



CITY OF HOBART

# **AGENDA**

## **Special City Planning Committee Meeting**

### **Open Portion**

**Tuesday, 14 June 2022**

**at 4.00 pm**

**Council Chamber, Town Hall**

## THE MISSION

**Working together to make Hobart a better place for the community.**

## THE VALUES

**The Council is:**

<b>People</b>	We care about people – our community, our customers and colleagues.
<b>Teamwork</b>	We collaborate both within the organisation and with external stakeholders drawing on skills and expertise for the benefit of our community.
<b>Focus and Direction</b>	We have clear goals and plans to achieve sustainable social, environmental and economic outcomes for the Hobart community.
<b>Creativity and Innovation</b>	We embrace new approaches and continuously improve to achieve better outcomes for our community.
<b>Accountability</b>	We are transparent, work to high ethical and professional standards and are accountable for delivering outcomes for our community.

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## **ORDER OF BUSINESS**

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**Business listed on the agenda is to be conducted in the order in which it is set out, unless the committee by simple majority determines otherwise.**

### **APOLOGIES AND LEAVE OF ABSENCE**

- 1. CO-OPTION OF A COMMITTEE MEMBER IN THE EVENT OF A VACANCY ..... 4**
- 2. INDICATIONS OF PECUNIARY AND CONFLICTS OF INTEREST ..... 4**
- 3. COMMITTEE ACTING AS PLANNING AUTHORITY ..... 5**
  - 3.1 APPLICATIONS UNDER THE HOBART INTERIM PLANNING SCHEME 2015 .....6**
    - 3.1.1 156 New Town Road, New Town - Demolition, Subdivision (Lot Consolidation) and New Building for 19 Multiple Dwellings and Fitness Centre (Sports and Recreation) .....6**

**Special City Planning Committee Meeting (Open Portion) held Tuesday, 14 June 2022 at 4.00 pm in the Council Chamber, Town Hall.**

**This meeting of the Special City Planning Committee is held in accordance with a Notice issued by the Premier on 31 March 2022 under section 18 of the COVID-19 Disease Emergency (Miscellaneous Provisions) Act 2020.**

The title Chief Executive Officer is a term of reference for the General Manager as appointed by Council pursuant s.61 of the *Local Government Act 1993* (Tas).

**COMMITTEE MEMBERS**

Deputy Lord Mayor Councillor H Burnet  
(Chairman)  
Alderman J R Briscoe  
Councillor W F Harvey  
Alderman S Behrakis  
Councillor M Dutta  
Councillor W Coats

**Apologies:**

**Leave of Absence:** Nil.

**NON-MEMBERS**

Lord Mayor Councillor A M Reynolds  
Alderman M Zucco  
Alderman Dr P T Sexton  
Alderman D C Thomas  
Councillor J Fox  
Councillor Dr Z Sherlock

**1. CO-OPTION OF A COMMITTEE MEMBER IN THE EVENT OF A VACANCY**

**2. INDICATIONS OF PECUNIARY AND CONFLICTS OF INTEREST**

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Ref: Part 2, Regulation 8(7) of the *Local Government (Meeting Procedures) Regulations 2015*.

Members of the Committee are requested to indicate where they may have any pecuniary or conflict of interest in respect to any matter appearing on the agenda, or any supplementary item to the agenda, which the Committee has resolved to deal with.



### **3. 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.

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

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#### 3.1.1 156 NEW TOWN ROAD, NEW TOWN - DEMOLITION, SUBDIVISION (LOT CONSOLIDATION) AND NEW BUILDING FOR 19 MULTIPLE DWELLINGS AND FITNESS CENTRE (SPORTS AND RECREATION) PLN-22-272 - FILE REF: F22/56391

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Address:	156 New Town Road, New Town
Proposal:	Demolition, Subdivision (Lot Consolidation), and New Building for 19 Multiple Dwellings and Fitness Centre (Sports and Recreation)
Expiry Date:	16 June 2022
Extension of Time:	Not applicable
Author:	Adam Smee

#### **RECOMMENDATION**

That pursuant to the *Hobart Interim Planning Scheme 2015*, the Council approve the application for demolition, subdivision (lot consolidation), and new building for 19 multiple dwellings and fitness centre (sports and recreation) at 156 New Town Road, New Town, 7008 for the reasons outlined in the officer's report and a permit containing the following conditions be issued:

#### GEN

The use and/or development must be substantially in accordance with the documents and drawings that comprise PLN-22-272 - 156 NEW TOWN ROAD NEW TOWN TAS 7008 - Final Planning Documents.

#### Reason for condition

To clarify the scope of the permit.

#### TW

The use and/or development must comply with the requirements of TasWater as detailed in the form Submission to Planning Authority Notice, Reference No. TW 2022/00654-HCC dated 12/5/2022 as attached to the permit.

Reason for condition

To clarify the scope of the permit.

PLN 14

Prior to the issue of any approval under the *Building Act 2016* (excluding for demolition), revised plans must be submitted and approved as a Condition Endorsement that demonstrate that the habitable rooms of the dwellings adjacent to New Town Road will achieve internal noise levels in accordance with relevant Australian Standards for acoustics control (including AS3671:1989 – *Road Traffic Noise Intrusion (Building Siting and Construction)* and AS2107:2016 – *Acoustics (Recommended Design Sound Levels and Reverberation Times for Building Interiors)*)

The revised plans must be certified by a suitably qualified person as demonstrating likely compliance with the above requirement. All work required by this condition must be undertaken in accordance with the approved revised plans.

*Advice:*

*This condition requires further information to be submitted as a Condition Endorsement. Refer to the Condition Endorsement advice at the end of this permit.*

Reason for condition

To ensure that buildings for residential use provide reasonable levels of residential amenity.

PLN 6

Hours of operation for the fitness centre (except for office and administrative tasks) must be within:

- 7.00 am to 9.00 pm Mondays to Fridays inclusive;
- 8.00 am to 6.00 pm Saturdays;
- 9.00 am to 5.00 pm Sundays and Public Holidays;

Reason for condition

To ensure that non-residential use does not unreasonably impact on residential amenity

## PLN s1

The combined area of windows and door openings at ground floor level in the front façade of the approved building must be equivalent to no less than 40% of the surface area of the ground floor level façade, unless further planning approval is obtained. Any glazing provided within the front façade at ground floor level must have predominantly clear glass and must not be obscured through the use of obscure glass or film, or otherwise obscured without further planning approval.

## Reason for condition

To ensure that building design for non-residential uses contributes positively to the streetscape.

## ENG 12

A construction waste management plan must be implemented throughout construction.

A construction waste management plan must be submitted and approved as a Condition Endorsement, prior to commencement of work on the site. The construction waste management plan must include:

- Provisions for commercial waste services for the handling, storage, transport and disposal of post-construction solid waste and recycle bins from the development; and,
- Provisions for the handling, transport and disposal of demolition material, including any contaminated waste and recycling opportunities, to satisfy the above requirement.

All work required by this condition must be undertaken in accordance with the approved construction waste management plan.

*Advice:*

*This condition requires further information to be submitted as a Condition Endorsement. Refer to the Condition Endorsement advice at the end of this permit.*

*It is recommended that the developer liaise with the Council's City Resilience Unit regarding reducing, reusing and recycling materials associated with demolition on the site to minimise solid waste being directed to landfill. Further information can also be found on the Council's website.*

#### Reason for condition

To ensure that solid waste management from the site meets the Council's requirements and standards.

#### ENG sw1

All stormwater from the proposed development (including but not limited to: roofed areas, ag drains, and impervious surfaces such as driveways and paved areas) must be drained to the Council's stormwater infrastructure prior to first occupation or commencement of use (whichever occurs first).

All impervious areas which can be drained to New Town Road via gravity (including charged systems) must be drained via gravity. The pump system must be limited to capture stormwater only from areas which cannot be drained via gravity. All pump rising main discharges must occur to a private dispersion pit such that only gravity flow from the property to the Council stormwater connection.

#### *Advice:*

*Under section 23 of the Urban Drainage Act 2013 it is an offence for a property owner to direct stormwater onto a neighbouring property.*

#### Reason for condition

To ensure that stormwater from the site will be discharged to a suitable Council approved outlet, and the pump system is designed and maintained to minimise risk to third-party land.

#### SW 7

Prior to occupancy or the commencement of the use (whichever occurs first), any new stormwater connection must be constructed and existing redundant connection(s) be abandoned and sealed at the owner's expense.

Prior to the issuing of any approval under the *Building Act 2016* or commencement of works (whichever occurs first), detailed engineering drawings must be submitted and approved. The detailed engineering drawings must include:

1. the location of the proposed connections and all existing connections, including details of abandonment of the existing redundant connections,

2. the size and design of the connection such that it is appropriate to safely service the development,
3. clearances from any nearby obstacles (eg services, crossovers, trees, poles, walls),
4. long-sections of the proposed connection clearly showing levels, cover, size, grade, material and delineation of public and private infrastructure;
5. connections which are free-flowing gravity driven, and,
6. be in general accordance with Council's departures from the LGAT Tasmanian Standard Drawings, available from here.

All work required by this condition must be undertaken in accordance with the approved detailed engineering drawings.

*Advice:*

*Upgraded or new connections can be approved separately from the CEP process, via the Application for New Connection form available from here. The approved stormwater connection documents must be included in your plumbing permit application document set and listed in accompanying forms.*

*A single connection for the property is required under the Urban Drainage Act 2013.*

SW 9

Prior to occupancy or the commencement of the approved use (whichever occurs first), stormwater pre-treatment and detention for stormwater discharges from the development must be installed.

A stormwater management report and design must be submitted and approved as a Condition Endorsement, prior to the issue of any approval under the *Building Act 2016* or the commencement of work on the site (whichever occurs first). The stormwater management report and design must be prepared by a suitably qualified engineer and must:

1. include detailed design and long-section of the proposed treatment train, including final estimations of contaminant removal and driving head requirements;
2. include detailed design and supporting calculations of the detention tank showing:

- detention tank sizing such that there is no increase in flows from the developed site up to 5% AEP event and flows do not exceed the receiving capacity of the kerb and gutter as per the planning documentation;
  - the layout and long section showing the inlet and outlet, any internal weir, outlet size, overflow mechanism and invert levels; the discharge rates and emptying times; and
  - all assumptions must be clearly stated;
3. include a supporting maintenance plan, which specifies the required maintenance measures to check and ensure the ongoing effective operation of all systems, such as: inspection frequency; cleanout procedures; descriptions and diagrams of how the installed systems operate; details of the life of assets and replacement requirements.

All work required by this condition must be undertaken and maintained in accordance with the approved stormwater management report and design.

*Advice:*

*This condition requires further information to be submitted as a Condition Endorsement. Refer to the Condition Endorsement advice at the end of this permit.*

ENG 13

An ongoing waste management plan for all commercial and domestic waste and recycling must be implemented post construction.

A waste management plan must be submitted and approved as a Condition Endorsement, prior to commencement of work on the site. A waste management plan must include:

1. the number of bins,
2. adequate bin storage area,
3. bin cleaning area that is appropriately drained,
4. the method of collection,
5. the time of day of collection; the frequency of collection,
6. access to bin storage areas, including consideration of gradient, site lines, manoeuvring, direction of vehicle movement and pedestrian access

7. distance from vehicle stopping point to bins if not collected on site, and,
8. confirmation by a private contractor that they are able and willing to provide collection services according to the waste management plan.

All work required by this condition must be undertaken in accordance with the approved waste management plan.

*Advice:*

*This condition requires further information to be submitted as a Condition Endorsement. Refer to the Condition Endorsement advice at the end of this permit.*

Reason for condition

To ensure that solid waste management from the site meets the Council's requirements and standards and collecting waste do not compromise the safety, amenity and convenience of surrounding occupants, vehicular traffic, parking, cyclists, pedestrians and other road and footpath users

ENG tr1

Traffic management within the access driveway, circulation roadway and parking module (parking spaces and aisles) must be installed prior to the commencement of the use.

Traffic management design drawing(s) (including signage and line marking), must be submitted and approved as a Condition Endorsement, prior to the issue of any approval under the *Building Act 2016* or the commencement of works on site (whichever occurs first). The design drawing(s) and management plan must show but not limited to, the following information:

1. Be prepared by a suitably qualified person,
2. Signage indicating that the car parking area is a private car park,
3. Signage to be installed at the driveway entrance/exit informing users access is restricted to left in – left out only (as per Clause 3.2.3 of AS2890.1),
4. Pavement arrows for the control and direction of circulating traffic within the car park and associated access in accordance with



Australian/NZS Standard, *Parking facilities Part 1: Off-street car parking AS/NZS 2890.1: 2004*,

5. The turning bay must be must be delineated by means of white or yellow pavement lines and suitable signage,
6. Pedestrian safety bollards for egress to/from lifts and doorways, and,
7. Delineation of pedestrian pathways.

All work required by this condition must be undertaken in accordance with the approved traffic management design drawings.

*Advice:*

*This condition requires further information to be submitted as a Condition Endorsement. Refer to the Condition Endorsement advice at the end of this permit.*

Reason for condition

In the interests of user safety and the amenity of the occupiers of the development.

ENG tr2

A construction traffic and parking management plan must be implemented prior to the commencement of work on the site (including demolition). The construction traffic (including cars, public transport vehicles, service vehicles, pedestrians and cyclists) and parking management plan must be submitted and approved as a Condition Endorsement, prior to commencement work (including demolition). The construction traffic and parking management plan must:

1. Be prepared by a suitably qualified person.
2. Develop a communications plan to advise the wider community of the traffic and parking impacts during construction.
3. Include a start date and finish dates of various stages of works.
4. Include times that trucks and other traffic associated with the works will be allowed to operate.

5. Nominate a superintendent, or the like, to be responsible for the implementation of the approved traffic management plan and available as a direct contact to Council and/or members of the community regarding day to day construction traffic operations at the site, including any immediate traffic issues or hazards that may arise.

All work required by this condition must be undertaken in accordance with the approved construction traffic and parking management plan.

*Advice:*

*This condition requires further information to be submitted as a Condition Endorsement. Refer to the Condition Endorsement advice at the end of this permit.*

Reason for condition

To ensure the safety of vehicles entering and leaving the development and the safety and access around the development site for the general public and adjacent businesses.

ENG 2a

Prior to first occupation or commencement of use (whichever occurs first), vehicular barriers compliant with the Australian Standard AS/NZS 1170.1:2002 must be installed to prevent vehicles running off the edge of an access driveway or parking module (parking spaces, aisles and manoeuvring area) where the drop from the edge of the trafficable area to a lower level is 600mm or greater, and wheel stops (kerb) must be installed for drops between 150mm and 600mm. Barriers must not limit the width of the driveway access or parking and turning areas approved under the permit.

*Advice:*

*The Council does not consider a slope greater than 1 in 4 to constitute a lower level as described in AS/NZS 2890.1:2004 Section 2.4.5.3. Slopes greater than 1 in 4 will require a vehicular barrier or wheel stop.*

*Designers are advised to consult the National Construction Code 2016 to determine if pedestrian handrails or safety barriers compliant with the Code are also required in the parking module this area may be considered as a path of access to a building.*

Reason for condition

To ensure the safety of users of the access driveway and parking module and compliance with the standard.

ENG 3a

The access driveway and parking area must be constructed and line marked in accordance with the following documentation which forms part of this permit: Basement Plan / DA-05 / Revision C/ dated 04/05/2022.

The works required by this condition must be completed prior to first occupation.

Reason for condition

To ensure the safety of users of the access and parking module, and compliance with the relevant Australian Standard.

ENG 3c

Prior to the first occupation, a suitably qualified engineer must certify that all aspects of the the access driveway and parking area have been constructed in accordance with design drawings approved by Condition ENG 3a.

*Advice:*

*We strongly encourage you to speak to your engineer before works begin so that you can discuss the number and nature of the inspections they will need to do during the works in order to provide this certification. It may be necessary for a surveyor to also be engaged to ensure that the driveway will be constructed as approved.*

*The reason this condition has been imposed as part of your planning permit is that the driveway is outside the Australian Standard gradients or design parameters. If the driveway is not constructed as it has been approved then this may mean that the driveway will either be unsafe or will not function properly.*

*An example certificate is available on our website.*

Reason for condition

To ensure the safety of users of the access and parking module, and compliance with the relevant Australian Standard.

## ENG 4

The access driveway and parking module (car parking spaces, aisles and manoeuvring area) approved by this permit must be constructed to a sealed standard (spray seal, asphalt, concrete, pavers or equivalent Council approved) and surface drained to the Council's stormwater infrastructure prior to first occupation or commencement of use (whichever occurs first).

## Reason for condition

To ensure the safety of users of the access driveway and parking module, and that it does not detract from the amenity of users, adjoining occupiers or the environment by preventing dust, mud and sediment transport.

## ENG 5

All parking spaces must be delineated by means of white or yellow lines 80mm to 100mm wide, or white or yellow pavement markers in accordance with Australian Standards AS/NZS 2890.1 2004, prior to first occupation or commencement of use, whichever occurs first.

- The number of car parking spaces approved on the site is twenty six (26),
- The number of motorcycle parking spaces approved on the site is two (2),
- The number of bicycle parking spaces approved on the site is twelve (12).
- No visitor parking is provided on site,
- A minimum of one (1) parking space must be allocated to each dwelling, and,
- Each pair of tandem parking spaces must serve the same dwelling.

## Reason for condition

To ensure the provision of parking for the use is safe and efficient.

## ENG 1

Any damage to council infrastructure resulting from the implementation of this permit, must, at the discretion of the Council:

1. Be met by the owner by way of reimbursement (cost of repair and reinstatement to be paid by the owner to the Council); or
2. Be repaired and reinstated by the owner to the satisfaction of the Council.

A photographic record of the Council's infrastructure adjacent to the subject site must be provided to the Council prior to any commencement of works.

A photographic record of the Council's infrastructure (e.g. existing property service connection points, roads, buildings, stormwater, footpaths, driveway crossovers and nature strips, including if any, pre-existing damage) will be relied upon to establish the extent of damage caused to the Council's infrastructure during construction. In the event that the owner/developer fails to provide to the Council a photographic record of the Council's infrastructure, then any damage to the Council's infrastructure found on completion of works will be deemed to be the responsibility of the owner.

## Reason for condition

To ensure that any of the Council's infrastructure and/or site-related service connections affected by the proposal will be altered and/or reinstated at the owner's full cost.

## ENG r1

The excavation and/or earth-retaining structures (i.e. cuttings, retaining walls) and/or footings within or supporting the highway reservation must not undermine the stability and integrity of the highway reservation and its infrastructure.

Detailed design drawings, structural certificates, and associated geotechnical assessments of the basement building wall supporting the New Town Road highway reservation must be submitted and approved as a Condition Endorsement, prior to the commencement of work and must:

1. Be prepared and certified by a suitably qualified person and experienced engineer,

2. Not undermine the stability of the highway reservation,
3. Take into account any additional surcharge loadings as required by relevant Australian Standards,
4. Take into account and reference accordingly any Geotechnical findings,
5. Detail any mitigation measures required,
6. Detail the design and location of the footing adjacent to the New Town Road highway reservation, and,
7. Include a structural certificate which notes the excavation near the highway will not adversely impact the stability of the road reservation.

Include a structural certificate which notes the excavation near the highway will not adversely impact the stability of the road reservation.

The structural certificates and drawings should note the above. All work required by this condition must be undertaken in accordance with the approved design drawings and structural certificates.

*Advice:*

*This condition requires further information to be submitted as a Condition Endorsement. Refer to the Condition Endorsement advice at the end of this permit.*

Reason for condition

To ensure that the stability and integrity of the Council's highway reservation is not compromised by the development.

ENG r3

Prior to the commencement of use, the proposed driveway crossover on the New Town Road highway reservation must be designed and constructed in general accordance with:

- Urban - TSD-R09-v3 – Urban Roads Driveways and TSD R14-v3 Type KC vehicular crossing,
- Redundant vehicle crossovers to be reinstated - TSD-R14-v3 - Type KC kerb and channel, and,
- Footpath - Urban Roads Footpaths TSD-R11-v3.

Design drawings must be submitted and approved as a Condition Endorsement prior to any approval under the *Building Act 2016*. The design drawings must:

1. Show the cross and long section of the driveway crossover within the highway reservation and onto the property,
2. Detail any services or infrastructure (i.e. light poles, pits, awnings) at or near the proposed driveway crossover,
3. Show swept path templates in accordance with AS/NZS 2890.1 2004(B85 or B99 depending on use, design template),
4. If the design deviates from the requirements of the TSD, then demonstrate that a B85 vehicle or a B99 depending on use (AS/NZS 2890.1 2004, section 2.6.2), can access the driveway from the road pavement into the property without scraping the vehicle's underside,
5. Show that vehicular and pedestrian sight lines are met as per AS/NZS 2890.1 2004, and,
6. Be prepared and certified by a suitably qualified person, to satisfy the above requirements.

All work required by this condition must be undertaken in accordance with the approved drawings.

*Advice:*

*This condition requires further information to be submitted as a Condition Endorsement. Refer to the Condition Endorsement advice at the end of this permit. Please note that your proposal does not include adjustment of footpath levels. Any adjustment to footpath levels necessary to suit the design of proposed floor, parking module or driveway levels will require separate agreement from Council's Program Leader Road Services and may require further planning approvals. It is advised to place a note to this affect on construction drawings for the site and/or other relevant engineering drawings to ensure that contractors are made aware of this requirement.*

Reason for condition

To ensure that works will comply with the Council's standard requirements.

ENV 2

Sediment and erosion control measures, sufficient to prevent sediment leaving the site and in accordance with an approved soil and water management plan (SWMP), must be installed prior to the commencement

of work and maintained until such time as all disturbed areas have been stabilised and/or restored or sealed to the Council's satisfaction.

A SWMP must be submitted as a Condition Endorsement prior to the issue of any approval under the *Building Act 2016* or the commencement of work, whichever occurs first. The SWMP must be:

- prepared in accordance with the Soil and Water Management on Building and Construction Sites fact sheets (Derwent Estuary Program, 2008), and,
- reflect any Contamination Management Plan or Environmental Site Assessment for the site

All work required by this condition must be undertaken in accordance with the approved SWMP.

*Advice:*

*This condition requires further information to be submitted as a Condition Endorsement. Refer to the Condition Endorsement advice at the end of this permit.*

Reason for condition

To avoid the pollution and sedimentation of roads, drains and natural watercourses that could be caused by erosion and runoff from the development.

HER 17a

The palette of exterior colours, materials and finishes must reflect the palette of colours, materials and finishes within the local streetscape and precinct.

Prior to the issue of any approval under the *Building Act 2016*, revised plans must be submitted and approved as a Condition Endorsement showing exterior colours, materials and finishes in accordance with the above requirement.

All work required by this condition must be undertaken in accordance with the approved plans.

*Advice:*

*This condition requires further information to be submitted as a Condition Endorsement. Refer to the Condition Endorsement advice at the end of this permit.*



#### Reason for condition

To ensure that development at a heritage place/precinct is undertaken in a sympathetic manner which does not cause loss of historic cultural heritage significance.

#### ENVHE 1

Recommendations in the report GES Environmental Site Assessment 156 New Town Road, New Town, Tasmania, dated November 2020, must be implemented prior to the commencement of works.

#### Specifically:

1. Documentation stating the Underground Petroleum Storage System(UPSS) has been decommissioned and removed,
2. Contamination Management Plan (CMP) relating to human receptors, including mitigation measures post construction for residential use, and also include soil management onsite during construction, and,
3. All contaminated soils must be managed in accordance with IB105 (EPA document and process).

#### Reason for condition

To ensure that the risk to future occupants of the building remain low and acceptable.

To manage excavated soils onsite in relation to contamination.

To ensure the safety of workers

#### ENVHE 4

A construction management plan must be implemented throughout the construction works.

A construction management plan must be submitted and approved as a Condition Endorsement prior to the issuing of any approval under the *Building Act 2016*. The plan must include but is not limited to the following:

1. Identification and disposal of any potentially contaminated waste and asbestos,
2. Proposed hours of work (including volume and timing of heavy vehicles entering and leaving the site, and works undertaken on site),

3. Proposed hours of construction,
4. Identification of potentially noisy construction phases, such as operation of rock- breakers, explosives or pile drivers, and proposed means to minimise impact on the amenity of neighbouring buildings,
5. Control of dust and emissions during working hours
6. Proposed screening of the site and vehicular access points during work, and,
7. Procedures for washing down vehicles, to prevent soil and debris being carried onto the street.

All work required by this condition must be undertaken in accordance with the approved construction management plan.

*Advice:*

*This condition requires further information to be submitted as a Condition Endorsement. Refer to the Condition Endorsement advice at the end of this permit.*

Reason for condition

To ensure minimal impact on the amenity of adjoining properties and members of the public during the construction period.

SURV 16

The titles comprising the development site (CT 171514/1 and CT 171514/2) are to be adhered in accordance with the provisions of Section 110 of the *Local Government (Building and Miscellaneous Provisions) Act 1993*, to the satisfaction of Council prior to the issue of any building approval pursuant to the *Building Act 2016*, or the commencement of works on site (whichever occurs first).

*Advice:*

*The application for an adhesion order to Council has a fee of \$300. Evidence will be required that the owners and mortgagees do not object to the adhesion. This condition will be considered to be satisfied when a copy of the receipt for the Land Titles Office lodgement slip for the adhesion order has been received by Council.*

Reason for condition

To ensure compliance with statutory provisions

## Part 5 r1

Prior to any works commencing on site (including demolition), the owner(s) of the property must enter into an agreement with the Council pursuant to Part 5 of the *Land Use Planning and Approvals Act 1993* with respect to the protection of the retaining wall adjacent to the New Town Road highway reservation.

The owner must not undertake any works (including excavation and building) that will have any effect on the integrity of the New Town Road highway reservation or any adjacent retaining structure.

All costs for the preparation and registration of the Part 5 Agreement must be met by the owner. The owner must comply with the Part 5 Agreement which will be placed on the property title.

*Advice:*

*For further information with respect to the preparation of a Part 5 Agreement please contact Council's Development Engineering Unit.*

## Reason for condition

To ensure the protection of Council infrastructure.

## SUB s1

The right of carriageway appurtenant to CT 7973/1 (18 Roope Street) over the Roadway shown on Plan No. 171514 burdening the titles comprising the development site (CT 171514/1 and CT 171514/2) is to be extinguished in accordance with the provisions of section 108 of the *Land Titles Act 1980* prior to the issue of any building approval pursuant to the *Building Act 2016*.

## Reason for condition

To ensure that building works do not occur over the right of carriageway.

## ADVICE

The following advice is provided to you to assist in the implementation of the planning permit that has been issued subject to the conditions above. The advice is not exhaustive and you must inform yourself of any other legislation, by-laws, regulations, codes or standards that will apply to your development under which you may need to obtain an approval. Visit the Council's website for further information.

Prior to any commencement of work on the site or commencement of use the following additional permits/approval may be required from the Hobart City Council.

## CONDITION ENDORSEMENT

If any condition requires that further documents are submitted and approved, you will need to submit the relevant documentation to satisfy the condition via the Condition Endorsement Submission on Council's online services e-planning portal. Detailed instructions can be found [here](#).

## BUILDING PERMIT

You may need building approval in accordance with the *Building Act 2016*. Click [here](#) for more information.

This is a Discretionary Planning Permit issued in accordance with section 57 of the *Land Use Planning and Approvals Act 1993*.

## PLUMBING PERMIT

You may need plumbing approval in accordance with the *Building Act 2016*, *Building Regulations 2016* and the National Construction Code. Click [here](#) for more information.

## OCCUPATION OF THE PUBLIC HIGHWAY

You may require a permit for the occupation of the public highway for construction or special event (e.g. placement of skip bin, crane, scissor lift etc). Click [here](#) for more information.

## STORMWATER

Please note that in addition to a building and/or plumbing permit, development must be in accordance with the Hobart City Council's Infrastructure By law. Click [here](#) for more information.

## REDUNDANT CROSSEOVERS

Redundant crossovers are required to be reinstated under the Hobart City Council's

Infrastructure By law. Click [here](#) for more information.

## NOISE REGULATIONS

Click [here](#) for information with respect to noise nuisances in residential areas.

## WASTE DISPOSAL

It is recommended that the developer liaise with the Council's Cleansing and Solid Waste Unit regarding reducing, reusing and recycling materials associated with demolition on the site to minimise solid waste being directed to landfill.





Further information regarding waste disposal can also be found on the Council's website.

## FEES AND CHARGES

[Click here for information on the Council's fees and charges.](#)

## DIAL BEFORE YOU DIG

[Click here for dial before you dig information before you dig information.](#)

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| Attachment A: | PLN-22-272 - 156 NEW TOWN ROAD NEW TOWN<br>TAS 7008 - Planning Committee or Delegated<br>Report ↓  |
| Attachment B: | PLN-22-272 - 156 NEW TOWN ROAD NEW TOWN<br>TAS 7008 - CPC Agenda Documents ↓                     |
| Attachment C: | PLN-22-272 - 156 NEW TOWN ROAD NEW TOWN<br>TAS 7008 - Cultural Heritage Officer Report ↓         |
| Attachment D: | PLN-22-272 - 156 NEW TOWN ROAD NEW TOWN<br>TAS 7008 - Urban Design Advisory Panel Report ↓<br>     |

**APPLICATION UNDER HOBART INTERIM PLANNING SCHEME 2015**

Type of Report:	Committee
Council:	14 June 2022
Expiry Date:	16 June 2022
Application No:	PLN-22-272
Address:	156 NEW TOWN ROAD , NEW TOWN
Applicant:	LXN ARCHITECTURE & CONSULTING PO BOX 136
Proposal:	Demolition, Subdivision (Lot Consolidation), and New Building for 19 Multiple Dwellings and Fitness Centre (Sports and Recreation)
Representations:	Two representations.
Performance criteria:	Urban Mixed Use Zone: Residential Amenity, Potentially Contaminated Land Code: Excavation, Road and Railway Assets Code: Sight distance at accesses, junctions and level crossings, Parking and Access Code: Number of Car Parking Spaces, Design of Vehicular Accesses, and, Layout of Parking Areas, Stormwater Management Code: Stormwater Drainage and Disposal, and, Historic Heritage Code: Demolition, Buildings and Works other than Demolition, and, Subdivision.

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**1. Executive Summary**

- 1.1 Planning approval is sought for Demolition, Subdivision (Lot Consolidation), and New Building for 19 Multiple Dwellings and Fitness Centre (Sports and Recreation) at 156 New Town Road, New Town.

- 1.2 More specifically the proposal is to demolish the existing building on the site and to construct a new building that would contain a fitness centre and 19 multiple dwellings.
- The new building would have three storeys and a basement. Car parking and storage is proposed in the basement. The fitness centre would be on the part of the ground floor of the building fronting onto New Town Road. The proposed apartment style dwellings would occupy the remaining parts of the development.
  - The proposed building would have a maximum height of 10m and a total floor area of 2938m<sup>2</sup>.
  - Proposed external materials include face brickwork (sand and red), painted cement sheet (grey and light grey), powder-coated aluminium (white), pre-finished metal sheet (grey), and pre-cast concrete (natural finish).
- 1.3 The proposal relies on performance criteria to satisfy the following standards and codes:
- 1.3.1 15.0 Urban Mixed Use Zone - 15.4 Development Standards for Buildings and Works
  - 1.3.2 E2.0 Potentially Contaminated Land Code - E2.6 Development Standards
  - 1.3.3 E5.0 Road and Railway Assets Code - E5.6 Development Standards
  - 1.3.4 E6.0 Parking and Access Code - E6.6 Use Standards and E6.7 Development Standards
  - 1.3.5 E7.0 Stormwater Management Code - E7.7 Development Standards
  - 1.3.6 E13.0 Historic Heritage Code - E13.8 Development Standards for Heritage Precincts
- 1.4 Four (4) representations objecting to the proposal were received within the statutory advertising period between 9 and 23 May 2022.
- 1.5 The proposal was considered by the Urban Design Advisory Panel at its meeting of 29 March 2022. In the context of the provisions on which they were asked to comment, the Panel was broadly not supportive of the proposal.
- 1.6 The proposal is recommended for approval subject to conditions.
- 1.7 The final decision is delegated to the Council because a major development application is proposed.

**2. Site Detail**

- 2.1 The site is a commercial property at the southern edge of the New Town commercial area. The property has an area of 1474m<sup>2</sup> and frontage to New Town Road on its north-eastern boundary. The existing building on the site was originally constructed as a service station, however, it has been used for various commercial uses in recent years, including as a cafe and laundrette. The building is setback from the site frontage allowing for a wide driveway with separate egress and entry points. The site is generally level although its south-western corner falls away.
- 2.2 The site is within the Urban Mixed Use Zone of the *Hobart Interim Planning Scheme 2015*. The site is surrounded by a mix of commercial and residential uses, consistent with this zoning. These uses include offices and other professional services uses on the adjoining land to the north-west and south-east and multiple dwellings on the adjoining land to the west and south. A variety of commercial uses occur to the north and east of the site, on the opposite side of New Town Road. The site is within the New Town 4 Heritage Precinct identified by the planning scheme's Historic Heritage Code.
- 2.3 A site visit was conducted upon 11 April 2022. The adjoining property at 18 Roope Street was also visited.





Figure 1: aerial view of site (outlined in blue) and surrounding area.

### 3. Proposal

- 3.1 Planning approval is sought for Demolition, Subdivision (Lot Consolidation), and New Building for 19 Multiple Dwellings and Fitness Centre (Sports and Recreation) at 156 New Town Road, New Town.

- 3.2 More specifically the proposal is to demolish the existing building on the site and to construct a new building that would contain a fitness centre and 19 multiple dwellings.
- The new building would have three storeys and a basement. Car parking and storage is proposed in the basement. The fitness centre would be on the part of the ground floor of the building fronting onto New Town Road. The proposed apartment style dwellings would occupy the remaining parts of the development.
  - The proposed building would have a maximum height of 10m and a total floor area of 2938m<sup>2</sup>.
  - Proposed external materials include face brickwork (sand and red), painted cement sheet (grey and light grey), powder-coated aluminium (white), pre-finished metal sheet (grey), and pre-cast concrete (natural finish).

#### 4. Background

- 4.1 Council issued a Planning Permit for alterations, extension, and an outbuilding associated with a laundromat use on the site in December 2019 (see PLN-19-705).
- 4.2 A partial change of use to food services (cafe) & signage was approved on the site in July 2015 (via PLN-15-00598-01). A laundromat appears to have been an established use on the site at the time that this application was approved (see planner's report). Council provided confirmation that planning approval was not required for a change of use to a shop on the site (see PLN-15-00056-01) in January 2015. A planning scheme amendment was lodged in 2009 that sought approval for a change in the planning scheme to allow the site to be used as a saleyard. This amendment was not supported by Council.

- 4.3 Council received an application that sought approval for a development that is essentially similar to that currently proposed on 25 October 2021 (PLN-21-718). The development proposed in this application differed from the current proposal only in the design of the basement and ground floor levels. Following a request for information process, the application was placed on public exhibition from 24 March to 7 April 2022. Council received two representations regarding the application during this period. Once Council completed its assessment of the proposal at the end of the advertising period, the applicant was advised that the application would be recommended for refusal largely on grounds that it would have an unreasonable overshadowing impact upon adjoining residential properties. Faced within this advice, the applicant elected to withdraw the application and to revise the design to ensure that it complies with the acceptable solutions for the relevant boundary setback standards and to avoid the discretion that prompted the original design to be recommended for refusal.
- 4.4 The previous application (PLN-21-718) was considered by the Urban Design Advisory Panel at its meeting of 29 March 2022. In the context of the provisions on which they were asked to comment, the Panel was broadly not supportive of the proposal. The Panel's comments are included where relevant in section 6 of this report, and are discussed in section 7. The Panel's report is provided in full as an attachment to this report.

## **5. Concerns raised by representors**

- 5.1 Four (4) representations objecting to the proposal were received within the statutory advertising period.
- 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.

"This proposed development (PLN-22-272) is another example of recent developments in this area which fail to give due consideration to the long-term impact on traffic congestion and parking".
"This proposal will add to existing traffic and parking issues".
"the impact this proposed development will have on the amenity of the residents in the housing development accessed from Roope Street including, but not limited to, loss of privacy, lighting and noise given the fitness centre will be open to 9.00 pm on weekdays".

"Visually, this proposed development is unappealing, there is no set back from the main road, the courtyard is internal and there is no 'green space' to soften the street front of this development".
"This is another development application squeezing too many apartments onto a small footprint to maximise profits for the developer".
"the developer should be required to reduce the number of apartments and provide off-street parking for both residents and patrons of the Fitness Centre".
"My sunlight/natural light will be reduced in my kitchen/loungeroom windows due to the proposed dwelling being 10 metres high".
"The noise for the proposed dwellings it will make it very hard to hear the television or listen to music during the day. I will not be able to go out the back door into the garden or sit outside because the noise will be unbearable and also no privacy".
"I use my washing line daily expect when it is raining but if the proposed dwelling gets the go ahead, I will be not be able to use it due to reduced sunlight and dust".
"The unit at present is very quiet to live but with the proposed dwelling and fitness centre it will be very noisy due to the building being demolished and the new 19 multiple dwelling and fitness centre being built".
"The traffic in the area is all ready very buy and it gets congested a lot of the time due to buses, delivery vans, emergency vehicles and normal traffic. With the proposed dwelling this will create even more congestion due to tradesman parking their cars and finding somewhere to park".
"Where I live Roope Street is already full to the residents' cars outside their properties. There is not much parking around the proposed units/fitness centre site".
"we will lose privacy due to our backyards touching their backyards".

"The LXX architectural plan presented for the basement carparking (Drawing DA-05) is inconsistent with the Concept Services Plans by Gandy & Roberts showing a different basement carparking layout".
"The Heritage assessment prepared by Purcell submitted as part of documentation for this proposal does not identify the significant impact of the proposal on the heritage streetscape created by the Old Parsonage and Cross Street Church at this location".
"To reduce these impacts, we propose that the application be conditioned to require the reduction and redesign of the north-western corner of the building to reduce the impact on the visibility of the Old Parsonage and Cross Street Church".
"We contend that this development is contrary to 15.1.1.6 in that it does not respond to the character of the streetscape, historic areas and buildings".
"On this basis we contend that the set back of the overall proposal from New Town Road is insufficient. The building must have a larger setback from ground level to be consistent with the majority of buildings that are substantially set back from the street and not have a detrimental impact on the heritage streetscape vista".
"Further information is required on how the Assumed Natural Ground Level has been calculated".
"Car parking for the gym should be provided within the proposal".
"Three non-fruiting pears are located in garden beds between the Old Parsonage car park and the southern lot boundary next to 156 New Town Road. We request that conditions be applied to the permit that they show how these trees are to be protected during construction".
"In this proposed development there is provision for only 26 car spaces. This is inadequate".
"The developer should be required to reduce the number of apartments and provide off-street parking for both residents and patrons of the proposed Fitness Centre".

## 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 Urban Mixed Use Zone of the *Hobart Interim Planning Scheme 2015*.
- 6.3 The existing use appears to be Educational and occasional care. The proposed use is Residential (multiple dwellings) and Sport and recreation (fitness centre). The existing use is a discretionary use in the zone. The proposed uses are permitted (Residential component) and discretionary (Sports and recreation component) uses in the zone.

- 6.4 Clause 8.10.2 states that:

*In determining an application for a permit for a discretionary use the planning authority must, in addition to the matters referred to in subclause 8.10.1, have regard to:*

- (a) the purpose of the applicable zone;*
- (b) any relevant local area objective or desired future character statement for the applicable zone;*
- (c) the purpose of any applicable code; and*
- (d) the purpose of any applicable specific area plan,*

*but only insofar as each such purpose, local area objective or desired future character statement is relevant to the particular discretion being exercised.*

Therefore, the proposed discretionary use (i.e. the proposed fitness centre) must be considered with regard to the above matters. The proposed fitness centre is considered to be consistent with the purpose of the applicable zone, i.e. the Urban Mixed Use Zone, as the proposal would provide for the integration of residential and commercial activities on the site (see 15.1.1.1). The fitness centre would also generate activity and pedestrian movement at street level (see 15.1.1.2). The site is accessible by public transport as it is upon a Metro Tasmania bus route. The site is adjacent to residential areas so is also accessible by walking and cycling (see 15.1.1.5). Given that the development would have mostly glazed walls within the ground level facade, its materials and openings are considered to contribute

positively to the streetscape (see 15.1.1.8), although the comments from UDAP regarding the covering of glazed surfaces with obscure film are noted (see attached report). The proposal is considered to provide an appropriate level of amenity for the proposed residential use proposed on the site (see 15.1.1.9) by incorporating appropriate attenuation measures for the proposed fitness centre. There are no local area objectives or desired future character statements for the Urban Mixed Use Zone.

The proposal is considered to be consistent with the purpose of the applicable codes. The following codes are applicable:

- E2.0 Potentially Contaminated Land Code,
- E5.0 Road and Railway Assets Code,
- E6.0 Parking and Access Code,
- E7.0 Stormwater Management Code, and
- E13.0 Historic Heritage Code.

The proposal is considered to be consistent with the purpose of the Potentially Contaminated Land Code as it is supported by an Environmental Site Assessment which demonstrates that potential contamination on the site may be managed in a way such that it does not adversely impact on human health or the environment. The proposal is consistent with the purpose of the Road and Railway Assets Code as it is supported by a Traffic Impact Assessment which demonstrates that it would maintain the safety and efficiency of the road network. The TIA also demonstrates that sufficient parking would be provided for the use and development on the site. The proposal is therefore consistent with the purpose of the Parking and Access Code. The proposal demonstrates that stormwater from the development would be managed in a way that furthers the State Stormwater Strategy. The proposal is therefore consistent with the purpose of the Stormwater Management Code. The proposal is consistent with the purpose of the Historic Heritage Code because the historic cultural heritage significance of the precinct surrounding the site would be protected.

There is no applicable specific area plan. The proposal is considered to comply with clause 8.10.2.

6.5 The proposal has been assessed against:

6.5.1 15.0 Urban Mixed Use Zone

6.5.2 E2.0 Potentially Contaminated Land Code

6.5.3 E6.0 Parking and Access Code

- 6.5.4 E7.0 Stormwater Management Code
- 6.5.5 E13.0 Historic Heritage Code
- 6.6 The proposal relies on the following performance criteria to comply with the applicable standards:
  - 6.6.1 15.0 Urban Mixed Use Zone:
    - 15.4.8 Residential Amenity P1 and P3.*
  - 6.6.2 E2.0 Potentially Contaminated Land Code:
    - E2.6.2 Excavation.*
  - 6.6.3 E5.0 Road and Railway Assets Code:
    - E5.6.4 Sight distance at accesses, junctions and level crossings.*
  - 6.6.4 E6.0 Parking and Access Code:
    - E6.6.1 Number of Car Parking Spaces,*
    - E6.7.2 Design of Vehicular Accesses, and,*
    - E6.7.5 Layout of Parking Areas.*
  - 6.6.5 E7.0 Stormwater Management Code:
    - E7.7.1 Stormwater Drainage and Disposal P1 and P2.*
  - 6.6.6 E13.0 Historic Heritage Code:
    - E13.8.1 Demolition,*
    - E13.8.2 Buildings and Works other than Demolition P1, and,*
    - E13.8.3 Subdivision P1, P2, and P3.*
- 6.7 The relevant performance criteria are assessed below.
- 6.8 *15.4.8 Residential Amenity P1*
  - 6.8.1 The acceptable solution A1 at clause *15.4.8* requires a dwelling to have a habitable room window (other than a bedroom) that faces within 30 degrees of north.



