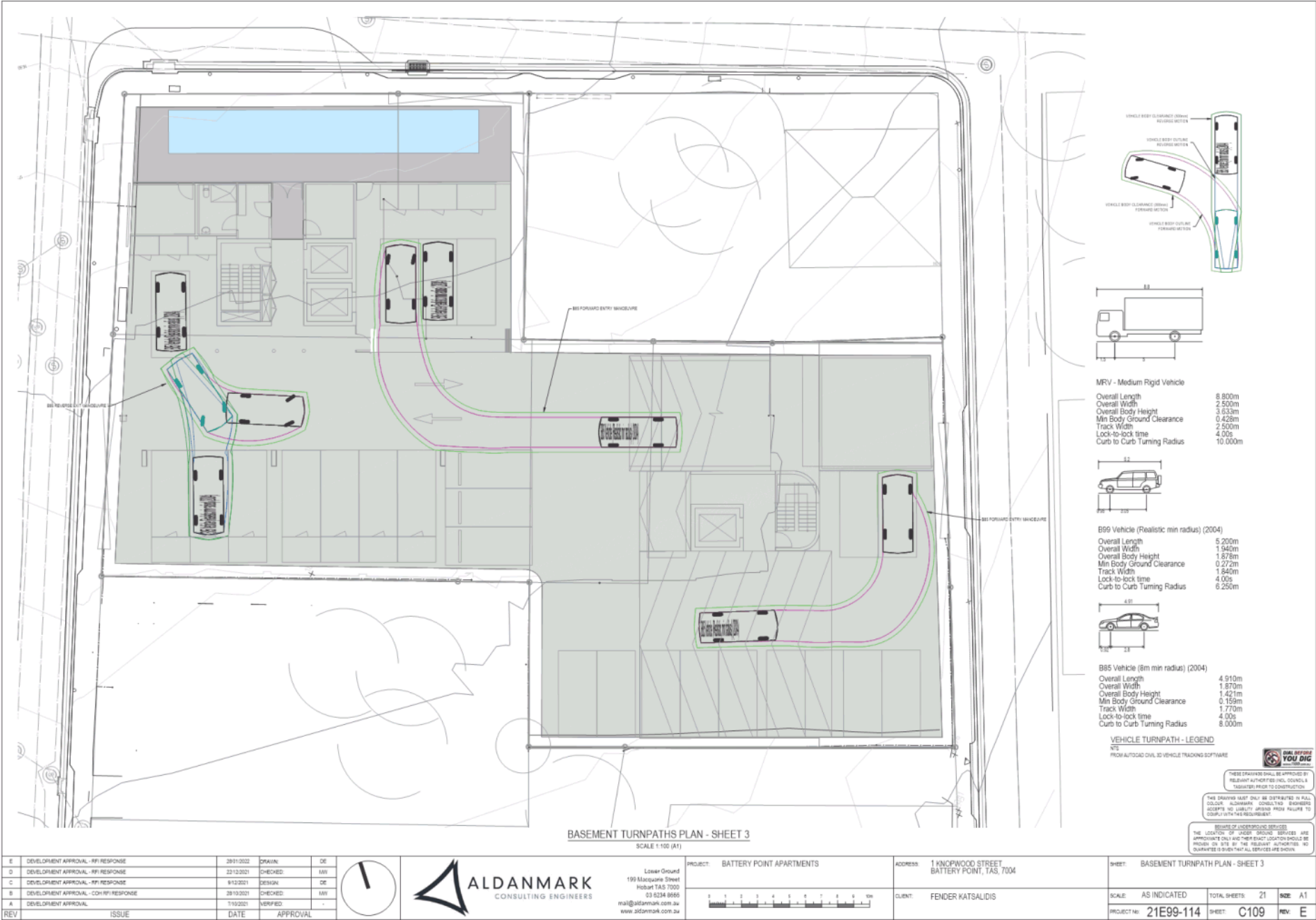
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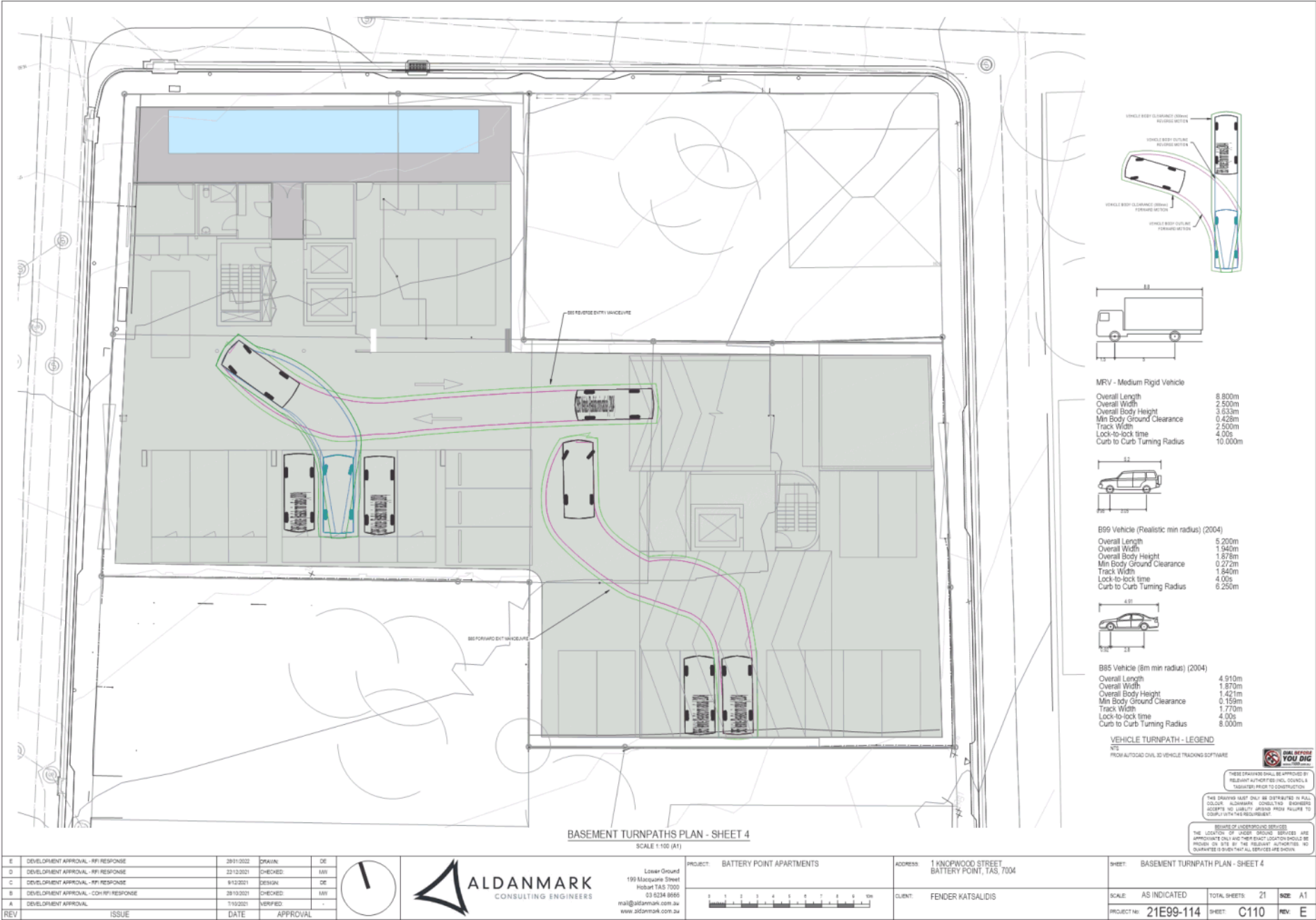
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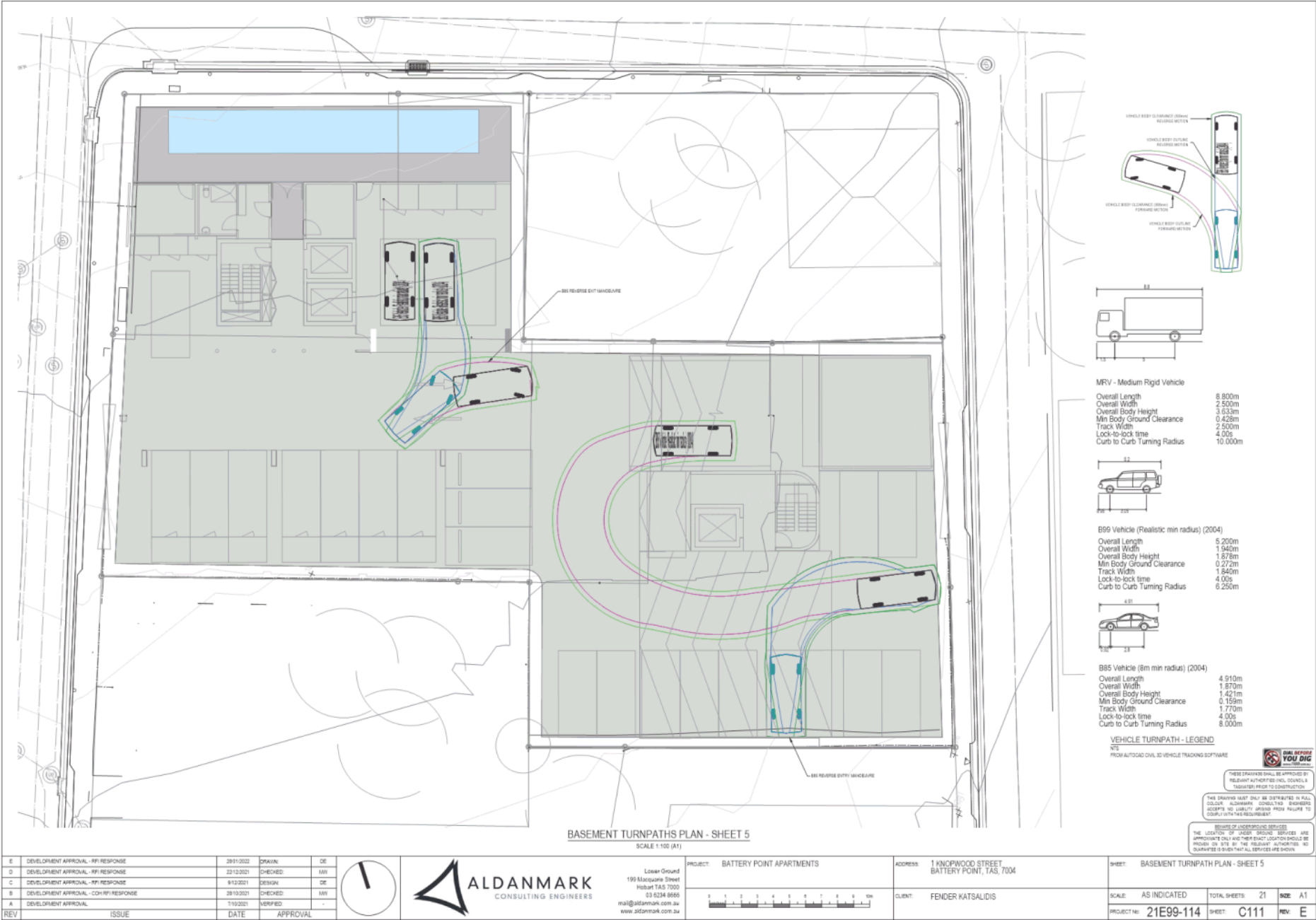


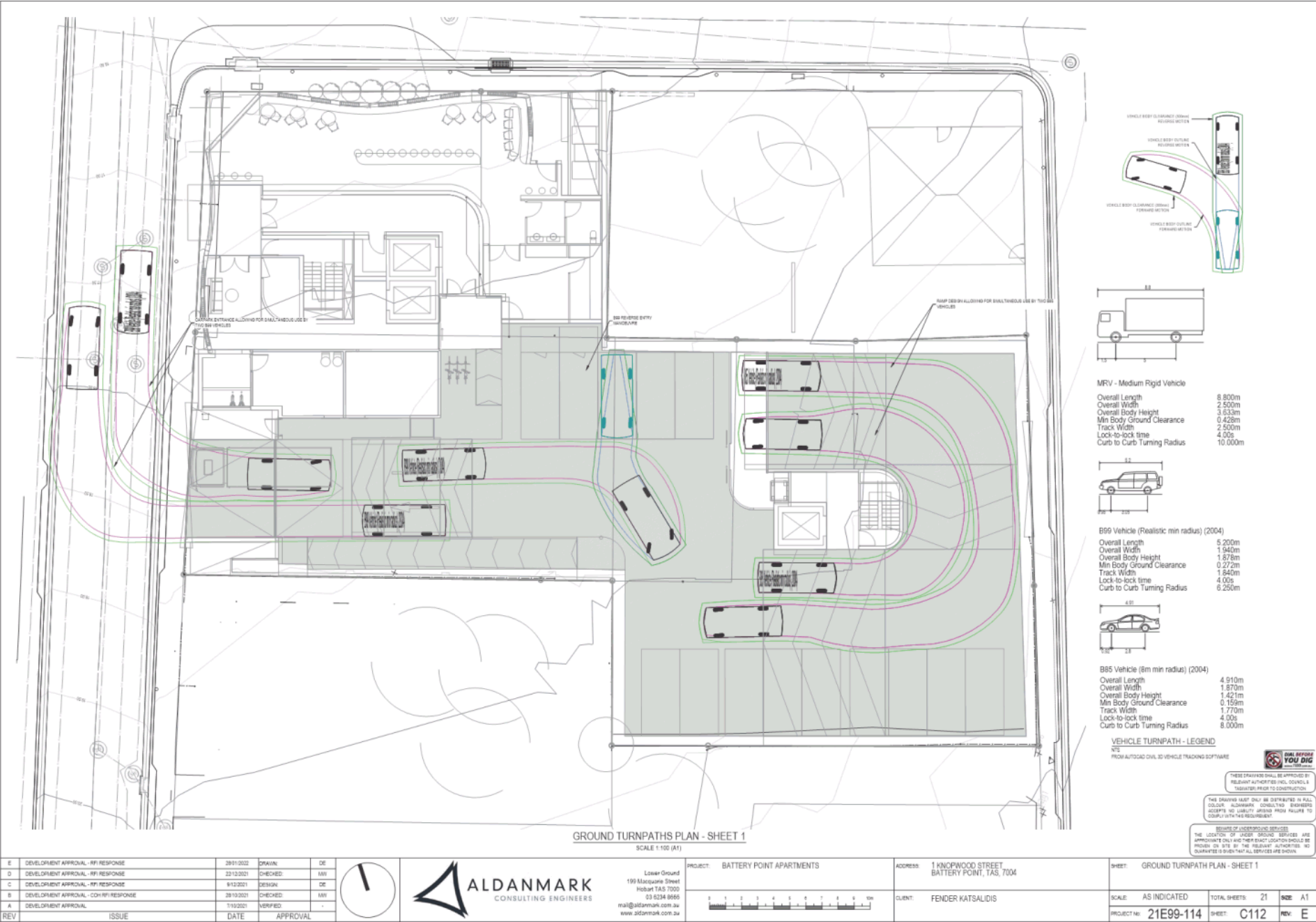


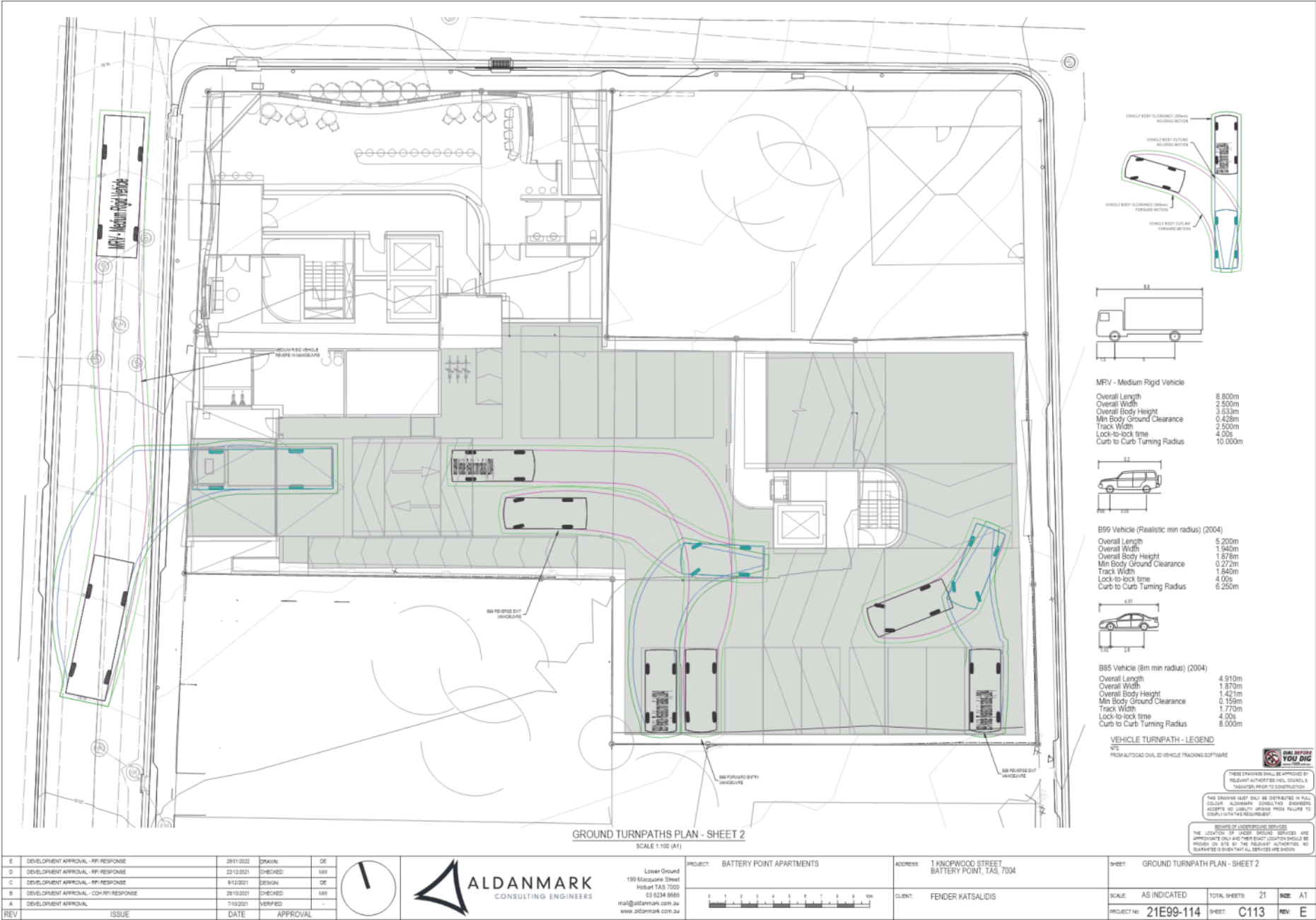


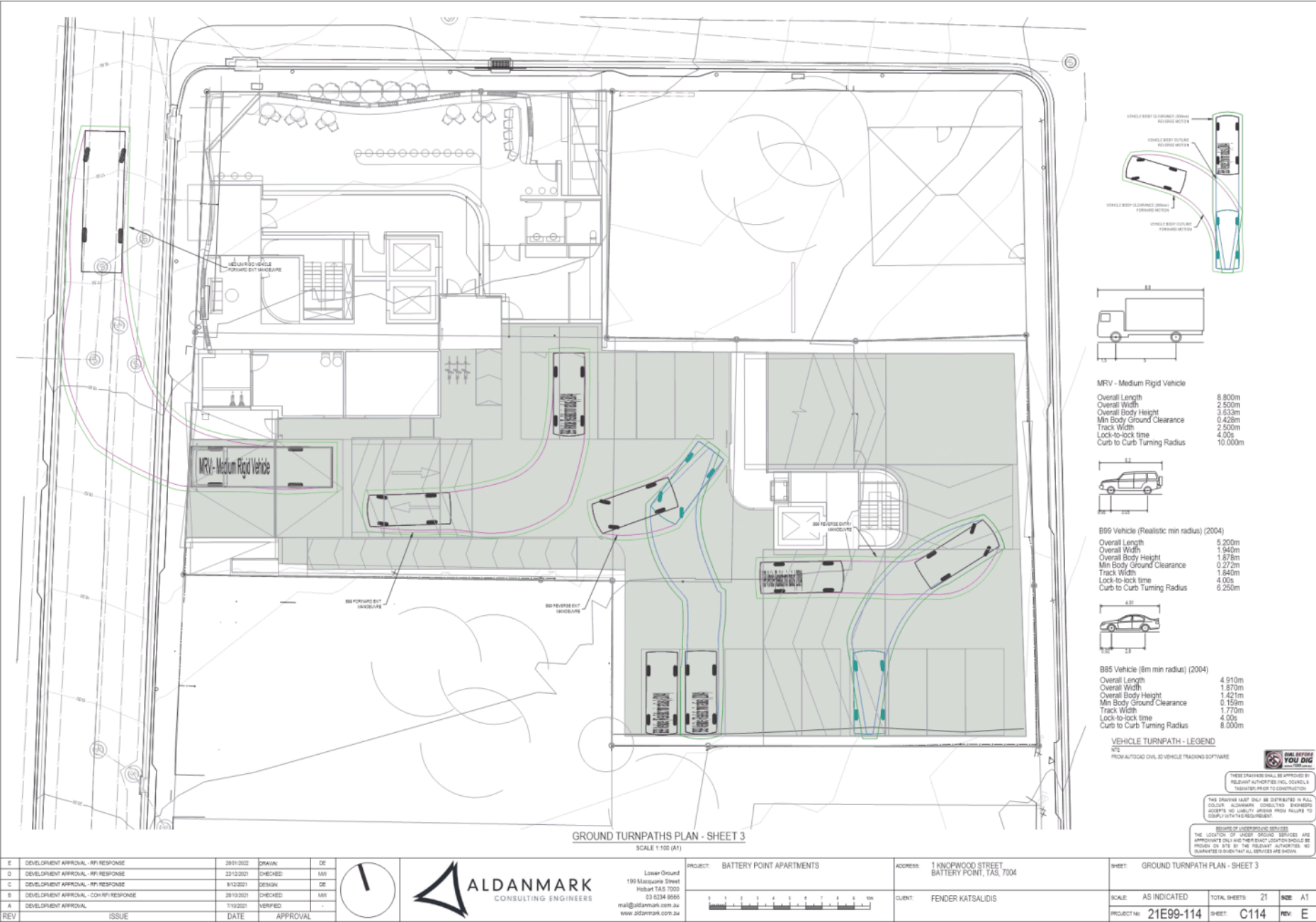




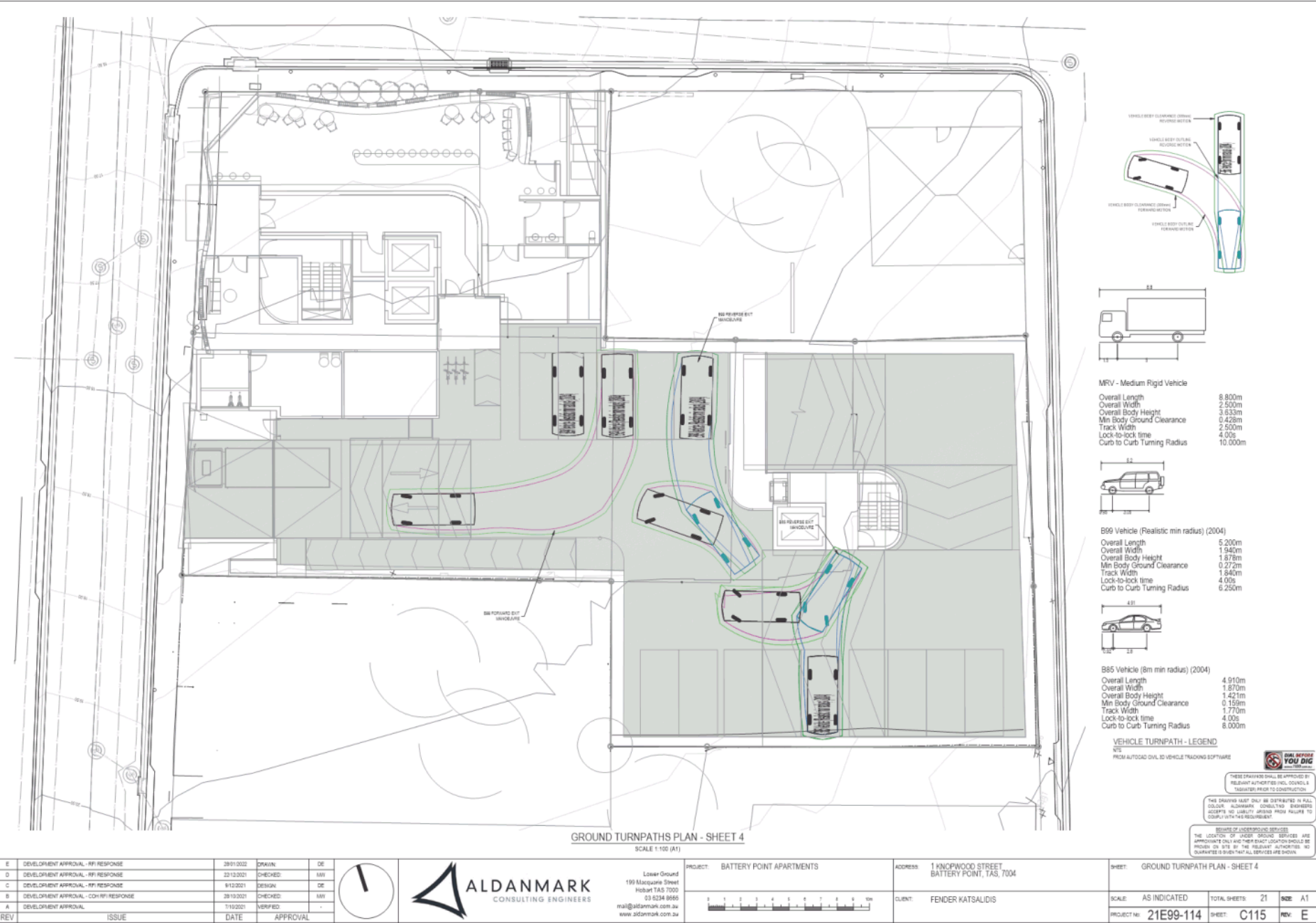


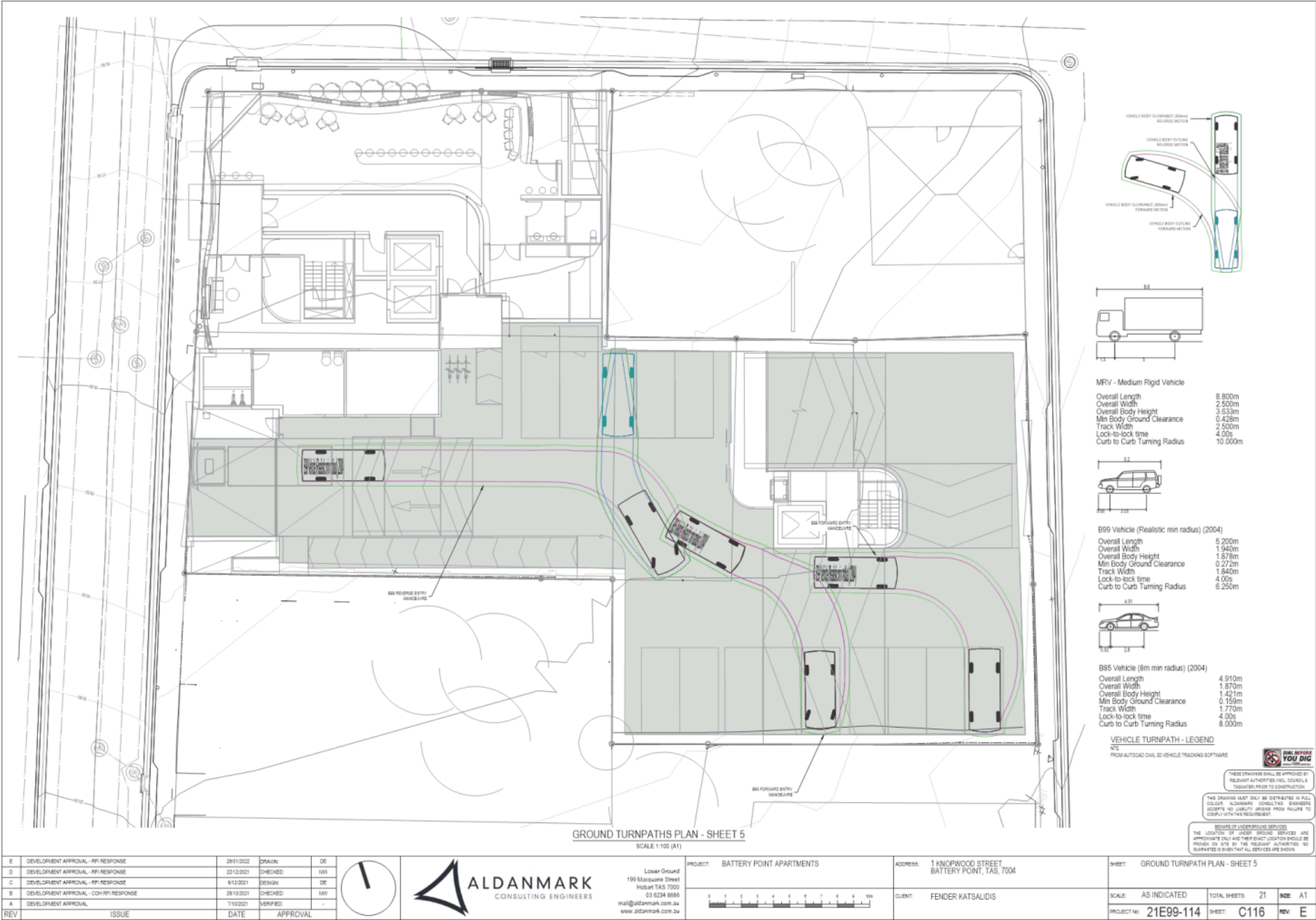


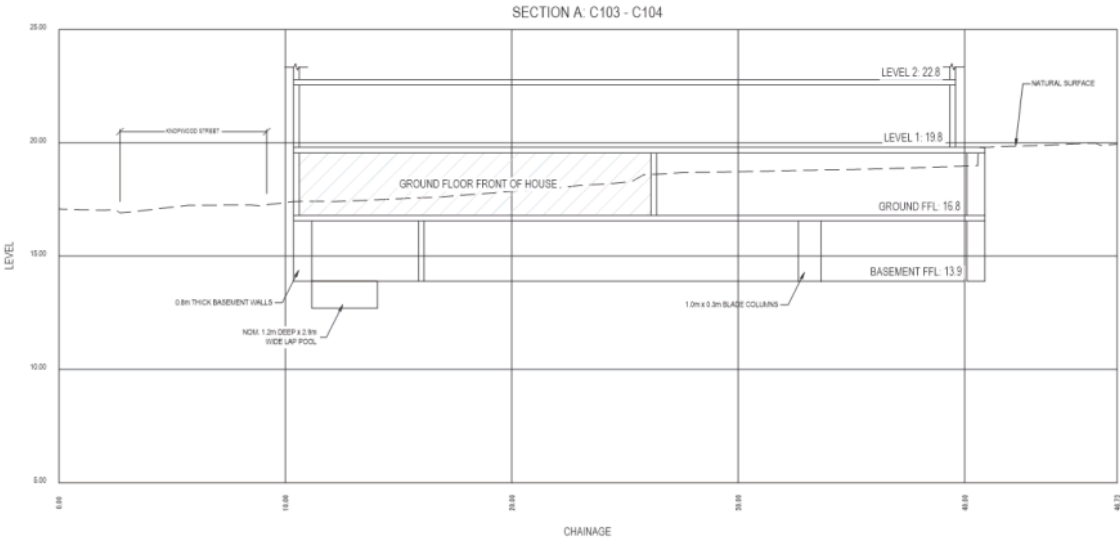












ELEVATIONS: SECTION A  
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A	DEVELOPMENT APPROVAL	11/10/2021	VERIFIED	-
REV	ISSUE	DATE	APPROVAL	



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PROJECT: BATTERY POINT APARTMENTS



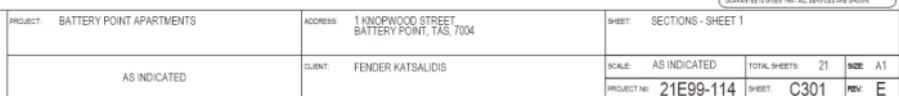
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BATTERY POINT, TAS, 7004

CLIENT: FENDER KATSALIDIS

SHEET: ELEVATIONS

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PROJECT NO: 21E99-114  
SHEET: C201  
SIZE: A1  
REV: E

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ACCEPTS NO LIABILITY ARISING FROM FAILURE TO  
COMPLY WITH THIS REQUIREMENT.  
BEFORE OF UNDERGROUND SERVICES  
THE LOCATION OF EXISTING UNDERGROUND SERVICES ARE  
APPROXIMATE ONLY AND THEIR EXACT LOCATION SHOULD BE  
PROVEN ON SITE BY THE RELEVANT AUTHORITY. NO  
GUARANTEE IS GIVEN THAT ALL SERVICES ARE SHOWN.







[illegible]

**GENERAL NOTES:**

1. THESE DRAWINGS ARE TO BE READ IN CONJUNCTION WITH THE ARCHITECTURAL, HYDRAULIC AND STRUCTURAL DRAWINGS AND SPECIFICATIONS. STANDARDS REFERENCED ARE TO BE THE LATEST CURRENT VERSION.
2. THESE DRAWINGS SHALL NOT BE USED FOR CONSTRUCTION UNLESS ENDORSED FOR CONSTRUCTION AND AUTHORIZED FOR ISSUE ACCORDINGLY.
3. ALL WORKS TO BE CARRIED OUT IN ACCORDANCE WITH PUBLISHED STANDARDS, DRAWINGS AND SPECIFICATIONS, AUSTRALIAN STANDARDS, USUAL REPAIRS CODE OF AUSTRALIA & WATER SUPPLY CODE OF AUSTRALIA AND TO THE SATISFACTION OF COUNCIL'S DEVELOPMENT ENGINEER.
4. PAVEMENT STRUCTURE DRAWINGS TO BE READ IN CONJUNCTION WITH COUNCIL EXCLUSION SHEETS TENDER/UT & TENDERS/UT.
5. ALL WORKS ARE TO BE UNDERTAKEN IN SAFE CONDITION.
6. CONTRACTOR SHALL ADVISE SITE PRIOR TO THE COMMENCEMENT OF WORKS.
7. CONTRACTOR TO OBTAIN APPROVAL, SERVICE CLEARANCES AND COORDINATE WORK WITH ALL RELEVANT AUTHORITIES PRIOR TO COMMENCEMENT.
8. A START OF WORKS NOTICE MUST BE OBTAINED FROM COUNCIL PRIOR TO ANY WORKS COMMENCING.
9. SURVEY DATA UNDERTAKEN AND PROVIDED BY PSA SURVEYORS.
10. ARCHITECTURAL, UTILITY AND SITE LAYOUT UNDERTAKEN AND PROVIDED BY FENDER KATSALIDIS.
11. FLOOR LEVELS SET BY INSTALLED DRAINAGE BASES ON THESE.

**WORKPLACE HEALTH & SAFETY NOTES:**

- BEFORE THE CONTRACTOR COMMENCES WORK THE CONTRACTOR SHALL UNDERTAKE A SITE SPECIFIC PROJECT RISK ASSESSMENT. JOB SAFETY ANALYSIS (JSA) (WHICH SHALL IDENTIFY ALL DOCUMENTED RISKS)
- THE TYPE OF WORK
  - HAZARDS AND RISKS TO HEALTH AND SAFETY
  - THE CONTROLS TO BE APPLIED IN ORDER ELIMINATE OR MINIMIZE THE RISK POSSED BY THE IDENTIFIED HAZARDS
  - THE MEASURES IN ORDER THE RISK CONTROL MEASURES ARE TO BE IMPLEMENTED

THESE ARE TO BE SUBMITTED TO THE SUPERINTENDENT AND/OR OTHER RELEVANT WORKPLACE SAFETY OFFICERS.

FOR THIS PROJECT, POSSIBLE HAZARDS INCLUDE BUT ARE NOT LIMITED TO:

- EXCAVATION OF ANY TYPE & DEPTHS
- COMPACTED SOILS
- CONSTRUCTION IN PROGRESS WITH HIGH WATER TABLE
- FELLING, LIFTING OR REMOVAL OF EXISTING TREES/VEGETATION
- UNDERGROUND STRUCTURES (MANHOLES, SLIPS, ETC)
- COMPACTED SPACES
- OVERHEAD POWER LINES
- UNDERGROUND STORAGE TANKS, WATER AND SEWER PIPES
- TELECOMMUNICATION CABLES, BOTH UNDERGROUND & OVERHEAD
- ELECTRICAL POWER CABLES - BOTH UNDERGROUND & OVERHEAD
- OVERHEAD LINES
- HAZARDOUS MATERIALS CONTAINED IN MATERIALS
- TRAFFIC UNRESTRICTED

**EARTHWORKS & DRIVEWAY NOTES:**

1. ALL EARTHWORKS SHALL BE IN ACCORDANCE WITH AUSTIN "GUIDELINES ON EARTHWORKS FOR COMMERCIAL AND RESIDENTIAL DEVELOPMENTS".
2. ALL EXCAVATION AND TRENCHES SHALL BE STRIPPED AND DRAINED IN THE AREA OF PROPOSED WORKS.
3. NEW OR MODIFIED DRIVEWAY CROSSSECTIONS SHALL BE IN ACCORDANCE WITH PUBLISHED STANDARDS DRAINED TO RISE AND MUST BE IMPROVED AND APPROVED BY COUNCIL.
4. EXCAVATED AND IMPORTED MATERIAL USED AS FILL IS TO BE APPROVED BY THE ENGINEER PRIOR TO INSTALLATION.
5. FILL MATERIAL SHALL BE WELL SPORED AND FREE OF BOLLERS OR COMBES EXPOSED TO VIEW IN DIAMETER UNLESS APPROVED OTHERWISE.
6. FILL REQUIRED TO SUPPORT DRIVEWAYS INCLUDING FILL IN SUBURBANITIES THAT SUPPORT DRIVEWAYS SHALL BE INSTALLED IN ACCORDANCE WITH THE FOLLOWING REQUIREMENTS:
  - TOP SOIL AND ORANGE WATER SHALL BE EXPOSED TO A MINIMUM OF 150MM
  - THE SUB GRADE SHALL HAVE A MINIMUM BURNED CAPACITY OF 100MM
  - FILL IN SUBURBANITIES SHALL BE KEPT TO A MINIMUM OF 100MM
  - THE FILL SHALL BE COMPACTED IN HORIZONTAL LAYERS OF NOT MORE THAN 200MM
  - EACH LAYER SHALL BE COMPACTED TO A MINIMUM DENSITY RATIO OF 90% (S.T.C.) (IT IS THE BUILDER'S RESPONSIBILITY TO ENSURE THAT THIS IS ACHIEVED)
7. WHERE THE ABOVE REQUIREMENTS CANNOT BE ACHIEVED THE ENGINEER SHALL BE CONSULTED AND THE FORMATION SHALL BE PROPOSED UNDER SUPERVISION OF THE ENGINEER TO CORRESPOND APPROVED BASE.
8. CONCRETE PAVEMENTS SHALL BE CURED FOR A MINIMUM OF 3 DAYS USING A CURRENT BEST PRACTICE METHOD.
9. DRAIN CONTROL JOINTS SHALL BE CONSTRUCTED AS SOON AS POSSIBLE WITHOUT TRAVELLING THE JOINT, GENERALLY THIS SHALL BE WITHIN 5 METRES.
10. BATTERS SHALL BE SET TO A SAFE ANGLE OF REPOSE IN ACCORDANCE WITH THE BCA VOL 2 AS INDICATED BELOW.

SOIL TYPE (* REFER BCA 324)	EMBANKMENT SLOPES H:L	
	COMPACTED FILL	CUT
STABLE ROCK (RT)	2:3	8:1
SAND (RT)	1:2	1:2
SILT (PT)	1:4	1:4
CLAY	FINES CLAY	1:2
	COARSE CLAY	1:1
SOFT SOIL (PT)	NOT SUITABLE	NOT SUITABLE
SOFT SOIL (PT)	NOT SUITABLE	NOT SUITABLE

NOTE: WHERE SITE CONDITIONS ARE UNSUITABLE FOR A BATTERED BANK CONSULT THE ENGINEER FOR A SUITABLE REPAIR. SOILS TO BE USED IN THE EMBANKMENT MUST BE STABILIZED BY VIBRO-REINFORCEMENT OF SOILS WORKS TO PREVENT SOIL EROSION.

**DRAINAGE AND SERVICES NOTES:**

1. ALL WORKS ASSOCIATED WITH PUBLIC STORMWATER INFRASTRUCTURE IS TO BE CARRIED OUT IN ACCORDANCE WITH PUBLIC UTILITY STANDARDS DRAWINGS AND SPECIFICATIONS AND TO THE SATISFACTION OF COUNCIL.
2. ALL WORKS ASSOCIATED WITH PUBLIC SEWER AND WATER IS TO BE CARRIED OUT IN ACCORDANCE WITH THE SAME PARTS 2 & 3 OF WATER AND SEWERAGE CODES OF AUSTRALIA, TABULATOR SUPPLEMENTS TO THE SAME AND TO THE SATISFACTION OF TABULATOR.
3. ALL CONNECTIONS TO EXISTING WORKS TO BE CARRIED OUT BY THE REGULATORY AUTHORITY AT COST TO BUILDER UNLESS APPROVED OTHERWISE.
4. HYDRAULIC LAYOUT TO BE COORDINATED WITH OTHER SERVICES HYDRAULIC LAYOUT AS SHOWN IN SECTION, LAYOUT TO BE COORDINATED TO SITE.
5. ALL EXISTING SERVICES TO BE LOCATED ON SITE PRIOR TO THE COMMENCEMENT OF WORKS.
6. GENERAL MATERIALS INSTALLATION TESTING SHALL COMPLY WITH AS/NZS 4580 AND THE NEW VOLUME 3 (PCH) MATERIAL ALL SUBSIDIARY DRAWINGS TO THE REQUIREMENTS OF AS/NZS 4580:2018 - VOLUME 3 AND PART TWO OF THE NEW VOLUME 3.
7. PAVEMENT AND HARDSCAPE AREAS SHALL HAVE A MINIMUM OF 1% TO 1.5% TOWARDS AN APPROVED DRAINAGE POINT.
8. ALL PIPES WORK UNDER TRAFFICABLE AREAS INCLUDING DRIVEWAYS IS TO BE PROTECTED WITH COMPACTED FILL.
9. DRAINAGE PIPES TO BE 150MM UIC CLASS B160 PIPES UNDER TRAFFICABLE AREAS TO BE 150MM UIC.
10. MINIMUM SPACES FOR PRIVATE DRAINAGE PIPES SHALL BE 150MM FOR STORMWATER AND 150MM FOR SEWER LINES.
11. MINIMUM COVER FOR PRIVATE DRAINAGE PIPES SHALL BE 150MM FOR STORMWATER AND 150MM FOR SEWER LINES.
12. TABULATOR BATTER LINES TO BE 150MM UIC CLASS B160 PIPES AND 150MM UIC CLASS B160 PIPES FOR PROPERTY CONNECTIONS.
13. STORMWATER LINES TO BE 150MM UIC CLASS B160 PIPES AND 150MM UIC CLASS B160 PIPES FOR PROPERTY CONNECTIONS.
14. WATER PIPES TO BE 150MM UIC CLASS B160 PIPES AND 150MM UIC CLASS B160 PIPES FOR PROPERTY CONNECTIONS.
15. UNDER CONNECTIONS SHALL BE PROVIDED WITH VENTILATION AND PROTECTION AS PER TABULATOR STANDARD DRAWING TSD-002.
16. ALL PIPES TO BE INSTALLED BY COUNCIL PRIOR TO BATTERY.
17. PIT DIMENSIONS SHOWN HAVE BEEN DERIVED BY PIT CAPACITY TABLES. THESE PITS MAY NEED TO BE REDESIGNED IN MINIMUM 150MM DIA. DUE TO THE DEPTH AS PER TABLE 1 AS PER TABLE 1. THE CONTRACTOR'S RESPONSIBILITY TO ENSURE COMPLIANCE TO AS/NZS 4580.

DEPTH TO INSET OF OUTLET	MINIMUM INTERNAL DIMENSIONS DIA	
	WIDTH	LENGTH
0-100	400	400
100-150	500	500
150-200	600	600
200-250	800	800
250-300	800	800



THESE DRAWINGS SHALL BE APPROVED BY RELEVANT AUTHORITIES (COUNCIL & TABULATOR) PRIOR TO CONSTRUCTION.

THIS DRAWING MUST ONLY BE DISTRIBUTED IN FULL COLOUR. ALDANMARK CONSULTING ENGINEERS ACCEPTS NO LIABILITY ARISING FROM FAILURE TO COMPLY WITH THIS REQUIREMENT.

REMARKS OF UNDERGROUND SERVICES  
THE LOCATION OF UNDERGROUND SERVICES ARE APPROXIMATE ONLY AND THEIR EXACT LOCATION SHOULD BE PROVIDED ON SITE BY THE RELEVANT AUTHORITY. NO GUARANTEE IS GIVEN THAT ALL SERVICES ARE SHOWN.