- 6.8.2 The proposal includes several dwellings that would not have a habitable room window that would face within 30 degrees of north. Apartments 6 to 10 and apartments 14, 16, and 17 would not have a north facing habitable room window.
- 6.8.3 The proposal does not comply with the above acceptable solution and therefore relies upon assessment against the below performance criterion.
- 6.8.4 The performance criterion P1 at clause 15.4.8 provides as follows:
- A dwelling must be sited and designed to optimise sunlight to at least one habitable room (other than a bedroom).*
- 6.8.5 Apartments 7 to 10 and apartment 17 would have substantial glazed areas to living areas within the north-east elevation of proposed building. This arrangement would allow for sunlight to enter the living areas during morning periods and at midday. Apartment 6 would also have glazing to living areas that is orientated to the north-east, as well as a larger area of glazing to these areas that would be orientated to the north-west. This arrangement would allow for sunlight to enter the living area of this apartment throughout the day. Apartment 16 would have glazing to living areas that would be orientated to the north-west which would allow for sunlight to enter these areas during afternoon periods. Therefore, the siting and design of apartments 6 to 10 and apartments 16 and 17 is considered to provide a reasonable level of residential amenity by allowing sunlight to enter a habitable room.
- 6.8.6 The only external glazing for apartment 14 would face nearly due south. The apartment would therefore not receive any direct sunlight and its siting and design could not be said to optimise sunlight to a habitable room. However, it is noted that apartment 14 would have only one bedroom and that it would be the only apartment within the development that would not receive direct sunlight. Therefore, the proposal is considered to be consistent with the objective for the above clause as it would generally provide a reasonable level of residential amenity.
- 6.8.7 The proposal complies with the above performance criterion.
- 6.9 15.4.8 Residential Amenity P3
- 6.9.1 The acceptable solution A3 at clause 15.4.8 requires outdoor living space to be provided for a dwelling that has an area no less than 10m<sup>2</sup> and a

width no less than 2m.

6.9.2 The proposal includes several dwellings that would not be provided with outdoor living space that would have the required width. Except for apartments 11 and 14, all of the apartments proposed on level 1 of the development (i.e., apartments 6 to 10 and 12, 13, and 15) would not be provided with outdoor living space that would have the required width.

6.9.3 The proposal does not comply with the above acceptable solution and therefore relies upon assessment against the below performance criterion.

6.9.4 The performance criterion P3 at clause 15.4.8 provides as follows:

*Outdoor living space must be provided for a dwelling with dimensions sufficient for the projected requirements of the occupants.*

6.9.5 Apartments 7 to 10 would have areas of outdoor living space with areas greater than 12m<sup>2</sup> and a minimum width of approximately 1.7m. These areas would be on the north-eastern side of the respective dwelling and would be adjacent to the respective living area. Therefore, these areas of outdoor living space are considered to provide for the projected requirements of the future occupants, such as outdoor dining and relaxation and some limited planting. Similarly, the outdoor living space proposed for apartment 6 would also be greater than 12m<sup>2</sup> and located adjacent to the living area proposed for this apartment. Therefore, this outdoor living space is also considered to provide for the projected requirements of the occupants.

6.9.6 While smaller areas of outdoor living space are proposed for apartments 12, 13, and 15 (i.e., these areas are only slightly above the minimum 10m<sup>2</sup> required by the acceptable solution), each of these spaces would include an area that would have dimensions of at least 2m x 3m. These areas are considered to provide for projected requirements such as outdoor dining for example, as they could accommodate a small outdoor dining setting and a BBQ. The remainder of the space provided for each of these apartments would be much narrower but would allow for other projected requirements such as storage or limited planting.

6.9.7 The proposal complies with the above performance criterion.

6.10 E2.5 Use Standards

- 6.10.1 The acceptable solution at clause E2.5 requires the Director (as defined in EMPCA 1994), or a person approved by the Director for the purpose of the Potentially Contaminated Land Code, to either certify that the land is suitable for an intended sensitive use, or, to approve a plan to manage contamination and associated risk to human health or the environment that will ensure that the land is suitable for the intended use.
- 6.10.2 The proposal does not include certification from either the Director or a person approved by the Director and does not include a plan approved by the Director.
- 6.10.3 The proposal does not comply with the above acceptable solution and therefore relies upon assessment against the below performance criterion.
- 6.10.4 The performance criterion at clause E2.5 provides as follows:

*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.*

- 6.10.5 An Environmental Site Assessment was provided with the application. The ESA includes the following conclusions:

"There were no human health guideline exceedances for dermal contact, soil vapour intrusion or trench worker vapour risk. There were no HIL guideline exceedances for dust inhalation and ingestion at commercial land use class, but there were exceedances at residential and recreational land use for Benzo(a)pyrene and Lead. If developments include open space or residential apartments at ground level, the site will require a Contamination Management Plan (CMP) relating to human receptors prior to soil disturbance during construction, and including

mitigation measures post construction".

Council's Environmental Health Officer has reviewed the above recommendation and recommended that a condition of approval require a Contamination Management Plan (CMP) to be submitted to Council, prior to construction of the development commencing.

6.10.6 The ESA also states that:

"There is potential for ecological impact from hydrocarbons and heavy metals entering the waterway or impacting other ecological receptors during excavation, and a Stormwater Management Plan (SWMP) is required, to control erosion of excavated soil that may have an ecological impact".

The standard condition of approval requiring a Stormwater Management Plan to be developed for the site and implemented prior to construction of the development commencing should be included upon any Planning Permit issued for the proposal, in accordance with this recommendation.

6.10.7 The proposal complies with the above performance criterion.

6.11 *E2.6.2 Excavation*

6.11.1 There is no acceptable solution for clause *E2.6.2* which applies where works involving excavation of potentially contaminated land are proposed.

6.11.2 The proposal includes excavation of potentially contaminated land.

6.11.3 As there is no acceptable solution for the above clause the proposal therefore relies upon assessment against the below performance criterion.

6.11.4 The performance criterion at clause *E2.6.2* provides as follows:

*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.*

6.11.5 As noted above, an ESA was provided with the application which includes recommendations regarding remediation and protection measures. A condition of approval is recommended that requires these measures to be implemented, including the development and implementation of a CMP for the development.

6.11.6 The proposal complies with the above performance criterion.

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

6.12.1 The acceptable solution at clause *E5.6.4* requires sight distances at an access to comply with the Safe Intersection Sight Distance (SISD) shown in Table E5.1.

6.12.2 The proposal includes an access that does not comply with the SISD shown in Table E5.1.

6.12.3 The proposal does not comply with the above acceptable solution and therefore relies upon assessment against the below performance criterion.

6.12.4 The performance criterion at clause *E5.6.4* provides as follows:

*The design, layout and location of an access, junction or rail level crossing must provide adequate sight distances to ensure the safe movement of vehicles, having regard to:*

- (a) the nature and frequency of the traffic generated by the use;*
- (b) the frequency of use of the road or rail network;*
- (c) any alternative access;*
- (d) the need for the access, junction or level crossing;*
- (e) any traffic impact assessment;*
- (f) any measures to improve or maintain sight distance; and*
- (g) any written advice received from the road or rail authority.*

- 6.12.5 Council's Senior Development Engineer has assessed the sight distances at the proposed access against the above performance criterion and provided the following comments:

"enough information for assessment was provided by Gandy and Roberts and therefore can be supported under a performance based assessment and will be subject to design conditions".

- 6.12.6 The proposal complies with the above performance criterion.

6.13 *E6.6.1 Number of Car Parking Spaces*

- 6.13.1 The acceptable solution at clause *E6.6.1* requires the number of on-site car parking spaces to be no less than the number specified in Table E6.1.

- 6.13.2 The proposal includes less than the number of on-site car parking spaces specified in Table E6.1. 31 car parking spaces are required for the proposed residential use. 26 car parking spaces are proposed for the residential use. 17 spaces are required for the proposed fitness centre (4.5 spaces required per 100m<sup>2</sup> of floor area, 360m<sup>2</sup> of floor area proposed for this use) but no on-site car parking would be provided for this use.

- 6.13.3 The proposal does not comply with the above acceptable solution and therefore relies upon assessment against the below performance criterion.

- 6.13.4 The performance criterion at clause *E6.6.1* 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.*

6.13.5 Council's Senior Development Engineer has assessed the proposed number of car parking spaces against the above performance criterion and provided the following comments:

- "Car parking is deficient by 5 car spaces for the residents which includes visitor car parking is supported based on the traffic impacts assessment provided by Hubble Traffic stating the availability of on street parking in the surrounding areas has adequate capacity to absorb the deficiency.
- The deficiency of 17 car parking spaces for the gym is supported based on the traffic impacts assessment by Hubble Traffic stating the availability of on street parking in the surrounding areas has adequate capacity to absorb the deficiency.
- It is unclear if DDA spaces for the Gym are required. None are provided on site.
- The support for this clause is due to the fact that almost all residents receive their allocation of private car parking according to HIPS 2015".

6.13.6 The proposal complies with the above performance criterion.

#### 6.14 E6.7.2 Design of Vehicular Accesses

6.14.1 The acceptable solution at clause E6.7.2 requires a non-commercial vehicle access 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*.

- 6.14.2 The proposal includes a non-commercial access that does not comply with the above section of the Australian Standard.
- 6.14.3 The proposal does not comply with the above acceptable solution and therefore relies upon assessment against the below performance criterion.
- 6.14.4 The performance criterion at clause E6.7.2 provides as follows:

*Design of vehicle access points must be safe, efficient and convenient, having regard to all of the following:*

- (a) avoidance of conflicts between users including vehicles, cyclists and pedestrians;*
- (b) avoidance of unreasonable interference with the flow of traffic on adjoining roads;*
- (c) suitability for the type and volume of traffic likely to be generated by the use or development;*
- (d) ease of accessibility and recognition for users.*

- 6.14.5 Council's Senior Development Engineer has assessed the proposed design of the vehicular access against the above performance criterion and provided the following comment:

"Queuing area exceeds the maximum 10% gradient required in the Australian Standard and no evidence that queuing will extend into the road or cause any detriment to the users and there fore can be supported".

- 6.14.6 The proposal complies with the above performance criterion.

6.15 *E6.7.5 Layout of Parking Areas*

- 6.15.1 The acceptable solution at clause E6.7.5 requires the layout of car parking spaces 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*.
- 6.15.2 The proposal includes car parking spaces that do not comply with the above section of the Australian Standard.



- 6.15.3 The proposal does not comply with the above acceptable solution and therefore relies upon assessment against the below performance criterion.

- 6.15.4 The performance criterion at clause E6.7.5 provides as follows:

*The layout of car parking spaces, access aisles, circulation roadways and ramps must be safe and must ensure ease of access, egress and manoeuvring on-site.*

- 6.15.5 Council's Senior Development Engineer has assessed the proposed layout of parking areas against the above performance criterion and provided the following comments:

"Multi-Jockey parking is not ideal and the result of an over developed site. The proposed jockey spaces can be supported because of improved parking area maneuverability from the increased in parking bay width, increase in aisle width, and turning bay provided".

- 6.15.6 The proposal complies with the above performance criterion.

6.16 *E7.7.1 Stormwater Drainage and Disposal P1*

- 6.16.1 The acceptable solution A1 at clause E7.7.1 requires stormwater from new impervious surfaces to be disposed of by gravity to public stormwater infrastructure.

- 6.16.2 The proposal includes an arrangement in which stormwater from a new impervious surface would not be disposed of by gravity to public stormwater infrastructure. The basement of the proposed development and stormwater from other areas that cannot be drained via gravity would rely upon a pump system.

- 6.16.3 The proposal does not comply with the above acceptable solution and therefore relies upon assessment against the below performance criterion.

- 6.16.4 The performance criterion P1 at clause E7.7.1 provides as follows:

*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.*

6.16.5 Council's Technical Officer - Environmental has assessed the proposed stormwater management arrangements against the above performance criterion and advised that the proposed pump system is a "very low risk to others as contained in basement carpark".

6.16.6 The proposal complies with the above performance criterion.

6.17 *E7.7.1 Stormwater Drainage and Disposal P2*

6.17.1 The acceptable solution A2 at clause *E7.7.1* requires a stormwater system for a new development to incorporate water sensitive urban design principles for the treatment and disposal of stormwater if the size of new impervious area is more than 600m<sup>2</sup> and new car parking is provided for more than 6 cars.

6.17.2 The proposal includes more than 600m<sup>2</sup> of new impervious area and new car parking for more than 6 cars but does not incorporate water sensitive urban design principles.

6.17.3 The proposal does not comply with the above acceptable solution and therefore relies upon assessment against the below performance criterion.

6.17.4 The performance criterion P2 at clause *E7.7.1* provides as follows:

*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.*

6.17.5 Council's Technical Officer - Environmental has assessed the proposed stormwater management arrangements against the above performance criterion and advised that the "concept treatment design of Ocean Protect Stormfilters, Ocean Guards, and SPEL Hydrochannel has been proposed

and modelled as achieving the treatment targets".

6.17.6 The proposal complies with the above performance criterion.

6.18 *E13.8.1 Demolition*

6.18.1 There is no acceptable solution for clause *E13.8.1* which applies where demolition is proposed on a site that is within a heritage precinct.

6.18.2 The proposal includes demolition and the site is within the New Town 4 Heritage Precinct.

6.18.3 As there is no acceptable solution for the above clause the proposal therefore relies upon assessment against the below performance criterion.

6.18.4 The performance criterion at clause *E13.8.1* provides as follows:

*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.*

6.18.5 Council's Cultural Heritage Officer has assessed the proposed demolition against the above performance criterion and provided the following comment:

"The site does not contain any buildings or works that possess historic cultural heritage value as defined in the statements of significance in Table E13.2. The loss of historic heritage values is not anticipated as a function of the proposed demolition. Clause *E13.8.1* P1 is satisfied".

The CHO's full report on the proposal is provided as an attachment.

6.18.6 The proposal complies with the above performance criterion.

6.19 *E13.8.2 Buildings and Works other than Demolition P1*

6.19.1 There is no acceptable solution A1 for clause *E13.8.2* which applies where buildings and works other than demolition are proposed on a site that is within a heritage precinct.

6.19.2 The proposal includes buildings and works other than demolition and the site is within the New Town 4 Heritage Precinct.

6.19.3 As there is no acceptable solution for the above clause the proposal therefore relies upon assessment against the below performance criterion.

6.19.4 The performance criterion P1 at clause *E13.8.2* provides as follows:

*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.*

6.19.5 Council's Cultural Heritage Officer has assessed the proposed buildings and works against the above performance criterion and concluded that:

"Siting and design choices are logical and sensible rather than inspired, but are unlikely to result in detriment to the historic cultural heritage significance of the precinct. Extant period buildings would endure and continue to be able to be viewed from public spaces in New Town Road providing high quality examples of their respective architectural periods".

6.19.6 The proposal complies with the above performance criterion.

6.20 *E13.8.3 Subdivision P1*

6.20.1 There is no acceptable solution A1 for clause *E13.8.3* which applies where subdivision is proposed on a site that is within a heritage precinct.

6.20.2 The proposal includes subdivision (lot consolidation) and the site is within the New Town 4 Heritage Precinct.

6.20.3 As there is no acceptable solution for the above clause the proposal

therefore relies upon assessment against the below performance criterion.

6.20.4 The performance criterion P1 at clause E13.8.3 provides as follows:

*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.*

6.20.5 Council's Cultural Heritage Officer has assessed the proposed subdivision (lot consolidation) against the above performance criterion and provided the following comments:

"The original lot of the now demolished Rose Cottage is thus being reformed. Therefore, the proposed subdivision (lot consolidation) would be consistent with historic patterns of development".

6.20.6 The proposal complies with the above performance criterion.

## **7. Discussion**

7.1 Planning approval is sought for Demolition, Subdivision (Lot Consolidation), and New Building for 19 Multiple Dwellings and Fitness Centre (Sports and Recreation) at 156 New Town Road, New Town.

- 7.2 The application was advertised and received four representations. The representations raised concerns including the potential for a reduction in sunlight to habitable rooms and private open space on an adjoining property, noise impacts during construction of the development, traffic impacts, car parking impacts, privacy impacts, and heritage impacts. One of the representations suggests that an increase in the buildings setback from New Town Road is required in order for it to be consistent with nearby buildings and to not have a detrimental impact upon the "heritage streetscape". The representation requests that a condition of approval be included upon any Planning Permit issued for the proposal that requires trees on an adjoining property to be protected during construction of the development. The issues raised in the representations are responded to below.
- 7.3 As detailed in the background section of the report, the proposal was revised to ensure that the development complies with the relevant boundary setbacks (i.e., the setbacks prescribed by the acceptable solutions for clause 15.4.2). Therefore, while the proposal would have a significant impact upon residential amenity as a result of its overshadowing, visual, and privacy impacts upon adjoining residential properties, it should be approved.
- 7.4 While noise impacts associated with the construction of a development are generally regulated by the *Environmental Management and Pollution Control Act 1994*, should the proposal be approved, it would be possible to place further controls upon construction via a Construction Management Plan. This plan may mitigate impacts upon adjoining residential properties associated with the construction of the development to some extent.
- 7.5 The proposal is supported by a Traffic Impact Assessment which concludes that its impact upon the local road network would be acceptable and that there is adequate on-street car parking available in the surrounding area to compensate for the shortfall in car parking that would be provided on the site. The proposal is also supported by a Heritage Impact Assessment and has been assessed by Council's Cultural Heritage Officer. Both assessments conclude that the proposal would not have an unacceptable impact upon heritage values.
- 7.6 There is no justification within the planning scheme for Council to place a condition upon a Planning Permit that attempts to protect trees on an adjoining property that is not part of the application, particularly where those trees are not recognised in the Significant Trees Code.
- 7.7 The proposal has been assessed against the provisions of the planning scheme and is considered to comply with all relevant provisions.

7.8 The proposal has been assessed by other Council officers, including the Council's Senior Development Engineer and its Cultural Heritage Officer. The officers have raised no objection to the proposal, subject to conditions.

7.9 The proposal was considered by the Urban Design Advisory Panel at its meeting of 29 March 2022. The Panel's comments are 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. The Panel made the following comments which are considered to be consistent with the comments made above at 7.3:

"The Panel support the development's intent to provide a variety of dwelling types but were concerned regarding the impact of the proposed development on residents of the neighbouring properties to the south. The proposal will present an overbearing presence, and overlook and overshadow these properties. The Panel felt the development was trying to put too much yield on the site, compounded by the approach to open up the space between apartments facing to New Town Road and to the south. Where the application has tried to meet development standards, and at times has not achieved compliance, it does so by failing to address the impact on the amenity of the neighbouring properties to the south".

The Panel also commented that:

"The Panel was also concerned with the public edge to the street including the window finish to the commercial tenancy. It was noted there was no awning to the commercial frontage, typical to the precinct. To reinforce the commercial character of ground floor activities in the precinct, the panel would like to see a condition on any potential permit that the glazing remained clear and not opaque or treated with vinyl, to maintain visibility between outside and inside".

It is agreed that a condition that seeks to limit or prevent the use of opaque glazing or film within the facade of the proposed commercial tenancy should be included upon any Planning Permit issued for the development, consistent with the above comments and clause 15.4.3 *Design* of the planning scheme.

7.10 The proposal is recommended for approval.

## 8. Conclusion

- 8.1 The proposed Demolition, Subdivision (Lot Consolidation), and New Building for 19 Multiple Dwellings and Fitness Centre (Sports and Recreation) at 156 New Town Road, New Town, satisfies the relevant provisions of the *Hobart Interim Planning Scheme 2015* and is recommended for approval.



## 9. Recommendations

That: Pursuant to the *Hobart Interim Planning Scheme 2015*, the Council approve the application for Demolition, Subdivision (Lot Consolidation), and New Building for 19 Multiple Dwellings and Fitness Centre (Sports and Recreation) at 156 New Town Road, New Town, for the reasons outlined in the officer's report and a permit containing the following conditions be issued:

### GEN

**The use and/or development must be substantially in accordance with the documents and drawings that comprise PLN-22-272 - 156 NEW TOWN ROAD NEW TOWN TAS 7008 - Final Planning Documents.**

Reason for condition

To clarify the scope of the permit.

### TW

**The use and/or development must comply with the requirements of TasWater as detailed in the form Submission to Planning Authority Notice, Reference No. TWDA 2022/00654-HCC dated 12/5/2022 as attached to the permit.**

Reason for condition

To clarify the scope of the permit.

### PLN 14

**Prior to the issue of any approval under the *Building Act 2016* (excluding for demolition), revised plans must be submitted and approved as a Condition Endorsement that demonstrate that the habitable rooms of the dwellings adjacent to New Town Road will achieve internal noise levels in accordance with relevant Australian Standards for acoustics control (including *AS3671:1989 – Road Traffic Noise Intrusion (Building Siting and Construction)* and *AS2107:2016 – Acoustics (Recommended Design Sound Levels and Reverberation Times for Building Interiors)*).**

**The revised plans must be certified by a suitably qualified person as demonstrating likely compliance with the above requirement. All work required by this condition must be undertaken in accordance with the approved**

**revised plans.**

*Advice: This condition requires further information to be submitted as a Condition Endorsement. Refer to the Condition Endorsement advice at the end of this permit.*

Reason for condition

To ensure that buildings for residential use provide reasonable levels of residential amenity.

#### **PLN 6**

**Hours of operation for the fitness centre (except for office and administrative tasks) must be within:**

- 7.00 am to 9.00 pm Mondays to Fridays inclusive;
- 8.00 am to 6.00 pm Saturdays;
- 9.00 am to 5.00 pm Sundays and Public Holidays.

Reason for condition

To ensure that non-residential use does not unreasonably impact on residential amenity

#### **PLN s1**

**The combined area of windows and door openings at ground floor level in the front façade of the approved building must be equivalent to no less than 40% of the surface area of the ground floor level façade, unless further planning approval is obtained. Any glazing provided within the front façade at ground floor level must have predominantly clear glass and must not be obscured through the use of obscure glass or film, or otherwise obscured without further planning approval.**

Reason for condition

To ensure that building design for non-residential uses contributes positively to the streetscape.

#### **ENG 12**

**A construction waste management plan must be implemented throughout construction.**

A construction waste management plan must be submitted and approved as a Condition Endorsement, prior to commencement of work on the site. The construction waste management plan must include:

- Provisions for commercial waste services for the handling, storage, transport and disposal of post-construction solid waste and recycle bins from the development; and,
- Provisions for the handling, transport and disposal of demolition material, including any contaminated waste and recycling opportunities, to satisfy the above requirement.

All work required by this condition must be undertaken in accordance with the approved construction waste management plan.

*Advice:*

*This condition requires further information to be submitted as a Condition Endorsement. Refer to the Condition Endorsement advice at the end of this permit.*

*It is recommended that the developer liaise with the Council's City Resilience Unit regarding reducing, reusing and recycling materials associated with demolition on the site to minimise solid waste being directed to landfill. Further information can also be found on the Council's [website](#).*

Reason for condition

To ensure that solid waste management from the site meets the Council's requirements and standards.

#### **ENG sw1**

All stormwater from the proposed development (including but not limited to: roofed areas, ag drains, and impervious surfaces such as driveways and paved areas) must be drained to the Council's stormwater infrastructure prior to first occupation or commencement of use (whichever occurs first).

All impervious areas which can be drained to New Town Road via gravity (including charged systems) must be drained via gravity. The pump system must be limited to capture stormwater only from areas which cannot be drained via gravity. All pump rising main discharges must occur to a private dispersion pit such that only gravity flow from the property to the Council stormwater connection.

*Advice:*

*Under section 23 of the Urban Drainage Act 2013 it is an offence for a property owner to direct stormwater onto a neighbouring property.*

Reason for condition

To ensure that stormwater from the site will be discharged to a suitable Council approved outlet, and the pump system is designed and maintained to minimise risk to third-party land.

#### **SW 7**

**Prior to occupancy or the commencement of the use (whichever occurs first), any new stormwater connection must be constructed and existing redundant connection(s) be abandoned and sealed at the owner's expense.**

**Prior to the issuing of any approval under the *Building Act 2016* or commencement of works (whichever occurs first), detailed engineering drawings must be submitted and approved. The detailed engineering drawings must include:**

1. the location of the proposed connections and all existing connections, including details of abandonment of the existing redundant connections,
2. the size and design of the connection such that it is appropriate to safely service the development,
3. clearances from any nearby obstacles (eg services, crossovers, trees, poles, walls),
4. long-sections of the proposed connection clearly showing levels, cover, size, grade, material and delineation of public and private infrastructure;
5. connections which are free-flowing gravity driven, and,
6. be in general accordance with Council's departures from the LGAT Tasmanian Standard Drawings, available from [here](#).

**All work required by this condition must be undertaken in accordance with the approved detailed engineering drawings.**

*Advice: Upgraded or new connections can be approved separately from the CEP process, via the Application for New Connection form available from [here](#). The approved stormwater connection documents must be included in your plumbing permit application document set and listed in accompanying forms.*

*A single connection for the property is required under the Urban Drainage Act 2013.*

**SW 9**

Prior to occupancy or the commencement of the approved use (whichever occurs first), stormwater pre-treatment and detention for stormwater discharges from the development must be installed.

A stormwater management report and design must be submitted and approved as a Condition Endorsement, prior to the issue of any approval under the *Building Act 2016* or the commencement of work on the site (whichever occurs first). The stormwater management report and design must be prepared by a suitably qualified engineer and must:

1. include detailed design and long-section of the proposed treatment train, including final estimations of contaminant removal and driving head requirements;
2. include detailed design and supporting calculations of the detention tank showing:
  - detention tank sizing such that there is no increase in flows from the developed site up to 5% AEP event and flows do not exceed the receiving capacity of the kerb and gutter as per the planning documentation;
  - the layout and long section showing the inlet and outlet, any internal weir, outlet size, overflow mechanism and invert levels;
  - the discharge rates and emptying times; and
  - all assumptions must be clearly stated;
3. include a supporting maintenance plan, which specifies the required maintenance measures to check and ensure the ongoing effective operation of all systems, such as: inspection frequency; cleanout procedures; descriptions and diagrams of how the installed systems operate; details of the life of assets and replacement requirements.

All work required by this condition must be undertaken and maintained in accordance with the approved stormwater management report and design.

*Advice:*

*This condition requires further information to be submitted as a Condition Endorsement. Refer to the Condition Endorsement advice at the end of this permit.*

**ENG 13**

**An ongoing waste management plan for all commercial and domestic waste and recycling must be implemented post construction.**

**A waste management plan must be submitted and approved as a Condition Endorsement, prior to commencement of work on the site. A waste management plan must include:**

1. the number of bins,
2. adequate bin storage area,
3. bin cleaning area that is appropriately drained,
4. the method of collection,
5. the time of day of collection; the frequency of collection,
6. access to bin storage areas, including consideration of gradient, site lines, manoeuvring, direction of vehicle movement and pedestrian access;
7. distance from vehicle stopping point to bins if not collected on site, and,
8. confirmation by a private contractor that they are able and willing to provide collection services according to the waste management plan.

**All work required by this condition must be undertaken in accordance with the approved waste management plan.**

*Advice:*

*This condition requires further information to be submitted as a Condition Endorsement. Refer to the Condition Endorsement advice at the end of this permit.*

Reason for condition

To ensure that solid waste management from the site meets the Council's requirements and standards and collecting waste do not compromise the safety, amenity and convenience of surrounding occupants, vehicular traffic, parking, cyclists, pedestrians and other road and footpath users

**ENG tr1**

**Traffic management within the access driveway, circulation roadway and parking module (parking spaces and aisles) must be installed prior to the commencement of the use.**

**Traffic management design drawing(s) (including signage and line marking), must be submitted and approved as a Condition Endorsement, prior to the issue of any approval under the *Building Act 2016* or the commencement of**

works on site (whichever occurs first). The design drawing(s) and management plan must show but not limited to, the following information:

1. Be prepared by a suitably qualified person,
2. Signage indicating that the car parking area is a private car park,
3. Signage to be installed at the driveway entrance/exit informing users access is restricted to left in – left out only (as per Clause 3.2.3 of AS2890.1),
4. Pavement arrows for the control and direction of circulating traffic within the car park and associated access in accordance with Australian/NZS Standard, *Parking facilities Part 1: Off-street car parking AS/NZS 2890.1: 2004*,
5. The turning bay must be delineated by means of white or yellow pavement lines and suitable signage,
6. Pedestrian safety bollards for egress to/from lifts and doorways, and,
7. Delineation of pedestrian pathways.

All work required by this condition must be undertaken in accordance with the approved traffic management design drawings.

*Advice:*

*This condition requires further information to be submitted as a Condition Endorsement. Refer to the Condition Endorsement advice at the end of this permit.*

Reason for condition

In the interests of user safety and the amenity of the occupiers of the development.

## **ENG tr2**

**A construction traffic and parking management plan must be implemented prior to the commencement of work on the site (including demolition).**

**The construction traffic (including cars, public transport vehicles, service vehicles, pedestrians and cyclists) and parking management plan must be submitted and approved as a Condition Endorsement, prior to commencement work (including demolition). The construction traffic and parking management plan must:**

1. Be prepared by a suitably qualified person.
2. Develop a communications plan to advise the wider community of the traffic and parking impacts during construction.

3. Include a start date and finish dates of various stages of works.
4. Include times that trucks and other traffic associated with the works will be allowed to operate.
5. Nominate a superintendent, or the like, to be responsible for the implementation of the approved traffic management plan and available as a direct contact to Council and/or members of the community regarding day to day construction traffic operations at the site, including any immediate traffic issues or hazards that may arise.

**All work required by this condition must be undertaken in accordance with the approved construction traffic and parking management plan.**

*Advice:*

*This condition requires further information to be submitted as a Condition Endorsement. Refer to the Condition Endorsement advice at the end of this permit.*

Reason for condition

To ensure the safety of vehicles entering and leaving the development and the safety and access around the development site for the general public and adjacent businesses.

#### **ENG 2a**

**Prior to first occupation or commencement of use (whichever occurs first), vehicular barriers compliant with the Australian Standard AS/NZS 1170.1:2002 must be installed to prevent vehicles running off the edge of an access driveway or parking module (parking spaces, aisles and manoeuvring area) where the drop from the edge of the trafficable area to a lower level is 600mm or greater, and wheel stops (kerb) must be installed for drops between 150mm and 600mm. Barriers must not limit the width of the driveway access or parking and turning areas approved under the permit.**

*Advice:*

*The Council does not consider a slope greater than 1 in 4 to constitute a lower level as described in AS/NZS 2890.1:2004 Section 2.4.5.3. Slopes greater than 1 in 4 will require a vehicular barrier or wheel stop.*

*Designers are advised to consult the [National Construction Code 2016](#) to determine if pedestrian handrails or safety barriers compliant with the Code are also required in the parking module this area may be considered as a path of access to a building.*



Reason for condition

To ensure the safety of users of the access driveway and parking module and compliance with the standard.

**ENG 3a**

**The access driveway and parking area must be constructed and line marked in accordance with the following documentation which forms part of this permit: Basement Plan / DA-05 / Revision C/ dated 04/05/2022.**

**The works required by this condition must be completed prior to first occupation.**

Reason for condition

To ensure the safety of users of the access and parking module, and compliance with the relevant Australian Standard.

**ENG 3c**

**Prior to the first occupation, a suitably qualified engineer must certify that all aspects of the the access driveway and parking area have been constructed in accordance with design drawings approved by Condition ENG 3a.**

*Advice:*

*We strongly encourage you to speak to your engineer before works begin so that you can discuss the number and nature of the inspections they will need to do during the works in order to provide this certification. It may be necessary for a surveyor to also be engaged to ensure that the driveway will be constructed as approved.*

*The reason this condition has been imposed as part of your planning permit is that the driveway is outside the Australian Standard gradients or design parameters. If the driveway is not constructed as it has been approved then this may mean that the driveway will either be unsafe or will not function properly.*

*An example certificate is available on our [website](#).*

Reason for condition

To ensure the safety of users of the access and parking module, and compliance with the relevant Australian Standard.

**ENG 4**

The access driveway and parking module (car parking spaces, aisles and manoeuvring area) approved by this permit must be constructed to a sealed standard (spray seal, asphalt, concrete, pavers or equivalent Council approved) and surface drained to the Council's stormwater infrastructure prior to first occupation or commencement of use (whichever occurs first).

Reason for condition

To ensure the safety of users of the access driveway and parking module, and that it does not detract from the amenity of users, adjoining occupiers or the environment by preventing dust, mud and sediment transport.

**ENG 5**

All parking spaces must be delineated by means of white or yellow lines 80mm to 100mm wide, or white or yellow pavement markers in accordance with Australian Standards AS/NZS 2890.1 2004, prior to first occupation or commencement of use, whichever occurs first.

- The number of car parking spaces approved on the site is twenty six (26),
- The number of motorcycle parking spaces approved on the site is two (2),
- The number of bicycle parking spaces approved on the site is twelve (12).
- No visitor parking is provided on site,
- A minimum of one (1) parking space must be allocated to each dwelling, and,
- Each pair of tandem parking spaces must serve the same dwelling.

Reason for condition

To ensure the provision of parking for the use is safe and efficient.

**ENG 1**

Any damage to council infrastructure resulting from the implementation of this permit, must, at the discretion of the Council:

1. Be met by the owner by way of reimbursement (cost of repair and reinstatement to be paid by the owner to the Council); or

2. **Be repaired and reinstated by the owner to the satisfaction of the Council.**

**A photographic record of the Council's infrastructure adjacent to the subject site must be provided to the Council prior to any commencement of works.**

**A photographic record of the Council's infrastructure (e.g. existing property service connection points, roads, buildings, stormwater, footpaths, driveway crossovers and nature strips, including if any, pre-existing damage) will be relied upon to establish the extent of damage caused to the Council's infrastructure during construction. In the event that the owner/developer fails to provide to the Council a photographic record of the Council's infrastructure, then any damage to the Council's infrastructure found on completion of works will be deemed to be the responsibility of the owner.**

Reason for condition

To ensure that any of the Council's infrastructure and/or site-related service connections affected by the proposal will be altered and/or reinstated at the owner's full cost.

#### **ENG r1**

**The excavation and/or earth-retaining structures (i.e. cuttings, retaining walls) and/or footings within or supporting the highway reservation must not undermine the stability and integrity of the highway reservation and its infrastructure.**

**Detailed design drawings, structural certificates, and associated geotechnical assessments of the basement building wall supporting the New Town Road highway reservation must be submitted and approved as a Condition Endorsement, prior to the commencement of work and must:**

1. **Be prepared and certified by a suitably qualified person and experienced engineer,**
2. **Not undermine the stability of the highway reservation,**
3. **Take into account any additional surcharge loadings as required by relevant Australian Standards,**
4. **Take into account and reference accordingly any Geotechnical findings,**
5. **Detail any mitigation measures required,**
6. **Detail the design and location of the footing adjacent to the New Town Road highway reservation, and,**
7. **Include a structural certificate which notes the excavation near the**

highway will not adversely impact the stability of the road reservation.

The structural certificates and drawings should note the above. All work required by this condition must be undertaken in accordance with the approved design drawings and structural certificates.

*Advice:*

*This condition requires further information to be submitted as a Condition Endorsement. Refer to the Condition Endorsement advice at the end of this permit.*

Reason for condition

To ensure that the stability and integrity of the Council's highway reservation is not compromised by the development.

### **ENG r3**

Prior to the commencement of use, the proposed driveway crossover on the New Town Road highway reservation must be designed and constructed in general accordance with:

- Urban - TSD-R09-v3 – Urban Roads Driveways and TSD R14-v3 Type KC vehicular crossing,
- Redundant vehicle crossovers to be reinstated - TSD-R14-v3 - Type KC kerb and channel, and,
- Footpath - Urban Roads Footpaths TSD-R11-v3.

Design drawings must be submitted and approved as a Condition Endorsement prior to any approval under the *Building Act 2016*. The design drawings must:

1. Show the cross and long section of the driveway crossover within the highway reservation and onto the property,
2. Detail any services or infrastructure (i.e. light poles, pits, awnings) at or near the proposed driveway crossover,
3. Show swept path templates in accordance with AS/NZS 2890.1 2004(B85 or B99 depending on use, design template),
4. If the design deviates from the requirements of the TSD, then demonstrate that a B85 vehicle or a B99 depending on use (AS/NZS 2890.1 2004, section 2.6.2), can access the driveway from the road pavement into the property without scraping the vehicle's underside,
5. Show that vehicular and pedestrian sight lines are met as per AS/NZS

- 2890.1 2004, and,
6. Be prepared and certified by a suitably qualified person, to satisfy the above requirements.

**All work required by this condition must be undertaken in accordance with the approved drawings.**

*Advice:*

*This condition requires further information to be submitted as a Condition Endorsement. Refer to the Condition Endorsement advice at the end of this permit. Please note that your proposal does not include adjustment of footpath levels. Any adjustment to footpath levels necessary to suit the design of proposed floor, parking module or driveway levels will require separate agreement from Council's Program Leader Road Services and may require further planning approvals. It is advised to place a note to this effect on construction drawings for the site and/or other relevant engineering drawings to ensure that contractors are made aware of this requirement.*

Reason for condition

To ensure that works will comply with the Council's standard requirements.

## **ENV 2**

**Sediment and erosion control measures, sufficient to prevent sediment leaving the site and in accordance with an approved soil and water management plan (SWMP), must be installed prior to the commencement of work and maintained until such time as all disturbed areas have been stabilised and/or restored or sealed to the Council's satisfaction.**

**A SWMP must be submitted as a Condition Endorsement prior to the issue of any approval under the *Building Act 2016* or the commencement of work, whichever occurs first. The SWMP must be:**

- prepared in accordance with the Soil and Water Management on Building and Construction Sites fact sheets (Derwent Estuary Program, 2008), and,
- reflect any Contamination Management Plan or Environmental Site Assessment for the site.

**All work required by this condition must be undertaken in accordance with the approved SWMP.**

*Advice:*

*This condition requires further information to be submitted as a Condition Endorsement. Refer to the Condition Endorsement advice at the end of this permit.*

Reason for Condition

To avoid the pollution and sedimentation of roads, drains and natural watercourses that could be caused by erosion and runoff from the development.

#### **HER 17a**

**The palette of exterior colours, materials and finishes must reflect the palette of colours, materials and finishes within the local streetscape and precinct.**

**Prior to the issue of any approval under the *Building Act 2016*, revised plans must be submitted and approved as a Condition Endorsement showing exterior colours, materials and finishes in accordance with the above requirement.**

**All work required by this condition must be undertaken in accordance with the approved plans.**

*Advice:*

*This condition requires further information to be submitted as a Condition Endorsement. Refer to the Condition Endorsement advice at the end of this permit.*

Reason for condition

To ensure that development at a heritage place/precinct is undertaken in a sympathetic manner which does not cause loss of historic cultural heritage significance.

#### **ENVHE 1**

**Recommendations in the report GES Environmental Site Assessment 156 New Town Road, New Town, Tasmania, dated November 2020, must be implemented prior to the commencement of works.**

**Specifically:**

1. **Documentation stating the Underground Petroleum Storage System (UPSS) has been decommissioned and removed,**

2. **Contamination Management Plan (CMP) relating to human receptors, including mitigation measures post construction for residential use, and also include soil management onsite during construction, and,**
3. **All contaminated soils must be managed in accordance with IB105 (EPA document and process).**

Reason for condition

- To ensure that the risk to future occupants of the building remain low and acceptable.
- To manage excavated soils onsite in relation to contamination.
- To ensure the safety of workers

#### **ENVHE 4**

**A construction management plan must be implemented throughout the construction works.**

**A construction management plan must be submitted and approved as a Condition Endorsement prior to the issuing of any approval under the *Building Act 2016*. The plan must include but is not limited to the following:**

1. **Identification and disposal of any potentially contaminated waste and asbestos,**
2. **Proposed hours of work (including volume and timing of heavy vehicles entering and leaving the site, and works undertaken on site),**
3. **Proposed hours of construction,**
4. **Identification of potentially noisy construction phases, such as operation of rock- breakers, explosives or pile drivers, and proposed means to minimise impact on the amenity of neighbouring buildings,**
5. **Control of dust and emissions during working hours,**
6. **Proposed screening of the site and vehicular access points during work, and,**
7. **Procedures for washing down vehicles, to prevent soil and debris being carried onto the street.**

**All work required by this condition must be undertaken in accordance with the approved construction management plan.**

*Advice: This condition requires further information to be submitted as a Condition Endorsement. Refer to the Condition Endorsement advice at the end of this permit.*

Reason for condition

To ensure minimal impact on the amenity of adjoining properties and members of the public during the construction period.

#### **SURV 16**

The titles comprising the development site (CT 171514/1 and CT 171514/2) are to be adhered in accordance with the provisions of Section 110 of the *Local Government (Building and Miscellaneous Provisions) Act 1993*, to the satisfaction of Council prior to the issue of any building approval pursuant to the *Building Act 2016*, or the commencement of works on site (whichever occurs first).

*Advice:*

*The application for an adhesion order to Council has a fee of \$300. Evidence will be required that the owners and mortgagees do not object to the adhesion. This condition will be considered to be satisfied when a copy of the receipt for the Land Titles Office lodgement slip for the adhesion order has been received by Council.*

Reason for condition

To ensure compliance with statutory provisions

#### **Part 5 r1**

Prior to any works commencing on site (including demolition), the owner(s) of the property must enter into an agreement with the Council pursuant to Part 5 of the *Land Use Planning and Approvals Act 1993* with respect to the protection of the retaining wall adjacent to the New Town Road highway reservation.

The owner must not undertake any works (including excavation and building) that will have any effect on the integrity of the New Town Road highway reservation or any adjacent retaining structure.

All costs for the preparation and registration of the Part 5 Agreement must be met by the owner. The owner must comply with the Part 5 Agreement which will be placed on the property title.

*Advice:*

*For further information with respect to the preparation of a Part 5 Agreement please*



*contact Council's Development Engineering Unit.*

Reason for condition

To ensure the protection of Council infrastructure.

#### **SUB s1**

**The right of carriageway appurtenant to CT 7973/1 (18 Roope Street) over the Roadway shown on Plan No. 171514 burdening the titles comprising the development site (CT 171514/1 and CT 171514/2) is to be extinguished in accordance with the provisions of section 108 of the *Land Titles Act 1980* prior to the issue of any building approval pursuant to the *Building Act 2016*.**

Reason for condition

To ensure that building works do not occur over the right of carriageway.

#### **ADVICE**

The following advice is provided to you to assist in the implementation of the planning permit that has been issued subject to the conditions above. The advice is not exhaustive and you must inform yourself of any other legislation, by-laws, regulations, codes or standards that will apply to your development under which you may need to obtain an approval. Visit the Council's [website](#) for further information.

Prior to any commencement of work on the site or commencement of use the following additional permits/approval may be required from the Hobart City Council.

#### **CONDITION ENDORSEMENT**

If any condition requires that further documents are submitted and approved, you will need to submit the relevant documentation to satisfy the condition via the Condition Endorsement Submission on Council's [online services e-planning portal](#). Detailed instructions can be found [here](#).

#### **BUILDING PERMIT**

You may need building approval in accordance with the *Building Act 2016*. Click [here](#) for more information.

This is a Discretionary Planning Permit issued in accordance with section 57 of the *Land Use Planning and Approvals Act 1993*.

**PLUMBING PERMIT**

You may need plumbing approval in accordance with the *Building Act 2016*, *Building Regulations 2016* and the National Construction Code. Click [here](#) for more information.

**OCCUPATION OF THE PUBLIC HIGHWAY**

You may require a permit for the occupation of the public highway for construction or special event (e.g. placement of skip bin, crane, scissor lift etc). Click [here](#) for more information.

**STORMWATER**

Please note that in addition to a building and/or plumbing permit, development must be in accordance with the Hobart City Council's Infrastructure By law. Click [here](#) for more information.

**REDUNDANT CROSSOVERS**

Redundant crossovers are required to be reinstated under the Hobart City Council's Infrastructure By law. Click [here](#) for more information.

**NOISE REGULATIONS**

Click [here](#) for information with respect to noise nuisances in residential areas.

**WASTE DISPOSAL**

It is recommended that the developer liaise with the Council's Cleansing and Solid Waste Unit regarding reducing, reusing and recycling materials associated with demolition on the site to minimise solid waste being directed to landfill.

Further information regarding waste disposal can also be found on the Council's [website](#).

**FEES AND CHARGES**

Click [here](#) for information on the Council's fees and charges.

**DIAL BEFORE YOU DIG**

Click [here](#) for dial before you dig information.





(Adam Smee)

**Development Appraisal 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.*



(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: 25 May 2022

**Attachment(s):**

Attachment B - CPC Agenda Documents

Attachment C - Cultural Heritage Officer Report

Attachment D - Urban Design Advisory Panel Report

 PLN-22-272 - 156 NEW TOWN ROAD

## Application Information

▼ Application Details    PLN-22-272 Demolition, Subdivision (Lot Consolidation), and New Building for 19 Multiple Dwellings and Fitness Centre (Sports and Recreation) 📄  
Submitted on: 05/05/2022  
Accepted as Valid on: 05/05/2022  
Target Time Frame: 42 Days.  
Elapsed Time: 0 Days **Expiry date: 16/06/2022**  
Officer: Adam Smee

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 information button for definition. If you are not the owner of the property you MUST include signed confirmation of awareness 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 amount in 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)? \*

Commercial

Please provide a full description of the proposed use or development (i.e. demolition and new dwelling, swimming pool and garage) \*

New mixed use building

Estimated cost of development \*

7000000.00

Existing floor area (m2)

0.00

Proposed floor area (m2)

2938.00

Site area (m2)

1474

Carparking on Site

Total parking spaces	Existing parking spaces	N/A
<input type="text" value="26"/>	<input type="text" value="0"/>	<input checked="" type="checkbox"/> 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? \*

---

Tasmania Heritage Register

Is this property on the Tasmanian Heritage Register? ☒ No

---



## Submission to Planning Authority Notice

<b>Council Planning Permit No.</b>	PLN-22-272	<b>Council notice date</b>	5/05/2022
<b>TasWater details</b>			
<b>TasWater Reference No.</b>	TWDA 2022/00654-HCC	<b>Date of response</b>	12/05/2022
<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>	156 NEW TOWN RD, NEW TOWN	<b>Property ID (PID)</b>	5516671
<b>Description of development</b>	Demolition, Title Consolidation, and New Building for 19 Multiple Dwellings and Sports and Recreation		
<b>Schedule of drawings/documents</b>			
<b>Prepared by</b>	<b>Drawing/document No.</b>	<b>Revision No.</b>	<b>Date of Issue</b>
LXN	Proposed Site Plan/DA-04	C	4/5/2022
JMG	Concept Servicing Plan/C021	C	03/03/2022
<b>Conditions</b>			
Pursuant to the <i>Water and Sewerage Industry Act 2008 (TAS)</i> Section 56P(1) TasWater imposes the following conditions on the permit for this application:			
<b>CONNECTIONS, METERING &amp; BACKFLOW</b>			
<p>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.</p> <p><b>Advice:</b> TasWater will not accept direct fire boosting from the network unless it can be demonstrated that the periodic testing of the system will not have a significant negative effect on our network and the minimum service requirements of other customers serviced by the network. To this end break tanks may be required with the rate of flow into the break tank controlled so that peak flows to fill the tank do not also cause negative effect on the network.</p> <p>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.</p> <p>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.</p>			
<b>56W CONSENT</b>			
<p>4. 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 <i>Water and Sewerage Industry Act 2008</i> 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.</p>			

**DEVELOPMENT ASSESSMENT FEES**

5. 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 fee 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. The location of this infrastructure as shown on the GIS is indicative only.

**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).

**Boundary Trap Area**

The proposed development is within a boundary trap area and the developer will need to provide a boundary trap that prevents noxious gases or persistent odours back venting into the property's sanitary drain. The boundary trap is to be contained within the property boundaries and the property owner remains responsible for the ownership, operation and maintenance of the boundary trap.

**Declaration**

The drawings/documents and conditions stated above constitute TasWater's Submission to Planning Authority Notice.

**TasWater Contact Details**

Phone	13 6992	Email	development@taswater.com.au
Mail	GPO Box 1393 Hobart TAS 7001	Web	www.taswater.com.au



  
**AllUrbanPlanning** PTY LTD

4 May 2022

Ben Ikin  
Senior Statutory Planner  
Hobart City Council  
GPO Box 503  
HOBART 7001

Dear Ben

**New Application for a Planning Permit – 156 New Town Road**

Please see attached a new application for a planning permit for the redevelopment of 156 New Town Road. This proposal has been amended to increase the setback of the lower level of the building to the western boundary and the proposal now complies with the Acceptable Solution for height and siting. Any impacts to the neighbouring properties by way of siting, shadowing, privacy or visual impact are therefore deemed acceptable under the planning scheme.

The amended proposal also includes an amended basement level carpark and some other minor alterations to the upper portions of the building to reduce the mass of the building and improve solar access to some of the proposed decks.

The proposal including the basement level carpark layout is shown on the architectural plans. To the extent that there is any inconsistency between the architectural plans and the engineering plans, the architectural plans prevail.

The applicant would have no objection to the inclusion of conditions on the permit requiring detailed engineering plans to match the architectural plans prior to building approval.

I would be pleased to discuss as necessary.

Yours sincerely



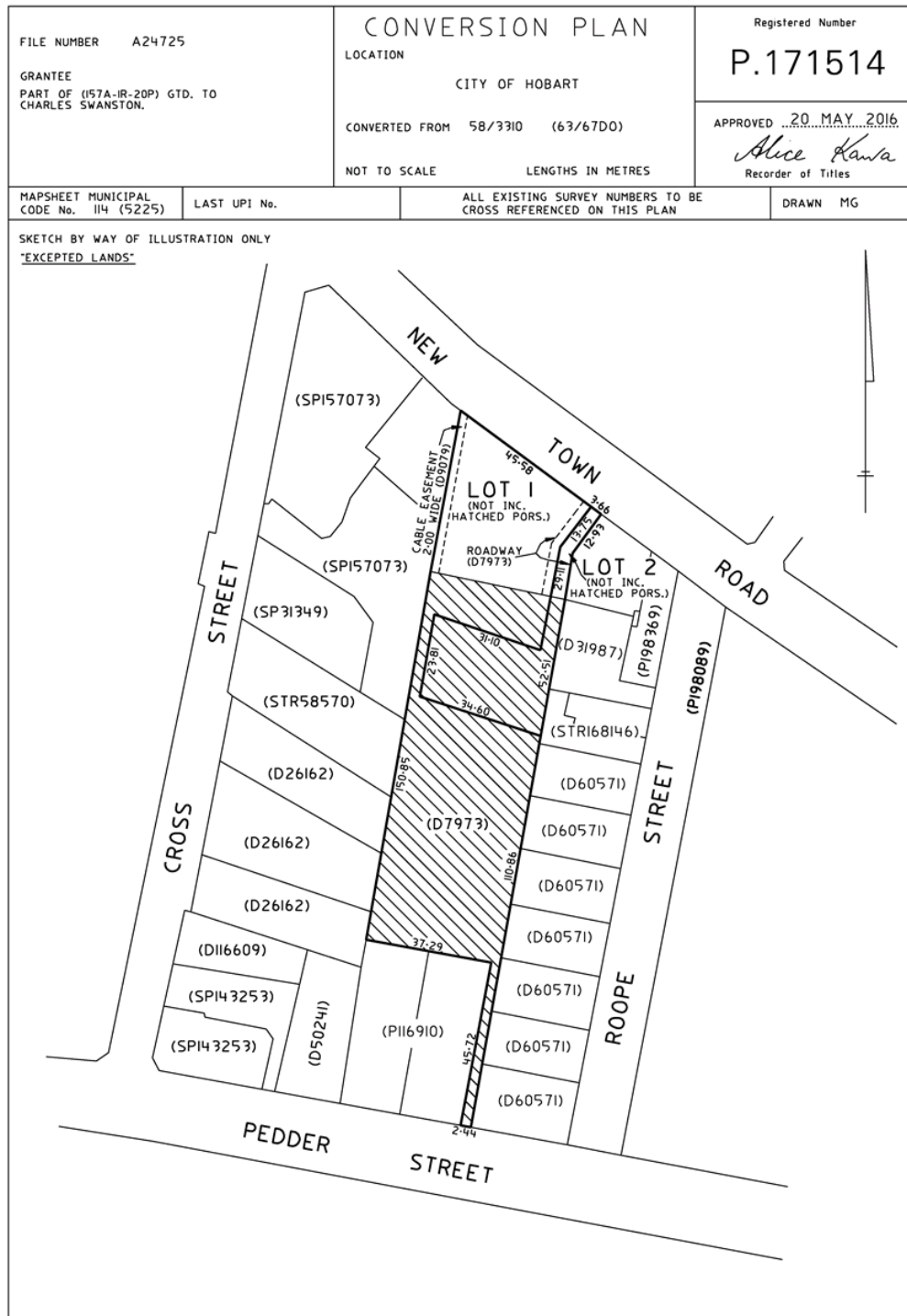
Frazer Read  
**Principal**  
All Urban Planning Pty Ltd



## FOLIO PLAN

RECORDER 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 171514	FOLIO 1
EDITION 3	DATE OF ISSUE 20-Sep-2017

SEARCH DATE : 20-Oct-2021

SEARCH TIME : 02.49 PM

DESCRIPTION OF LAND

City of HOBART

Lot 1 on Plan 171514

Being the land described in Conveyance No.58/3310

Derivation : Part of 157A-1R-20P Gtd.to Charles Swanston

Derived from A24725

SCHEDULE 1

M627844 TRANSFER to RENEWAL DEVELOPMENTS PTY LTD Registered  
25-May-2017 at 12.01 PM

SCHEDULE 2

Reservations and conditions in the Crown Grant if any

58/3310 BURDENING EASEMENT: Cable Right (appurtenant to Lot 1  
on Diagram No.D7973) over the Cable Easement 2.00  
wide shown on Plan No.171514

58/3310 BURDENING EASEMENT: Right of Carriageway (appurtenant  
to Lot 1 on Diagram No.D7973)over the Roadway shown  
on Plan No.171514

E106386 MORTGAGE to MyState Bank Limited Registered  
20-Sep-2017 at noon

UNREGISTERED DEALINGS AND NOTATIONS

E229547 RELEASE of easement Lodged by SULTAN HOLDINGS on  
16-Apr-2021 BP: E229547



## FOLIO PLAN

RECORDER OF TITLES

*Issued Pursuant to the Land Titles Act 1980*



FILE NUMBER    A24725  GRANTEE PART OF (I57A-IR-20P) GTD. TO CHARLES SWANSTON.		<b>CONVERSION PLAN</b> LOCATION CITY OF HOBART  CONVERTED FROM    58/3310    (63/67D0)  NOT TO SCALE                      LENGTHS IN METRES		Registered Number  <b>P.171514</b>  APPROVED    20 MAY 2016 <i>Alice Kawa</i> Recorder of Titles
MAPSHEET MUNICIPAL CODE No.    114 (5225)	LAST UPI No.	ALL EXISTING SURVEY NUMBERS TO BE CROSS REFERENCED ON THIS PLAN		DRAWN    MG

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 171514	FOLIO 2
EDITION 2	DATE OF ISSUE 07-Aug-2020

SEARCH DATE : 20-Oct-2021

SEARCH TIME : 02.50 PM

**DESCRIPTION OF LAND**

City of HOBART

Lot 2 on Plan 171514

Being the land secondly described in Conveyance No.58/3310

Derivation : Part of 157A-1R-20P Gtd. to Charles Swanston

Derived from A24725

**SCHEDULE 1**

M627844 TRANSFER to RENEWAL DEVELOPMENTS PTY LTD Registered  
25-May-2017 at 12.01 PM

**SCHEDULE 2**

Reservations and conditions in the Crown Grant if any

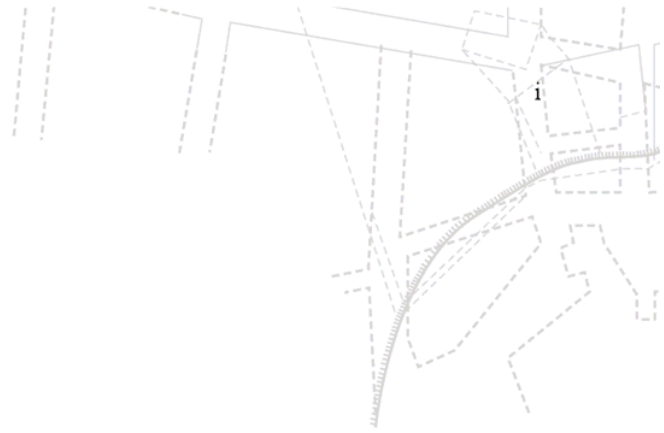
50/2236 BURDENING EASEMENT: Right of Carriageway (appurtenant  
to Lot 1 on Diagram No.D7973)over the Roadway shown  
on Plan No.171514

M830517 MORTGAGE to MyState Bank Limited Registered  
07-Aug-2020 at noon

**UNREGISTERED DEALINGS AND NOTATIONS**

E229547 RELEASE of easement Lodged by SULTAN HOLDINGS on  
16-Apr-2021 BP: E229547

**AllUrbanPlanning** PTY LTD



# Planning Report

## 156 New Town Road

### Mixed Use Redevelopment



Date 4 May 2022

19 Mawhera Ave, Sandy Bay Tasmania 7005 **Call** 0400 109 582  
**Email** [frazer@allurbanplanning.com.au](mailto:frazer@allurbanplanning.com.au) [allurbanplanning.com.au](http://allurbanplanning.com.au)

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## 1. Introduction

All Urban Planning Pty Ltd has been engaged by Alirenste Pty Ltd to prepare the following planning assessment for a new mixed use development at 156 New Town Road under the provisions of the *Hobart Interim Planning Scheme 2015* (planning scheme).

This report has been updated 4 May 2022 to include an updated assessment for the amended proposal that sets the building including the basement level at least 3m back from the western boundary of the site. The proposal now complies with the Acceptable Solution for height and siting. Any impacts to the neighbouring properties by way of siting, shadowing, privacy or visual impact are therefore deemed acceptable under the planning scheme.

The amended proposal also includes an amended basement level carpark and some other minor alterations to the upper portions of the building to reduce the mass of the building and improve solar access to some of the proposed decks.

### 1.1 Site & Surrounds

The proposal relates to 156 New Town Road, CT 171514/1 and CT 171514/2 on the southern side of New Town Road between Cross and Roope Streets. The site (both titles) has an area of 1474m<sup>2</sup>.

The site is located adjacent to the east of the former parsonage heritage site at 160 New Town Road. It also adjoins the Cat Clinic at 150 New Town Road to the east and single storey residential units to the rear.



Figure 1– Site Plan (source annotated from theList)



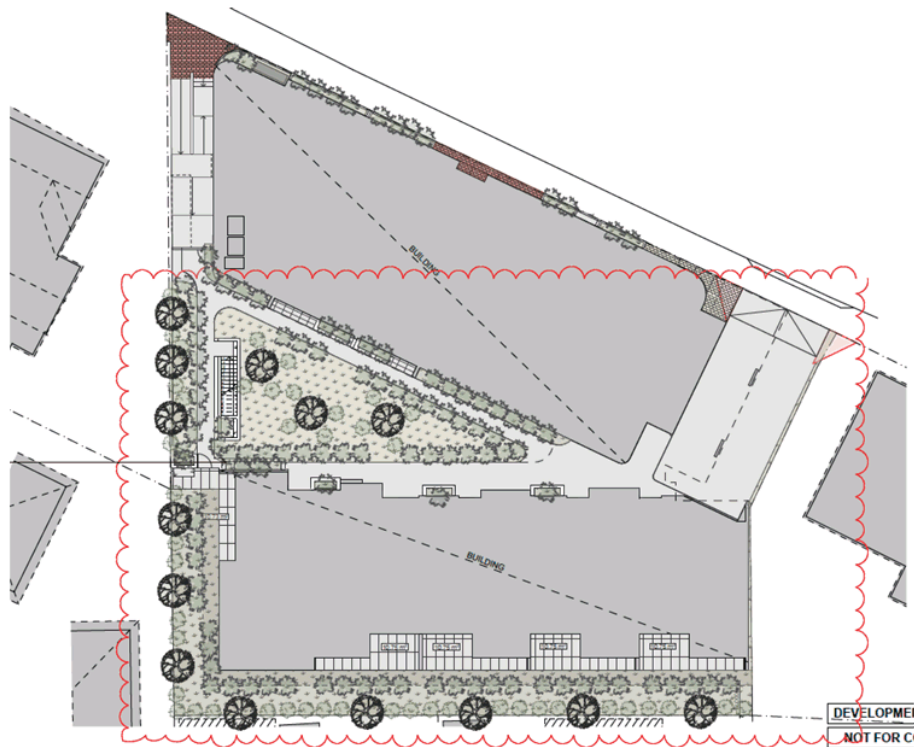


Figure 2 – proposed site plan (Source: LXX Architects)

## 2. Proposal

The proposal is for redevelopment of the site for a new 3 storey building plus carparking basement. It includes a ground level commercial tenancy and 19 apartments. The use and development is detailed as follows:

## 2.1Development

- Demolition of the existing former service station building
- A new 3 storey building with carparking basement with a single ground floor commercial tenancy and 19 residential apartments each with a private deck
- 26 basement carparking spaces and 12 bicycle spaces accessed from a ramp on the eastern end of the New Town Road frontage
- Consolidation of the two titles



## 2.2 Use

### Basement

- 26 carparking spaces including 7 jockey spaces, 12 secure bicycle parking spaces, 2 motorcycle spaces.

### Ground Floor

- a commercial tenancy totalling 370m<sup>2</sup> to be used as a gym (fitness centre)
- 6 x bicycle parking spaces adjacent to the western side of the building
- 5 x 2 bedroom apartments
- 2 x access to apartment Nos. 7 and 8
- Landscaped triangular communal open space courtyard
- bin storage for 2 x 1100l 1x 660l wheelie bins.

### Level 1

- 1 x 1 bed apartment, 6 x 2 bedroom apartments and 3 x 3 bedroom apartments

### Level 2

- 1 x 2 bedroom apartment and 3 x 3 bedroom apartments

### **Fitness Centre - hours of operation**

The fitness centre will operate between the hours of:

- 7am to 9pm Monday to Friday
- 8am to 6pm Saturday
- 9am to 5pm Sunday and public holidays.

The complex aims to reflect a contemporary ambition for sustainable inner city living.

The building has been designed and orientated for a high level of passive solar amenity with full width balconies with northerly aspect provided for most apartments. The apartments with a westerly aspect enjoy views to kunanyi/ Mt Wellington and across the New Town and Lenah Valley townscape.

Generous setbacks and central courtyard space deliver both light and natural cross ventilation to the apartments.

The site location allows reduced reliance on car travel.

A sense of community is provided with its New Town 'village' location, generous shared spaces including courtyard and landscaping.

## 3. The Planning Scheme

Under Clause 8.10.1 of the planning scheme the planning authority must, in addition to the matters required by ss51(2) of the Act, take into consideration:

- all applicable standards and requirements in this planning scheme; and*
- any representations received pursuant to and in conformity with ss57(5) of the Act,*

*but in the case of the exercise of discretion, only insofar as each such matter is relevant to the particular discretion being exercised.*

A standard is applicable if the site is within the relevant zone and the standard deals with a matter that could affect or be affected by the proposed development; cl.7.5.2.

A standard is defined to mean the objective for a particular planning issue and the means for satisfying that objective through either an acceptable solution or corresponding performance criterion.

Compliance with a standard is achieved by complying with either the acceptable solution or corresponding performance criterion; cl.7.5.3.

The objective of the standard may be considered to help determine whether the proposed use or development complies with the performance criterion of that standard; cl.7.5.4. The acceptable solution is not relevant to the assessment of the corresponding performance criteria.

Discretionary uses are to be determined with regard to the zone purpose and the purpose of any applicable code.

### 3.1 Urban Mixed Zone

The site is zoned Urban Mixed Use and adjoins the Inner Residential Zone to the rear including properties fronting Roope and Cross Streets.

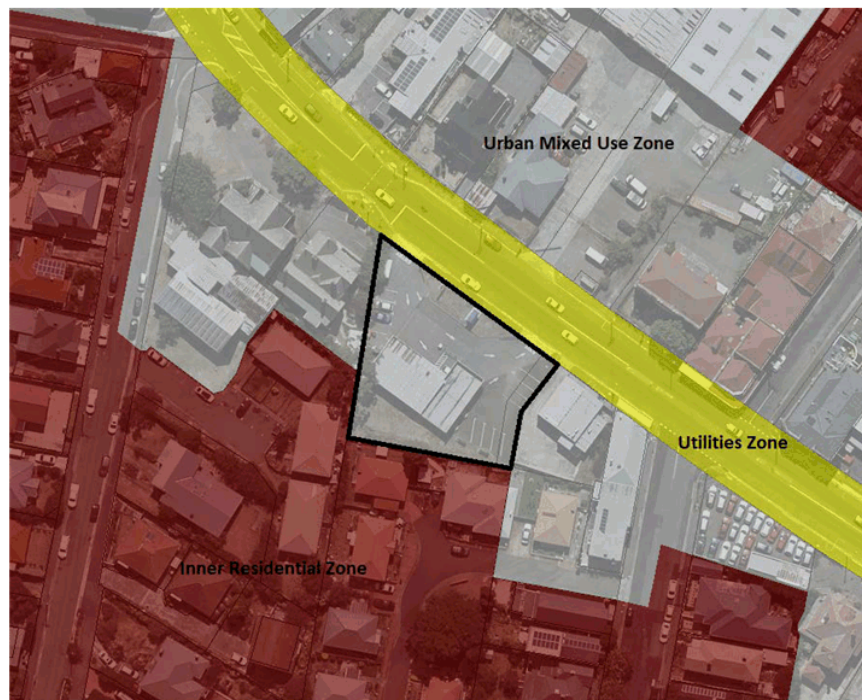


Figure 3 - Zoning plan (Source: iplan)

The Zone Purpose Statements under Clause 15.1.1 are as follows:

## AllUrbanPlanning

- 15.1.1.1 *To provide for integration of residential, retail, community services and commercial activities in urban locations.*
- 15.1.1.2 *To encourage use and development at street level that generates activity and pedestrian movement through the area.*
- 15.1.1.3 *To provide for design that maximises the amenity at street level including considerations of microclimate, lighting, safety, and pedestrian connectivity.*
- 15.1.1.4 *To ensure that commercial use are consistent with the activity centre hierarchy.*
- 15.1.1.5 *To ensure development is accessible by public transport, walking and cycling.*
- 15.1.1.6 *To provide for a diversity of uses at densities responsive to the character of streetscapes, historic areas and buildings and which do not compromise the amenity of surrounding residential areas.*
- 15.1.1.7 *To encourage the retention of existing residential uses and the greater use of underutilised sites as well as the reuse and adaptation of existing buildings for uses with a scale appropriate to the site and area.*
- 15.1.1.8 *To ensure that the proportions, materials, openings and decoration of building facades contribute positively to the streetscape and reinforce the built environment of the area in which the site is situated.*
- 15.1.1.9 *To maintain an appropriate level of amenity for residential uses without unreasonable restriction or constraint on the nature and hours of commercial activities.*
- 15.1.1.10 *To ensure that retail shopping strips do not develop along major arterial roads within the zone.*

The proposal for integrated commercial and residential development of an underutilised site in this established urban location is consistent with Purpose Statements 15.1.1.1 and 15.15.1.1.7. The proposal is also considered to further Purpose Statements 15.1.1.5 for accessibility by multiple modes of transport as well as 15.1.1.2, 15.1.1.3, 15.1.1.6 and 15.1.1.8 that requiring that the design and amenity impacts from the proposal are responsive to the character of the area. These matters are discussed further below in relation to the detailed provisions of the planning scheme.

### 3.2 Local Area Objectives & Desired Future Character Statements

There are no Local Area Objectives or Statements of Desired Future Character.

### 3.3 Use Table

The proposal involves residential (multiple dwellings) and a ground floor gym (fitness centre) use.

- *Residential* is a Permitted Use in the Zone.
- The fitness centre falls within the *Sports and recreation* Use Class and is discretionary in the Zone.

Under Clause 8.10.2, in determining the proposed discretionary fitness centre use the planning authority must, in addition to the matters referred to in subclause 8.10.1, have regard to:

- (a) *the purpose of the applicable zone;*
- (b) *any relevant local area objective or desired future character statement for the applicable zone;*
- (c) *the purpose of any applicable code; and*



(d) the purpose of any applicable specific area plan,

but only insofar as each such purpose, local area objective or desired future character statement is relevant to the particular discretion being exercised.

Having regard to these considerations, in this case the ground level fitness centre use is considered acceptable in that:

- The fitness centre will be integrated into this mixed use proposal and provide a commercial activity to support this inner urban locality (15.1.1.1)
- The fitness centre use will generate ground floor activity and pedestrian movement throughout the day (15.1.1.2)
- It is anticipated that the fitness centre will be predominantly used by residents of the surrounding area or those travelling past the site on the way to and from the City. It will provide a valuable amenity to support the health and fitness of the community and will not undermine the activity centre hierarchy (15.1.1.4)
- The fitness centre is located on the New Town Road bus routes and will be accessible by public transport, walking from the surrounding areas of New Town, Lenah Valley and Moonah and includes bike storage for those travelling to the site by bicycle (15.1.1.5)
- The fitness centre contributes to a diversity of uses at a scale that is compatible with the uses along this section of New Town Road (15.1.1.6)
- The proposal forms part of a mixed use development on an underutilised site incorporating residential (15.1.1.7)
- The fitness centre tenancy will be designed and managed to ensure an appropriate level of amenity is retained for the upper level residents (15.1.1.9)
- The proposal is not a retail use (15.1.1.10)

There are no applicable Local Area Objectives or Desired Future Character Statements and there are otherwise no specific Code purposes that are particularly relevant to the assessment of the fitness centre use.

### 3.4 Use Standards

#### Non-Residential Use (15.3.1)

Use Standard	Assessment
<p>A1</p> <p>Hours of operation must be within:</p> <p>(a) 7.00 am to 9.00 pm Mondays to Fridays inclusive;</p> <p>(b) 8.00 am to 6.00 pm Saturdays;</p> <p>(c) 9.00 am to 5.00 pm Sundays and Public Holidays;</p> <p>except for office and administrative tasks or visitor accommodation.</p>	<p>The proposal complies with A1.</p> <p>The fitness centre use complies with these hours of operation. A future tenant may make a separate application for a planning permit to Council to vary these hours if necessary.</p>



<p><b>A2</b></p> <p><i>Noise emissions measured at the boundary of a residential zone must not exceed the following:</i></p> <p>(a) 55dB(A) (LAeq) between the hours of 8.00 am to 6.00 pm;</p> <p>(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;</p> <p>(c) 65dB(A) (LAmax) at any time.</p> <p><i>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.</i></p> <p><i>Noise levels are to be averaged over a 15 minute time interval.</i></p>	<p>A fitness centre use can typically involve amplified music and associated noise emissions. In this case however there can be a high level of confidence that the proposed activity will not involve noise emissions that will exceed the levels specified in A2 in that:</p> <ul style="list-style-type: none"> <li>• The necessity to provide quiet enjoyment for these on-site residents will ensure that the impacts at the more distant boundary with the residential boundary will also be acceptable</li> <li>• a combination of attenuation measures including both, physical insulation incorporated into the tenancy construction, and formal tenancy agreement with the fitness centre to specify the hours and sound levels within the tenancy, will be adopted to ensure that the activity does not disturb the residential tenants on the site</li> <li>• the proposed fitness centre tenancy is located on the ground floor frontage of New Town Road and is well separated (both in distance and by the rear residential wing of the development) from the closest boundary with the Inner Residential Zone to the rear of the site.</li> </ul> <p>Subject to standard installation of any mechanical air conditioning plant the proposal will involve negligible other noise emissions.</p> <p>The proposal complies with A2.</p>
<p><b>A3</b></p> <p><i>External lighting must comply with all of the following:</i></p> <p>(a) be turned off between 10:00 pm and 6:00 am, except for security lighting;</p> <p>(b) security lighting must be baffled to ensure they do not cause emission of light outside the zone.</p>	<p>The proposal complies with A3 in that it does not involve external lighting other than associated with the residential use or for security. All lighting will be orientated and/or baffled to avoid emission of light outside the Urban Mixed Use Zone.</p>
<p><b>A4</b></p> <p><i>Commercial vehicle movements, (including loading and unloading and garbage removal) to or from a site must be limited to within the hours of:</i></p>	<p>The proposal does not involve commercial vehicle movements other than for garbage removal that will be managed within the permitted hours of A4. The proposal complies.</p>

(a) 7.00 am to 5.00 pm Mondays to Fridays inclusive;	
(b) 8.00 am to 5.00 pm Saturdays;	
(c) 9.00 am to 12 noon Sundays and Public Holidays.	

### 3.5 Development Standards for Buildings and Works

#### 15.4.1 Building Height

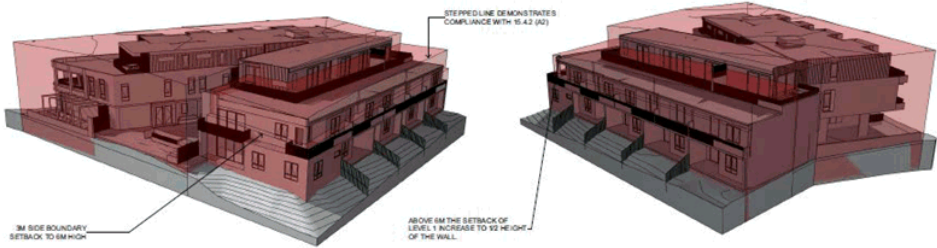
##### Objective

To ensure that building height contributes positively to the streetscape and does not result in unreasonable impact on residential amenity of land in the General Residential Zone or Inner Residential Zone.

Acceptable Solutions	Performance Criteria
A1 Building height must be no more than: 10m	The accompanying 3D drapes provided by LXN in Drawing DA-15 confirm that the proposal complies with the permitted height under A1.
A2 Building height within 10 m of a residential zone must be no more than 8.5 m.	As for A1 above, the accompanying 3D drapes confirm that the proposal also complies with the permitted 8.5m height within 10m of the residential zone under A2.

**15.4.2 Setback***Objective:*

To ensure that building setback contributes positively to the streetscape and does not result in unreasonable impact on residential amenity of land in a residential zone.

Acceptable Solutions	Performance Criteria
<p>A1</p> <p>Building setback from frontage must be parallel to the frontage and must be no more than:</p> <p>1m from the median street setback of all existing buildings on the same side of the street within 100m of the site.</p>	<p>The proposal is to be built to the New Town Road frontage and complies with A1.</p>
<p>A2</p> <p>Building setback from the General Residential or Inner Residential Zone must be no less than:</p> <p>(a) 3 m; or</p> <p>(b) half the height of the wall,</p> <p>whichever is the greater.</p>	<p>As demonstrated in the detailed sections the building complies with the 3m setback or half the height of the wall requirement under A2. The siting of the building including any visual or shadowing impacts to neighbouring properties is therefore deemed acceptable under the planning scheme.</p>
	

**Design (15.4.3)***Objective*

To ensure that building design for non-residential uses contributes positively to the streetscape, the amenity and safety of the public and adjoining land in a residential zone.

Development Standard	Assessment
<p>A1</p> <p>Building design for non-residential use must comply with all of the following:</p>	<p>The proposal complies with A1 as follows:</p> <p>a) The main pedestrian entries to the commercial tenancy and residential lobby will be direct to New Town Road</p>



<p>(a) provide the main pedestrian entrance to the building so that it is clearly visible from the road or publicly accessible areas on the site;</p> <p>(b) for new building or alterations to an existing facade provide windows and door openings at ground floor level in the front façade no less than 40% of the surface area of the ground floor level facade ;</p> <p>(c) for new building or alterations to an existing facade ensure any single expanse of blank wall in the ground level front façade and facades facing other public spaces is not greater than 30% of the length of the facade;</p> <p>(d) screen mechanical plant and miscellaneous equipment such as heat pumps, air conditioning units, switchboards, hot water units or similar from view from the street and other public spaces;</p> <p>(e) incorporate roof-top service infrastructure, including service plants and lift structures, within the design of the roof;</p> <p>(f) provide awnings over the public footpath if existing on the site or on adjoining lots;</p> <p>(g) not include security shutters over windows or doors with a frontage to a street or public place.</p>	<p>b) The ground floor frontage is glazed in excess of 40% of the area</p> <p>c) There are no large areas of blank wall to the street</p> <p>d) No unscreened mechanical plant visible from the frontage or other public spaces</p> <p>e) Any rooftop infrastructure will be incorporated within the design of the roof</p> <p>f) There are no pedestrian awnings on the site or adjoining lots</p> <p>g) No security shutters are proposed.</p>
<p>A2</p> <p>Walls of a building facing the General Residential Zone or Inner Residential Zone must be coloured using colours with a light reflectance value not greater than 40 percent.</p>	<p>Complies. See the accompanying materials pallet on drawing DA-19.</p>

**Passive Surveillance (15.4.4)**

Objective:

To ensure that building design for non-residential uses provides for the safety of the public.

<b>Development Standard</b>	<b>Assessment</b>
<p>A1</p> <p>Building design for non-residential uses must comply with all of the following:</p>	<p>The proposal satisfies A1 in that:</p> <p>a) the main pedestrian entrances to the site will be clearly visible from the street</p> <p>b) complies</p> <p>c) complies</p>

<p>(a) provide the main pedestrian entrance to the building so that it is clearly visible from the road or publicly accessible areas on the site;</p> <p>(b) for new buildings or alterations to an existing facade provide windows and door openings at ground floor level in the front façade which amount to no less than 40 % of the surface area of the ground floor level facade;</p> <p>(c) for new buildings or alterations to an existing facade provide windows and door openings at ground floor level in the façade of any wall which faces a public space or a car park which amount to no less than 30% of the surface area of the ground floor level facade;</p> <p>(d) avoid creating entrapment spaces around the building site, such as concealed alcoves near public spaces;</p> <p>(e) provide external lighting to illuminate car parking areas and pathways;</p> <p>(f) provide well-lit public access at the ground floor level from any external car park.</p>	<p>d) the proposal does not create concealed entrapment spaces</p> <p>e) the proposal will incorporate appropriate low level lighting to pathways to accepted standards</p> <p>f) the proposal does not include an external carpark. Not applicable.</p>
--	--

**Landscaping (15.4.5)**

<b>Development Standards</b>	<b>Assessment</b>
<p>A1</p> <p>Landscaping along the frontage of a site is not required if all of the following apply:</p> <p>(a) the building extends across the width of the frontage, (except for vehicular access ways);</p> <p>(b) the building has a setback from the frontage of no more than 1 m.</p>	<p>The proposal extends across the frontage except for vehicle and pedestrian access and is setback no more than 1m from the frontage. The proposal therefore does not require landscaping along the frontage and complies with A1.</p> <p>Notwithstanding that landscaping along the frontage is not required, the proposal is accompanied by a concept landscaping including planter boxes across the frontage as shown on Drawing DA-10.</p>
<p>A2</p> <p>Along a boundary with the General Residential Zone or Inner Residential Zone landscaping must be provided for a depth no less than:</p> <p>2 m.</p>	<p>The landscaping plan DA-10 shows a 2m wide landscaped strip along the rear boundaries adjoining the residential zone. The proposal complies with A2.</p>

**Outdoor Storage Areas (15.4.6)**

No outdoor storage areas are proposed.

**Fencing (15.4.7)***Objective:*

*To ensure that fencing does not detract from the appearance of the site or the locality and provides for passive surveillance.*

<b>Development Standards</b>	<b>Assessment</b>
<p>A1</p> <p><i>Fencing must comply with all of the following:</i></p> <p><i>(a) fences, walls and gates of greater height than 1.5 m must not be erected within 4.5 m of the frontage;</i></p> <p><i>(b) fences along a frontage must be at least 50% transparent above a height of 1.2 m;</i></p> <p><i>(c) height of fences along a common boundary with land in the General Residential Zone or Inner Residential Zone must be no more than 2.1 m and must not contain barbed wire.</i></p>	<p>Complies.</p> <p>a) No fences or walls greater than 1.5m are proposed on the frontage.</p> <p>b) No solid fences above 1.2m along the frontage; and</p> <p>c) The rear and side boundary fences with the residential zone will not exceed 2.1m.</p>

**Residential Amenity (15.4.8)***Objective:*

*To ensure that buildings for residential use provide reasonable levels of residential amenity and safety.*

<b>Development Standard</b>	<b>Assessment</b>
<p>A1</p> <p><i>A dwelling must have at least one habitable room window (other than a bedroom) facing between 30 degrees west of north and 30 degrees east of north.</i></p>	<p>Apartment 14 does not have a north facing window and the proposal is to be assessed under P1. All other apartments have north facing windows to habitable rooms other than a bedroom.</p>
<p>P1</p> <p><i>A dwelling must be sited and designed to optimise sunlight to at least one habitable room (other than a bedroom).</i></p>	<p>The proposal is considered acceptable under P1 in that the development is designed to optimise direct northerly sunlight to the proposed dwellings within the constraints of the site. Apartment 14 is a modest sized 1 bedroom apartment that will receive good afternoon sunlight to the main living space for the majority of the year. This coupled with the impressive views over Newtown/Lenah Valley and towards the kunanyi/Mount Wellington will ensure good levels of amenity for the residents of this dwelling.</p>
<p>A2</p>	<p>The proposal complies with A2 in that all windows will be setback a minimum of 3m from the side and</p>

<p><i>The potential for direct overlooking from windows of habitable rooms with a finished surface or floor level more than 1m above natural ground level on one lot to the windows of habitable rooms, balconies, decks and roof gardens on adjacent lots must be avoided or minimised by complying with any of the following:</i></p> <p>(a) <i>have a side boundary setback no less than 3 m;</i></p> <p>(b) <i>be offset no less than 1.5 m from the windows of habitable rooms on adjacent lots where on the same horizontal lane;</i></p> <p>(c) <i>have a window seal height no less than 1.5 m.</i></p>	<p>rear boundaries as shown on drawings DA-06, 07 and 08.</p>
<p>A3</p> <p><i>Outdoor living space must be provided for a dwelling that complies with all of the following:</i></p> <p>(a) <i>be no less than 10 m<sup>2</sup>;</i></p> <p>(b) <i>have a width no less than 2 m.</i></p>	<p>The private open space areas for the dwellings do not all meet the minimum dimension of 2m. The proposal is therefore to be assessed under P3.</p>
<p>P3</p> <p><i>Outdoor living space must be provided for a dwelling with dimensions sufficient for the projected requirements of the occupants.</i></p>	<p>The proposed outdoor living spaces for the each of the dwellings are considered acceptable for the projected requirements of the residents of these dwellings and to satisfy P3 in that:</p> <ul style="list-style-type: none"> <li>• Each dwelling will have an area of at least 10m<sup>2</sup> directly accessible from the living space with an area wide enough to accommodate a BBQ and an outdoor table and seats</li> <li>• The decks are orientated either for northerly solar access or afternoon sun and views towards the mountain</li> <li>• Narrower areas of the decks will be useful for pot plants, other seating or a clothes rack</li> <li>• The larger three bedroom dwellings all have larger than compliant decks</li> <li>• There is an additional communal landscaped space for exclusive use by the residents.</li> </ul>
<p>A4</p> <p><i>Habitable rooms of dwellings adjacent to streets carrying more than 6000 vehicle per day must be designed to achieve internal noise levels no more</i></p>	<p>New Town Road carries more than 6000 vehicles per day and the proposal will therefore be designed to achieve internal noise levels no more than 45dBa in accordance with relevant Australian Standards for</p>

than 45 dBA in accordance with relevant Australian Standards for acoustics control, (including AS3671 - Road Traffic, and AS2107 - Habitable Rooms).	acoustic control. The project architect LXX confirms that with normal modern construction standards the residential apartments are likely to comfortably achieve this level.
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**Subdivision (15.5.1)**

The proposed consolidation of the two titles is excluded from the definition of subdivision and these provisions do not apply.

## 4. Planning Scheme Codes

The site is within the New Town Road Heritage Precinct NT4. The proposal is considered in relation to the relevant codes below.

### 4.1 Potentially Contaminated land Code

The site is a former service station and is therefore potentially accommodated land for the purposes of the Code. The Code applies to the change to a sensitive use as well as the proposed excavation.

The accompanying Environmental Site Assessment November 2020 and addendum advice 7 August 2021 prepared by GES demonstrates that subject to the preparation of a Contamination management plan (CMP) the requirements of this Code are met.