REV	ISSUE	DATE	APPROVAL
C	DEVELOPMENT APPROVAL - RFI RESPONSE	9/12/2021	DE
B	DEVELOPMENT APPROVAL - COHAR RESPONSE	28/10/2021	DE
A	DEVELOPMENT APPROVAL	7/10/2021	DE



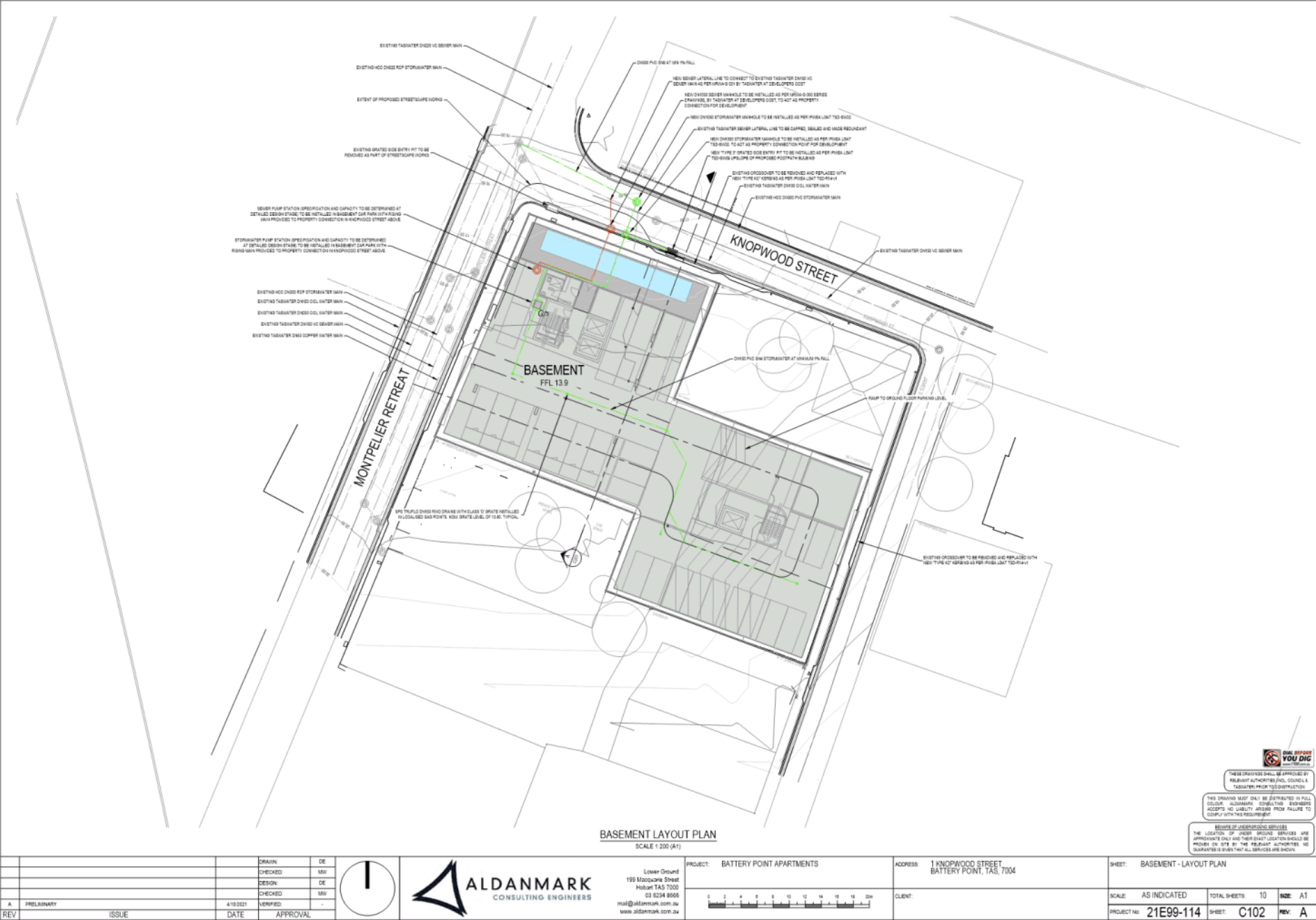
Lower Ground  
199 Macquarie Street  
Sydney NSW 2000  
03 6234 8666  
mail@aldanmark.com.au  
www.aldanmark.com.au

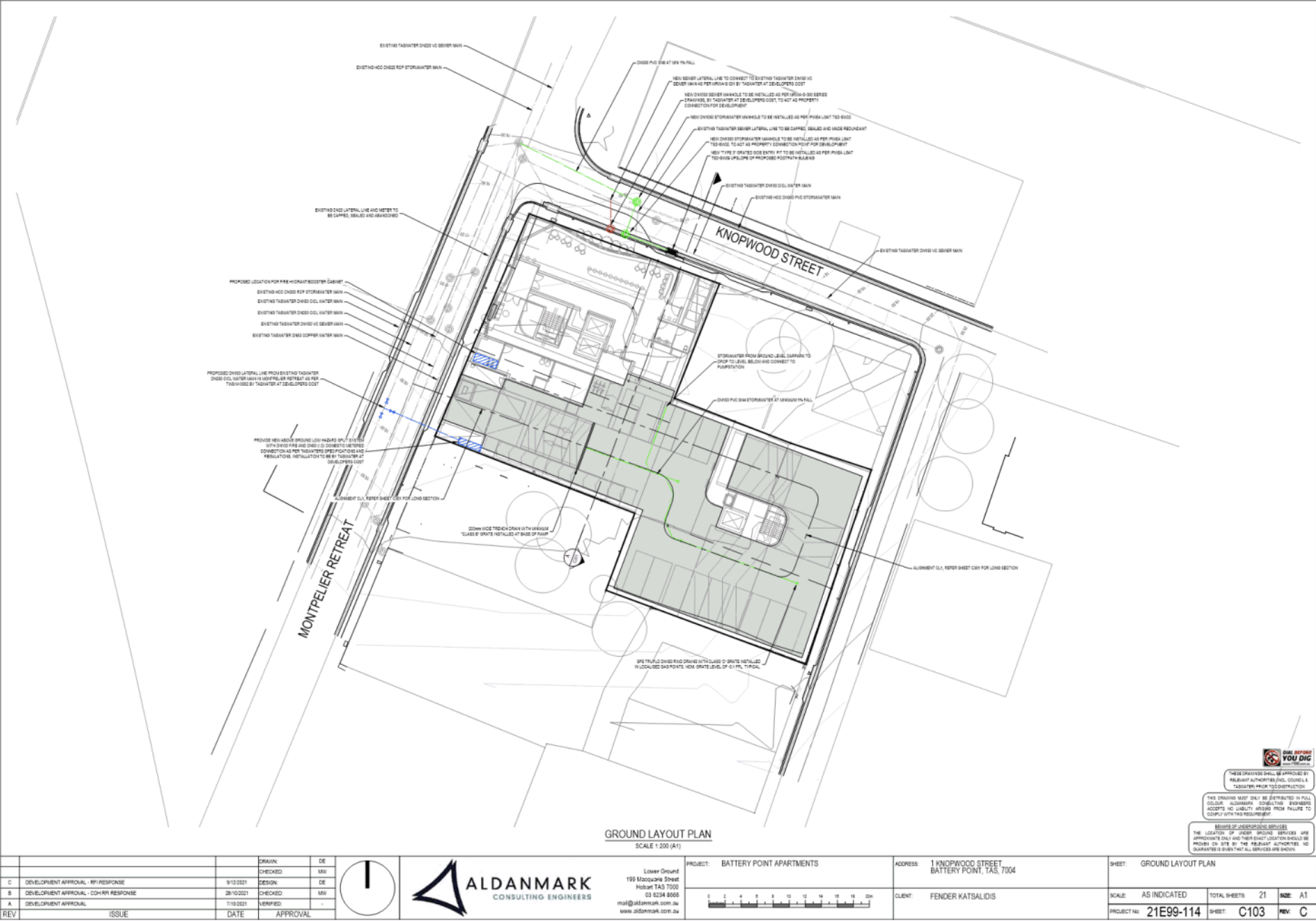
PROJECT:	BATTERY POINT APARTMENTS	ADDRESS:	1 KNOPWOOD STREET BATTERY POINT, TAS, 7004	SHEET:	ENGINEERING NOTES
CLIENT:	FENDER KATSALIDIS	SCALE:	AS INDICATED	TOTAL SHEETS:	21
PROJECT NO:	21E99-114	SHEET:	C002	SIZE:	A1
				REV:	C

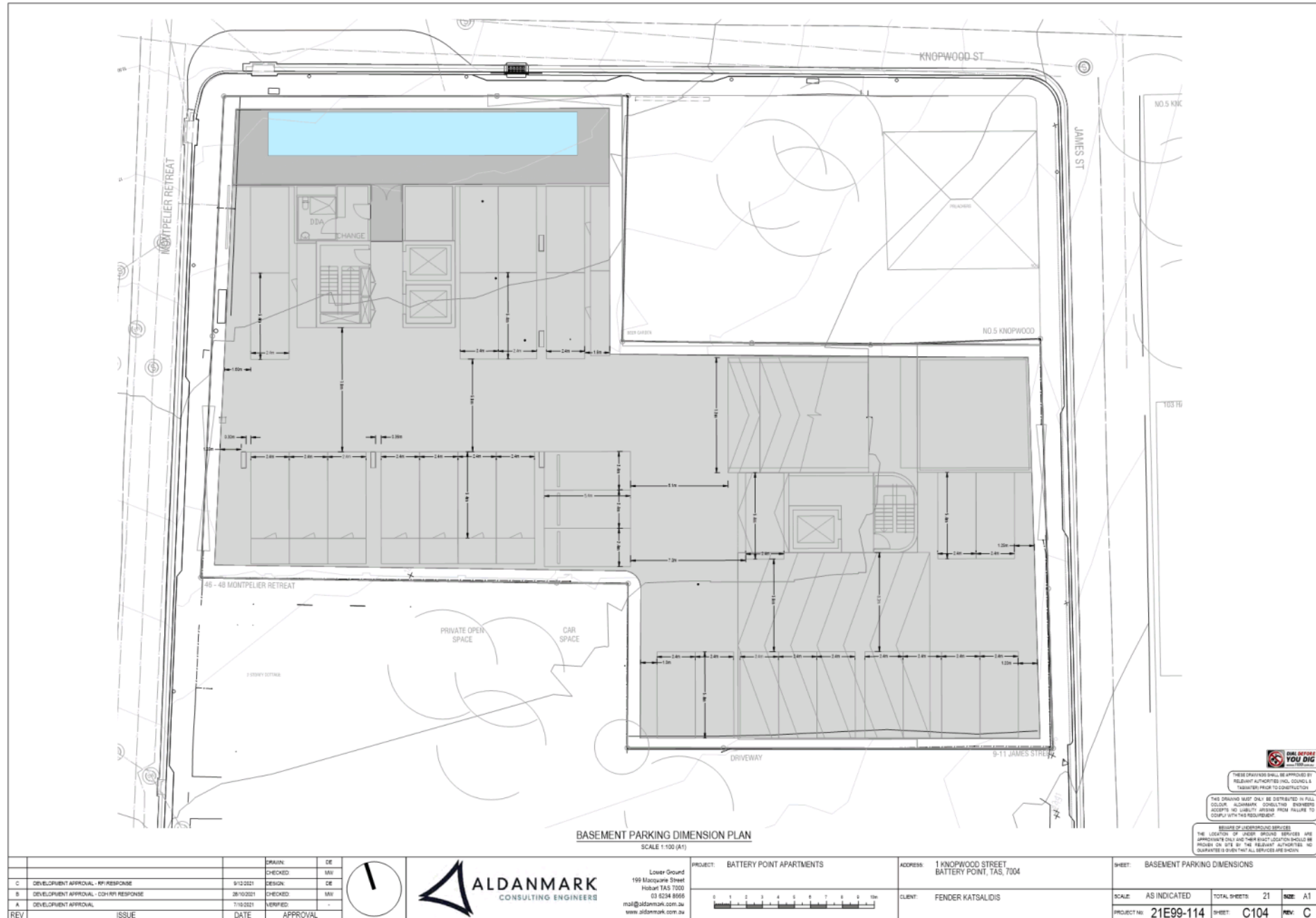


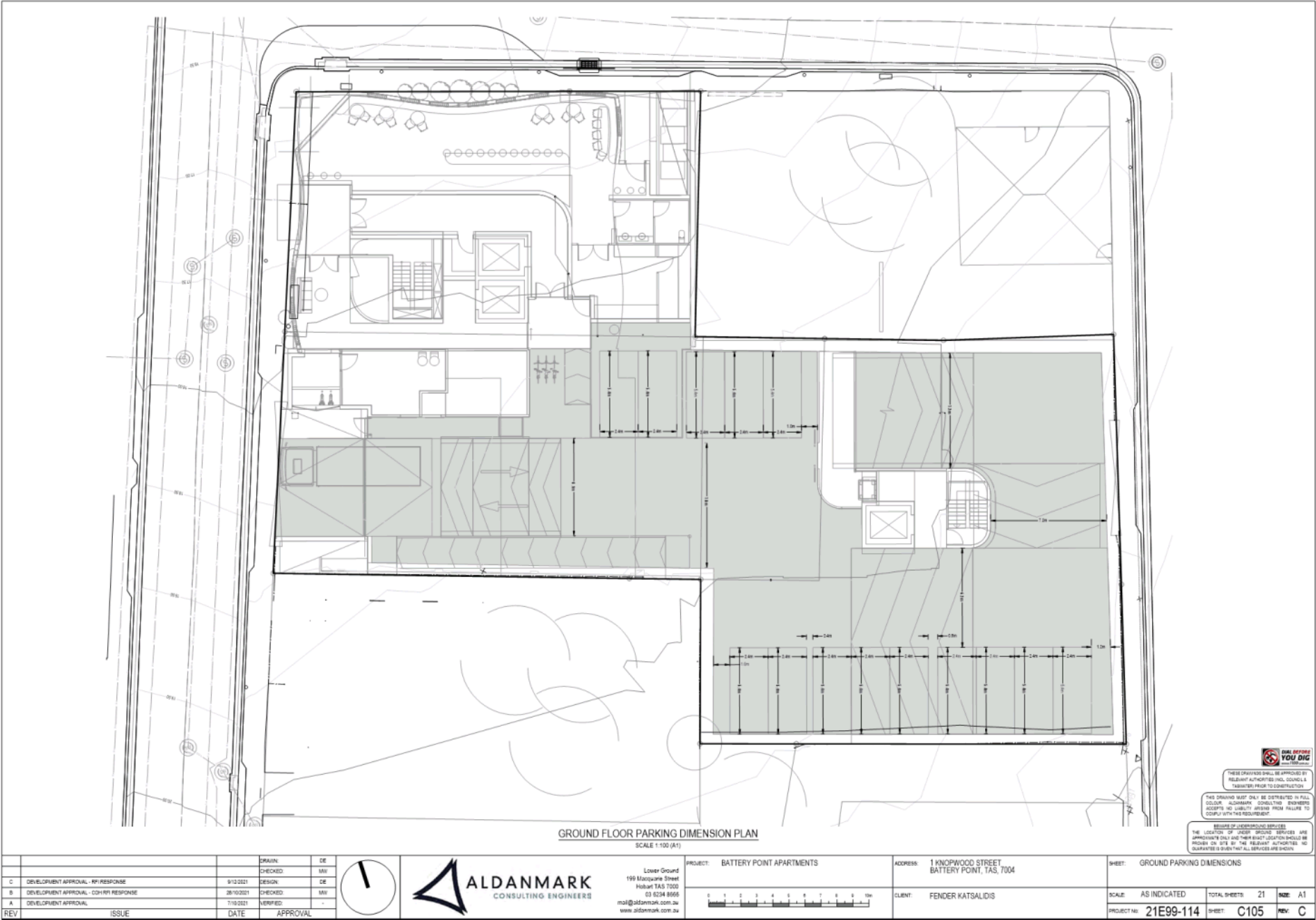
				DRAWN		DE			ALDANMARK CONSULTING ENGINEERS	Lower Ground 190 Macquarie Street Hobart TAS 7000 01 8334 8666 m@aldanmark.com.au www.aldanmark.com.au	PROJECT: BATTERY POINT APARTMENTS	ADDRESS: 1 KNOPWOOD STREET, BATTERY POINT, TAS, 7004	SHEET: LOCALITY PLAN	
				CHECKED		MAW								
C	DEVELOPMENT APPROVAL - RP RESPONSE	9/10/2021	DESIGN	DE										
B	DEVELOPMENT APPROVAL - CONVR RESPONSE	28/10/2021	CHECKED	MAW										
A	DEVELOPMENT APPROVAL	7/10/2021	VERIFIED	-										
REV	ISSUE	DATE	APPROVAL								0 5 10 15 20 25 30 35 40 45 50m	CLIENT: FENDER KATSAIDIS	SHEET: LOCALITY PLAN	
												SCALE: AS INDICATED	TOTAL SHEETS: 21	SIZE: A1
												PROJECT NO: 21E99-114	SHEET: C101	REV: C















**DRAW BEFORE YOU DIG**

THESE DRAWINGS SHALL BE APPROVED BY  
RELEVANT AUTHORITIES INCLUDING COUNCIL &  
TASMANIAN HIGHWAYS DEPARTMENT

THIS DRAWING MUST ONLY BE DISTRIBUTED IN FULL  
COLOUR. ALDANMARK CONSULTING ENGINEERS  
ACCEPTS NO LIABILITY ARISING FROM FAILURE TO  
COMPLY WITH THIS REQUIREMENT.

REGISTRATION OF THE DRAWING SERVICES  
THE LOCATION OF UNDERGROUND SERVICES ARE  
APPROXIMATE ONLY AND THEIR EXACT LOCATION SHOULD BE  
PROVEN ON SITE BY THE RELEVANT AUTHORITY. NO  
GUARANTEE IS GIVEN THAT ALL SERVICES ARE SHOWN.

		DRAWN	DE	
		CHECKED	MM	
C	DEVELOPMENT APPROVAL - RP RESPONSE	9/12/2021	DESIGN	DE
B	DEVELOPMENT APPROVAL - COH/RP RESPONSE	28/10/2021	CHECKED	MM
A	DEVELOPMENT APPROVAL	7/10/2021	VERIFIED	-
REV	ISSUE	DATE	APPROVAL	



**ALDANMARK**  
CONSULTING ENGINEERS

Lower Ground  
199 Macquarie Street  
Hobart TAS 7000  
03 6234 8666  
m.e@aldanmark.com.au  
www.aldanmark.com.au

PROJECT: BATTERY POINT APARTMENTS

ADDRESS: 1 KNOXWOOD STREET  
BATTERY POINT, TAS, 7004

CLIENT: FENDER KATSALIDIS

SCALE: AS INDICATED

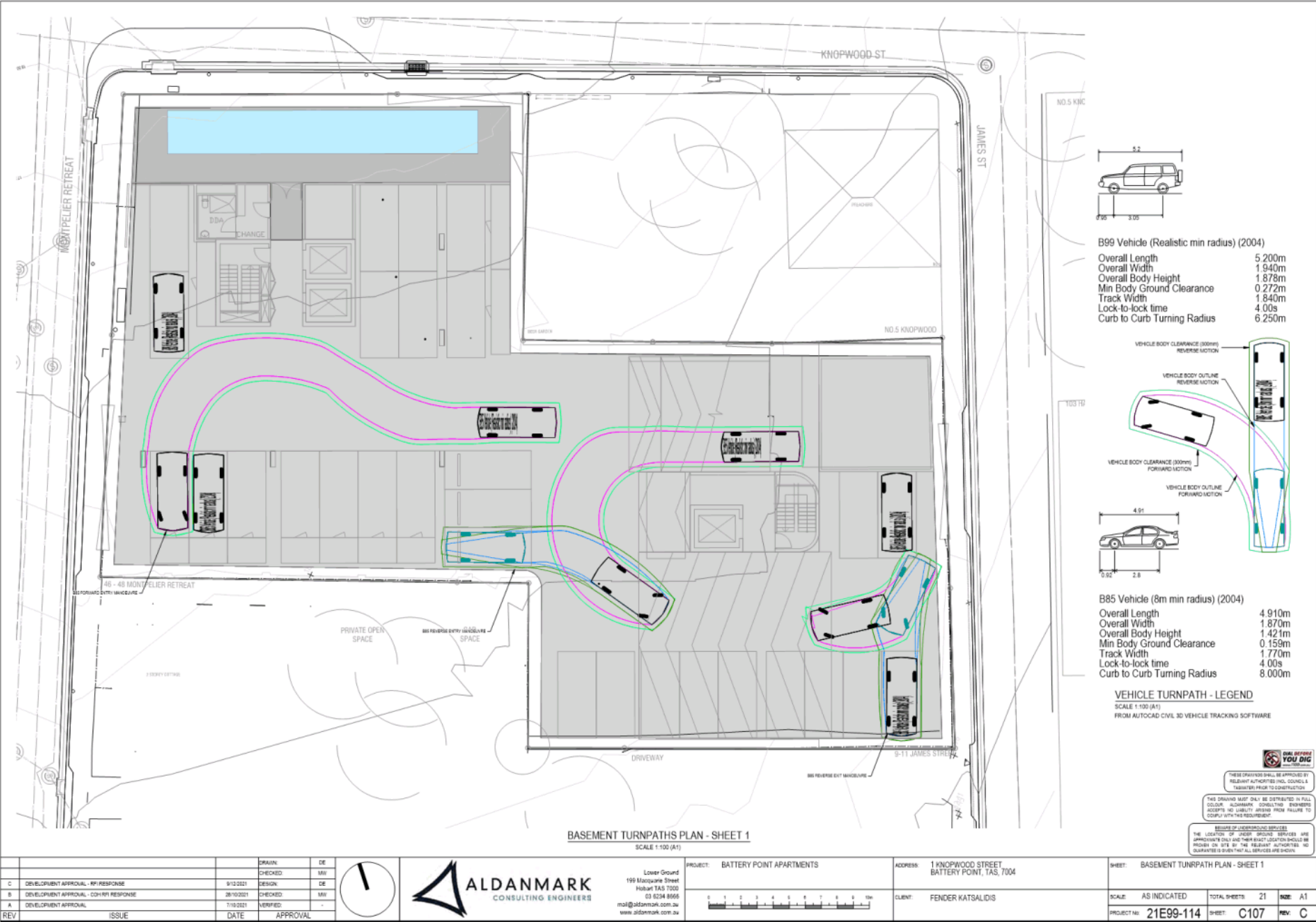
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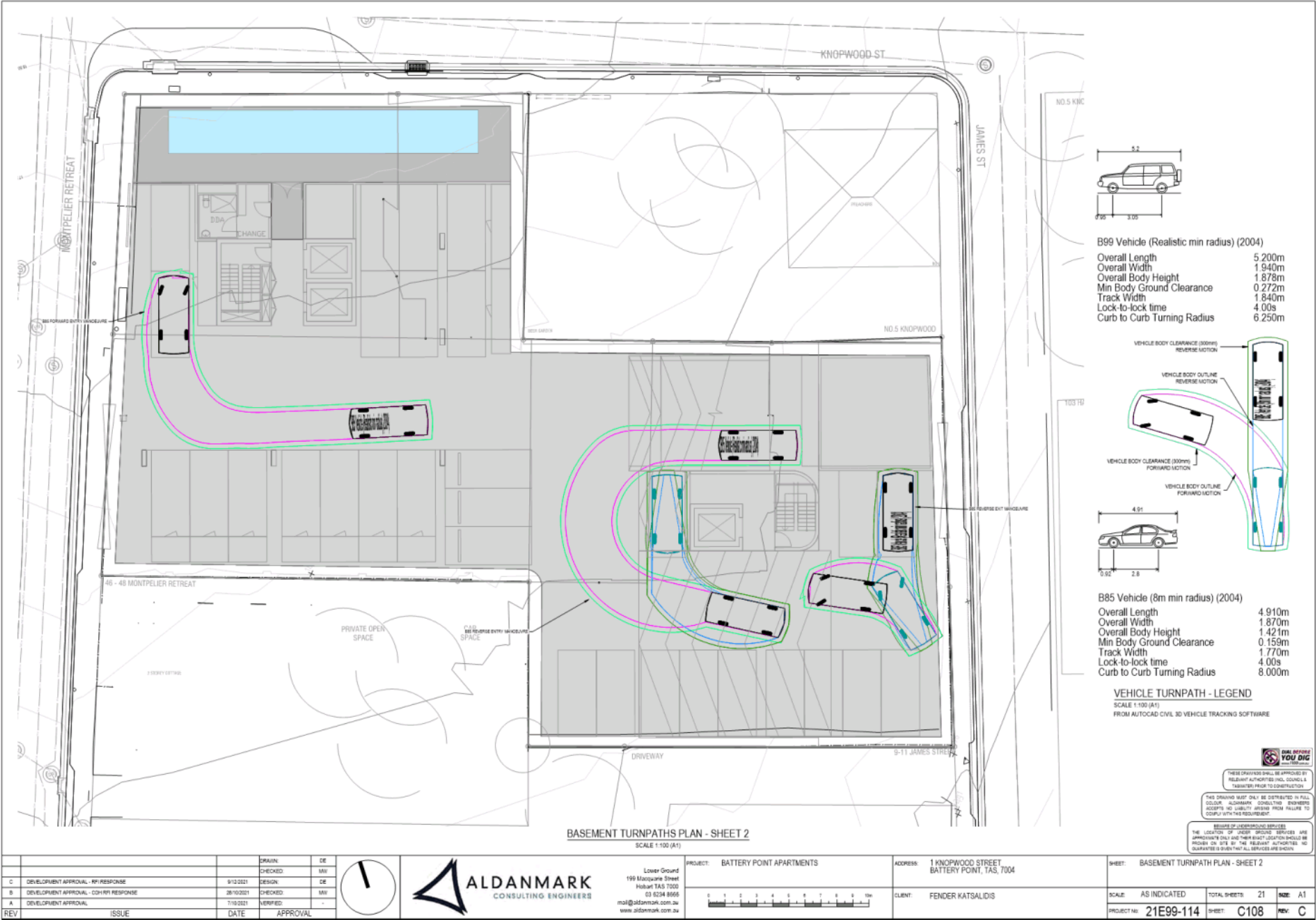
SHEET: C106

TOTAL SHEETS: 21

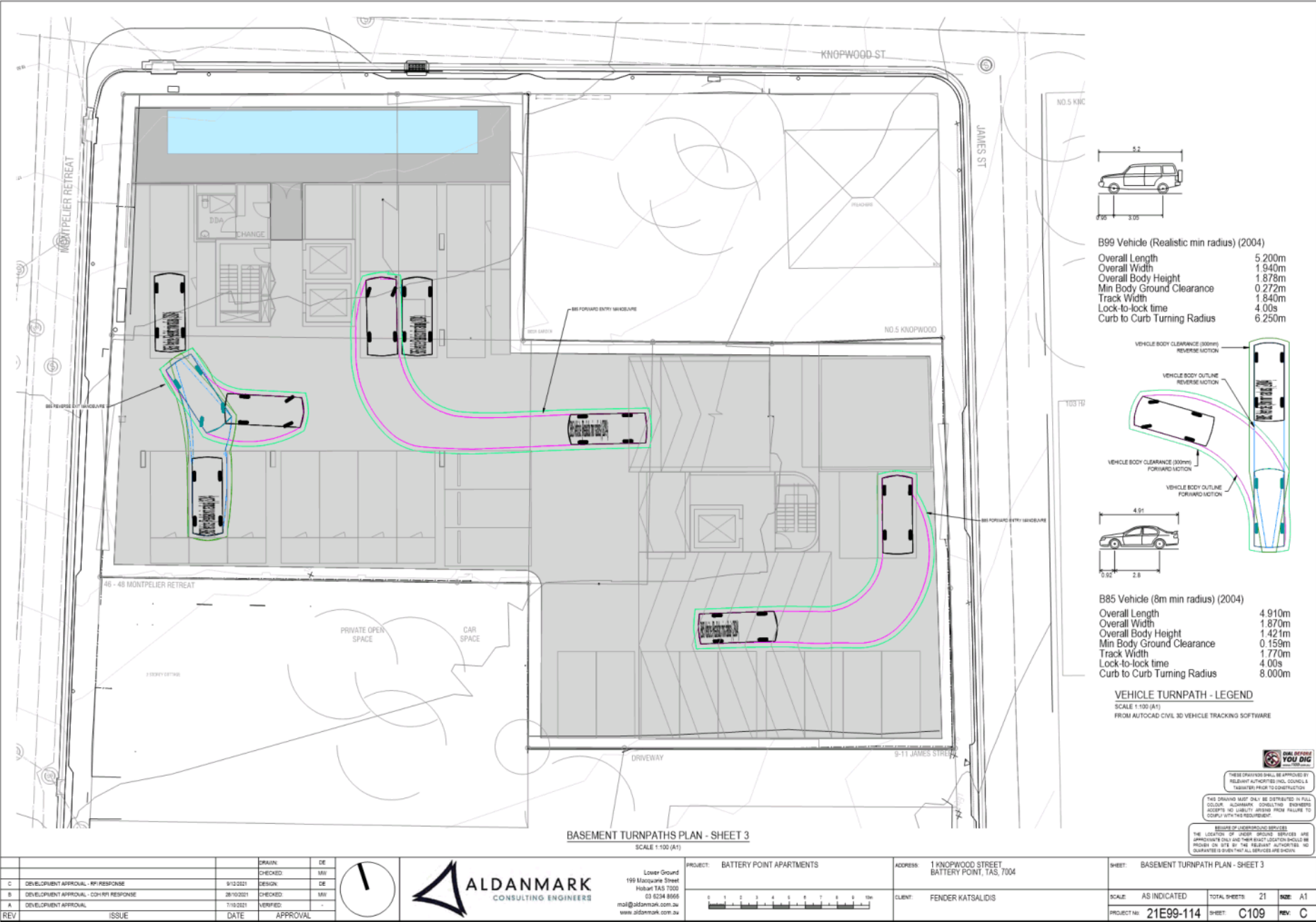
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SIZE: A1

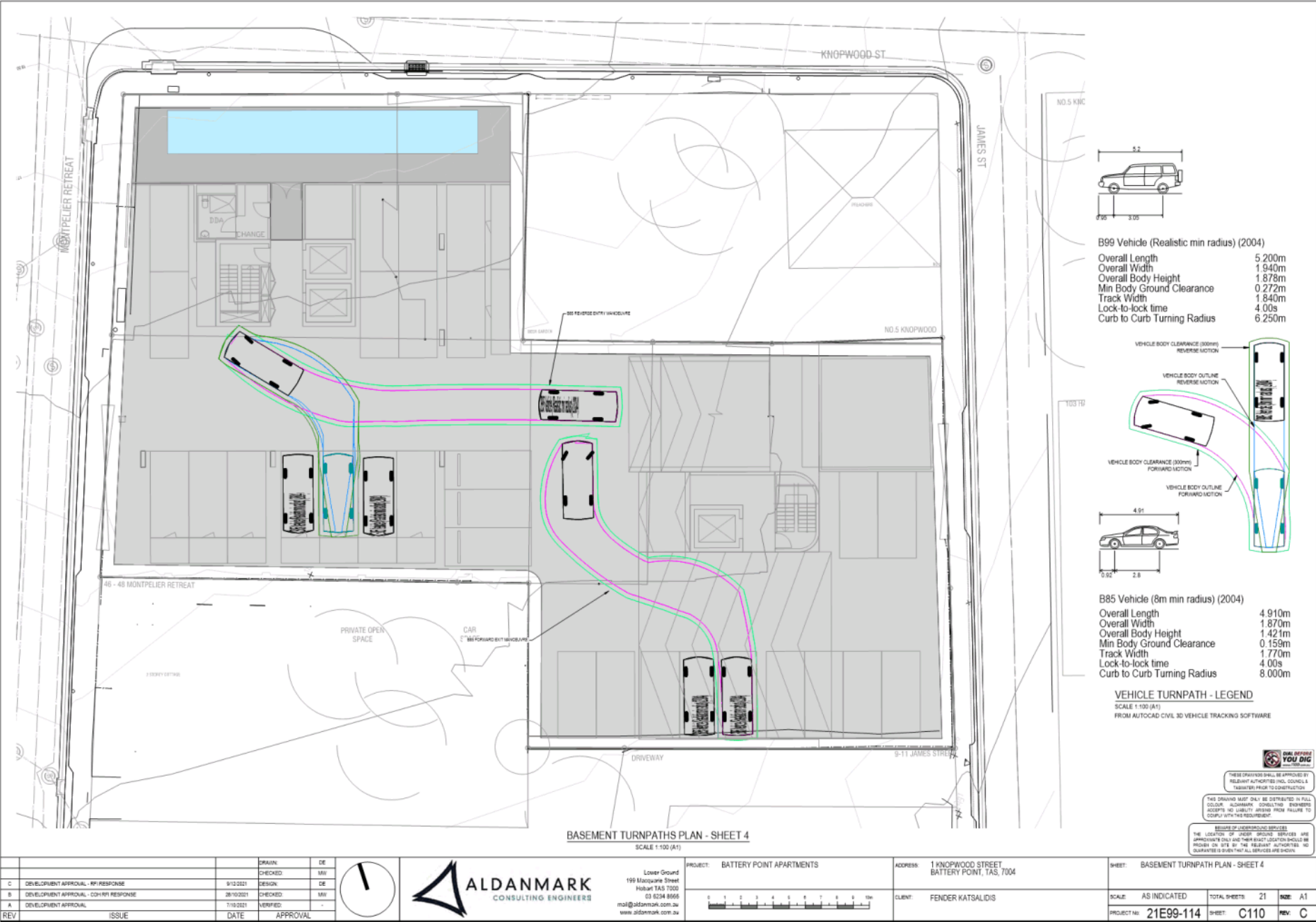


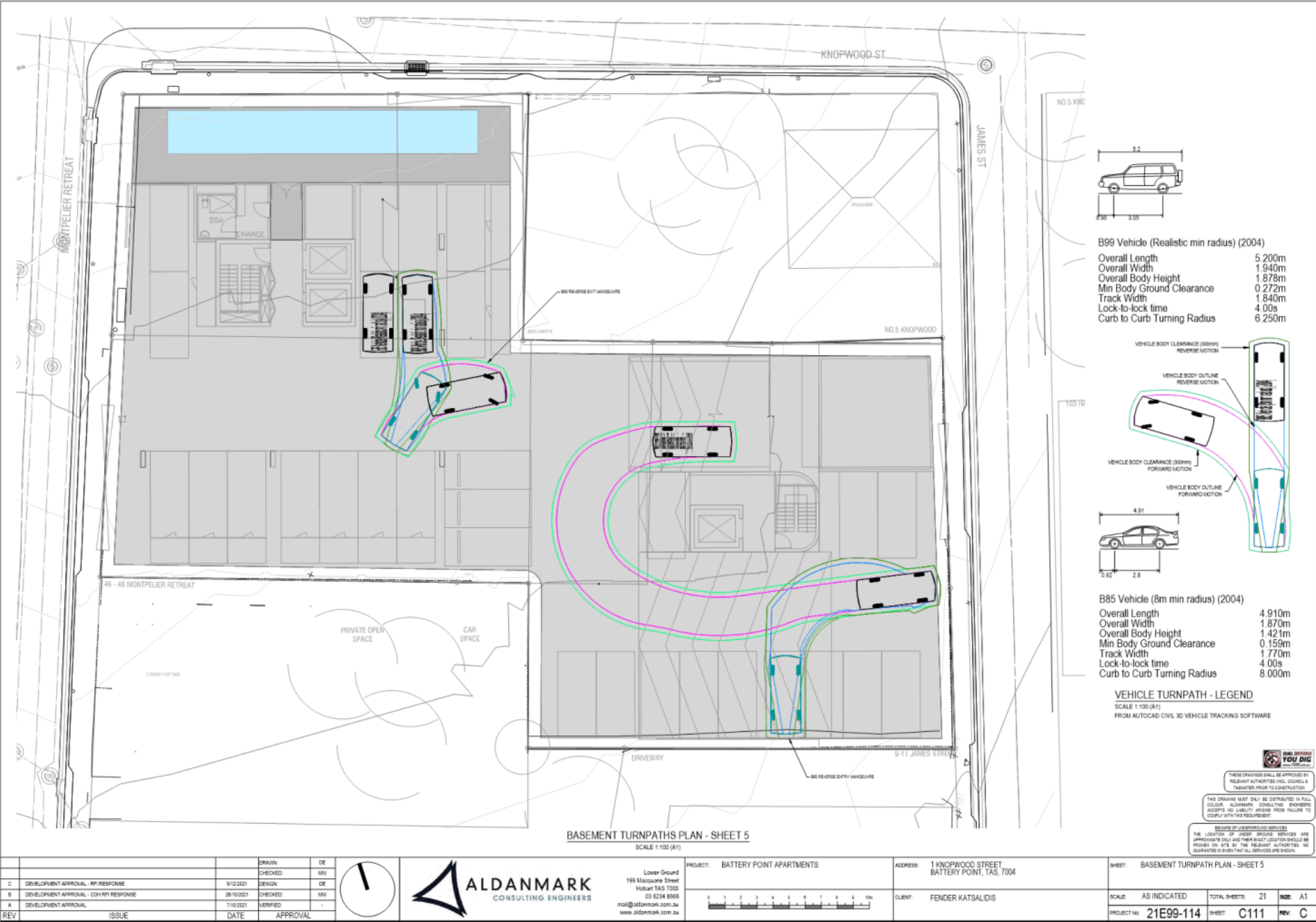


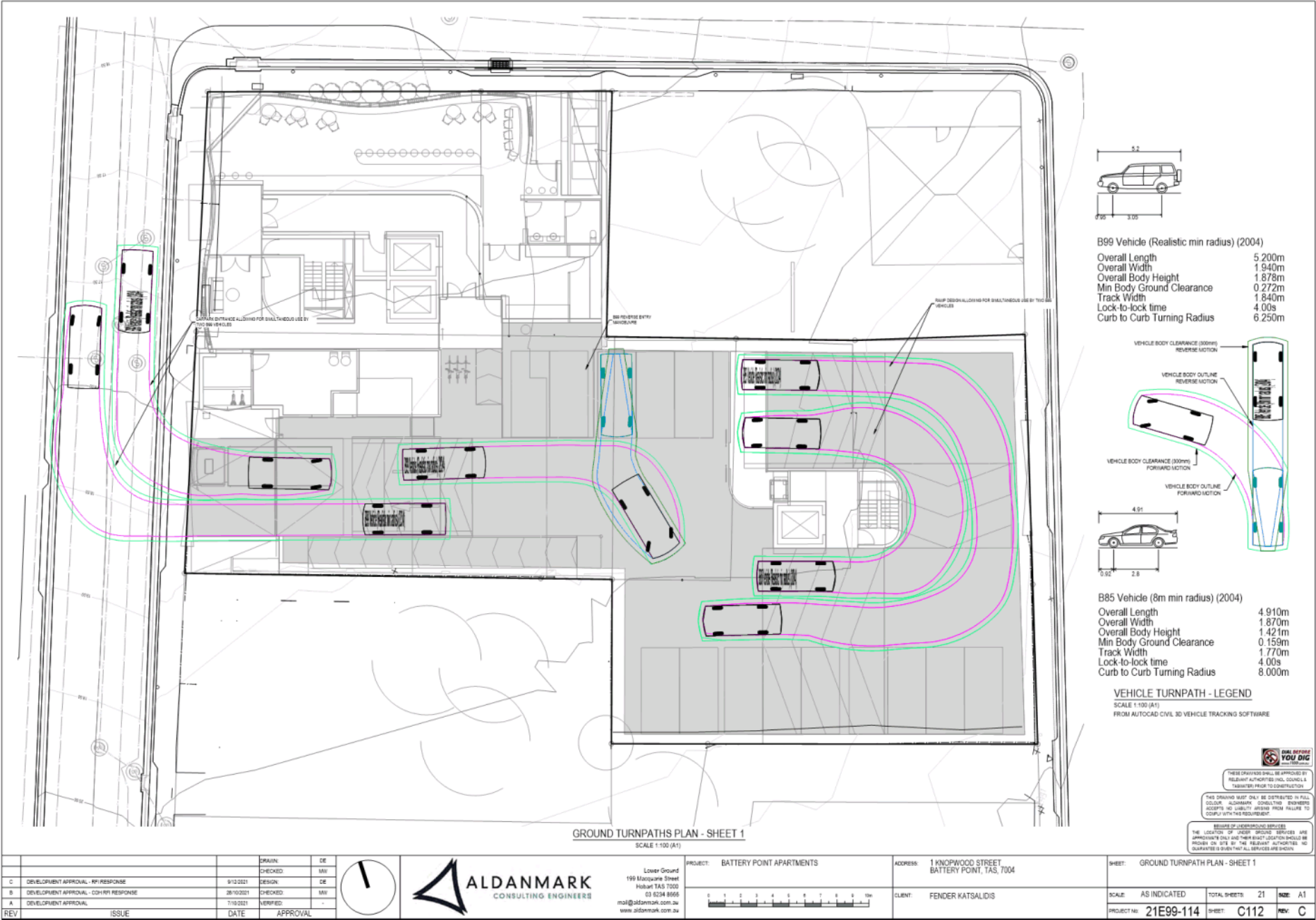


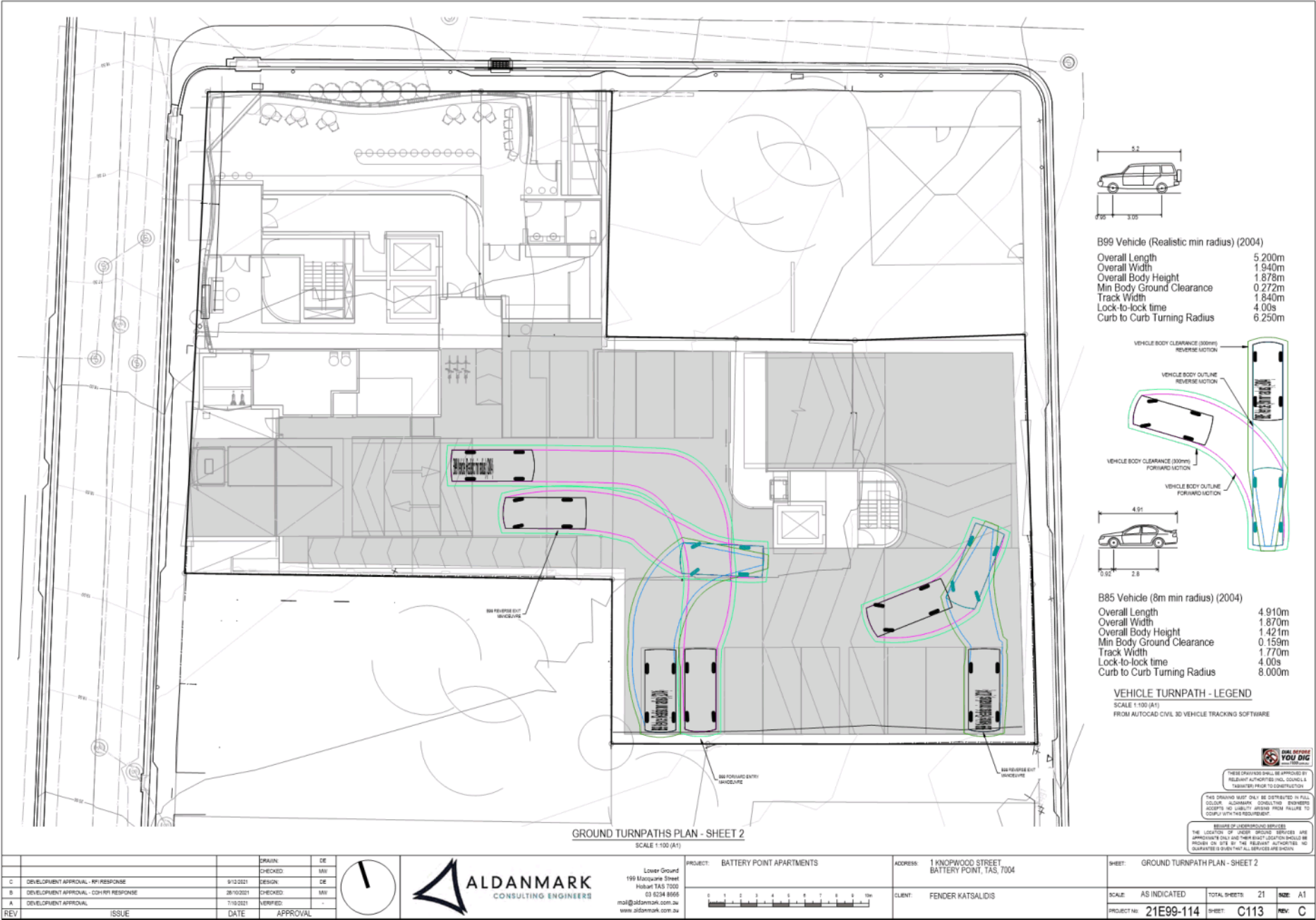




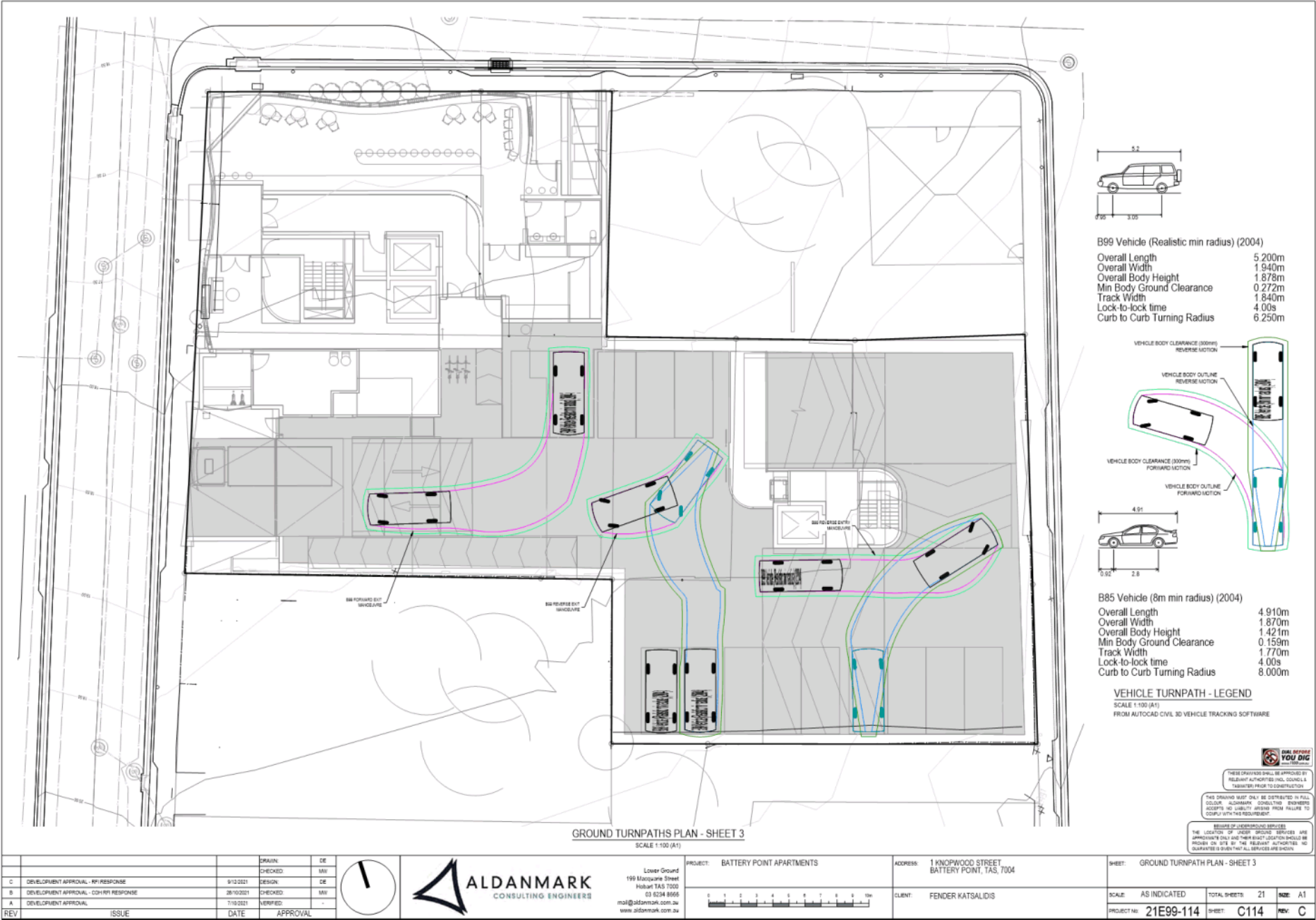


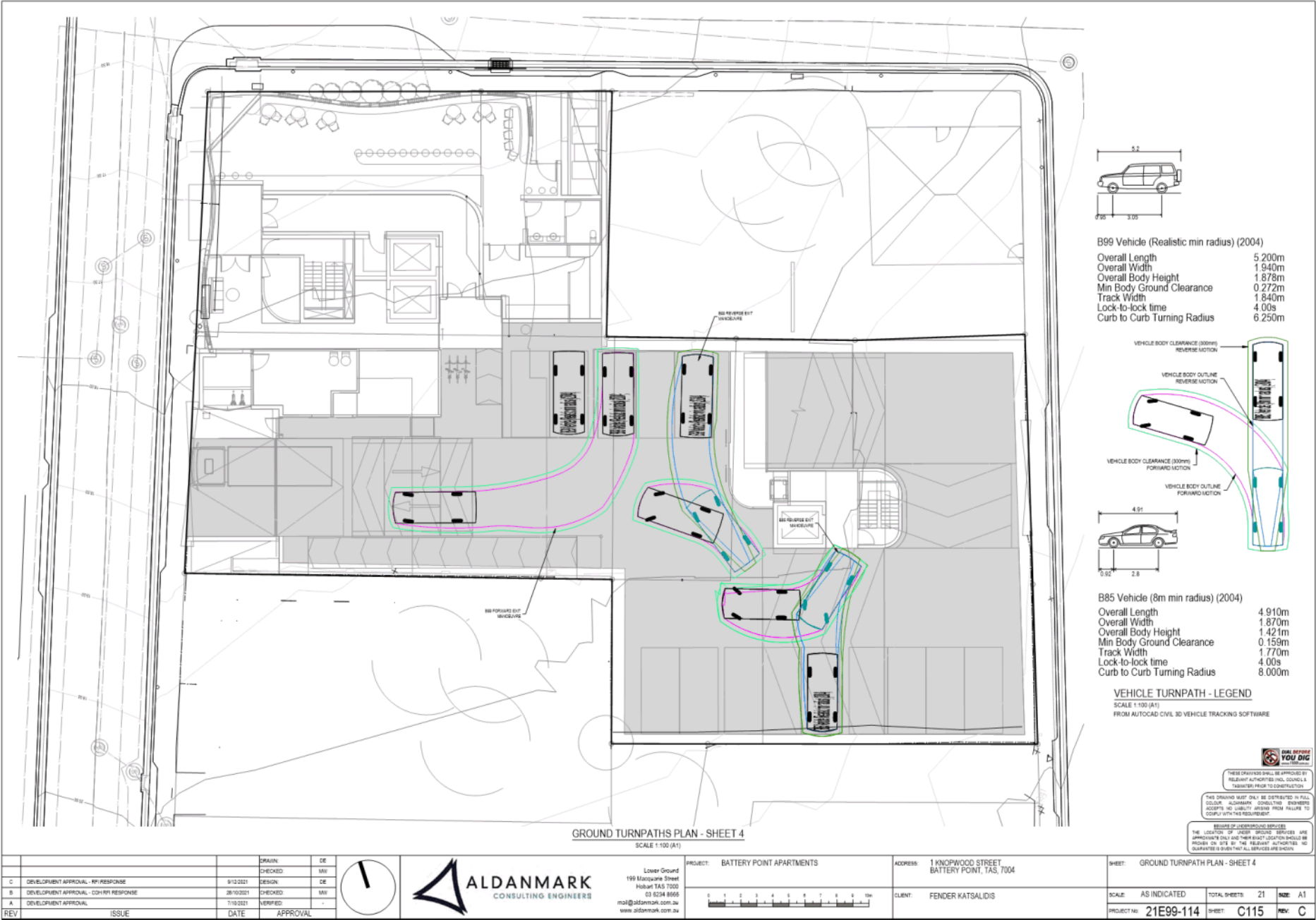


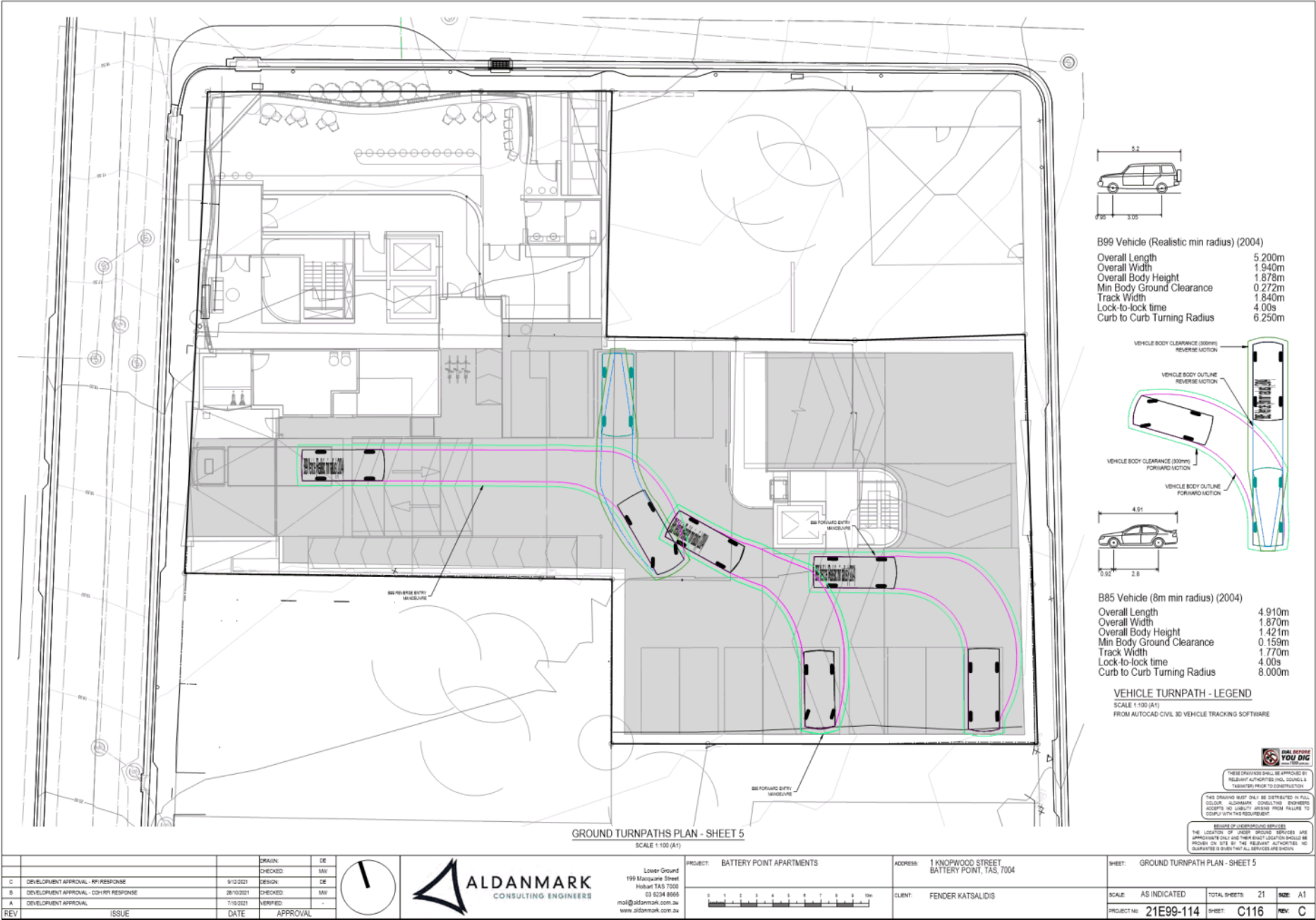














			DRAWN	DE
			CHECKED	MAV
C	DEVELOPMENT APPROVAL - RFI RESPONSE	9/13/2021	CHECKED	DE
B	DEVELOPMENT APPROVAL - CONKR RESPONSE	26/10/2021	CHECKED	MAV
A	DEVELOPMENT APPROVAL	7/10/2021	VERIFIED	-
REV	ISSUE	DATE	APPROVAL	



Lower Ground  
199 Macquarie Street  
Hobart TAS 7000  
03 6234 8666  
mail@aldanmark.com.au  
www.aldanmark.com.au

PROJECT:	BATTERY POINT APARTMENTS
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ADDRESS:	1 KNOPWOOD STREET BATTERY POINT, TAS, 7004
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CLIENT:	FENDER KATSALIDIS
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SHEET:	ELEVATIONS
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SCALE: AS INDICATED

SCALE: AS INDICATED	TOTAL SHEETS: 21	SIZE: A1
PROJECT NO: 21E99-114	SHEET: C201	REV: C



**DIAL BEFORE YOU DIG**  
800.452.5069

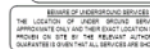
THESE DRAWINGS SHALL BE APPROVED BY  
RELEVANT AUTHORITIES (INCL. COUNCIL &  
TREASURER) PRIOR TO CONSTRUCTION

THIS DRAWING MUST ONLY BE DISTRIBUTED IN FULL COLOUR. ALUMARK CONSULTING ENGINEERS ACCEPTS NO LIABILITY ARISING FROM FAILURE TO COMPLY WITH THIS REQUIREMENT.