**Use Standards (E2.5)****Objective:**

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

Use Standard	Assessment
<p><b>A1</b></p> <p><i>The Director, or a person approved by the Director for the purpose of this Code:</i></p> <p>(a) <i>certifies that the land is suitable for the intended use; or</i></p> <p>(b) <i>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.</i></p>	<p>The proposed residential use is assessed under P1 below.</p>
<p><b>P1</b></p> <p><i>Land is suitable for the intended use, having regard to:</i></p>	<p>Having regard to the conclusions and recommendations of the accompanying Environmental Site Assessment and addendum the proposal satisfies P1c). The environmental assessment report concluded that the site is suitable for the proposed development and there is no site</p>

<p>(a) an environmental site assessment that demonstrates there is no evidence the land is contaminated; or</p> <p>(b) an environmental site assessment that demonstrates that the level of contamination does not present a risk to human health or the environment; or</p> <p>(c) a plan to manage contamination and associated risk to human health or the environment that includes:</p> <p>(i) an environmental site assessment;</p> <p>(ii) any specific remediation and protection measures required to be implemented before any use commences; and</p> <p>(iii) a statement that the land is suitable for the intended use.</p>	<p>contamination that would pose an undue risk to human health or the environment during or post the development subject to provision of a CMP. It is expected that the CMP would be provided prior to commencement of work as a condition on the planning permit.</p>
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## Development Standards – Excavation (E2.6)

## Objective:

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

Development Standard	Assessment
<p>A1</p> <p>No acceptable solution.</p>	<p>The proposal is to be assessed under P1.</p>
<p>P1</p> <p>Excavation does not adversely impact on health and the environment, having regard to:</p> <p>(a) an environmental site assessment that demonstrates there is no evidence the land is contaminated; or</p> <p>(b) a plan to manage contamination and associated risk to human health and the environment that includes:</p> <p>(i) an environmental site assessment;</p> <p>(ii) any specific remediation and protection measures required to be implemented before excavation commences; and</p>	<p>Having regard to the accompanying Environmental Site Assessment the proposal satisfies P1b) providing the work is carried out in accordance with the CMP.</p>



(iii) a statement that the excavation does not adversely impact on human health or the environment.	
---	--

#### 4.2 Road and Railway Assets Code

The traffic and access aspects of the proposal are assessed in the accompanying Traffic Impact assessment and satisfy the requirements of this Code.

##### **Existing access and junctions (E5.5.1)**

The development sites current use is a drive thru coffee business (Gioconda Coffee Roasters) that operates between 6:00am and 2:00pm, with an existing entry and exit onto New Town Road. A recent traffic survey established this business can generate a peak hour traffic flow of 80 trips, and an estimated total of 468 daily trips.

The proposed development is expected to generate a reduced number of trips entering and leaving New Town Road, with 12 trips expected for peak hour, and a daily total of 105 trips.

A reduction of trips generated by this new use is expected to improve traffic efficiency along New Town Road and complies with the acceptable solution under the planning scheme.

##### **Sight distance at accesses, junction, and level crossings (E5.6.4)**

This new development will convert the existing entry and exit into a single two-way access located on the southern boundary. Motorists leaving this access will have available sight distance, that exceeds the minimum Safe Intersection Sight Distance prescribed in the planning scheme for a 50 km/h speed limit.

This development will comply with the acceptable solution for Safe Intersection Sight Distance, and motorists will be able to enter New Town Road in a safe manner, without disrupting the current road users.

#### 4.3 Parking and Access Code

The traffic and access aspects of the proposal are assessed in the accompanying Traffic Impact assessment and satisfy the requirements of this Code.

##### **Number of parking spaces for the residential apartments (E6.6.1)**

The development will provide 26 on-site parking spaces to be allocated to the residential apartments.

The planning scheme indicates for multiple dwellings with two or more bedrooms, two parking spaces should be provided, and one visitor space per four dwellings.

The number of spaces required under the planning scheme is 38 spaces for the 19 apartments, which is considered excessive, as the planning scheme does not take into account the apartments inner-city residential location within four kilometres of the Hobart CBD, and location of the development on a high frequency public transport route.

Customer demand for the fitness centre will share the supply of on-street parking spaces available within the surrounding streets.

The TIA concludes that the proposed parking provision will meet the reasonable needs of all users of the development and will satisfy the performance criteria P1 under E6.6.1 of the planning scheme.

**Development standards (E6.7)**

The TIA confirms that the proposal satisfies these standards.

**4.4 Stormwater Management Code**

The application is supported by an engineering assessment of the stormwater requirements of this code.

**4.5 Historic Heritage Code**

The requirements of this Code are addressed in the accompanying Heritage Impact Assessment (HIA) prepared by Purcell. The HIA concludes that the proposal continues the historic mix of residential and commercial buildings that are eclectic in style, 'form and scale' within the precinct. The Proposal provides a high-quality, considered, and contemporary architectural response to the surrounding heritage precincts' characters and values.

The Proposal's material palette references the materials used within the precinct in a contemporary way to ensure it fits within the streetscape without dominating or detracting from the heritage precinct's historic cultural heritage significance and values.

It is considered that the Proposal is sympathetic to the characteristics, and will not result in the loss, of the cultural heritage significance or values of the precinct.

**4.6 Signage**

No signage is proposed at this stage and will form a separate application if required.

## 5. Conclusion

The proposed mixed use development of an underutilised site demonstrates a high degree of compliance with the provisions of the planning scheme. It will provide an overwhelming positive impact on the character and amenity of New Town Road with its respectful scale and repair of the traditional street alignment.

The building form complies with the height and siting standards of the planning scheme. Any impacts to the neighbouring properties by way of siting, shadowing, privacy or visual impact are therefore deemed acceptable under the planning scheme. The proposal is supported by Traffic, heritage, environmental and engineering assessments to address the requirements of the relevant planning scheme codes.

The proposal is recommended for approval as a Section 57 application following public advertisement.

I would be pleased to discuss or clarify any aspects of the proposal as necessary.

Frazer Read

**Principal**



I56 NEW TOWN ROAD, NEW TOWN  
HERITAGE IMPACT ASSESSMENT  
OCTOBER 2021

Author	Date	Revision	By	Chkd
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## HERITAGE IMPACT ASSESSMENT

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## INTRODUCTION

### BACKGROUND

This Heritage Impact Assessment (HIA) was prepared for LXN Architecture and Consulting, acting on behalf of their Client, Renewal Investments Pty Ltd, to review and assess the proposed development (Proposal) at 156 New Town Road, New Town (Site).

The Site is not registered as State significant on the Tasmanian Heritage Register (THR).<sup>1</sup> The Site is not identified as a Heritage Place in Table E13.1 of the *Hobart Interim Planning Scheme, 2015* (HIPS 2015). However, it is situated within the 'New Town' (NT4) Heritage Precinct.<sup>2</sup>

This assessment has reviewed the proposed works detailed in the following plans:

- 156 NTR Development Application 11/10/2021 Revision A, prepared by LXN Architecture and Consulting (See Appendix A for details).

Lucy Burke-Smith and Linda Mott of Purcell prepared this report. Lucy Burke-Smith inspected the exterior of the Place, as well as the streetscape and context on May 5, 2021, together with Frazer Reed of All Urban Planning and Sarah Lindsay of LXN Architecture and Consulting. Lucy Burke-Smith took all images at this site visit unless cited otherwise.

### LIMITATIONS

This HIA is limited to an assessment of the potential built heritage impacts of the Proposal to the setting, context and significant fabric of the built features on the Site. Desk-based research and information provided to date form the basis of this report, no new archival research was undertaken. It is based on the current statutory heritage and development controls, and non-statutory guidelines applicable to the Site. It does not consider the responsiveness of the proposed works to the wider provisions of the *Hobart Interim Planning Scheme 2015*, beyond that of built heritage.

All references to heritage, or heritage impacts, are to built heritage only. This report does not consider other potential heritage impacts of the Proposal, including, without limitation, to landscape, vegetation, sub-surface, archaeological or indigenous heritage.

### TERMINOLOGY

The conservation terminology used in this report is of a specific nature and is defined within the *Australia ICOMOS Charter for the Conservation of Places of Cultural Significance, 2013* (the Burra Charter).

### REFERENCES

This HIA references the following:

- 'Design in Context – Guidelines for Infill Development in the Historic Environment', NSW Heritage Office & RAI, 2005.
- 'Good Design + Heritage', Office of the Victorian Government Architect, 2017.
- GHD, 'New Town Heritage Review', Volumes 1-3, April 2008. Prepared for Hobart City Council.
- R Apperly, R Irving, and PL Reynolds, A pictorial guide to identifying Australian architecture: styles and terms from 1788 to the present, Angus & Robertson, Pymble NSW, 1994.

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<sup>1</sup> Tasmanian Heritage Register Datasheet, Tasmanian Heritage Council  
<sup>2</sup> Hobart Interim Planning Scheme, 2015, Tables E13.1 and E13.2

## UNDERSTANDING THE SITE

### LOCATION

The Site's address is 156 New Town Road, New Town (Title Reference 171514/1, and 171514/2). It is located just south of the 'Y' intersection formed where New Town Road meets Valentine and Cross Streets.



Figure 1 - Aerial image, the approximate Site boundary outlined in yellow dashes. (Source: ListMap, modified by Purcell)

### DESCRIPTION

The Sites' New Town Road street frontage has a kerb crossing at each end, forming a one-way driveway with the entrance at the northeast end and exit at the southwest. The Site is a former service station currently used as commercial premises.

## UNDERSTANDING THE SITE



Figure 2 - View from 139 New Town Road (Former New Town Town Hall).



Figure 3 - View from the north.



Figure 4 – View from the south.

## STATUTORY LISTINGS AND OVERVIEW OF SIGNIFICANCE

*Historic Cultural Heritage Act (TAS) 1995*

The Site is not registered as State significant on the Tasmanian Heritage Register (THR).



## UNDERSTANDING THE SITE

*Hobart Interim Planning Scheme 2015*

The Site is not identified as a Heritage Place in Table E13.1 of the HIPS 2015. However, it is situated within the 'New Town' (NT4) Heritage Precinct<sup>3</sup> (see Figure 5).

Table E13.2 of the HIPS 2015 notes that the New Town Heritage Precinct NT4 is significant for reasons including:

1. It contains examples of Georgian, Victorian and Federation commercial and residential buildings that illustrate the growth of the area as a local service centre along a historically early main arterial road and transport route.
2. It contains individual high quality examples of architectural styles in a streetscape that is eclectic in form and scale.
3. The residences in close proximity to the main road contribute to an understanding of the historical pattern of its development and the tendency to reside in close proximity to commercial and community facilities.



Figure 5 – NT4 - New Town Heritage Precinct shown hatched in purple, approximate Site boundary outlined in yellow dashes. (Source: ListMap, amended by Purcell).

### NON-STATUTORY LISTINGS

The site is not included on the Register of the National Trust of Australia, nor the Register of the National Estate, (non-statutory archive).

<sup>3</sup> *Hobart Interim Planning Scheme, 2015, Tables E13.1 and E13.2*

## HERITAGE IMPACT ASSESSMENT

### PROPOSED WORKS

The Proposal seeks approval to demolish the existing commercial premises and concrete hardstand and construct a three level residential apartment building with a commercial tenancy to the New Town Road frontage, and a single level basement carpark.

The Proposal's front setback is in keeping with other commercial premises on New Town Road which are built to the front boundary, and residential premises which are in close proximity to the road. However, the Proposal includes a small setback at street level with landscape planting boxes to deal with the footpath slope, soften the footpath interface, and reference the nearby residences' front gardens. The Proposal's side setback is 3.042m at the Site's northwest corner with stairs and a ramp to access bicycle parking and the commercial tenancy side entrance. Access from this ramp to the landscaped courtyard is secured by a fence and gate. The basement car park driveway is at the southeast boundary of the Site's New Town Road frontage. The setback to the proposed rear wall is 3 metres.

Commercial premises on New Town Road predominantly have awnings overhanging the footpath. Many also have a decorative pediment above and / or a second storey. The Proposal's Level 1 extends over the small, street-level setback to the roadside boundary, referencing these awnings and creating front balconies for the residential apartments above. Level 2 (the top storey) is articulated with projecting bays framing alternate sliding doors, a modern interpretation of the residential dormer windows. Level 2 has a significant setback from the northern corner of the building in deference to the adjacent historic parsonage.

The Architect's response to the Site's nonparallel boundaries is to create a triangular courtyard in the north-eastern envelope of the building for a communal landscaped area. The Proposal also includes landscaping to the northeast side and rear of the property.

Further details of the proposal are provided within the following:

- I56 NTR Development Application I1/10/2021 Revision A, prepared by LXN Architecture and Consulting.

### GUIDANCE DOCUMENTATION

This assessment follows the best practice management framework for historic sites contained in:

- The Burra Charter: 'The Australia ICOMOS Charter for Places of Cultural Significance', 2013.
- Heritage Tasmania, 'Works Guidelines for Historic Heritage Places', for the Tasmanian Heritage Council, November 2015.

### ASSESSMENT METHODOLOGY

This assessment follows the provision of preliminary heritage advice through an iterative design process, intended to mitigate potential impact to the significance and values of the place. It is based on observations made during a site visit and a review of the design proposal. The assessment considers the potential for detrimental impacts as a result of the proposal, as well as all mitigation measures proposed, within the context of the *Hobart Historic Heritage Code, 2015*. Proposed works have been assessed for their impact to the heritage values of the Heritage Precinct as identified in the Statement of Significance, and the place's setting and context. The Proposal has also been considered against non-statutory guidelines published by Australia ICOMOS.



## HERITAGE IMPACT ASSESSMENT

### ASSESSMENT AGAINST HISTORIC HERITAGE CODE PROVISIONS OF THE HOBART INTERIM PLANNING SCHEME 2015

The Site is listed in Table E13.2 as being within the 'New Town' (NT4) Heritage Precinct of the *Hobart Interim Planning Scheme 2015*. The following tables assess considers the responsiveness of the proposal against the Development Standards and specific Performance Criteria for Heritage Precincts in Table E13.8, of the Historic Heritage Code.

<b>E13.8 DEVELOPMENT STANDARDS FOR HERITAGE PRECINCTS</b>	
<b>NT4 New Town Heritage Precinct is significant for reasons including:</b> <ol style="list-style-type: none"> <li>It contains examples of Georgian, Victorian and Federation commercial and residential buildings that illustrate the growth of the area as a local service centre along a historically early main arterial road and transport route.</li> <li>It contains individual high quality examples of architectural styles in a streetscape that is eclectic in form and scale.</li> <li>The residences in close proximity to the main road contribute to an understanding of the historical pattern of its development and the tendency to reside in close proximity to commercial and community facilities.</li> </ol>	
<b>E13.8.1 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>PI</b> Demolition must not result in the loss of any of the following: <ol style="list-style-type: none"> <li>buildings or works that contribute to the historic cultural heritage significance of the precinct;</li> <li>fabric or landscape elements, including plants, trees, fences, paths, outbuildings and other items, that contribute to the historic cultural heritage significance of the precinct;</li> </ol> unless all of the following apply; <ol style="list-style-type: none"> <li>there are, environmental, social, economic or safety reasons of greater value to the community than the historic cultural heritage values of the place;</li> <li>there are no prudent or feasible alternatives;</li> <li>opportunity is created for a replacement building that will be more complementary to the heritage values of the precinct.</li> </ol>	The proposed demolition will not result in a loss of elements that contribute to the historic cultural heritage significance or values of the precinct.  There are no buildings, works, fabric or landscape elements on the Site that contribute to the historic cultural heritage significance or values of the precinct.  The existing building is not considered to be a high quality example of an architectural style defined by the statement of Historic Cultural Heritage Significance E13.2, nor is it a residence in close proximity to the road. The existing building also appears to be much modified from its original form.
<b>E13.8.2 BUILDINGS AND WORKS OTHER THAN DEMOLITION</b> <b>Objective:</b> To ensure that development undertaken within a heritage precinct is sympathetic to the character of the precinct.	
<b>PI</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 E13.2.	The NT4 precinct 'contains individual high quality examples of architectural styles in a streetscape that is eclectic in form and scale'. The design of the proposed residential building is a high quality, contemporary architectural style, sympathetic in character to the NT4 Statement of Significance.  The Siting of the building is in keeping with the surrounding commercial and residential buildings that are set on, or close to their roadside boundaries. This being an enhancement to the place, the setback of which detracts from the pattern of street front alignment. The upper level is setback significantly from the northern corner of the building, which responds to, and acknowledges, the proximity of

## HERITAGE IMPACT ASSESSMENT

	<p>the adjacent historic parsonage.</p> <p>The mass and bulk of the New Town Road elevation is successfully reduced through the material selection and fenestration. The treatment of Level 2 is a modern interpretation of the residential dormer and gable end windows facing New Town Road, as well as the way the commercial building parapets are frequently broken into bays, without replicating historic details.</p> <p>The material palette chosen for the Proposal is drawn from and references the materials found in the wider heritage precinct and is considered to be complimentary and deferential to the historic cultural heritage significance of the precinct.</p> <p>The height of the proposal is responsive to its context, and together with the setback of the upper level of the northern corner, ensures that it does not detract from the presentation of the adjacent historic parsonage, nor those places to the north which directly contribute to the characteristics of the NT4 precinct. This is well demonstrated in Drawing DA-18 11/10/2021 Revision A, prepared by LXN Architecture and Consulting.</p> <p>It is considered that the design and siting of the building will not result in detriment to the historic cultural heritage significance of the precinct, as listed in Table E13.2.</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 place of an architectural style different from that characterising the precinct.	N/A there are no relevant design criteria / conservation policy listed in Table E13.2.
<b>P3</b> Extensions to existing buildings must not detract from the historic cultural heritage significance of the precinct.	N/A the Proposal is not an extension to an existing building.
<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.	N/A the proposal does not have a front fence or gate. However, the proposed low brick plinth to New Town Road is consistent with the masonry wall to the Church's street boundary.
<b>P5</b> 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 values and character of the precinct.	There is no landscaping to the street that contributes to the historic cultural significance or the streetscape values and character of the precinct. Removal of the small area of grass between the footpath and the driveway will not result in a loss of the historic cultural significance or the streetscape values and character of the precinct.

## HERITAGE IMPACT ASSESSMENT

### SUMMARY OF ASSESSMENT

The proposed new residential building is of a high quality, contemporary architectural style and is supported. The Proposal does not include the demolition of any extant, significant built features or landscaping that contribute to the cultural heritage significance of the precinct.

### CONCLUSION

The proposal is to replace the existing former service station currently in use as a commercial tenancy, with contemporary residential apartments set over a commercial tenancy to the New Town Road frontage. This is considered an appropriate use of the Site. The proposed design continues the historic mix of residential and commercial buildings that are eclectic in style, 'form and scale'<sup>4</sup> within the precinct. The Proposal provides a high-quality, considered, and contemporary architectural response to the surrounding heritage precincts' characters and values.

The Proposal's material palette references the materials used within the precinct in a contemporary way to ensure it fits within the streetscape without dominating or detracting from the heritage precinct's historic cultural heritage significance and values.

It is considered that the Proposal is sympathetic to the characteristics, and will not result in the loss, of the cultural heritage significance or values of the precinct.

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4     *Hobart Interim Planning Scheme, 2015, Table E13.2, Statement of Significance.*

## APPENDICES

### APPENDIX A – ARCHITECTURAL DRAWING LIST

DWG NO	DRAWING NAME	REVISION	DATE
DA-01	COVER PAGE	A	11/10/2021
DA-02	SITE SURVEY	A	11/10/2021
DA-03	EXST. / DEMO PLAN	A	11/10/2021
DA-04	PROPOSED SITE PLAN	A	11/10/2021
DA-05	BASEMENT PLAN	A	11/10/2021
DA-06	GROUND FLOOR PLAN	A	11/10/2021
DA-07	LEVEL 1 PLAN	A	11/10/2021
DA-08	LEVEL 2 FLOOR PLAN	A	11/10/2021
DA-09	ROOF PLAN	A	11/10/2021
DA-10	LANDSCAPE PLAN	A	11/10/2021
DA-11	ELEVATIONS	A	11/10/2021
DA-12	ELEVATIONS	A	11/10/2021
DA-13	SECTIONS	A	11/10/2021
DA-14	SECTIONS	A	11/10/2021
DA-15	BUILDING HEIGHT ENVELOPE – 15.4.1	A	11/10/2021
DA-16	BUILDING SETBACK ENVELOPE = 15.4.2	A	11/10/2021
DA-17	SUN STUDIES	A	11/10/2021
DA-18	STREET ELEVATION	A	11/10/2021
DA-19	MATERIAL PALETTE / STREETSCAPE ANALYSIS	A	11/10/2021
DA-20	PHOTOMONTAGE SHEET 1	A	11/10/2021
DA-21	PHOTOMONTAGE SHEET 2	A	11/10/2021





**APARTMENT BUILDING,  
156 NEW TOWN ROAD  
NEW TOWN**

**TRAFFIC  
IMPACT  
ASSESSMENT**

**Hubble Traffic**

UPDATE  
DECEMBER 2021

APARTMENT BUILDING, 156 NEW TOWN ROAD NEW TOWN

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## 1. Introduction

The developer has engaged Hubble Traffic Consulting to prepare an independent Traffic Impact Assessment, to consider the traffic impacts of the construction of a multi-storey apartment building at 156 New Town Road, New Town (development site).

This report considers the amount of traffic the current site generates, the likely traffic generation of the proposed development, and how traffic movements will integrate into the surrounding road network.

The development site is currently operating as a drive-thru coffee establishment called Gioconda Coffee Roasters.

This report has been prepared to satisfy the requirements of Austroads, Guide to Traffic Management Part 12: Traffic Impacts of Developments, 2019. This assessment has referred to the following information and resources:

- City of Hobart Interim Planning Scheme (planning scheme)
- Road Traffic Authority NSW (RTA) Guide to Traffic Generating Developments
- Australian Standards 2890 parts 1, 2 and 6
- SIDRA 8 intersection modelling software
- Autoturn online vehicle swept path software
- Austroads series of Traffic Management and Road Design
  - Part 4: Intersection and crossings, General
  - Part 4a: Unsignalised and Signalised Intersections
  - Part 12: Traffic Impacts of Development
- Google Earth imagery
- LIST land information database



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## 2. Site Description

The development site is located at 156 New Town Road, the southern side of the road between Roope Street and Cross Street, New Town.

New Town is an inner city residential suburb, located about four kilometres north of the central business district of Hobart. The main arterial road through New Town is known as 'New Town Road', and follows on from Elizabeth Street, connecting with the neighbouring city of Glenorchy.

The land-use along this section of New Town Road is zoned Urban Mixed Use, which permits business and professional services, food services, general retail and hire, and residential development, while directly behind this arterial road the land is zoned Inner Residential.

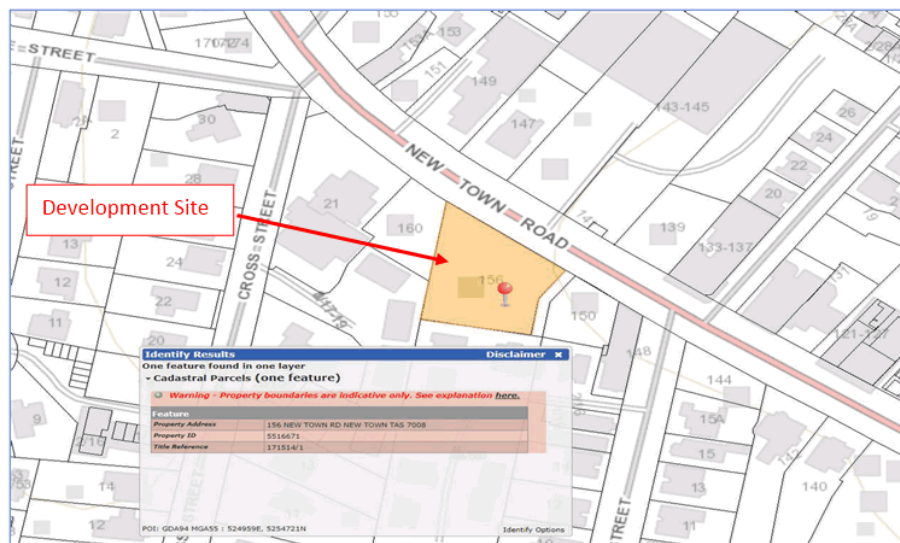
METRO Tasmania runs a high frequency bus service from Hobart to Glenorchy along New Town Road, with a bus operating every ten minutes between 7:00am to 7:00pm, Monday to Friday, every twenty minutes on Saturday, and every thirty minutes on Sunday.

The development site is within:

- 150 metres of a supermarket, local cafes, doctors, and pharmacy
- walking distance to the New Town Shopping Plaza, and recreational and cultural facilities
- 50 metres from public transport, with bus stops located on either side of New Town Road
- close proximity to two cycleways, the off-road intercity cycleway, and the on-road cycle network into the Hobart CBD.

With consideration to the site location and proximity to services, residents can substantially reduce their reliance upon private motor vehicle usage, and car parking requirements.

Diagram 2.0 – Site location (extract from the LIST land information database)



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### 3. Development proposal

The developer has advised that the development proposal includes a multi-storey building to provide 19 residential apartments.

The ground floor will contain a single commercial tenancy, that will have direct pedestrian access to New Town Road. A pedestrian courtyard will provide street access to all apartments, consisting of five ground floor, ten first floor, and four second floor apartments.

On-site parking for the residential apartments will be located within the basement level, with vehicular access to New Town Road via a two-way ramp.

The commercial tenancy will be a gymnasium (Fitness Centre), which will complement the surrounding commercial uses and residential precinct.

Diagram 3.0 Ground floor layout



APARTMENT BUILDING, 156 NEW TOWN ROAD NEW TOWN

## 4. Trip generation by this development

A trip in this report is defined as a one way vehicular movement from one point to another excluding the return journey. Therefore, a return trip to and from a land use is counted as two trips.

To determine the number of trips likely to be generated by this development, reference has been taken from the RTA Guide to Traffic Generating Developments.

### 4.1 Medium density residential building

The RTA Guide specifies a medium density building is a building containing at least two, but less than 20 dwellings. This includes villas, town houses, flats, semi-detached houses, terrace or row houses, and other medium density developments.

Two bedroom units can generate 4 to 5 daily vehicle trips and 0.4 to 0.5 weekday peak hour trips.

While larger units (three or more bedrooms) can generate 5 to 6.5 daily vehicle trips and 0.5 to 0.65 weekday peak hour trips.

Table 4.1 Expected number of traffic movements generated by the apartments.

Number of bedrooms	Number of units	RTA generation rates for daily and peak hour	Expected daily trips	Expected peak hour trips
One	1	Daily vehicle trips of 4 to 5 per unit Peak hour trips of 0.4 to 0.5 per unit	5	1
Two	12	Daily vehicle trips of 4 to 5 per unit Peak hour trips of 0.4 to 0.5 per unit	60	6
Three	6	Daily vehicle trips of 5 to 6.5 per unit Peak hour trips of 0.5 to 0.65 per unit	39	4
<b>Total</b>	<b>19</b>		<b>104</b>	<b>11</b>

The 19 residential apartments are expected to generate 11 peak hour trips, and a total of 104 daily trips, leaving and entering New Town Road.

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## 4.2 Commercial tenancy – Fitness Centre

The developer has advised the commercial tenancy will be a Fitness Centre, with facilities available to the public. It is expected the use could employ one staff member during weekdays.

The following operational times are expected to comply with the acceptable solution under the planning scheme:

- 7:00am to 9:00pm Monday to Friday
- 8:00am to 6:00pm Saturday, and
- 9:00am to 5:00pm Sunday and public holidays

To determine the likely amount of traffic generated by this Fitness Centre, reference has been taken from the RTA Guide to Traffic Generating Developments, section 3.8.2. This section provides two generation rates, metropolitan CBD areas and metropolitan sub-regional areas. The location of the development site fits in-between these two descriptions, and an average of the two generation rates has been used:

- Daily vehicle trips of 32 trips per 100m<sup>2</sup> of gross floor area, and
- Evening peak hour of 6 trips per 100m<sup>2</sup> of gross floor area.

The RTA guide indicates the above generation rates includes staff, delivery, service, and on-street movements such as taxis and pick-up/set-down activities. The RTA guide also indicates that peak generation generally occurs between 6:00pm to 7:00pm on a weekday evening.

With the gross floor area of the Fitness Centre is expected to be 360m<sup>2</sup>, the facility is expected to generate 115 daily vehicle trips, with 22 of these trips expected in the peak hour periods.

Table 4.2 – Expected number of trips generated by the Fitness Centre

Vehicle activity	Gross floor area	RTA trip generation rate	Expected number of vehicle trips	Expected number of vehicles
Daily	360m <sup>2</sup>	32 trips per 100m <sup>2</sup> of gross floor area	115	58
Peak hour	360m <sup>2</sup>	6 trips per 100m <sup>2</sup> of gross floor area	22	11

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### 4.3 Existing trips generated from the current site

With the current site operating as a drive thru coffee establishment, it is important to calculate the current number of trips generated by this use, to determine the net difference in trips between the current and proposed land use.

To capture the number of trips generated by the current use, a traffic survey was conducted on Wednesday 21 April 2021. The survey collected traffic entering and leaving the development site, and the vehicle movements along New Town Road.

Table 4.3 – Number of trips generated by the current use and vehicles on New Town Road between 7:30am to 9:00am.

Time	Drive thru coffee establishment			New Town Road		
	Vehicles in	Vehicles out	Total	Northbound	Southbound	Total
7:30am to 7:45am	8	6	14	98	104	202
7:45am to 8:00am	13	13	26	104	168	272
8:00am to 8:15am	10	10	20	121	161	282
8:15am to 8:30am	8	8	16	135	168	303
8:30am to 8:45am	9	9	18	132	174	306
8:45am to 9:00am	11	11	22	146	140	286
<b>Total</b>	<b>59</b>	<b>57</b>	<b>116</b>	<b>736</b>	<b>915</b>	<b>1651</b>

Vehicles departing from the development site turned both left and right onto New Town Road, with sufficient gaps in the traffic stream for these manoeuvres to be undertaken efficiently and safely.

#### Estimation of daily trips from the current use

During the morning peak hour, Gioconda Coffee Roasters generates 80 vehicle trips into and out of the development site.

The coffee establishment operates from 6:00am to 2:00pm, with the estimated total daily trips shown in the following table.

Table 4.3A – Estimation of daily trips generated from the current use.

Time	Percentage of peak hour trips	Estimated number of trips
6:00am to 7:00am	70 %	56
7:00am to 8:00am	85%	68
8:00am to 9:00am	100 %	80
9:00am to 10:00am	85%	68
10:00am to 11:00am	70%	56
11:00am to 12:00pm	65%	52
12:00pm to 1:00pm	60%	48
1:00pm to 2:00pm	50%	40
<b>Total</b>		<b>468 trips</b>

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#### 4.4 Difference in trips generated from current and proposed use

The new use is expected to generate a reduced number of trips entering and leaving the development site, as the current use generates some 80 peak hour trips and an estimated 468 daily trips, while the new use is expected to generate 11 peak hour trips and 104 daily trips.

The new residential apartments are expected to generate approximately 90 percent less vehicle movements during the peak hour periods, and 80 percent less vehicle movements throughout the day than the current use. This means less vehicle movements entering and leaving New Town Road.

The Fitness Centre will not generate vehicle movements to and from New Town Road, however the centre is expected to generate additional vehicle movements to the area. Table 4.4 calculates the combined vehicle movements generated by the residential apartments and Fitness Centre, which is expected to be less than half of the current use.

Table 4.4 – Expected reduction in vehicle movements by the new use

Period	Current use	New use			Reduction in vehicle movements	
		Apartments	Fitness Centre	Total	Number	Percentage
Daily	468	104	115	219	249	53%
Peak Hour	80	11	22	33	47	59%



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## 5. Parking requirements

### 5.1 Residential apartments

The planning scheme specifies the number of parking spaces that are required based on residential use, with table E6.1 indicating that for multiple dwellings containing two or more bedrooms, the development should provide two on-site parking spaces.

Reference on parking requirements is taken from the RTA Guidelines for medium residential buildings:

- 1 space per each unit, plus one space per each 5 x 2 bedrooms
- Additional 1 space for each 2 x 3 bedrooms

The developer has considered the above requirements and has allocated the following parking spaces for the residential apartments.

Table 5.1 – Number of parking spaces for residential apartments

Number of bedrooms	Number of apartments	Planning scheme requirements	RTA requirements		Development proposal – actual number of spaces being provided	
				Spaces	Spaces	Total
1 bedroom	1	1	1 per unit	1	1	1
2 bedrooms	12	24	1 per unit plus 1 per 5 units	14	1 or 2	13
3 bedrooms	6	12	1 per unit plus 1 per 3 units	8	2	12
<b>Total</b>	<b>19</b>	<b>37</b>		<b>23</b>		<b>26</b>

Of the 12 two bedroom units, the developer has indicated one of the units will be allocated two parking spaces, while the other 11 units will be allocated with one parking space. The three bedroom units will be allocated two parking spaces, while the one bedroom unit allocated one parking space. This gives an allocation of 26 parking spaces to the 19 units.

With the development being within an inner city residential suburb, the reliance on private vehicles is reduced, particularly for two bedroom units requiring more than one vehicle.



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## 5.2 Parking spaces for the Fitness Centre

Along the road frontage of New Town Road there is a range of mixed businesses, with many relying on the supply of on-street spaces for customer parking. The Fitness Centre will be another local business relying on the on-street parking supply, as the development will not provide off-street parking for this use.

Under the planning scheme, a Fitness Centre requires 4.5 car parking spaces per 100 square metres of floor area, and with the centre operating with 360 square metres, the parking requirement is 16 parking spaces.

It is common for a Fitness Centre to generate people movement throughout the opening hours, with the average duration of stay around an hour. A comprehensive survey of gymnasiums in Sydney was conducted in 2014, and found 73 percent of members arrive as the driver, with 16 percent arriving as a passenger, and 11 percent by walking. With the location of this Fitness Centre within close proximity to an inner residential catchment area, this mode of transport could be expected for this facility.

The RTA Guide indicates the peak demand for a Fitness Centre usually occurs between 6:00pm and 7:00pm weekdays, after the other businesses in area has finished. Based on the RTA data. This Fitness Centre is predicted to generate a peak hour demand of 11 vehicles, and on average four vehicles per hour outside of this peak period.

Sharing on-street parking takes advantage of the fact that most on-street parking areas are only used part time by a particular motorist group, and many spaces become vacant after that use has finished.

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### 5.3 Availability of the supply of on-street car parking

To understand the availability of on-street parking spaces along the surrounding streets, a comprehensive parking supply and demand survey was conducted. The survey examined available spaces and parking demand within 150 metres of the development site.

Table 5.3 – On-street parking supply and demand

Street	Kerb restrictions	Number of spaces	Spaces available at survey time				
			7:30am	10:30am	1:30pm	4:30pm	8:00pm
<b>New Town Road</b> (Woolworths to Cross Street)	Unlimited	10	6	4	1	7	9
	15 minutes	3	2	2	1	1	
	30 minutes	5	5	5	4	5	
<b>New Town Road</b> (Cross St to 119 New Town road)	30 minutes	11	11	8	8	7	11
	120 minutes	2	2	1	1	1	
	Unlimited	5	5	1	2	2	
<b>Valentine Street</b> (New Town Rd to Montague St)	60 minutes	4	2	2	2	3	21
	Unlimited	29	15	18	18	19	
<b>Cross Street</b> (Pirie to Pedder)	15 minutes	4	3	2	1	3	11
	Unlimited	19	8	4	9	12	
<b>Roope Street</b> (Pirie to Pedder)	120 minutes	5	3	1	1	1	22
	15 minutes	2	2	0	1	0	
	Unlimited	28	17	3	2	7	
<b>Total</b>		<b>127</b>	<b>81</b>	<b>51</b>	<b>51</b>	<b>68</b>	<b>74</b>

The survey found at least 127 on-street parking spaces are available within 150 metres of the development site. The patrolled survey found between 7:30am and 4:30pm there was a minimum of 51 spaces available, and at 8:00pm there were 74 spaces available.

According to the planning scheme parking requirements, the visitors could generate an on-street parking demand of five spaces, with the Fitness Centre also generating an on-street parking demand of 16 spaces. Based on a worst case scenario of the two users creating a maximum demand at the same time, the development could generate an on-street parking demand of 21 vehicles. The patrolled parking survey has demonstrated there will be more than sufficient number of on-street spaces available (minimum of 51 spaces) to easily meet the demand, without causing adverse impact to other users.

## 6. Existing traffic Conditions

New Town Road within the surrounding road network operates as an urban collector, to carry substantial movement of traffic between Hobart and Glenorchy. The road supports one traffic lane in each direction, with parallel parking along both sides. The road operates under the 50 km/h urban default speed limit.

Adjacent properties have direct access to the road, and motorists travelling along New Town Road recognise the need to drive vigilantly, having consideration that vehicles regularly leave and enter the road.

There is a significant movement of pedestrians crossing the road, with pedestrian refuge islands located at high demand locations, to enable pedestrians to cross in two stages.

The road is sealed, with formed footpaths along both sides and street lighting.

### 6.1 Traffic activity along New Town Road

A survey of the morning traffic found a peak hour traffic flow of 1,655 vehicles, with 70 percent of these vehicles traveling in a southbound direction.

### 6.2 Traffic entering and leaving the development site

Currently the development site has a separate entry located at the northern boundary, with a separate exit located at the southern boundary. The entry is located immediately beyond a signalised pedestrian crossing, and a right turning vehicle entering the site can restrict the flow of through traffic.

### 6.3 Surrounding land-use

The surrounding land-use is mixed with commercial, retail, and residential properties.

The majority of the surrounding residential properties have off-street parking available. Many of the commercial and retail properties rely on on-street parking for customers, with a variety of parking restrictions to provide a high turnover of the available spaces.

APARTMENT BUILDING, 156 NEW TOWN ROAD NEW TOWN

## 7. Impact from traffic generated by this development

As determined in section 4.4 of this assessment, the new apartment complex is expected to significantly reduce the traffic movements to and from the site compared with the current use, with the development not expected to create any adverse traffic efficiency impact.

### 7.1 Traffic entering and leaving the development site

The current entry and exit to the development site will be converted to a single two-way access, located at the southern boundary of the property. The width of the new access will be wide enough to accommodate two-way traffic movements.

With the reduction in the number of traffic movements entering and leaving the development site, compared to the current use, the traffic efficiency along New Town Road is expected to improve.

### 7.2 Sight distance for vehicles leaving the development site

The speed limit along New Town Road is the urban 50 km/h speed limit.

Sight distance leaving the proposed development access has been measured on-site, with a driver leaving the site having at least 100 metres sight distance in both directions; this exceeds the Safe Intersection Sight Distance prescribed in the planning scheme and is sufficient for vehicles to enter the road in a safe manner without causing traffic disruption to current users.

Photograph 7.2A –Drivers view when leaving the site viewing left



APARTMENT BUILDING, 156 NEW TOWN ROAD NEW TOWN

Photograph 7.2B – Drivers view when leaving the site viewing right



### 7.3 Queuing area to the basement car park

The entrance to the basement car park will be gated and controlled by a card reader or similar device, with the gate expected to be located 14 metres inside the property boundary, allowing storage for two entering vehicles.

The entrance storage length is expected to be ample to eliminate the risk of vehicles queuing back onto New Town Road. This is based on the peak hour demand of 11 trips, or on average, one vehicle arriving every five minutes, so the risk of more than two vehicles arriving to enter the basement car park is very low.

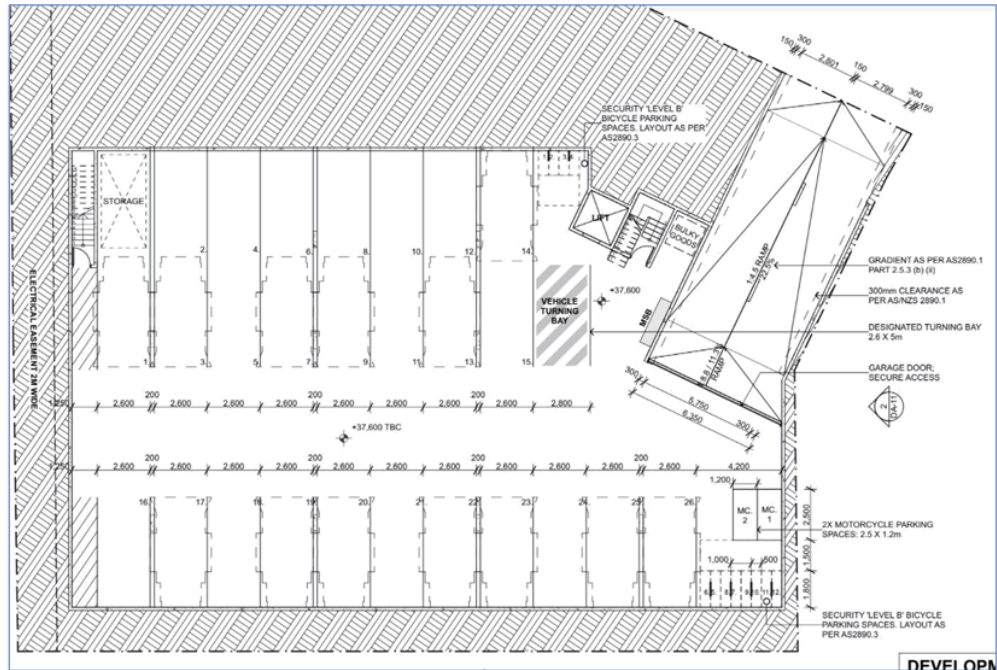


APARTMENT BUILDING, 156 NEW TOWN ROAD NEW TOWN

## 7.4 Layout of the basement car park access

The access to the basement car park is via a straight ramp from New Town Road, leading into a parking aisle, with ninety degree parking spaces located on either side.

Diagram 7.4 – Basement car park layout



## 7.5 Ramp layout

The straight ramp provides vehicular access between New Town Road and the basement car park.

With the ramp gradient being 1:4.5 or 22.5 percent, it will be supported with 2 metre transitional ramps with gradients of 1:8 (12.5 percent) or 1:8.8 (11.3 percent). The change in gradient for sag and crest curves complies with the Australian Standard AS 2890 requirements, to ensure there is sufficient ground clearance to minimise bottoming or scraping of vehicles, as they enter or leave.

The ramp width will have sufficient width to accommodate two-way traffic movements and include appropriate clearance to vertical obstructions to ensure the ramp provides convenient, accessible, efficient, and safe vehicle movements.

The ramp design will connect into the back of the existing public concrete footpath, to minimise any adverse impact to pedestrian movement along the footpath.

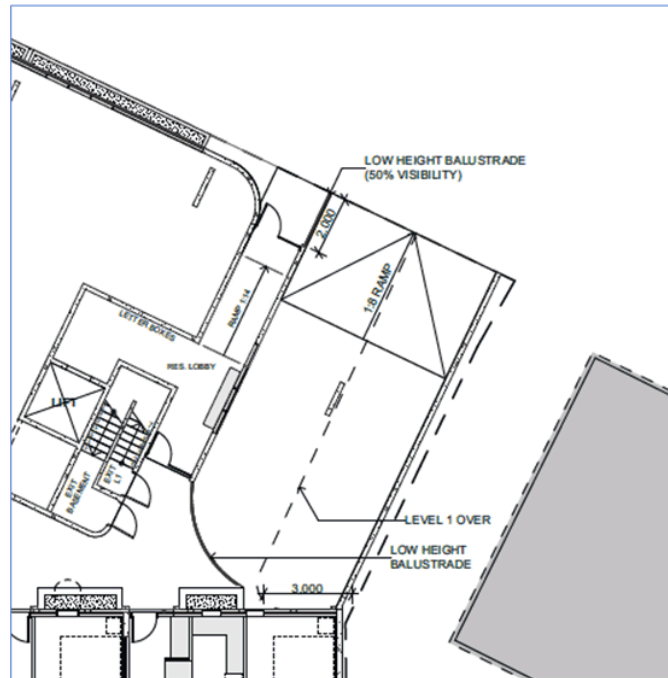
APARTMENT BUILDING, 156 NEW TOWN ROAD NEW TOWN

## 7.6 Pedestrian sight line for pedestrian safety

Along the western side of the vehicle ramp, a low height balustrade will provide a minimum of 50 percent visibility, ensuring adequate sight line between pedestrians walking along the footpath and drivers leaving the basement car park.

This balustrade method to achieve the required sight distance complies with the intent of both the planning scheme and the Australian Standards section 3.2.4

Diagram 7.6 – Sight line between pedestrian and driver



## 7.7 Pedestrian access

A pedestrian courtyard at street level will provide direct access to the apartments, with the Fitness Centre having direct access to the street.

APARTMENT BUILDING, 156 NEW TOWN ROAD NEW TOWN

## 7.8 Commercial vehicles

Commercial vehicles to service the development site, will not have access to the basement car park and will use on-street parking spaces, similar to other businesses in the area.

### Waste collection

Waste collection will be arranged with a private collection service. A central waste collection will be established on the ground floor, and have access to the street frontage.

### Deliveries to the Fitness centre

The number of deliveries to the Fitness Centre is expected to be less than one delivery per week, and use on-street parking, similar to other businesses in the area.

## 7.9 Headroom clearance

The Australian Standards 2890 section 5.3 specifies for both cars and light vans, the height between the floor and an overhead obstruction shall be a minimum of 2.2 metres. The basement car park will have a minimum headroom height of 2.4 metres, while the minimum headroom for the ramp will be 2.38 metres. At this height, the design will provide adequate headroom to accommodate residential vehicles.

## 7.10 Basement car park arrangements

The internal car park layout will incorporate a two-way parking aisle with the following characteristics:

- Parking bays will be user class 1A for residential parking, with the allowance for three-point turn entry and exit into ninety degree parking spaces.
- Parking bays will be 2.6 metres wide and 5.4 metres long.
- All parking spaces to be ninety degrees to the parking aisle.
- Seven tandem (jockey) parking spaces to be allocated to the six three bedroom apartments, and one two-bedroom apartment.
- The parking aisle will be a minimum of 6.4 metres wide and incorporate 300mm minimum clearance where necessary to cater for any vertical obstructions such as walls, to ensure adequate vehicle manoeuvrability.
- At the end of the blind aisle, 1.25 metre extension to the aisle will be provided to aid with vehicle manoeuvrability.
- The length of the aisle will be less than 40 metres, this will restrict operating speeds to an acceptable level of less than 30 km/h.



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### 7.11 Tandem parking spaces

Tandem parking has become popular within apartment buildings, as they allow for more parking spaces in constrained sites. Mainland councils are allowing tandem parking for residential unit developments, as long as the arrangement can be accommodated without causing inconvenience, or congestion. Tandem parking for residential unit development is generally permitted on the following conditions:

- No small car space is allowed within a tandem parking arrangement.
- Tandem parking is not permitted for visitor parking.
- Each tandem parking arrangement must be allocated to the same residential unit.
- Shuffling of vehicles associated with tandem parking must be carried out wholly within the site.
- Minimum length of a tandem parking space is 10.4 metres long.

It is important that 'shuffling' of vehicles associated with tandem parking can be done efficiently within the development site, so that residents do not choose to park on the street, and other users of the parking area are not inconvenienced. For these reasons, the width of the tandem parking space and adjacent parking aisle are important, to ensure shuffling manoeuvres can be undertaken efficiently.

The width of angle parking spaces is derived from the base dimension of the vehicle, and adding width to accommodate door opening. The standard 2890 part 1: specifies the minimum parking width is 2.6 metres wide to allow a B85 vehicle to fully open all doors. On the assumption that the adjacent vehicle is a B85 vehicle, there should be a 0.73 metres gap between vehicles. This gap allows for doors to open, and occupants to move freely between vehicles, which is critical for tandem parking. If B99 vehicles are parked in adjacent spaces, the gap between the vehicles reduces from 0.73 to 0.66 metres.

Swept path testing for a B85 vehicle has found that the new State-Wide planning scheme that prescribed parking spaces to be 2.6 metres wide, with parking aisle of 6.4 metres, provides a higher level of service for users, allowing a B85 vehicle to enter, and leave the parking space more efficiently, and would be suitable for tandem parking.

Having consideration to the residential use, the low turnover of the parking spaces, the provision of a designated vehicle turning bay within the basement, the width of the parking spaces and parking aisle, this layout is expected to provide a suitable level of service for tandem parking, without causing adverse impact to other uses, or traffic congestion.

APARTMENT BUILDING, 156 NEW TOWN ROAD NEW TOWN

### 7.12 Manoeuvrability of vehicles within the basement car park

Diagram 7.12A – Swept path of B85 vehicle entering the parking spaces

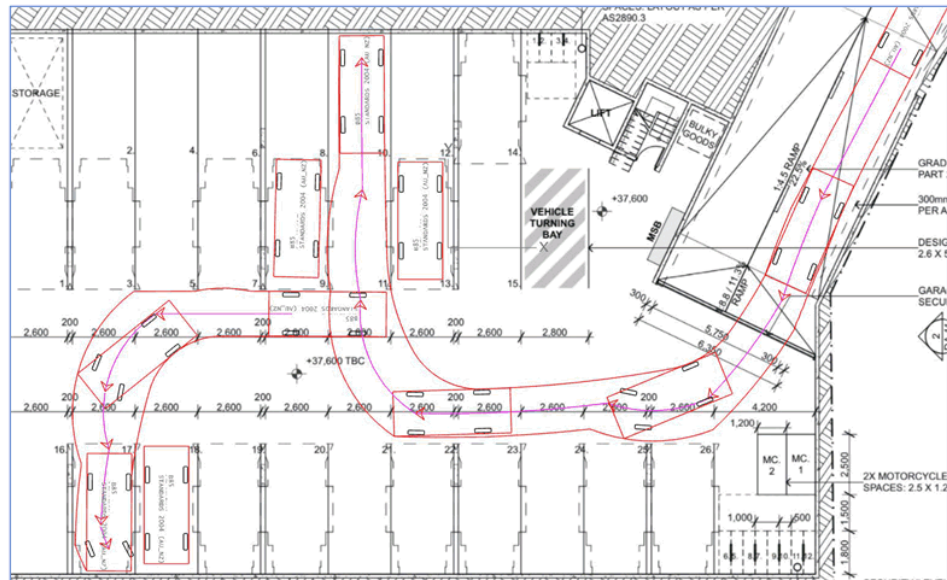
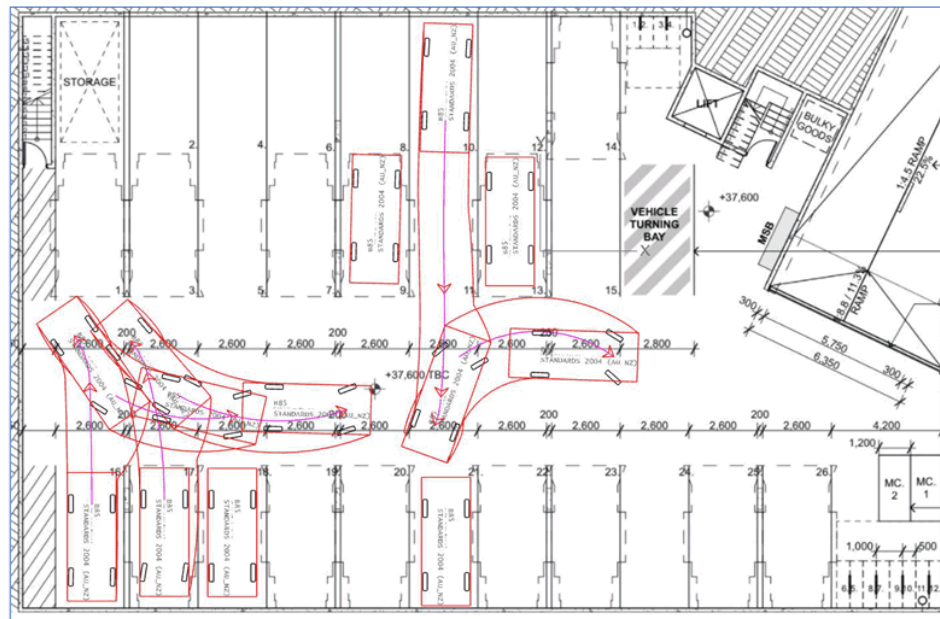
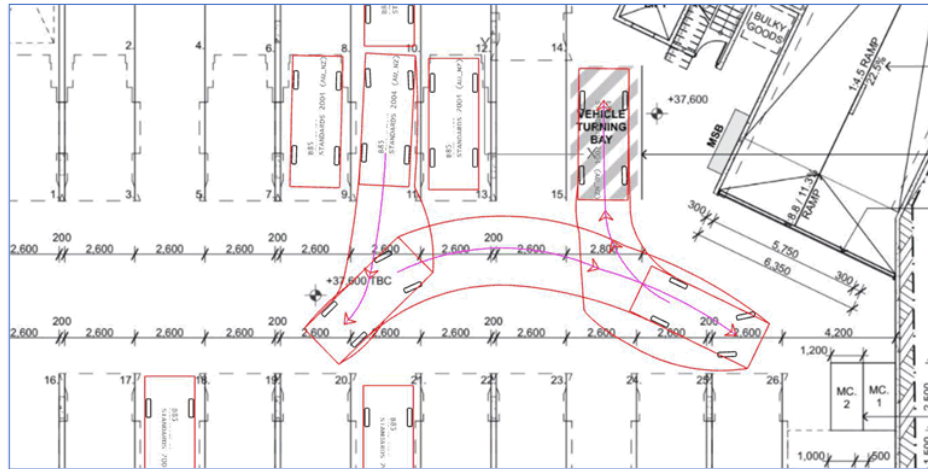


Diagram 7.12B – Swept path of B95 vehicle leaving the tandem parking spaces.



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Diagram 7.12 C – Shuffling of vehicles using the designated turning bay



The wider parking spaces of 2.6 metres, combined with the parking aisle of 6.4 metres provides a higher level of service for users, and improves efficiency for vehicles entering and leaving the parking spaces.

### 7.13 Bicycle facilities

To promote the use of bicycles as a viable alternative to private vehicles, the development will provide:

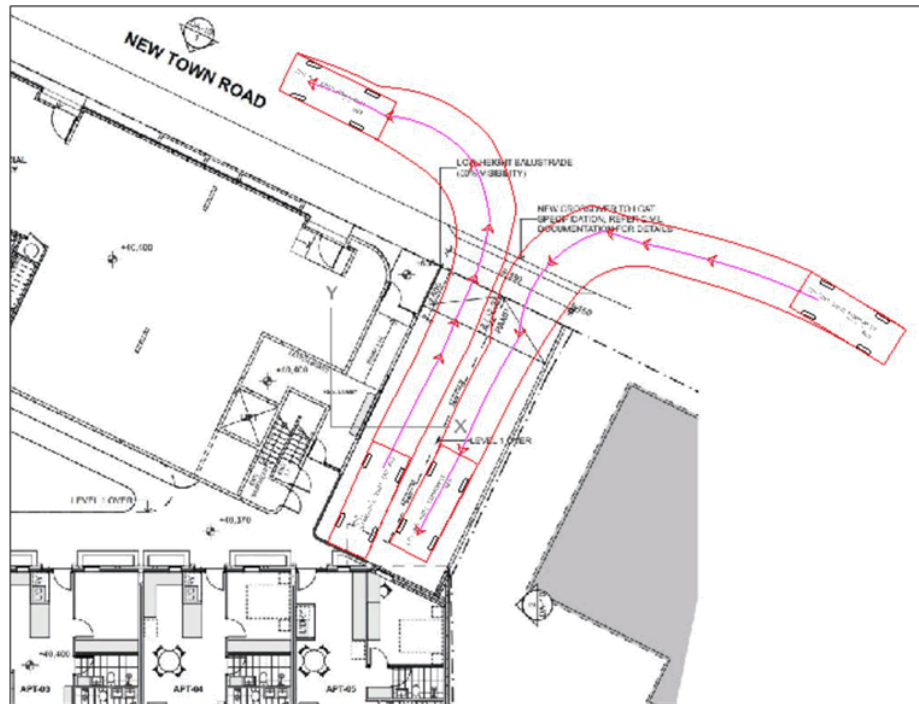
- two bicycle racks for 12 bikes within the basement car park, which is consider a secure facility as only residents have access to the basement, and
- a bike wheel frame within the courtyard area for use by Fitness Centre members.

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#### 7.14 Vehicles entering and leaving the basement car park

Autoturn online vehicle turning swept path software has been used to ensure the basement car park arrangement accommodates B99 vehicles, arriving and departing simultaneously as shown in the diagram below.

Diagram 7.14 – Swept path for B99 vehicle entering and leaving simultaneously



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## 8. Planning scheme

### 8.1 E5.0 Road and Railway Assets Code

#### E5.5.1 Existing access and junctions

The development sites current use is a drive thru coffee business (Gioconda Coffee Roasters) that operates between 6:00am and 2:00pm, with an existing entry and exit onto New Town Road. A recent traffic survey established this business can generate a peak hour traffic flow of 80 trips, and an estimated total of 468 daily trips.

The proposed development is expected to generate a reduced number of trips entering and leaving New Town Road, with 11 trips expected for peak hour, and a daily total of 104 trips.

A reduction of trips generated by this new use is expected to improve traffic efficiency along New Town Road and complies with the acceptable solution under the planning scheme.

#### E5.6.4 Sight distance at accesses, junction, and level crossings

This new development will convert the existing entry and exit into a single two-way access located on the southern boundary. Motorists leaving this access will have available sight distance, that exceeds the minimum Safe Intersection Sight Distance prescribed in the planning scheme for a 50 km/h speed limit.

This development will comply with the acceptable solution for Safe Intersection Sight Distance, and motorists will be able to enter New Town Road in a safe manner, without disrupting the current road users.

### 8.2 E6.0 Parking and Access Code

#### E6.6.1 Number of parking spaces for the residential apartments

The development will provide 26 on-site parking spaces, with these spaces allocated to the residential apartments.

The planning scheme indicates for multiple dwellings with two or more bedrooms, two parking spaces should be provided, and one visitor space per four dwellings.

The number of spaces required under the planning scheme is 38 spaces for the 19 apartments, which is considered excessive, as the planning scheme does not take into account the apartments inner-city residential location within four kilometres of the Hobart CBD, and location of the development on a high frequency public transport route.



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The RTA Guide recognises that for medium density units located on a high frequency bus route, car space requirements are reduced, where a two-bedroom unit requires only one car space. As this Guide indicates for these apartments 23 spaces would be sufficient to meet the expected demand.

The number of parking spaces for the residential apartments must be considered under the performance criteria.

Performance criteria	Assessment
To ensure there is enough car parking to meet the reasonable needs of all users of a development, taking into account the level of parking available on or outside of the land and the access afforded of users by other modes of transport. The use or development does not detract from the amenity of users or the locality by preventing regular parking overspill and minimising the impact of car parking on heritage and local character.	
a) car parking demand;	The planning scheme specifies that 38 parking spaces are required for the 19 residential apartments, plus five spaces for visitors. The development is providing 26 spaces, based on one space for apartments with two bedrooms, and two spaces for apartments with three or more bedrooms. This number of parking spaces is considered reasonable to meet the expected demand. This number of spaces being provided is supported by the RTA Guide for medium density unit developments. In addition to the 26 spaces, two dedicated motorcycle parking spaces will be provided in the basement car park. Visitor parking will share the available supply of on-street spaces.
b) The availability of on-street and public car parking in the locality;	A recent parking supply and demand survey of the surrounding streets within 150 metres of the development site, found there is 127 spaces available. A patrolled survey found a minimum of 51 of these spaces were free during the day, and these could be used by visitors.
c) The availability and frequency of public transport within 400m walking distance of the site;	METRO Tasmania runs a high frequency bus service between Glenorchy and Hobart via New Town Road, with a bus operating every ten minutes between 7:00am to 7:00pm, Monday to Friday, every twenty minutes on Saturday, and every thirty minutes on Sunday. With bus stops located within 50 metres of the development site, this provides residents with a convenient and viable alternative transport mode.
d) the availability and likely use of other modes of transport;	The development site is located within four kilometres of the Hobart CBD, making bicycle riding a viable option, particularly with on-road cycle lanes operating along Argyle Street, extending into New Town Road. Also, the development site is located 1 kilometre from the inner-city cycle route.
e) the availability and suitability of alternative arrangements for car parking provisions;	The inner residential suburb provides residents with a range of commercial and retail businesses within walking distance, reducing the reliance on a car.

APARTMENT BUILDING, 156 NEW TOWN ROAD NEW TOWN

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;	The RTA guide for traffic generation developments is a nationally accepted document that provides advice on design criteria for new developments. For medium density residential units located on a high frequency bus route, one parking space is considered appropriate for a two bedroom unit, and two spaces for three or more bedrooms. The RTA Guide indicates 23 spaces would be suitable for this development.
g) Any car parking deficiencies or surplus associated with the existing use of the land;	None.
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 requirements, except in the case of substantial redevelopment of a site;	None.
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;	No financial contribution is considered necessary as the level of on-site parking spaces will more than meet the needs of the development, without any adverse impact to the surrounding road network.
j) Any verified prior payment of a financial contribution in lieu of parking for the land;	None required.
k) Any relevant parking plan for the area adopted by Council;	Not aware of any.
l) The impact on the historic cultural heritage significance of the site if subject to the Local Heritage Code;	None expected.
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.	None.

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#### E6.6.1 Number of parking spaces for the Fitness Centre

The development will not provide on-site parking for the Fitness Centre, customers will share the supply of on-street parking spaces available within the surrounding streets.

On-street parking is a resource that belongs to the community, that can be shared between the various land-users, and short term parking restrictions ensures sufficient parking turnover to meet the land-use demand. The urban Mixed Use zoning along New Town Road permits commercial development, and many of the surrounding businesses currently share the current supply of on-street parking.

A recent parking supply and demand survey of the surrounding streets found there is sufficient supply of on-street parking that can be shared with this new use, without adversely impacting other land-uses.

Parking for the Fitness Centre must be considered under the performance criteria.

Performance criteria	Assessment
To ensure there is enough car parking to meet the reasonable needs of all users of a development, taking into account the level of parking available on or outside of the land and the access afforded of users by other modes of transport. The use or development does not detract from the amenity of users or the locality by preventing regular parking overspill and minimising the impact of car parking on heritage and local character.	
a) car parking demand;	Based on the total floor area of the Fitness Centre being 360m <sup>2</sup> , the planning scheme specifies 16 parking spaces. The RTA Guide estimates that the centre could generate a peak hour demand of 11 vehicles, and outside this peak period, the parking demand is expected to be much less. The centre opening hours are restricted to 7:00am to 9:00pm, with the average stay expected to be one hour. The peak hour demand is expected to occur between 6:00pm to 7:00pm, which occurs outside of the time when most of the surrounding commercial properties operate.
b) The availability of on-street and public car parking in the locality;	A recent parking supply and demand survey of on-street parking, found within 150 metres of the development site there is a supply of 127 on-street spaces. During the day there were a minimum of 51 spaces available, while at night this increased to 74 spaces available. There is a range of parking restrictions to ensure there is a high turnover of the spaces, and this parking survey demonstrates there is sufficient parking supply to meet the Fitness Centre on-street parking demand.
c) The availability and frequency of public transport within 400m walking distance of the site;	A high frequency public bus route operates past the development site, with bus stops located within 50 metres of the development.



APARTMENT BUILDING, 156 NEW TOWN ROAD NEW TOWN

d) the availability and likely use of other modes of transport;	The location is within an inner residential suburb, with the area being a mix of residential, commercial, and retail businesses, suggesting walking is a viable mode of transport.
e) the availability and suitability of alternative arrangements for car parking provisions;	A survey of Sydney Gymnasiums in 2014, found on average the transport mode of members using the facility, includes vehicle sharing of 16 percent and walking of 11 percent, and these modes reduce the demand of parking spaces required.
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;	None
g) Any car parking deficiencies or surplus associated with the existing use of the land;	None.
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 requirements, except in the case of substantial redevelopment of a site;	None.
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;	No financial contribution is considered necessary as the level of on-street parking spaces will more than meet the needs of the development.
j) Any verified prior payment of a financial contribution in lieu of parking for the land;	None required.
k) Any relevant parking plan for the area adopted by Council;	Not aware of any.
l) The impact on the historic cultural heritage significant of the site if subject to the Local Heritage Code;	None expected.
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.	None.

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E6.7 Development standards

Development standards	Comment
6.7.1 number of vehicular access;	This development site will have a single two-way access.
6.7.2 design of vehicular access;	The vehicular access will be designed to conform with the Australian Standards 2890 part 1.
6.7.3 vehicular passing areas along an access;	The internal parking aisle will be 6.4 metres wide to cater for two-way traffic movements.
6.7.4 On-site turning;	There is a designated vehicle turning bay incorporated into the basement layout, and all vehicles will be able to enter and leave the development site in a forward driving direction.
6.7.5 Layout of parking areas;	Designed to conform with AS 2890 part 1.
6.7.6 Surface treatment of parking areas;	Concrete surface.
6.7.7 Lighting of parking areas;	Lighting will be provided to satisfy the acceptable solution.
6.7.8 Landscaping of parking areas;	No landscaping is planned for the basement parking area.
6.7.9 Design of Motorcycle parking areas;	Two dedicated motorcycle parking spaces are being provided in the basement car park.
6.7.10 Design of Bicycle Parking facilities;	Secured bicycle parking spaces will be provided within the basement car park, while a bicycle frame where wheels can be locked, will be provided on the ground level for use by the Fitness Centre users.
6.7.11 Bicycle end of trip facilities;	Not required for residential apartments.
6.7.12 Siting of car parking;	The on-site parking spaces will be accommodated on a basement level and not visible to New Town Road users.
6.7.13 Facilities for commercial vehicles;	Will need to share the on-street parking facilities, similar to other commercial businesses in the street.

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## 9. Conclusion

This development site is an ideal location to create inner suburbia apartment living, close to public transport to reduce the use of private motor vehicles, and within walking distance to work, commercial, recreational, and cultural facilities. The Fitness Centre will benefit from the location being situated near other businesses and close to a large residential catchment area.

From a traffic engineering and road safety perspective, this development is expected to generate less traffic movements than the current land-use, and this will improve the safety and traffic efficiency along New Town Road.

Traffic entering and leaving the basement car park, is not expected to create any adverse safety or traffic efficiency impacts to pedestrians or existing road users, as there will be suitable sight distance, and entering vehicles are not expected to queue beyond the development site.

The number of on-site parking spaces located within the basement, is expected to meet the reasonable demand generated by residents of the apartments, with sufficient on-street parking supply to support visitor parking.

The basement parking layout includes tandem parking to increase the number of on-site car parking spaces, and this is considered appropriate for the residential use and the low parking turnover. The layout includes a designated vehicle turning bay for shuffling of tandem vehicles to occur within the site, the width of the parking spaces and parking aisle has been designed to ensure tandem parking can operate effectively, without adversely impacting other uses, or cause traffic congestion.

Users to the Fitness Centre will rely on the supply of on-street parking, similar to other commercial businesses along New Town Road. The recent parking supply and demand survey has demonstrated there is sufficient supply to support the new use, without causing impact to surrounding land-users. The peak demand for this new use is expected to occur outside of the operating times of most surrounding commercial businesses. Also, the opening hour of this new use is restricted to 7:00am to 9:00pm, to minimise amenity impact to surrounding residential properties.

The development site will provide convenient, safe, and accessible access for pedestrians at street level.

The waste collection will be arranged through a private contractor and this operation is not expected to impede pedestrian activity along the footpath.

An examination of the geometric internal layout of the basement car park, found compliance with the planning scheme and the Australian Standards 2890.

This Traffic Impact Assessment found no reason for this development not to proceed.



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## 10. Appendix A – Ground floor layout



## Re: Development Application - 156 New Town Road - Notification to Owner 18 Roope Street, New Town

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From: **Tim Lucas** | [tim@tslpropertydirections.com](mailto:tim@tslpropertydirections.com)

Wednesday, 8 Dec 2021, 12:34 PM

To: **peter.white@communities.tas.gov.au** | [peter.white@communities.tas.gov.au](mailto:peter.white@communities.tas.gov.au)

Cc: **Sarah Lindsay** | **LXN Architecture** | [sarah@lxn.com.au](mailto:sarah@lxn.com.au), **Josh Crossin** | **LXN Architecture** | [josh@lxn.com.au](mailto:josh@lxn.com.au)

To: Peter White  
Deputy Secretary, Housing, Disability, Community Services  
Department of Communities Tasmania

Hi Peter,

In accordance with a requirement by Taswater I am notifying you (as representative of the owner) that we have lodged a Development application for our site at 156 New Town Road that borders the Director of Housing's units situated at 18 Roope Street, New Town.

Attached is a Request for Additional Information that has been sent to our architect pursuant to our application lodged and I have included a second attachment to assist your understanding of the sewer connection that needs to be upgraded if our development application is successful and we seek to proceed with the same.

I have attached emails between myself and Taswater that may also assist in the background to this notification. We understand that some future consent from the current owner of 18 Roope Street will be required to allow Taswater to undertake the abovementioned works on its land and that this notification does not infer or claim any consent.

If possible can I ask that you or an officer within Communities Tasmania acknowledge receipt of this email.

Happy to discuss if required.

Thank you.

Tim Lucas  
TSL Property Directions  
E: [tim@tslpropertydirections.com](mailto:tim@tslpropertydirections.com)  
P: 0439 313 569

*The contents of this email and any attachments to it are confidential. If you receive this email in error, please accept my apologies and delete it. Thank you.*

I

Development@taswater.com.au

tim@tslpropertydirections.com

8:47 AM

Hi Tim,

Thank you for your email. You are correct, I think the exact wording in LUPAA is that to satisfy s52 only a declaration need be provided that the adjoining property owner has been informed of the developer's intention to make an application. This is something the Planning Authority administers but because Council is not always aware of TasWater's servicing requirements we advise them via an RAI to avoid the issue of an invalid permit.

Consent is not required at the planning stage however the wording used in the request is designed to make the developer aware that they should disclose to the owner that the development will require works on their land and if the adjoining owner refuses to provide consent at the time the works are required to be undertaken then those works cannot proceed and that owner may appeal the Planning Authority's decision to issue a planning permit.

Please note that this is a request for additional information not a permit condition so a copy of the proposed letter you describe in your email will be sufficient to satisfy my request. Please submit a copy of the letter as your formal response to Council and they will refer it to TasWater and I will issue a Submission containing TasWater conditions to be appended to the Council permit.

Regards

Phil Papps

Senior Assessment Officer

D (03) 6237 8246 / 0474 931 272  
F 1300 862 066  
A GPO Box 1393, Hobart TAS 7001  
169 Main Road, Moonah, TAS 7009  
E [phil.papps@taswater.com.au](mailto:phil.papps@taswater.com.au)  
W [www.taswater.com.au/](http://www.taswater.com.au/)

Have I been helpful? Please provide feedback by clicking [here](#).

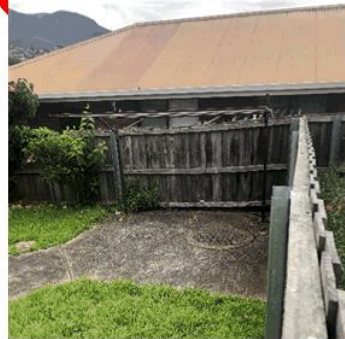




Proposed Service Connection – 156 New Town Road:



Image opposite shows the manhole  
the Development at 156 New Town Road  
intends to connect to presently on 18 Roope  
Street.



## TASMANIAN LAND TITLES OFFICE

Instrument Releasing  
Easements or Profits a Prendre  
Section 108 Land Titles Act 1980.



E229547

DESCRIPTION OF LAND			
Servient Folio of the Register		Dominant Folio of the Register	
Volume	Folio	Volume	Folio
171514	1	7973	1
171514	2		

**DIRECTOR OF HOUSING** of **GPO Box 44 Hobart Tasmania 7001** the registered proprietor/s of the land comprised in the above dominant folio of the Register Hereby Release unto **Renewal Developments Pty Ltd** of **level 5, 81 Elizabeth Street, Hobart in Tasmania 7000** the registered proprietor of the land comprised in the above servient folio of the Register the easement described as follows:-

**Burdening Easement:** a right of carriageway (appurtenant to Lot 1 on Diagram No 7973 over the Roadway shown on Plan No 171514.

Date: .....5 January 2021.....

"SEE ANNEXURE PAGE FOR EXECUTION CLAUSE"

Land Titles Office Use Only

**RPP** Version 1

THE BACK OF THIS FORM MUST NOT BE USED



PIN OR STAPLE HERE  
DO NOT GUM THIS  
FORM TO THE INSTRUMENT


ANNEXURE PAGE

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Vol. 171514 Fol. 1

SIGNED by Richard Robert Gilmour  
being and as  
and pursuant to an  
Instrument of delegation dated the 6<sup>th</sup> day of September 2018  
In the presence of:-



Signature of Witness   
Full name of Witness  
Address Rebecca Thorpe  
Occupation L5/22 Elizabeth St, Hobart  
Home Ownership Consultant

**NOTE:-** Every annexed page shall be signed by the parties to the dealing, or where the party is a corporate body, be signed by the persons who have attested the affixing of the seal of that body to the dealing.

Version 1

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**ENVIRONMENTAL SITE ASSESSMENT**  
**156 New Town Road, New Town, Tasmania**  
**NOVEMBER 2020**

**For Renewal Developments Pty Ltd**

*Environmental Site Assessment: 156 New Town Road, New Town*

**DOCUMENT CONTROL**

Title	Version	Date	Author	Reviewed By
<i>Environmental Site Assessment: 156 New Town Road, New Town</i>	Version 1	5 <sup>th</sup> November 2020	Mark Downie	JP Cumming

*Environmental Site Assessment: 156 New Town Road, New Town*

## EXECUTIVE SUMMARY

This report presents the findings of an Environmental Site Assessment (ESA) undertaken by Geo-Environmental Solutions Pty. Ltd. (GES) at 156 New Town Road, New Town, Tasmania - hereby referred to as 'The Site'. GES was commissioned Tim Lucas on behalf of Renewal Developments Pty Ltd, to conduct the site assessment. This ESA has been prepared by a suitably qualified and experience practitioner in accordance with procedures and practices detailed in National Environmental Protection Measure [Assessment of Site Contamination] (NEPM ASC; 2013).

The objective of this ESA was to investigate the site for contamination, we have done this by addressing E2.6.2 performance criteria under the *Hobart Interim Planning scheme 2015* for excavation. To assess the suitability and safety of the soil for excavation at a typical depth for foundation excavation, and any human or environmental risks of the soil present on site.

The following information was gathered during the desktop investigation:

- The Site is zoned *Urban Mixed Use* under the *Hobart Interim Planning Scheme of 2015*. The site slopes at around 7% to the North West, Maypole Rivulet is the nearest ecological receptor 500 m downgradient of the Site.
- The geology of the investigation area is Triassic aged sedimentary rocks (Rv), with our bore holes finding weathered sandstone at variable depths.
- Historical Aerial photographs and Dangerous Goods Records confirmed the following; an original building was present on the site since prior to 1946, with this building removed and the service station building erected prior to 1969. UPSS tanks were installed in 1962. The building was renovated between 1980 and 1989, which is likely to coincide with the service station being decommissioned around 1980 and Video Ezy operating on the site. More recently the site contains a coffee shop and laundry mat operations.
- The site is considered a potentially contaminated site due to past land use and the presence of UPSS. WorkSafe Tasmania Dangerous Goods Records indicate that petroleum fuels have been stored on site 1962-1980.
- Potential sources of contamination include the operations of a service station and workshop on the site, the presence of UPSS, and fill of undetermined origins on site.
- Contaminants Of Potential Concern (COPC) include the following: TPH/TRH; Mono Aromatic hydrocarbons: (BTEXN); PAH; and heavy metals.

From the soil assessment, it is concluded that:

- Environment: Benzo(a)pyrene and Total Recoverable Hydrocarbons Fraction 3 exceeded NEPM ASC 2013 ESL guideline limits. Zinc exceeded NEPM ASC 2013 EIL guideline limits. A Stormwater Management Plan (SWMP) will be required to account for the management and erosion of soil with ecological impacts, to prevent soil effecting nearby ecological receptors.
- Human Health: There were no human health guideline exceedances for dermal contact or vapour intrusion. There were no exceedances of NEPM ASC 2013 HIL guideline limits for dust inhalation and ingestion at commercial land use investigation limits, however there were exceedances for Benzo(a)pyrene and Lead at residential and recreational land use investigation limits. If the finalised designs indicate that the site is considered commercial operations at ground level, then there are no exceedances to guidelines and no risk to human health identified.
- Excavated Soil Management: In terms of *IB105* of the thirteen primary soil samples; Three samples are considered Level 3 Material (contaminated soil) due to Benzo(a)pyrene (in samples BH3 0.5-0.6, BH4 0.5-0.6 & BH5 0.5-0.6), and Sum of Polycyclic Aromatic Hydrocarbons (in sample BH3 0.5-0.6). Two samples are considered Level 2 Material (low level contaminated soil) due to metals and hydrocarbons. The remaining eight samples are considered Level 1 Material (clean fill). All of the samples taken at lower depths (0.85-0.90m and 1.5-1.6m) were considered Level 1 Material, suggesting that contamination is restricted to the shallow surface soil.

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GES recommends the following:

- There were no human health guideline exceedances for dermal contact, soil vapour intrusion or trench worker vapour risk. There were no HIL guideline exceedances for dust inhalation and ingestion at commercial land use class, but there were exceedances at residential and recreational land use for Benzo(a)pyrene and Lead. If developments include open space or residential apartments at ground level, the Site will require a Contamination Management Plan (CMP) relating to human receptors prior to soil disturbance during construction, and including mitigation measures post construction. If the entirety of the site is considered commercial land use at ground floor level (this may include the apartments being above the basement car park, and the soil at the open space area being excavated and replaced with clean fill), then the CMP will not be required.
- There is potential for ecological impact from hydrocarbons and heavy metals entering the waterway or impacting other ecological receptors during excavation, and a Stormwater Management Plan (SWMP) is required, to control erosion of excavated soil that may have an ecological impact.
- For soil disposal, the soil on site is a mixture of Level 1 (clean fill), Level 2 (low level contaminated soil) and Level 3 (contaminated soil) according to IB105. Any disposal of soil off-site must be in accordance with IB105 and the controlled waste regulations. We recommend excavated material be stockpiled on-site where additional testing can better delineate the areas of contamination prior to soil disposal, noting that most of the contamination appears to be concentrated in the upper soil horizons.
- It is likely that inactive Underground Petroleum Storage Systems (UPSS) infrastructure is present on the site, and will require decommissioning and removal.

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## **ABBREVIATIONS**

AEC	Areas of Environmental Concern
AHD	Australian Height Datum
ALS	Analytical Laboratory Services
ANZECC	Australia and New Zealand Environment and Conservation Council
BGS	Below Ground Surface
BH	Borehole
BTEXN	Benzene Toluene Ethylbenzene Xylene Naphthalene
COA	Certificate of Analysis
COC	Chain of Custody
COPC	Contaminant of Potential Concern
CRC CARE	Corporative Research Centre for Contamination Assessment and Remediation of the Environment
CSM	Conceptual Site Model
DQO	Data Quality Objectives
EOH	End Of Hole
EIL	Ecological Investigation Levels
ESL	Ecological Screening Levels
EPA	Environmental Protection Authority
ESA	Environmental Site Assessment
GDA94	Geocentric Datum of Australia 1994
GES	Geo-Environmental Solutions Pty. Ltd.
HIL	Health Investigation Levels
HSL	Health Screening Levels
IL	Investigation Levels
LOR	Limits of Reporting
MDL	Mean Detection Limit
NATA	National Association of Testing Authorities
NEPM ASC	National Environmental Protection (Assessment of Site Contamination) Measure
NHMRC	National Health and Medical Research Council
NL	Non Limiting
NRMMC	Natural Resource Management Ministerial Council
PAH	Polynuclear Aromatic Hydrocarbons
PCP	Physio-Chemical Parameters
PHC	Petroleum Hydrocarbons
PID	Photo-Ionisation Detector
PPA	Preferential (PVI) Pathways Assessment
PVI	Petroleum Vapour Intrusion
TPH	Total Petroleum Hydrocarbons
TRH	Total Recoverable Hydrocarbons
USCS	Unified Soil Classification System

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## 1 INTRODUCTION

### 1.1 General

This report presents the findings of an Environmental Site Assessment (ESA) undertaken by Geo-Environmental Solutions Pty. Ltd. (GES) at 156 New Town Road, New Town, Tasmania - hereby referred to as 'The Site'. The Site location is presented in Figure 1 and the aerial photograph is presented in Figure 2. GES was commissioned by Tim Lucas of Renew Developments Pty Ltd, to conduct the site assessment.

The Site is located in a commercial/retail precinct, surrounded by residential properties, in New Town, approximately 2.5 km NNW of Hobart CBD. The ESA has been requested by the client prior to submitting a planning permit. The ESA will compare contamination against E2.6.2 Excavation code of the Potentially Contaminated Land Code which will account for any future potential contact or excavation of earth such as services trenches or digging for foundations.

This ESA has been prepared by a suitably qualified and experience practitioner in accordance with procedures and practices detailed in National Environmental Protection Measure [Assessment of Site Contamination] (NEPM ASC; 2013) guidelines and key regulations and policies identified in the References section of this document. Personnel engaged in preparing this ESA are listed in Appendix 1 along with their relevant qualifications and years of experience.

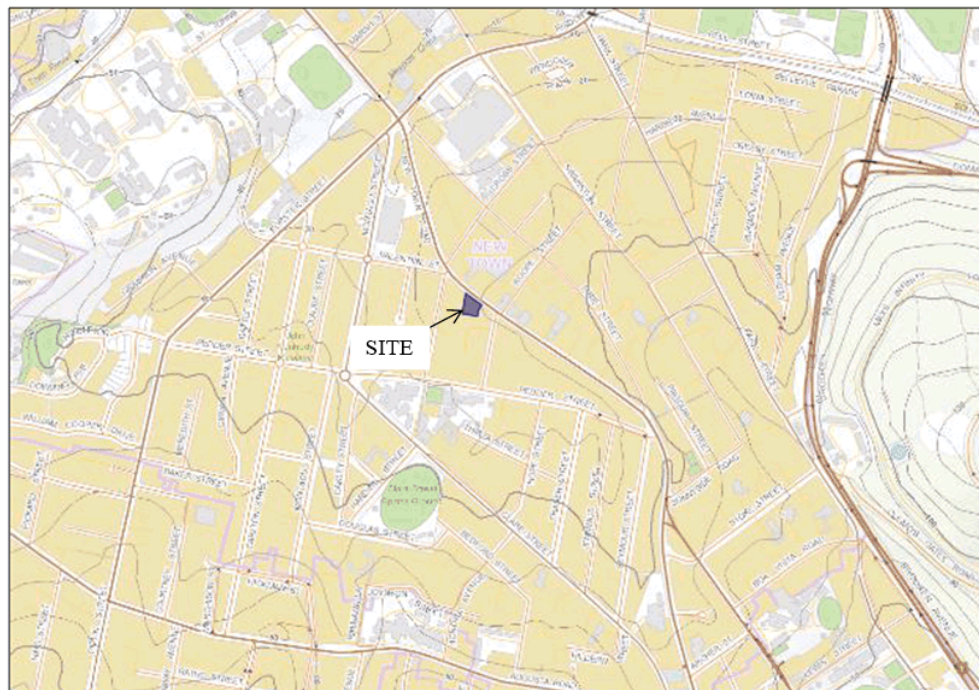


Figure 1 Site Location (Image C/O the LIST)

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## 1.2 Site Layout

An aerial image of the existing site layout is presented in Figure 2.



Figure 2 Existing Site Layout (Image C/O Google Earth)

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### 1.3 Site Details

Site details are presented in Table 1.

**Table 1 Site Details**

<b>SITE LOCATION:</b> 156 New Town Road, New Town, Tasmania, Australia
<b>INVESTIGATION AREA</b> The footprint of the site location
<b>SITE ELEVATION &amp; GRADIENT</b> Approximately 38-40 m AHD, average slope around 7% to the WSW.
<b>SITE SURFACING</b> The site surface in the investigation area is predominantly sealed asphalt driveway and carparking areas and sealed concrete floor buildings, with natural soil (fill with disturbed appearance) present along the western and south western parts of the site.
<b>TITLE REFERENCES</b> PID 5516671, CT 171514/1
<b>SITE OWNER</b> Renewal Developments Pty Ltd
<b>PREVIOUS LANDUSE</b> Commercial operations; service station, workshop, residential (prior to 1962).
<b>SITE SURROUNDING LAND ZONING</b> <i>Hobart Interim Planning Scheme 2015 – Urban Mixed Use</i>
<b>SITE LAND USE</b> Commercial. Coffee shop and laundry mat.
<b>PROPOSED LAND USE</b> Construction of new residential apartments, with ground floor commercial operations and car parking basement.

### 1.4 Investigation Objectives

The objective of this ESA was to:

- To address E2.6.2 of the HCC Interim Planning Scheme 2015, through an invasive soil investigation.
- Report findings in an Environmental Site Assessment report, detailing specific onsite human health or environmental risk which may source from potentially detected contamination

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## 1.5 Scope of Works

The scope of work for this ESA was to:

- Conduct a desktop investigation, and undertake an invasive soil investigation at the Site.
- Conduct a site walkover.
- Excavate seven (7) bore holes and collect thirteen (13) primary soil samples; the primary samples were sent for analysis of total recoverable hydrocarbons (TRH) Benzene Toluene Ethylbenzene Xylene Naphthalene (BTEXN), Polynuclear Aromatic Hydrocarbons (PAH), and a suit of fifteen (15) metals to a National Association of Testing Authorities (NATA) accredited laboratory.
- Soil samples were sent with quality assurance/ quality control (QA/QC) samples including one duplicate split sample and one rinsate blank sample.
- Determine the absence or presence and if present the level of site contamination and compare soil results against the relevant guidelines.
- Conduct a risk assessment, known as a Conceptual Site Model; and
- Report findings in an Environmental Site Assessment report, detailing specific onsite human health or environmental risk which may source from potentially detected contamination.

## 2 PLANNING

### 2.1 Overview

The client has requested an Environmental Site Assessment (ESA) of the Site in due diligence prior to submitting a Planning Permit with Hobart City Council (HCC) for a potential 3 storey building featuring commercial operations at ground floor level and a car parking basement. Draft designs are presented in Appendix 2 and are subject to change before final plans are submitted.

### 2.2 Interim Planning Scheme

#### 2.2.1 Acceptable Solutions

As the history of the Site suggests that potentially contaminating activities may have taken place on and near the site, for any future potential **excavation** at the Site, there are no acceptable solutions to proposed works, and therefore E2.6.2 P1 performance criteria are to be addressed.