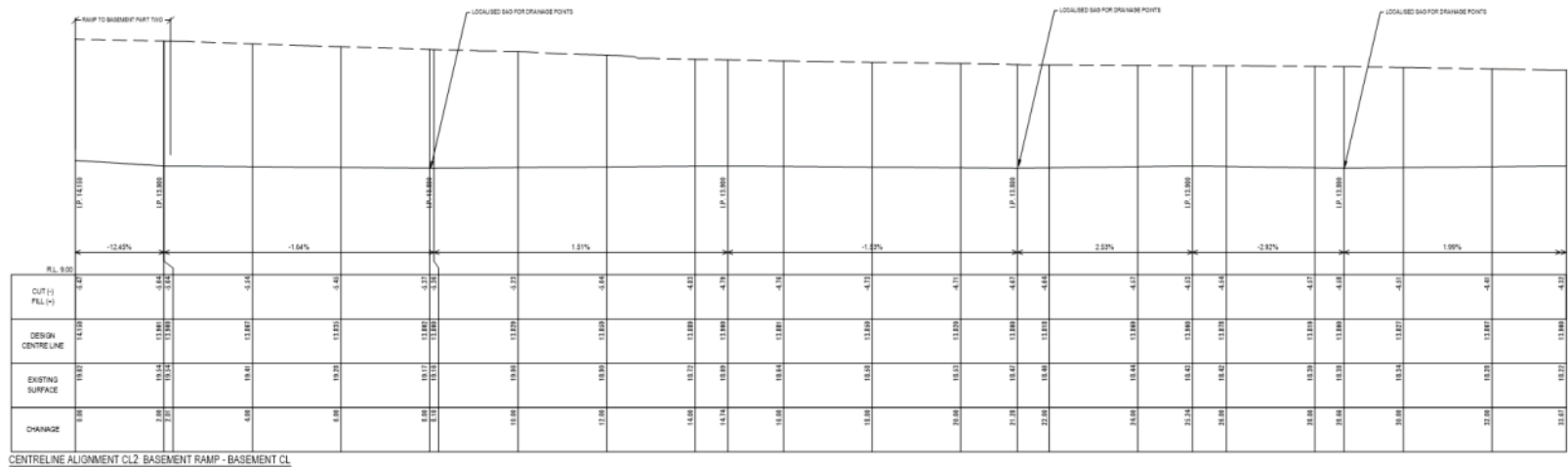
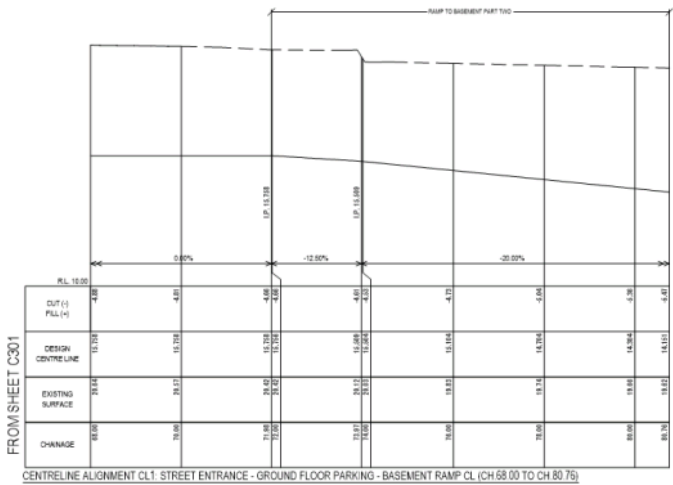
### SEARCH OF UNDERGROUND SERVICES

**BEWARE OF UNDERGROUND SERVICES**  
THE LOCATION OF UNDER GROUND SERVICE APPROXIMATE ONLY AND THEIR EXACT LOCATION SHOULD BE OBTAINED FROM THE RELEVANT AUTHORITY. A GUARANTEE IS GIVEN THAT ALL SERVICES ARE SHOWN.





SCALE:	AS INDICATED	TOTAL SHEETS:	21	SIZE:	A1
PROJECT NO:	21E99-114	SHEET:	C301	REV:	B



REV	ISSUE	DATE	APPROVAL
C	DEVELOPMENT APPROVAL - RFP RESPONSE	9/12/2021	DESIGN: DE
B	DEVELOPMENT APPROVAL - COHAR RESPONSE	28/10/2021	CHECKED: MAI
A	DEVELOPMENT APPROVAL	7/10/2021	VERIFIED: -



Lower Ground  
199 Macquarie Street  
Hobart TAS 7000  
03 6234 8666  
mai@aldanmark.com.au  
www.aldanmark.com.au

PROJECT: BATTERY POINT APARTMENTS

AS INDICATED

ADDRESS: 1 KNOXWOOD STREET  
BATTERY POINT, TAS, 7004

CLIENT: FENDER KATSAIDIS

SHEET: SECTIONS - SHEET 2

SCALE: AS INDICATED

PROJECT NO: 21E99-114

TOTAL SHEETS: 21

SHEET: C302

SIZE: A1

REV: C

THESE DRAWINGS SHALL BE APPROVED BY  
RELEVANT AUTHORITIES (INC. COUNCIL &  
TASALIAN) PRIOR TO CONSTRUCTION.

THIS DRAWING MUST ONLY BE DISTRIBUTED IN FULL  
COLOUR. ALDANMARK CONSULTING ENGINEERS  
ACCEPTS NO LIABILITY ARISING FROM FAILURE TO  
COMPLY WITH THIS REQUIREMENT.

REUSE OF UNDERGROUND SERVICES

THE LOCATION OF UNDERGROUND SERVICES ARE  
APPROXIMATE ONLY AND THEIR EXACT LOCATION SHOULD BE  
PROVEN ON SITE BY THE RELEVANT AUTHORITIES. NO  
GUARANTEE IS GIVEN THAT ALL SERVICES ARE SHOWN.

CIVIL DRAWINGS  
BATTERY POINT APARTMENTS  
1 KNOPWOOD STREET

C001	COVER	A	05/10/2021
C002	ENGINEERING NOTES	A	05/10/2021
C101	LOCALITY PLAN	A	05/10/2021
C102	BASEMENT LAYOUT PLAN	A	05/10/2021
C103	GROUND LAYOUT PLAN	A	05/10/2021
C104	BASEMENT TURNPATH PLAN - SHEET 1	A	05/10/2021
C105	BASEMENT TURNPATH PLAN - SHEET 2	A	05/10/2021
C106	GROUND TURNPATH PLAN	A	05/10/2021
C201	ELEVATIONS	A	05/10/2021
C301	SECTIONS	A	05/10/2021

			DRAWN	DE	 <div>ALDANMARK CONSULTING ENGINEERS</div> <div>Lower Ground 199 Macquarie Street Hobart TAS 7000 03 5244 8600 mal@aldanmark.com.au www.aldanmark.com.au</div>	PROJECT: BATTERY POINT APARTMENTS	ADDRESS: 1 KINGPWOOD STREET BATTERY POINT, TAS, 7004	SHEET: COVER	
			CHECKED	MAI					
			DESIGN	DE					
			CHECKED	MAI					
			VERIFIED	-					
A	DEVELOPMENT APPROVAL	7/10/2021				CLIENT: FENDER KATSALIDIS	SCALE: AS INDICATED	TOTAL SHEETS: 10	SIZE: A1
REV	ISSUE	DATE	APPROVAL				PROJECT NO: 21E99-114	SHEET: C001	REV: A

GENERAL NOTES:

1. THESE DRAWINGS ARE TO BE READ IN CONJUNCTION WITH THE ARCHITECTURAL, MECHANICAL AND STRUCTURAL DRAWINGS AND SPECIFICATIONS. STANDARDS REFERENCED ARE TO BE THE MOST CURRENT VERSION.
2. THESE DRAWINGS SHALL NOT BE USED FOR CONSTRUCTION UNLESS ENDORSED FOR CONSTRUCTION AND AUTHORITY FOR ISSUE ACCORDINGLY.
3. ALL WORK IS TO BE CARRIED OUT IN ACCORDANCE WITH APPLICABLE STANDARDS, DRAWINGS AND SPECIFICATIONS, AUSTRALIAN STANDARDS, AS/NZS INTERNATIONAL CODE OF AUSTRALIA & TARIFF SUPPLY CODE OF AUSTRALIA AND TO THE SATISFACTION OF CONSULTANT DESIGNER/ENGINEER.
4. APPLICABLE STANDARDS DRAWINGS TO BE READ IN CONJUNCTION WITH CONSULTANT SHEETS DESIGNATED "DESIGN" & "DETAILS".
5. ALL WORK IS TO BE MAINTAINED IN A SAFE CONDITION.
6. CONTRACTOR TO OBTAIN APPROVAL TO THE COMPLETION OF WORKS.
7. CONTRACTOR TO OBTAIN APPROVAL, BEFORE COMMENCING AND CO-ORDINATE WORK WITH ALL RELEVANT AUTHORITIES PRIOR TO COMMENCEMENT.
8. A START OF WORK NOTICE MUST BE OBTAINED FROM COUNCIL PRIOR TO ALL WORKS COMMENCED.
9. SURVEY DATA (HEIGHTS) MUST BE PROVIDED BY SURVEYORS.
10. ARCHITECTURAL, CIVIL AND MECHANICAL WORKS TO BE COMPLETED BY PRIOR CATALOGUE.

WORKPLACE HEALTH & SAFETY NOTES

BEFORE THE CONTRACTOR COMMENCES WORK THE CONTRACTOR SHALL UNDERTAKE A SITE SPECIFIC PROJECT PRE-START HAZARD ANALYSIS (OR SAFETY ANALYSIS) WHICH SHALL IDENTIFY IN DOCUMENTED FORM:

- THE TYPE OF HAZARD.
- HAZARDS AND RISKS TO HEALTH AND SAFETY.
- THE CONTROLS TO BE APPLIED IN ORDER ELIMINATE OR MINIMIZE THE RISK POSED BY THE IDENTIFIED HAZARDS.
- THE MANNER IN WHICH THE RISK CONTROL MEASURES ARE TO BE IMPLEMENTED.

THESE ARE TO BE SUBMITTED TO THE SUPERINTENDENT AND/OR OTHER RELEVANT WORKPLACE SAFETY OFFICERS

- FOR THIS PROJECT, POSSIBLE HAZARDS INCLUDE (BUT ARE NOT LIMITED TO):
- EXCAVATION OF ANY TYPE & DEPTHS
  - CONTAMINATED SOILS
  - CONSTRUCTION IN GROUND WITH HIGH WATER TABLE
  - FELLING / TOPPING &/OR REMOVAL OF EXISTING TREES/VEGETATION
  - UNDERGROUND STRUCTURES (MANHOLES / DUMPS / ETC)
  - CONFINED SPACES
  - OVERHEAD POWER LINES
  - UNDERGROUND STORAGE TANKS, WATER AND SEWER PIPES
  - TELECOMMUNICATION CABLES - BOTH UNDERGROUND & OVERHEAD
  - ELECTRICAL/POWER CABLES - BOTH UNDERGROUND & OVERHEAD
  - WORKING AT HEIGHTS
  - WORKING WITH ASBESTOS CONTAINING MATERIALS
  - TRAFFIC INNOVATION

## EARTHWORKS &amp; DRIVEWAY NOTES

- [illegible]

SOIL TYPE (*REFER BCA 3.2.4)		EMBANKMENT SLOPES H:L	
		COMPACTED FILL	CUT
STABLE ROCK (P)		2:3	8:1
SAND (M)		1:2	1:2
SILT (P)		1:4	1:4
CLAY	FINE CLAY	1:2	1:1
	SOFT CLAY	NOT SUITABLE	2:3
	SOFT SILT CLAY	NOT SUITABLE	NOT SUITABLE

NOTE: WHERE SITE CONDITIONS ARE UNSUITABLE FOR A BATTERED BANK CONSULT THE ENGINEER FOR A SUITABLE RETAINED WALL DESIGN. EMBANKMENTS THAT ARE TO BE LEFT EXPOSED MUST BE STABILIZED BY VEGETATION OR SIMILAR WORKS TO PREVENT SOIL EROSION.

## DRAINAGE AND SERVICES NOTES

- [illegible]

DEPTH TO INVERT OF OUTLET	MINIMUM INTERNAL DIMENSIONS mm	
	WIDTH	LENGTH
≤800	400	400
>800 ≤1000	500	500
>1000 ≤1200	600	600
>1200	800	800



THESE DRAWINGS SHALL BE APPROVED BY THE RELEVANT AUTHORITIES (INC. COUNCIL) PRIOR TO CONSTRUCTION.

THIS DRAWING MUST ONLY BE DISTRIBUTED IN COLOUR. ALDAMARK CONSULTING ENGINEERS ACCEPTS NO LIABILITY ARISING FROM FAILURE TO COMPLY WITH THIS REQUIREMENT.

**WARNING OF UNDERGROUND SERVICE**  
THE LOCATION OF UNDERGROUND SERVICES IS APPROXIMATE ONLY AND THEIR EXACT LOCATION PROVEN ON SITE BY THE RELEVANT AUTHORITY.  
THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL SERVICES.

				DRAWN	DE
				CHECKED	MM
				DESIGN	DE
				CHECKED	MM
A	DEVELOPMENT APPROVAL		7/10/2021	VERIFIED	-
REV		ISSUE	DATE	APPROVAL	



Lower Ground  
199 Macquarie Street  
Hobart TAS 7000  
03 6234 8666  
mail@aldanmark.com.au  
www.aldanmark.com.au

PROJECT: BATTERY POINT APARTMENTS

ADDRESS: 1 KNOPWOOD STREET  
BATTERY POINT, TAS. 7004

CLIENT:	FENDER KATSALIDIS
---------	-------------------

SHEET: ENGINEERING NOTES

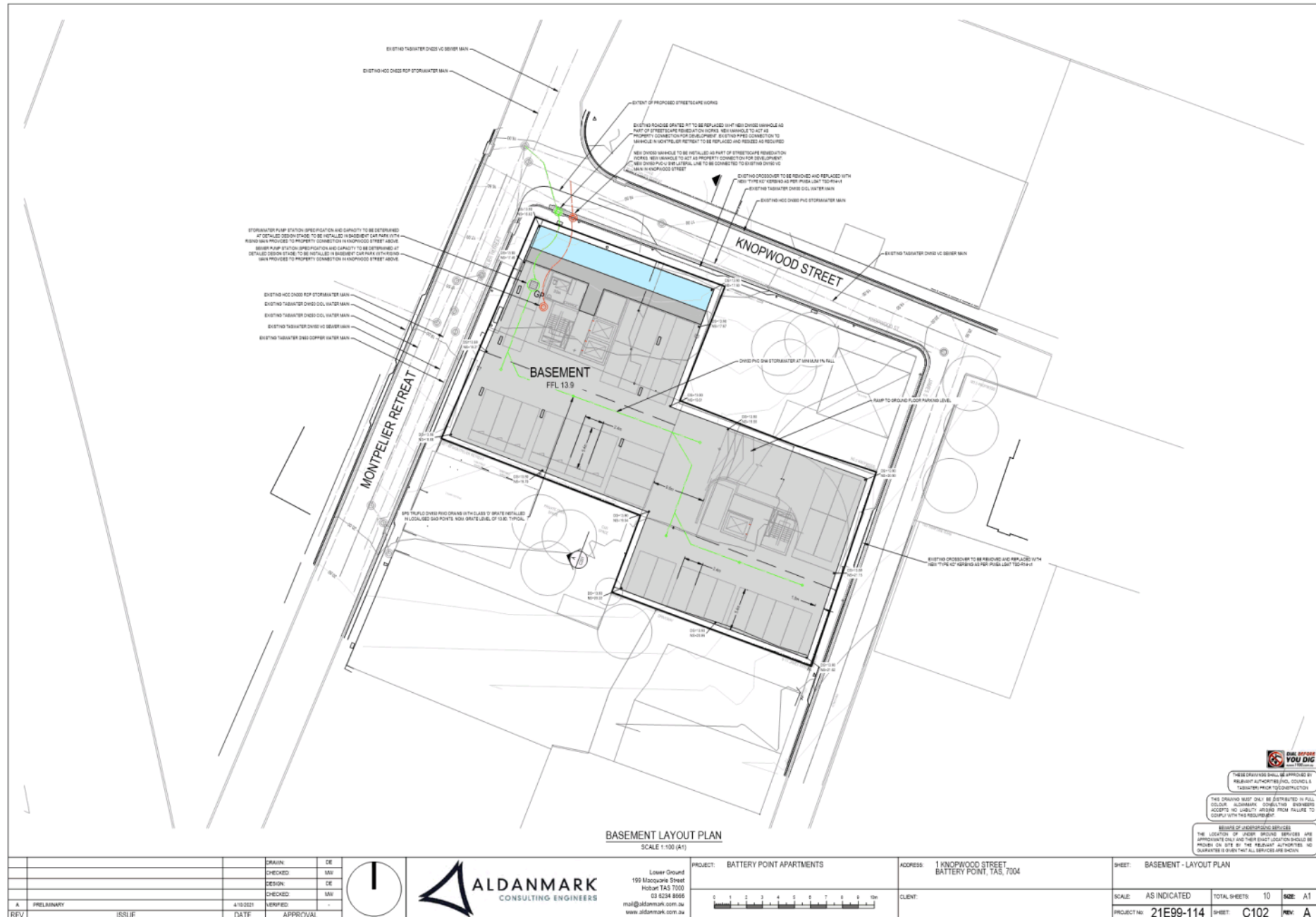
SCALE: AS INDICATED	TOTAL SHEETS: 10	SIZE:
PROJECT NO: 21E99-114	SHEET: C002	REV:

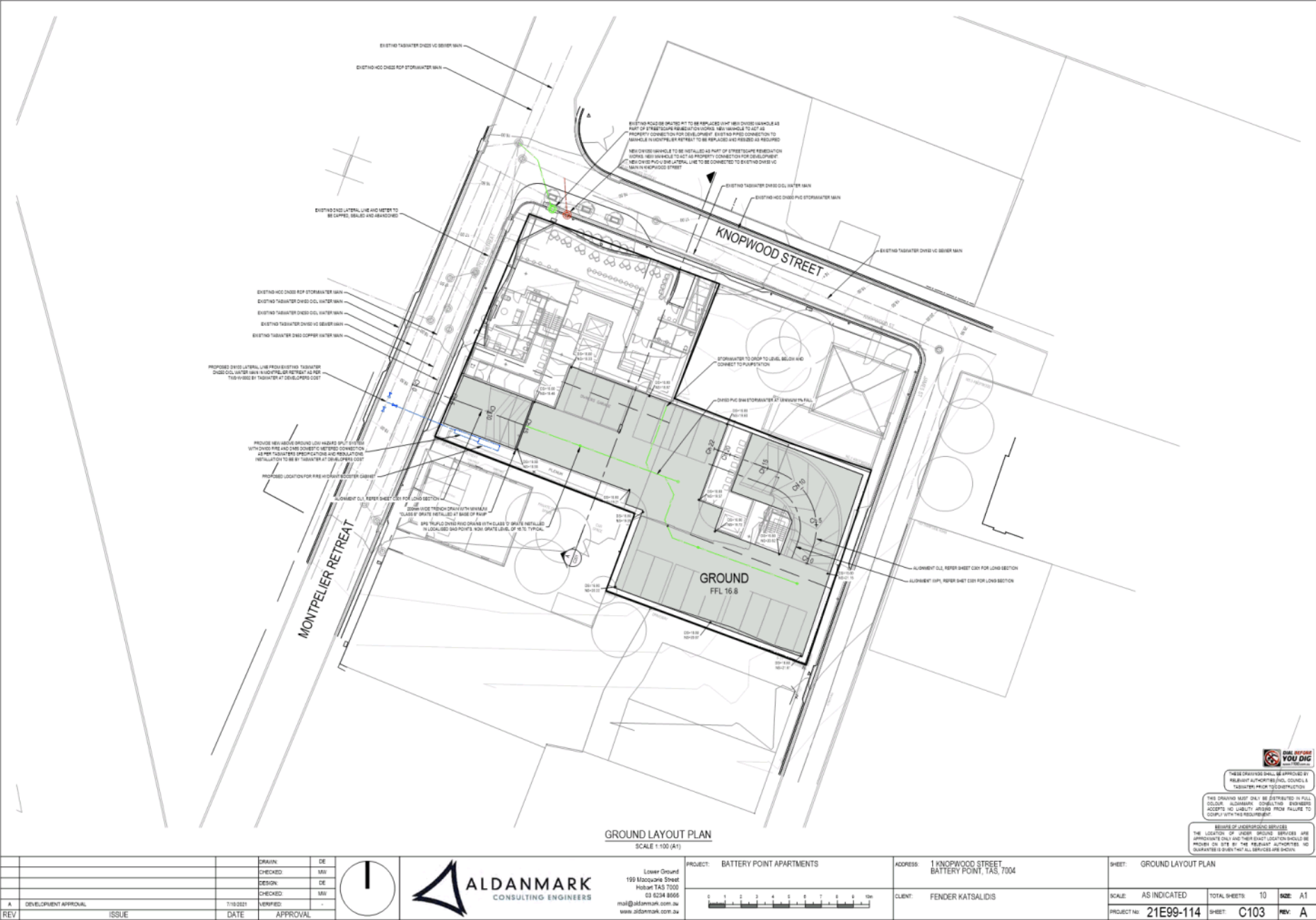




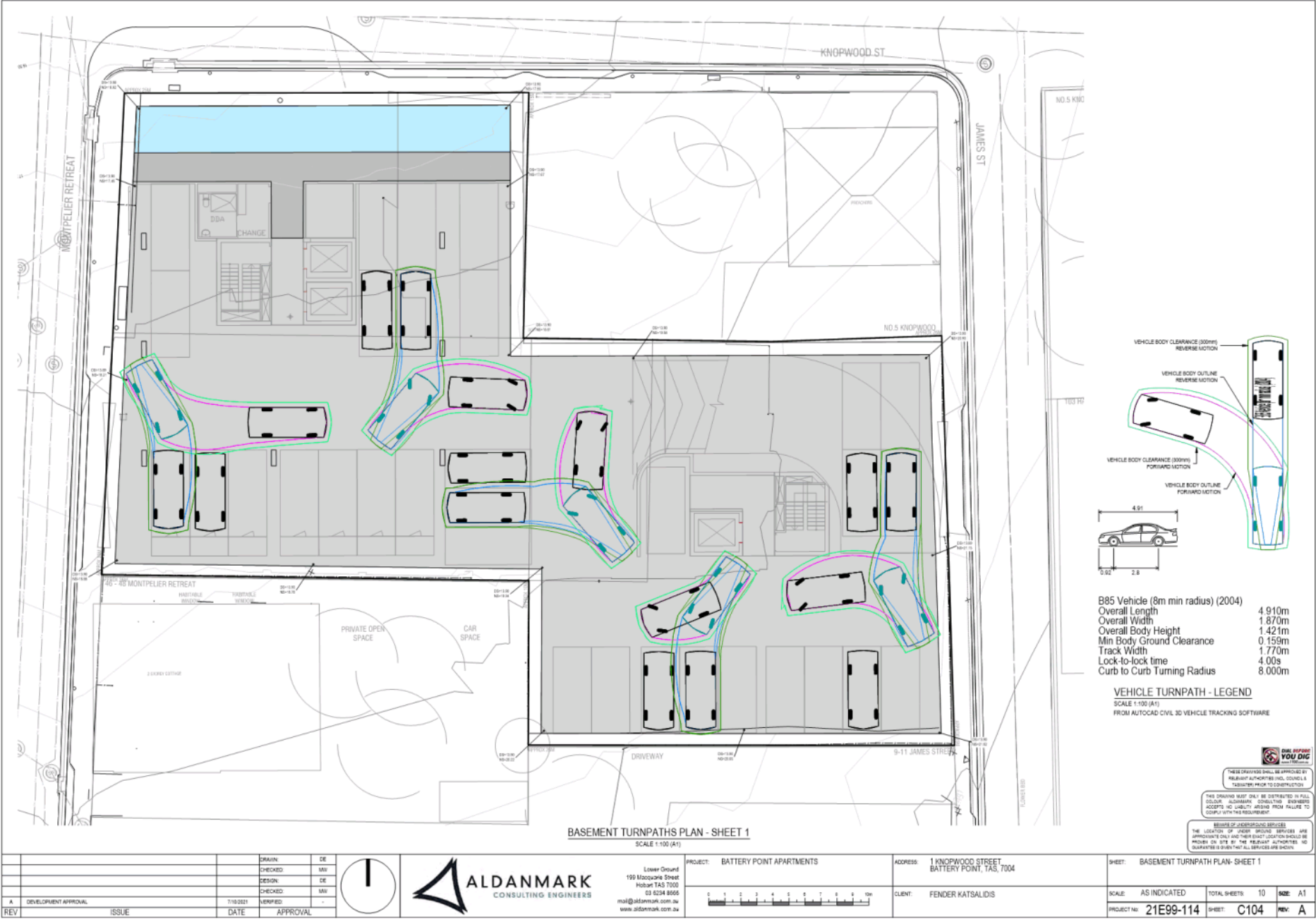
LOCALITY PLAN  
SCALE 1:500 (A1)

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		DESIGN:	DE				
		CHECKED:	MAV				
		VERIFIED:	-			CLIENT: FENDER KATSALIDIS	SCALE: AS INDICATED
		DATE	APPROVAL				
A DEVELOPMENT APPROVAL		7/10/2021			PROJECT: BATTERY POINT APARTMENTS	ADDRESS: 1 KNOPWOOD STREET, BATTERY POINT, TAS, 7004	SHEET: LOCALITY PLAN
REV		ISSUE	DATE				
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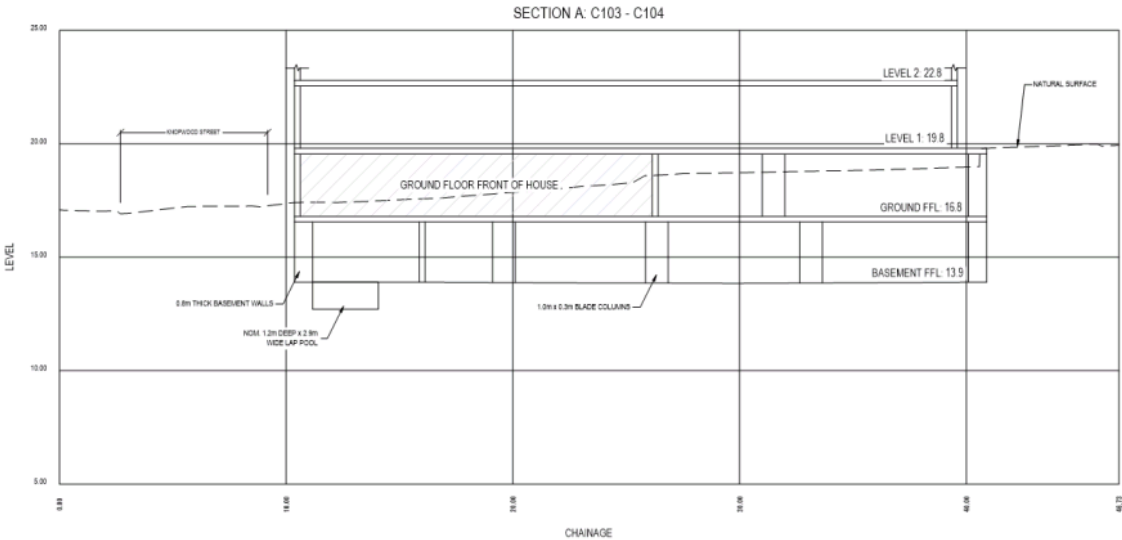












ELEVATIONS: SECTION A  
SCALE 1:100 (A1)

			DRAWN:	DE
			CHECKED:	MAV
			DESIGN:	DE
			CHECKED:	MAV
			VERIFIED:	-
A	DEVELOPMENT APPROVAL	7/10/2021		
REV	ISSUE	DATE	APPROVAL	



Lower Ground  
199 Macquarie Street  
Hobart TAS 7000  
03 6234 8666  
mal@aldanmark.com.au  
www.aldanmark.com.au

PROJECT: BATTERY POINT APARTMENTS

ADDRESS: 1 KNOPOOD STREET  
BATTERY POINT, TAS, 7004

SHEET: ELEVATIONS

CLIENT: FENDER KATSAIDIS

SCALE: AS INDICATED

TOTAL SHEETS: 10

SIZE: A1

PROJECT NO: 21E99-114

SHEET: C201

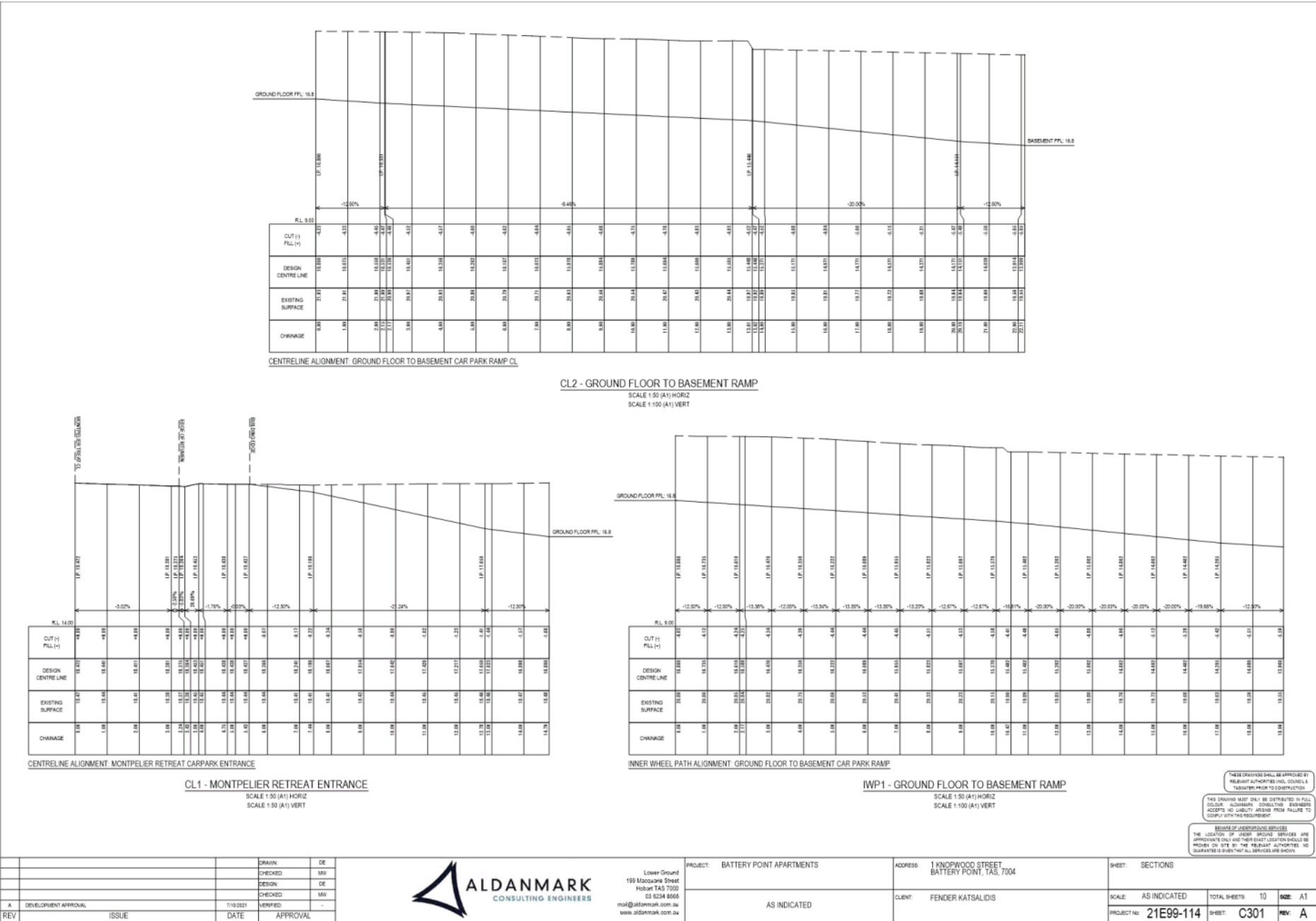
REV: A



THESE DRAWINGS SHALL BE APPROVED BY  
RELEVANT AUTHORITIES (INC. COUNCIL &  
TASMANIAN MINES COMMISSION)

THIS DRAWING MUST ONLY BE DISTRIBUTED IN FULL  
COLOUR. ALDANMARK CONSULTING ENGINEERS  
ACCEPTS NO LIABILITY ARISING FROM FAILURE TO  
COMPLY WITH THIS REQUIREMENT.

REMARKS ON UNDERGROUND SERVICES  
THE LOCATION OF UNDERGROUND SERVICES ARE  
APPROXIMATE ONLY AND THEIR EXACT LOCATION SHOULD BE  
PROVEN ON SITE BY THE RELEVANT AUTHORITIES. NO  
GUARANTEE IS GIVEN THAT ALL SERVICES ARE SHOWN.





Enquiries to: City Planning  
Phone: (03) 6238 2715  
Email: coh@hobartcity.com.au

## PAYMENT SUMMARY

ABN: 39 055 343 428

**PLEASE NOTE:** Payments can **only** be made via Council's online development portal payment gateway or by calling Customer Services on (03) 6238 2190.

26/10/2021

YOUR REFERENCE ONLY: 1 Knopwood Street

To: Bensons Property, by their Agent, Ireneinc Planning  
C/- 49 Tasma Street  
NORTH HOBART TAS 7000

Description	Amount
Planning Permit Advertising Fee*	\$ 400.00
Planning Permit Fee	\$ 35,000.00
<b>Total<sup>†</sup>:</b>	<b>\$ 35,400.00</b>
<b>Includes GST of:</b>	<b>\$ 36.36</b>

Tax Receipt will be issued on payment.

---

28<sup>th</sup> January 2022

Richard Bacon  
Hobart City Council  
GPO Box 503  
HOBART TAS 7001



Dear Richard

#### FURTHER INFORMATION - 1 KNOPWOOD STREET

I am writing in response to the letter received from Council on the 23/12/2021 requesting further information in response to the proposed development at 1 Knopwood Street (PLN-21-719). The following is in response to those enquiries:

3. A 3D model submitted in 3ds format of the proposed building (not including roads or adjacent buildings) to allow the building be imported into the Council's city wide 3D model.
- Architectural drawing front over rendering does not reflect the latest changes especially the changes on Montpelier Retreat facade.
  - Architectural drawing TP4004 and TP4005 shadow diagrams information is incomplete. They are not consistent with the rest of the shadow diagrams.
  - Renderings in the Architectural Report are inconsistent. Some of the images are still reflect the old design prior this amendment submission.
  - Planting area in Knopwood Street is taking out public footpath space and encroach into Council's land. If this is included in this DA, it should trigger a GMC application. We cannot accept this particular planting area without considering the widening of the footpath in Knopwood Street as they suggested as a separate future planning application in consultation with CoH.
  - 3D model not yet submitted

A 3d model has now been submitted to Council.

Please refer to the updated architectural set and design report, which address points 1, 2 and 3 above. With regard to point 4, the landscaping shown in Knopwood Street is located within the boundary of the site, which is illustrated on the accompanying landscape plans.

Please provide:

- A Waste Management Plan

Please refer to the accompanying WMP.

### *Parking and Access*

Enough information on the Parking and Access arrangements have been provided for assessment. However the proposed "jockey" parking arrangement will not be supported by development engineering.

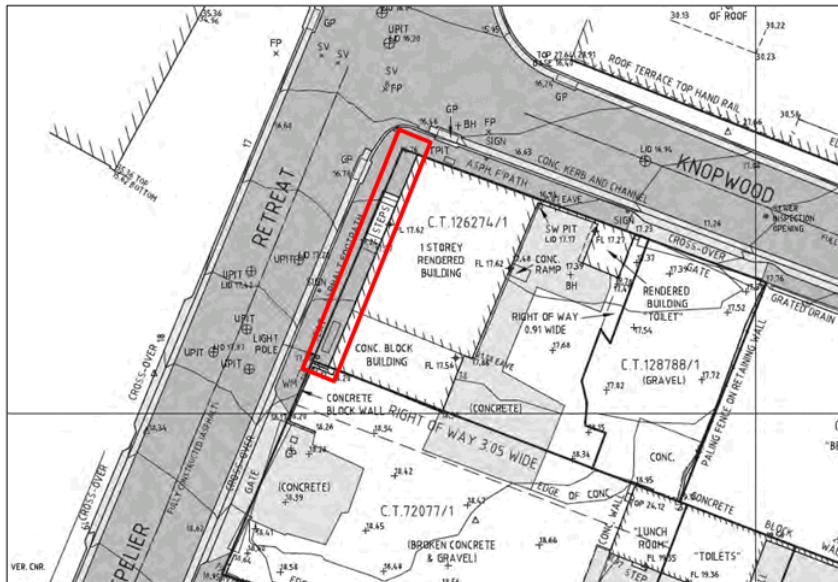
The proposed jockey spaces have been removed, resulting in a reduction in car parking. The proposal now provides a total of 40 car parking spaces.

Please refer to the updated civil and architectural plans, along with the revised TIA for further detail.

**Manager of Surveying Services**

The portion of CT 126274/1 currently occupied by the footpath and seat is considered by Council to be User Road and forms part of Montpelier Retreat. It appears that part of the proposed apartment development will occupy a portion of the User Road although this is not entirely clear. Please confirm that this will be the case and provide a calculation of the area of the User Road that is proposed to be occupied by the new development.

It is assumed that Council is referring to the area depicted in the following extract from the site survey document:



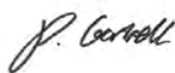
If this is the correct area that Council is referring to, the proposed area constitutes approximately 16m<sup>2</sup>.

## Environmental Site Assessment

A review of the previous contamination management plans/environmental assessments are being undertaken by GES and will be provided once complete.

If you have any further queries in relation to any of the above, please contact me on 6234 9281.

Yours sincerely,



Phil Gartrell  
Senior Planner  
IRENEINC PLANNING & URBAN DESIGN



ireneinc

PLANNING &amp; URBAN DESIGN

1<sup>st</sup> March 2022

Richard Bacon  
Hobart City Council  
GPO Box 503  
HOBART TAS 7001

Dear Richard



## FURTHER INFORMATION - 1 KNOPWOOD STREET

I am writing in response to the letter received from Council on the 10/02/2022 requesting further information in response to the proposed development at 1 Knopwood Street (PLN-21-719). The following is in response to those enquiries:

3. Architectural drawing TP100, TP4000, TP4001, TP4002 and TP4003 are still showing garden bed in Council's land.

Please refer to the updated architectural set which clarifies that the landscaping is contained entirely within the subject site.

Please attach the Viola correspondence to the Waste Management Plan.

The waste management consultant sought advice from Veolia on the WMP, however no response has been received to date.

Given the nature of the proposal, primarily residential with one commercial component, the provision of advice from Veolia can be provided or required as a condition on any subsequent permit.

**Environmental Site Assessment**

A review of the previous contamination management plans/environmental assessments are being undertaken by GES and will be provided once complete.

In addition to the above, a revised set of civil drawings (rev. F) which were updated in response to GM Consent requirements have also been provided.

If you have any further queries in relation to any of the above, please contact me on 6234 9281.

Yours sincerely,

Phil Gartrell  
Senior Planner  
IRENEINC PLANNING & URBAN DESIGN

smithstreetstudio | ireneinc

49 Tasma St, North Hobart, TAS 7000

Tel (03) 6234 9281

Fax (03) 6231 4727

Mob 0418 346 283

Email [planning@ireneinc.com.au](mailto:planning@ireneinc.com.au)

PLANNING TAS PTY LTD TRADING AS IRENEINC PLANNING &amp; SMITH STREET STUDIO PLANNING &amp; URBAN DESIGN

ABN 78 114 905 074

11/01/2022



## ENGINEER'S ADVICE

220111 EA 21E99-114

**To:** Adam Murray  
amurray@fkaustralia.com

Inspection ☐Instruction ☐

**Cc:**

Memo ☐RFI Response ☒Shop Drawing Approval ☐

**Project:** Battery Point Apartments: 1 Knopwood Street, BATTERY POINT  
**Subject:** TasWater Request for Additional Information (TWDA 2021/01886-HHC)

### Relevant documents:

1. Architectural/building design drawings by Fender Katsalidis (Revision 2)
2. Engineering design documents by Aldanmark (211209 CIV 21E99-114 Rev 1)

The proposed development at 1 Knopwood Street includes 26 multiple dwellings from 1 bedroom to 3-bedroom apartments and a Café/Wine bar. Sewerage loadings are in accordance with TasWater Sewerage Code Supplement and the Sewerage Code of Australia WSA 02-2014 Version 3.1. Gross development area for the applicable apartment ratings is based on survey documentation provided to Aldanmark by PDA Surveyors dated 19/12/2012 and architectural documentation by Fender Katsalidis.

In response the Request for Additional Information as issued by TasWater, please see below for the requested calculations and information.

Response to 1 (a), (b) and (c):

Referring to Appendix A – Table 1: Sewerage ET's and WSA 02-2014 and 450 L/ET/day, the sewerage flows are:

$$\begin{aligned} Q_{ADWF} &= 0.179 \text{ L} \\ Q_{PDWF} &= 2.253 \text{ L/s} \\ Q_{GWI} &= 3.63 \times 10^{-5} \text{ L/s} \\ Q_{RDI} &= 0.44 \text{ L/s} \end{aligned}$$

$$Q_{TOTAL} = 2.69 \text{ L/s}$$

### Notes:

1. Inspections/instructions conducted by Aldanmark are for structural purposes and are not approvals to proceed and do not override the Building Act 2016 requirement for mandatory notification to the Building Surveyor by the Builder or Superintendent for inspection of works in progress and cannot be used as the sole method of assessment to grant approval to proceed.
2. Inspections/instructions by Aldanmark do not include components of the current National Construction Code that are outside the areas of structural engineering.
3. In cases where building approval is required but has not yet been obtained, this advice must not be used as the basis for performing any works until such approvals are in place.
4. Any advice that results in an alteration to certified documentation must be approved by the Superintendent and Building Surveyor prior to carrying out those works. Such advice assumes a nil cost variation and is based on that expectation. The contractor must obtain approval from the Superintendent prior to commencing any of these works.

11/01/2022

220111 EA 21E99-114

In response to 1 (d)

As per TasWater supplement to WSA 03-2011-3.1 MRWA Edition V2.0, where the number of ET's in the service zone is less than 100, the designer shall refer to the PSD (AS3500.1 Table 3.2.3).

As per section 3 of AS3500.1:2018 Table 3.2.3, the PSD = 3.10 L/s for 26 dwellings.  
Using PSFR's to calculate the flow required for the Basement and Ground floor fixtures, an additional 0.40 L/s is required.  
The site will require a DN50 (I.D) low hazard property connection service as per TWS-W-002.  
Static rise of 22.0m (216kPa), dynamic losses of 20kPa and min. fixture pressure of 50kPa.  
Therefore, the development requires a min. of **3.50 L/s at 300kPA** at the boundary for domestic water servicing.

In response to 1 (e):

Converting peak flow rate in L/s to L/day, the development requires 302,400 L/day.

In response to 1 (f):

As per section 3 of AS3500.1:2018 Table 3.2.3, the PSD = 3.10 L/s for 26 dwellings.  
PSFR's to calculate the flow required for the Basement and Ground floor fixtures, an additional 0.40 L/s is required.

In response to 1 (g):

Total fire demands will not be known until detailed design has commenced. Based on previous projects, Aldanmark anticipate the fire supply must take into consideration:

- Attack hydrants and;
- Sprinkler systems (if required)

The proposed building will require 2 internal fire hydrants operating simultaneously with a flow rate of 10 L/s @ 350kPa.  
Static rise of 22.0m (216kPa), dynamic losses of 12kPa.  
Therefore, the development requires a min. of **20L/s at nom. 600kPA** at the boundary for fire servicing.