#### 2.2.2 Excavation Works E2.6.2 P1

As there is proposed excavation works at the Site, there are no acceptable solutions to proposed works, E2.6.2 P1 performance criteria are to be addressed. The performance criteria identify that the excavation works must 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.

#### 2.2.3 Statement of Suitability

*A statement based on the results of the Environmental Site Assessment that the excavation as part of the planned works will not adversely impact on human health or the environment is to be provided (subject to implementation of any identified remediation and/or protection measures as required).*



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### 3 DESKTOP STUDY

#### 3.1 Site Zoning

The Site is zoned *Urban Mixed Use* under the Hobart Interim Planning Scheme of 2015. The land use surrounding the Site is *Urban Mixed Use* and *Inner Residential*, with New Town Road zoned *Utilities*. (Figure 3). The site is to be assessed against land use Class D for assumed ground floor commercial use, and also compared against land use classes A, B and C to account for the potential of ground floor residential use.



Figure 3 Hobart Interim Planning Scheme Zones (2015)

#### 3.2 Site Walkover

A site walkover was completed by GES staff on the 2<sup>nd</sup> September 2020. No obvious signs of contamination such as staining or odour was observed, however it should be noted that most of the soil is covered by asphalt and concrete. Photographs from the site including excavated soil cores from the bore holes, are presented in Appendix 3.

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### 3.3 MRT Geology Mapping

The 1:25,000 scale geology map of the Greater Hobart area (see excerpt in Figure 4) shows that the investigation area overlays Triassic sedimentary rocks (Rv). Nearby geological units include Jurassic dolerite to the north east and Quaternary alluvial deposits downgradient to the west and north west of the site.

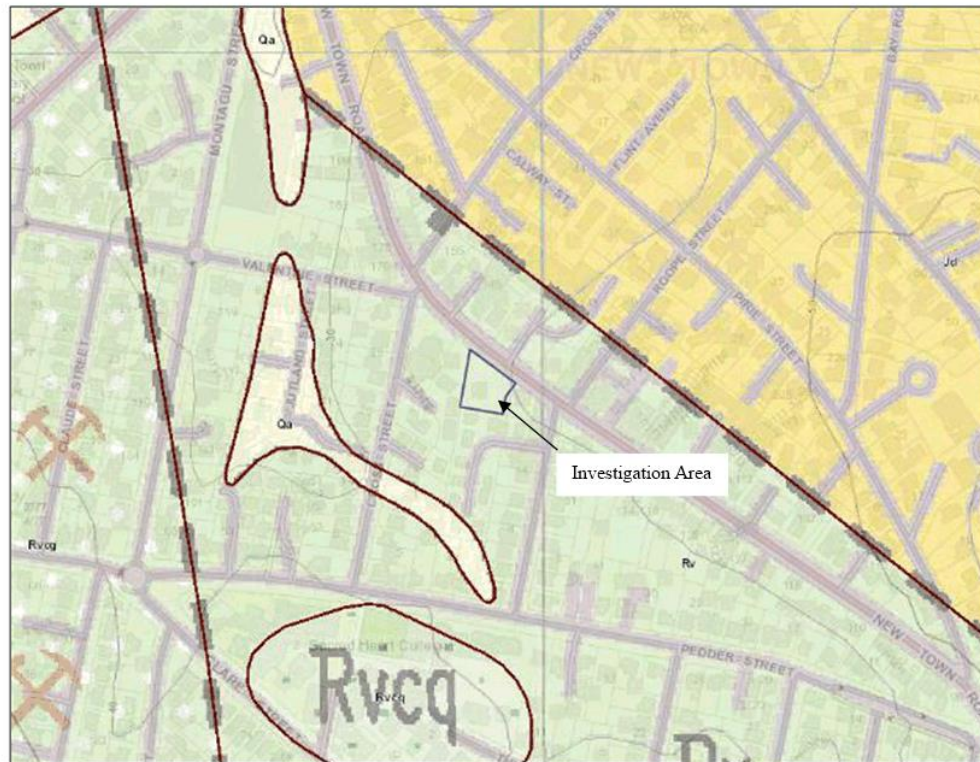
**Rv** - Undifferentiated volcanoclastic, quartz-rich lithic and quartzose sandstone, siltstone, mudstone, carbonaceous beds and coal seams

**Rvcq** - Interbedded cross-bedded white quartzose sandstone, quartz-rich lithic sandstone, siltstone and mudstone

**Rvcg** - Thickly- to thinly-bedded volcanic lithic sandstone, siltstone, mudstone and coal seams, fossil plants on some horizons (Newtown Coal Measure)

**Jd** - Dolerite and related rocks

**Qa** - Alluvial gravel, sand and clay.



**Figure 4 Mineral Resources Tasmania 1:25,000 Scale Mapping.**



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### **3.4 Historical Aerial Photography Interpretation**

The 1946, 1957, 1969, 1977, 1980, 1989 historical aerial photographs and Google Earth images from 2003 to 2020 were viewed as part of this ESA. The photographs are presented in Appendix 4.

In summary the following observations can be made from the historical aerial photographs, historical photographs:

1946 & 1957 aerial photographs – A large house is present on the site, with gardens and shrubs at the road frontage.

1969 & 1977 & 1980 aerial photographs – The original house has been demolished and the new service station structure is visible, with an awning covering the bowers.

Note - the site is licenced to store dangerous goods (petrol and kerosine) from 1962 (Section 3.5).

1989 aerial photograph – The service station building has been renovated, with the awning over the bowers removed, and an addition to the south east.

Note - real estate listing history has building construction date as 1980, which could coincide with the addition to the building, it may be around this time that the service station ceased operation and Video Ezy operated from the premises. The site was sold in 2017, which could coincide with the coffee shop and laundry mat operations commencing.

2003-2015 Google Earth images – the site is consistent with the 1989 aerial photograph.

2016-2020 Google Earth images – the blue ice dispenser machine is visible, and fresh road markings (arrows and parking bays) are visible.

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### 3.5 WorkSafe Tasmania Dangerous Goods Records

WorkSafe Tasmania (WST) was contacted regarding the Site. Correspondence with WST is presented in Appendix 5. The information contained within the Dangerous Goods Records is summarised as follows:

Documents approving storage of dangerous goods for year “74/75”

Application for storage of petrol and kerosine dated “7 Dec 1962”

Approval of tank 31/8/1962, inspected 28/11/1962

Driveway Layout for Service Station, site plan 25/5/1962

### 3.6 Environment Protection Authority records

Environmental Protection Authority (EPA) Tasmania, Property Information Requests (PIR)s are currently unavailable while staff have been allocated other tasks relating to the COVID-19 pandemic. The EPA Regulated Premises layer on The LIST shows no regulated premises within a 1 km radius of the site, three decommissioned UPSS (black pin) and one active UPSS (green pin) as illustrated in Figure 5. The UPSS 120 m to the ESE (upgradient) at 119 New Town Road was decommissioned in 2016, with GES undertaking testing and reporting for this site in 2013 and 2016. The active UPSS is at 101-103 Augusta Road, Lenah Valley, which is an active Caltex Service Station. This site is 930 m from the site, and in a different groundwater catchment to the site.

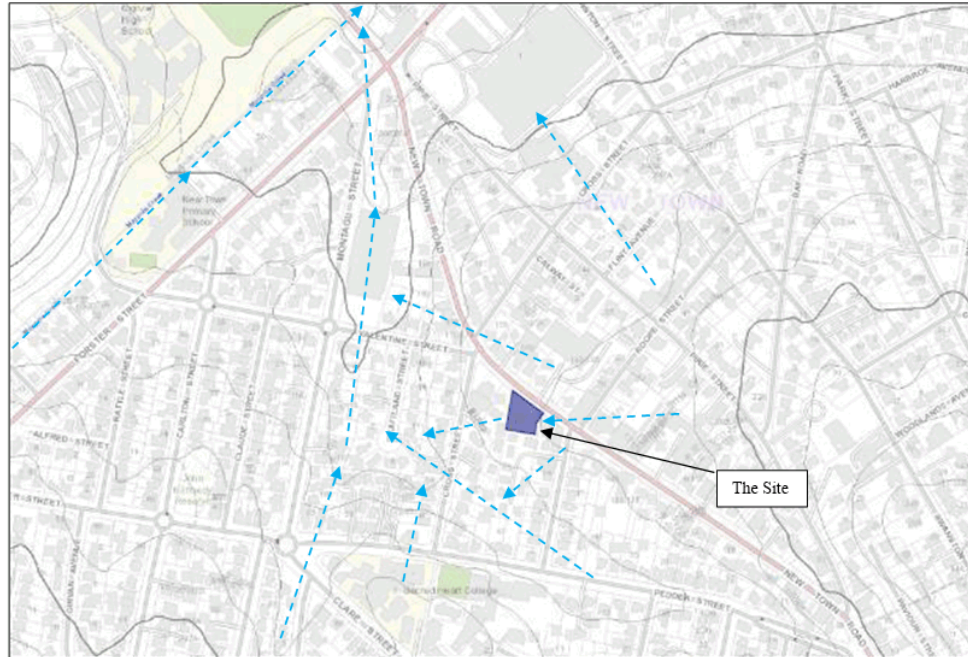


**Figure 5 EPA regulated premises and registered UPSS**

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### 3.7 Site Topography, Drainage & Hydrogeology

The site has a gentle slope tending to a steeper bank of fill at the rear (south west) of the property, the average gradient of the area is 7%. Groundwater and surface water is expected to follow the topography and tend WSW around the Site to then follow a N trajectory around Montagu Street and then to Maypole Rivulet, which is the nearest ecological receptor approximately 500 m NNW of the site. Surface water is likely to enter stormwater infrastructure, and may discharge into Maypole Rivulet. Groundwater and surface water inferred flow directions are illustrated in Figure 6.



**Figure 6 Contour Elevations and Inferred Surface and Groundwater Flow Direction**

### 3.8 Groundwater

#### 3.8.1 Potential Up-Gradient Contamination Sources

The majority of the land upgradient of the Site is residential, and not likely to feature contamination sources, with the exception of 119 New Town Road (former Mayne's Marine), where the UPSS was decommissioned and removed from the site.

#### 3.8.2 Downgradient Ecosystem Receptors

Maypole Rivulet is present 500 m downgradient of the Site. Maypole Rivulet discharges into the River Derwent approximately 1.3 km to the NE of the Site.

#### 3.8.3 Registered Water Bores

There are no downgradient water bores that could be effected by the Site, and no water bores directly upgradient of the Site. The nearest registered water bore is 1.9 km away to the East of the site, in a different catchment. (DPIPWE groundwater information access portal 2020).

#### 3.8.4 Acid Sulfate soils

According to the Land Information Service Tasmania (LIST) database, the nearest Low Probability, Potentially Acid Sulfate Soils (ASS) are 550 m downgradient of the Site at Maypole Rivulet. We do not consider ASS to be a concern on the site.

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### 3.9 Potential Contamination Issues

#### 3.9.1 Areas of Potential Concern

The Site is considered an area of potential concern due to the following potential contamination pathways.

- Use of the site as a service station, with UPSS storing petroleum chemicals present on site approximately 1962-1980.
- Unknown decommissioning dates of UPSS infrastructure, with UPSS potentially remaining on site since 1980.
- Fill of undetermined origins present at the site in the south western corner.

#### 3.9.2 Contaminants of Potential Concern

Contaminants of potential concern (COPC) that have been considered include the following:

- Total Petroleum/Recoverable Hydrocarbons (TPH/TRH);
- Mono Aromatic hydrocarbons: Benzene, Toluene, Ethylbenzene, Xylene, Naphthalene (BTEXN);
- Polynuclear Aromatic Hydrocarbons (PAHs);
- A suite of 15 Metals (south west part of the site); and
- Lead (entire site).

## 4 FIELD INVESTIGATION PROCEDURES

### 4.1 Works Summary

Site investigation works are summarised in Table 2, Figure 7, Figure 8 and Figure 9.

**Table 2 Summary of Site Investigation Work Dates**

Scope	Date	Lab Report	Details
Drilling/ Soil Sample Collection	2 <sup>nd</sup> September 2020	EM2015530	13 primary soil samples, 1 duplicate sample and 1 Rinsate blank sample were collected from 7 bore holes.

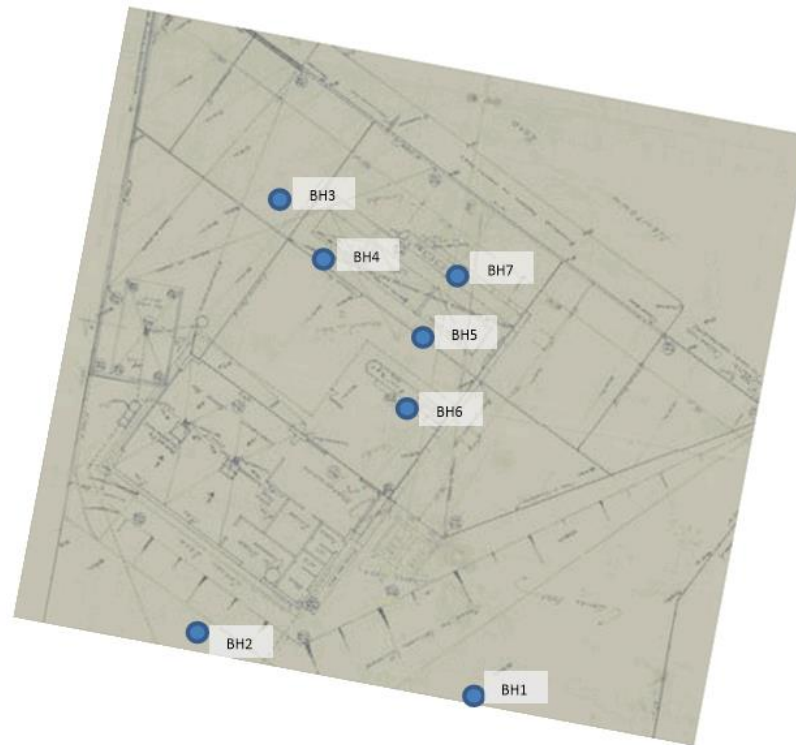


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**Figure 7 Borehole Plan (Bore hole locations illustrated on aerial photograph with 1962 site plan overlaid)**

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**Figure 8 Borehole Plan (Bore hole locations illustrated on 1962 site plan)**

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**Figure 9 Borehole Plan (Bore hole locations illustrated on aerial photograph)**

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## 4.2 Soil Investigation

### 4.2.1 Borehole Drilling

A total of seven holes were drilled for sampling for contamination impact. The bores were drilled by GES using the industry recognized Geoprobe direct push drilling system. The selected drilling method involved using a Geoprobe dual tube to retain wall integrity and eliminates risk of profile collapse whilst allowing extraction of 1.0 m length sample cores and allows for deployment of pre-packed well systems. The test holes were dug to depths of 2.0m or to refusal on underlying rock, to extract soil required for analysis, and to assess underlying geological conditions.

### 4.2.2 Soil Sampling

Soil sampling was conducted per the National Environmental Protection Measure (NEPM ASC 2013) and AS4482 sampling guidelines. Table 3 presents a summary of the soil assessment methodology adopted at the Site.

**Table 3 Summary of Soil Sampling Methods**

Activity	Details / Comments
Drilling Method	Geoprobe direct push drilling.
Soil Logging	Logging the soil was conducted in accordance with the unified soil classification system (USCS) as detailed in AS1726 (1993).
Decontamination of Sampling Equipment	Quantum Clean Laboratory Detergent (R213) was used to decontaminate reusable sampling equipment (hand auger) between each borehole sampling event.
Soil Screening	In accordance with AS4482.2. Individual soil samples were collected at 0.5 intervals below ground surface (bgs) and/or change in geology. Collected samples were deemed to not have odour associated with hydrocarbon contamination, and screening for volatile fractions using a photoionisation Detector (PID) was deemed not necessary.
Laboratory Soil Sample Collection	In accordance with AS4482.2. All samples were collected using disposable nitrile gloves. Samples were selected for laboratory analysis at; 0.5-0.6m below ground surface (BGS) (or 0.85-0.90m BGS in the case of BH7 due to deep concrete). and 1.5-1.6m BGS. A minimum number of samples were carefully selected which would provide enough information to delineate soil contamination.
Sample preservation	Samples were placed into a jar for laboratory analysis. Soil jars were placed in a pre-chilled cool box with ice bricks.
Sample holding times	Sample holding times exceeded acceptable range (based on NEPM ASC B3-2013), time from collection to extraction.

### 4.2.3 Soil Analysis

Primary and QC samples were submitted to Analytical Laboratory Services (ALS), Springvale, Melbourne for analysis. A total of 13 primary samples were selected for analysis. Chain of Custody (COC) documentation was completed and is provided in Appendix 6 along with the Sample Receipt Notification (SRN) for each batch. Table 4 presents a summary of the laboratory analyses undertaken.

**Table 4 Overview of Soil Analysis and Quality Control**

Analytes	Primary Samples	Duplicate <sup>a</sup>	Rinsate <sup>c</sup>
TPH	13	1	1
BTEX	13	1	1
PAH	13	1	1
Suite 15 Metals	13	1	1

Sampling Quality Control Standards (AS4482):

a – Duplicate one (1) in twenty (20) primary samples

b – Inter-lab duplicate split sample one (1) in twenty (20) primary samples

c – Single rinse sample per piece of equipment per day

d – Trip blank and Field blank where hydrocarbon odour is discernible

Given metals were analysed, there was a requirement to assess the following soil physical properties to determine soil threshold investigation levels: Soil grain class (sand/silt or clay); % Clay content; Cation exchange capacity (CEC); and Soil pH. The soil physical properties were based on knowledge of similar soil types encountered around the greater Hobart area.



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## 5 QUALITY CONTROL

All Field and laboratory Quality Assurance and Quality Control (QA/QC) details and outputs are presented in Appendix 7.

### 5.1 Field

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 duplicate and triplicate samples where applicable are calculated using the method outlined below.

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)

Field QA/QC procedures and compliance are summarised in Table 5

**Table 5 Soil Field QA/QC procedures and Compliance**

QA/QC Requirement	Compliance	Comments
Appropriate sampling strategy used and representative samples collected	Yes	Sampling program was undertaken in accordance with AS4482.1-2005
Appropriate and well documented sample collection, handling, logging and transportation procedures.	Yes	Appropriate and well documented
Decontamination	Yes	Appropriate decontamination such as cleaning tools before sampling and between sample locations was undertaken
Chain-of-custody documentation completed	Yes	COC were completed in accordance with NEPM ASC Schedule B2, Section 5.4.5 and transported under strict COC procedures. The signed COC documents are included in this report, which includes the condition report on arrival of samples to the Laboratory, cross checking of sample identification and paperwork and preservation method.
Required number of splits: Duplicate & inter-lab splits: 1 per 20 primary samples	No	One duplicate sample was collected and tested, for 13 primary samples, as per AS4482.1-2005. An inter-laboratory split sample was not collected.
QA/QC samples reported RPD's within indicated MDL guidelines.	No	For Duplicate and BH1 0.5-0.6 pairs, 90% of analytes complied. Non compliances include: an RPD of 43% for Lead where <15% was expected; Inconsistent Detection for C10 - C36 Fraction (sum) an RPD of 79% for >C16 - C34 Fraction where <50% was expected; an RPD of 79% for >C10 - C40 Fraction (sum) where <50% was expected.
Required numbers of rinse blank samples collected with no laboratory detections?	Yes	One rinse blank sample was collected as per AS4482.1-2005
Trip blanks collected with no laboratory detections?	NA	According to AS4482.2-1999, soil trip blanks are required where volatile hydrocarbons are discernible. This was not required.
Field blanks collected with no laboratory detections?	NA	According to Australian Standards, there is no requirement to collect field blanks, unless there is concern with cross contamination risks.
Samples delivered to the laboratory within sample holding times and with correct preservative	Yes	All samples were sent to the laboratory with correct preservative, and within required holding time.

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## 5.2 Laboratory

Soil laboratory QA/QC procedures and compliance are summarised in Table 6.

**Table 6 Soil Laboratory QA/QC Procedures and Compliance**

QA/QC Requirement	Compliance	Comments
All analyses NATA accredited	Yes	ALS Laboratories is NATA Accredited. Appropriate analytical methods used, in accordance with Schedule B(3) of the NEPM ASC 2013. Acceptable laboratory limits of reporting (LORs) adopted.
Method Blanks: zero to <Practical Quantitation Limit (PQL)	Yes	There were no method blank value outliers in the QCI report.
Laboratory Control Samples: 70% to 130% recovery for soil.	No	For EM2015530: Polynuclear Aromatic Hydrocarbons in sample QC-3253362-001, Benzo(a)pyrene, recovery greater than upper control limit.
Matrix spikes: 70% to 130% recovery for organics or 80%-120% recovery for inorganics	No	For EM2015530: Total Petroleum Hydrocarbons in sample EM2015530-003, C29-C26 Fraction, recovery greater than upper data quality objective. Total Recoverable Hydrocarbons (NEPM 2013) in sample EM2015530-003, >C34-C40 Fraction, recovery greater than upper data quality objective.
Duplicate Samples: 0% to <20% RPD.	Yes	There were no duplicate sample RPD outliers in the QCI report.
Surrogates: 70% to 130% recovery	Yes	There were no surrogate recovery outliers in the QCI report.
Analysis holding time outliers	Yes	There were no laboratory control outliers in the QCI report.
Quality Control Sample Frequency Outliers	No	For EM2015530: For NEPM 2013 B3 & ALS QC Standard; TRH – Semivolatile Fraction; Matrix Spikes 0, expected 5.

## 6 FIELD INVESTIGATION FINDINGS

### 6.1 Soil Bores

#### 6.1.1 Geological Interpretation

The geology of the investigation area appears to be consistent with the Rv geological unit. Weathered sandstone rock was found at depths around 1.5m – 1.7m BGS. Some gravels and clay mineralogy of the soil suggest that upslope Jurassic dolerite may have influenced the soil in the profile, however the bedrock appears to be Triassic sandstone.

#### 6.1.2 Grain & Depth Class Interpretation

Grain size classifications are applied to all soils at the Site to determine threshold screening level concentrations for hydrocarbons (and chromium) to assess soil ecological and human health risks.

Grain class threshold values are determined based on either the:

- sample grain size (in the case of ecological screening levels or chromium limits); or
- average grain class overlying the sample point (when assessing petroleum vapour screening levels) relative to the proposed finished floor level.

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Table 7 provides a summary of the grain class averages for material overlying the sample.

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**Table 7 Summary of Grain Class Based on USCS Classification**

Sample	Footing Excavation Depth <sup>A</sup> - Red Fill Thickness <sup>A</sup> - Green	Sample PVI Depth (m) Relative to Slab/Cut Depth	Soil Grain Size Class Averaging Above Soil Sample														Attenuation				SAMPLE USCS				
			GW	GP	GM	GC	SW	SP	SM	SC	ML	CL	OL	MH	CH	OH	CI	Rock (R)	Existing Pavement (P)	Crawl Space Thickness (m)		Proposed CONCRETE (CH)	Crawl Space	Biodegradation	Petroleum Vapour Intrusion HSL Grain Class <sup>B</sup>
BH1 0.5-0.6	3.0	0.5							0.4										NA	0.1	1.0	1.0	SAND	SC	
BH1 1.5-1.6	3.0	1.5				0.1			0.9								0.4			NA	0.1	1.0	1.0	SAND	GC
BH2 0.5-0.6	3.0	0.5							0.4											NA	0.1	1.0	1.0	SAND	SC
BH2 1.5-1.6	3.0	1.5							1.4											NA	0.1	1.0	1.0	SAND	SC
BH3 0.5-0.6	0.4	0.5							0.4									0.0		NA	0.1	1.0	1.0	SAND	SC
BH3 1.5-1.6	0.4	1.5				0.2			0.7								0.5	0.0		NA	0.1	1.0	1.0	SAND	GC
BH4 0.5-0.6	0.4	0.5						0.3	0.1									0.0		NA	0.1	1.0	1.0	SAND	SC
BH4 1.5-1.6	0.4	1.5						0.3	0.4								0.7	0.0		NA	0.1	1.0	1.0	CLAY	GC
BH5 0.5-0.6	0.4	0.5						0.2	0.2									0.0		NA	0.1	1.0	1.0	SAND	SC
BH5 1.5-1.6	0.4	1.5						0.2	0.5								0.7	0.0		NA	0.1	1.0	1.0	CLAY	CI
BH6 0.5-0.6	0.4	0.5				0.4												0.0		NA	0.1	1.0	1.0	SAND	GC
BH7 0.85-0.95	0.4	0.8																0.7		NA	0.1	1.0	1.0	CLAY	CI
BH7 1.5-1.6	0.4	1.5															0.7	0.7		NA	0.1	1.0	1.0	CLAY	CI

Footnotes:

\* Grain class is modified based on proposed building construction: concrete is interpreted to have similar vapour intrusion properties to clay and is therefore designated as CLAY within the grain size averaging assessment; backfill is inferred to comprise of gravel (GW)

< Sample has been collected from above the proposed excavation (base of slab or proposed ground level) and is not relevant in PVI risk assessment

^ Excavation depths are approximate and may vary due to change in services depths or overall building/footing construction design

### 6.1.3 Soil Contamination Observations

No staining or odour consistent with hydrocarbon contamination were observed in excavated soil during the site visit.

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#### **6.1.4 Land Use Class**

For surrounding properties, the potential PVI risk is characterized through application of CRC CARE HSL's for each individual property based on their existing land use (NEPM 2013; Friebe & Nadebaum 2010). The CRC CARE guidelines have been referenced to ensure that the correct land use and density category has been adopted for surrounding land use to ensure health risks are consistent with the HSL models. Aspects considered include the:

- Sensitivity of the existing or potential land use;
- Percentage of paved area for defining potential vapour migration risk;
- Type of basement garage which may influence the confinement of PHC vapours;
- Presence of a slab or cavity for discerning vapour intrusion risk.

If hydrocarbon impacted soil is resulting in ambient vapours discerned at the site, consideration is given to downgradient receptors. Where applicable, land use class therefore considers:

- Downgradient receptors where onsite HSL exceedances have been identified in passive vapour investigations; and
- Variations in land use for different parts of the proposed development.

The following land use classes are applied:

- *HSL D for Commercial*

We consider this land use class most applicable. Pending finalisation of plans, some parts of the site that may be open space or residential apartments may be nearby to natural soil. For this reason, we have presented results against multiple land use classes, to account for several scenarios.

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## 7 SOIL ECOLOGICAL IMPACT ASSESSMENT

### 7.1 Protected Environmental Values

The requirement for protecting soil from contaminated activities in Tasmania is managed under the Environmental Management and Pollution Control Act 1994 (EMPCA) which states in Part 5A:

(2) An area of land is a contaminated site if –

(a) there is in, on or under that area of land a pollutant in a concentration that –

(i) is above the background concentration; and

(ii) is causing or is likely to be causing serious or material environmental harm or environmental nuisance, or is likely to cause serious or material environmental harm or environmental nuisance in the future if not appropriately managed;

Potential soil impact at the site is assessed through application of the following environmental investigation guidelines.

### 7.2 NEPM ASC (2013) Guidelines

The following ecological investigation guidelines are to be addressed in order to assess acceptable levels of risk to terrestrial ecosystems:

- NEPM ASC (2013) Ecological Investigation Levels (EIL's) – have been developed for selected metal and organic substances. EIL's depend on specific soil and physicochemical properties and land use scenarios and generally apply to the top two (2) metres of the soil profile (NEPM ASC 2013);
- NEPM ASC (2013) Ecological Screening Levels (ESL's) – have been developed for selected petroleum hydrocarbon compounds and total petroleum hydrocarbon fractions. ESL's broadly apply to coarse- and fine-grained soils and various land use scenarios within the top two (2) metres of the soil profile (NEPM ASC 2013).

Soil analytical results are compared against ESL and EIL limits presented in Table 8.

**Table 8 Summary of Soil Contaminates Considered as part of this investigation, based on NEPM (2013) ASC**

Investigation Levels (IL)	Analytes Investigated						
	Hydrocarbons				Metals		DDT
	BTEX	TRH (F1 to F4)	Benzo(a) pyrene (PAH)	Naphthalene (PAH)	Zn, Cu, Cr(III), Ni & As	Lead	
ESL's	Analysed	Analysed	Analysed				
EIL's				Analysed	Analysed	Analysed	Not Analysed

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### 7.3 Guidelines

#### 7.3.1 Ecological Screening Levels

The following compounds were compared against NEPM ASC (2013) Ecological Screening Levels (ESL's):

- BTEX;
- F1 to F4 TRH; and
- Benzo(a)pyrene (PAH)

Selection of ESL threshold investigation limits are set out in the NEPM ASC (2013) guidelines and require classification of the soil according to:

- Land use sensitivity:
  - Areas of ecological significance
  - Urban residential and public open space; and
  - Commercial and industrial.
- Dominant particle size passing through a 2 mm sieve into:
  - Coarse – sand sizes and greater; and
  - Fine – clay and silt sizes.

Adopted NEPM ASC (2013) soil and land use classifications are presented below.

#### 7.3.2 Ecological Investigation Levels

The following compounds were compared against Environmental Investigation Levels:

- Lead;
- Nickel;
- Chromium;
- Zinc;
- Copper;
- Arsenic; and
- Naphthalene.

There was a requirement to classify the soil according to physicochemical properties to develop investigation limits for the above listed compounds. Adopted physicochemical parameters are presented in the results tables.

Selection of EIL threshold investigation limits are set out in the NEPM ASC (2013) guidelines and require classification of the soil per specific soil and physicochemical properties which are presented in the results tables. The adopted land use scenarios presented in Table 9.

**Table 9 Adopted Land Use Scenario for the Soil Bores**

Land Use Scenario	Applicable Soil Bores
Areas of Ecological Significance	
Urban Residential & Public Open Space	<i>All soil bores</i>
Commercial & Industrial	<i>All soil bores</i>

Based on a preliminary assessment of site soil conditions, the following physicochemical properties are applied to assess guideline EIL's:

- Clay content consistent with field observations;
- A soil pH and cation exchange capacity (CEC) consistent with Table 10.

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**Table 10 Cation Exchange and Clay content, Adopted for the Site**

<b>Soil Physicochemical Properties</b>			
<b>USCS</b>	<b>Clay %</b>	<b>CEC</b>	<b>pH</b>
R	100.00	10.00	4.5
GW	0.00	10.00	4.5
GP	0.00	10.00	4.5
GM	10.00	15.00	4.5
GC	30.00	20.00	4.5
SW	0.00	10.00	4.5
SP	0.00	10.00	4.5
SM	10.00	15.00	4.5
SC	20.00	20.00	4.5
ML	30.00	20.00	4.5
CL	100.00	35.00	4.5
OL	50.00	35.00	4.5
MH	30.00	35.00	4.5
CH	100.00	45.00	4.5
OH	100.00	60.00	4.5
PT	100.00	80.00	4.5
P	0.00	0.00	4.5
CM	100.00	35.00	4.5
CI	100.00	35.00	4.5
Rock	0.00	10.00	4.5



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## 7.4 Findings

### 7.4.1 Ecological Screening Levels

Laboratory analytical results are presented in Appendix 8. Table 11 compares soil analytical results against relevant NEPM ASC (2013) ESL's. Concentrations which exceeded laboratory limit of reporting (LOR) are highlighted in bold, ESL exceedances are highlighted with a coloured cell, and samples within the proposed excavation zone would be marked with an X.

Benzo(a)pyrene was detected above ESL guideline limits for urban land use in four samples; 2-5x above ESL in BH1 0.5-0.6 & BH4 0.5-0.6, and 5-20x ESL in BH3 0.5-0.6 & BH5 0.5-0.6. Total Recoverable Hydrocarbons Fraction 3 was detected above ESL guideline limits for urban land use in four samples; 1-2x above ESL in BH1 0.5-0.6 & BH2 1.5-1.6, 2-5x above ESL in BH3 0.5-0.6, and 5-20 above ESL in BH2 0.5-0.6.

**Table 11 Summary of Soil Analytical Results Compared with ESL's for urban/residential land use.**

NEPM Ecological Screening Levels for Soil				BTEX				PAH	TRH			
Bold - Indicates LOR Exceedances X - Indicates Sample has been Excavated  Colour Shading - Indicates ESL Exceedances: >1 x, * 2-5 x, ** 5-20 x, *** 20-50 x, **** >50 x				Benzene	Toluene	Ethylbenzene	Xylenes	Benzo(a)pyrene	F1 (C5 - C10)	F2 (>C10 - C16)	F3 (>C16 - C34)	F4 (>C34 - C40)
Sample ID	Sample Date	Soil Texture Class (fine / coarse)	Land Use	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
				LOR 0.2	LOR 0.5	LOR 0.5	LOR 0.5	LOR 0.5	LOR 10	LOR 50	LOR 100	LOR 100
BH1 0.5-0.6 X	2/9/20	C	URBAN	<0.2	<0.5	<0.5	<0.5	2*	<10	<50	370	<100
BH1 1.5-1.6 X	2/9/20	C	URBAN	<0.2	<0.5	<0.5	<0.5	<0.5	<10	<50	<100	<100
BH2 0.5-0.6 X	2/9/20	C	URBAN	<0.2	<0.5	<0.5	<0.5	<0.5	<10	<50	1910**	1160
BH2 1.5-1.6 X	2/9/20	C	URBAN	<0.2	<0.5	<0.5	<0.5	<0.5	<10	<50	330	220
BH3 0.5-0.6	2/9/20	C	URBAN	<0.2	<0.5	<0.5	<0.5	12.7**	<10	<50	750*	240
BH3 1.5-1.6	2/9/20	C	URBAN	<0.2	<0.5	<0.5	<0.5	<0.5	<10	<50	<100	<100
BH4 0.5-0.6	2/9/20	C	URBAN	<0.2	<0.5	<0.5	<0.5	3.3*	<10	<50	230	<100
BH4 1.5-1.6	2/9/20	C	URBAN	<0.2	<0.5	<0.5	<0.5	<0.5	<10	<50	<100	<100
BH5 0.5-0.6	2/9/20	C	URBAN	<0.2	<0.5	<0.5	<0.5	3.6**	<10	<50	260	<100
BH5 1.5-1.6	2/9/20	F	URBAN	<0.2	<0.5	<0.5	<0.5	<0.5	<10	<50	<100	<100
BH6 0.5-0.6	2/9/20	C	URBAN	<0.2	<0.5	<0.5	<0.5	<0.5	<10	<50	120	<100
BH7 0.85-0.95	2/9/20	F	URBAN	<0.2	<0.5	<0.5	<0.5	<0.5	<10	<50	<100	<100
BH7 1.5-1.6	2/9/20	F	URBAN	<0.2	<0.5	<0.5	<0.5	<0.5	<10	<50	<100	<100

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#### 7.4.2 Ecological Investigation Levels

Table 12 compares soil analytical results against relevant EIL's. Concentrations which exceeded laboratory LOR are reported in the table, EIL exceedances are highlighted with a coloured cell, and samples within the proposed excavation zone would be marked with an X. Metals were tested at BH2 due to that area containing fill of unknown origins. There were exceedances of EIL guidelines at commercial land use for Zinc in BH2 0.5-0.6.

**Table 12 Soil Analytical Results Compared Against Ecological Investigation Levels at commercial land use**

NEPM Ecological Investigation Levels for Soil						Copper (CEC)	Copper (pH)	Nickel	Zinc	Chromium III	Lead	Arsenic	Naphthalene
Bold - Indicates LOR Exceedances													
X - Indicates Sample Within Inferred Excavation													
Colour Shading - Indicates EIL Exceedances: >1 x, * 2-5 x, ** 5-20 x, *** 20-50 x, **** >50 x													
Sample ID	Sample Date	EIL Land Use Sensitivity Class	Soil CEC (cmolc/kg)	Soil pH	Soil Texture Class (fine / coarse)	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
BH1 0.5-0.6 X	2/9/20	URBAN	20	4.5 (3)	C	----	----	----	----	----	718	----	<1
BH1 1.5-1.6 X	2/9/20	URBAN	20	4.5 (3)	C	----	----	----	----	----	11	----	<1
BH2 0.5-0.6 X	2/9/20	URBAN	20	4.5 (3)	C	47	47	11	260*	10	804	6	<1
BH2 1.5-1.6 X	2/9/20	URBAN	20	4.5 (3)	C	38	38	13	114	8	110	<5	<1
BH3 0.5-0.6	2/9/20	URBAN	20	4.5 (3)	C	----	----	----	----	----	227	----	<1
BH3 1.5-1.6	2/9/20	URBAN	20	4.5 (3)	C	----	----	----	----	----	6	----	<1
BH4 0.5-0.6	2/9/20	URBAN	20	4.5 (3)	C	----	----	----	----	----	89	----	<1
BH4 1.5-1.6	2/9/20	URBAN	20	4.5 (3)	C	----	----	----	----	----	12	----	<1
BH5 0.5-0.6	2/9/20	URBAN	20	4.5 (3)	C	----	----	----	----	----	97	----	<1
BH5 1.5-1.6	2/9/20	URBAN	35	4.5 (3)	F	----	----	----	----	----	11	----	<1
BH6 0.5-0.6	2/9/20	URBAN	20	4.5 (3)	C	----	----	----	----	----	16	----	<1
BH7 0.85-0.95	2/9/20	URBAN	35	4.5 (3)	F	----	----	----	----	----	<5	----	<1
BH7 1.5-1.6	2/9/20	URBAN	35	4.5 (3)	F	----	----	----	----	----	7	----	<1

pH Designation:

(1) Using 0.01M CaCl<sub>2</sub> extract. Rayment, G.E. and Lyons, D.J. (2011). "Soil Chemical Methods – Australasia". 495+20 pp. CSIRO Publishing, Melbourne.

(2) pH<sub>F</sub> (1:5). Adjusted by subtracting 0.75 with +/- 0.25 error to calibrate to the CaCl<sub>2</sub> method (per comm. ALS Brisbane Acid Sulphate Soils Laboratory). Methods in accordance with Ahern, C.R., Stone Y., and Blunden B. (1998b). 'Acid Sulfate Soils Assessment Guidelines'. Acid Sulfate Soils Management Advisory Committee, Wollongbar, NSW, Australia.

(3) Classified in accordance with parent material typical soil pH as per the Tasmanian soils database

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## 8 SOIL HUMAN HEALTH DIRECT CONTACT ASSESSMENT

### 8.1 Guidelines

Guidelines presented are based on potential exposure of human receptors to soil impact which may include:

- Trench workers repairing or building services (typically to 1 m BGS). This classification is not dependent on the land use class.
- Onsite workers which may be exposed to potential shallow soil impact in non-paved areas of the site; and
- Onsite excavation works which may include basement car parks and deep foundations.

#### 8.1.1 Land Use Classification

The NEPM ASC (2013) guidelines have been referenced to ensure that the correct land use and density category has been adopted for the site and the surrounding properties (where applicable). As per NEPM ASC 2013 guidelines, the adopted land use class is dependent on the building density and the opportunity for soil access by site occupants (exposure to potentially impacted soil). Aspects needing to be considered include:

- Whether the site is of sensitive land use such as a childcare centre, preschool, primary school or aged care facility in which case land use Class A is applicable;
- The percentage of paved area to determine direct contact exposure risk and therefore classification as low or high density; and
- Classification based on residential, recreational or commercial/industrial setting.

#### 8.1.2 Adopted Land Use Classification

The adopted land use class is presented in Table 13. Land use class is based on the opportunity for soil access as per NEPM ASC 2013 guidelines. Soil access is anticipated to include current and future residents on site, and future potential construction workers, and trenchworks on site.

**Table 13 Summary of Land Use Setting and Density for Determining Exposure Risk**

Soil Bores	Construction Phase	Location	Land Use	Pathway	Land Use Class
All soil	During	Site	Construction workers and trench workers	ALL	D and trench worker specific
		Offsite	Neighbouring residential land users	DI	A
	Post	Site	Future trench workers	ALL	D and trench worker specific
			Future commercial workers	ALL	D
			Possible future open space users if soil is left remaining on the site	ALL	B

DC – Dermal Contact - Trench Worker Guidelines (CRC CARE 2013)

DI – Dust Inhalation - HIL Guidelines (NEPM ASC 2013)

SI – Soil Ingestion - HIL Guidelines (NEPM ASC 2013)

ALL – All of above

#### 8.1.3 Health Investigation & Screening Levels

The main exposure pathways and methods for assessing health risk from contaminated soils are presented in Table 14.

**Table 14 Summary of Exposure Pathways and Preliminary (Tier 1) Methods for Assessing Human Exposure Risk**

Exposure Scenario	Contaminant Type	Tier 1 Assessment Method	Reference
Vapour Inhalation – Indoor (PVI)	Petroleum Hydrocarbons	HSL's	NEPM ASC (2013)
Vapour Inhalation – Trench (PVI)		(addressed in PVI sections)	CRC CARE
Dermal Contact		HSL's	(Friebel & Nadebaum, 2011)
Dust Inhalation	Metals PAH's	Health Investigation Levels (HIL's)	NEPM ASC (2013)
Soil Ingestion			

PVI – Petroleum Vapour Intrusion

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## 8.2 Findings

### 8.2.1 Dermal Contact - Petroleum Hydrocarbons

Laboratory analytical results are presented in Appendix 8. Table 15 presents soil hydrocarbon analytical results compared against CRC CARE (Friebel & Nadebaum, 2011) HSL guidelines for assessing dermal contact risk. Concentrations which exceeded laboratory LOR are highlighted in bold, HSL exceedances would be highlighted with a coloured cell indicating the highest HSL land use class which is exceeded.

There were detections of TRH in seven samples, however there were no guideline exceedances for dermal contact and no dermal contact risk identified at any land use levels.