In response to 1 (h):

Refer to Appendix A – Table 2: Water ET's

Regards,



**Danton Evans** BEng (Hons)  
Civil Engineer

11/01/2022

220111 EA 21E99-114

## Appendix A

Table 1: Sewerage Equivalent Tenements

TYPE	COMMENTS	QUANTITY	UNIT	UNIT RATING	SEWERAGE ET'S
Basement					
CF09 - Public Amenities	DDA Toilet and Shower	1	Per WC	0.6	0.6
				SUBTOTAL	0.60
Ground floor					
EF02 - Pub/Bar	Café/Wine Bar	181	GBFA (m2)	0.048	8.688
CF09 - Public Amenities	Toilet	1	Per WC	0.6	0.6
				SUBTOTAL	9.29
Level 1					
RA02 - Apartment 2 Bedroom	Apartment - 2 Bed	1	Dwelling	0.75	0.75
RA03 - Apartment 3 Bedroom	Apartment - 3 Bed	4	Dwelling	1	4.00
				SUBTOTAL	4.75
Level 2					
RA01 - Apartment 1 Bedroom	Apartment - 1 Bed	1	Dwelling	0.5	0.50
RA02 - Apartment 2 Bedroom	Apartment - 2 Bed	3	Dwelling	0.75	2.25
RA03 - Apartment 3 Bedroom	Apartment - 3 Bed	4	Dwelling	1	4.00
				SUBTOTAL	6.75
Level 3					
RA03 - Apartment 3 Bedroom	Apartment - 3 Bed	7	Dwelling	1	7.00
				SUBTOTAL	7.00
Level 4					
RA03 - Apartment 3 Bedroom	Apartment - 3 Bed	3	Dwelling	1	3.00
				SUBTOTAL	3.00
Level 5					
RA03 - Apartment 3 Bedroom	Apartment - 3 Bed	2	Dwelling	1	2.00
				SUBTOTAL	2.00
Level 6					
RA03 - Apartment 3 Bedroom	Penthouse Suite	1	Dwelling	1	1.00
				SUBTOTAL	1.00
				GRAND TOTAL	34.39



11/01/2022

220111 EA 21E99-114

Table 2: Water Equivalent Tenements

TYPE	COMMENTS	QUANTITY	UNIT RATING	WATER ET's
Basement				
CF09 - Public Amenities	DDA Toilet and Shower	1	0.4	0.4
			SUBTOTAL	0.4
Ground floor				
EF02 - Pub/Bar	Café/Wine Bar	183	0.03	5.49
CF09 - Public Amenities	Toilet	1	0.4	0.4
			SUBTOTAL	6.69
Level 1				
RA02 - Apartment 2 Bedroom	Apartment - 2 Bed	1	0.5	0.5
RA03 - Apartment 3 Bedroom	Apartment - 3 Bed	4	0.67	2.68
			SUBTOTAL	3.18
Level 2				
RA01 - Apartment 1 Bedroom	Apartment - 1 Bed	1	0.33	0.33
RA02 - Apartment 2 Bedroom	Apartment - 2 Bed	3	0.5	1.5
RA03 - Apartment 3 Bedroom	Apartment - 3 Bed	4	0.67	2.68
			SUBTOTAL	4.51
Level 3				
RA03 - Apartment 3 Bedroom	Apartment - 3 Bed	7	0.67	4.69
			SUBTOTAL	20.07
Level 4				
RA03 - Apartment 3 Bedroom	Apartment - 3 Bed	3	0.67	2.01
			SUBTOTAL	2.01
Level 5				
RA03 - Apartment 3 Bedroom	Apartment - 3 Bed	2	0.67	1.34
			SUBTOTAL	1.34
Level 6				
RA03 - Apartment 3 Bedroom	Penthouse Suite	1	0.67	0.67
			SUBTOTAL	0.67
			GRAND TOTAL	38.87

9/12/2021



## ENGINEER'S ADVICE

211209 EA 21E99-114

To: Adam Murray  
amurray@fkaustralia.com

Inspection ☐Instruction ☐

Cc:

Memo ☐RFI Response ☒Shop Drawing Approval ☐

**Project:** Battery Point Apartments: 1 Knopwood Street, BATTERY POINT

**Subject:** TasWater Request for Additional Information (TWDA 2021/01886-HHC)

### Relevant documents:

1. Architectural/building design drawings by Fender Katsalidis (Revision 2)
2. Engineering design documents by Aldanmark (211209 CIV 21E99-114 Rev 1)

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In response the Request for Additional Information as issued by TasWater, please see below for the requested calculations and information.

Response to 1 (a), (b) and (c):

Referring to Appendix A – Table 1: Sewerage ET's and WSA 02-2014 and 450 L/ET/day, the sewerage flows are:

$$Q_{ADWF} = 0.179 \text{ L}$$

$$Q_{PDWF} = 2.253 \text{ L/s}$$

$$Q_{GWI} = 3.63 \times 10^{-5} \text{ L/s}$$

$$Q_{RDI} = 0.44 \text{ L/s}$$

$$Q_{TOTAL} = 2.69 \text{ L/s}$$

In response to 1 (d) and (e):

As per TasWater supplement to WSA 03-2011-3.1 MRWA Edition V2.0, where the number of ET's in the service zone is less than 100, the designer shall refer to the PSD (AS3500.1 Table 3.2.3).

### Notes:

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9/12/2021

211209 EA 21E99-114

In response to 1 (f):

As per section 3 of AS3500.1:2018 Table 3.2.3, the PSD = 3.10 L/s for 26 dwellings.

PSFR's to calculate the flow required for the Basement and Ground floor fixtures, an additional 0.40 L/s is required.

The site will require a DN50 (I.D) low hazard property connection service as per TWS-W-002.

Static rise of 22.0m (216kPa), dynamic losses of 20kPa and min. fixture pressure of 50kPa.

Therefore, the development requires a min. of **3.50 L/s at 300kPA** at the boundary for domestic water servicing.

Total fire demands will not be known until detailed design has commenced. Based on previous projects, Aldanmark anticipate the fire supply must take into consideration:

- Attack hydrants and;
- Sprinkler systems (if required)

The proposed building will require 2 internal fire hydrants operating simultaneously with a flow rate of 10 L/s @ 350kPa.

Static rise of 22.0m (216kPa), dynamic losses of 12kPa.

Therefore, the development requires a min. of **20L/s at nom. 600kPA** at the boundary for fire servicing.

In response to 1 (g):

Refer to Appendix A – Table 2: Water ET's

Regards,



**Danton Evans** BEng (Hons)  
Civil Engineer

9/12/2021

211209 EA 21E99-114

## Appendix A

Table 1: Sewerage Equivalent Tenements

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Ground floor					
EF02 - Pub/Bar	Café/Wine Bar	181	GBFA (m2)	0.048	8.688
CF09 - Public Amenities	Toilet	1	Per WC	0.6	0.6
				SUBTOTAL	9.29
Level 1					
RA02 - Apartment 2 Bedroom	Apartment - 2 Bed	1	Dwelling	0.75	0.75
RA03 - Apartment 3 Bedroom	Apartment - 3 Bed	4	Dwelling	1	4.00
				SUBTOTAL	4.75
Level 2					
RA01 - Apartment 1 Bedroom	Apartment - 1 Bed	1	Dwelling	0.5	0.50
RA02 - Apartment 2 Bedroom	Apartment - 2 Bed	3	Dwelling	0.75	2.25
RA03 - Apartment 3 Bedroom	Apartment - 3 Bed	4	Dwelling	1	4.00
				SUBTOTAL	6.75
Level 3					
RA03 - Apartment 3 Bedroom	Apartment - 3 Bed	7	Dwelling	1	7.00
				SUBTOTAL	7.00
Level 4					
RA03 - Apartment 3 Bedroom	Apartment - 3 Bed	3	Dwelling	1	3.00
				SUBTOTAL	3.00
Level 5					
RA03 - Apartment 3 Bedroom	Apartment - 3 Bed	2	Dwelling	1	2.00
				SUBTOTAL	2.00
Level 6					
RA03 - Apartment 3 Bedroom	Penthouse Suite	1	Dwelling	1	1.00
				SUBTOTAL	1.00
				GRAND TOTAL	34.39



9/12/2021

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Table 2: Water Equivalent Tenements

TYPE	COMMENTS	QUANTITY	UNIT RATING	WATER ET's
Basement				
CF09 - Public Amenities	DDA Toilet and Shower	1	0.4	0.4
			SUBTOTAL	0.4
Ground floor				
EF02 - Pub/Bar	Café/Wine Bar	183	0.03	5.49
CF09 - Public Amenities	Toilet	1	0.4	0.4
			SUBTOTAL	6.69
Level 1				
RA02 - Apartment 2 Bedroom	Apartment - 2 Bed	1	0.5	0.5
RA03 - Apartment 3 Bedroom	Apartment - 3 Bed	4	0.67	2.68
			SUBTOTAL	3.18
Level 2				
RA01 - Apartment 1 Bedroom	Apartment - 1 Bed	1	0.33	0.33
RA02 - Apartment 2 Bedroom	Apartment - 2 Bed	3	0.5	1.5
RA03 - Apartment 3 Bedroom	Apartment - 3 Bed	4	0.67	2.68
			SUBTOTAL	4.51
Level 3				
RA03 - Apartment 3 Bedroom	Apartment - 3 Bed	7	0.67	4.69
			SUBTOTAL	20.07
Level 4				
RA03 - Apartment 3 Bedroom	Apartment - 3 Bed	3	0.67	2.01
			SUBTOTAL	2.01
Level 5				
RA03 - Apartment 3 Bedroom	Apartment - 3 Bed	2	0.67	1.34
			SUBTOTAL	1.34
Level 6				
RA03 - Apartment 3 Bedroom	Penthouse Suite	1	0.67	0.67
			SUBTOTAL	0.67
			GRAND TOTAL	38.87



**Fender Katsalidis**  
**1 Montpelier Retreat**  
**Traffic Impact Assessment**  
**September 2021**





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## 1. Introduction

### 1.1 Background

Midson Traffic were engaged by Fender Katsalidis to prepare a traffic impact assessment for a proposed mixed use development at 1 Knopwood Street, Battery Point.

**Figure 1 Development Proposal**



### 1.2 Traffic Impact Assessment (TIA)

A traffic impact assessment (TIA) is a process of compiling and analysing information on the impacts that a specific development proposal is likely to have on the operation of roads and transport networks. A TIA should not only include general impacts relating to traffic management, but should also consider specific impacts on all road users, including on-road public transport, pedestrians, cyclists and heavy vehicles.

This TIA has been prepared in accordance with the Department of State Growth (DSG) publication, *Traffic Impact Assessment Guidelines*, August 2020. This TIA has also been prepared with reference to the Austroads publication, *Guide to Traffic Management*, Part 12: *Traffic Impacts of Developments*, 2019.

Land use developments generate traffic movements as people move to, from and within a development. Without a clear understanding of the type of traffic movements (including cars, pedestrians, trucks, etc), the scale of their movements, timing, duration and location, there is a risk that this traffic movement may contribute to safety issues, unforeseen congestion or other problems where the development connects to



the road system or elsewhere on the road network. A TIA attempts to forecast these movements and their impact on the surrounding transport network.

A TIA is not a promotional exercise undertaken on behalf of a developer; a TIA must provide an impartial and objective description of the impacts and traffic effects of a proposed development. A full and detailed assessment of how vehicle and person movements to and from a development site might affect existing road and pedestrian networks is required. An objective consideration of the traffic impact of a proposal is vital to enable planning decisions to be based upon the principles of sustainable development.

This TIA also addresses the relevant clauses of E5.0, *Road and Railway Assets Code*, and E6.0, *Parking and Access Code*, of the Hobart Interim Planning Scheme, 2015.

### 1.3 Statement of Qualification and Experience

This TIA has been prepared by an experienced and qualified traffic engineer in accordance with the requirements of Council's Planning Scheme and The Department of State Growth's, *Traffic Impact Assessment Guidelines*, August 2020, as well as Council's requirements.

The TIA was prepared by Keith Midson. Keith's experience and qualifications are briefly outlined as follows:

- 25 years professional experience in traffic engineering and transport planning.
- Master of Transport, Monash University, 2006
- Master of Traffic, Monash University, 2004
- Bachelor of Civil Engineering, University of Tasmania, 1995
- Engineers Australia: Fellow (FIEAust); Chartered Professional Engineer (CPEng); Engineering Executive (EngExec); National Engineers Register (NER)

### 1.4 Project Scope

The project scope of this TIA is outlined as follows:

- Review of the existing road environment in the vicinity of the site and the traffic conditions on the road network.
- Provision of information on the proposed development with regards to traffic movements and activity.
- Identification of the traffic generation potential of the proposal with respect to the surrounding road network in terms of road network capacity.
- Review of the parking requirements of the proposed development. Assessment of this parking supply with Planning Scheme requirements.
- Traffic implications of the proposal with respect to the external road network in terms of traffic efficiency and road safety.

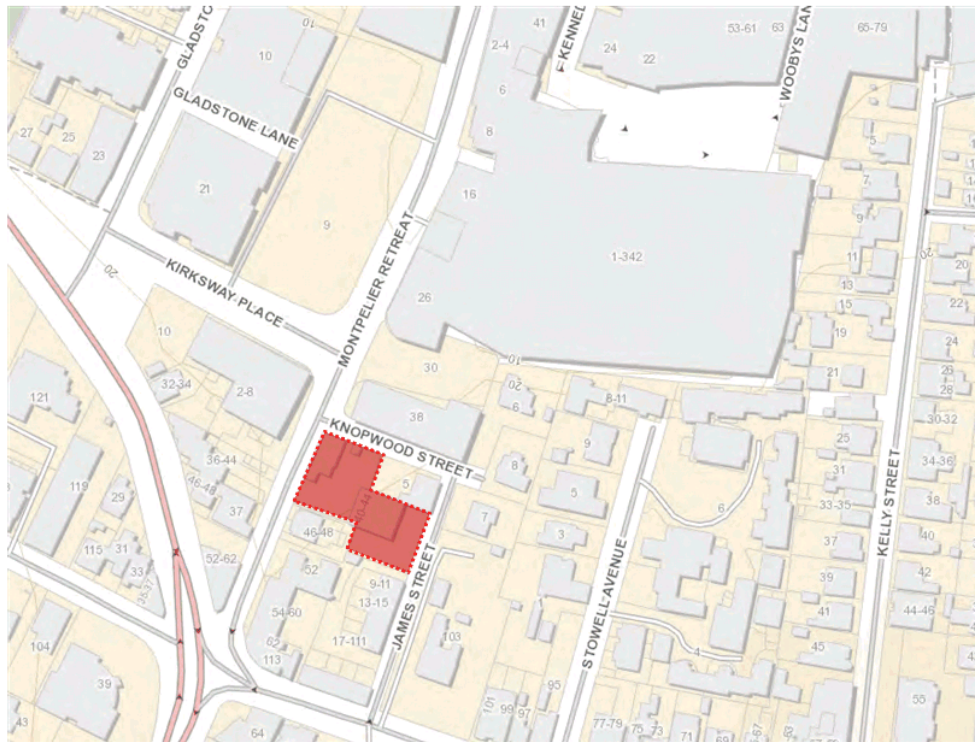


### 1.5 Subject Site

The subject site is located across two titles, at corner of Knopwood Street and Montpelier Retreat, extending through to James Street. The site is a former industrial site that is currently utilise for car parking.

The subject site and surrounding road network is shown in Figure 2.

**Figure 2 Subject Site & Surrounding Road Network**



*Image Source: LIST Map, DPIWE*



## 1.6 Reference Resources

The following references were used in the preparation of this TIA:

- Hobart Interim Planning Scheme, 2015 (Planning Scheme)
- Austroads, *Guide to Traffic Management*, Part 12: *Traffic Impacts of Developments*, 2019
- Austroads, *Guide to Road Design*, Part 4A: Unsignalised and Signalised Intersections, 2021
- Department of State Growth, *Traffic Impact Assessment Guidelines*, 2020
- Roads and Maritime Services NSW, *Guide to Traffic Generating Developments*, 2002 (RMS Guide)
- Roads and Maritime Services NSW, *Updated Traffic Surveys*, 2013 (Updated RMS Guide)
- Australian Standards, AS2890.1, *Off-Street Parking*, 2004 (AS2890.1:2004)





## 2. Existing Conditions

### 2.1 Transport Network

For the purpose of this report, the transport network consists of Montpelier Retreat, Knopwood Road, Sandy Bay Road, Hampden Road and James Street. Other roads such as Gladstone Street and Salamanca Place were considered in the broader context of the report, but not examined in detail.

#### 2.1.1 Montpelier Retreat

Montpelier Retreat connects between Salamanca Place and Hampden Road. It provides connection to Knopwood Street and Kirksway Place via two intersections that form a 'staggered T' configuration.

Montpelier Retreat is a local street connecting between Castray Esplanade and Hampden Road, running in a predominantly north-south direction. It is a two-lane, two-way road with an average pavement width of approximately 11.5 metres.

Montpelier Retreat provides a large amount of time-limited parking on both sides of the road, with the exception of standing restrictions directly adjacent to the subject site. There are pedestrian footpaths provided on both sides of Montpelier Retreat.

Montpelier Retreat carries in the order of 3,800 vehicles per day with a morning peak of 350 vehicles per hour and an evening peak of 390 vehicles per hour (based on short duration traffic surveys). Traffic volumes reduce dramatically on Montpelier Retreat during the operation of the Salamanca Market due to the associated road closures.

The section of Montpelier Retreat between Kirksway Place and Hampden Road carries a significantly lower volume, in the order of 1,000 vehicles per day.

Montpelier Retreat near the subject site can be seen in Figure 3 and Figure 4.



Figure 3 Montpelier Retreat from site towards Hampden Rd



Figure 4 Montpelier Retreat – from site towards Salamanca





### 2.1.2 Knopwood Street

Knopwood Street is a short one-way road that connects between James Street and Montpelier Retreat. Knopwood Street from Montpelier Retreat is shown in Figure 5.

**Figure 5 Knopwood Street from Montpelier Retreat**



### 2.1.3 James Street

James Street is a short and narrow one-way street that connects between Hampden Road and Knopwood Street. No parking is permitted on either side of James Street. James Street near the subject site is shown in Figure 6.



**Figure 6 James Street towards Knopwood Street**



#### **2.1.4 Kirksway Place**

Kirksway Place is a minor collector road connecting between Montpelier Retreat and Gladstone Street, running in a predominantly east-west direction. It is a two-lane, two-way road with an average pavement width of approximately 14 metres.

Kirksway Place provides time-limited on-street parking and pedestrian footpaths on both sides of the road along its length.

Kirksway Place carries in the order of 3,000 vehicles per day with a morning peak of 240 vehicles per hour and an evening peak of 325 vehicles per hour (based on short duration traffic surveys).

## **2.2 Road Safety Performance**

Crash data can provide valuable information on the road safety performance of a road network. Existing road safety deficiencies can be highlighted through the examination of crash data, which can assist in determining whether traffic generation from the proposed development may exacerbate any identified issues.

Crash data was obtained from the Department of State Growth for a 5+ year period between 1<sup>st</sup> January 2016 and 31<sup>st</sup> May 2021 for the full lengths of Montpelier Retreat, Knopwood Street and James Street.

The findings of the crash data is summarised as follows:





- A total of 14 crashes were reported during this time. No crashes were reported in James Street, 1 crash was reported in Knopwood Street and 13 crashes were reported in Montpelier Retreat.
- Severity. No injury crashes were reported – all crashes involved property damage only.
- Day of week. 4 crashes were reported on Mondays; 3 crashes were reported on Fridays; 2 crashes were reported on Wednesdays, Thursdays and Saturdays; 1 crash was reported on a Tuesday; no crashes were reported on Sundays.
- Time of day. The majority of crashes were reported between 7:00am and 7:00pm (9 crashes). Two crashes were reported prior to 7:00am and 4 crashes were reported after 7:00pm.
- Crash types. There were a range of crash types reported. 4 crashes involved 'parking-vehicles-only'; 3 crashes involved 'other-manoeuving'; 3 crashes involved 'cross-traffic'.
- Crash locations. The reported crashes were disbursed in Montpelier Retreat. 5 crashes were reported at the Salamanca Place intersection. The crash locations in Montpelier Retreat are shown in Figure 7.
- Vulnerable road users. 3 crashes involved a bicycle. No crashes were reported that involved a pedestrian or motorcyclist.

The crash data in Montpelier Retreat is reasonably typical of a busy collector road network through a commercial area and does not indicate that there are any specific road safety deficiencies that might be exacerbated by traffic generated by the development proposal.



Figure 7    Montpelier Retreat Crash Locations



Image Source: Department of State Growth



### 3. Proposed Development

#### 3.1 Development Proposal

The proposal is a mixed-use development that includes 26 residential apartments and a ground floor café/ wine bar. A total of 48 on-site car parking spaces are provided over two levels, with access via Montpellier Retreat.

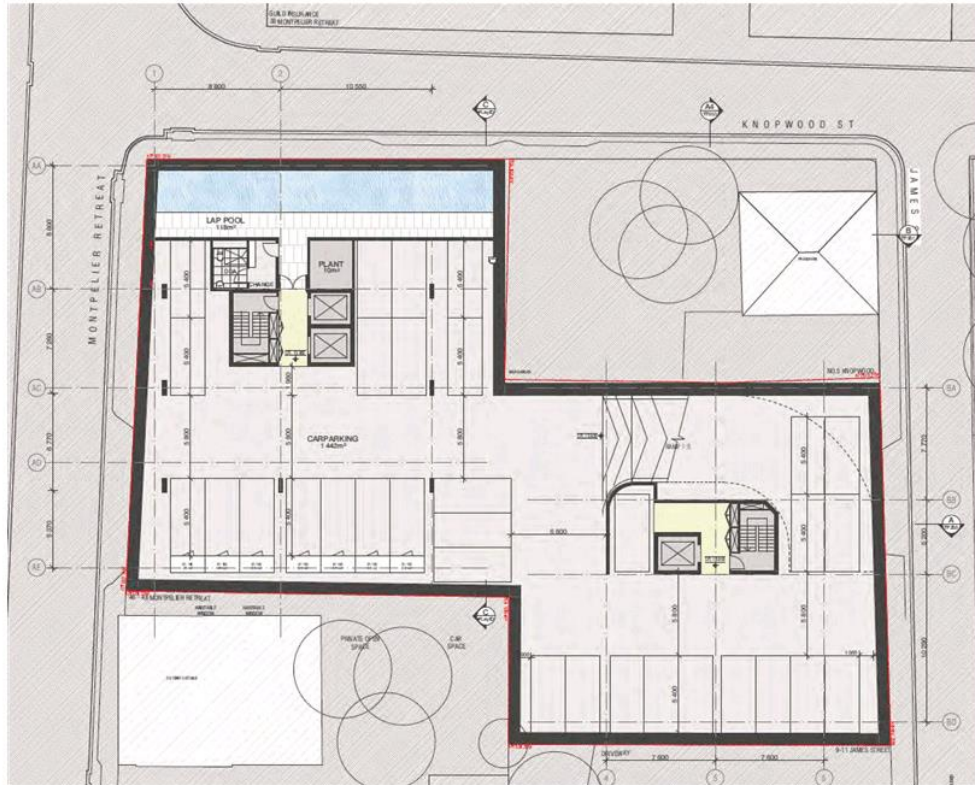
The components of the development are summarised as follows:

- 1-bedroom apartments 1
- 2-bedroom apartments 4
- 3 bedroom apartments 20
- Penthouse apartment 1
- Café/ wine bar 183 m<sup>2</sup>

The architectural rendering of the development proposal is shown in Figure 1. The proposed development plans associated with the parking layout are shown in Figure 8 and Figure 9.



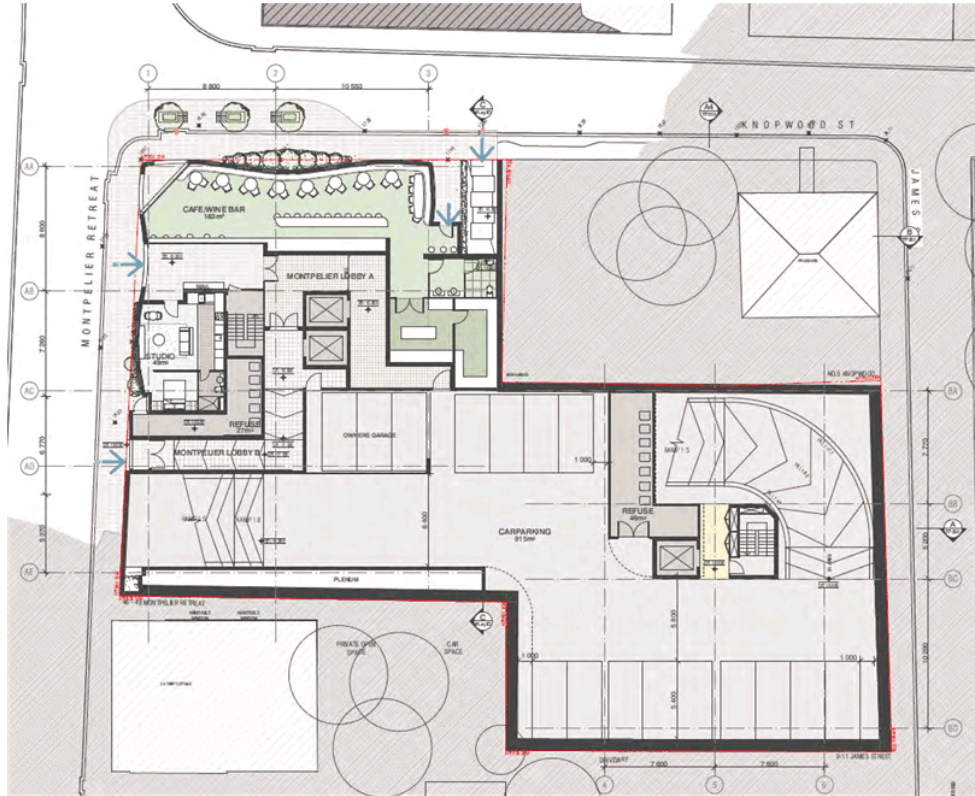
**Figure 8 Proposed Development Plans – Basement**







**Figure 9 Proposed Development Plans – Ground/ Lower Ground Floors**





## 4. Traffic Impacts

### 4.1 Trip Generation

#### 4.1.1 Existing Site Traffic Generation

The existing car park generates approximately 100 vehicles per day, based on the current use as a car park. The existing traffic generation consists of approximately 30 inward movements during the morning peak, 30 outward movements during the evening peak, and 40 movements throughout the balance of the day.

#### 4.1.2 Development Traffic Generation

The RMS Guide recommends the following traffic generation rate for residential apartments:

- 4 – 5 trips per day per dwelling
- 0.4 – 0.5 trips per hour per dwelling during peak periods.

Based on a total of 48 apartments, the traffic generation is likely to be 240 vehicles per day and 24 vehicles per hour during peak periods.

The RMS Guide recommends the following rate for restaurants and cafes.

- Daily trips - 60 trips per day per 100m<sup>2</sup> floor area
- Peak hour trips – 5 trips per hour per 100m<sup>2</sup> floor area

This equates to a traffic generation of 110 vehicles per day with a peak of 9 vehicles per hour for the café/wine bar component of the development.

The total traffic generation of the development is 350 vehicles per day with a peak of 33 vehicles per hour.

The net traffic generation is therefore 250 vehicles per day with an increased peak of 3 vehicles per hour when compared to the existing use of the site.

### 4.2 Trip Assignment

It is difficult to determine trip distribution without accurate origin-destination information. The site is accessed directly from Montpelier Retreat, which facilitates accessibility to/from Gladstone Street and Salamanca Place. Access from Hampden Road is available via James Street and Knopwood Street.



#### 4.3 Number of Accesses

The development relies on an upgraded access on Montpelier Retreat and removes an existing access in James Street.

The Acceptable Solution A1 of Clause E6.7.1 of the Planning Scheme states "*the number of vehicle access points provided for each road frontage must be no more than 1 or the existing number of vehicle access points, whichever is greater*".

In this case, the development does not alter the number of access points fronting onto the road network, therefore the Acceptable Solution A1 of Clause E6.7.1 is met.

#### 4.4 Access Impacts

The Acceptable Solution A3 of Clause E5.5.1 of the Planning Scheme states "*The annual average daily traffic (AADT) of vehicle movements, to and from a site, using an existing access or junction, in an area subject to a speed limit of 60km/h or less, must not increase by more than 20% or 40 vehicle movements per day, whichever is the greater*".

In this case the development generates more than 40 vehicles per day more than the previous use of the site. The development therefore does not meet the requirements of Acceptable Solution A3 of Clause E5.5.1 of the Planning Scheme. It is noted that the car park will only provide access for the residential component of the development. The traffic generation utilising the access will therefore be 240 vehicles per day with a peak of 24 vehicles per hour.

The Performance Criteria P3 of Clause E5.5.1 of the Planning Scheme states:

*"Any increase in vehicle traffic at an existing access or junction in an area subject to a speed limit of 60km/h or less, must be safe and not unreasonably impact on the efficiency of the road, having regard to:*

- (a) the increase in traffic caused by the use;*
- (b) the nature of the traffic generated by the use;*
- (c) the nature and efficiency of the access or the junction;*
- (d) the nature and category of the road;*
- (e) the speed limit and traffic flow of the road;*
- (f) any alternative access to a road;*
- (g) the need for the use;*
- (h) any traffic impact assessment; and*
- (i) any written advice received from the road authority".*

The following is relevant with respect of the development:



- a. Increase in traffic. The increase in traffic will be approximately 250 vehicles per day. There will be little increase in peak traffic generation (increase of 3 vehicles per hour). The access and surrounding network can accommodate the relatively small peak hour traffic generation associated with the development.
- b. Nature of traffic generation. The traffic generation will be residential in nature.
- c. Nature and efficiency of access. The access is designed to accommodate the vehicle movements associated with the development. The relatively small peak generation of 24 vehicles per hour can be accommodated by the access design, noting that the peak traffic volume utilising the site will be similar to the use of the existing access.
- d. Nature and category of road. Montpelier Retreat is a collector road that services commercial and residential properties along its length. The nature and category of the road is compatible with the traffic use associated with the proposed development.
- e. Speed limit and traffic flow of road. The general urban speed limit of 50-km/h applies to Montpelier Retreat. Traffic flow is one-way adjacent to the subject site, with traffic flow approximately 1,000 vehicles per day. The speed limit and traffic volumes are compatible with the traffic generation of the proposed development at the site's access.
- f. Alternative access. No alternative access was deemed necessary. Access is possible at Knopwood Street and James Street frontages, but these options were not considered appropriate due to the narrow road widths and one-way configuration of these roads.
- g. Need for use. The access is required to service the on-site car parking of the development.
- h. Traffic impact assessment. This report documents the findings of a traffic impact assessment.
- i. Road authority advice. Council (as road authority) require a TIA to be prepared in support of the development.

Based on the above assessment, the proposed development meets the requirements of Performance Criteria P3 of Clause E5.5.1 of the Planning Scheme.

#### 4.5 Sight Distance

The Acceptable Solution A1 of Clause E5.6.4 of the Planning Scheme states that sight distances at "*an access or junction must comply with the Safe Intersection Sight Distance shown in Table E5.1*". The requirements of Table E5.1 are reproduced in Table 1.



**Table 1 Planning Scheme SISD Requirements**

Vehicle Speed km/h	Safe Intersection Sight Distance in metres, for speed limit of:	
	60 km/h or less	Greater than 60 km/h
50	80	90
60	105	115
70	130	140
80	165	175
90		210
100		250
110		290

In this case, the required SISD is 80 metres assuming that the vehicle speed (85<sup>th</sup> percentile speed) is equal to the legal speed limit of 50-km/h.

The available sight distance exceeds 80 metres in both directions along Montpelier Retreat when considering gaps in parked cars. Note that actual vehicle speeds are generally lower than 50-km/h in Federal Street (thus reducing the actual SISD requirements).

The proposed access therefore complies with Acceptable Solution A1 of Clause E5.6.4.

#### 4.6 Pedestrian Impacts

The proposal will generate a moderate amount of pedestrian activity. Pedestrian movements would be generated between the site and areas such as Hobart CBD, Sullivans Cove and Battery Point.

The existing pedestrian infrastructure is considered to be appropriate to cater for the expected pedestrian demands generated by the development.

#### 4.7 Road Safety Impacts

No significant road safety impacts are foreseen for the proposed development. This is based on the following:

- The surrounding road transport network is capable of absorbing the estimated traffic generation of the fully developed subdivision.
- The site was previously a commercial site that had various uses, the most recent being private car parking which generated moderate traffic generation. Access to the site was previously via both Montpelier Retreat and Knopwood Street. The movement of vehicles into and out of the site will therefore not be seen as 'unusual' for motorists utilising Knopwood Street.
- The crash history of the surrounding road network near the subject site does not indicate that there are any specific road safety issues that are likely to be exacerbated by the proposed development.



## 5. Parking Assessment

### 5.1 Parking Provision

The proposed development provides a total of 48 on-site car parking spaces. This is provided over two parking levels (32 basement spaces and 16 ground floor spaces).

The parking consists of the following:

- 3 enclosed spaces associated with the penthouse (garage spaces)
- 12 jockey-style parking spaces
- 32 single parking spaces.

### 5.2 On-Street Car Parking

Nearby on-street parking consists of a mix of short term time restricted parking in Knopwood Street (consisting of 30 minute and 5 minute parking adjacent to the subject site), one-hour parking (residential permit zone) in Montpelier Retreat south of the subject site to Hampden Road, and a loading zone adjacent to the subject site in Montpelier Retreat.

Yellow "no stopping" line marking has been installed around the corner of Knopwood Street and Montpelier Retreat adjacent to the subject site.

### 5.3 Planning Scheme Requirements

Schedule E6.6.1 of the Planning Scheme sets out the normal parking requirements for residential developments, however the Acceptable Solution A9 of Clause E13.8.4 for Heritage Precinct, BP1 states that is "*there must be a maximum of one car space per dwelling*". The Heritage Code takes precedence over the Parking and Access Code.

This is a requirement for 26 spaces for the residential component of the development.

The café/ wine bar component requires 15 spaces for each 100m<sup>2</sup> of floor area or 1 space for every 3 seats (whichever is greater) under Table E6.1 of the Planning Scheme. This is a requirement for 27 spaces.

The total parking requirement is therefore 54 spaces. The provision of 48 spaces does not comply with this requirement.

The Performance Criteria P9 of Clause E13.8.4 of the Planning Scheme states "*Parking must not detract from the cultural heritage significance or the setting of existing dwellings*". In this case the development will provide basement car parking that will not be visible from the streetscape. It will therefore not detract from the cultural heritage significance or the setting of the existing dwellings in the area. The development therefore complies with the requirements of Performance Criteria P9 of Clause E13.8.4 of the Planning Scheme.



#### 5.4 Car Parking Layout

The Acceptable Solution A1 of Clause E6.7.5 of the Planning Scheme states "*The layout of car parking spaces, access aisles, circulation roadways and ramps must be designed and constructed to comply with section 2 "Design of Parking Modules, Circulation Roadways and Ramps" of AS/NZS 2890.1:2004 Parking Facilities Part 1: Off-street car parking and must have sufficient headroom to comply with clause 5.3 "Headroom" of the same Standard*".

Typical car parking dimensions within the on-site car park are as follows:

- Space width      2.4 metres
- Space length     5.4 metres
- Aisle Width       5.8 metres

These spaces therefore comply with the dimension requirements of User Class 1A in Australian Standards, AS2890.1:2004 (Residential, domestic and employee parking).

Ramps within the car park have a maximum grade of 20%, which is permitted under AS2890.1. Transitions are provided at 1:8 for 2 metres at the top and bottom of the ramps as required by AS2890.1.

The car parking design therefore complies with the requirements of Acceptable Solution A1 of Clause E6.7.5 of the Planning Scheme.



## 6. Conclusions

This traffic impact assessment (TIA) investigated the traffic and parking impacts of a proposed development at 1 Knopwood Street, Battery Point.

The key findings of the TIA are summarised as follows:

- The proposed development involves the construction of 26 residential apartments and a ground floor retail area. The development will include on-site car parking for 48 spaces over two levels.
- Access to the site is via a single access driveway at Montpelier Retreat with a separated footpath accesses in Montpelier Retreat, Knopwood Street and James Street.
- The traffic generated by the development is likely to be 350 trips per day, with a peak of 35 trips per hour. The traffic generation associated with the development meets the requirements of Performance Criteria P3 of Clause E5.5.1 of the Planning Scheme.
- The on-site car parking provision is 48 cars. The parking provision meets the requirements of Performance Criteria P9 of Clause E13.8.4 of the Planning Scheme.

Based on the findings of this report and subject to the recommendations above, the proposed development is supported on traffic grounds.





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**Document Status**

Revision	Author	Review	Date
0	Keith Midson	Zara Kacic-Midson	30 September 2021



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6<sup>th</sup> December 2021

Phil Gartrell  
IreneInc Planning & Urban Design  
49 Tasma Street  
Hobart TAS 7001

Dear Phil,

### **1 KNOPOOD ST – RESPONSE TO COUNCIL RFI**

Further to our recent discussions, this letter provides a response to Council's request for further information, dated 17<sup>th</sup> November 2021 regarding the proposed development at the abovementioned address.

This letter addresses item PA3 of Council's RFI which states:

*"Scaled and dimension plan(s) demonstrating on site turning for a B99 vehicle in accordance with the AS/NZS 2890.1:2004 Parking Facilities Part 1: Off street car parking or a design that ensures a safe and efficient turning.*

*To satisfy Hobart Interim Planning Scheme 2015 clauses E6.7.4 Acceptable Solution A1 the scaled and dimensioned design drawings must include:*

- *Plan view demonstrating onsite turning for a B99 vehicle such that vehicles can enter and exit the property in a forward direction.*

*Where the design drawing(s) do not comply with the above clauses, provide a certification by a suitably qualified engineer that the design provides for a safe, efficient and convenient access. This will then be assessed under performance criteria of the Hobart Interim Planning Scheme 2015".*

The Acceptable Solution A1 of Clause E6.7.4 of the Planning Scheme states:

*"On-site turning must be provided to enable vehicles to exit a site in a forward direction, except where the access complies with any of the following:*

- (a) it serves no more than two dwelling units;*
- (b) it meets a road carrying less than 6000 vehicles per day".*

In this case the development has more than two dwelling units. Council have requested swept paths of a B99 vehicle to be shown. AS2890.1 states the following with respect to B99 vehicles:

*"Design dimensions based on the B99 vehicle are required at all locations where failure of a vehicle to be able to physically fit into the facility would occasion intolerable congestion and possible hazard. Such locations shall include all access driveways, ramps and circulation roadways, unless there are special circumstances of severe space limitation coupled with relatively low traffic volumes in which case the B85 vehicle dimensions may be used".*

In this case the development proposal is residential and will not provide public car parking. With a peak generation of 13 vehicles per hour it would not be possible to create 'intolerable' congestion if a vehicle did not physically fit within the development site.

It is therefore not agreed that a B99 vehicle is appropriate to model for the proposed development. B99 vehicles are often used to test turning paths on critical components of a public car park (such as ramps, etc), where failure for the vehicle to complete the turn may result in congestion or safety issues.

It is noted that B99 vehicles can manoeuvre within the proposed car park with relative ease, however it is recognised that in some locations a 5-point turn may be required (compared to a 3-point turn for a B85 vehicle). The ramps between parking levels permit the passage of two B85 vehicles travelling in opposing directions, but do not permit the passage of a B99 vehicle simultaneously with another vehicle. The likely frequency of such an occurrence is very low and can be managed through appropriate traffic management.

The design of a domestic or residential car park need only take into account the swept paths of a B85 vehicle. This philosophy is no different to a public car park design.

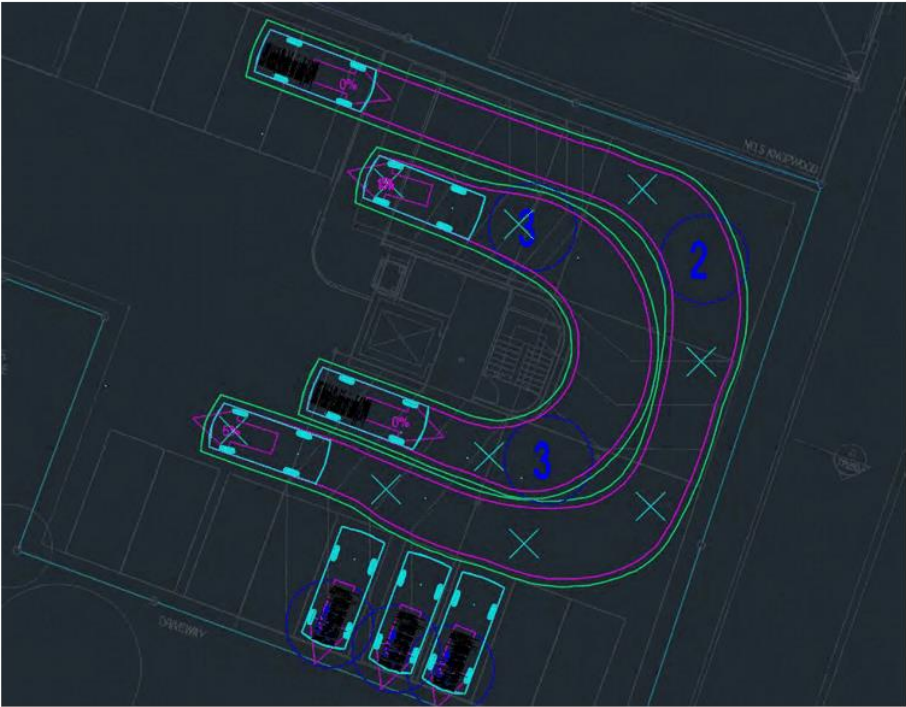
AS2890.1 also states *"Except as permitted in Clause 2.5.2(c) and Paragraph B2.2, design dimensions based on the B85 vehicle shall be limited to parking spaces and parking aisles. NOTE: This is based on the philosophy that the statistical chance of two or more longer vehicles seeking to occupy adjacent spaces at the one time is relatively low, and where this does occur, a driver can divert to an alternative space with only minor disruption to other users"*.

The assessment of the car parking requirements of a residential unit development was recently tested in an RMPAT appeal (53-21P, Costmac Investments Pty Ltd vs Sorell Council). It was agreed in evidence (and agreed by traffic experts) that the B85 vehicle was the appropriate design vehicle for residential development, not the B99 vehicle.

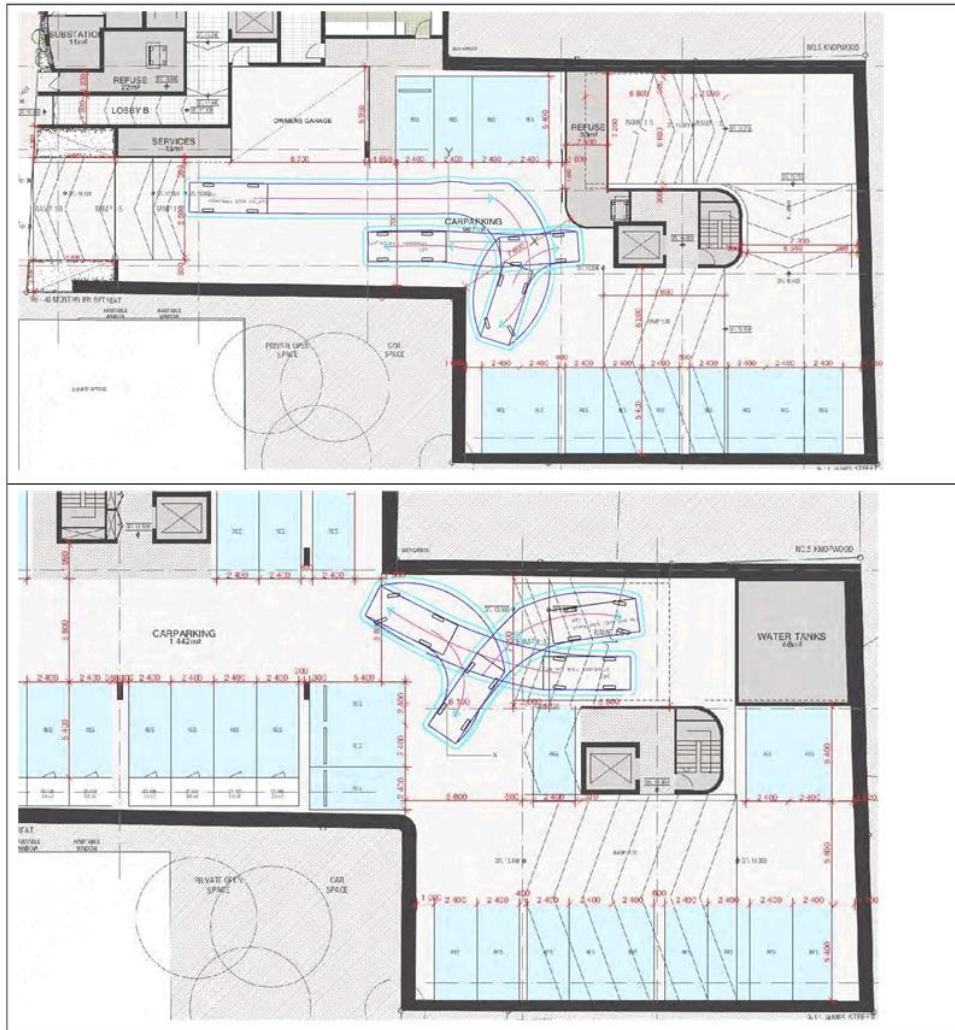
Swept paths within the car park have therefore been prepared demonstrating manoeuvring of a B85 vehicle so that entry and exit of the site is in a forward motion. It is further noted that the dimensions of the car park generally comply with the requirements of AS2890.1, thus facilitating appropriate manoeuvring within the car park.

The swept paths of two B85 vehicles utilising the ramps simultaneously is shown in Figure 1. The swept paths of a vehicle entering, failing to park in a parking space, and exiting in a forward direction on each level of the car park is shown in Figure 2.

Figure 1 B85 Swept Paths on Ramp





**Figure 2 B85 Swept Paths Forward Entry and Exit**

Please contact me on 0437 366 040 if you require any further information.

Yours sincerely,

Keith Midson BE MTraffic MTransport FIEAust CPEng EngExec NER

**DIRECTOR**  
**Midson Traffic Pty Ltd**



**Fender Katsalidis**  
**1 Montpelier Retreat**  
**Traffic Impact Assessment**  
**January 2022**





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## 1. Introduction

### 1.1 Background

Midson Traffic were engaged by Fender Katsalidis to prepare a traffic impact assessment for a proposed mixed use development at 1 Knopwood Street, Battery Point.

**Figure 1 Development Proposal**



### 1.2 Traffic Impact Assessment (TIA)

A traffic impact assessment (TIA) is a process of compiling and analysing information on the impacts that a specific development proposal is likely to have on the operation of roads and transport networks. A TIA should not only include general impacts relating to traffic management, but should also consider specific impacts on all road users, including on-road public transport, pedestrians, cyclists and heavy vehicles.

This TIA has been prepared in accordance with the Department of State Growth (DSG) publication, *Traffic Impact Assessment Guidelines*, August 2020. This TIA has also been prepared with reference to the Austroads publication, *Guide to Traffic Management*, Part 12: *Traffic Impacts of Developments*, 2019.

Land use developments generate traffic movements as people move to, from and within a development. Without a clear understanding of the type of traffic movements (including cars, pedestrians, trucks, etc), the scale of their movements, timing, duration and location, there is a risk that this traffic movement may contribute to safety issues, unforeseen congestion or other problems where the development connects to



the road system or elsewhere on the road network. A TIA attempts to forecast these movements and their impact on the surrounding transport network.

A TIA is not a promotional exercise undertaken on behalf of a developer; a TIA must provide an impartial and objective description of the impacts and traffic effects of a proposed development. A full and detailed assessment of how vehicle and person movements to and from a development site might affect existing road and pedestrian networks is required. An objective consideration of the traffic impact of a proposal is vital to enable planning decisions to be based upon the principles of sustainable development.

This TIA also addresses the relevant clauses of E5.0, *Road and Railway Assets Code*, and E6.0, *Parking and Access Code*, of the Hobart Interim Planning Scheme, 2015.

### 1.3 Statement of Qualification and Experience

This TIA has been prepared by an experienced and qualified traffic engineer in accordance with the requirements of Council's Planning Scheme and The Department of State Growth's, *Traffic Impact Assessment Guidelines*, August 2020, as well as Council's requirements.

The TIA was prepared by Keith Midson. Keith's experience and qualifications are briefly outlined as follows:

- 25 years professional experience in traffic engineering and transport planning.
- Master of Transport, Monash University, 2006
- Master of Traffic, Monash University, 2004
- Bachelor of Civil Engineering, University of Tasmania, 1995
- Engineers Australia: Fellow (FIEAust); Chartered Professional Engineer (CPEng); Engineering Executive (EngExec); National Engineers Register (NER)

### 1.4 Project Scope

The project scope of this TIA is outlined as follows:

- Review of the existing road environment in the vicinity of the site and the traffic conditions on the road network.
- Provision of information on the proposed development with regards to traffic movements and activity.
- Identification of the traffic generation potential of the proposal with respect to the surrounding road network in terms of road network capacity.
- Review of the parking requirements of the proposed development. Assessment of this parking supply with Planning Scheme requirements.
- Traffic implications of the proposal with respect to the external road network in terms of traffic efficiency and road safety.

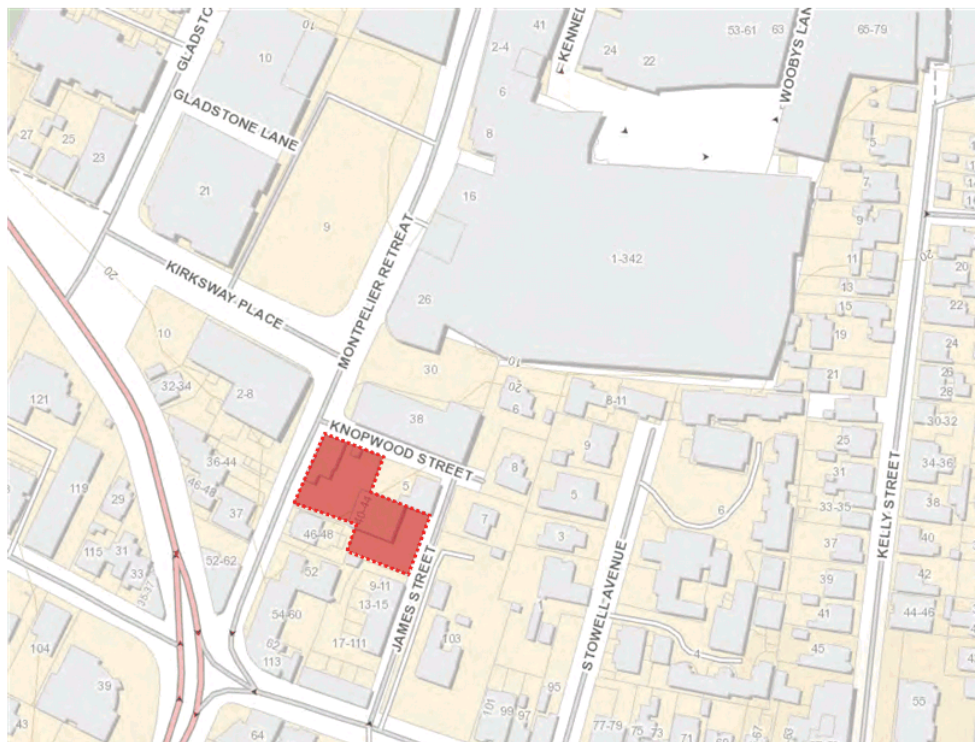


### 1.5 Subject Site

The subject site is located across two titles, at corner of Knopwood Street and Montpelier Retreat, extending through to James Street. The site is a former industrial site that is currently utilise for car parking.

The subject site and surrounding road network is shown in Figure 2.

**Figure 2 Subject Site & Surrounding Road Network**



*Image Source: LIST Map, DPIPWE*



## 1.6 Reference Resources

The following references were used in the preparation of this TIA:

- Hobart Interim Planning Scheme, 2015 (Planning Scheme)
- Austroads, *Guide to Traffic Management*, Part 12: *Traffic Impacts of Developments*, 2019
- Austroads, *Guide to Road Design*, Part 4A: Unsignalised and Signalised Intersections, 2021
- Department of State Growth, *Traffic Impact Assessment Guidelines*, 2020
- Roads and Maritime Services NSW, *Guide to Traffic Generating Developments*, 2002 (RMS Guide)
- Roads and Maritime Services NSW, *Updated Traffic Surveys*, 2013 (Updated RMS Guide)
- Australian Standards, AS2890.1, *Off-Street Parking*, 2004 (AS2890.1:2004)





## 2. Existing Conditions

### 2.1 Transport Network

For the purpose of this report, the transport network consists of Montpelier Retreat, Knopwood Road, Sandy Bay Road, Hampden Road and James Street. Other roads such as Gladstone Street and Salamanca Place were considered in the broader context of the report, but not examined in detail.

#### 2.1.1 Montpelier Retreat

Montpelier Retreat connects between Salamanca Place and Hampden Road. It provides connection to Knopwood Street and Kirksway Place via two intersections that form a 'staggered T' configuration.

Montpelier Retreat is a local street connecting between Castray Esplanade and Hampden Road, running in a predominantly north-south direction. It is a two-lane, two-way road with an average pavement width of approximately 11.5 metres.

Montpelier Retreat provides a large amount of time-limited parking on both sides of the road, with the exception of standing restrictions directly adjacent to the subject site. There are pedestrian footpaths provided on both sides of Montpelier Retreat.

Montpelier Retreat carries in the order of 3,800 vehicles per day with a morning peak of 350 vehicles per hour and an evening peak of 390 vehicles per hour (based on short duration traffic surveys). Traffic volumes reduce dramatically on Montpelier Retreat during the operation of the Salamanca Market due to the associated road closures.

The section of Montpelier Retreat between Kirksway Place and Hampden Road carries a significantly lower volume, in the order of 1,000 vehicles per day.

Montpelier Retreat near the subject site can be seen in Figure 3 and Figure 4.



**Figure 3    Montpelier Retreat from site towards Hampden Rd**



**Figure 4    Montpelier Retreat – from site towards Salamanca**





### 2.1.2 Knopwood Street

Knopwood Street is a short one-way road that connects between James Street and Montpelier Retreat. Knopwood Street from Montpelier Retreat is shown in Figure 5.

**Figure 5 Knopwood Street from Montpelier Retreat**



### 2.1.3 James Street

James Street is a short and narrow one-way street that connects between Hampden Road and Knopwood Street. No parking is permitted on either side of James Street. James Street near the subject site is shown in Figure 6.



**Figure 6 James Street towards Knopwood Street**



#### **2.1.4 Kirksway Place**

Kirksway Place is a minor collector road connecting between Montpelier Retreat and Gladstone Street, running in a predominantly east-west direction. It is a two-lane, two-way road with an average pavement width of approximately 14 metres.

Kirksway Place provides time-limited on-street parking and pedestrian footpaths on both sides of the road along its length.

Kirksway Place carries in the order of 3,000 vehicles per day with a morning peak of 240 vehicles per hour and an evening peak of 325 vehicles per hour (based on short duration traffic surveys).

## **2.2 Road Safety Performance**

Crash data can provide valuable information on the road safety performance of a road network. Existing road safety deficiencies can be highlighted through the examination of crash data, which can assist in determining whether traffic generation from the proposed development may exacerbate any identified issues.

Crash data was obtained from the Department of State Growth for a 5+ year period between 1<sup>st</sup> January 2016 and 31<sup>st</sup> May 2021 for the full lengths of Montpelier Retreat, Knopwood Street and James Street.

The findings of the crash data is summarised as follows:





- A total of 14 crashes were reported during this time. No crashes were reported in James Street, 1 crash was reported in Knopwood Street and 13 crashes were reported in Montpelier Retreat.
- Severity. No injury crashes were reported – all crashes involved property damage only.
- Day of week. 4 crashes were reported on Mondays; 3 crashes were reported on Fridays; 2 crashes were reported on Wednesdays, Thursdays and Saturdays; 1 crash was reported on a Tuesday; no crashes were reported on Sundays.
- Time of day. The majority of crashes were reported between 7:00am and 7:00pm (9 crashes). Two crashes were reported prior to 7:00am and 4 crashes were reported after 7:00pm.
- Crash types. There were a range of crash types reported. 4 crashes involved 'parking-vehicles-only'; 3 crashes involved 'other-manoeuving'; 3 crashes involved 'cross-traffic'.
- Crash locations. The reported crashes were disbursed in Montpelier Retreat. 5 crashes were reported at the Salamanca Place intersection. The crash locations in Montpelier Retreat are shown in Figure 7.
- Vulnerable road users. 3 crashes involved a bicycle. No crashes were reported that involved a pedestrian or motorcyclist.

The crash data in Montpelier Retreat is reasonably typical of a busy collector road network through a commercial area and does not indicate that there are any specific road safety deficiencies that might be exacerbated by traffic generated by the development proposal.



Figure 7    Montpelier Retreat Crash Locations



Image Source: Department of State Growth



### 3. Proposed Development

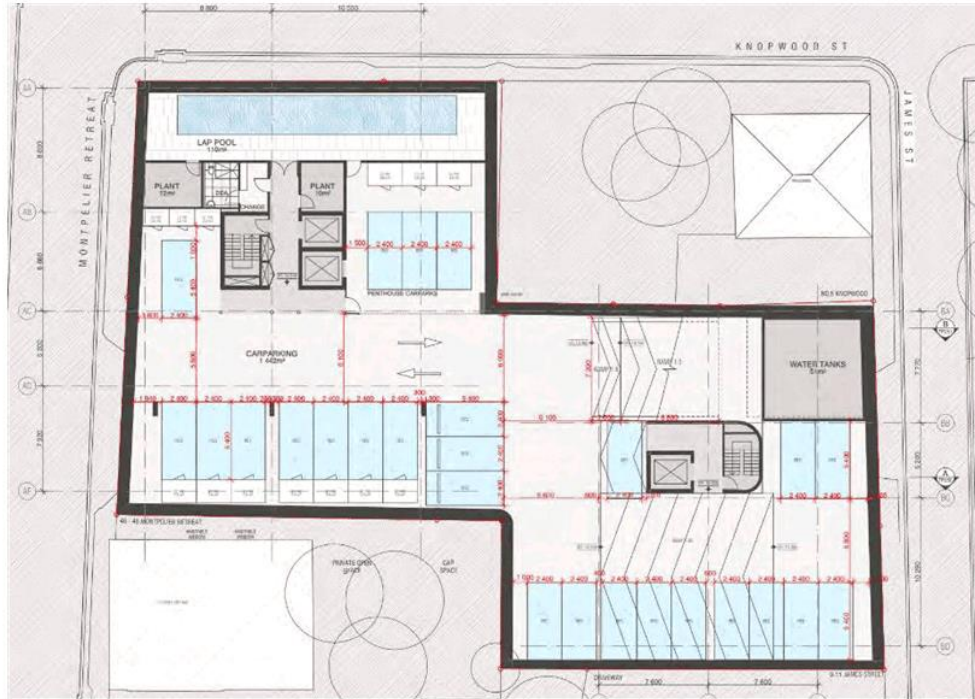
#### 3.1 Development Proposal

The proposal is a mixed-use development that includes 26 residential apartments and a ground floor café/ wine bar. A total of 43 on-site car parking spaces are provided over two levels, with access via Montpellier Retreat.

The components of the development are summarised as follows:

- 1-bedroom apartment 1
- 2-bedroom apartments 4
- 3-bedroom apartments 20
- Penthouse apartment 1
- Café/ wine bar 180 m<sup>2</sup>

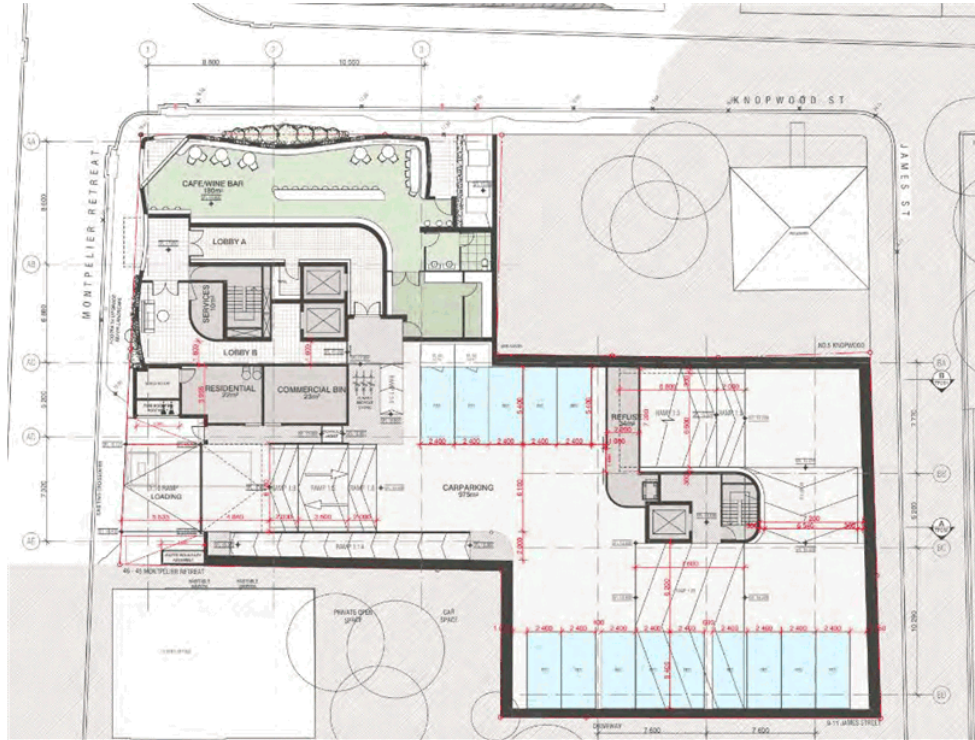
The architectural rendering of the development proposal is shown in Figure 1. The proposed development plans associated with the parking layout are shown in Figure 8 and Figure 9.

**Figure 8 Proposed Development Plans – Basement**





**Figure 9 Proposed Development Plans – Ground/ Lower Ground Floors**





## 4. Traffic Impacts

### 4.1 Trip Generation

#### 4.1.1 Existing Site Traffic Generation

The existing car park generates approximately 100 vehicles per day, based on the current use as a car park. The existing traffic generation consists of approximately 30 inward movements during the morning peak, 30 outward movements during the evening peak, and 40 movements throughout the balance of the day.

#### 4.1.2 Development Traffic Generation

The RMS Guide recommends the following traffic generation rate for residential apartments:

- 4 – 5 trips per day per dwelling
- 0.4 – 0.5 trips per hour per dwelling during peak periods.

Based on a total of 26 apartments, the traffic generation is likely to be 130 vehicles per day and 13 vehicles per hour during peak periods.

The RMS Guide recommends the following rate for restaurants and cafes.

- Daily trips - 60 trips per day per 100m<sup>2</sup> floor area
- Peak hour trips – 5 trips per hour per 100m<sup>2</sup> floor area

This equates to a traffic generation of 110 vehicles per day with a peak of 9 vehicles per hour for the café/wine bar component of the development.

The total traffic generation of the development is 340 vehicles per day with a peak of 22 vehicles per hour.

The net traffic generation is therefore 230 vehicles per day with a decreased peak of 8 vehicles per hour when compared to the existing use of the site.

### 4.2 Trip Assignment

It is difficult to determine trip distribution without accurate origin-destination information. The site is accessed directly from Montpelier Retreat, which facilitates accessibility to/from Gladstone Street and Salamanca Place. Access from Hampden Road is available via James Street and Knopwood Street.

### 4.3 Number of Accesses

The development relies on an upgraded access on Montpelier Retreat and removes an existing access in James Street.



The Acceptable Solution A1 of Clause E6.7.1 of the Planning Scheme states "*the number of vehicle access points provided for each road frontage must be no more than 1 or the existing number of vehicle access points, whichever is greater*".

In this case, the development does not alter the number of access points fronting onto the road network, therefore the Acceptable Solution A1 of Clause E6.7.1 is met.

#### 4.4 Access Impacts

The Acceptable Solution A3 of Clause E5.5.1 of the Planning Scheme states "*The annual average daily traffic (AADT) of vehicle movements, to and from a site, using an existing access or junction, in an area subject to a speed limit of 60km/h or less, must not increase by more than 20% or 40 vehicle movements per day, whichever is the greater*".

It is noted that the car park will only provide access for the residential component of the development. The traffic generation utilising the access will therefore be 130 vehicles per day with a peak of 13 vehicles per hour. The existing traffic generation of the site is estimated to be 100 vehicles per day. The increase of 30 vehicles per day therefore meets the requirements of Acceptable Solution A3 of Clause E5.5.1 of the Planning Scheme.

#### 4.5 Sight Distance

The Acceptable Solution A1 of Clause E5.6.4 of the Planning Scheme states that sight distances at "*an access or junction must comply with the Safe Intersection Sight Distance shown in Table E5.1*". The requirements of Table E5.1 are reproduced in Table 1.

**Table 1 Planning Scheme SISD Requirements**

Vehicle Speed km/h	Safe Intersection Sight Distance in metres, for speed limit of:	
	60 km/h or less	Greater than 60 km/h
50	80	90
60	105	115
70	130	140
80	165	175
90		210
100		250
110		290

In this case, the required SISD is 80 metres assuming that the vehicle speed (85<sup>th</sup> percentile speed) is equal to the legal speed limit of 50-km/h.

The available sight distance exceeds 80 metres in both directions along Montpelier Retreat when considering gaps in parked cars. Note that actual vehicle speeds are generally lower than 50-km/h in Federal Street (thus reducing the actual SISD requirements).



The proposed access therefore complies with Acceptable Solution A1 of Clause E5.6.4.

#### **4.6 Pedestrian Impacts**

The proposal will generate a moderate amount of pedestrian activity. Pedestrian movements would be generated between the site and areas such as Hobart CBD, Sullivans Cove and Battery Point.

The existing pedestrian infrastructure is considered to be appropriate to cater for the expected pedestrian demands generated by the development.

#### **4.7 Road Safety Impacts**

No significant road safety impacts are foreseen for the proposed development. This is based on the following:

- The surrounding road transport network is capable of absorbing the estimated traffic generation of the fully developed subdivision.
- The site was previously a commercial site that had various uses, the most recent being private car parking which generated moderate traffic generation. Access to the site was previously via both Montpelier Retreat and Knopwood Street. The movement of vehicles into and out of the site will therefore not be seen as 'unusual' for motorists utilising Knopwood Street.
- The crash history of the surrounding road network near the subject site does not indicate that there are any specific road safety issues that are likely to be exacerbated by the proposed development.





## 5. Parking Assessment

### 5.1 Parking Provision

The proposed development provides a total of 40 on-site car parking spaces. This is provided over two parking levels (26 basement spaces and 14 ground floor spaces).

### 5.2 On-Street Car Parking

Nearby on-street parking consists of a mix of short term time restricted parking in Knopwood Street (consisting of 30 minute and 5 minute parking adjacent to the subject site), one-hour parking (residential permit zone) in Montpelier Retreat south of the subject site to Hampden Road, and a loading zone adjacent to the subject site in Montpelier Retreat.

Yellow "no stopping" line marking has been installed around the corner of Knopwood Street and Montpelier Retreat adjacent to the subject site.

### 5.3 Planning Scheme Requirements

Schedule E6.6.1 of the Planning Scheme sets out the normal parking requirements for residential developments, however the Acceptable Solution A9 of Clause E13.8.4 for Heritage Precinct, BP1 states that is "*there must be a maximum of one car space per dwelling*". The Heritage Code takes precedence over the Parking and Access Code.

This is a requirement for 26 spaces for the residential component of the development.

The café/ wine bar component requires 15 spaces for each 100m<sup>2</sup> of floor area or 1 space for every 3 seats (whichever is greater) under Table E6.1 of the Planning Scheme. This is a requirement for 27 spaces.

The total parking requirement is therefore 53 spaces. The provision of 40 spaces does not comply with this requirement.

The Performance Criteria P9 of Clause E13.8.4 of the Planning Scheme states "*Parking must not detract from the cultural heritage significance or the setting of existing dwellings*". In this case the development will provide basement car parking that will not be visible from the streetscape. It will therefore not detract from the cultural heritage significance or the setting of the existing dwellings in the area. The development therefore complies with the requirements of Performance Criteria P9 of Clause E13.8.4 of the Planning Scheme.

### 5.4 Car Parking Layout

The Acceptable Solution A1 of Clause E6.7.5 of the Planning Scheme states "*The layout of car parking spaces, access aisles, circulation roadways and ramps must be designed and constructed to comply with section 2 "Design of Parking Modules, Circulation Roadways and Ramps" of AS/NZS 2890.1:2004 Parking Facilities Part 1: Off-street car parking and must have sufficient headroom to comply with clause 5.3 "Headroom" of the same Standard*".



Typical car parking dimensions within the on-site car park are as follows:

- Space width 2.4 metres
- Space length 5.4 metres
- Aisle Width 5.8 metres

These spaces therefore comply with the dimension requirements of User Class 1A in Australian Standards, AS2890.1:2004 (Residential, domestic and employee parking).

Ramps within the car park have a maximum grade of 20%, which is permitted under AS2890.1. Transitions are provided at 1:8 for 2 metres at the top and bottom of the ramps as required by AS2890.1.

The car parking design therefore complies with the requirements of Acceptable Solution A1 of Clause E6.7.5 of the Planning Scheme.



## 6. Conclusions

This traffic impact assessment (TIA) investigated the traffic and parking impacts of a proposed development at 1 Knopwood Street, Battery Point.

The key findings of the TIA are summarised as follows:

- The proposed development involves the construction of 26 residential apartments and a ground floor retail area. The development will include on-site car parking for 40 spaces over two levels.
- Access to the site is via a single access driveway at Montpelier Retreat with a separated footpath accesses in Montpelier Retreat, Knopwood Street and James Street.
- The traffic generated by the development is likely to be 230 trips per day, with a peak of 23 trips per hour. The traffic generation associated with the development at the site's access with Montpelier Retreat meets the requirements of Acceptable Solution A3 of Clause E5.5.1 of the Planning Scheme.
- The on-site car parking provision is 40 cars. The parking provision meets the requirements of Performance Criteria P9 of Clause E13.8.4 of the Planning Scheme.

Based on the findings of this report and subject to the recommendations above, the proposed development is supported on traffic grounds.



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**Document Status**

Revision	Author	Review	Date
0	Keith Midson	Zara Kacic-Midson	30 September 2021
1	Keith Midson	Zara Kacic-Midson	29 October 2021
2	Keith Midson	Zara Kacic-Midson	28 January 2022





## Waste Management Plan

Mixed Use Development

1 Knopwood Street, Hobart TAS 7004

**Prepared for:** Bensons Property Pty Ltd

**Prepared by:** LR – Low Impact Development Consulting

**Date:** 13/12/2021

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Version	Date	Description	Prepared by	Checked by
1.0	13/12/2021	Prelim Issue	LR	LR

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Commercial waste calculations are based on rates provided by government organisations and adopted and used as an industry standard. Bin numbers and spatial requirements have been calculated in accordance with these guidelines. The end user requirements may vary from this depending on the business use, type and operational practice.

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## 1 Waste Collection Summary

A private collection service is proposed to collect the following bins at the indicated frequency.

Residential waste		
Private Collection Service – collection from within the site		
Waste stream	No. of bins and capacity	Collection frequency
Landfill	2 x 660L	Once weekly
Co-mingled Recycling	2 x 660L	Once weekly
Organic Food Waste	4 x 240L	Once weekly
Commercial Waste		
Private Collection Service – collection from within the site		
Waste stream	No. of bins and capacity	Collection frequency
Landfill	2 x 660L	2 times weekly
Co-mingled Recycling	1 x 660L	2 times weekly
Organic Food Waste	2 x 240L	2 times weekly
Hardwaste (shared)	5m2	As often as required to maintain space
E-waste	1 x 240L	As often as required to maintain bin

The approved Waste Management Plan (WMP) will be the model to be adopted for this development. Detailed design and as-built installation must incorporate the design proposed and approved under this WMP. Any revisions of the WMP or changes to the approved waste system of the development may require Council approval and may require a re-submitted Waste Management Plan. More detail is contained within this report.

 LID acknowledges and pays respect to the Australian Aboriginal and Torres Strait Islander people, to their ancestors and elders, past, present and emerging, as the traditional custodians of the lands upon which we work and live. We recognise Aboriginal and Torres Strait Islander people's deep cultural and spiritual relationships to the water, land and sea, and their rich contribution to society.



## 2 Waste Management Plan

Low Impact Development (LID) Consulting was engaged by Bensons Property Pty Ltd to assess the proposed development at 1 Knopwood Street, Hobart TAS 7004 to provide a Waste Management Plan (as required by Statutory Planning).

A waste management analysis has been undertaken based on the following documents:

- Sustainability Victoria Better Practice Guide for Waste Management and Recycling in Multi-Unit Developments 2018;
- City of Hobart correspondence – request for information dated 17 November 2021 PA 8

This report is based on the drawing sets:

- TP-001-107, Revision 02, dated 10/12/2021 prepared by Fender Katsalidis.

### 2.1 Council Considerations

- Utilizing the Council collection service is not possible in this instance for general waste/recycling due to the large volume of bins to be placed on the kerbside for collection.
- Onsite collection is the most feasible option. A 9.7m MRV rear loading only waste vehicle only is to reverse into the site from Montpelier Retreat to collect bins. Bin Stores 1 has sufficient head clearance - 3.5m to load bins.
- The waste contractor will be responsible for retrieving, emptying and returning bins to/from the bin store at the time of collection.
- The waste vehicle is to exit back onto Montpelier Retreat in a forward direction.
- The Owner's Corporation / Building Management is responsible for all aspects of waste management. All waste is to be stored, managed and collected from within the property. No bins are to be left kerbside at any time.
- PA 8 items in the council request for information is contained herein including:
  - Waste generations
  - Bins & storage requirements
  - Bin collection & Cleaning
  - Waste minimisation measures
  - Contractor acknowledgement

### 2.2 Proposed Development

<b>Address:</b>	1 Knopwood Street, Hobart TAS 7004
<b>Type:</b>	Mixed use development
<b>Dwellings:</b>	26 units
<b>Break up of units:</b>	1 x 1bed 4 x 2bed 20 x 3bed 1 x 4bed
<b>Commercial spaces:</b>	181m2 café / bar
<b>Planning App No:</b>	PLN-21-719

The proposed 6-storey mixed-use development comprises of 26 units and a ground level retail tenancy over a shared basement carpark. The residential units are contained within 2 towers – Tower A comprising of 12 units and Tower B with 14 units.

The main vehicular access into the basement carpark is from Montpelier Retreat. Separate residential and commercial bin stores have been located adjoining the street level entry near the central service core for each tower. Each residential tower contains dual garbage and recycling chutes accessible from each level of the building directing waste into the appropriate bins.

A 9.7m MRV waste vehicle is able to reverse into the main vehicle access drive, collect waste and exit the site in a forward direction. The loading area has sufficient head clearance to load bins.

Space for the collection, separation and storage of waste and recyclables has been provided, including opportunities for on-site management of food waste through composting or other waste recovery as appropriate.

### 2.3 Proposed Residential Waste Solution

**Site Layout:** Refer to **Appendix 1** for Site Layout Plan

**Collection Type:** Private collection service to collect all waste streams

**Collection Location:** From within the site with access from Montpelier Retreat

**Bin Store Location:** 2 dedicated residential bin stores at street level

Residential TOWER A	Private collection Waste generation rates			Proposed Shared Bin Solution		
	No. units	Allowances	Total estimated waste volume	No. of Bins	Bin Size	Collection Frequency
General Waste (landfill)	26	Refer Appendix 3 – Waste rates & Calculation	2250L total landfill waste	4	166L	Once weekly
Co- mingled Recycling			3000L of recycling	6	660L	Once weekly
FOGO / Garden waste			750L of food & garden organics	4	240L	Once we Weekly
E-waste			Refer Section 4 for recycling options	2	240L	As often as required to maintain bin
Bulky Hard Waste			Refer Section 4 for recycling options	5m <sup>2</sup>		As often as required to maintain area

## 2.4 Proposed Commercial Waste Solution

<b>Tenancy/space</b>	Area
Café / Bar	181m <sup>2</sup>
<b>Site Layout:</b>	Refer to <b>Appendix 1</b> for Site Layout Plan
<b>Collection Type:</b>	Private collection service to collect all waste streams
<b>Collection Location:</b>	From within the site with access from Montpelier Retreat
<b>Bin Store Location:</b>	A dedicated commercial bin store at street level

Commercial	Private collection		Proposed solution		
	Allowances	Total estimated waste volume	No. of Bins	Bin Size	Collection Frequency
Garbage	Refer Appendix 3 – Waste rates & Calculation	With 25% diverted to food waste	2	660L	Twice weekly
Co-mingled Recycling		2534L of recycling	2	660L	Twice weekly
Organic Food Waste		960L of Food waste	2	240	Twice weekly
E-waste		Refer Section 4 for recycling options	1	240L	As often as required to maintain bin
Bulky Hard Waste		Refer Section 4 for recycling options	5m <sup>2</sup>	NA	As often as required to maintain space

NOTE: Streaming of waste into dedicated bins is encouraged where possible. The type of recycling bins nominated above may be swapped to suit the type of recyclable commercial waste generated (while not altering the number of bins overall). Possible additional waste streams include:

- hard plastics
- soft plastics
- Cardboard / Paper (especially for retail and office tenancies)

### 3 Waste Management Details

#### 3.1 Management Responsibilities

The Owner's Corporation / Building Management is responsible for all aspects of waste management including implementing adequate safe operating procedures. Items to be addressed in maintaining the system include:

- The tenancy agreements are to outline a schedule of waste collection dates in accordance with the collection parameters outlined herein.
- Ensuring the waste contractor has access to the site and bin store on the days of collection and for also providing information to make building occupants aware that waste vehicles enter the site.
- Allocation of responsibility to the contractor to retrieve bins directly from the bin store and return emptied bins at the time of collection. Responsibility should include ensuring the contractor collects any waste that spills from the bins during emptying.
- Individual occupants are responsible for placing their waste in the appropriate colour coded bins / chute to ensure all waste types are collected and recycled where possible. All organic food waste, cardboard, bulky hard waste items and e-waste items are to be taken directly to the bins stores (& not placed in chutes).
- Cleaners & staff of the commercial tenancy are responsible for placing waste in the appropriate colour coded bins in the bins provided in work areas and then transferring them to corresponding bin in the bulk bin store to ensure all waste types are collected and recycled where possible.
- That bins and bins stores are monitored regularly with bins rotated as required to ensure areas are fully operational with regular cleaning of the bins and bin store spaces and clean-up after collection if necessary.
- Management and coordination of bulky hard waste & eWaste collections.
- Managing communal composting areas (if applicable).
- Provision of information to occupants with guides of how to using the various bin systems e.g. boxes to be flattened, containers for recycling washed, bins to not be over-full. See Section 3.13 for further information about Signage, Education & Safety.
- Monitoring and feedback to occupants if the system is not working properly. Undertake a waste audit should it be suspected waste is not being placed in the correct bins.

#### 3.2 Bin Store Design

The Bin store design/location must include the following:

- A layout that allows access to all of the bins with adequate size to allow easy movement/transfer of the required number of bins. There is to be convenient access by residents and made easily accessible to people with limited mobility.
- All screening should be suitably designed for durability and to blend in with the development. Floor and wall surfaces are to be appropriately durable and easily cleaned.
- Doors located in the allocated storage areas should be designed for easy access of larger bins sizes, hard waste, for durability and to blend in with the development.



- Space suitable for bin wash down is to be available in the development. If this is the bin store then the floor is to be graded to a waste outlet with a litter trap. Alternately, a private contractor can be arranged to swap dirty bins for clean ones on a regular basis.
- If a bin wash is installed, a water tap and hose installed in or near the bin wash areas and correct drainage to sewer (never direct waste to storm water drains) should be designed in accordance with the relevant EPA Bunding Guidelines. Drains to the sewer to be located undercover to prevent rainwater infiltration.
- Bin stores or bins should be vermin proof - particularly where food waste is included. (The bin store is in the basement that is a closed space and considered to be largely vermin proof). Consider using baits for vermin control and maintained as an ongoing requirement.
- A waterproof power point in or near the bin store.
- Adequate mechanical or natural ventilation if not outdoors.
- Ensure adequate lighting is provided in accordance with National Construction Code (NCC) guidelines if to be accessed after hours.
- Secure locks (where bin stores are accessible to the street)
- Space for a tug or bin lifter if required by the waste contractor(s) / facility management.
- Meter boxes should not be included in bin store areas.

### 3.3 Bin Store Access

- Manoeuvrability within the bin store area is open, with 1m minimum to walk between bins.
- There is to be no significant step at any threshold between the bin store area and the point of collection.

### 3.4 Bin Sizes

The following sizes are indicative bin sizes based on the Sustainability Victoria Better Practice Guide specified sizes (Appendix 9). These sizes are the size allowances required by most Councils in bin store areas. Allow 100mm between 4 wheel bins and 50mm between 2 wheel bins for movement.



Size	Width	Depth	Height	Footprint
80L	450mm	530mm	870mm	0.24m <sup>2</sup>
120L	485mm	560mm	940mm	0.27m <sup>2</sup>
240L	580mm	735mm	1080mm	0.43m <sup>2</sup>
360L	600mm	885mm	1100mm	0.53m <sup>2</sup>
660L	1370mm	850mm	1250mm	1.16m <sup>2</sup>
1100L	1370mm	1245mm	1470mm	1.71m <sup>2</sup>


**Standard bin colours (refer AS4123.7)**

Garbage (landfill)	Red
Co-mingled recycling	Yellow
Green organics	Light Green
Glass	Purple
Paper and cardboard	Light Blue
E-waste	Light Grey

\* NOTE: size may vary between Councils and contract suppliers

### 3.5 Waste Vehicle Requirements

- A 9.7m MRV rear loading only waste vehicle only is to reverse into the site from Montpelier Retreat to collect bins. Bin Stores 1 has sufficient head clearance - 3.5m to load bins.
- The waste contractor will be responsible for retrieving, emptying and returning bins to/from the bin store at the time of collection.
- The waste vehicle is to exit back onto Montpelier Retreat in a forward direction.
- The Owner's Corporation / Building Management is responsible for ensuring the waste contractor has access to the site and bin store on the days of collection. If there is a security code or key required for access, the contractor should be provided with these so they may access the bin store on the specified collection days.

Vehicle	Typical size
Rear Loading	9.7m long x 2.6m wide truck – 3.5m head clearance
NOTE: Larger vehicle may need to be assessed for clearances prior to entering the site.	

### 3.6 Collection Times

Bin collection shall be in accordance with Council and EPA Noise Control Guidelines Publication 1254, which state:

- Collections occurring once a week are to be restricted to the hours 6 am — 6 pm Monday to Saturday
- Collections occurring more than once a week are to be restricted to the hours 7 am — 6 pm Monday to Saturday

Waste collection from private services are best suited on an alternate day to the Council service and completed at times of least interference/inconvenience to the local amenity and traffic conditions.

The WMP approved under this permit must be implemented and complied with at all times to the satisfaction of the Responsible Authority. No alterations to the WMP may occur without the written consent from the Responsible Authority.

### 3.7 Internal Waste Management

- General landfill **garbage shall be placed in plastic bags** before placement into bins
- **Recycling materials are not to be bagged** and are to be placed loosely into the recycling bins. (Items in plastic bags in recycling bins are not recycled). Recyclable items in domestic bin collections include:
  - Rigid plastic containers
  - Paper, cardboard
  - Glass bottles and jars
  - Steel cans, aluminium cans and aluminium foil are among items that can be recycled.
- But exclude:
  - Plastic bags
  - Rope (ropes and garden hoses can wrap around and damage equipment in the recycling plant).
- To improve recycling:
  - Empty containers and bottles of any leftover food or liquid. Ideally rinse them out.
  - Leave lids on everything
  - Don't squash plastic bottles or containers or put anything inside
  - Paper – if it can't be ripped, it can't be recycled due to the plastic coating.

### 3.8 Response to Increasing Waste

- The total waste capacity exceeds the required allowance calculation by rounding up to the nearest bin size so there is built in capacity should waste levels increase beyond estimates.
- A waste audit can be undertaken to understand the content of the waste bins. Audits provide feedback to clients of good or poor recycling practices. Images can be helpful to convey feedback.
- If garbage bins consistently overflow, then residents/occupants are to be directed to educational material as to the appropriate streaming of waste including food and other recyclables. (see Section 4 and Soft Plastic Recycling below).
- If recycling bins continue to overflow, residents/occupants should be reminded to crush and flatten all cardboard boxes and plastic containers before placing these in the recycling bin(s). It may also be appropriate to obtain an additional recycling bin.
- The last option is for more regular collections to occur.

### 3.9 Reducing Odour

Odour from waste primarily emanates from bin store areas. Control of odour must occur in the bin store area with the provision of suitable natural or mechanical ventilation. If installed the mechanical ventilation system for the bin storage area must not cause a public health nuisance (noise and odour generation) and comply with EPA requirements and in accordance with the ventilation requirements of the Building Code of Australia and AS 1668.2.

- The bin store area and bins are to be monitored and cleaned on a regular basis to remove sources of smells.

### 3.10 Noise management

Minimizing noise associated with waste movement and collections include:

- Locating bin stores and collection points at an appropriate distance from both onsite and adjoining residences;
- Minimising the need for the waste vehicle to reverse;
- Collections occurring during the stipulated collection times restrict the hours of noise from collections.
- Collection vehicles should not break up bottles at the point of collection, only once off site. Compaction of waste should only be carried out whilst waste vehicles are on the move.
- Insulating waste chutes.

### 3.11 Traffic Management

- Traffic management along Montpelier Retreat & Knopwood Street should not be an issue with collection occurring within the property boundary. The street is considered a local street, traffic volumes would not be expected to be high and the site is not near an intersection.
- Appropriate engineering standards will need to be addressed in the detailed design stage to ensure adequate pavement depths and clearance height.

### 3.12 Litter Spread

- Litter spread is to be managed by ensuring garbage and recycling bins are not overloaded, and lids are always closed.
- Litter spread is to be managed by the system of contractors collecting bins from within the property. As bins are not left outside overnight, the possibility of vandalism is removed.
- The private collection contractor's agreement should require their pickup of any waste that spills from the bins during collections.

### 3.13 Signage, Education & Safety

It will be the responsibility of the Owner's Corporation / Building Management to ensure all staff, residents and cleaners have all of the material available to them and that they adhere to the required practices regarding waste management, sustainability and promoting waste minimisation.

- All education material will be in accordance with Council requirements
- Ensure permanent "No Standing" sign / text and line markings are visible in the loading area, indicating the parameters of the rubbish collection zone to ensure access for the collection vehicle.
- Directional signage should be installed to direct occupants and bin collectors to the bin storage areas.
- The hard waste storage zone should also be signed.
- Instructional signage within shared communal bin stores is to indicate which bin is for garbage and which is for recyclables (or food waste/organics) and also include what items can be included in garbage and recycling bins, and items that need to be disposed of via other services.





Figure 1. Simple, brightly coloured signs, such as those shown above, quickly communicate what items are acceptable for each bin.

- A preliminary OHS risk assessment has been included to identify potential OHS issues, however this risk assessment does not replace the need for the Owners Corporation and collection contractors to complete their own OHS assessment for the bin collection process. See Appendix 2 for further detail.
- A sign will be placed on the garbage bin that soft plastics can be recycled at any location identified on the Redcycle website <http://www.redcycle.net.au/where-to-redcycle/>



Figure 2. A quick guide to some most commonly recycled Soft Plastic item

## 4 Managing Waste Streams

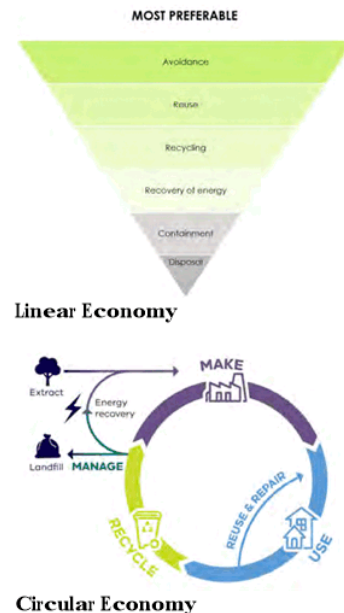
### 4.1 Sustainability Initiatives

Where possible all occupants should practice the waste reduction hierarchy identified in the Environmental Protection Act 2017;

Further, a circular economy allows waste to be avoided in the first instance to reduce environmental impacts of production & consumption. This is now being implemented across Australia.

The first step to reducing waste, particularly food waste is to avoid and minimise waste from occurring in the first instance. Changing purchasing habits and implementing waste avoidance include:

- Purchase only what you will consume
- Purchase items of quality that can be re-used, sold on donated or up-cycled.
- Use re-usable drink bottles, lunch containers, shopping bags
- Avoid single use plastics
- Compost anything that once was alive
- Meal plan, shop seasonally, shop locally



### 4.2 Separating & Streaming Food Waste

Food waste, when buried in landfill waste is starved of air and rots and producing methane; 26 times more damaging than carbon dioxide. Diverting food waste from landfill is not only a really effective way to reduce greenhouse gas emissions, but also a regenerative solution, creating rich, healthy soil.

The Better Practice Guidelines stipulates diverting food from landfill waste. This can be achieved in a number of ways including on site composting or via dedicated food waste collections in larger multi-unit developments.

#### 4.2.1 Inside Dwellings

- **Multiple bins for waste streams** – In multi-unit developments streamed waste bins are to be included (perhaps included under the sink) in each unit. Bin types include garbage (Landfill) waste, Recycling, Organic Food Waste, Glass.
- **Bokashi bins** <http://www.bokashi.com.au/> are an effective way of reducing waste volumes and breaking down food waste for apartment dwellers. Food scraps are placed in bokashi bins with an accelerator mix added. The volume of waste food is reduced, and the waste in the bin is already on the path to being composted. Bokashi bins can be emptied into compost bins so providing a compost bin on site and having a garden also helps. Bokashi bins are also available from <http://www.eco-organics.com.au/about-us.htm>



Kitchen Caddy – supplied  
by council



Apartment Bokashi bin



Pull-out kitchen streaming  
bins

Figure 3. – Different bins for waste streaming

#### Tips for FOGO

- Keep the wheelie bin in a shady spot
- Use paper towel to line the bottom of plastic bags to soak up any moisture that can cause the liner to break down quicker than normal
- Double wrap meat, bones and unwanted pet food (with newspaper or paper towel) before placing in your caddy
- Line the organics bin with newspaper to aid cleaning
- Wrap fish and seafood waste (in newspaper or paper towel) and place in your freezer until your next collection is due
- Sprinkle vinegar, baking soda, charcoal or eucalyptus oil in your organics bin to combat odours
- A mix of garden and food waste helps keep bin odours under control
- Purchase a Bin Kill tag that can be attached to the inside of your organics bin. The tag emits a vapour that kills flies and maggots. The product is available from Bunnings, Coles or Woolworths supermarkets.

#### 4.2.2 On-site Composting

##### In the garden – private or communal

- Aerobic **green cone bio-digester designer compost** is a landscape option for some households, including multi-unit developments to divert a larger range of food waste (including bread, dairy, meat and small bones). Refer to <https://www.treehugger.com/lawn-garden/green-cone-solar-food-digester-will-reduce-90-food-waste-your-backyard.html> for more info.
- Alternatively the new **Subpod in-ground composting/worm farm unit** [www.subpod.com](http://www.subpod.com) that composts fast, and ensures worms don't die off as they can often in unshaded above-ground worm farms. These units can also be located in raised planters and act as seats in common areas. At capacity, 15L of food waste can be processed each month.
- **Hungry Bin worm farms** are a proven worm farm system that have been used by many private and commercial organisations & businesses to process food waste. The number of bins can be scaled up and down depending on the volume of waste being generated on site. <https://www.wormlovers.com.au>



Figure 4. Green cone bio-digester



Figure 5. Subpod in-ground compost unit



Figure 6. Hungry Bin worm farm

#### 4.2.3 Community Partnerships & Government Initiatives

- Residents or tenants can register with the Sharewaste network [www.Sharewaste.com](http://www.Sharewaste.com) to find local residents who are happy to accept compostable food in their compost heaps. The website allows the parties to connect to donate food scraps.
- Reducing your food waste can save you money. And it helps the environment by conserving the water, energy and natural resources that are used to grow, transport and then dispose of food waste. There are a number of resources including meal planners, recipes and you can register to take up the challenge.
- For more information about where your food goes and how you can use it, see <https://backtoearth.vic.gov.au>
- Join the Compost Revolution**  
<https://compostrevolution.com.au> provides up to a 80% discount on a number of composting bins and accessories. It also has a range of tutorials on how to compost.
- Co-designed with councils, the Compost Revolution is a multi-award-winning program that educates and equips residents to cut their waste in half through home composting and worm farming. This platform is the only all-in-one education, infrastructure logistics and marketing program of its kind streamlining the process so that councils achieve waste and emissions reduction targets while saving money.



#### 4.2.4 Commercial Food waste

**Commercial collection of separated food wastes** is being offered by a number of waste collection Contractors.

- Commercial businesses with high volumes of food waste such as cafes and restaurants are recommended to stream out food scraps from landfill waste. An organics food collection service is recommended for this type of commercial development.
- Food waste collections should occur a minimum 2-3 times per week (depending on the temperature of the bins) to avoid a build-up of odour and unwanted mess.



- Consideration should also be given to end of trip / processing of this waste by the engaged waste contractor to ensure this waste stream is appropriately treated and does not end up in landfill.

**Current contractors include:**

- Sita – 1.5m3, 3m3 & 4.5m3 bin options (via Cleanaway)  
<http://www.sita.com.au/commercial-solutions/resource-recovery-recycling/organic-material/>
- KS Environmental – 120L bins (inner metro only)  
<https://ksenvironmental.com.au/services/recycling-services/food-organics/>
- Veolia – using 1.5m3 bins only (front lift) <https://www.veolia.com/anz/our-services/our-services/recycling-waste-services/recycling/organics>

**Onsite Options for Organics Treatment**

On site food and organic waste treatment/pre-processing systems can reduce the footprint area of a bin store by reducing the number of bins required, and can reduce waste collection frequency when food or organics waste can be diverted to these units.

These units reduce food scraps to 90% of their original volume in 24 hours, through heat and agitation, and the by-product is a compost material. These units take all kinds of food ie fruit, vegetables, meat, fish, eggshells so sorting is not an issue. These units prevent generation of the greenhouse gas methane (methane is 25 times more detrimental than carbon dioxide) which otherwise is generated when organic wastes decompose anaerobically in landfills. The suppliers usually can provide Green-house gas cost v benefit assessments of their units. These systems are increasingly being introduced around Melbourne.

- **WasteMaster** is an Australian technology which converts putrescible waste to a concentrated residue within 24 hours. <https://www.greenecotec.com>
- **Closed Loop Organics** provide CLO'ey bins of different capacity and rental servicing costs. More information available at: <http://www.closedloop.com.au/domestic-composter>
- Other systems such as **PulpMaster**, **EcoGuardians (Gaia system)** or **Biobin** generally provide systems that dehydrate or mash up food waste to reduce total volumes, but operate slightly differently to the above two systems.

**Surplus food donation.**

There are organizations that collect surplus food for human consumption. Collectors that provide this service within Tasmania include:



**Loaves & Fishes – Tasmania** was established in 2017 to address the gap in the emergency food relief sector in Tasmania. This gap is the lack of access to ready-to-eat, nutritious meals for our community's most vulnerable. Through consultation with the national Food Rescue organisation, **SecondBite**, a more localized solution addressing the issues of Emergency Food Relief in Tasmania was established  
Phone: (03) 6417 3131, Email: [kym.roberts@loavesandfishestasmania.org.au](mailto:kym.roberts@loavesandfishestasmania.org.au)





**FoodBank** – Foodbank is Australia's largest food relief organisation, operating on a scale that makes it crucial to the work of the front line charities who are feeding vulnerable Australians. Foodbank provides more than 70% of the food rescued for food relief organisations nationwide. <https://www.foodbank.org.au> PH: 03 6274 1052 [distribution@foodbanktas.org.au](mailto:distribution@foodbanktas.org.au)

### 4.3 Other Waste Streaming Details

#### 4.3.1 Green Garden Waste

- For common areas a private maintenance contractor will be responsible for removing any green garden waste and can also by arrangement, remove green waste from private spaces if required.
- Common area gardens are recommended to be designed to encourage low maintenance gardens and an annual or bi-annual pruning. This service will need to be arranged by the owners corporation / building Management.

#### 4.3.2 Hard Waste Collection

- Residents should liaise with the Owner's Corporation to ensure hard waste collection occurs throughout the year. The Owner's Corporations is to ensure no hard waste is left kerbside for longer than the week before an organised collection date.
- Unwanted bulky items, clothes and other consumables can be donated to charities, sold online or at second-hand local market places as is if in good condition. If repairs are required, seek out repair community centres for re-purposing. Search PlanetARK for a comprehensive listing to each council. <https://recyclingnearyou.com.au/councils/>
- Local information regarding the disposal and recycling of common household items for each Council can be found at:
  - <https://www.sustainability.vic.gov.au/You-and-your-home/Waste-and-recycling/Council-waste-and-recycling-services>
  - [www.recyclingnearyou.com.au](http://www.recyclingnearyou.com.au)
- In addition suppliers such as Ecycle <http://www.ecyclesolutions.net.au> will deliver whitegoods and either collect clean polystyrene from retailers or take polystyrene away after delivery.
- TerraCycle is a national initiative where you can look up where to deposit non-recyclable waste such as contact lenses, coffee capsules, mailing satchels, toothbrushes & tubes. <http://www.terracyclemap.com>



#### 4.3.3 E-Waste Recycling

- Any item with a plug, battery or cord should be streamed and deposited at a designated e-waste drop-off point. Electronic waste includes old mobile phones, computers, audio devices, refrigerators and other white goods, hair dryers, TVs, heaters, and air-conditioners.
- Authorised electrical waste disposal locations can be found:
  - Most council depots collect e-waste
  - Officeworks collects e-waste



- o <https://recyclingnearyou.com.au/electrical>
- o <https://www.sustainability.vic.gov.au/Campaigns/eWaste/Where-do-I-take-ewaste>
- o <https://www.mobilemuster.com.au>

#### 4.3.4 Other Recyclables

- Council recycling hubs recycle
  - o batteries
  - o light globes
  - o printer cartridges
  - o clothes.
- In addition Officeworks provide recycling drop-off points for:
  - o printer cartridges
  - o old IT equipment
  - o mobile phones
  - o pens and markers

#### 4.3.5 Soft Plastic Recycling

- Eliminating or reducing the use of single-use plastics can greatly reduce waste volumes both in residential and commercial settings. This includes straws, plastic bags and plastic wraps. Many private waste contractors can commercially collect soft Plastic.
- Commercial waste contractors may also be able to collect streamered soft plastics depending on your location.
- Coles and Woolworths both offer plastic bag and soft plastic recycling. Residents can place all plastics in one plastic bag and add it to the recycling bin at the supermarket for collection. Any location identified on the Redcycle website <http://www.redcycle.net.au/where-to-redcycle/>.

#### 4.3.6 Hospitality Waste Reduction

- Reducing takeaway food container waste – The website Trashless Takeaway [www.trashlesstakeaway.com.au](http://www.trashlesstakeaway.com.au) lists restaurants around Australia that allow you to bring your own container to pick up your takeaway food, enabling a reduction in use of recyclable or compostable (only in some commercial composters) food containers.

#### 4.3.7 Office, Public Litter & Ash bins

- Separation of garbage and recycling is to initially occur in all work areas and then the bin stores. For this reason, the development will include streamered waste bins on each floor or work area. Cleaners would then transfer waste from these bins to the bin storage area.
- For larger mixed use and commercial developments with a public interface, litter bins are recommended to be provided within forecourts or public areas for building users to dispose of waste in the correct manner.