**Table 15 Soil Analytical Results Compared Against CRC CARE (Friebel & Nadebaum, 2011) Guidelines for Dermal Contact**

CRC CARE Health Screening Level  Dermal Contact Hazard from Soil Hydrocarbons'		EP080: BTEXN					EP080/071: TRH			
		Benzene	Toluene	Ethylbenzene	Total Xylenes	Naphthalene	C6 - C10 Fraction	>C10 - C16 Fraction	>C16 - C34 Fraction	>C34 - C40 Fraction
Units		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
LOR		0.2	0.5	0.5	0.5	1	10	50	100	100
HSL A Low Density Residential		100	14000	4500	12000	1400	4400	3300	4500	6300
HSL B High Density Residential		140	21000	5900	17000	2200	5600	4200	5800	8100
HSL C Recreational		120	18000	5300	15000	1900	5100	3800	5300	7400
HSL D Commercial/Industrial		430	99000	27000	81000	11000	26000	20000	27000	38000
Intrusive Maintenance Worker		1100	120000	85000	130000	29000	82000	62000	85000	120000
Date	Sample									
2/09/2020	BH1 0.5-0.6 X	<0.2	<0.5	<0.5	<0.5	<1	<10	<50	<b>370</b>	<100
2/09/2020	BH1 1.5-1.6 X	<0.2	<0.5	<0.5	<0.5	<1	<10	<50	<100	<100
2/09/2020	BH2 0.5-0.6 X	<0.2	<0.5	<0.5	<0.5	<1	<10	<50	<b>1910</b>	<b>1160</b>
2/09/2020	BH2 1.5-1.6 X	<0.2	<0.5	<0.5	<0.5	<1	<10	<50	<b>330</b>	<b>220</b>
2/09/2020	BH3 0.5-0.6	<0.2	<0.5	<0.5	<0.5	<1	<10	<50	<b>750</b>	<b>240</b>
2/09/2020	BH3 1.5-1.6	<0.2	<0.5	<0.5	<0.5	<1	<10	<50	<100	<100
2/09/2020	BH4 0.5-0.6	<0.2	<0.5	<0.5	<0.5	<1	<10	<50	<b>230</b>	<100
2/09/2020	BH4 1.5-1.6	<0.2	<0.5	<0.5	<0.5	<1	<10	<50	<100	<100
2/09/2020	BH5 0.5-0.6	<0.2	<0.5	<0.5	<0.5	<1	<10	<50	<b>260</b>	<100
2/09/2020	BH5 1.5-1.6	<0.2	<0.5	<0.5	<0.5	<1	<10	<50	<100	<100
2/09/2020	BH6 0.5-0.6	<0.2	<0.5	<0.5	<0.5	<1	<10	<50	<b>120</b>	<100
2/09/2020	BH7 0.85-0.95	<0.2	<0.5	<0.5	<0.5	<1	<10	<50	<100	<100
2/09/2020	BH7 1.5-1.6	<0.2	<0.5	<0.5	<0.5	<1	<10	<50	<100	<100

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### **8.2.2 Dust Inhalation & Soil Ingestion**

Laboratory analytical results are presented in Appendix 8. Soil analytical results compared against combined dust inhalation and soil ingestion risk assessed through the application of NEPM ASC (2013) Health Investigation Levels (HILs) for exposure to soil contaminants are presented in Table 16. Concentrations which exceeded laboratory LOR are highlighted in bold (except for the metals), and HIL exceedances are highlighted with a coloured cell indicating the highest HIL land use class which is exceeded. There were no exceedances for dust inhalation and soil ingestion HIL guidelines at Commercial land class. Other land classes are presented as they may be relevant pending finalised designs of the development.

Lead exceeds Low Density Residential and Recreational land use classes at BH1 and BH2, however the material in these areas will be excavated and removed for the proposed car parking basement, hence this risk can be dismissed.

Benzo(a)pyrene exceeds Low Density Residential, High Density Residential and Recreational land use levels in BH3, BH4 & BH5, which represents the northern part of the site. The majority of the northern part of the site will feature commercial properties, and the majority of the open space will be overlying the basement and feature imported (clean fill) soil, so these exceedances may not be applicable. However they are presented pending the final development designs, in case soil from the northern part of the site will be in contact with either residential apartments or open space.

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**Table 16 Soil Analytical Results Compared Against NEPM ASC (2013) Health Investigation Levels Guidelines**

Bold - Indicates LOR Exceedance in Non Metallic Compounds			EA055: Moisture Content	EG005T: Total Metals by ICP-AES														EG005T: Total Recoverable Mercury by FIMS	EP075(SIM)B: Polynuclear Aromatic Hydrocarbons																		
NEPM Health Investigation Levels (HIL's)			Moisture Content	Arsenic	Barium	Beryllium	Boron	Cadmium	Chromium Total	Cobalt	Copper	Lead	Manganese	Nickel	Selenium	Vanadium	Zinc	Mercury	Naphthalene	Acenaphthylene	Acenaphthene	Fluorene	Phenanthrene	Anthracene	Fluoranthene	Pyrene	Benz[a]anthracene	Chrysene	Benzo[b]fluoranthene	Benzo[k]fluoranthene	Benzo[a]pyrene	Indeno[1,2,3-cd]pyrene	Dibenz[ah]anthracene	Benzo[ghi]perylene	PAHs	Benzo[a]pyrene TEQ (WHO)	
Dust Inhalation and Soil Ingestion Assessment																																					
X - Indicates Sample Within Proposed Excavation Zone																																					
Units			%	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	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
LOR			1	5	10	1	50	1	2	2	5	5	5	2	5	5	5	0.1	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
HIL A Low Density Residential			✓ HIL A	100	60	4500	20	100	6000	300	3800	400	200	7400	40																					300	3
HIL B Medium/High Density Residential			✓ HIL B	500	90	40000	150	600	30000	1200	14000	1200	1400	60000	120																					400	4
HIL C Recreational			✓ HIL C	300	90	20000	90	300	17000	600	19000	1200	700	30000	80																					300	3
HIL D Commercial/Industrial			✓ HIL D	3000	500	300000	900	4000	240000	1500	60000	6000	10000	400000	730																					4000	40
HIDE ROW			D	3000	500	300000	900	4000	240000	1500	60000	6000	10000	400000	730																					4000	40
Sample date: Sample ID																																					
2/09/2020 BH1 0.5-0.6 X				18.8	----	----	----	----	----	----	718	----	----	----	----	----	----	----	<0.5	<0.5	<0.5	<0.5	0.5	<0.5	1.8	2.1	1.2	1.0	2.0	0.8	2.0	1.1	<0.5	1.5	14	2.5	
2/09/2020 BH1 1.5-1.6 X				12.2	----	----	----	----	----	----	11	----	----	----	----	----	----	----	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
2/09/2020 BH2 0.5-0.6 X				15.3	6	80	<1	<50	4	10	6	47	804	188	11	<5	27	260	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1	<0.5	
2/09/2020 BH2 1.5-1.6 X				19.2	<5	80	<1	<50	<1	8	8	38	110	234	13	<5	26	114	0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
2/09/2020 BH3 0.5-0.6				22.3	----	----	----	----	----	----	227	----	----	----	----	----	----	----	0.5	1.9	<0.5	0.5	7.7	1.8	18.5	19.5	9.3	9.0	13.3	3.7	12.7	6.3	2.1	8.3	115	18	
2/09/2020 BH3 1.5-1.6				10.9	----	----	----	----	----	----	6	----	----	----	----	----	----	----	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
2/09/2020 BH4 0.5-0.6				19.3	----	----	----	----	----	----	89	----	----	----	----	----	----	----	<0.5	0.6	<0.5	<0.5	1.1	<0.5	3.8	4.4	2.3	2.2	3.7	1.3	3.3	1.7	0.5	2.2	27	4.7	
2/09/2020 BH4 1.5-1.6				24.3	----	----	----	----	----	----	12	----	----	----	----	----	----	----	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
2/09/2020 BH5 0.5-0.6				21.1	----	----	----	----	----	----	97	----	----	----	----	----	----	----	<0.5	0.6	<0.5	<0.5	1.2	<0.5	4.1	4.7	2.5	2.5	3.7	1.4	3.6	1.8	0.6	2.4	29	5.2	
2/09/2020 BH5 1.5-1.6				21.1	----	----	----	----	----	----	11	----	----	----	----	----	----	----	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
2/09/2020 BH6 0.5-0.6				14.7	----	----	----	----	----	----	16	----	----	----	----	----	----	----	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
2/09/2020 BH7 0.85-0.95				12.9	----	----	----	----	----	----	<5	----	----	----	----	----	----	----	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
2/09/2020 BH7 1.5-1.6				22.5	----	----	----	----	----	----	7	----	----	----	----	----	----	----	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	

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## 9 INDOOR INHABITANT PVI ASSESSMENT – HSL's

This PVI assessment has been conducted in accordance with relevant CRC CARE Technical Documentation and NEPM 2013 guidelines presented in references section of this report. The HSL assessment approach is generally the first (Tier 1) investigation phase adopted for assessing PVI risk at petroleum hydrocarbon (PHC) impacted sites. HSL guidelines have been applied for samples collected from the site to account for risks that may be associated with volatile hydrocarbon vapour intrusion into confined spaces where there may be an inhalation risk through longer term exposure. This does not constitute a full vapour risk assessment but provides additional information from which to further quantify any risk.

A detailed investigation (Tier 2 to 3) is recommended over an HSL assessment where an acute risk has been identified at the site (CRC CARE 2013) because of:

- Migrating product on surface soils beneath buildings;
- Strong PHC odours;
- Flammable risk in confined spaces; and/or
- Health complaints from occupants.

Based on the site visits, none of the above conditions have been identified at the site. If the outcome of this Tier 1 assessment reveals HSL exceedances for hydrocarbon vapour intrusion, a more detailed (Tier 2) assessment will be required to further evaluate the human health risk.

PVI risk is initially interpreted through the development of HSL threshold limits from the following classifications:

- The geology and or hydrogeology of the investigation point; and
- Land use sensitivity;

The resulting HSL threshold limits are compared with laboratory analytical results.

### 9.1 Selected Media for Assessing PVI Risk

Table 17 presents a summary of the preferred HSL approach to assessing PVI risk. In this case Radiello Vapour Samplers were used to determine ambient vapour concentrations of selected chemicals. Concentrations of PHC in soil were calculated, and were below all investigation limits (data not presented).

**Table 17 Preferred Methods for Determining Site PVI Risk**

Media Analysed	Method	Limitations	Order of Preference
Soil Gas	Concentrations of a soil gas through a soil vapor sampler	This approach provides the most reliable data in interpreting PVI risk, although direct modelling should be applied if concentrations exceed HSL threshold limits.	Primary
Groundwater	Concentrations of PHC in groundwater through deployment of monitoring wells	More robust and reliable than soil in determining onsite and in particular, offsite risks. Determining PVI risk based on groundwater is inherently conservative when interpreting vapour risk to account for not readily discernible preferential pathways. Reference may be drawn to alternative assessment approaches: <ol style="list-style-type: none"> <li>1) Application of site-specific conditions to the CRC CARE model for assessing PVI risk</li> <li>2) Soil gas interpretation for areas where a PVI risk is identified from groundwater analysis.</li> </ol>	Secondary
Soil	Concentrations of PHC in soil	Concentrations in soil may be subject variability due to soil moisture, organic content and oxygen ingress all which create significant bias in threshold values. Reliance is placed on utilizing groundwater analysis over soil. Soil results provide localised information.	Tertiary



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## 9.2 Land Use Class

For surrounding properties, the potential PVI risk is characterized through application of CRC CARE HSL's for each individual property based on their existing land use (NEPM 2013; Friebe & Nadebaum 2010). The CRC CARE guidelines have been referenced to ensure that the correct land use and density category has been adopted for surrounding land use to ensure health risks are consistent with the HSL models. Aspects considered include the:

- Sensitivity of the existing or potential land use;
- Percentage of paved area for defining potential vapour migration risk;
- Type of basement garage which may influence the confinement of PHC vapors;
- Presence of a slab or cavity for discerning vapour intrusion risk.

If hydrocarbon impacted soil is discerned at the site, consideration is given to downgradient receptors. Where applicable, land use class therefore considers:

- Downgradient receptors where onsite HSL exceedances have been identified in soil; and
- Variations in land use for different parts of the proposed development.

The following land use classes are applied:

- *HSL D for Commercial*
- *HSL A for Residential*

Results are presented against HSL A to account for the potential of some residential space being at ground level, and also as it is the most conservative level to compare results against.

## 9.3 Soil Assessment

Laboratory analytical results are presented in Appendix 8. Table 18 presents the results against a potential indoor vapour risk at HSL class A. Concentrations which exceeded laboratory LOR would be highlighted in bold. HSL exceedances would be highlighted with a coloured cell. There were no exceedances of HSL Class A or HSL Class D guideline limits, and no indoor vapour risk identified.

**Table 18 Soil Analytical Results Compared Against HSL A for Indoor Vapour Risk**

Soil Hydrocarbon HSL's for Assessing Indoor Vapour Intrusion (NEPM 2013)					EPO80: BTEXN					EPO80/071: TRH	
Soil Sample Analysis					Benzene	Toluene	Ethylbenzene	Total Xylenes	Naphthalene	F1	F2
Bold - Indicates LOR Exceedances											
Colour Shading - Indicates HSL Exceedances: >1 x, * 2-5 x, ** 5-20 x, *** 20-50 x, **** >50 x											
Sample ID	Sample Date	Depth Class	Grain Class	HSL	mg/kg LOR 0.2	mg/kg LOR 0.5	mg/kg LOR 0.5	mg/kg LOR 0.5	mg/kg LOR 1	mg/kg LOR 10	mg/kg LOR 50
BH1 0.5-0.6	2/09/2020	0 - 1	SAND	A	<0.2	<0.5	<0.5	<0.5	<1	<10	<50
BH1 1.5-1.6	2/09/2020	1 - 2	SAND	A	<0.2	<0.5	<0.5	<0.5	<1	<10	<50
BH2 0.5-0.6	2/09/2020	0 - 1	SAND	A	<0.2	<0.5	<0.5	<0.5	<1	<10	<50
BH2 1.5-1.6	2/09/2020	1 - 2	SAND	A	<0.2	<0.5	<0.5	<0.5	<1	<10	<50
BH3 0.5-0.6	2/09/2020	0 - 1	SAND	A	<0.2	<0.5	<0.5	<0.5	<1	<10	<50
BH3 1.5-1.6	2/09/2020	1 - 2	SAND	A	<0.2	<0.5	<0.5	<0.5	<1	<10	<50
BH4 0.5-0.6	2/09/2020	0 - 1	SAND	A	<0.2	<0.5	<0.5	<0.5	<1	<10	<50
BH4 1.5-1.6	2/09/2020	1 - 2	CLAY	A	<0.2	<0.5	<0.5	<0.5	<1	<10	<50
BH5 0.5-0.6	2/09/2020	0 - 1	SAND	A	<0.2	<0.5	<0.5	<0.5	<1	<10	<50
BH5 1.5-1.6	2/09/2020	1 - 2	CLAY	A	<0.2	<0.5	<0.5	<0.5	<1	<10	<50
BH6 0.5-0.6	2/09/2020	0 - 1	SAND	A	<0.2	<0.5	<0.5	<0.5	<1	<10	<50
BH7 0.85-0.95	2/09/2020	0 - 1	CLAY	A	<0.2	<0.5	<0.5	<0.5	<1	<10	<50
BH7 1.5-1.6	2/09/2020	1 - 2	CLAY	A	<0.2	<0.5	<0.5	<0.5	<1	<10	<50



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**10 TRENCH WORKER PVI ASSESSMENT – HSL's****10.1 Classification**

The following Health Screening Assessment is based on hydrocarbon vapour intrusion risk to subsurface excavation workers within excavations. This is assessed through analysis of vapours from soil and soil vapours. Groundwater is generally not used to assess risk as threshold limits for all depth and grain classes are non-limiting. Land use classes are not applicable when assessing vapour intrusion into trenches.

Soil and soil vapour HSL's for assessing hydrocarbon risk to maintenance workers are based on CRC CARE Technical Report 10 guidelines (Friebel & Nadebaum 2011) and the following variables:

- Dominant grain size class of material at the soil sample depth or based on the dominant grain class of the backfill material based on US Agriculture Soil Classification System (SCS) and partitioning into either sand, silt or clay; and
- Classifying soil according to depth ranges: 0 to 2 m; 2 to 4 m; 4 to 8 m; and greater than 8 m;

**10.2 Findings**

Laboratory analytical results are presented in Appendix 8. Summary of Soil Analytical Results Compared against HSL's for Assessing PVI Risk to Trench Workers are presented in Table 19. Concentrations that exceeded laboratory LOR would be highlighted in bold, and if there were any HSL exceedances they would be highlighted with a coloured cell. There were no exceedances of the CRC CARE HSL guidelines for Assessing PVI Risk to Trench Workers and no risk identified.

**Table 19 Summary of Soil Analytical Results Compared against HSL's for Assessing PVI Risk to Trench Workers**

CRC CARE Health Screening Level Assessment for PHC Inhalation Risk To Trench Workers From Soil Sample Analysis				EPO80: BTEXN					EPO80/071: TRH	
Bold - Indicates LOR Exceedances				Benzene	Toluene	Ethylbenzene	Total Xylenes	Naphthalene	C6 - C10 Fraction	>C10 - C16 Fraction
Dark Grey Shading - Indicates HSL Exceedances: >1 x, * 2-5 x, ** 5-20 x, *** 20-50 x, **** >50 x										
Sample ID	Sample Date	Depth Class	Grain Class	mg/kg LOR 0.2	mg/kg LOR 0.5	mg/kg LOR 0.5	mg/kg LOR 0.5	mg/kg LOR 1	mg/kg LOR 10	mg/kg LOR 50
BH1 0.5-0.6	2/09/2020	0 to 2m	SAND	<0.2	<0.5	<0.5	<0.5	<1	<10	<50
BH1 1.5-1.6	2/09/2020	0 to 2m	SAND	<0.2	<0.5	<0.5	<0.5	<1	<10	<50
BH2 0.5-0.6	2/09/2020	0 to 2m	SAND	<0.2	<0.5	<0.5	<0.5	<1	<10	<50
BH2 1.5-1.6	2/09/2020	0 to 2m	SAND	<0.2	<0.5	<0.5	<0.5	<1	<10	<50
BH3 0.5-0.6	2/09/2020	0 to 2m	SAND	<0.2	<0.5	<0.5	<0.5	<1	<10	<50
BH3 1.5-1.6	2/09/2020	0 to 2m	SAND	<0.2	<0.5	<0.5	<0.5	<1	<10	<50
BH4 0.5-0.6	2/09/2020	0 to 2m	SAND	<0.2	<0.5	<0.5	<0.5	<1	<10	<50
BH4 1.5-1.6	2/09/2020	0 to 2m	CLAY	<0.2	<0.5	<0.5	<0.5	<1	<10	<50
BH5 0.5-0.6	2/09/2020	0 to 2m	SAND	<0.2	<0.5	<0.5	<0.5	<1	<10	<50
BH5 1.5-1.6	2/09/2020	0 to 2m	CLAY	<0.2	<0.5	<0.5	<0.5	<1	<10	<50
BH6 0.5-0.6	2/09/2020	0 to 2m	SAND	<0.2	<0.5	<0.5	<0.5	<1	<10	<50
BH7 0.85-0.95	2/09/2020	0 to 2m	CLAY	<0.2	<0.5	<0.5	<0.5	<1	<10	<50
BH7 1.5-1.6	2/09/2020	0 to 2m	CLAY	<0.2	<0.5	<0.5	<0.5	<1	<10	<50

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## 11 SOIL DISPOSAL ASSESSMENT

### 11.1 Guidelines

Soil which is excavated from the Site for landfill disposal is to be assessed against Information Bulletin 105 (IB105) for Classification and Management of Contaminated Soil for Disposal. The EPA uses four categories to classify contaminated soil as per Table 20:

- (Level 1) Fill Material;
- (Level 2) Low Level Contaminated Soil;
- (Level 3) Contaminated Soil; and
- (Level 4) Contaminated Soil for Remediation.

Fixed numerical values are presented for soil concentrations and leachable fraction concentrations.

**Table 20 Summary of IB105 Classification Guidelines**

	Classification (with reference to Table 2)	Controlled Waste <sup>1</sup>	Comments
<b>Fill Material<sup>2</sup> (Level 1)</b>	Soil that exhibits levels of contaminants below the limits defined under <i>Fill Material</i> in Table 2.	Unlikely	Soil classified as <i>Fill Material</i> can still be a 'pollutant' under the <i>Environmental Management and Pollution Control Act 1994</i> and needs to be responsibly managed.
<b>Low Level Contaminated Soil (Level 2)</b>	Soil that exhibits levels of contaminants above the limits defined under <i>Fill Material</i> but below the limits defined under <i>Low Level Contaminated Soil</i> in Table 2.	Likely	Where leachable concentrations have not been prescribed, maximum total concentrations will be used to classify the soil.
<b>Contaminated Soil (Level 3)</b>	Soil that exhibits levels of contaminants above the limits defined under <i>Low Level Contaminated Soil</i> but below the limits defined under <i>Contaminated Soil</i> in Table 2.	Yes	Where leachable concentrations have not been prescribed, maximum total concentrations will be used to classify the soil.
<b>Contaminated Soil for Remediation (Level 4)</b>	Soil that exhibits levels of contaminants above the limits defined under <i>Contaminated Soil</i> in Table 2 (regardless of the maximum total concentrations) is generally <b>not</b> considered acceptable for off-site disposal without prior treatment.	Yes	Soil that contains contaminants that do not have criteria for leachable concentrations (e.g. petroleum hydrocarbons), and the levels of contaminants exceed the maximum total concentrations listed in <i>Contaminated Soil</i> , are generally classified as <i>Contaminated Soil for Remediation</i> .

<sup>1</sup> Controlled Waste is defined in the *Environmental Management and Pollution Control Act 1994*.

<sup>2</sup> Criteria for *Fill Material* are the limits set by the Director for the purposes of R.9(2)(a)(ii) in the *Regulations*.

### 11.2 Findings

The soil samples have been compared against IB105 guidelines for potential future soil disposal, see Table 21. The following conclusions can be made:

- 3 of the 13 samples are considered IB105 Level 3 (Contaminated Soil), these being: sample BH3 0.5-0.6 for Benzo(a)pyrene and Sum of Polycyclic Aromatic Hydrocarbons, sample BH4 0.5-0.6 for Benzo(a)pyrene, and sample BH4 0.5-0.6 for Benzo(a)pyrene.
- 2 of the 13 samples are considered IB105 Level 2 (Low Level Contaminated Soil), these being BH1 0.5-0.6 and BH2 0.5-0.6, due to; Cadmium, Lead, Zinc and hydrocarbons.
- 8 of the 13 samples are considered IB105 Level 1 (Clean Fill)

The Level 2 and Level 3 material is identified in the upper horizon (0.5-0.6m BGS), and the samples from lower depths are all considered Level 1 material. The contamination levels across the site can be considered as.

- Natural soil at depth is free of contamination
- Fill material at the southern and south western parts of the site is considered Level 2 material due to heavy metals and hydrocarbons.
- Contaminated soil at IB105 Level 3 impacted from historical hydrocarbon use and storage is present in the surface horizons around the northern part of the site.

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**Table 21 Soil Analytical Results Compared Against IB105 Investigation Limits for soil Disposal**

Information Bulletin 105 Classification and Management of Contaminated Soil For Disposal		Arsenic	Barium	Beryllium	Cadmium	Chromium Total	Copper	Cobalt	Lead	Manganese	Mercury	Nickel	Selenium	Zinc	Benzo(a)pyrene	C6 - C9 Fraction	C10 - C36 Fraction (sum)	Sum of polycyclic aromatic hydrocarbons	Benzene	Toluene	Ethylbenzene	Total Xylenes
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
LOR		5	10	1	1	2	5	2	5	5	0.1	2	5	5	0.5	10	50	0.5	0.2	0.5	0.5	0.5
Investigation Level Selected																						
IB105 Level 1		<20	<300	<2	<3	<50	<100	<100	<300	<500	<1	<60	<10	<200	<0.08	<65	<1000	<20	<1	<1	<3	<14
IB105 Level 2		20	300	2	3	50	100	100	300	500	1	60	10	200	0.08	65	1000	20	1	1	3	14
IB105 Level 3		200	3000	40	40	500	2000	200	1200	5000	30	600	50	14000	2	650	5000	40	5	100	100	180
IB105 Level 4		750	30000	400	400	5000	7500	1000	3000	25000	110	3000	200	50000	20	1000	10000	200	50	1000	1080	1800
2/09/2020	BH1 0.5-0.6 X	----	----	----	----	----	----	----	718	----	----	----	----	----	2	<10	430	14	<0.2	<0.5	<0.5	<0.5
2/09/2020	BH1 1.5-1.6 X	----	----	----	----	----	----	----	11	----	----	----	----	----	<0.5	<10	<50	<0.5	<0.2	<0.5	<0.5	<0.5
2/09/2020	BH2 0.5-0.6 X	6	80	<1	4	10	47	6	804	188	<0.1	11	<5	260	<0.5	<10	2450	0.5	<0.2	<0.5	<0.5	<0.5
2/09/2020	BH2 1.5-1.6 X	<5	80	<1	<1	8	38	8	110	234	0.2	13	<5	114	<0.5	<10	440	<0.5	<0.2	<0.5	<0.5	<0.5
2/09/2020	BH3 0.5-0.6	----	----	----	----	----	----	----	227	----	----	----	----	----	12.7	<10	900	115	<0.2	<0.5	<0.5	<0.5
2/09/2020	BH3 1.5-1.6	----	----	----	----	----	----	----	6	----	----	----	----	----	<0.5	<10	<50	<0.5	<0.2	<0.5	<0.5	<0.5
2/09/2020	BH4 0.5-0.6	----	----	----	----	----	----	----	89	----	----	----	----	----	3.3	<10	270	27.1	<0.2	<0.5	<0.5	<0.5
2/09/2020	BH4 1.5-1.6	----	----	----	----	----	----	----	12	----	----	----	----	----	<0.5	<10	<50	<0.5	<0.2	<0.5	<0.5	<0.5
2/09/2020	BH5 0.5-0.6	----	----	----	----	----	----	----	97	----	----	----	----	----	3.6	<10	300	29.1	<0.2	<0.5	<0.5	<0.5
2/09/2020	BH5 1.5-1.6	----	----	----	----	----	----	----	11	----	----	----	----	----	<0.5	<10	<50	<0.5	<0.2	<0.5	<0.5	<0.5
2/09/2020	BH6 0.5-0.6	----	----	----	----	----	----	----	16	----	----	----	----	----	<0.5	<10	<50	<0.5	<0.2	<0.5	<0.5	<0.5
2/09/2020	BH7 0.85-0.95	----	----	----	----	----	----	----	<5	----	----	----	----	----	<0.5	<10	<50	<0.5	<0.2	<0.5	<0.5	<0.5
2/09/2020	BH7 1.5-1.6	----	----	----	----	----	----	----	7	----	----	----	----	----	<0.5	<10	<50	<0.5	<0.2	<0.5	<0.5	<0.5

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## **12 CONCEPTUAL SITE MODEL**

### **12.1 Potential Contaminants**

The site is considered a potentially contaminated site due to the presence of UPSS.

Potential sources of contamination on site include; the use of the site as a service station, unknown decommissioning of UPSS infrastructure, and fill of undetermined origins present at the site in the south western corner.

Figure 10 illustrates potential risks that may be associated with potential site contamination. Potential pathways have been identified and ruled out in the Conceptual Site Model. The risks are considered to be potential risks rather than present risks as there were no exceedances of commercial land use investigation limits and the present land use is for commercial operations.

### **12.2 Potential Human Receptors**

Potential human receptors considered during this investigation include; current and future commercial users of the site, any potential onsite constructions workers during any future potential site redevelopment and future trench workers (commercial land users / trench worker specific), the migration of dust off the site to nearby residential properties, and the possibility of open space or apartments being in contact with soil on the site (pending finalised designs).

### **12.3 Potential Ecological Receptors**

The closest ecological receptor is the Maypole Rivulet, which is 500 m downgradient of the site.

### **12.4 Identified Receptors**

#### **12.4.1 Identified Human Receptors**

No CRC CARE (2011) Health Screening Levels were found to be exceeded. NEPM ASC (2013) human Health Investigation Limits for dust ingestion and inhalation were not exceeded at commercial land use (HIL D), however Benzo(a)pyrene at bore holes 3, 4 & 5, and Lead at bore holes 1 & 2 exceed residential and recreational guidelines. This could affect future land users, pending the finalised designs of the proposed developments.

#### **12.4.2 Identified Ecological Receptors**

Exceedances of NEPM ASC (2013) Ecological Screening Levels were identified for Benzo(a)pyrene and Total Recoverable Hydrocarbons Fraction 3 (TRH F.3). Exceedances of NEPM ASC (2013) Ecological Investigation Levels were identified for Zinc. These identified contaminants could have an impact on ecological receptors if soil from the site is transported to ecological receptors.

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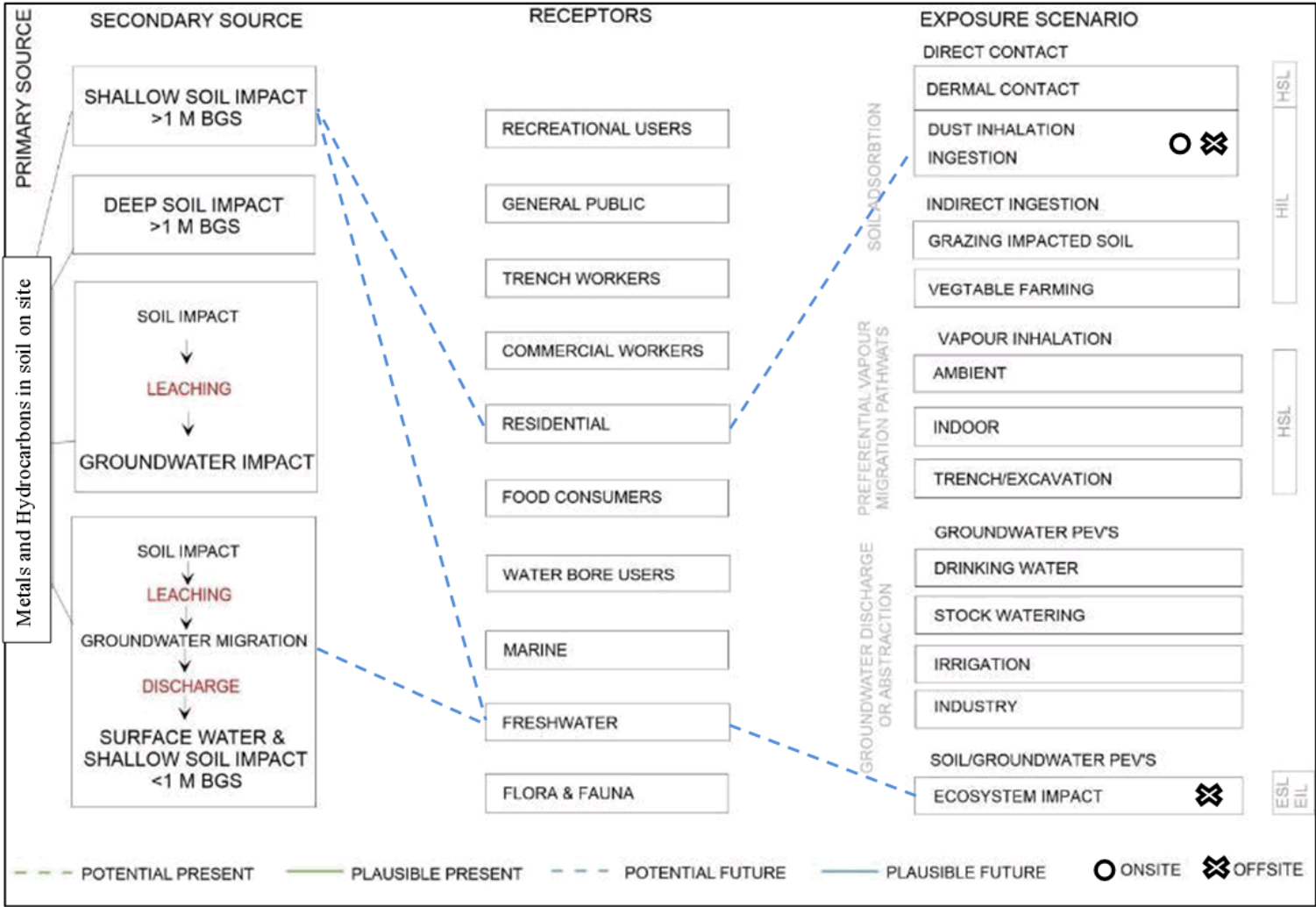


Figure 10 Conceptual Site Mode

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### 13 CONCLUSIONS & RECOMMENDATIONS

#### 13.1 Desktop Assessment

The following information was gathered during the desktop investigation:

- The Site is zoned *Urban Mixed Use* under the *Hobart Interim Planning Scheme of 2015*. The site slopes at around 7% to the North West, Maypole Rivulet is the nearest ecological receptor 500 m downgradient of the Site.
- The geology of the investigation area is Triassic aged sedimentary rocks (Rv), with our bore holes finding weathered sandstone at variable depths.
- Historical Aerial photographs confirmed that an original building was present on the site since prior to 1946, with this building removed and the service station building erected prior to 1969. UPSS tanks were installed in 1962. The building was renovated between 1980 and 1989, which is likely to coincide with the service station being decommissioned around 1980 and Video Ezy operating on the site. More recently the site contains a coffee shop and laundry mat operations.
- The site is considered a potentially contaminated site due to past land use and the presence of UPSS. WorkSafe Tasmania Dangerous Goods Records indicate that petroleum fuels have been stored on site 1962-1980.
- Potential sources of contamination include the operations of a service station and workshop on the site, the presence of UPSS, and fill of undetermined origins on site.
- Contaminants Of Potential Concern (COPC) include the following: TPH/TRH; Mono Aromatic hydrocarbons: (BTEXN); PAH; and heavy metals.

#### 13.2 Adopted Guideline Settings

The following investigation limits were adopted for the Site:

- Ecosystem receptor
  - Maypole Rivulet, freshwater ecosystem, Urban land use ESL and EILs
- Human Receptor
  - HSL D/ HSL D for soil direct contact risk to current and future site users (commercial) / Construction workers that may have access to the soil during developments
  - HIL D / HIL D for soil ingestion and dust inhalation risk to current and future site users (commercial) / Future construction workers soil direct contact risk
    - Note HIL land use classes A, B & C, are also compared in case open space or residential apartments at ground floor level are in contact with soil on the site.
  - HSL A/ HSL D indoor vapour risk to site users (residential) / Future potential trench workers



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### 13.3 Soil Assessment

From the soil assessment, it is concluded that:

- **Environment:** Benzo(a)pyrene and Total Recoverable Hydrocarbons Fraction 3 exceeded NEPM ASC 2013 ESL guideline limits. Zinc exceeded NEPM ASC 2013 EIL guideline limits. A Stormwater Management Plan (SWMP) will be required to account for the management and erosion of soil with ecological impacts, to prevent soil affecting nearby ecological receptors, including Maypole Rivulet.
- **Human Health:** There were no human health guideline exceedances for dermal contact or vapour intrusion. There were no exceedances of NEPM ASC 2013 HIL guideline limits for dust inhalation and ingestion at commercial land use investigation limits, however there were exceedances for Benzo(a)pyrene and Lead at residential and recreational land use investigation limits. If the finalised designs indicate that the site is considered commercial operations at ground level, then there are no exceedances to guidelines and no risk to human health identified. However if areas of open space are placed on the soil found on site, or if apartments are placed at ground level, then a Contamination Management Plan (CMP) will be required to mitigate the risk to human health to residents post construction.
- **Excavated Soil Management:** In terms of IB105 of the thirteen primary soil samples; Three samples are considered Level 3 Material (contaminated soil) due to Benzo(a)pyrene (in samples BH3 0.5-0.6, BH4 0.5-0.6 & BH5 0.5-0.6), and Sum of Polycyclic Aromatic Hydrocarbons (in sample BH3 0.5-0.6). Two samples are considered Level 2 Material (low level contaminated soil) due to Cadmium, Lead, Zinc and hydrocarbons. The remaining eight samples are considered Level 1 Material (clean fill). All of the samples taken at lower depths (0.85-0.90m and 1.5-1.6m) were considered Level 1 Material, suggesting that contamination is restricted to the upper horizons.

### 13.4 Conclusion Summary

GES recommends the following:

- There were no human health guideline exceedances for dermal contact, soil vapour intrusion or trench worker vapour risk. There were no HIL guideline exceedances for dust inhalation and ingestion at commercial land use class, but there were exceedances at residential and recreational land use for Benzo(a)pyrene and Lead. If developments include open space or residential apartments at ground level, the site will require a Contamination Management Plan (CMP) relating to human receptors prior to soil disturbance during construction, and including mitigation measures post construction. If the entirety of the site is considered commercial land use at ground floor level (this may include the apartments being above the basement car park, and the soil at the open space area being excavated and replaced with clean fill), then the CMP will not be required.
- There is potential for ecological impact from hydrocarbons and heavy metals entering the waterway or impacting other ecological receptors during excavation, and a Stormwater Management Plan (SWMP) is required, to control erosion of excavated soil that may have an ecological impact.
- For soil disposal, the soil on site is a mixture of Level 1 (clean fill), Level 2 (low level contaminated soil) and Level 3 (contaminated soil) according to IB105. Any disposal of soil off-site must be in accordance with IB105 and the controlled waste regulations. We recommend excavated material be stockpiled on-site where additional testing can better delineate the areas of contamination prior to soil disposal, noting that most of the contamination appears to be concentrated in the upper soil horizons. We also recommend leachate testing of excavated soil given Benzo(a)pyrene may be present in a less mobile state, hence retesting excavated soil could lead to lower IB105 contamination levels, reducing the costs of soil remediation and disposal to the client.
- It is likely that inactive Underground Petroleum Storage Systems (UPSS) infrastructure is present on the site, and will require decommissioning and removal. Soil testing around the area of the UPSS found mostly low levels of hydrocarbons, not exceeding human health guidelines at commercial land use investigation limits.

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Given the past land use and presence of UPSS, localised areas of soil contamination may be present on the site not identified during this investigation. If during excavation, areas of hydrocarbon odour or staining are uncovered, we suggest that the developer contact GES or a suitably qualified environmental consultant immediately for assessment.

Yours faithfully,

A handwritten signature in blue ink, appearing to read 'MD', followed by a horizontal line.

Mark Downie B.Agr.Sci

*Soil Scientist*



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## **LIMITATIONS STATEMENT**

This *Environmental Site Assessment* Report has been prepared in accordance with the scope of services between Geo-Environmental Solutions Pty. Ltd. (GES) and Renewal Developments Pty Ltd ('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. 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 at that point in time. 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.

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### **Appendix 1 GES Staff**

Geo-Environmental Solutions (GES) is a specialist geotechnical and environmental consultancy providing advice on all aspects of soils, geology, hydrology, and soil and groundwater contamination across a diverse range of industries.

Geo Environmental Solutions Pty Ltd:

- ACN – 115 004 834
- ABN – 24 115 004 834

### **GES STAFF - ENGAGED IN SITE INVESTIGATION WORKS**

*Dr John Paul Cumming B.Agr.Sc (Hons) Phd CPSS GAICD*

- Principle Author and Principle Environmental Consultant
- PhD in Environmental Soil Chemistry from the University of Tasmania in 2007
- 18 years' experience in environmental contamination assessment and site remediation.

*Mr Mark Downie B.Agr.Sc*

- Soil Scientist – 15 years' professional work experience
- 8 years' experience in contamination assessment and reporting of soils and groundwater.

*Mr Aaron Plummer (Cert. IV)*

- Soil Technician
- 6 years' experience in hydrocarbon and heavy metal contamination sampling of soils and groundwater.

*Mr Grant McDonald (Adv. cert. hort.)*

- Soil Technician
- 10 years' experience in hydrocarbon and heavy metal contamination sampling of soils and groundwater.

### **GES STAFF – CONTAMINATED SITES EXPERIENCE**

*Ms Sarah Joyce BSc (Hons)*

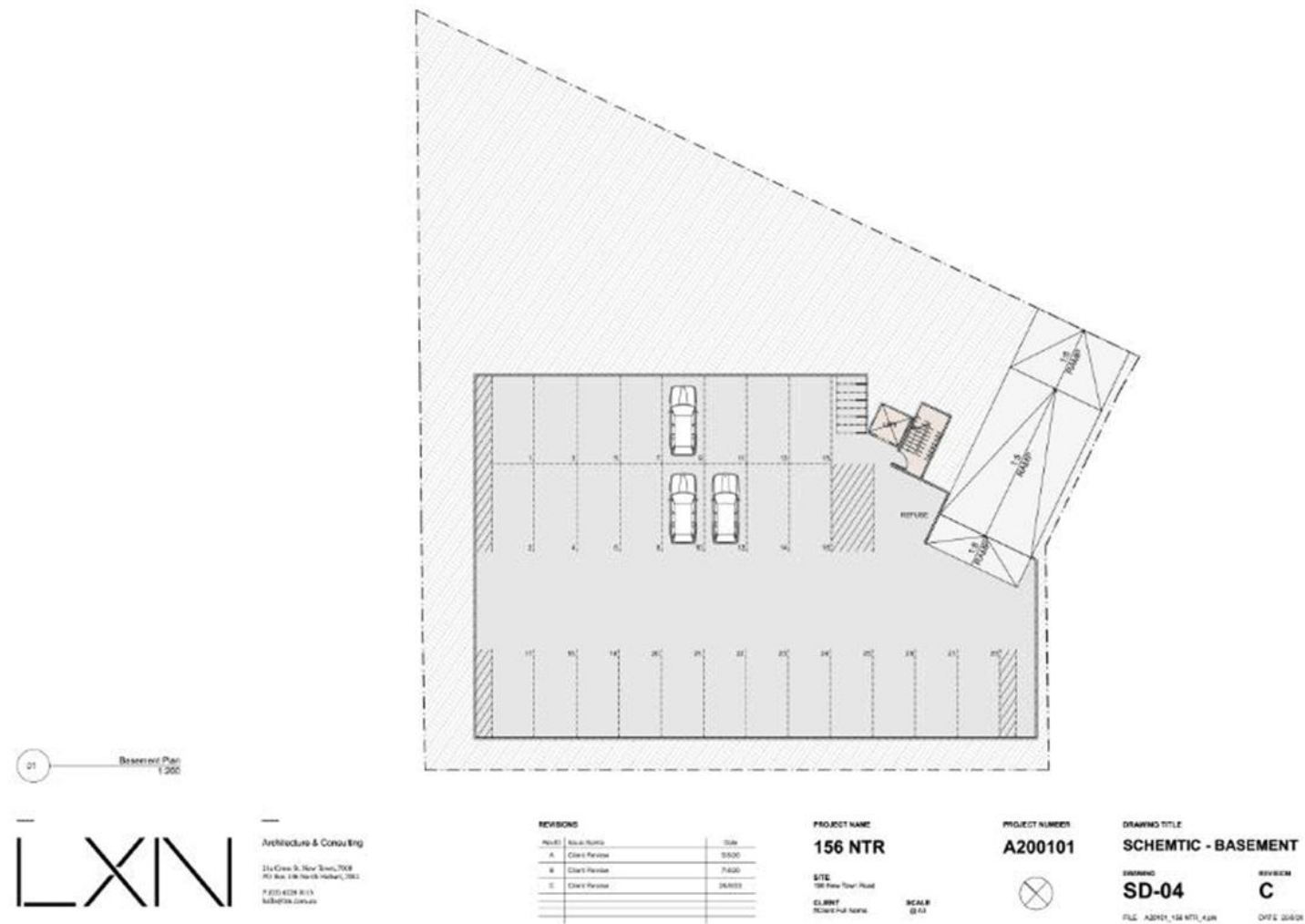
- Senior Environmental Scientist
- Honours in Geography and Environmental Science at the University of Tasmania in 2003;
- Undergraduate Degree Double Major in Geology and Geography & Environmental Science
- 15 years professional work experience and 7 years contaminated site assessment
- Attendance to recent relevant workshops by ALGA – Risk Assessment 101 (May 2018); Vapour Intrusion Workshop (Part A) – Petroleum Hydrocarbons (July 2017)

*Dr Sam Rees B.Agr.Sc (Phd)*

- Soil & Environmental Scientist
- 6 years' experience in hydrocarbon and heavy metal contamination assessment and reporting of soils and groundwater.