Example of streamered Office bins



Example of public litter bins



Example of cigarette Ash bins

All bins are to be placed alongside each other to ensure recycling is easy.

## 5 Supplementary information

### 5.1 Waste Links

City of Hobart Council Waste Directory:

<https://www.hobartcity.com.au/Residents/Recycling-and-rubbish/Reuse-recycle-and-dispose-A-Z>

Waste collection companies in Tasmania:

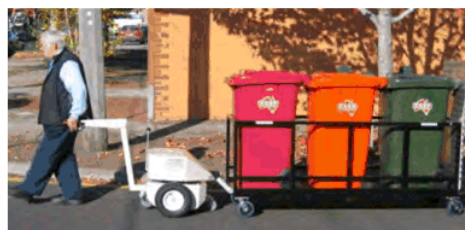
- Kartaway [www.kartaway.com.au](http://www.kartaway.com.au)
- JJ Richards & Sons [www.jrichards.com.au](http://www.jrichards.com.au)
- Sita [www.sita.com.au](http://www.sita.com.au)
- Veolia [www.veolia.com](http://www.veolia.com)

### 5.2 Mechanical Tug and Bin Trolley Details

Where mechanical tugs are recommended, the following details will assist.

Suppliers include

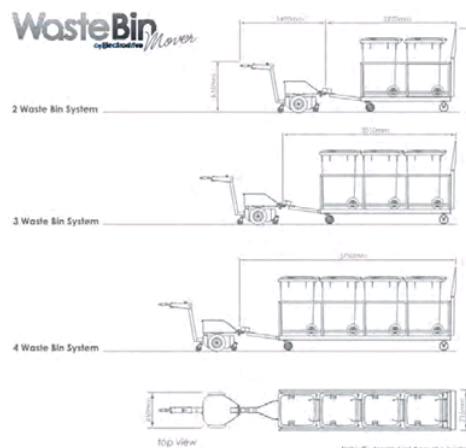
- [www.electrodrive.com.au](http://www.electrodrive.com.au)
- <http://www.mastemover.com.au>
- [www.sitcraft.net.au](http://www.sitcraft.net.au)
- <http://www.hercules.com.au/index.php?tug2>.



Two-wheel bins are usually loaded onto a trailer/dolly for transportation. Space is required for storage of the tug unit plus trailer. Tugs can be 1.5m long x 0.8m wide. Trailers can vary in size – allow space larger than the bin footprint.



Sitecraft Logistec bin mover



Four-wheel bins can be towed directly by the tug and require less space as only the tug is required to be stored, not a trailer. Towing brackets and directional wheel locks are available from Sulo [www.sulo.com.au](http://www.sulo.com.au) and can readily be retrofitted to 660-1100L bins for towing. Towing brackets and wheel locks do not project outside of the bin footprint area.



Mechanical tug systems will usually cost in the range of \$10,000 - \$15,000, with trailer possibly extra.

Manual wheelie bin handling trolleys provide assistance with the manual handling of 120L to 360L bins. Various models are available with standard manual trolley as well as an electric boosted trolley to carry up to four 2-wheelie bins. They should be included in case of a longer bin movement distance or for the less abled people to safely move the bins if required.

Suppliers include

- <https://www.materialshandling.com.au>

- <https://www.wheeliesafe.com.au/>



### 5.3 Bin Lifters

Electro Hydraulic Bin-Lifters should be provided in each bin room to help staff safely to empty the internal 120L/240L bins into the main 1100L bins placed in the bin store.

Suppliers for Bin-Lifter are as follows:

- LiftMaster <http://www.liftmastermh.com.au/>
- WasteTech <http://www.wastech.com.au/Bin-Lifters/bin-lifters.html>
- SPACEPAC Industries Pty Ltd.  
[http://www.spacepac.com.au/Brochures/Lifters/LiftMaster/Bin-Lifters\\_2pg\\_np.pdf](http://www.spacepac.com.au/Brochures/Lifters/LiftMaster/Bin-Lifters_2pg_np.pdf)
- SiteCraft <http://www.sitecraft.net.au/materials-handling/recycling-waste-management/wheelie-bin-lifters-bin-tippers/#>
- Easylift  
[http://www.easylift.com.au/a/Materials\\_Handling\\_Equipment/Wheelie\\_Bin\\_Lifters](http://www.easylift.com.au/a/Materials_Handling_Equipment/Wheelie_Bin_Lifters)
- Active lifting equipment co. pty ltd.  
<http://www.activelifting.com.au/MaterialsHandling/Binlifters/powered150.htm>





## 5.4 Waste Chutes

Waste chutes can be either single chutes for garbage only (with associated recycling bins on each floor beside the garbage chute), dual chutes for garbage and recycling or a shared single chute with electronic controls that nominate which bin the garbage or recycling will fall into in the bin store.

Some concerns exist in relation to cardboard and glass containers being placed down chutes. Large cardboard boxes may cause blockages in waste chutes and glass containers may break up at the base of the chute. Providing a separate cardboard recycling bin in or near the bin store room will allow cardboard can be excluded from chutes.

Installation of chutes for both a garbage and recycling disposal provides the following benefits when managed by the Owners Corporation (ie residents are advised and monitored in their use of cardboard down chutes).

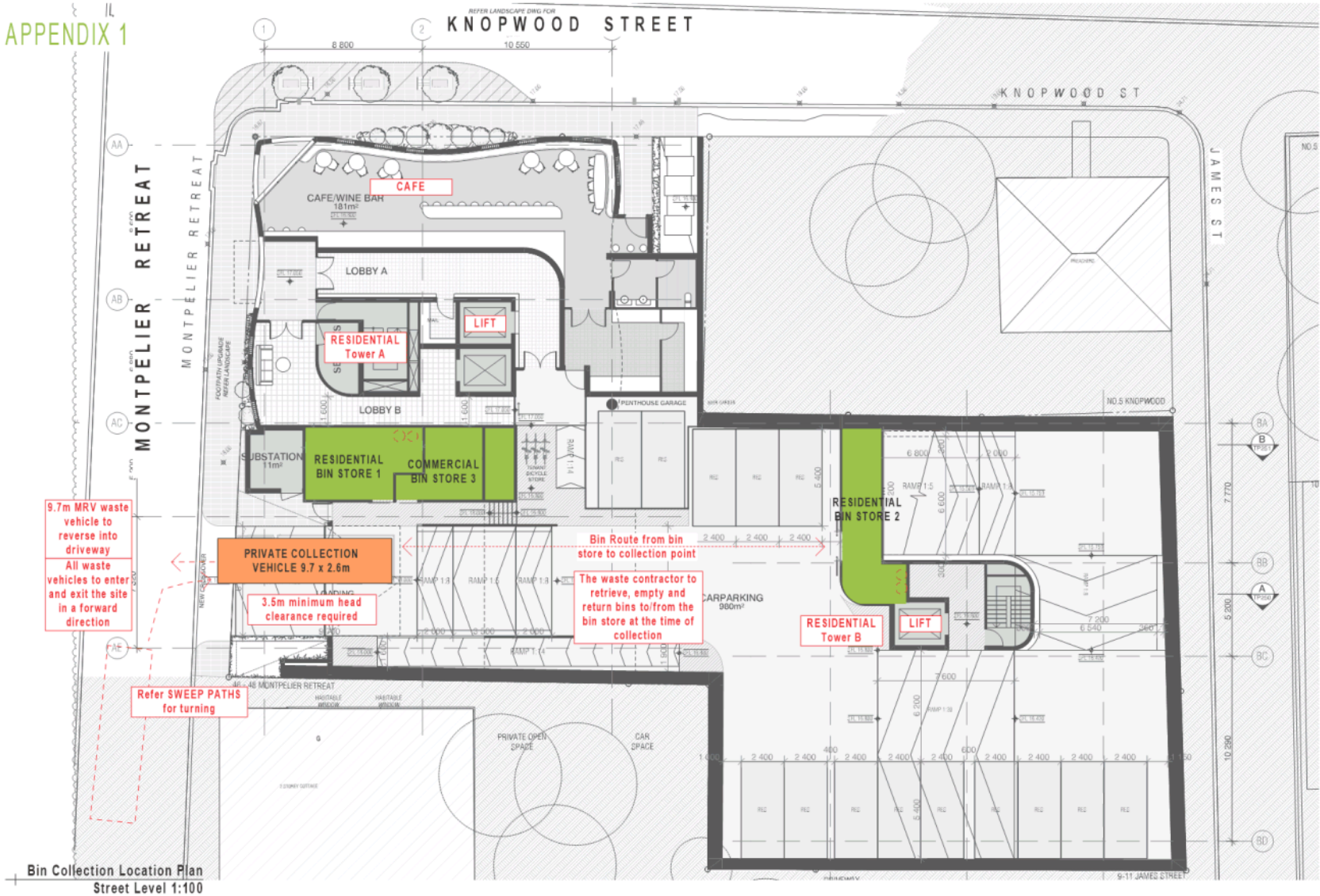
Chute and bin room odour control products/services include:

- Garbage doctor [http://www.garbagedoctor.com.au/garbage\\_odour\\_control\\_systems.html](http://www.garbagedoctor.com.au/garbage_odour_control_systems.html)
- Purifying Solutions [http://www.purifyingsolutions.com.au/garbage\\_chute\\_cleaning.html](http://www.purifyingsolutions.com.au/garbage_chute_cleaning.html)
- ASI MacDonald <https://www.jdmacdonald.com.au/product/garbage-chute-gcl/>

## 5.5 Bottle Crushing

- Onsite crushing of glass bottles via units such as the Bottlecycler [www.bottlecycler.com](http://www.bottlecycler.com) is a significant way to reduce waste
- volumes and also assist with glass recycling. Bottles without contaminants other than remnant drink are loaded directly into the Bottlecycler and crushed on the spot to reduce bottle volumes by about 80% (5:1 reduction). Broken glass cullet can be sorted by colour off site after collection for recycling.

## **Appendix 1 – Bin Collection Plan**



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All Dimensions shall be verified on site.

Project	1 KNOPOOD STREET HOBART TASMANIA 7004
Drawing	Bin Collection Location Plan Bin Store Layout

Date	13/12/2021	Scale	1:100 / 1:50	Sheet Size	A1
Rev No.	Down	CH	LR	CH	CH
Job No.	Drawing No.	Revision	WP01	b	

LOW IMPACT DEVELOPMENT (LID)  
CONSULTING  
Suite 7 Level 1, 252 St Georges Rd,  
Fitzroy North VIC 3068  
P 03 9016 9486  
E craigharris@lidconsulting.com.au





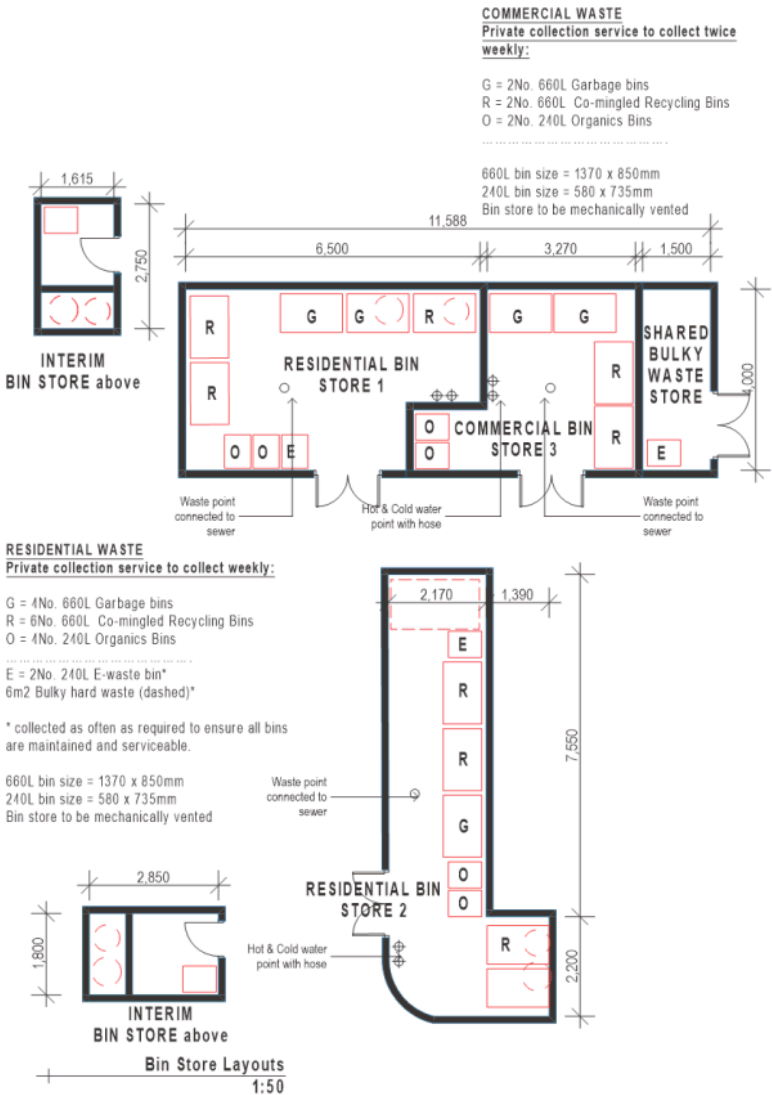
Typical Interim Bin Store  
Locations (L2) 1:50

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Project  
1 KNOPWOOD STREET  
HOBART TASMANIA 7004

Drawing  
Bin Store Layout

Date	Scale	Sheet Size
13/12/2021	1:100 / 1:50	A1
Rep No.	Drawn	CHK
	LR	CH
Job No.	Drawing No.	Revision
	WP02	b



COMMERCIAL WASTE  
Private collection service to collect twice weekly:

G = 2No. 660L Garbage bins  
R = 2No. 660L Co-mingled Recycling Bins  
O = 2No. 240L Organics Bins

660L bin size = 1370 x 850mm  
240L bin size = 580 x 735mm  
Bin store to be mechanically vented

RESIDENTIAL WASTE  
Private collection service to collect weekly:

G = 4No. 660L Garbage bins  
R = 6No. 660L Co-mingled Recycling Bins  
O = 4No. 240L Organics Bins

E = 2No. 240L E-waste bin\*  
6m2 Bulky hard waste (dashed)\*

\* collected as often as required to ensure all bins are maintained and serviceable.

660L bin size = 1370 x 850mm  
240L bin size = 580 x 735mm  
Bin store to be mechanically vented

Waste point connected to sewer

Hot & Cold water point with hose

Bin Store Layouts  
1:50

LOW IMPACT DEVELOPMENT(LID)  
CONSULTING  
Suite 7 Level 1, 252 St Georges Rd,  
Fitzroy North VIC 3068  
P 03 9016 9486  
E craigharris@lidconsulting.com.au





## Appendix 2 – Preliminary Risk Review

<b>Class 1 Risk</b> = Potential to cause death or permanent injury.	<b>Class 2 Risk</b> = Potential to cause injury requiring medical attention.	<b>Class 3 Risk</b> = Potential to cause an injury treatable with first aid.
---	--	--

Activity	Steps involved in completing activity & risk	Risk level	Risk mitigating measures	Implementation responsibility
Moving of bins from bin store to collection space	Distance bins to be moved approx. 20m. Risk of manual handling injuries	2	Use max bin sizes of 860L Ensure the distance of travel is no more than 40m. The bin transfer grade should not exceed 1:14 The travel path is to be kept free of all obstacles including loose gravel or dirt, steps, kerbs, speed bumps, beams, sills or ramps. Ensure all access points have suitably wide doorways and circulation areas.	Building Designer / Owners Corporation / Building Management
Vehicle comes on site for collection	Large vehicle entering site, and reversing before exiting site. Major risk is hitting, particularly when reversing, young children, the elderly or unaware people	1	Vehicle driver entering site is to survey the area for activity. If there is no activity near reversing location, driver to execute reverse move immediately before the situation can change. If there is activity, the driver should ensure the person/persons moving in the area are aware of the pending reversing action, and have time to stay away from the reversing zone or ensure children are away from the reversing zone. Reversing should be at very slow speed.  Reversing buzzers to be applied to all trucks.	Waste collection contractor / Owners Corporation / Building Management
Emptying apartment waste and recycling in chutes	Resident takes dual waste and recycling bins to waste/recycling chute rooms on each level. Risk of hands in chutes, dropping watches, rings etc in chutes.	3	Signage to ensure hands don't go into chutes. Chute installed to safety standards and manufacturers recommendations.	Developer / Builder



Activity	Steps involved in completing activity & risk	Risk level	Risk mitigating measures	Implementation responsibility
Moving bins within waste / recycling collection room on ground floor	Manual handling or automated bin changing. Risk of manual handling injuries. Automated to be designed by chute designer.	2	Appropriate design of collection room and space. Training of designated person	Building Designer / Owners Corporation
<b>Note this assessment is for consideration during the design phase of the project. It is <u>not</u> to replace a risk assessment / Safe Work Method Statement being completed by the contractor and persons undertaking the waste removal process.</b>				

### **Appendix 3 – Waste rates & calculations**

Appendix 3 - Waste Generations Calculations  
1 Knopwood Street, Hobart TAS 7000

## BIN STORE 1 - Tower A Residential

Residential Tenancy	Qty	No. Days	Waste Generation Rates (L/week)			Source	Waste Generated (L/Week)		
			Garbage	Recycling	Food		Garbage	Recycling	Food
1 bedroom + studio	0	7	60	80	20	MCC Guidelines	0	0	0
2 bedroom *	1	7	75	100	25	MCC Guidelines	75	100	25
3 bedroom *	11	7	90	120	30	MCC Guidelines	990	1320	330
Communal Areas	0	7	10	10	0	MCC Guidelines	0	0	0
<b>Total No. Dwellings</b>	<b>12</b>					<b>Total Litres per Week</b>	<b>1065</b>	<b>1420</b>	<b>355</b>

Weekly Collections	No. 1100L Bins	1.0	1.3	0.3
	No. 660L Bins	1.6	2.2	0.5
	No. 240L Bins	4.4	5.9	1.5

## BIN STORE 2 - Tower B Residential

Residential Tenancy	Qty	No. Days	Waste Generation Rates (L/week)			Source	Waste Generated (L/Week)		
			Garbage	Recycling	Food		Garbage	Recycling	Food
1 bedroom + studio	1	7	60	80	20	MCC Guidelines	60	80	20
2 bedroom *	3	7	75	100	25	MCC Guidelines	225	300	75
3 bedroom *	10	7	90	120	30	MCC Guidelines	900	1200	300
Communal Areas	0	7	10	10	0	MCC Guidelines	0	0	0
<b>Total No. Dwellings</b>	<b>14</b>					<b>Total Litres per Week</b>	<b>1185</b>	<b>1580</b>	<b>395</b>

Weekly Collections	No. 1100L Bins	1.1	1.4	0.4
	No. 660L Bins	1.8	2.4	0.6
	No. 240L Bins	4.9	6.6	1.6

## BIN STORE 3 - Commercial

Commercial Tenancy Type	AREA (m2)	No. Days	Waste Generation Rates (L/100m2/day)			Source	Waste Generated (L/Week)		
			Garbage	Recycling	Food		Garbage	Recycling	Food
Tenancy 1 - Café*	181	7	300	200	0	MCC Guidelines	3801	2534	0
						<b>Total Litres per Week</b>	<b>3801</b>	<b>2534</b>	<b>0</b>

\* High food waste

Weekly Collections	No. 1100L Bins	3.5	2.3	na
	No. 660L Bins	5.8	3.8	na
	No. 240L Bins	15.8	10.6	0.0

## **Appendix 4 – Sweep paths**

CIVIL DRAWINGS  
BATTERY POINT APARTMENTS  
1 KNOPWOOD STREET

C001	COVER	F	28/01/2022
C002	ENGINEERING NOTES	E	28/01/2022
C001	LOCALITY PLAN	E	28/01/2022
C102	BASEMENT LAYOUT PLAN	F	28/01/2022
C103	GROUND LAYOUT PLAN	F	28/01/2022
C104	BASEMENT PARKING DIMENSIONS PLAN	E	28/01/2022
C105	GROUND PARKING DIMENSION PLAN	E	28/01/2022
C106	SIGHT LINE PLAN	E	28/01/2022
C107	BASEMENT TURNPATH PLAN - SHEET 1	E	28/01/2022
C108	BASEMENT TURNPATH PLAN - SHEET 2	E	28/01/2022
C109	BASEMENT TURNPATH PLAN - SHEET 3	E	28/01/2022
C110	BASEMENT TURNPATH PLAN - SHEET 4	E	28/01/2022
C111	BASEMENT TURNPATH PLAN - SHEET 5	E	28/01/2022
C112	GROUND TURNPATH PLAN - SHEET 1	E	28/01/2022
C113	GROUND TURNPATH PLAN - SHEET 2	E	28/01/2022
C114	GROUND TURNPATH PLAN - SHEET 3	E	28/01/2022
C115	GROUND TURNPATH PLAN - SHEET 4	E	28/01/2022
C116	GROUND TURNPATH PLAN - SHEET 5	E	28/01/2022
C201	ELEVATIONS	E	28/01/2022
C301	SECTIONS - SHEET 1	E	28/01/2022
C302	SECTIONS - SHEET 2	E	28/01/2022

E	DEVELOPMENT APPROVAL - RP RESPONSE	28/01/2022	DRAWN	DE
D	DEVELOPMENT APPROVAL - RP RESPONSE	23/01/2021	CHECKED	MM
C	DEVELOPMENT APPROVAL - RP RESPONSE	9/12/2021	DESIGN	DE
B	DEVELOPMENT APPROVAL - COM RP RESPONSE	28/10/2021	CHECKED	MM
F	DEVELOPMENT APPROVAL - TRENCH DRAIN ADDITION	28/03/2022	VERIFIED	-
REV	ISSUE	DATE	APPROVAL	



**ALDANMARK**

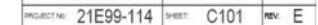
CONSULTING ENGINEERS

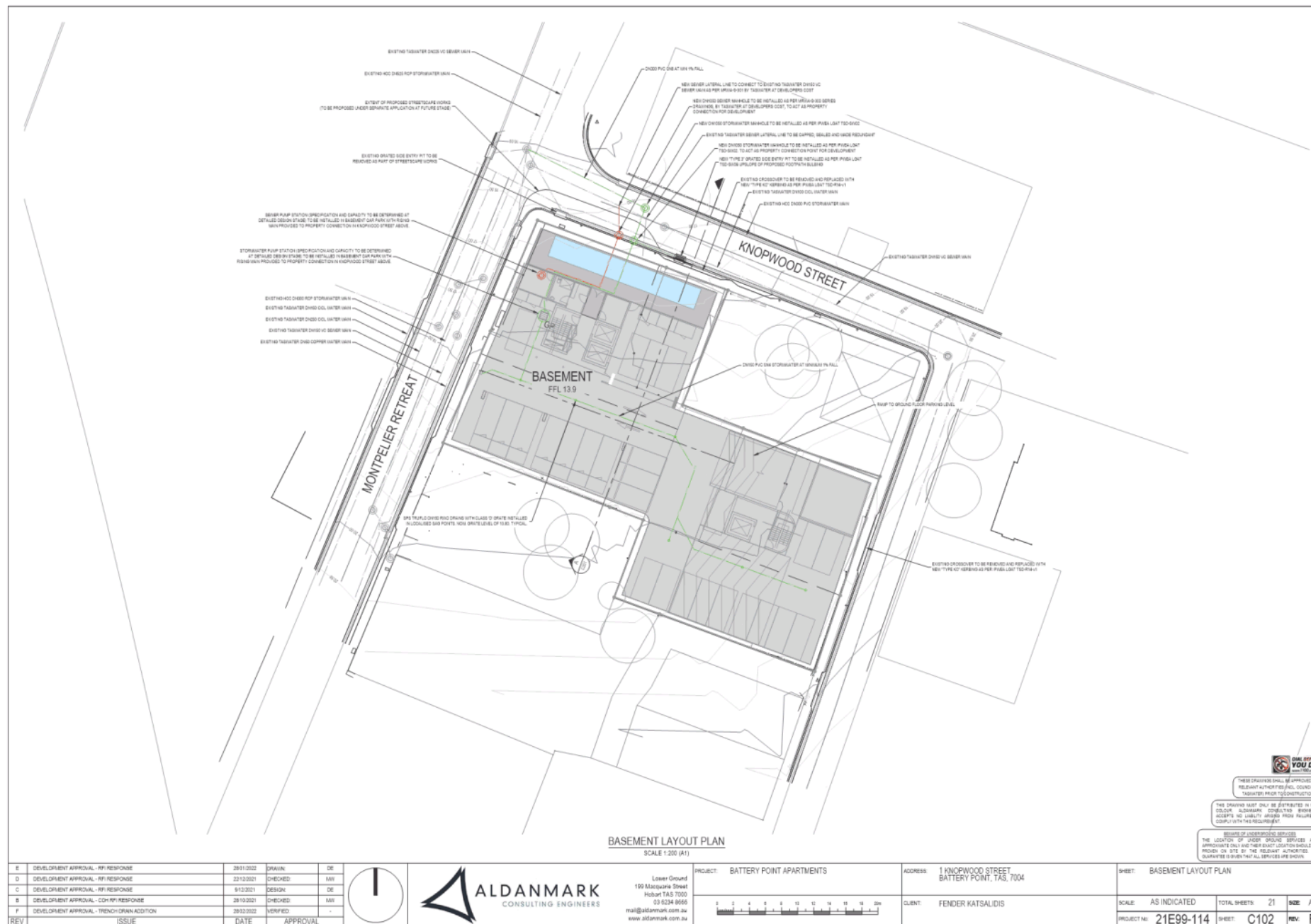
Lower Ground  
199 Macquarie Street  
Hobart TAS 7000  
03 6234 8666  
mail@aldanmark.com.au  
www.aldanmark.com.au

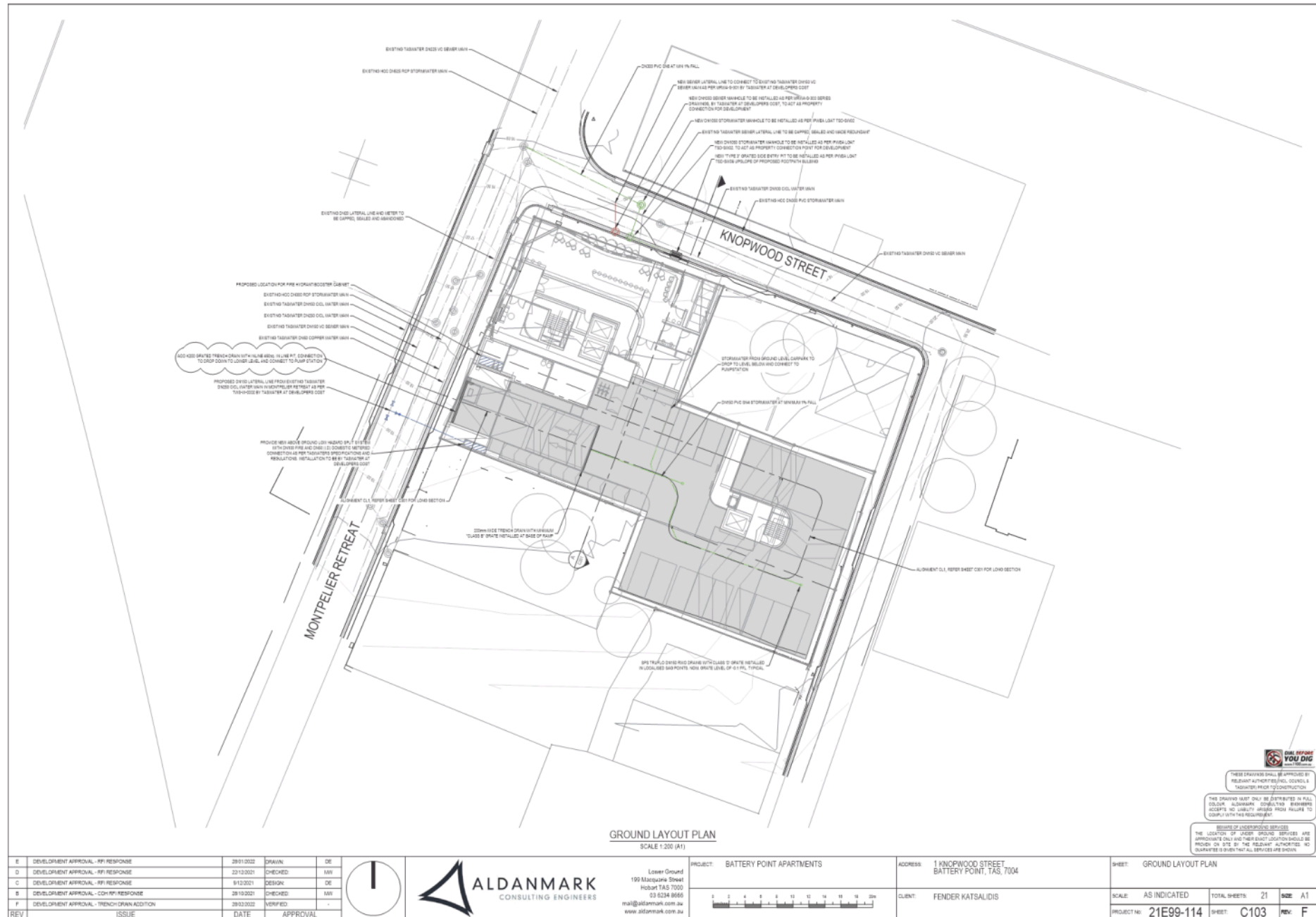
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CLIENT: FENDER KATSALOUDIS		SCALE: AS INDICATED	TOTAL SHEETS: 21	SIZE: A1	
		PROJECT NO: 21E99-114	SHEET: C001	REV: F	







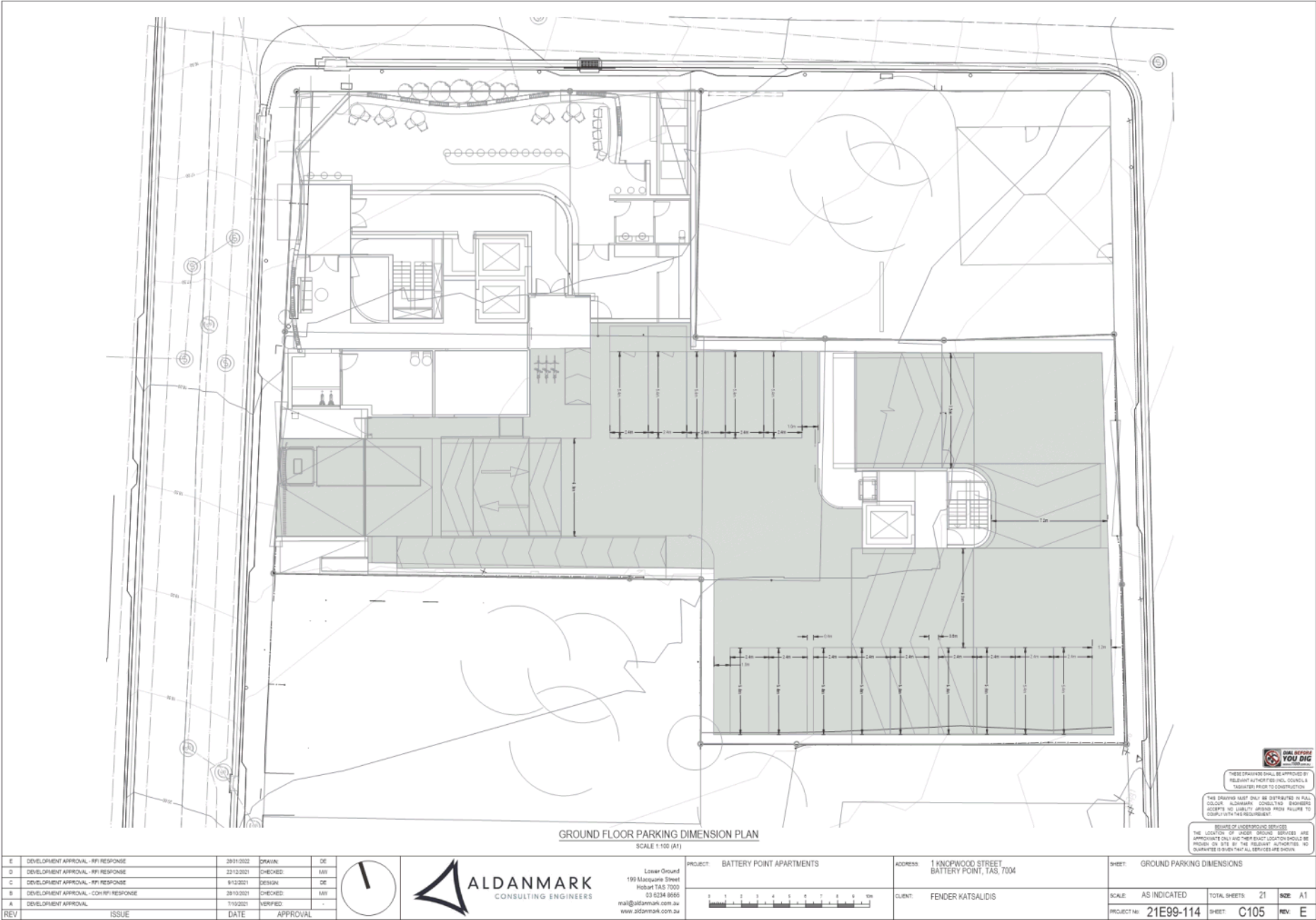














SCALE 1:200 (A1)

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B	DEVELOPMENT APPROVAL - RP RESPONSE	22/12/2021	CHECKED	MW
C	DEVELOPMENT APPROVAL - RP RESPONSE	8/02/2021	DESIGN	DS
D	DEVELOPMENT APPROVAL - COR RP RESPONSE	28/10/2021	CHECKED	MW
E	DEVELOPMENT APPROVAL	7/10/2021	VERIFIED	-
REV	ISSUE	DATE	APPROVAL	



**ALDANMARK**  
CONSULTING ENGINEERS

Lower Ground  
199 Macquarie Street  
Hobart TAS 7000  
P 03 6234 8660  
m@aldanmark.com.au  
www.aldanmark.com.au

**PROJECT:** BATTERY POINT APARTMENTS

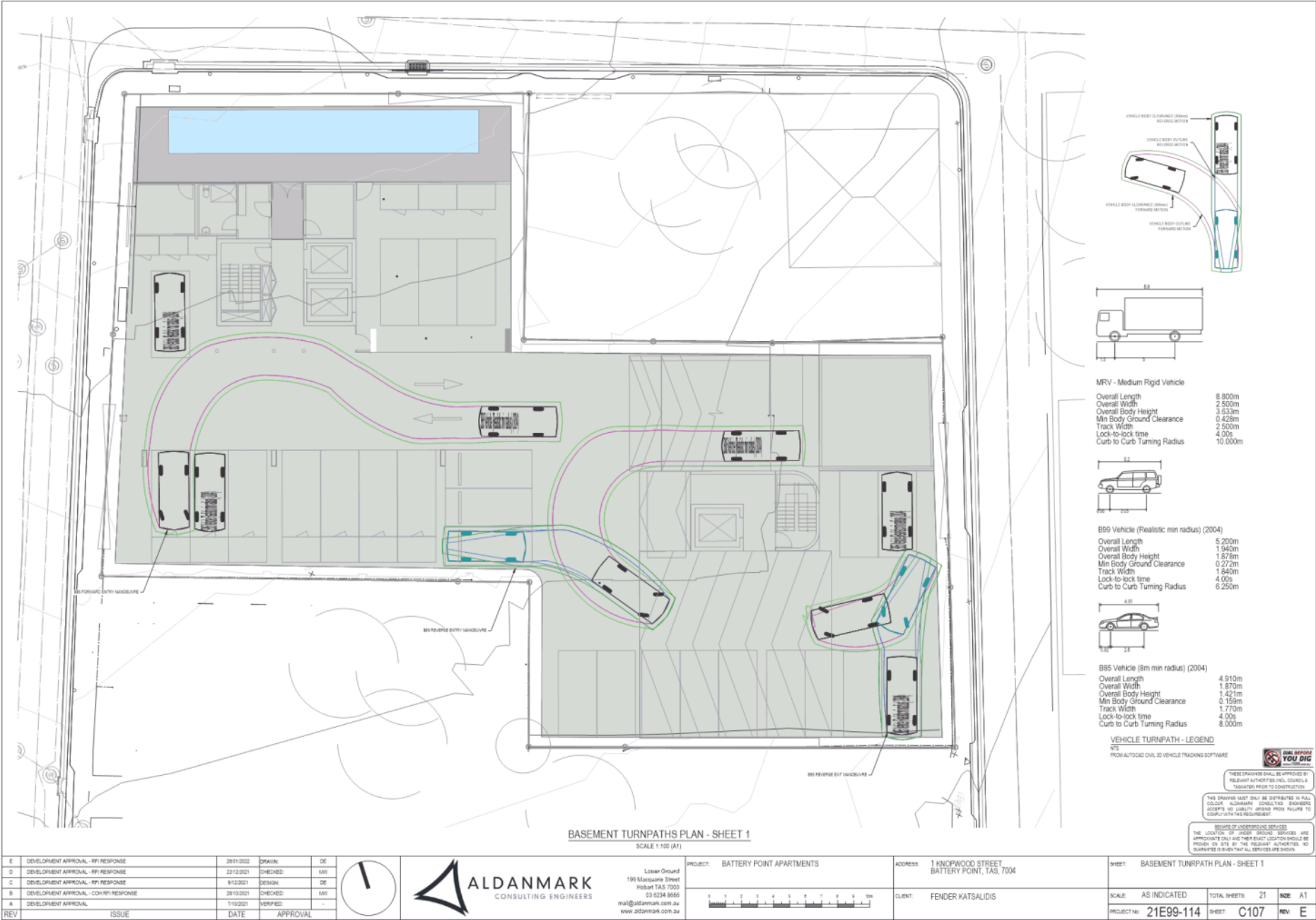
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BATTERY POINT, TAS 7004

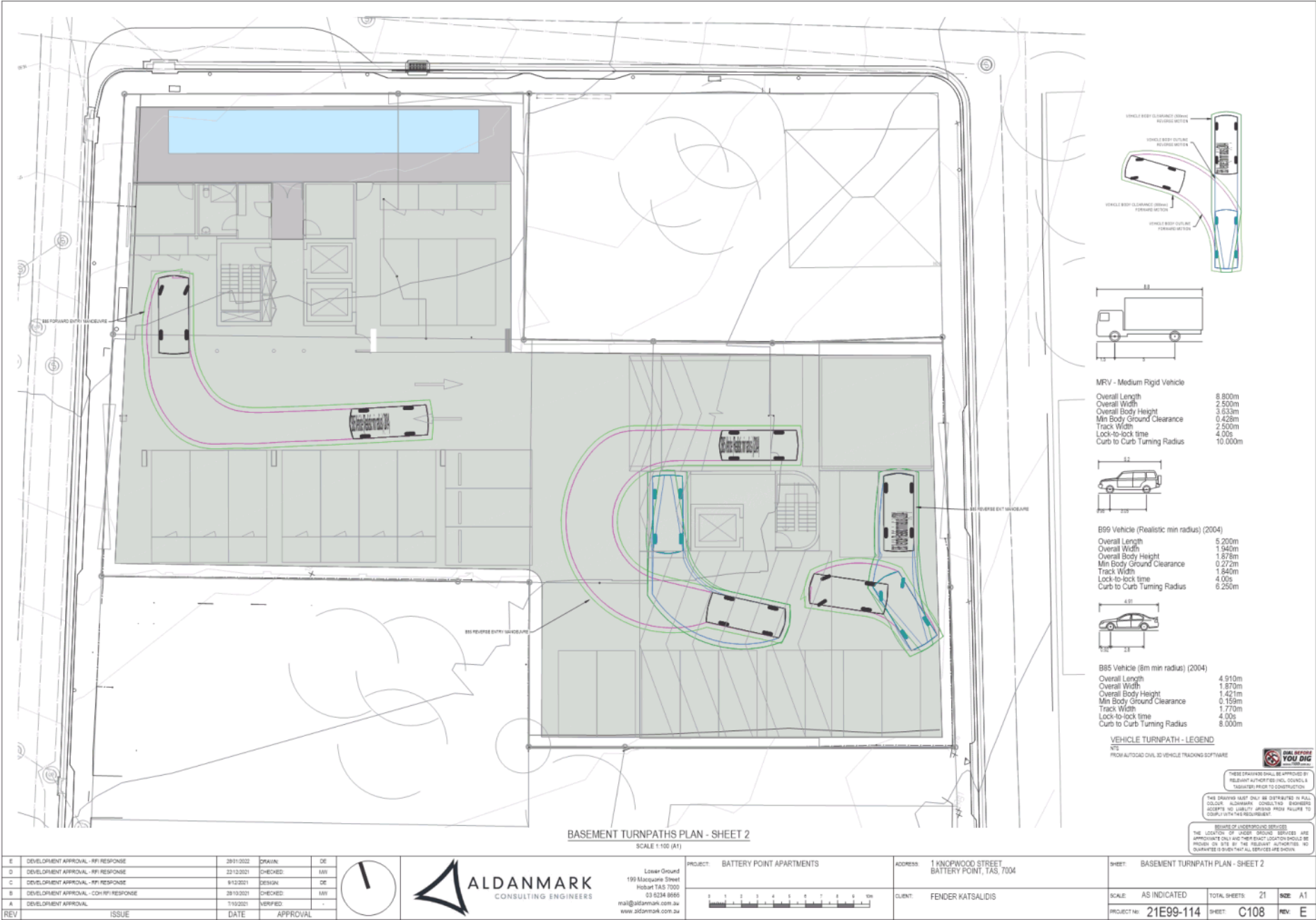
**SHEET:** SIGHT LINE PLAN

**CLIENT:** FENDER KATSAIDIS

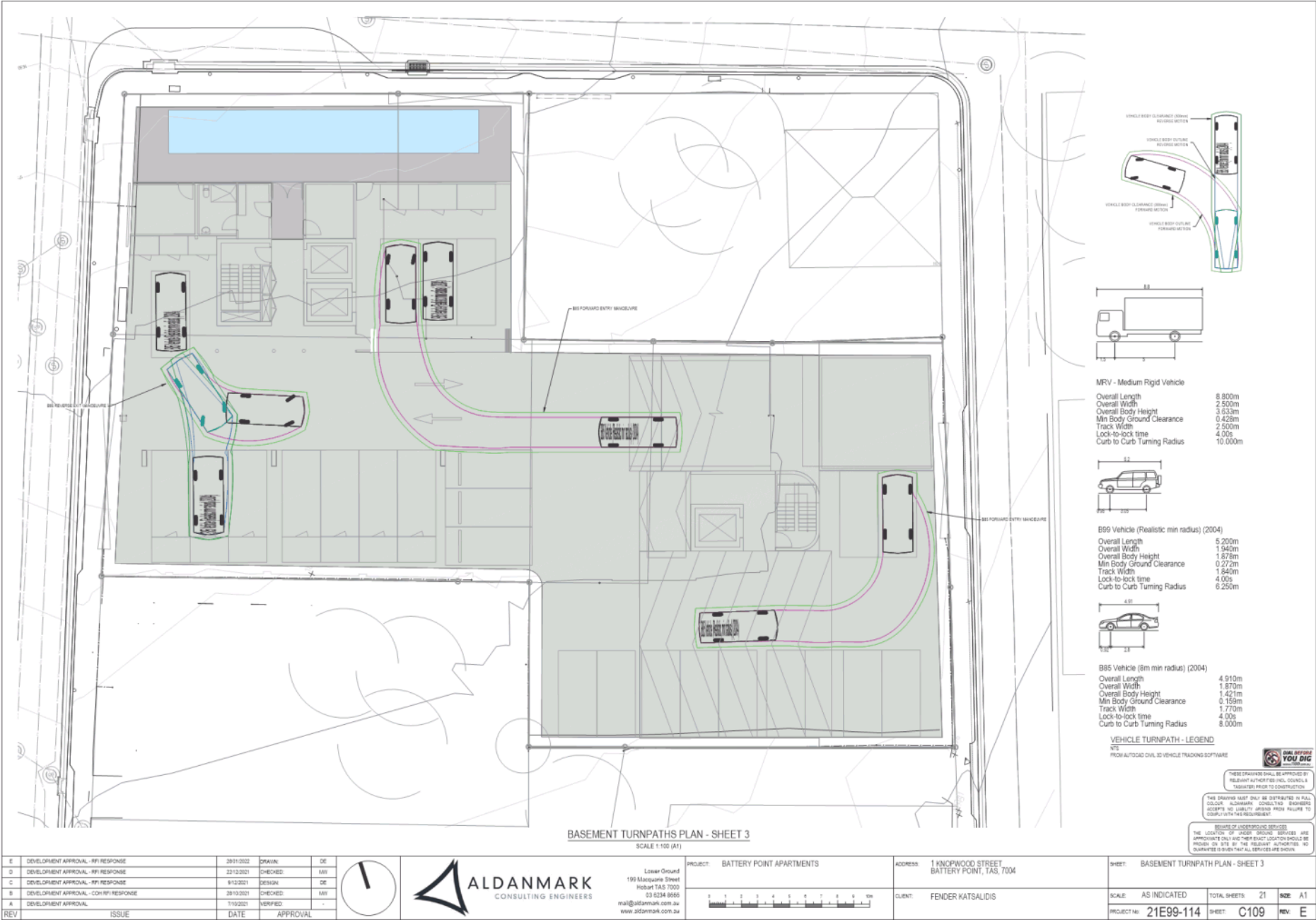
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**PROJECT NO:** 21E99-114    **SHEET:** C106    **REV:** E

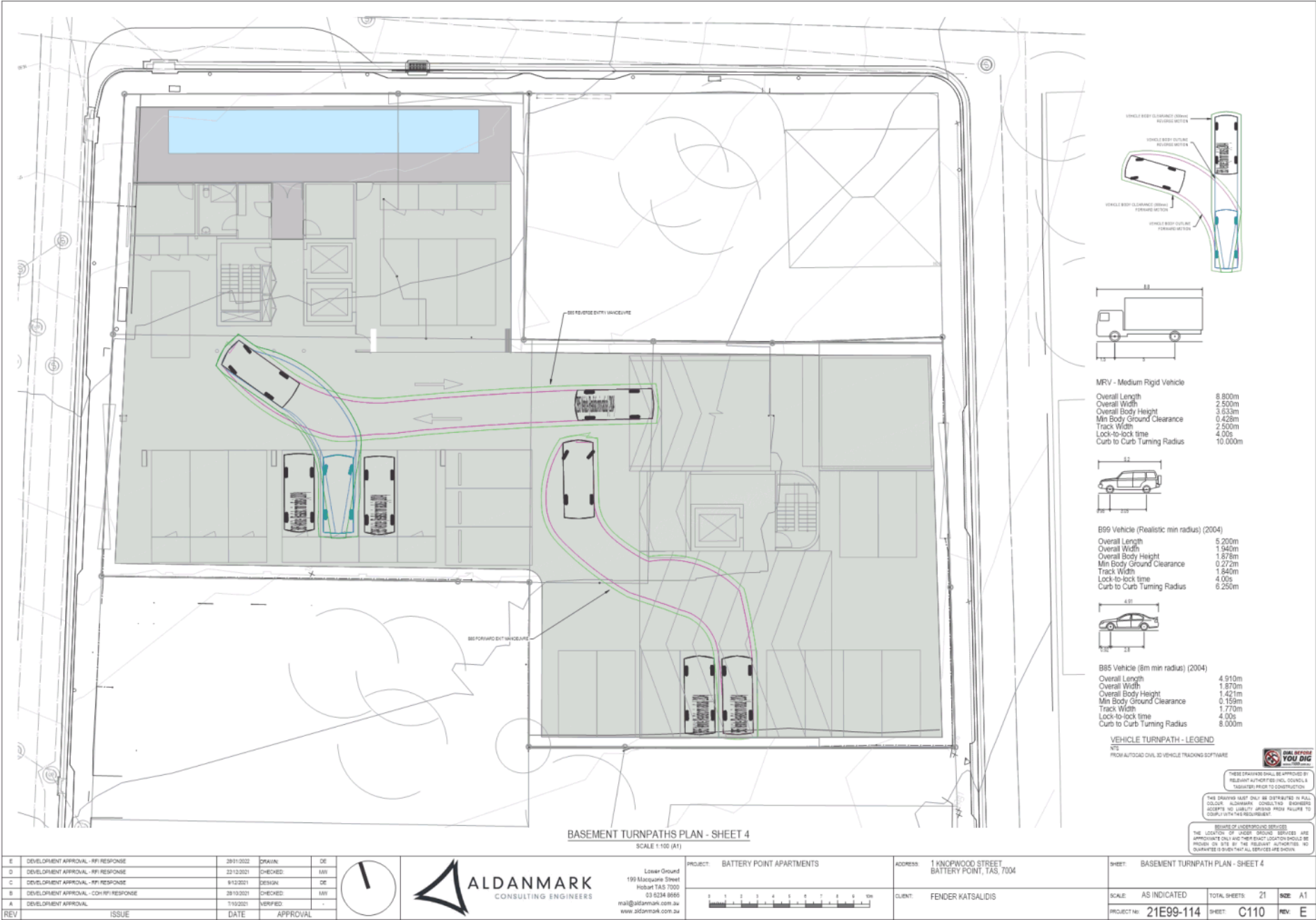


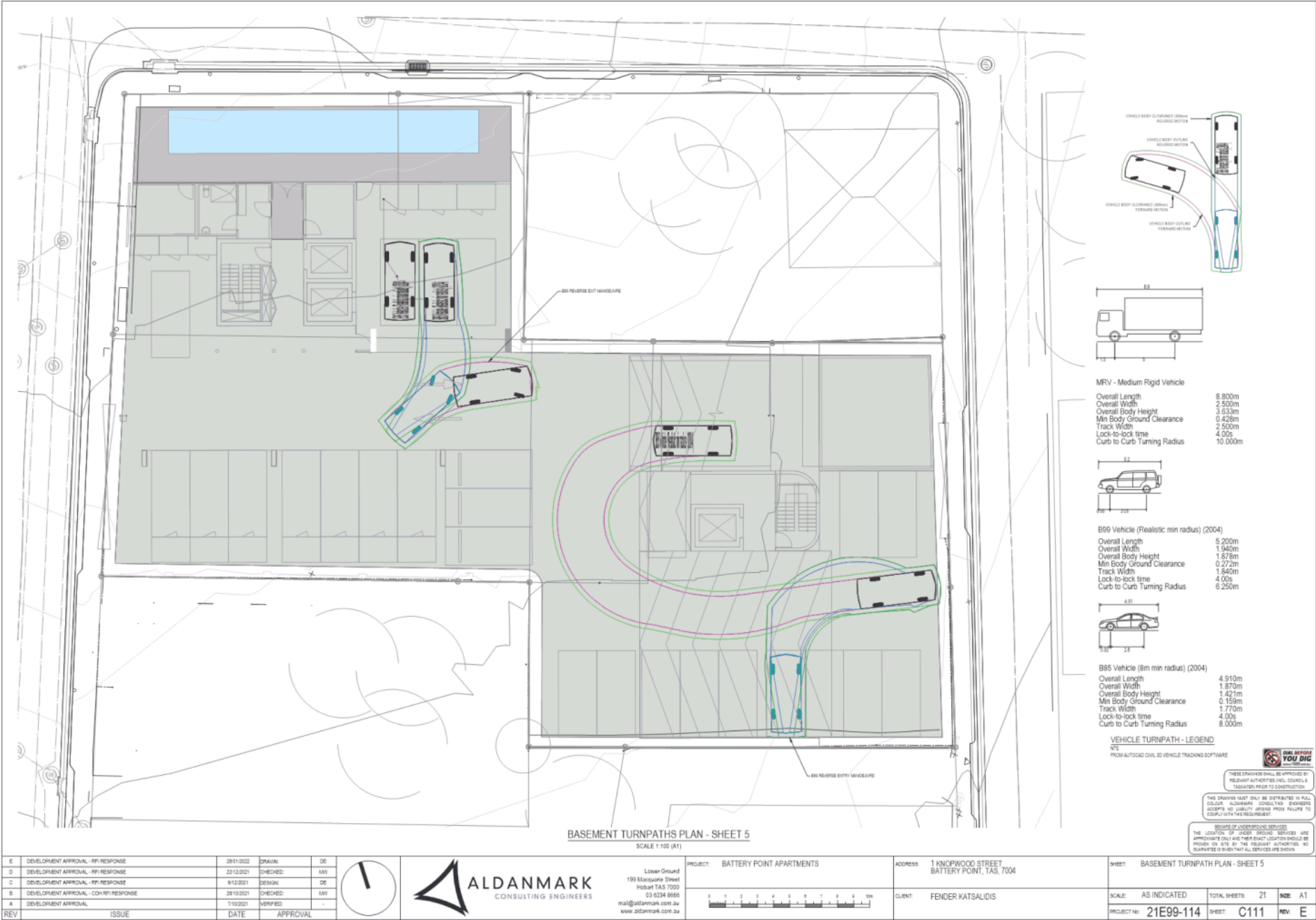


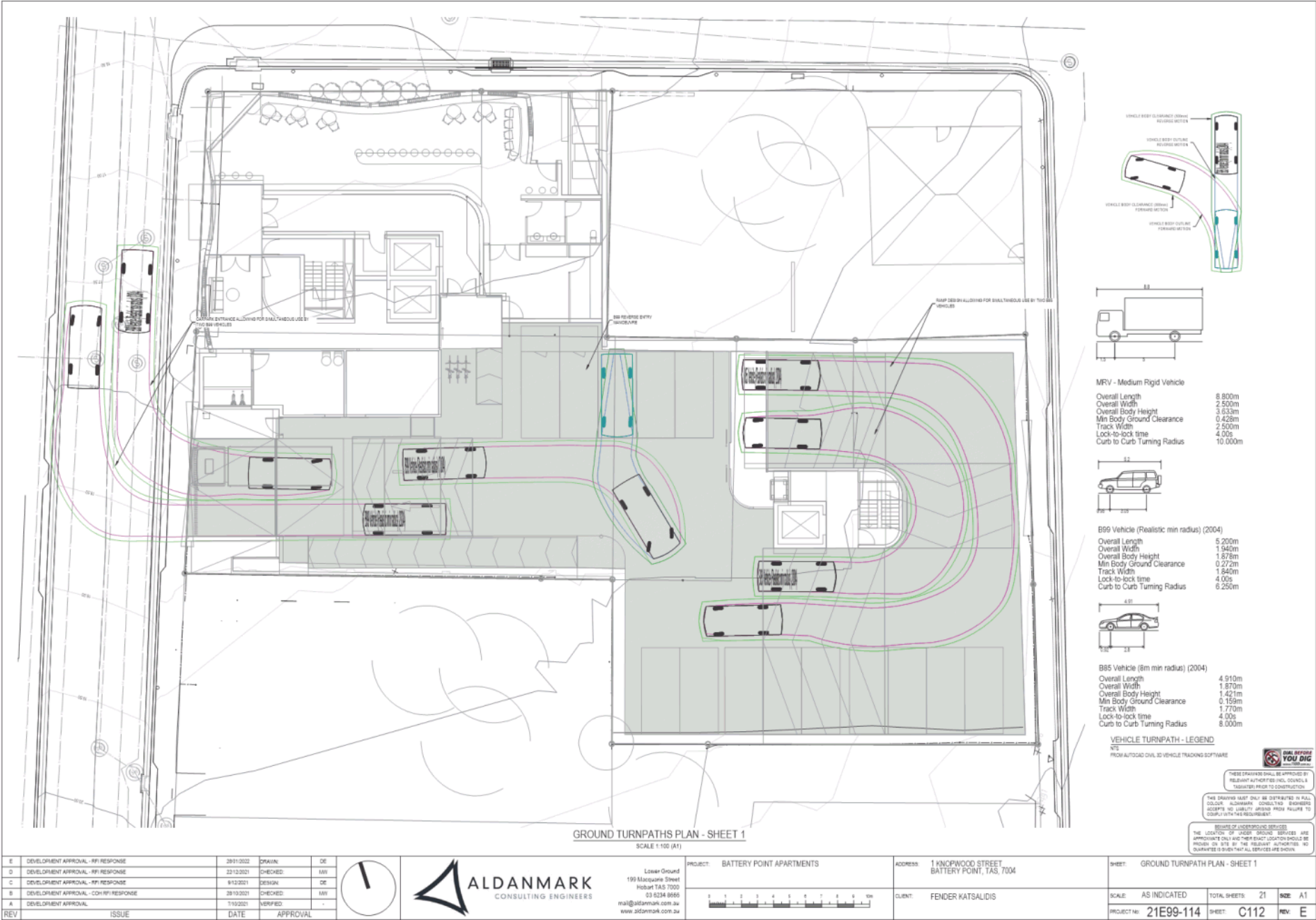


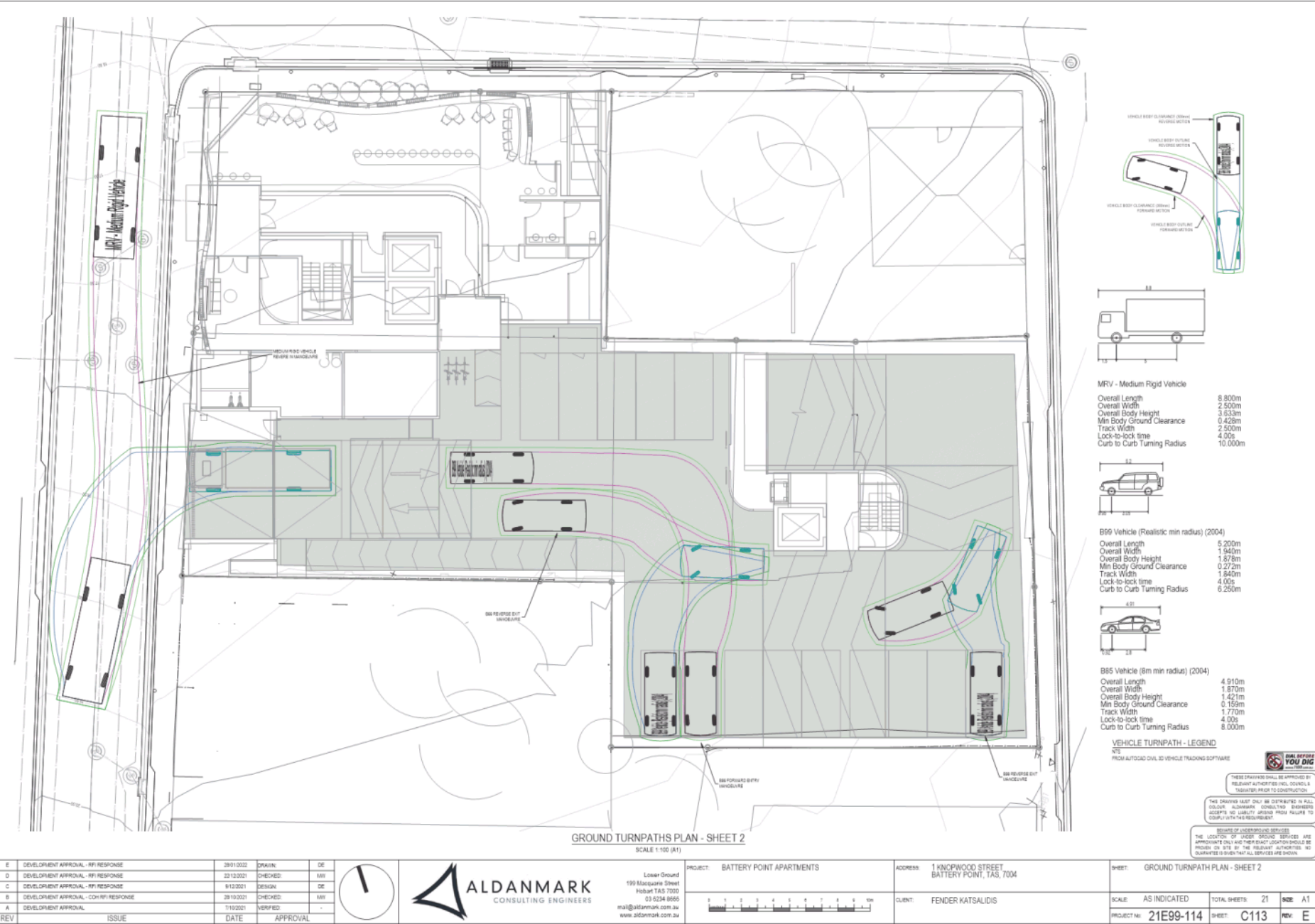




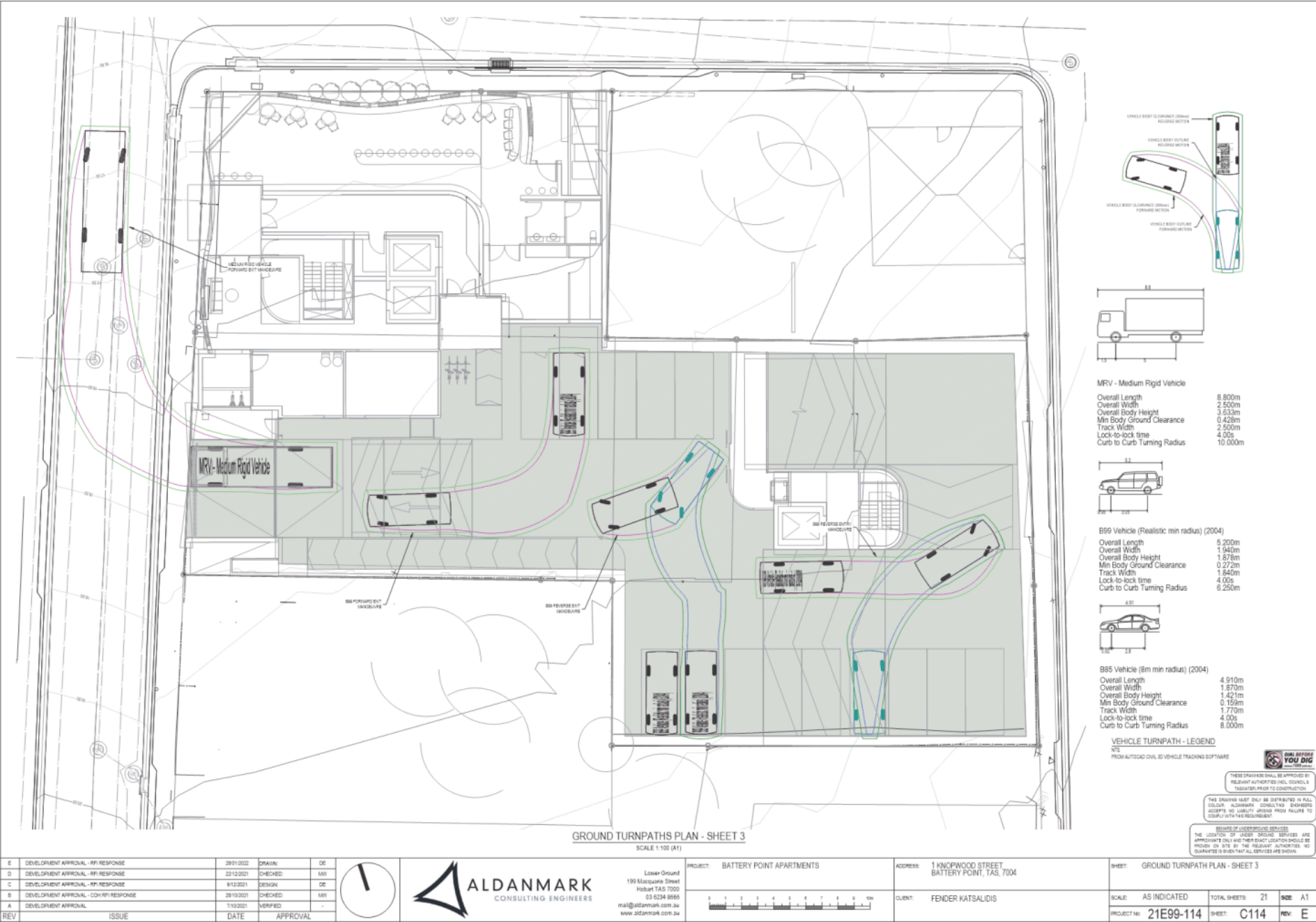




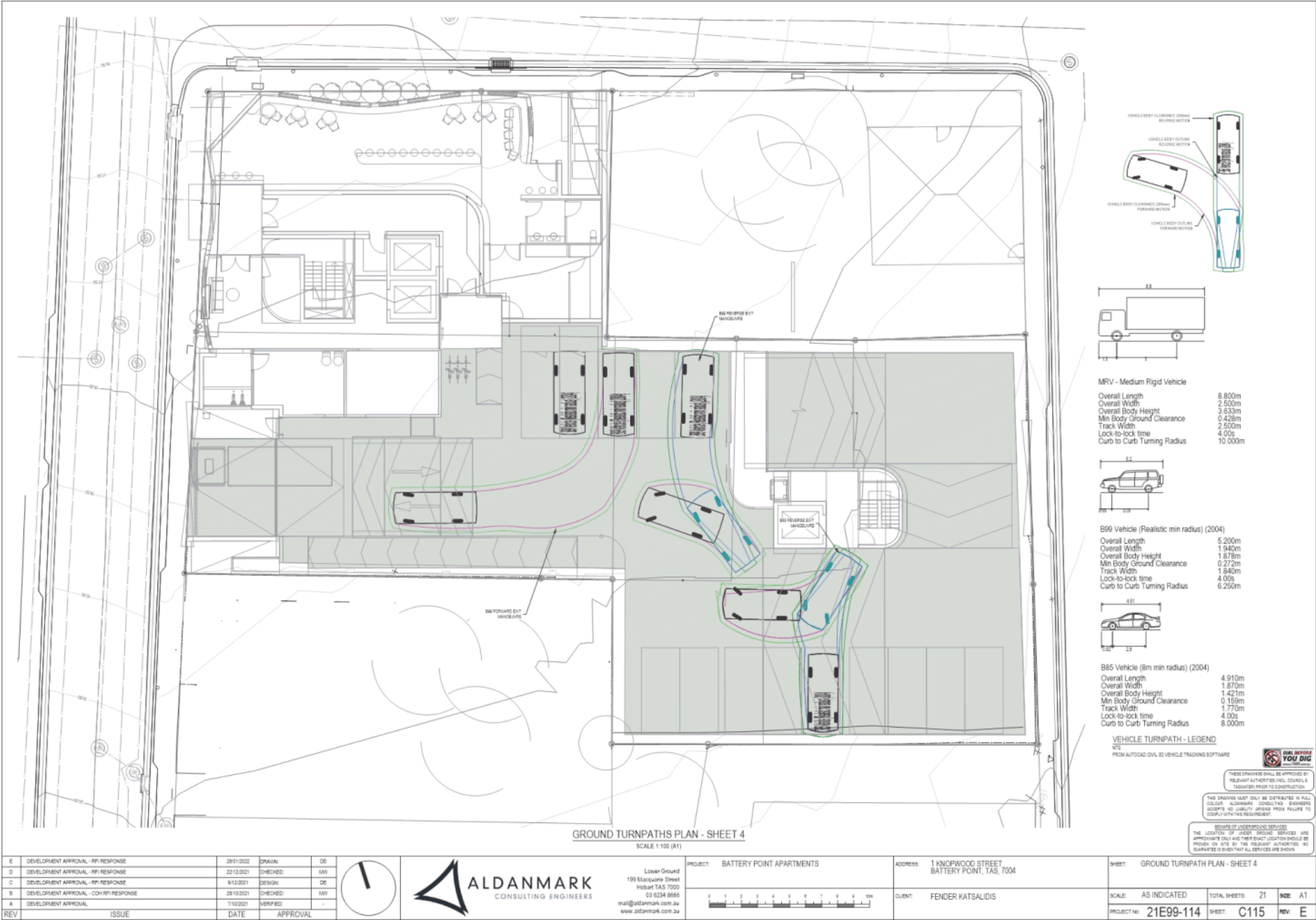


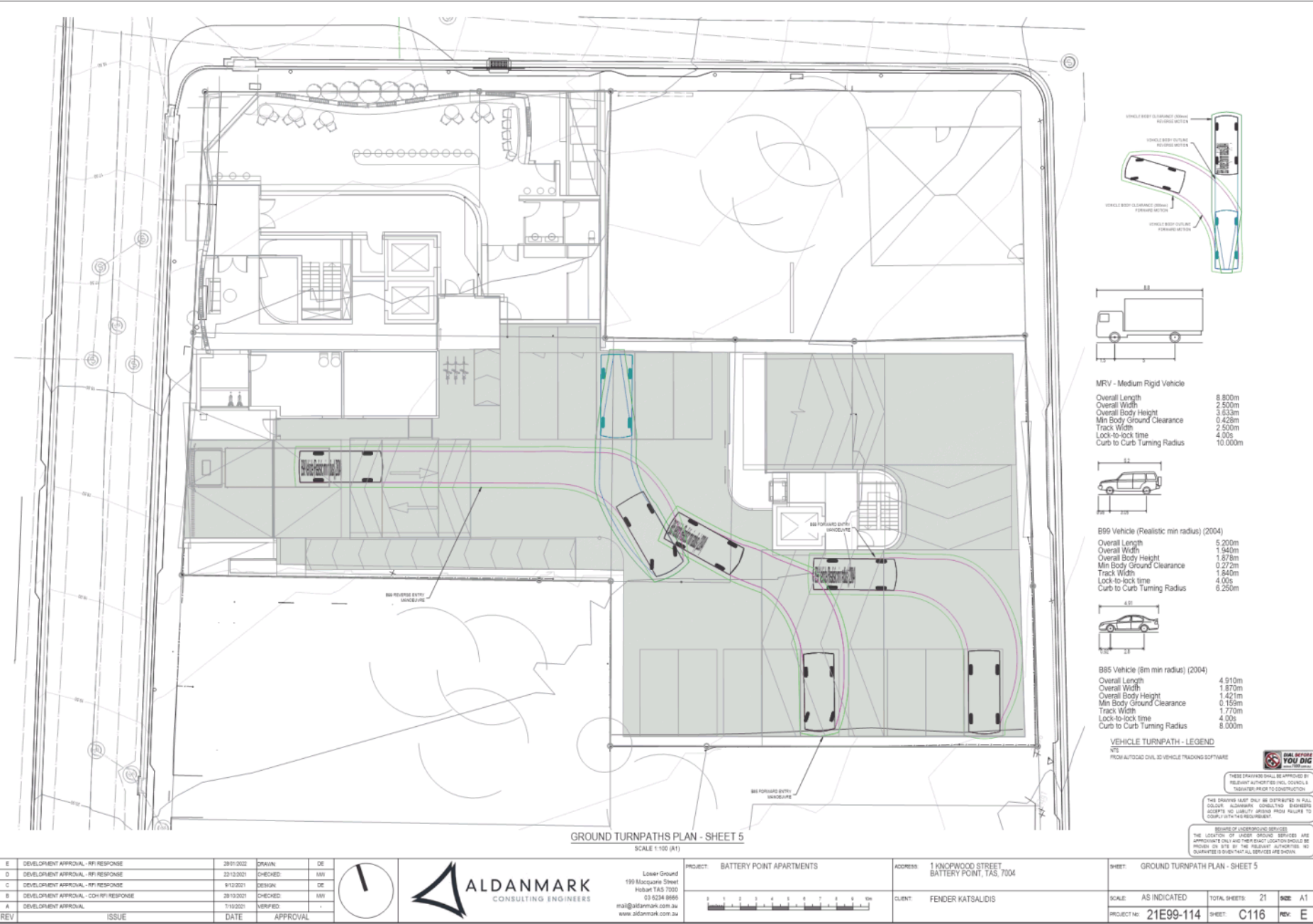


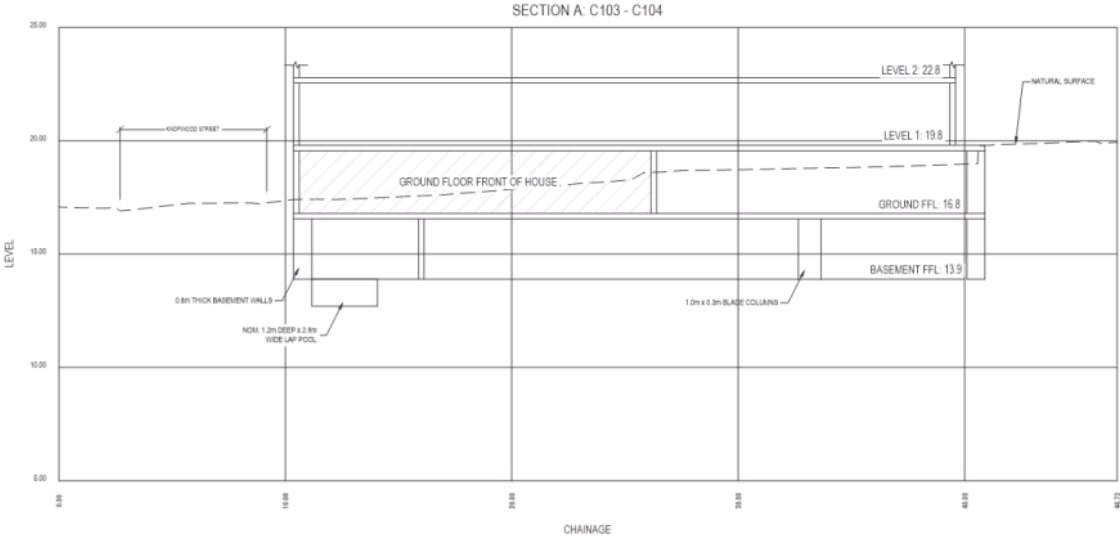












ELEVATIONS: SECTION A  
SCALE 1:100 (A1)

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D	DEVELOPMENT APPROVAL - RFI RESPONSE	22/12/2021	CHECKED	MM
C	DEVELOPMENT APPROVAL - RFI RESPONSE	C201 PLAN	DESIGN	DE
B	DEVELOPMENT APPROVAL - COH RFI RESPONSE	28/10/2021	CHECKED	MM
A	DEVELOPMENT APPROVAL	11/10/2021	VERIFIED	-
REV	ISSUE	DATE	APPROVAL	



Lower Ground  
199 Macquarie Street  
Hobart TAS 7000  
03 6234 8666  
mail@aldanmark.com.au  
www.aldanmark.com.au

PROJECT: BATTERY POINT APARTMENTS



ADDRESS: 1 KNOPOWOOD STREET  
BATTERY POINT, TAS, 7004

CLIENT: FENDER KATSALIDIS

SHEET: ELEVATIONS

SCALE: AS INDICATED  
TOTAL SHEETS: 21  
SHEET: C201  
REV: E



THESE DRAWINGS SHALL BE APPROVED BY  
RELEVANT AUTHORITIES (E.G. COUNCIL &  
REGULATORY AGENCIES) PRIOR TO CONSTRUCTION.

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COLOR. ALDANMARK CONSULTING ENGINEERS  
ACCEPTS NO LIABILITY ARISING FROM FAILURE TO  
COMPLY WITH THIS REQUIREMENT.

BEFORE OF UNDERGROUND SERVICES  
THE LOCATION OF EXISTING UNDERGROUND SERVICES ARE  
APPROXIMATE ONLY AND THEIR EXACT LOCATION SHOULD BE  
PROVEN ON SITE BY THE RELEVANT AUTHORITY. NO  
GUARANTEE IS GIVEN THAT ALL SERVICES ARE SHOWN.



SCALE 1:50 (A1) HORIZ  
SCALE 1:100 (A1) VERT

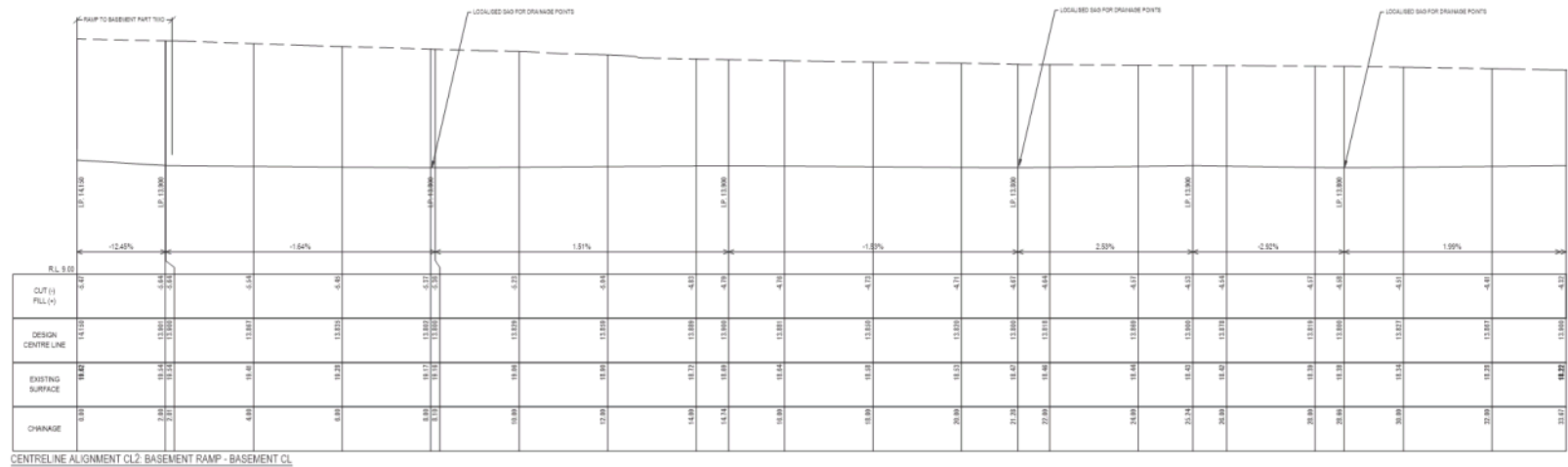
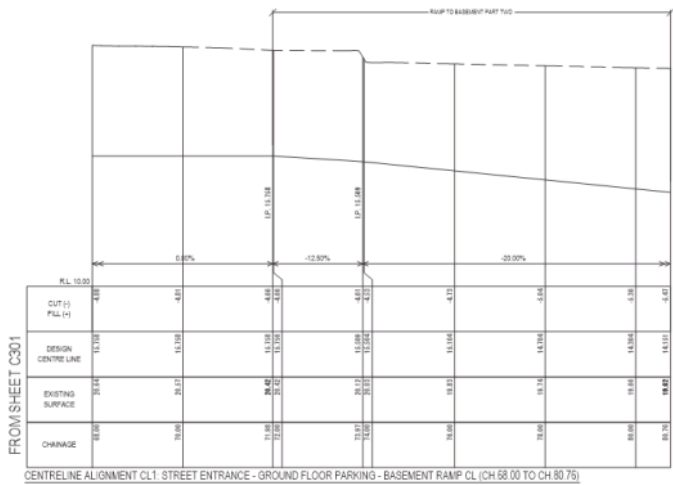
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CONTINUES SHEET C302

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SCALE: AS INDICATED	TOTAL SHEETS: 21	SIZE: A1
PROJECT NO: 21E99-114	SHEET: C301	REV: E



CL2 - BASEMENT RAMP - BASEMENT CL  
SCALE 1:50 (A1) HORIZ  
SCALE 1:100 (A1) VERT

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PROVEN ON SITE BY THE RELEVANT AUTHORITY. NO  
GUARANTEE IS GIVEN THAT ALL SERVICES ARE SHOWN.

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D	DEVELOPMENT APPROVAL - RPI RESPONSE	22/12/2021	CHECKED	MM
C	DEVELOPMENT APPROVAL - RPI RESPONSE	9/12/2021	DESIGN	DE
B	DEVELOPMENT APPROVAL - COH RPI RESPONSE	28/10/2021	CHECKED	MM
A	DEVELOPMENT APPROVAL	1/10/2021	VERIFIED	-
REV	ISSUE	DATE	APPROVAL	



Lower Ground  
199 Macquarie Street  
Hobart TAS 7000  
03 6234 8666  
mail@aldanmark.com.au  
www.aldanmark.com.au

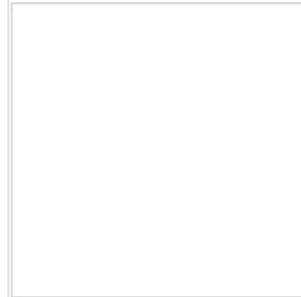
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CLIENT:	FENDER KATSALIDIS	SCALE:	AS INDICATED	TOTAL SHEETS:	21
PROJECT NO:	21E99-114	SHEET:	C302	SIZE:	A1
REV:	E				



Planning: #243090

**Property**

1 KNOPWOOD STREET BATTERY POINT TAS 7004

**People**

Applicant

\*

Bensons Property, by their Agent, Ireneinc Planning

C/- 49 Tasma Street  
NORTH HOBART TAS 7000  
6234 9281  
phil@ireneinc.com.au

Owner

\*

Mimosa Corporation Pty Ltd

C/- 49 Tasma Street  
NORTH HOBART TAS 7000  
6234 9281  
phil@ireneinc.com.au

Owner

\*

Mildara Enterprises Pty Ltd

C/- 49 Tasma Street  
NORTH HOBART TAS 7000  
6234 9281  
phil@ireneinc.com.au

Entered By

PHIL GARTRELL  
49 TASMA STREET  
NORTH HOBART TAS 7000  
03 6234 9281  
tim@ireneinc.com.au**Use**

Multiple dwellings

**Details**

Have you obtained pre application advice?

☐ No

If YES please provide the pre application advice number eg PAE-17-xx

Are you applying for permitted visitor accommodation as defined by the State Government Visitor Accommodation Standards? Click on help information button for definition. If you are not the owner of the property you MUST include signed confirmation from the owner that they are aware of this application.

\*

☐ No

Is the application for SIGNAGE ONLY? If yes, please enter \$0 in the cost of development, and you must enter the number of signs under Other Details below.

\*

☐ No

If this application is related to an enforcement action please enter Enforcement Number

### Details

What is the current approved use of the land / building(s)?

\*

Currently used for car parking - approved for multiple dwellings, but not constructed

Please provide a full description of the proposed use or development (i.e. demolition and new dwelling, swimming pool and garage)

\*

Multiple dwellings and cafe/wine bar

Estimated cost of development

\*

25000000.00

Existing floor area (m2)

Proposed floor area (m2)

Site area (m2)

### Carparking on Site

N/A

Total parking spaces

Existing parking spaces

☐ Other (no selection chosen)

### Other Details

Does the application include signage?

\*

☐ No

How many signs, please enter 0 if there are none involved in this application?

\*

0

### Tasmania Heritage Register

Is this property on the Tasmanian Heritage Register?

☐ No

### Documents

#### Required Documents

Title (Folio text and Plan and Schedule of Easements)

\*

Titles Combined.pdf

Plans (proposed, existing)

\*

211008\_1 Knopwood Street\_TP Application (Updated).pdf

#### Supporting Documents

Concept Servicing Plan

211007 CIV 21E99-114 A DA SUBMISSION.pdf

Landscape Plan

211007 Battery Point Apartments_Landscape Report.pdf
Architectural Description
211008_1 Knopwood Street_Design Report.pdf
Planning Report
Planning Report - 1 Knopwood 15-10-21.pdf
Heritage Report
210802 BATTERY POINT - 1 Knopwood Street - Heritage Impact Assessment (Final Issue) - 11 October 2021.pdf

**Hobart City Council**  
16 Elizabeth Street, Hobart 7000

**Tax Invoice  
Official Receipt**

ABN: 39 055 343 428

15/10/2021

Receipt No: 376951

To: Bensons Property, by their Agent,  
Ireneinc Planning  
C/- 49 Tasma Street  
NORTH HOBART TAS 7000

Description	Reference	Amount
Planning Permit Advertising Fee*		\$ 400.00
Planning Permit Fee		\$ 35,000.00
Transaction Total <sup>†</sup> :		\$ 35,400.00
Includes GST of:		\$ 36.36

Cheque payments subject to bank clearance



## Submission to Planning Authority Notice

<b>Council Planning Permit No.</b>	PLN-21-719	<b>Council notice date</b>	1/11/2021
<b>TasWater details</b>			
<b>TasWater Reference No.</b>	TWDA 2021/01886-HCC	<b>Date of response</b>	15/03/2021
<b>TasWater Contact</b>	Al Cole	<b>Phone No.</b>	0439605108
<b>Response issued to</b>			
<b>Council name</b>	CITY OF HOBART		
<b>Contact details</b>	coh@hobartcity.com.au		
<b>Development details</b>			
<b>Address</b>	1 KNOPWOOD ST, BATTERY POINT	<b>Property ID (PID)</b>	5669846
<b>Description of development</b>	Residential apartment building - 25 apartments - 7-storey - CT 72077/1 + CT 126274/1 + CT 128788/1 + CT 72077/2 + 197384/1		
<b>Schedule of drawings/documents</b>			
<b>Prepared by</b>	<b>Drawing/document No.</b>	<b>Revision No.</b>	<b>Date of Issue</b>
Aldanmark	Locality Plan	E	28/01/2022
<b>Conditions</b>			
Pursuant to the <i>Water and Sewerage Industry Act</i> 2008 (TAS) Section 56P(1) TasWater imposes the following conditions on the permit for this application:			
<b>CONNECTIONS, METERING &amp; BACKFLOW</b>			
1. A suitably sized water supply with metered connections and sewerage system and connections to the development must be designed and constructed to TasWater's satisfaction and be in accordance with any other conditions in this permit.			
<b>Advice:</b> The proposed sewer connection is not currently to TasWater's satisfaction and will need to change prior to any application for a Certificate of Certifiable Work (Building and/or Plumbing).			
2. Any removal/supply and installation of water meters and/or the removal of redundant and/or installation of new and modified property service connections must be carried out by TasWater at the developer's cost.			
3. Prior to commencing construction/use of the development, any water connection utilised for construction/the development must have a backflow prevention device and water meter installed, to the satisfaction of TasWater.			
<b>TRADE WASTE</b>			
4. Prior to the commencement of operation the developer/property owner must obtain Consent to discharge Trade Waste from TasWater.			
5. The developer must install appropriately sized and suitable pre-treatment devices prior to gaining Consent to discharge.			
6. The Developer/property owner must comply with all TasWater conditions prescribed in the Trade Waste Consent.			
<b>56W CONSENT</b>			
7. Prior to the issue of the Certificate for Certifiable Work (Building) and/or (Plumbing) by TasWater the applicant or landowner as the case may be must make application to TasWater pursuant to section			





56W of the Water and Sewerage Industry Act 2008 for its consent in respect of that part of the development which is built within a TasWater easement or over or within two metres of TasWater infrastructure.

#### DEVELOPMENT ASSESSMENT FEES

8. The applicant or landowner as the case may be, must pay a development assessment fee of \$699.36, to TasWater, as approved by the Economic Regulator and the fees will be indexed, until the date paid to TasWater.

The payment is required within 30 days of the issue of an invoice by TasWater.

#### Advice

##### General

For information on TasWater development standards, please visit <https://www.taswater.com.au/building-and-development/technical-standards>

For application forms please visit <https://www.taswater.com.au/building-and-development/development-application-form>

##### Service Locations

Please note that the developer is responsible for arranging to locate the existing TasWater infrastructure and clearly showing it on the drawings. Existing TasWater infrastructure may be located by a surveyor and/or a private contractor engaged at the developers cost to locate the infrastructure.

- (a) A permit is required to work within TasWater's easements or in the vicinity of its infrastructure.  
Further information can be obtained from TasWater
- (b) TasWater has listed a number of service providers who can provide asset detection and location services should you require it. Visit [www.taswater.com.au/Development/Service-location](http://www.taswater.com.au/Development/Service-location) for a list of companies
- (c) TasWater will locate residential water stop taps free of charge
- (d) Sewer drainage plans or Inspection Openings (IO) for residential properties are available from your local council.

##### Trade Waste

Prior to any Building and/or Plumbing work being undertaken, the applicant will require a Certificate for Certifiable Work (Building and/or Plumbing). The Certificate for Certifiable Work (Building and/or Plumbing) must accompany all documentation submitted to Council. Documentation must include a floor and site plan with:

Location of all pre-treatment devices i.e. grease arrestor, dry basket arrestors, lap pool back wash filtration etc

Schematic drawings and specification (including the size and type) of any proposed pre-treatment device and drainage design; and

Location of an accessible sampling point in accordance with the TasWater Trade Waste Sampling Specifications for sampling discharge.

At the time of submitting the application for a Certificate for Certifiable Work (Building and/or Plumbing) a Trade Waste Application form is also required.

The application forms are available at <http://www.taswater.com.au/Customers/Liquid-Trade-waste/Commercialor>

##### 56W Consent

The plans submitted with the application for the Certificate for Certifiable Work (Building) and/or



(Plumbing) will need to show footings of proposed buildings located over or within 2.0m from TasWater pipes and will need to be designed by a suitably qualified person to adequately protect the integrity of TasWater's infrastructure, and to TasWater's satisfaction, be in accordance with AS3500 Part 2.2 Section 3.8 to ensure that no loads are transferred to TasWater's pipes. These plans will need to also include a cross sectional view through the footings which clearly shows;

- (a) Existing pipe depth and proposed finished surface levels over the pipe;
- (b) The line of influence from the base of the footing must pass below the invert of the pipe and be clear of the pipe trench and;
- (c) A note on the plan indicating how the pipe location and depth were ascertained.
- (d) The location of the property service connection and sewer inspection opening (IO).

#### Declaration

The drawings/documents and conditions stated above constitute TasWater's Submission to Planning Authority Notice.

#### Authorised by

**Jason Taylor**  
Development Assessment Manager

#### TasWater Contact Details

Phone	13 6992	Email	development@taswater.com.au
Mail	GPO Box 1393 Hobart TAS 7001	Web	www.taswater.com.au

## Application Referral Cultural Heritage - Response

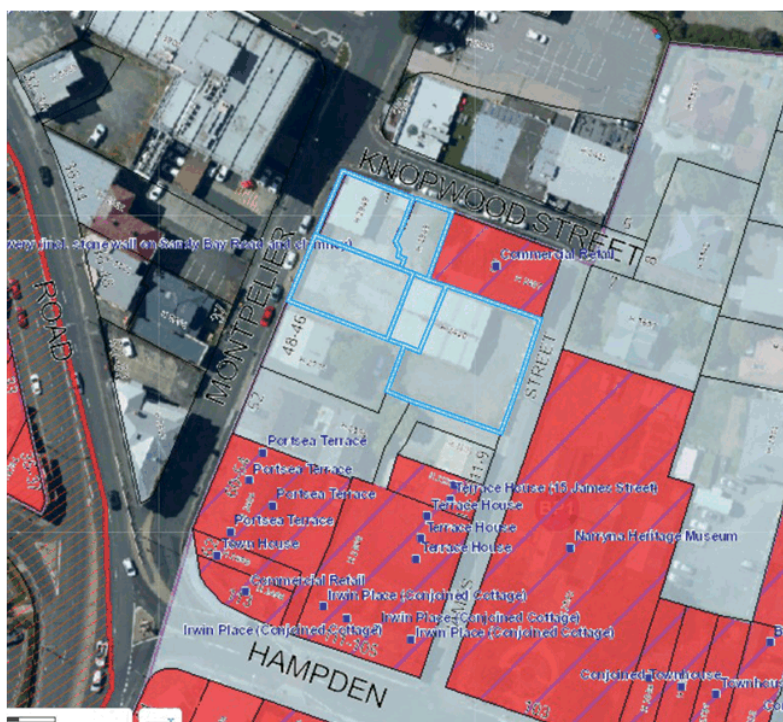
<b>From:</b>	Sarah Waight&nbsp;
<b>Recommendation:</b>	Proposal is unacceptable.
<b>Date Completed:</b>	
<b>Address:</b>	1 KNOPWOOD STREET, BATTERY POINT ADJACENT ROAD RESERVE
<b>Proposal:</b>	Demolition and New Building for 26 Multiple Dwellings and Food Services and works within Council Road Reservation
<b>Application No:</b>	PLN-21-719
<b>Assessment Officer:</b>	Richard Bacon,

## Referral Officer comments:

**Background:**

This application is for demolition and a new development for 26 multiple dwellings, food services and works within the Council road reserve.

The proposal is located within the Battery Point Heritage Precinct BP1 as described in Table E13.1 in the Historic Heritage Code of the *Hobart Interim Planning Scheme 2015*.



Subject site is shown as the blue outline. The grey shading with purple outline denotes the Battery Point Heritage Precinct. Red denotes heritage listed places.

The proposal is subject to consideration under E13.0 Historic Heritage Code.

Specifically, the demolition of all existing buildings on the subject site requires assessment against clause E13.8.1 P1.

The new development on the site requires assessment against E13.8.2 P1, E13.8.2 P4, E13.8.4 P1, E13.8.4 P3 and E13.8.4 P6.

Subdivision must be assessed against E13.8.3 P1 and E13.8.3 P4.

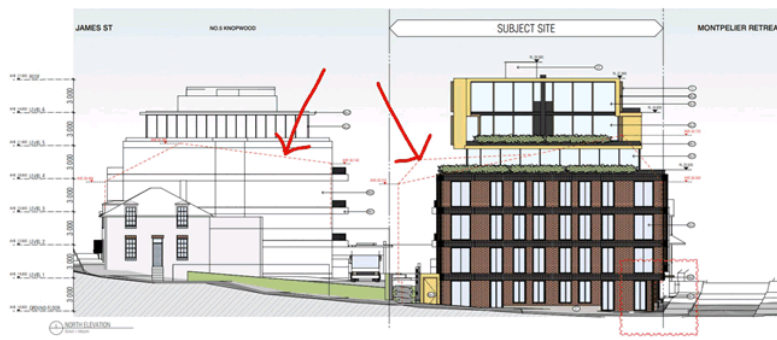
All other provisions in the Code satisfy the Acceptable Solutions or are not applicable.

#### 2015 Planning Application:

In 2015, an application for development on this site was lodged. Council's Senior Cultural Heritage Officer undertook an assessment of the planning application PLN-15-00971-01 and concluded that the proposal failed to satisfy the following provisions E13.8.2 P1, E13.8.2 P2, E13.8.4 P1, E13.8.4 P3 and E13.8.4 P6. Council refused that permit. The SCHO's assessment concluded: 'It is as though the application assumes that the development standards associated with the nearby incongruous office buildings apply to the subject site. They don't. This site is within a different planning area, and within a Heritage Precinct. There are specific standards within the planning scheme to protect the character of the Heritage Precinct – which is one of the earliest developed parts of Hobart. With an understanding of the relevant heritage provisions relating to the subject site, approval of the proposed development in its current form is not warranted.'

Following Council's refusal, an appeal was lodged and mediation commenced. The proposal was modified by the applicant and the height and form was altered and lowered. Council's Senior Cultural Heritage Officer then determined that the proposal would be acceptable when assessed against the above provisions of the Historic Heritage Code. A permit was issued with a single heritage condition. HER 8 which required the documentation of the building on the corner of Montpelier Retreat and Knopwood Street.

The outline of the 2015 approved proposal is shown on the current proposal in the applicant's architectural drawings by the red dashed line. An example is shown below.



Red arrows (inserted by Council) point to the red dashed line which denotes the previously approved envelope for PLN-15-00971-01. Source: Applicant's submission.

#### Current Application:

Since the assessment of PLN-15-00971-01, there have been no amendments to change the clauses of the Historic Heritage Code of the Scheme against which this proposal must be assessed.

An earlier proposal was lodged with Council and a preliminary heritage assessment was undertaken for the UDAP meeting on 27 July 2021. Heritage advice/discussion was provided to UDAP meeting.

Revised submission (current proposal) was lodged with Council and a preliminary heritage assessment was presented to UDAP meeting 14 June 2022. Heritage advice/discussion was provided to UDAP.

No additional heritage advice or pre-application discussions has been sought by the applicant at any stage.

The application is supported by a Heritage Impact Statement by Sam Nichols, dated 22 November 2021 revision A.

### Representations

A total of 348 representations have been received - 342 objections, 4 in support and 2 have no position. The following heritage and streetscape issues are a summary of those raised with a full summary of concerns outlined in the Development Appraisal Planner's report.

- "...this is a very sensitive and historic area . It only takes one building to set a height precedent, and then it's very difficult to manage future proposals."
- "The scale of the proposal is too great for its surroundings. Both adjacent properties, being Preachers in Knopwood Street and the two conjoined residences in Montpelier street are two storeys in height. This proposal is seven storeys."
- "this is a very sensitive and historic area."
- "out of character and over height"
- 'neighbouring taller buildings are under different planning scheme and are irrelevant to this application'
- "This development is far too tall. It is not in keeping with the area'; needs to be lower so as not to 'dwarf and shadow' "
- " ....materiality not in context to existing surrounds..."
- " Highly negative impact on neighbours amenity and overall streetscape, particularly with regard to 5 Knopwood St. Which is an important early colonial architectural example in Battery Point and is completely dwarfed by this development"
- "The curved façade format, compatibility with other 'fenestrations', brick string courses, simplified built form, incorporation of brass cladding and recessed glazing etc. do not justify the bulk of the proposed building. A seven story building is completely out of place in what is widely acknowledged as a predominately 2 storey, heritage precinct."
- "to approve such a monstrosity and overpowering building would be a travesty of justice and sense."
- "concern at impact on entrance to Battery Point"
- "proposal 'too big' for the area and would ruin the charm and quaintness of Battery Point"
- "This building is much too big for the area, and would impact significantly neighbouring premises in terms of their business relying on their outdoor area, which would be dwarfed by this unnecessarily large building"
- "Impact on streetscape – By it's sheer size and bulk the proposed new development would have a huge visual impact and also be very visible from Sandy Bay Road, as well as James Street"
- "The proposed development should also have a setback at least equivalent to the majority of the existing heritage buildings."
- "proposal should be 'sympathetic to the stature and style of the existing historic buildings"
- "This building will visually destroy the heritage and cohesiveness of this architecturally pristine and historically important neighbourhood area given the sheer size of the



building, modern facade and imposing presence of the proposed development. It does not match the long standing visual appeal of the area and will also have an impact on parking which is already strained locally at the best of times. This development will be an eyesore on a historically important part of Hobart compared to the surrounding buildings. If this is allowed to go ahead, irreparable damage will be made to an area of historical importance in Hobart."

- "This building should be respectful or subservient to Heritage listed houses neighbouring it! This development is overbearing and not in keeping with the characteristics of surrounding heritage homes/buildings, the proposal should be in keeping and not detract from those characteristics of the place which contributes to its cultural significance. This development should not go ahead in its present form."
- dampness of concern to heritage properties
- concern at excavation and potential damage to heritage properties
- "The building on James Street also seems unnecessarily large"

#### **Assessment:**

Table E13.2 of the Historic Heritage Code of the Scheme has the following Statements of Historic Cultural Heritage Significance for the BP1 Battery Point Precinct:

*This precinct is significant for reasons including:*

- 1. The wide variety of architectural styles and historic features ranging from entire streets of 19th century Colonial Georgian cottages, to Victorian, Edwardian and Pre and Post War examples of single and attached houses that are of historic and architectural merit, many of which demonstrate housing prior to mass car ownership.*
- 2. It is primarily a residential area with a mix of large substantial homes and smaller workers cottages on separate lots, gardens, an unstructured street layout, and lot sizes that show successive re-subdivision into narrow lots that demonstrate early settlement patterns of Hobart.*
- 3. The original and/or significant external detailing, finishes and materials demonstrating a high degree of integrity with a homogenous historic character.*

The Objective of E13.8.2 is "To ensure that development undertaken within a heritage precinct is sympathetic to the characteristic of the precinct."

This application must be assessed against the following provisions:

#### **E13.8.1 Demolition:**

##### **Objective:**

*To ensure that demolition in whole or in part of buildings or works within a heritage precinct does not result in the loss of historic cultural heritage values unless there are exceptional circumstances.*

Clause **E13.8.1 P1** states:

*Demolition must not result in the loss of any of the following:*

- (a) buildings or works that contribute to the historic cultural heritage significance of the precinct;*
- (b) fabric or landscape elements, including plants, trees, fences, paths, outbuildings and other items, that contribute to the historic cultural heritage significance of the precinct; unless all of the following apply;*
  - (i) there are, environmental, social, economic or safety reasons of greater value to the community than the historic cultural heritage values of the place;*
  - (ii) there are no prudent or feasible alternatives;*
  - (iii) opportunity is created for a replacement building that will be more complementary to the heritage values of the precinct.*

#### **Response:**

The site consists of a large open metal shed and a masonry building on the corner of Knopwood and Montpelier Streets. Demolition of these structures is proposed along with the removal of concrete hard stand and fences and gates on the boundary. The following images show the site.



Existing building on the corner of Knopwood Street and Montpelier Retreat. Source: Council image



Existing buildings on the subject site on the corner of Knopwood Street and Montpelier Retreat and large shed to the right on James Street. Source: Council image



Existing large shed on the subject site to the left of image on James Street with adjacent two storey townhouses at 46-48 Montpelier Retreat. Source: Council image



Boundary on James Street with adjacent two storey wall of the property known as 5 Knopwood Street (Preachers). Source: Council image

In summary, none of the above buildings, fabric or landscape elements contribute to the significance of the precinct. It is considered that E13.8.1 P1 is satisfied.

#### **E13.8.2 Buildings and Works other than Demolition**

The Objective of E13.8.2 is *"To ensure that development undertaken within a heritage precinct is sympathetic to the character of the precinct."*

Clause **E13.8.2 P1** states:

*Design and siting of buildings and works must not result in detriment to the historic cultural heritage significance of the precinct, as listed in Table E13.2.*

#### **Response:**

Detriment is 'damage or loss to such values or thing.' The height, scale, bulk and building form of the proposal must be considered. Battery Point has unique heritage characteristics, with buildings from the 19th and 20th century and a character and scale typical of this era. Any

development must be undertaken in a careful and sensitive manner to reflect the purpose and objectives of the Code and development standards for the Battery Point Heritage Precinct. The heritage significance of Battery Point is reflected in the fact that there are additional heritage assessment clauses set out in E13.8.4. In consideration of the extent of detriment, the proposal will introduce a bulky, out of scale set of two buildings that are of a design, height and scale that will overpower heritage properties in Battery Point, such as 5 Knopwood Street (Preachers) and will result in detriment to the significance of the Battery Point Heritage Precinct, BP1. The proposal fails to satisfy E13.8.2 P1.

Clause **E13.8.2 P4** states:

*New front fences and gates must be sympathetic in design, (including height, form, scale and materials), and setback to the style, period and characteristics of the precinct.*

**Response:**

The fence is located along James Street and provides a physical barrier between the street and the apartments set below the street level. It is shown as having a base as S1 - Stone Cladding - Solid Sandstone. The fence on top is an open framed fence measuring between 0.92 metres at one end and 1.15 metres at the end. At the higher end the fence has an overall height of 1.81 metres. No gates are shown on the submitted plans along James Street and no materials are specified for the fence itself, although it has a high degree of transparency and is of a scale considered appropriate in a residential context. While, at the lowest point of the street, the fence plus base is relatively high at 1.8 metres, it is considered the height is mitigated by the transparency shown. The front fence on James Street is considered to satisfy E13.8.2 P4.

**Subdivision:**

Clause **E13.8.3 P1** states:

*Subdivision must not result in any of the following:*

- (a) detriment to the historic cultural heritage significance of the precinct, as listed in Table E13.2;*
- (b) a pattern of subdivision unsympathetic to the historic cultural heritage significance of the precinct;*
- (c) potential for a confused understanding of the development of the precinct;*
- (d) an increased likelihood of future development that is incompatible with the historic cultural heritage significance of the precinct.*

**Response:**

This proposal is for the adhesion of the various titles required should construction occur across titles. The proposed adhesion, although technically a subdivision, will create a large single lot, but only should this development be approved. In this regard, the subdivision is not a separate entity that results in detriment to the significance of the precinct. The proposal is considered to satisfy E13.8.3 P1.

Clause **E13.8.3 P4** states:

*Any new lot created in Heritage Precinct BP1 must not detract from the pattern of development that is a characteristic of the cultural heritage significance of the precinct in the vicinity of the site.*

**Response:**

As outlined above, the proposed satisfies E13.8.3 P4.

**E13.8.4 Buildings and Works in Heritage Precinct BP1**

Clause **E13.8.4 P1** states:

*Site area per dwelling may be less if the development does not detract from the pattern of development that is a characteristic of the cultural heritage significance of the precinct in the*

*vicinity of the site.*

**Response:**

The site area per dwelling is 55 square metres and therefore it does not satisfy the Acceptable Solution and must be assessed against the above clause. The resultant site area is, in part, a function of the number of dwellings in two apartment blocks. The pattern of development that is a characteristic of the cultural heritage significance of the precinct in the vicinity of the site, that is described in the statements of significance and in the vicinity of mix of site areas with large substantial homes (eg Narryna at 103 Hampden Road) and smaller workers cottages ( eg. the terraces at 105-111 Hampden Road.) as well as a wide variety of architectural styles ranging from Colonial Georgian cottages to Victorian, Edwardian and pre and post war examples of single and attached houses. While there are larger developments opposite, (2-8 Kirksway and 38 Montpelier St) they are not in and do not represent the character of Battery Point historic precinct. This proposal clearly detracts from the historic pattern of development in the block bounded by Knopwood, Montpelier, Hampden Road and James Street and the area to the east where the mix of larger substantial homes and smaller workers cottages continues.

The proposal does not satisfy E13.8.4 P1

**Clause E13.8.4 P3 states:**

*The height of development must neither be obtrusive in the streetscape nor detract from the pattern of development that is a characteristic of the cultural heritage significance of the precinct in the vicinity of the site.*

The proposal is made up of two towers. The height of the larger tower on the corner of Knopwood and Montpelier Street has a RL of 37.900 (plus lift overrun) over seven (7) floors (excluding basement carparking), the other tower is RL 34.800 (plus large lift overrun and roof plant) over five (5) floors (excluding basement carparking). In comparison Preachers has a height of an external wall along James Street to the eaves of 4.4 metres. This excludes the roof and dormer. The north elevation of the applicant's submission shows the disparity in scale of the proposal in relation to a building such as Preachers which is a typical example of a Battery Point house (although now used as a bar).

The height of the development is accentuated by the height of the three (3) storey penthouse on top of the four storey base. Its scale is over the top and its height does not even take its cues from the adjacent commercial buildings outside Battery Point. For all the heritage and architectural analysis undertaken by the applicant and submitted as part of this application, the result is something that fails to meet the Objective which states: "*To ensure development undertaken within a heritage precinct is sympathetic to the characteristic of the precinct.*" The result is obtrusive in the streetscape and detracts from the pattern of development that is a characteristic of the significance of the precinct, particular in the block in which it is situated and also within the vicinity. The proposal fails to satisfy E13.8.4 P3.

**Clause E13.8.4 P6 states:**

*The building must not detract from the pattern of development that is a characteristic of the cultural heritage significance of the Precinct in the vicinity of the site.*

Assessment of this clause, must be considered in relation to the Acceptable Solution which refers to height over site coverage. Given the proposal does not meet the Acceptable Solution it must be assessed against the above clause. The site coverage exceeds 40% and as articulated above, the height of the both proposed buildings are far greater than those in the precinct in the vicinity. The proposal does not satisfy E13.8.4 P6.

**Conclusion:**

This proposal can be considered to be a significant departure in terms of scale, bulk and height to the approval from 2015.



This block is characterised by houses and shops scaled to the Battery Point scale. Portsea Terraces are the tallest buildings in this block - two (2) stories and a basement. This proposal will dominate and detract from buildings in the Battery Point heritage precinct and therefore cause detriment. The proximity to buildings of a traditional type and incongruity of scale creates a visual detriment. This conclusion is irrespective of whatever the cladding, fenestration pattern or otherwise outward expression of the proposed building.

The proposal does not satisfy E13.8.2 P1, E13.8.4 P1, E13.8.4 P3, E13.8.4 P6 and is recommended for refusal.

**Reasons for refusal:**

1. The proposal does not meet the acceptable solution or the performance criterion with respect to clause E13.8.2 A1 or P1 of the *Hobart Interim Planning Scheme 2015* because the design and siting of the buildings results in detriment to the historic cultural heritage significance of the precinct as described in Table E13.2.
2. The proposal does not meet the acceptable solution or the performance criterion with respect to clause E13.8.4 A1 or P1 of the *Hobart Interim Planning Scheme 2015* because the site area of the proposal detracts from the pattern of development that is a characteristic of the historic cultural heritage significance of the precinct in the vicinity of the site as described in Table E13.2.
3. The proposal does not meet the acceptable solution or the performance criterion with respect to clause E13.8.4 A3 or P3 of the *Hobart Interim Planning Scheme 2015* because the building height is obtrusive in the streetscape and detracts from the pattern of development that is a characteristic of the precinct in the vicinity of the site as described in Table E13.2.
4. The proposal does not meet the acceptable solution or the performance criterion with respect to clause E13.8.4 A6 or P6 of the *Hobart Interim Planning Scheme 2015* because the building detracts from the pattern of development that is a characteristic of the precinct in the vicinity of the site as described in Table E13.2.

Sarah Waight  
Senior Cultural Heritage Officer  
7 July 2022

## Application Referral Development Engineering - Response

<b>From:</b>	KB&nbsp; &nbsp; David Morley, Reallocated to Keith Burton
<b>Recommendation:</b>	Proposal is acceptable subject to conditions.
<b>Date Completed:</b>	
<b>Address:</b>	1 KNOPWOOD STREET, BATTERY POINT ADJACENT ROAD RESERVE
<b>Proposal:</b>	Demolition and New Building for 26 Multiple Dwellings and Food Services and works within Council Road Reservation
<b>Application No:</b>	PLN-21-719
<b>Assessment Officer:</b>	Richard Bacon,

## Referral Officer comments:

**OVERVIEW:**

PLN-21-719 - 1 KNOPWOOD STREET

**ASSESSMENT SUMMARY:**

- E5.0 Road and railway access code - DOES APPLY
- E6.0 Parking and Access Code - DOES APPLY

- Clause(s) E6.6's: Are all to do with parking number assessment - **Performance Criteria**  
Submitted documentation does not satisfy this requirement, a deficiency of *thirteen*  
(13) car parking spaces proposed.

Clause E13.8.4 for Heritage Precinct BP1 states that "there must be a maximum of one car space per dwelling". This clause takes precedence over the Parking and Access Codes E6.6.1( a). Following the scheme the maximum number of residential car spaces for the proposal is 26 to meet the acceptable solution. 40 residential car spaces are proposed, having a surplus of 14 spaces. Inline with the heritage precinct and clause E13.8.4, the development provides basement car parking where the additional car spaces will not detract from the cultural heritage significance of the area, with the car park not visible from the street scape.

The cafe and wine bar requires 27 car spaces. No car spaces are provided for this use. This forms a total planning scheme parking requirement of 53 spaces. The proposed 40 spaces does not comply with this requirement.

- The empirical parking assessment indicates that the provision of 40 on-site car parking spaces will sufficiently meet the likely demands of the residential use associated with the development. A surplus is provided for the residential component of the use of 14 spaces. The TIA provided by Midson Traffic PTY LTD states the car parking demand of the cafe and wine bar can be accommodated for using the nearby on-street parking that consists of a mix of short term time restricted parking in the surrounding streets and area. Based on the above assessment and given the submitted documentation, the parking provision may be accepted under *Performance Criteria P1:E6.6.1* of the Planning Scheme. This is particularly due to the actual parking demands that will be generated by the development.

• **E7.0 Stormwater - DOES APPLY**

Final Assessment to be completed by EEU.

**COMMENTS:**

In a council related development engineering context, the proposal can be supported in principal subject to the following conditions and advice. In regard to the Parking and Access Code of the Hobart Interim Planning Scheme 2015 the proposal is inline with the Scheme meeting the majority of the acceptable solutions. Although the number of car spaces does not conform to the scheme with a deficiency of 13 proposed, the impact on amenity to the surrounding area is ultimately reduced with a surplus proposed for the residential use, which has a higher impact on parking demand when deficient in comparison to the cafe and wine bar use. There is sufficient parking in close surrounds of the site to accommodate for the proposed deficiency. This assessment is solely on the Parking and Access conditions of the proposal. The proposed car parking layout shows accordance with the Australian Standard AS/NZS 2890.1:2004 providing safe and efficient egress and access.

**GENERAL CONDITIONS:**

ENG1: Pay Costs

ENG 2a: Vehicular barriers compliant with the Australian Standard AS/NZS 1170.1:2002 must be installed

ENG 3a: The access driveway and parking area must be constructed in accordance with the following documentation which forms part of this permit: *Aldanmark* documentation received by the Council on the 24th of May 2022

ENG 3c: A suitably qualified engineer must certify that the access driveway and parking area has been constructed in accordance with design drawings approved by Condition ENG 3a

ENG 5: The number of car parking spaces approved on the site, for use is *forty* (40)

ENG 7: The number of bicycle parking spaces approved on the site is a minimum of *[word]* (#) and must be constructed in accordance with the Australian Standard AS/NZS 2890.1:2004 prior to first occupation or commencement of use.

ENG 9: All car parking spaces for people with disabilities must be delineated to Australian/NZS Standard, Parking facilities Part 6: Off-street parking for people with disabilities AS/NZS 2890.6: 2009

ENG 12: Construction waste management plan

ENG 13: An ongoing waste management plan for all commercial waste and recycling/compost bins must be implemented post construction

ENG tr1: TMP - Confirmation from Traffic pending

ENG tr2: construction traffic and parking management plan

ENG sw1: Stormwater

EEU to enter SW conditions-

~~SW 1: A pre-construction structural condition assessment and visual record (eg video and photos) of the Hobart City Council's stormwater infrastructure within/adjacent to the proposed development must be submitted to the City of Hobart as a Condition Endorsement (Waterways Report)~~

~~SW 2: post-construction structural condition assessment and visual record (eg video and photos) of the Hobart City Council's stormwater infrastructure within/adjacent to the proposed development, along with photos of any existing drainage structures connected to or modified as part of the development, must be submitted to the City of Hobart (Waterways Report)~~

~~SW 3: The proposed (insert description eg house including foundations and overhangs) must be designed to ensure the protection and access to the Hobart City Council's (stormwater main) (Waterways Report)~~

~~SW 7: Any new stormwater connection must be constructed and existing redundant connection(s) be abandoned and sealed at the owner's expense (Waterways Report)~~

~~SW 8: All stormwater runoff from impervious surfaces within the site must be treated and~~

~~discharged from the site using Water Sensitive Urban Design principles to achieve stormwater quality and quantity targets in accordance with the State Stormwater Strategy 2010 (Waterways Report)~~  
~~SW 9: stormwater pre-treatment and detention for stormwater discharges from the development must be installed (Waterways Report)~~

ENV1: SWMP

**ADVICE:**

- Dial before you dig
- Fees and charges
- Building Permit
- Plumbing Permit
- Occupation of the Public Highway
- Driveway surfacing over highway reservation
- Condition endorsement engineering
- Redundant Crossover
- Work in the highway reservation
- Stormwater
- Permit To Construct Public Infrastructure
- Multiple dwelling use is not eligible to residential parking permits. Under the current policy for the issuing of residential parking permits, the proposed use would not entitle the property to a residential parking permit

**REPRESENTATIONS:**

**DETAILED ASSESSMENT:**

**E5.0 Road and railway access code**

<b>E5.1 Purpose</b>			E5.1.1  The purpose of this provision is to:  (a) protect the safety and efficiency of the road and railway networks; and  (b) reduce conflicts between sensitive uses and major roads and the rail network.
<b>E5.2 Application of this Code</b>	<b>YES</b>		
			<b>This Code applies to use or development of land:</b>
	No		(a) that will require a new vehicle crossing, junction or level crossing; or
	Yes		(b) that intensifies the use of an existing access; or
	No		(c) that involves a sensitive use, a building, works or subdivision within 50m metres of a Utilities zone that is part of:
	No		(i) a rail network;

	No	(ii) a category 1 - Trunk Road or a category 2 - Regional Freight Road, that is subject to a speed limit of more than 60km/h kilometres per hour.
<b>Clause for Assessment</b>		<b>Comments / Discussion (in bold)</b>
Clause E5.5.1: Existing road accesses and junctions  <b>ACCEPTABLE SOLUTION</b>		<p>The existing road access must satisfy either Acceptable Solutions or Performance Criteria for each clause of the <i>Hobart Interim Planning Scheme 2015 (HIPS 2015)</i>. <b><u>Documentation submitted to date satisfies the Acceptable Solution for clause E5.5.1 (A3). and as such.</u></b></p> <p>Acceptable Solution A3: - <b>COMPLIANT</b></p> <p>The annual average daily traffic (AADT) of vehicle movements, to and from a site, using an existing access or junction, in an area subject to a speed limit of 60km/h or less, must not increase by more than 20% or 40 vehicle movements per day, whichever is the greater. TIA provided by Midson Traffic PTY LTD states that the existing use on the site (car park) currently generates 100 vehicles per day.</p> <p><b>TIA states that a total traffic generation from the site is 340 vehicles per day. Considering the existing demand on the site, the net traffic generation from the proposal is 240 vehicles per day. This is the estimated traffic generation from the proposal.</b></p> <p><i>3.3 Residential.</i> <i>3.3.2. Medium density residential.</i> <i>Rates:</i> <i>Smaller units and flats (up to two bedrooms):</i> <i>Daily vehicle trips = 4-5 per dwelling</i> <i>Weekday peak hour vehicle trips = 0.4-0.5 per dwelling.</i> <i>Larger units and town houses (three or more bedrooms):</i> <i>Daily vehicle trips = 5.0-6.5 per dwelling</i> <i>Weekday peak hour vehicle trips = 0.5-0.65 per dwelling.</i></p> <p><i>Factors:</i> <i>Comments regarding internal and external trips made under Factors, Dwelling Houses also apply to medium density developments.</i></p> <p><i>The basic generation rates for developments in less affluent areas and for public housing may in some cases be lower than stated.</i></p> <p><b>Traffic generation rates were sourced from the RMS Guide. The RMS Guide states the following traffic generation rates for medium density residential developments:</b> <b>(Roads and Maritime Services NSW, Guide to Traffic Generating Developments, 2002 (RMS Guide))</b></p> <p><b>Daily vehicle trips 4 to 5 per dwelling</b></p>



		<p><b>Weekday peak hour vehicle trips 0.4 to 0.5 per dwelling</b></p> <p><b>Based on these rates, the traffic generation from the Development is likely to be in the order of 240 trips per day, and 13 trips per hour during peak periods. (110 vehicles per day and 9 vehicles per hour for the cafe, and 130 vehicles per day and 13 vehicles per hour for the residential.)</b></p> <p><b>The existing development generates similar traffic volumes, in the order of 100 vehicles per day, with a peak of 30 vehicles per hour.</b></p> <p><b>Midson Traffic PTY LTD TIA response-</b>  <b>"It is noted that the car park will only provide access for the residential component of the development. The traffic generation utilising the access will therefore be 130 vehicles per day with a peak of 13 vehicles per hour. The existing traffic generation of the site is estimated to be 100 vehicles per day. The increase of 30 vehicles per day therefore meets the requirements of Acceptable Solution A3 of Clause E5.5.1 of the Planning Scheme. "</b>  <b>The total traffic generation will therefore be 240 vehicles per day with a peak of 22 vehicles per hour.</b></p> <p><b>However, car parking is only proposed for residential use, which means the traffic generation from the cafe/restaurant cannot be included in the assessment of the crossover. Hence the actual traffic generation to and from site will be 130 vehicles per day and 13 vehicles per hour. This satisfies the acceptable solution where an increase of no more than 40 vehicle movements per day is proposed.</b></p> <p><b>On these grounds the proposal can be accepted under the <u>Acceptable Solution for clause E5.5.1 (A3)</u>, satisfying the schemes requirement with the traffic generation using the access adhering to the scheme.</b></p>
<p>Clause E5.5.2: Existing level crossings</p> <p>NOT APPLICABLE</p>		<p><u>Documentation submitted to date appears not to invoke clause E5.5.2.</u></p> <p>No intensification of an existing level crossings proposed.</p>

Clause E5.6.1: Development adjacent to roads and railways  <b>NOT APPLICABLE</b>		<p><u>Documentation submitted to date appears not to invoke clause E5.6.1.</u></p> <p>No development adjacent to category 1 or category 2 road proposed.</p>
Clause E5.6.2: Road accesses and junctions  <b>ACCEPTABLE SOLUTION</b>		<p>The road and access junctions must satisfy either Acceptable Solutions or Performance Criteria for each clause of the <i>Hobart Interim Planning Scheme 2015 (HIPS 2015)</i>.</p> <p><b><u>Documentation submitted to date does appear to satisfy the Acceptable Solution for clause E5.6.2.</u></b></p> <p>Acceptable solution - A1 No new access or junction to roads in an area subject to a speed limit of more than 60km/h. - <b>N/A</b></p> <p>Acceptable solution - A2 - <b>COMPLIANT</b> No more than one access providing both entry and exit, or two accesses providing separate entry and exit, to roads in an area subject to a speed limit of 60km/h or less.</p>
Clause E5.6.3: New level crossings  <b>NOT APPLICABLE</b>		<p><u>Documentation submitted to date appears not to invoke clause E5.6.3.</u></p> <p>No new level crossings proposed.</p>

Clause E5.6.4: Sight distance at accesses, junctions and level crossings		<p>The sight distance at access and junctions must satisfy either Acceptable Solutions or Performance Criteria for each clause of the <i>Hobart Interim Planning Scheme 2015 (HIPS 2015)</i>.</p> <p><b><u>Documentation submitted to date does appear to satisfy the Acceptable Solution for clause E5.6.4 and as such, shall be assessed under Performance Criteria.</u></b></p> <p>Acceptable solution - A1: - <b>COMPLIANT</b></p> <p>Sight distances at:</p> <p>(a) an access or junction must comply with the Safe Intersection Sight Distance shown in Table E5.1; and</p> <p>(b) rail level crossings must comply with AS1742.7 Manual of uniform traffic control devices - Railway crossings, Standards Association of Australia. - <b>N/A</b></p> <p><b>In this case, the required SISD is 80 metres, noting that the vehicle speed has been assumed to be equal to the posted speed limit of 50-km/h.</b></p> <p><b>The available sight distance generally exceeds the required 80 metres <u>except during times when cars are parked adjacent to the site.</u></b></p> <p><b>Based on the available sight distances exceeding the minimum Planning Scheme requirements, the access complies with Acceptable Solution A1 of Clause E5.6.4.</b></p>

**E 6.0 Parking and Access Code**

<b>E6.1 Purpose</b>		E6.1.1
		The purpose of this provision is to:
	Yes	(a) ensure safe and efficient access to the road network for all users, including drivers, passengers, pedestrians and cyclists;
	Yes	(b) ensure enough parking is provided for a use or development to meet the reasonable requirements of users, including people with disabilities;
	Yes	(c) ensure sufficient parking is provided on site to minimise on-street parking and maximise the efficiency of the road network;
	Yes	(d) ensure parking areas are designed and located in conformity with recognised standards to enable safe, easy and efficient use and contribute to the creation of vibrant and liveable places;

	Yes	(e) ensure access and parking areas are designed and located to be safe for users by minimising the potential for conflicts involving pedestrians, cyclists and vehicles; and by reducing opportunities for crime or anti-social behaviour;
	Yes	(f) ensure that vehicle access and parking areas do not adversely impact on amenity, site characteristics or hazards;
	Yes	(g) recognise the complementary use and benefit of public transport and non-motorised modes of transport such as bicycles and walking;
	N/A	(h) provide for safe servicing of use or development by commercial vehicles.
<b>E6.2 Application of this Code</b>	<b>YES</b>	<b>— This code applies to all use and development.</b>
<b>Clause for Assessment</b>		<b>Comments / Discussion (in bold)</b>
<p>Clause(s) 6.6's are all to do with parking number assessment. These will be assessed by planner based on DE assessment of the following relevant clauses.</p> <p><b>PERFORMANCE CRITERIA</b></p>		<p>The parking number assessment must satisfy either Acceptable Solutions or Performance Criteria for each clause of the <i>Hobart Interim Planning Scheme 2015 (HIPS 2015)</i>.</p> <p><b><u>Documentation submitted to date does not satisfy the Acceptable Solution for clause E6.6.1 (a) and as such, shall be assessed under Performance Criteria.</u></b></p> <p>Acceptable solution - A1: - <b>NON COMPLIANT</b></p> <p>The number of on-site car parking spaces must be:</p> <p>(a) no less than and no greater than the number specified in Table E6.1;</p> <p><b>- Submitted documentation does not satisfy this requirement, a deficiency of <i>thirteen (13)</i> car parking spaces proposed.</b></p> <p>Clause E13.8.4 for Heritage Precinct BP1 states that "there must be a maximum of one car space per dwelling". This clause takes precedence over the Parking and Access Codes E6.6.1( a). Following the scheme the maximum number of residential car spaces for the proposal is 26 to meet the acceptable solution. 40 residential car spaces are proposed, having a surplus of 14 spaces. Inline with the heritage precinct and clause E13.8.4, the development provides basement car parking where the additional car spaces will not detract from the cultural heritage significance of the area, with the car park not visible from the street scape.</p> <p>The cafe/wine bar requires 27 car spaces. No car spaces are provided for this use.</p> <p>This forms a total planning scheme parking requirement of 53 spaces. The proposed 40 spaces does not comply with this requirement.</p>

Performance Criteria - P1:

The number of on-site car parking spaces must be sufficient to meet the reasonable needs of users, having regard to all of the following:

(a) car parking demand;

- **The empirical parking assessment indicates that the provision of 40 on-site car parking spaces will sufficiently meet the likely demands of the residential use associated with the development. A surplus is provided for the residential component of the use of 14 spaces. The TIA provided by Midson Traffic PTY LTD states the car parking demand of the cafe and wine bar can be accommodated for using the nearby on-street parking that consists of a mix of short term time restricted parking in the surrounding streets and area.**

(b) the availability of on-street and public car parking in the locality;

- **There is a relatively large supply of on-street parking in the surrounding road network. Much of the available parking is in the form of time-restricted parking, with authorised residents excepted. Observations indicate that there is a large pool of parking that would be available to meet the potential demands of the cafe and wine bar, visitors and overflow parking, particularly after normal working hours.**

(c) the availability and frequency of public transport within a 400m walking distance of the site;

- **Metro Tasmania operate regular bus services along Sandy Bay Road which is within 400 metres of the subject site.**

(d) the availability and likely use of other modes of transport;

- **The site is located a convenient walking distance from shops, schools and services. Location of site is in CBD.**

(e) the availability and suitability of alternative arrangements for car parking provision;

- **No alternative parking provision is available or considered necessary.**

(f) any reduction in car parking demand due to the sharing of car parking spaces by multiple uses, either because of variation of car parking demand over time or because of efficiencies gained from the consolidation of shared car parking spaces;

- **Not applicable.**

(g) any car parking deficiency or surplus associated with



the existing use of the land;  
- **Not applicable.**

(h) any credit which should be allowed for a car parking demand deemed to have been provided in association with a use which existed before the change of parking requirement, except in the case of substantial redevelopment of a site;  
- **Not applicable.**

(i) the appropriateness of a financial contribution in lieu of parking towards the cost of parking facilities or other transport facilities, where such facilities exist or are planned in the vicinity;  
- **Not applicable.**

(j) any verified prior payment of a financial contribution in lieu of parking for the land;  
- **Not applicable.**

(k) any relevant parking plan for the area adopted by Council;  
- **Not applicable.**

(l) the impact on the historic cultural heritage significance of the site if subject to the Local Heritage Code; and  
- **Not applicable.**

(m) whether the provision of the parking would result in the loss, directly or indirectly, of one or more significant trees listed in the Significant Trees Code.  
- **No impact.**

**Based on the above assessment and given the submitted documentation, the parking provision may be accepted under *Performance Criteria P1:E6.6.1* of the Planning Scheme. This is particularly due to the actual parking demands that will be generated by the development.**

**DE has not undertaken an assessment of the Performance Criteria P9 of clause E13.8.4 of the Planning Scheme, however it appears that the proposal will meet the requirements with the proposed parking not detracting from the cultural heritage significance of the area with a below ground car park not visible from the street scape.**

<p>Clause E6.7.1: Number of vehicle accesses</p> <p><b>ACCEPTABLE SOLUTION</b></p>		<p>The number of vehicle accesses must satisfy either Acceptable Solutions or Performance Criteria for each clause of the <i>Hobart Interim Planning Scheme 2015 (HIPS 2015)</i>.</p> <p><b><u>Documentation submitted to date appears to be able to satisfy the Acceptable Solution for clause E6.7.1.</u></b></p> <p>Acceptable solution: - <b>COMPLIANT</b></p> <p>The number of vehicle access points provided for each road frontage must be no more than 1 or the existing number of vehicle access points, whichever is the greater.</p> <p><b>One (1x) crossover (40 Montpelier Street frontage) - Existing, no additional crossover(s) proposed.</b></p>
<p>Clause E6.7.2: Design of vehicle accesses</p> <p><b>ACCEPTABLE SOLUTION</b></p>		<p>The design of the vehicle access must satisfy either Acceptable Solutions or Performance Criteria for each clause of the <i>Hobart Interim Planning Scheme 2015 (HIPS 2015)</i>.</p> <p><b><u>Documentation submitted to date appears to satisfy the Acceptable Solution for clause 6.7.2.</u></b></p> <p>Acceptable Solution - A1: - <b>COMPLIANT</b></p> <p>Design of vehicle access points must comply with all of the following:</p> <p>(a) in the case of non-commercial vehicle access; the location, sight distance, width and gradient of an access must be designed and constructed to comply with section 3 – “Access Facilities to Off-street Parking Areas and Queuing Areas” of AS/NZS 2890.1:2004 Parking Facilities Part 1: Off-street car parking</p> <p>Location;</p> <p>- <b>Submitted documentation appears satisfactory</b></p> <p>Sight distance;</p> <p>- <b>Submitted documentation appears satisfactory, taking into consideration commercial vehicle sight distances.</b></p> <p>Width; and</p> <p>- <b>Submitted documentation appears satisfactory</b></p> <p>Gradient</p> <p>- <b>Submitted documentation appears satisfactory</b></p>

<p>Clause E6.7.3: Vehicle passing area along an access</p> <p><b>NOT APPLICABLE</b></p>		<p>Vehicle passing must satisfy either Acceptable Solutions or Performance Criteria for each clause of the Hobart Interim Planning Scheme 2015 (HIPS 2015). <u>Documentation submitted to date appears not to invoke clause E6.7.4.</u></p> <p>Submitted documentation appears to indicate no facility / requirement for vehicle passing.</p>
<p>Clause E6.7.4: On-site turning</p> <p><b>ACCEPTABLE SOLUTION</b></p>		<p>On-site turning must satisfy either Acceptable Solutions or Performance Criteria for each clause of the Hobart Interim Planning Scheme 2015 (HIPS 2015). <u>Documentation submitted to date appears to satisfy the Acceptable Solution for clause E6.7.4.</u></p> <p>Acceptable solution - A1: - <b>COMPLIANT</b> On-site turning must be provided to enable vehicles to exit a site in a forward direction, except where the access complies with any of the following: (a) it serves no more than two dwelling units; - <b>APPLIES</b> (b) it meets a road carrying less than 6000 vehicles per day. - <b>APPLIES</b></p>
<p>Clause E6.7.5: Layout of parking areas</p> <p><b>ACCEPTABLE SOLUTION</b></p>		<p>The layout of the parking area must satisfy either Acceptable Solutions or Performance Criteria for each clause of the Hobart Interim Planning Scheme 2015 (HIPS 2015). <u>Documentation submitted to date appears to satisfy the Acceptable Solution for clause 6.7.5.</u></p> <p>Acceptable Solution A1: - <b>COMPLIANT</b> The layout of car parking spaces, access aisles, circulation roadways and ramps must be designed and constructed to comply with section 2 "Design of Parking Modules, Circulation Roadways and Ramps" of AS/NZS 2890.1:2004 Parking Facilities Part 1: Off-street car parking and must have sufficient headroom to comply with clause 5.3 "Headroom" of the same Standard.</p> <ul style="list-style-type: none"> <li>• Car Parking Space Dimensions (AS2890.1 Fig 2.2 = 2.4x5.4m Class 1A): - Submitted documentation appears to satisfy this requirement</li> <li>• Car Parking Space Design Envelope (AS2890.1 Fig 5.2 300mm clearance on side): - Submitted documentation appears to satisfy this requirement</li> <li>• Headroom: (AS2890.1 Fig 5.3 = 2.2m clearance): - Submitted documentation appears to satisfy this requirement, satisfies commercial requirements.</li> </ul>

			<ul style="list-style-type: none"> <li>• Parking Space Gradient (5%):</li> <li>- Submitted documentation appears to satisfy this requirement</li>   <li>• Aisle Width (AS2890.1 Fig 2.2 = 5.8m Class 1A):</li> <li>- Submitted documentation appears to satisfy this requirement</li>   <li>• Garage Door Width &amp; Apron (AS2890.1 Fig 5.4 = 2.4m wide =&gt; 7m wide apron):</li> <li>- <u>N/A</u></li>   <li>• Parking Module Gradient (manoeuvring area 5% Acceptable Soln, 10% Performance):</li> <li>- Submitted documentation appears to satisfy this requirement</li>   <li>• Driveway Gradient &amp; Width (AS2890.1 Section 2.6 = 25% and 3m):</li> <li>- Submitted documentation appears to satisfy this requirement</li>   <li>• Transitions (AS2890.1 Section 2.5.3 = 12.5% summit, 15% sag =&gt; 2m transition):</li> <li>- Submitted documentation appears to satisfy this requirement</li>   <li>• Vehicular Barriers (AS2890.1 Section 2.4.5.3 = 600mm drop, 1:4 slope):</li> <li>- Submitted documentation appears to satisfy this requirement</li>   <li>• Blind Aisle End Widening (AS2890.1 Fig 2.3 = 1m extra):</li> <li>- <u>N/A</u></li>   <li>• "Jockey Parking" (Performance Assessment):</li> <li>- <u>N/A</u></li> </ul>
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<p>Clause E6.7.6: Surface treatment of parking areas</p> <p><b>ACCEPTABLE SOLUTION</b></p>			<p>The surface treatment must satisfy either Acceptable Solutions or Performance Criteria for each clause of the Hobart Interim Planning Scheme 2015 (HIPS 2015). <b><u>Documentation submitted to date does satisfy the Acceptable Solution for clause E6.7.6.</u></b></p> <p>Acceptable Solution - A1: - <b>COMPLIANT</b></p> <p>Parking spaces and vehicle circulation roadways must be in accordance with all of the following;</p> <p>(a) paved or treated with a durable all-weather pavement where within 75m of a property boundary or a sealed roadway; and</p> <p>(b) drained to an approved stormwater system, unless the road from which access is provided to the property is unsealed.</p> <p><b>Submitted plans indicate a concrete surface treatment and able to be drained to an approved stormwater system. Condition on Planning Permit to ratify timing.</b></p>
<p>Clause E6.7.7: Lighting of parking areas (Planner and health unit to assess)</p>	—	—	Planner to assess
<p>Clause E6.7.8: Landscaping of parking areas (Planner to assess)</p>	—	—	Planner to assess



Clause E6.7.9: Design of motorcycle parking areas		<p>The motor bike parking must satisfy either Acceptable Solutions or Performance Criteria for each clause of the Hobart Interim Planning Scheme 2015 (HIPS 2015). <b><u>Documentation submitted to date does not satisfy the Acceptable Solution for clause E6.7.9 and as such, shall be assessed under Performance Criteria.</u></b></p> <p><b><u>Acceptable Solution A1: -</u></b> The design of motorcycle parking areas must comply with all of the following: (a) be located, designed and constructed to comply with section 2.4.7 "Provision for Motorcycles" of AS/NZS 2890.1:2004 Parking Facilities Part 1; and (b) be located within 30 m of the main entrance to the building.</p> <p><b><u>Performance Criteria - P1:</u></b> The design of motorcycle parking areas must provide safe, obvious and easy access for motorcyclists having regard to all of the following:  (a) providing clear sightlines from the building or the public road to provide adequate passive surveillance of the parking facility and the route from the parking facility to the building; and <b>-N/A</b>  (b) avoiding creation of concealment points to minimise the risk. <b>-N/A</b></p> <p><b>No motorcycle parking areas are proposed. Hence the proposal is deficient in this requirement, but as a result is not required to meet this provision of the scheme. The schemes requirement for the number of motorcycle parking spaces can be accommodated within the on-street car parking network.</b></p>
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<p>Clause E6.7.10: Design of bicycle parking areas</p> <p><b>ACCEPTABLE SOLUTION</b></p>		<p>The bicycle parking must satisfy either Acceptable Solutions or Performance Criteria for each clause of the Hobart Interim Planning Scheme 2015 (HIPS 2015). <b><u>Documentation submitted to date does satisfy the Acceptable Solution for clause E6.7.10.</u></b></p> <p>Acceptable Solution A1: - <b>COMPLIANT</b> The number of on-site bicycle parking spaces provided must be no less than the number specified in Table E6.2.</p> <p>Acceptable Solution A2: - <b>COMPLIANT</b> The design of bicycle parking spaces must be to the class specified in table 1.1 of AS2890.3-1993 Parking facilities Part 3: Bicycle parking facilities in compliance with section 2 "Design of Parking Facilities" and clauses 3.1 "Security" and 3.3 "Ease of Use" of the same Standard.</p> <p><i>Table E6.2 sets out the number of bicycle parking spaces required. The requirement for spaces for a use or development listed in the first column of the table is set out in the second and forth columns of the table with the corresponding class set out in the third and fifth columns. If the result is not a whole number, the required number of (spaces) is the nearest whole number. If the fraction is one-half, the requirement is the next whole number.</i></p> <p>No requirement for bicycle parking area required by scheme. Bicycle area proposed conforms with AS2890.3-1993 for security and ease of use. 3 Bicycle parking spaces provided at a low security level class 3. Bicycle parking area is easily accessible and within close proximity to the access. Proposal meets acceptable solution.</p>
<p>Clause E6.7.11: Bicycle end trip facilities (Planner to assess)</p>	—	Planner to assess
<p>Clause 6.7.12: Siting of car parking (Planner to assess based on DE assessment of Clause 6.7.5 layout of parking area)</p>	—	Planner to assess

Clause E6.7.13: Facilities for commercial vehicles  <b>ACCEPTABLE SOLUTION</b>		<p>The facilities for commercial vehicles must satisfy either Acceptable Solutions or Performance Criteria for each clause of the Hobart Interim Planning Scheme 2015 (HIPS 2015).</p> <p><b><u>Documentation submitted to date does satisfy the Acceptable Solution for clause E6.7.13.</u></b></p> <p>Acceptable Solution A1: - <b>COMPLIANT</b></p> <p>Commercial vehicle facilities for loading, unloading or manoeuvring must be provided on-site in accordance with Australian Standard for Off-street Parking, Part 2 : Commercial. Vehicle Facilities AS 2890.2:2002, unless:</p> <p>(a) the delivery of all inward bound goods is by a single person from a vehicle parked in a dedicated loading zone within 50 m of the site; and</p> <p>(b) the use is not primarily dependent on outward delivery of goods from the site.</p>
Clause E6.7.14: Access to a road  <b>ACCEPTABLE SOLUTION</b>		<p>The access to a road must satisfy the Acceptable Solutions of the Hobart Interim Planning Scheme 2015 (HIPS 2015).</p> <p><b><u>Documentation submitted to date does appear to satisfy the Acceptable Solution for clause E6.7.14.</u></b></p> <p>Acceptable Solution A1: - <b>COMPLIANT</b></p> <p>Access to a road must be in accordance with the requirements of the road authority.</p> <p>Performance Criteria - P1: <b>No Performance Criteria</b></p> <p><b>Submitted plans indicate existing access to a road with no changes proposed.</b></p>
Clause E6.7.15: Access to Niree Lane Sandy Bay  <b>NOT APPLICABLE</b>		<p>The access to Niree Lane must satisfy either Acceptable Solutions or Performance Criteria for each clause of the Hobart Interim Planning Scheme 2015 (HIPS 2015).</p> <p><b><u>Documentation submitted to date appears not to invoke clause E6.7.15.</u></b></p> <p><b>No development proposed within Niree Lane.</b></p>

**E 7.0 Stormwater**

<b>E7.1.1 Purpose</b>		<p><b>E7.1.1</b></p> <p>The purpose of this provision is to ensure that stormwater disposal is managed in a way that furthers the objectives of the State Stormwater Strategy.</p>
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<b>E7.2 Application of this Code</b>	<b>YES</b>	<b>This code applies to development requiring management of stormwater. This code does not apply to use.</b>
<b>Clause for Assessment</b>		<b>Comments / Discussion (in bold)</b>
Clause E7.7.1: Stormwater drainage and disposal  <b>ACCEPTABLE SOLUTION - A1</b>		<p>The stormwater drainage and disposal must satisfy either Acceptable Solutions or Performance Criteria for each clause of the Hobart Interim Planning Scheme 2015 (HIPS 2015).</p> <p><b>Documentation submitted to date does appear to satisfy the Acceptable Solution for clause E7.7.1 (A1).</b></p> <p>Acceptable Solution A1: - <b>COMPLIANT</b>            Stormwater from new impervious surfaces must be disposed of by gravity to public stormwater infrastructure.</p> <p><b>Submitted plans appear to indicate stormwater from new impervious surfaces being able to be disposed of by gravity to public stormwater infrastructure.</b></p> <p><b>To be verified at Plumbing Permit stage.</b></p> <p><b>Proposal includes development over an existing drain or within one metre from the edge of an existing drain. Advice on Planning Permit making the applicant aware of the obligations under the Building Act 2016 Section 73 and Section 74.</b></p>
Clause E7.7.1: Stormwater drainage and disposal  <b>NOT APPLICABLE</b>		<p>The stormwater drainage and disposal must satisfy either Acceptable Solutions or Performance Criteria for each clause of the Hobart Interim Planning Scheme 2015 (HIPS 2015).</p> <p><u>Documentation submitted to date appears not to invoke clause E7.7.1 (A2).</u></p> <p><u>Acceptable Solution A2:</u>            A stormwater system for a new development must incorporate water sensitive urban design principles R1 for the treatment and disposal of stormwater if any of the following apply:            (a) the size of new impervious area is more than 600 m2; - <b>No</b>            (b) new car parking is provided for more than 6 cars; - <b>No</b>            (c) a subdivision is for more than 5 lots - <b>No</b></p> <p><u>Submitted documentation appears to indicate no requirement for stormwater treatment.</u></p> <p><b>Pump Station detailed with specification determined at detailed design stage as notated by Aldanmark.</b></p>

Clause E7.7.1: Stormwater drainage and disposal		<p>The stormwater drainage and disposal must satisfy the Acceptable Solutions of the Hobart Interim Planning Scheme 2015 (HIPS 2015).</p> <p><u>Documentation submitted to date appears not to invoke clause E7.7.1 (A3).</u></p> <p>Submitted documentation appears to indicate no requirement for a minor stormwater system.</p>
Clause E7.7.1: Stormwater drainage and disposal		<p>The stormwater drainage and disposal must satisfy the Acceptable Solution of the Hobart Interim Planning Scheme 2015 (HIPS 2015).</p> <p><u>Documentation submitted to date appears not to invoke clause E7.7.1 (A4).</u></p> <p>Submitted documentation does not appear to show any proposal for construction of major stormwater drainage.</p>

**PROTECTION OF COUNCIL INFRASTRUCTURE**

<b>Council infrastructure at risk</b>	<b>Why?</b>
Stormwater pipes	Not required
Council road network	Yes - During construction



## URBAN DESIGN ADVISORY PANEL

# REPORT

REPORT FROM THE MEETING OF THE URBAN DESIGN ADVISORY PANEL  
HELD AT 9:00 AM ON TUESDAY 14 JUNE 2022 IN THE LADY OSBORNE ROOM

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### 1 KNOPWOOD STREET – PLN-21-719

#### Description:

Planning approval is sought for a demolition and new building for 26 multiple dwellings and food services at 1 Knopwood Street, Battery Point TAS 7004 and adjacent road reserve.

More specifically the proposal is for:

- a total of 26 multiple dwellings within two buildings on the site up to 8 levels;
- the new north west building fronting Montpelier Retreat and Knopwood Street would have up to seven above ground storeys, and the new south east building fronting James Street would have up to four above ground storeys;
- a basement carpark would cover the site, and would include a lap pool at this level;
- a ground level carpark, ancillary yoga studio and gym, and food services;
- at level 1, the north west building would contain three multiple dwellings, and the south east building would contain two multiple dwellings;
- a central courtyard would separate the two buildings;
- at level 2, four multiple dwellings in each of the two buildings;
- at level 3, four multiple dwellings in the north west building, and three multiple dwellings in the south east building;
- at level 4, a penthouse (the lowest of three levels) in the north west building, and three multiple dwellings in the south east building;
- at level 5, a penthouse (the middle of three levels) in the north west building, and two multiple dwellings in the south east building;
- at level 6, a penthouse (the topmost of three levels) in the north west building;
- the 48 space two level carpark would be accessed from Montpelier Retreat; and
- works within Council Road Reservation.

The lower levels of the main building to the corner of Montpelier Retreat and Knopwood Street would be masonry for the lower levels, and metal cladding with extensive glass for the upper levels. For the James Street building, the main levels would be masonry with glazing for the upper level.

URBAN DESIGN ADVISORY PANEL  
REPORT  
14 June 2022**Panel Report:**

The Panel noted that 1 Knopwood Street – PLN-21-719 is a lodged planning application currently on public advertising and that the Panel had considered a pre-application proposal at its meeting held 27 July 2021. The following comments will be included in the Development Appraisal Planner's report.

The Panel notes that the Heritage Code in the planning scheme takes precedence and so it would have been useful to have the proponents present to the heritage provisions, rather than frequently addressing the proposal in the context of the height and form of adjacent buildings that are in a different zone. The onus was on the applicant to make the argument to how this proposal supports the heritage consideration of the Battery Point Heritage Precinct. The applicant focussed on the lower four stories when addressing the heritage precinct, presenting little justification for the upper three levels that significantly exceed the heritage precinct provisions.

The Panel notes that the property is at an important entry to the Battery Point Heritage Precinct in terms of townscape, and that a major intent of the planning scheme is that development of this site should clearly reflect the Battery Point townscape scale and character, not simply dealing with the Knopwood Street and Kirksway Place junction. The Panel felt that the projected view coming up Montpelier Retreat would not readily infer that there is a heritage precinct starting at that point. It would be completely at odds to have something as high as the proposal as the gateway to the heritage precinct. Accordingly, the Panel considered that the proposal doesn't assert itself as an appropriate entry to the Battery Point zone.

The Panel is of the view that the proposal is too tall. The submitted documents by the applicant show the proposal's relationship to the previous approved Development Application for the site. However, the Panel questioned the accurateness of the information shown as approved for the site and queried whether they were the originally submitted scheme (which was not granted a DA) and not the scheme approved by consent agreement via the Tribunal. The Panel were of the view the basic massing comparison diagrams represent the approved previous scheme, but the render image comparisons include the previously submitted refused scheme. The applicant was to provide clarification.

The Panel believes that the height is also a major issue in terms of amenity. They wanted to see more information on the facades, particularly the façade behind Preachers, at 1 James Street. While this is a side façade, it will be prominent to people visiting Preachers and when viewed from Knopwood Street. The applicant was to provide clarification.

**URBAN DESIGN ADVISORY PANEL  
REPORT  
14 June 2022**

Overall, the Panel did not see enough of a change from the previous proposal presented to UDAP as a Pre-App, to warrant a change in their position that from an urban design point of view the proposal should not be supported. They remain concerned over a number of matters previously raised, including heritage, height and amenity.

The Panel unanimously agreed that the proposal is an overdevelopment of the site, particularly with regards to townscape scale. There was insufficient justification within the proposal for the height, materiality and form of the proposed upper levels. Whilst they were referred to as a “lighter top”, the Panel felt strongly that the upper levels would be dominant elements in the townscape and thus at odds with the intent of the Planning Scheme. The Panel appreciate the proposal’s strong streetscape analysis and the ambition for this to be a high quality building, but recognise townscape is the most important urban design issue with this site.