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Appendix 2 Plans for proposed development (source LXN Architecture)



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DATE 2010-03-20

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APARTMENT SCHEME REV C					
Subject Site	1372 (sqm)				
Building Area (GFA)	3550 (sqm) (excludes podium)				
Building Area by Floor					
	Carpark (sqm)	Circulation (sqm)	Apartments (incl balconies)	Commercial Tenancy (sqm)	Total GFA (sqm)
Basement	720	0	-	-	720
Ground Floor	-	49	539	340	919
Ground Floor Podium	-	225	0	0	225
Level 1* incl GF study	-	120	1030	0	1150
Level 2	-	60	456	0	516
* Circulation includes lift, stair and common zones					
Apartments					
Unit Number	TYPE	APT GFA	POS	COMMERCIAL TENANCY	Total GFA (sqm)
TEN-01	COMM	-	-	312	312
TEN-02	COMM	-	-	28	28
TEN-03	COMM	-	-	-	0
TEN-04	COMM	-	-	-	0
APT-01	2 BED	75	70	-	145
APT-02	2 BED	67	26	-	93
APT-03	2 BED	70	26	-	96
APT-04	2 BED	70	26	-	96
APT-05	2 BED	75	26	-	103
APT-06	4 BED	127	13	-	140
APT-07	4 BED	110	13	-	123
APT-08	2 BED	77	13	-	90
APT-09	2 BED	67	10	-	77
APT-10	2 BED	66	13	-	79
APT-11	2 BED	83	9	-	92
APT-12	2 BED	71	10	-	81
APT-13	2 BED	85	9	-	94
APT-14	2 BED	68	7	-	75
APT-15	2 BED	69	7	-	76
APT-16	3 BED	120	30	-	150
APT-17	2 BED	83	12	-	95
APT-18	3 BED	120	15	-	135
APT-19	3 BED	115	15	-	130
Car Parks					
	Residential	Visitor	Commercial	Motorcycle	Bicycle
Basement (28)	27	0	1	0	7

P.O.S - Private open space

P.O.S - Private open space



REVISIONS		
Rev	Issue/Notes	Date
A	Client Review	22/7/20
B	Client Review	7/8/20
C	Client Review	26/8/20

PROJECT NAME  
**156 NTR**

SITE  
156 New Town Road

CLIENT  
#Client Full Name

SCALE  
@ A3

PROJECT NUMBER  
**A200101**



DRAWING TITLE  
**AREA SCHEDULES**

DRAWING  
**SD-09**

FILE: A2001\_156NTR\_A3.dwg

REVISION  
**C**

DATE: 26/8/20



*Environmental Site Assessment: 156 New Town Road, New Town*

**Appendix 3 Site Photographs**





*Environmental Site Assessment: 156 New Town Road, New Town*



*Appendix 3 Site Photographs*



*Environmental Site Assessment: 156 New Town Road, New Town*





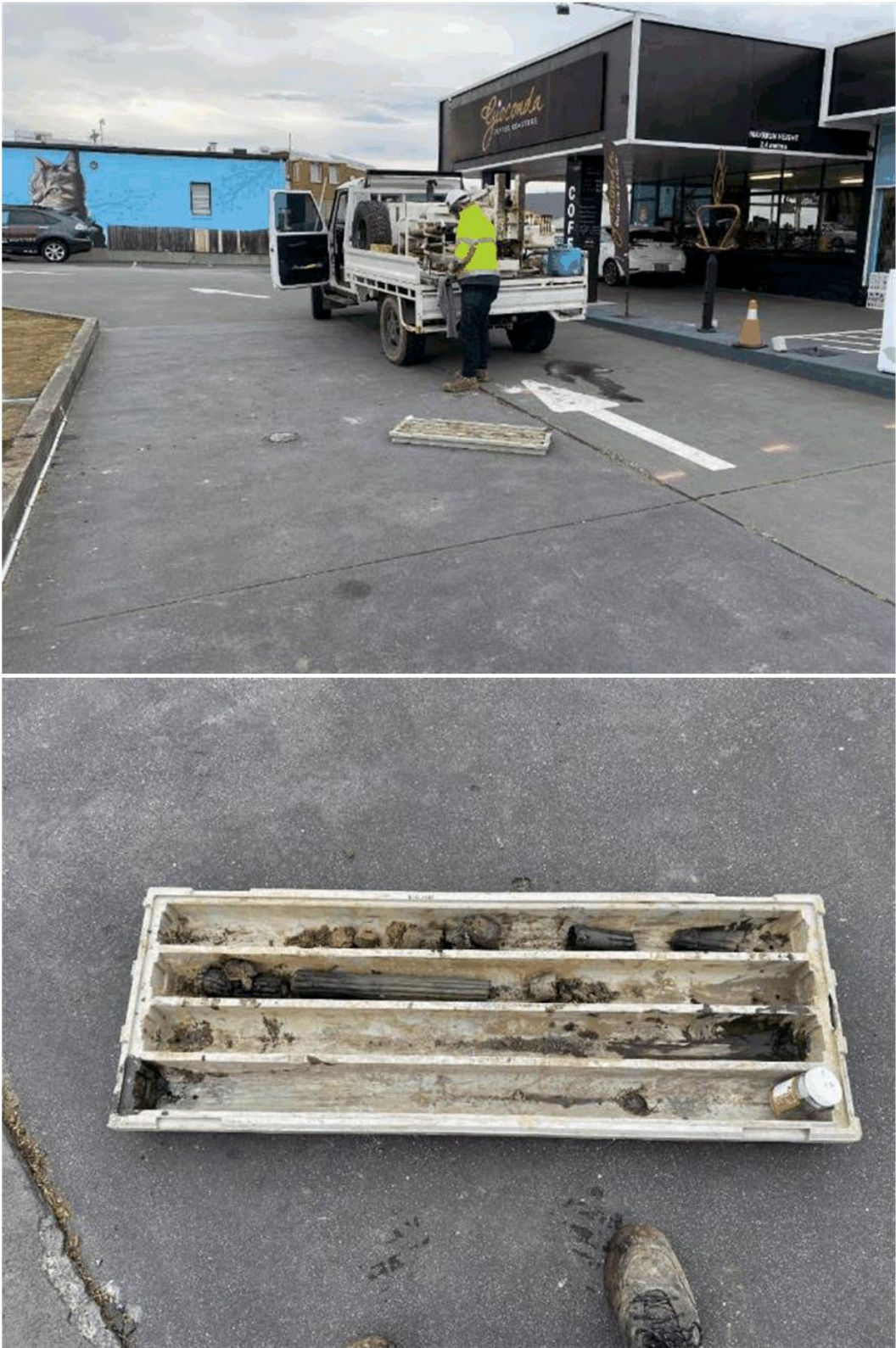
Environmental Site Assessment: 156 New Town Road, New Town



Appendix 3 Site Photographs



Environmental Site Assessment: 156 New Town Road, New Town



Appendix 3 Site Photographs

Environmental Site Assessment: 156 New Town Road, New Town



Appendix 3 Site Photographs



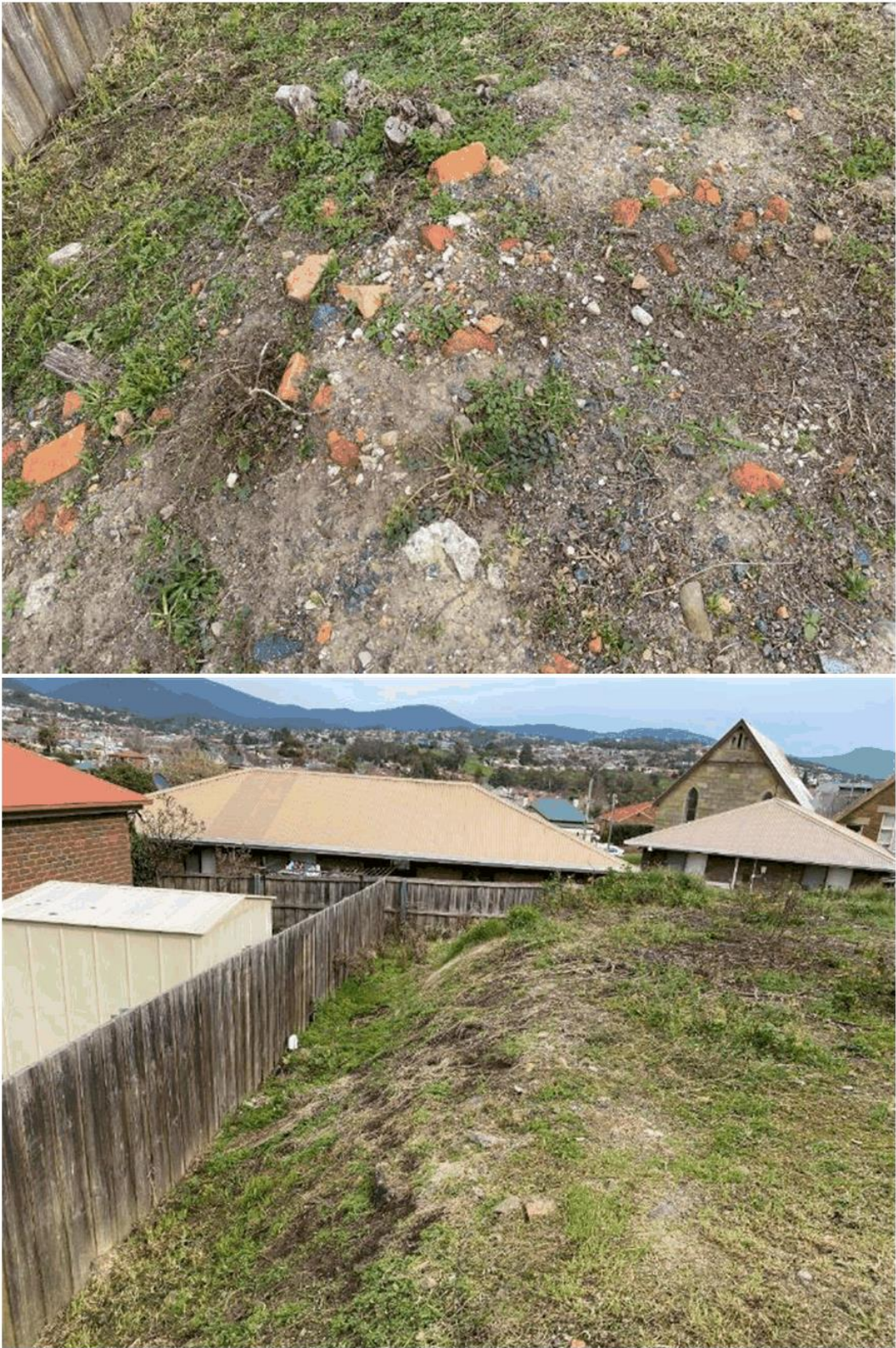
*Environmental Site Assessment: 156 New Town Road, New Town*



*Appendix 3 Site Photographs*



*Environmental Site Assessment: 156 New Town Road, New Town*



*Appendix 3 Site Photographs*



*Environmental Site Assessment: 156 New Town Road, New Town*



*Environmental Site Assessment: 156 New Town Road, New Town*

**Appendix 4 Historical Aerial Photographs and Images**

1946 – Source DPIPWE



1957 – Source DPIPWE



*Environmental Site Assessment: 156 New Town Road, New Town*

1969 – Source DPIPWE



1977 – Source DPIPWE





*Environmental Site Assessment: 156 New Town Road, New Town*  
1980– Source DPIPWE



1989 – Source DPIPWE



*Environmental Site Assessment: 156 New Town Road, New Town*

October 2003 – Source Google Earth



March 2008 – Source Google Earth



*Appendix 4 Historical Aerial Photographs*

*Page 59*



*Environmental Site Assessment: 156 New Town Road, New Town*

January 2016 – Source Google Earth



April 2019 – Source Google Earth



*Appendix 4 Historical Aerial Photographs*

*Page 60*

*Environmental Site Assessment: 156 New Town Road, New Town*

**Appendix 5 WorkSafe Tasmania Dangerous Goods Search**

***Search Results (Environmentally Relevant Activity)***

---

*Site ID:* 215  
*Address:* 156 New Town Rd  
New Town 7008  
*File Number:* B420  
*Held By:* Workplace Standards Tasmania  
*File From:* 1962 *To:* 1980  
*Location Status:* Confirmed  
*PID:* 5516671  
*Comments:*  
*Activity:*  
Underground Storage Tanks

*Environmental Site Assessment: 156 New Town Road, New Town*


*Search Results (Names Associated With Site)*

---

*Site ID:* 215  
*Address:* 156 New Town Rd  
New Town 7008  
*File Number:* B420  
*Held By:* Workplace Standards Tasmania  
*File From:* 1962 *To:* 1980  
*Location Status:* Confirmed  
*PID:* 5516671  
*Comments:*  
*Names Associated With Site:*  
Boomerang Service Station  
Shell  
Albert William Walters



Environmental Site Assessment: 156 New Town Road, New Town

  
TASMANIA

File No. B420

DEPARTMENT OF MINES, TASMANIA

NAME OR SUBJECT: Boomerang Service Station  
(A. G. Hunter)

ADDRESS: 156 New Town Rd

New Town

Doc 1/6/56308

Environmental Site Assessment: 156 New Town Road, New Town

[illegible][illegible]

*Environmental Site Assessment: 156 New Town Road, New Town*

FORM 6

*Inflammable Liquids Act 1929*

**APPLICATION FOR LICENCE IN RESPECT OF PREMISES FOR  
MANUFACTURE OF OR KEEPING INFLAMMABLE  
LIQUIDS OR DANGEROUS COMMODITIES**

1. Applicant's Full Name ALBERT WILLIAM WATERS

2. Applicant's Occupation Service Station proprietor

3. Applicant's Postal Address 11 Hulse St. Glenorchy

4. Situation of Premises to be Licensed 156 New Town Road

5. Name of Municipality and Town or Township within which, or within five miles of which, the  
Premises is situated New Town

6. Name and quantity to be manufactured under this Application:—  
 kept  
 Inflammable Liquid Class A 6,500  
 (Petrol, &c.)  
 Inflammable Liquid Class B 500  
 (Kerosene, &c.)  
 Dangerous Commodity \_\_\_\_\_

7. Number of Tanks and ~~Package Storage Areas~~ under this Application 11,300, 11,300 & 2,500.

8. Name and Total Quantity to be kept:—  
 Inflammable Liquid Class A 6,500 (5,000 n/s. 600 Petrol)  
 (Petrol, &c.)  
 Inflammable Liquid Class B 500 Kerosene  
 (Kerosene, &c.)  
 Dangerous Commodity \_\_\_\_\_

9. Total Number of Tanks and ~~Package Storage Areas~~ installed 11,300 (total from 1929)  
21,300 & 2,500.

I declare that the above statements and answers are true to the best of my knowledge and belief.

(Signed) Albert Waters

Dated this 26th day of December, 1962

(This Application, with Licence Fee of £11-0-0, to be forwarded to—  
Director of Mines, Hobart)

(Scale of fees is shown on reverse hereof)

1257  
2088060  
K11  
7/12/62

Environmental Site Assessment: 156 New Town Road, New Town

SCALE OF FEES			
Licence Fee for keeping Inflammable Liquids, Classes A and B:—			
	£		£
Up to 500 gallons	1	From 12,001 to 24,000 gallons	19
From 500 to 1,000 gallons	2	From 24,001 to 36,000 gallons	22
From 1,001 to 1,500 gallons	3	From 36,001 to 48,000 gallons	25
From 1,501 to 2,000 gallons	4	From 48,001 to 61,000 gallons	27
From 2,001 to 2,500 gallons	5	From 61,001 to 74,000 gallons	29
From 2,501 to 3,000 gallons	6	From 74,001 to 87,000 gallons	31
From 3,001 to 3,500 gallons	7	From 87,001 to 100,000 gallons	33
From 3,501 to 4,000 gallons	8	From 100,001 to 200,000 gallons	37
From 4,001 to 5,000 gallons	9	From 200,001 to 300,000 gallons	41
From 5,001 to 6,000 gallons	10	From 300,001 to 400,000 gallons	45
From 6,001 to 7,000 gallons	11	From 400,001 to 500,000 gallons	49
From 7,001 to 8,000 gallons	12	From 500,001 to 600,000 gallons	53
From 8,001 to 9,000 gallons	13	From 600,001 to 700,000 gallons	57
From 9,001 to 10,000 gallons	14	From 700,001 to 800,000 gallons	61
From 10,001 to 11,000 gallons	15	From 800,001 to 900,000 gallons	65
From 11,001 to 12,000 gallons	16		
every 300,000 gallons or part thereof in excess of 900,000 gallons			£4

Environmental Site Assessment: 156 New Town Road, New Town

Department of Mines  
Tasmania  
Date *30 / 11 / 96*.

MEMORANDUM

For the Director of Mines, Hobart.  
From the Inspector of Explosives, *Hobart*.....

Record of Inspection of Installation

Premises of: *Shell Oil Co. (Wiggins) 156 New Town Rd, Hobart.*  
Known as:  
Oil Company: *Shell.*  
Date of Approval: *31 Aug 62.*  
Date of inspection: *28/11/62*  
Finding: *(unsuitable)*  
Suitable ) for licensing  
~~Pump Outfit Package Storage Area:~~  
Variation from Approval:  
*1 x 2000 gallon tank not in use.*  
Application Form: Left with occupier/~~Forwarded herewith.~~  
Amount of Fee advised: Yes/~~No~~

.....*[Signature]*.....  
INSPECTOR OF EXPLOSIVES



Environmental Site Assessment: 156 New Town Road, New Town

(Regulation 78)

FORM 5  
TASMANIA  
Inflammable Liquids Act 1929

No 707  
Fee, £1

Granted to The Shell Co of Aust. Ltd.,  
Evans Street,  
HOBART.

**Approval of Site and Construction of Premises for Keeping Inflammable Liquids  
or Dangerous Commodities or the Alteration thereof.**

Approval for the \* ~~site and construction~~ ~~alteration of the site and construction~~ as shown on  
the approved plans and specifications of a \* ~~package storage area~~ / \* tank for the undermentioned  
inflammable liquids and dangerous commodities, subject to the provisions of the *Inflammable  
Liquids Act 1929*, and regulations being observed and subject to the undermentioned special con-  
ditions, situate at 156 New Town Road, Hobart.

This approval is valid only for one year from the date of issue.  
Date of issue 31st August, 19 62

Chief Inspector of Explosives.  
*[Signature]*  
Inspector of Explosives.

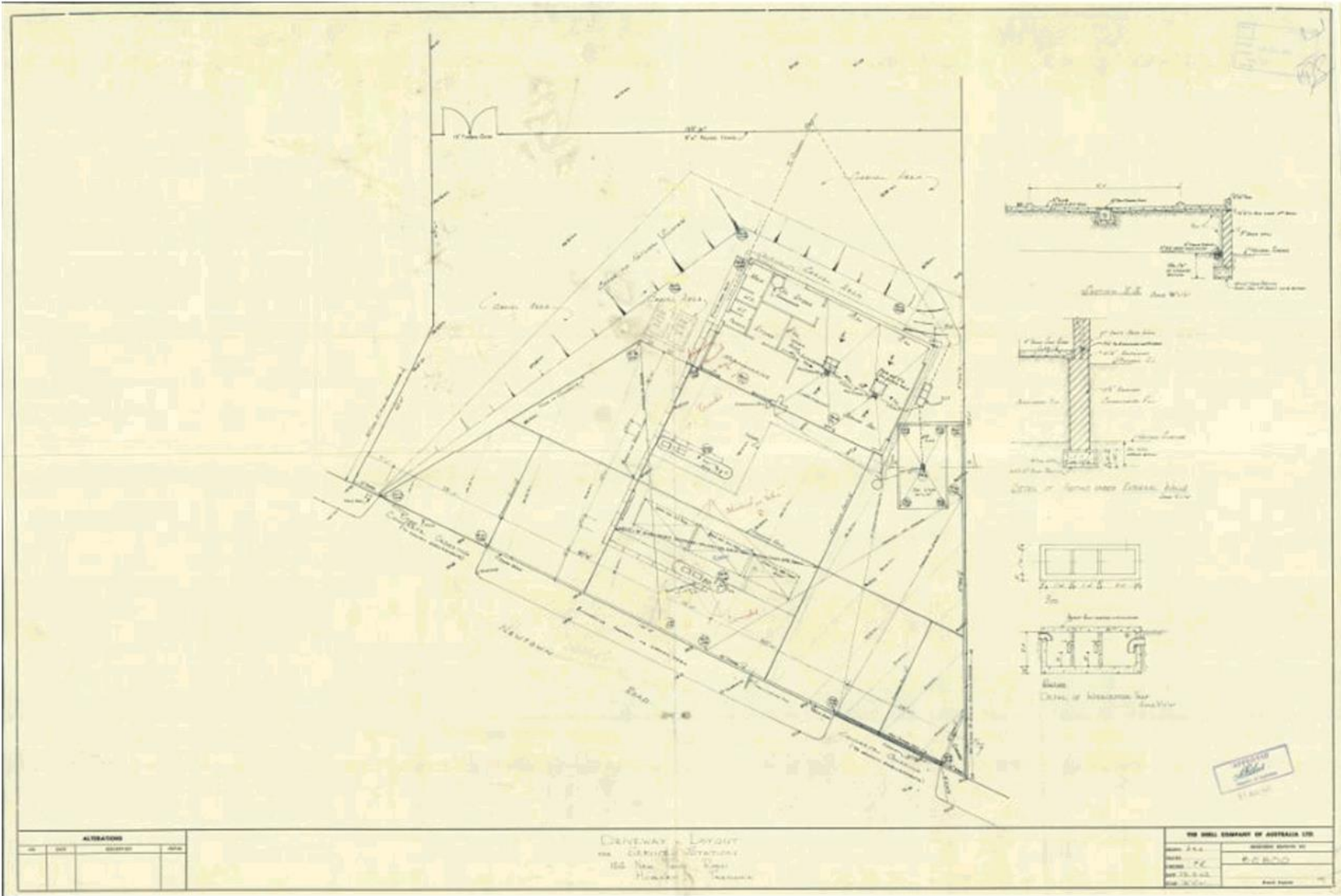
Inflammable liquid: Class A 8,500 Gallons.  
Class B 500 Gallons.

Dangerous commodities: .....

SPECIAL CONDITIONS.  
2 x 3,000, 1 x 2,000 and 2 x 500 gallon U/G tanks  
connected to four S/E and 2 S/M pump.

\* Strike out if inapplicable.


Environmental Site Assessment: 156 New Town Road, New Town





Environmental Site Assessment: 156 New Town Road, New Town

## Appendix 6 Chain of Custody (COC) and Sample Receipt Notification (SRN)



**SAMPLE RECEIPT NOTIFICATION (SRN)**

<b>Work Order : EM2015530</b>			
<b>Client :</b>	<b>GEO-ENVIRONMENTAL SOLUTIONS</b>	<b>Laboratory :</b>	Environmental Division Melbourne
<b>Contact :</b>	DR JOHN PAUL CUMMING	<b>Contact :</b>	Shirley LeCornu
<b>Address :</b>	29 KIRKSWAY PLACE BATTERY POINT TASMANIA, AUSTRALIA 7004	<b>Address :</b>	4 Westall Rd Springvale VIC Australia 3171
<b>E-mail :</b>	jcumming@geosolutions.net.au	<b>E-mail :</b>	shirley.lecornu@alsglobal.com
<b>Telephone :</b>	+61 03 6223 1839	<b>Telephone :</b>	+6138549 9630
<b>Facsimile :</b>	+61 03 6223 4539	<b>Facsimile :</b>	+61-3-8549 9626
<b>Project :</b>	New Town	<b>Page :</b>	1 of 3
<b>Order number :</b>	----	<b>Quote number :</b>	EB2017GEOENVSQL0001 (EN/222)
<b>C-O-C number :</b>	----	<b>QC Level :</b>	NEPM 2013 B3 & ALS QC Standard
<b>Site :</b>	----		
<b>Sampler :</b>	JPC		

---

**Dates**

<b>Date Samples Received :</b>	09-Sep-2020 13:30	<b>Issue Date :</b>	09-Sep-2020
<b>Client Requested Due Date :</b>	16-Sep-2020	<b>Scheduled Reporting Date :</b>	<b>16-Sep-2020</b>

---

**Delivery Details**

<b>Mode of Delivery :</b>	Carrier	<b>Security Seal :</b>	Intact.
<b>No. of coolers/boxes :</b>	2	<b>Temperature :</b>	5.3°C - Ice Bricks present
<b>Receipt Detail :</b>		<b>No. of samples received / analysed :</b>	15 / 15

---

**General Comments**

- This report contains the following information:
  - Sample Container(s)/Preservation Non-Compliances
  - Summary of Sample(s) and Requested Analysis
  - Proactive Holding Time Report
  - Requested Deliverables
- Please direct any queries related to sample condition / numbering / breakages to Client Services.
- Sample Disposal - Aqueous (3 weeks), Solid (2 months) from receipt of samples.
- Analytical work for this work order will be conducted at ALS Springvale.
- Please refer to the Proactive Holding Time Report table below which summarises breaches of recommended holding times that have occurred prior to samples/instructions being received at the laboratory. The absence of this summary table indicates that all samples have been received within the recommended holding times for the analysis requested.
- Please be aware that APHA/NEPM recommends water and soil samples be chilled to less than or equal to 6°C for chemical analysis, and less than or equal to 10°C but unfrozen for Microbiological analysis. Where samples are received above this temperature, it should be taken into consideration when interpreting results. Refer to ALS EnviroMail 85 for ALS recommendations of the best practice for chilling samples after sampling and for maintaining a cool temperature during transit.

---

RIGHT SOLUTIONS | RIGHT PARTNER

*Environmental Site Assessment: 156 New Town Road, New Town*

Issue Date : 09-Sep-2020  
 Page : 2 of 3  
 Work Order : EM2015530 Amendment 0  
 Client : GEO-ENVIRONMENTAL SOLUTIONS



#### Sample Container(s)/Preservation Non-Compliances

All comparisons are made against pretreatment/preservation AS, APHA, USEPA standards.

- No sample container / preservation non-compliance exists.

#### Summary of Sample(s) and Requested Analysis

Some items described below may be part of a laboratory process necessary for the execution of client requested tasks. Packages may contain additional analyses, such as the determination of moisture content and preparation tasks, that are included in the package.

If no sampling time is provided, the sampling time will default 00:00 on the date of sampling. If no sampling date is provided, the sampling date will be assumed by the laboratory and displayed in brackets without a time component

Matrix: **SOIL**

Laboratory sample ID	Client sampling date / time	Client sample ID	SOIL - EM255-103 Moisture Content	SOIL - S-03 15 Metals (MEPA 2013 Suite - incl. Digestion)	SOIL - S-21 TRHBTENAPAH + Pb
EM2015530-001	02-Sep-2020 00:00	BH1 0.5-0.6	✓	✓	✓
EM2015530-002	02-Sep-2020 00:00	BH1 1.5-1.6	✓	✓	✓
EM2015530-003	02-Sep-2020 00:00	BH2 0.5-0.6	✓	✓	✓
EM2015530-004	02-Sep-2020 00:00	BH2 1.5-1.6	✓	✓	✓
EM2015530-005	02-Sep-2020 00:00	BH3 0.5-0.6	✓	✓	✓
EM2015530-006	02-Sep-2020 00:00	BH3 1.5-1.6	✓	✓	✓
EM2015530-007	02-Sep-2020 00:00	BH4 0.5-0.6	✓	✓	✓
EM2015530-008	02-Sep-2020 00:00	BH4 1.5-1.6	✓	✓	✓
EM2015530-009	02-Sep-2020 00:00	BH5 0.5-0.6	✓	✓	✓
EM2015530-010	02-Sep-2020 00:00	BH5 1.5-1.6	✓	✓	✓
EM2015530-011	02-Sep-2020 00:00	BH6 0.5-0.6	✓	✓	✓
EM2015530-012	02-Sep-2020 00:00	BH7 0.85-0.95	✓	✓	✓
EM2015530-013	02-Sep-2020 00:00	BH7 1.5-1.6	✓	✓	✓
EM2015530-014	02-Sep-2020 00:00	Duplicate	✓	✓	✓

Matrix: **WATER**

Laboratory sample ID	Client sampling date / time	Client sample ID	WATER - W-21 TRHBTENAPAH + Pb
EM2015530-015	02-Sep-2020 00:00	Rinsate	✓

#### Proactive Holding Time Report

Sample(s) have been received within the recommended holding times for the requested analysis.

*Environmental Site Assessment: 156 New Town Road, New Town*

Issue Date : 09-Sep-2020  
 Page : 3 of 3  
 Work Order : EM2015530 Amendment 0  
 Client : GEO-ENVIRONMENTAL SOLUTIONS



**Requested Deliverables**

**JOHN PAUL CUMMING**

- *AU Certificate of Analysis - NATA (COA)	Email	jcumming@geosolutions.net.au
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)	Email	jcumming@geosolutions.net.au
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)	Email	jcumming@geosolutions.net.au
- A4 - AU Sample Receipt Notification - Environmental HT (SRN)	Email	jcumming@geosolutions.net.au
- A4 - AU Tax Invoice (INV)	Email	jcumming@geosolutions.net.au
- Chain of Custody (CoC) (COC)	Email	jcumming@geosolutions.net.au
- EDI Format - ENMRG (ENMRG)	Email	jcumming@geosolutions.net.au
- EDI Format - ESDAT (ESDAT)	Email	jcumming@geosolutions.net.au
- EDI Format - XTab (XTAB)	Email	jcumming@geosolutions.net.au

**MIRAN**

- A4 - AU Tax Invoice (INV)	Email	miran@geosolutions.net.au
-----------------------------	-------	---------------------------

**SARAH JOYCE**

- *AU Certificate of Analysis - NATA (COA)	Email	sjoyce@geosolutions.net.au
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)	Email	sjoyce@geosolutions.net.au
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)	Email	sjoyce@geosolutions.net.au
- A4 - AU Sample Receipt Notification - Environmental HT (SRN)	Email	sjoyce@geosolutions.net.au
- A4 - AU Tax Invoice (INV)	Email	sjoyce@geosolutions.net.au
- Chain of Custody (CoC) (COC)	Email	sjoyce@geosolutions.net.au
- EDI Format - ENMRG (ENMRG)	Email	sjoyce@geosolutions.net.au
- EDI Format - ESDAT (ESDAT)	Email	sjoyce@geosolutions.net.au
- EDI Format - XTab (XTAB)	Email	sjoyce@geosolutions.net.au

Environmental Site Assessment: 156 New Town Road, New Town

[illegible]

Environmental Site Assessment: 156 New Town Road, New Town

[illegible]

Environmental Site Assessment: 156 New Town Road, New Town

## Appendix 7 Quality Assurance and Quality Control

[illegible]

\*Footnote: For Duplicate and BH1 0.5-0.6 pairs, 90% of analytes complied. Non compliances include: an RPD of 43% for Lead where <15% was expected; Inconsistent Detection for C10 - C36 Fraction (sum) an RPD of 79% for >C16 - C34 Fraction where <50% was expected; an RPD of 79% for >C10 - C40 Fraction (sum) where <50% was expected;

[illegible]



*Environmental Site Assessment: 156 New Town Road, New Town*

ALS Environmental		QUALITY CONTROL REPORT	
Work Order:	EM2015530	Page:	1 of 11
Client:	GEO-ENVIRONMENTAL SOLUTIONS	Laboratory:	Environmental Division Melbourne
Contact:	DR JOHN PAUL CUMMING	Contact:	Shirley LeComu
Address:	29 KIRKSWAY PLACE BATTERY POINT TASMANIA, AUSTRALIA 7004	Address:	4 Westall Rd Springvale VIC Australia 3173
Telephone:	+61 03 6223 1839	Telephone:	+6138549 9630
Project:	New Town	Date Samples Received:	09-Sep-2020
Order number:	---	Date Analysis Commenced:	09-Sep-2020
C-O-G number:	---	Issue Date:	15-Sep-2020
Sampler:	JPC		
Site:	---		
Quota number:	EN222		
No. of samples received:	15		
No. of samples analysed:	15		



This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report: Relative Percentage Difference (RPD) and Acceptance Limits
- Method Blank (MB) and Laboratory Control Spike (LCS) Report: Recovery and Acceptance Limits
- Matrix Spike (MS) Report: Recovery and Acceptance Limits

#### Signatories

This document has been electronically signed by the authorised signatories below. Electronic signing is carried out in compliance with procedures specified in 21 CFR Part 11.

Signature	Position	Accreditation Category
Diana Fernandez	Senior Inorganic Chemist	Melbourne Inorganics, Springvale, VIC
Xing Lin	Senior Organic Chemist	Melbourne Organics, Springvale, VIC

RIGHT SOLUTIONS | RIGHT PARTNER

Page: 2 of 11  
 Work Order: EM2015530  
 Client: GEO-ENVIRONMENTAL SOLUTIONS  
 Project: New Town



#### General Comments

The analysis procedures used by ALS have been developed from established internationally recognised procedures such as those published by the USEPA, APHA, AS and NEPM. In-house developed procedures are fully validated and are often at the client request.

Where moisture determination has been performed, results are reported on a dry weight basis.

Where a reported result is higher than the LOR, this may be due to primary sample extraction/generation and/or insufficient sample for analysis. Where the LOR of a reported result differs from standard LOR, this may be due to high.

Key: Anonymous = refers to samples which are not specifically part of this work order but formed part of the QC process for:

CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.

LOR = Limit of Reporting

RPD = Relative Percentage Difference

# = Indicates failed QC

#### Laboratory Duplicate (DUP) Report

The quality control term Laboratory Duplicate refers to a randomly selected interlaboratory split. Laboratory duplicates provide information regarding method precision and sample heterogeneity. The permitted ranges for the Relative Percent Difference (RPD) of Laboratory Duplicates are specified in ALS Method G10-07A38 and are dependent on the magnitude of results in comparison to the level of reporting. Result < 10 times LOR: No Limit; Result between 10 and 20 times LOR: 0% - 50%; Result > 20 times LOR: 0% - 20%.


Lab Matrix	BOB	Laboratory sample ID	Client sample ID	Duplicate Description	CAS Number	LOR	Unit	Laboratory Duplicate (DUP) Report			
								Original Result	Duplicate Result	RPD (%)	Recovery Limits (%)
EG05/EG09J: Total Metals by ICP-AES (QC Lot: 3231145)											
EM2015530-010	BHB 1.5-1.6	E00057: Beryllium	7440-41-7	5	mg/kg	<1	<1	0.00	No Limit		
		E00057: Cadmium	7440-43-9	1	mg/kg	<1	<1	0.00	No Limit		
		E00057: Barium	7440-39-3	10	mg/kg	180	180	6.61	0% - 50%		
		E00057: Chromium	7440-47-3	2	mg/kg	7	7	0.00	No Limit		
		E00057: Cobalt	7440-48-4	2	mg/kg	7	7	0.00	No Limit		
		E00057: Nickel	7440-02-0	2	mg/kg	11	12	0.00	No Limit		
		E00057: Arsenic	7440-38-2	5	mg/kg	<5	<5	0.00	No Limit		
		E00057: Copper	7440-50-8	5	mg/kg	<5	<5	0.00	No Limit		
		E00057: Lead	7439-92-1	5	mg/kg	11	13	14.0	No Limit		
		E00057: Manganese	7439-96-5	5	mg/kg	77	81	4.53	0% - 50%		
		E00057: Selenium	7782-49-2	5	mg/kg	<5	<5	0.00	No Limit		
		E00057: Vanadium	7440-62-2	5	mg/kg	12	12	0.00	No Limit		
		E00057: Zinc	7440-66-6	5	mg/kg	46	46	0.00	No Limit		
		E00057: Boron	7440-42-8	50	mg/kg	<50	<50	0.00	No Limit		
		E00057: Beryllium	7440-41-7	1	mg/kg	<1	<1	0.00	No Limit		
E00057: Cadmium	7440-43-9	1	mg/kg	4	4	0.00	No Limit				
E00057: Barium	7440-39-3	10	mg/kg	80	70	15.1	No Limit				
E00057: Chromium	7440-47-3	2	mg/kg	10	13	29.7	No Limit				
E00057: Cobalt	7440-48-4	2	mg/kg	8	8	26.8	No Limit				
E00057: Nickel	7440-02-0	2	mg/kg	11	15	32.4	No Limit				
E00057: Arsenic	7440-38-2	5	mg/kg	5	5	0.00	No Limit				
E00057: Copper	7440-50-8	5	mg/kg	57	57	9.88	0% - 50%				
E00057: Lead	7439-92-1	5	mg/kg	504	758	9.887	0% - 20%				
E00057: Manganese	7439-96-5	5	mg/kg	188	228	19.0	0% - 20%				
E00057: Selenium	7782-49-2	5	mg/kg	<5	<5	0.00	No Limit				
EM2015530-003	BHC 0.6-0.6										



## Environmental Site Assessment: 156 New Town Road, New Town

[illegible]

4 of 11  
 Work Order: EM021533030  
 Client: GEO-ENVIRONMENTAL SOLUTIONS  
 Project: New Town



Substrate: BOK	Laboratory sample ID	Client sample ID	Analyte Description	CAS Number	LOD	Unit	Laboratory Duplicate (SDP) Report			
							Original Result	Duplicate Result	RPD (%)	Recovery Limit (%)
EP075(SM/B): Polynuclear Aromatic Hydrocarbons (QC Lot: 3263362) - continued										
EM0215330-011	B#6 2:0-6		EP075(SM): Anthracene(1,2,3-colyggen)	193-33-5	0.8	mg/kg	<0.5	<0.5	0.00	No Limit
			EP075(SM): Dibenz(a,h)anthracene	50-70-3	0.8	mg/kg	<0.5	<0.5	0.00	No Limit
			EP075(SM): Benzo(g,h,i)perylene	191-24-2	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
EP060(07): Total Petroleum Hydrocarbons (QC Lot: 3246462)										
EM0215330-003	Anonymous		EP060: C6 - C9 Fraction	---	10	mg/kg	<10	<10	0.00	No Limit
			EP060: C6 - C9 Fraction	---	10	mg/kg	<10	<10	0.00	No Limit
EP060(07): Total Petroleum Hydrocarbons (QC Lot: 3213363)										
EM0215330-011	B#1 2:0-6		EP071: C15 - C18 Fraction	---	100	mg/kg	230	>100	77.8	No Limit
			EP071: C20 - C26 Fraction	---	100	mg/kg	220	>100	84.9	No Limit
			EP071: C10 - C14 Fraction	---	50	mg/kg	<50	<50	0.00	No Limit
			EP071: C10 - C14 Fraction (sum)	---	50	mg/kg	430	<50	154	No Limit
			EP071: C15 - C18 Fraction	---	100	mg/kg	<100	<100	0.00	No Limit
			EP071: C20 - C26 Fraction	---	100	mg/kg	<100	<100	0.00	No Limit
			EP071: C10 - C14 Fraction	---	50	mg/kg	<50	<50	0.00	No Limit
			EP071: C10 - C14 Fraction (sum)	---	50	mg/kg	<50	<50	0.00	No Limit
EP060(07): Total Recoverable Hydrocarbons - NEPC 2013 Fractions (QC Lot: 3246462)										
EM0215330-003	Anonymous	B#0 2:0-6	EP060: C6 - C10 Fraction	CE: C10	10	mg/kg	<10	<10	0.00	No Limit
			EP060: C6 - C10 Fraction	CE: C10	10	mg/kg	<10	<10	0.00	No Limit
EP060(07): Total Recoverable Hydrocarbons - NEPC 2013 Fractions (QC Lot: 3213363)										
EM0215330-011	B#1 2:0-6		EP071: HC16 - C18 Fraction	---	100	mg/kg	370	100	113	No Limit
			EP071: HC14 - C16 Fraction	---	100	mg/kg	<100	<100	0.00	No Limit
			EP071: HC10 - C16 Fraction	---	50	mg/kg	<50	<50	0.00	No Limit
			EP071: HC10 - C16 Fraction (sum)	---	50	mg/kg	370	100	115	No Limit
			EP071: HC16 - C18 Fraction	---	100	mg/kg	120	>100	20.8	No Limit
			EP071: HC14 - C16 Fraction	---	100	mg/kg	>100	>100	0.00	No Limit
			EP071: HC10 - C16 Fraction	---	50	mg/kg	<50	<50	0.00	No Limit
			EP071: HC10 - C16 Fraction (sum)	---	50	mg/kg	120	<50	82.4	No Limit
EP060: BTEX (QC Lot: 3246462)										
EM0215330-003	Anonymous		EP060: Benzene	71-43-2	0.2	mg/kg	<0.2	<0.2	0.00	No Limit
			EP060: Toluene	108-88-3	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
EM0215330-011	B#0 2:0-6		EP060: Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
			EP060: meta- & para-Xylene	108-38-3	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
				100-42-3						
			EP060: ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
			EP060: naphthalene	91-20-3	1	mg/kg	<1	<1	0.00	No Limit
			EP060: Benzene	71-43-2	0.2	mg/kg	<0.2	<0.2	0.00	No Limit
			EP060: Toluene	108-88-3	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
			EP060: Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	<0.5	0.00	No Limit

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Sub-Matrix: BORE				Laboratory Duplicate (DUP) Report					
Laboratory Sample ID	Client Sample ID	Substrate Description	CAS Number	LOF	Unit	Original Result	Duplicate Result	RPD (%)	Recovery Limits (%)
<b>EP080: BTEXN (QC Loc: 3246482) - continued</b>									
EM2015530-005	EM2015530-005	EP080: meta- & para-Xylene	106-36-3	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP080: ortho-Xylene	106-42-3	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP080: Naphthalene	91-20-3	1	mg/kg	<1	<1	0.00	No Limit
Sub-Matrix: WATER				Laboratory Duplicate (DUP) Report					
Laboratory Sample ID	Client Sample ID	Substrate Description	CAS Number	LOF	Unit	Original Result	Duplicate Result	RPD (%)	Recovery Limits (%)
<b>EG020F: Dissolved Metals by ICP-MS (QC Loc: 3248326)</b>									
EM2015235-001	Anonymous	EG020AF: Lead	7439-92-1	0.001	mg/L	<0.001	<0.001	0.00	No Limit
EM2015530-003	Anonymous	EG020AF: Lead	7439-92-1	0.001	mg/L	0.002	<0.001	0.00	No Limit
<b>EP075(SM): Polynuclear Aromatic Hydrocarbons (QC Loc: 3247879)</b>									
EM2015535-002	Anonymous	EP075(SM): Benzo[a]pyrene	50-32-9	0.5	µg/L	<0.5	<0.5	0.00	No Limit
		EP075(SM): Benzo[b]fluoranthene	91-20-3	1	µg/L	<1.0	<1.0	0.00	No Limit
		EP075(SM): Acenaphthylene	208-96-4	1	µg/L	<1.0	<1.0	0.00	No Limit
		EP075(SM): Acenaphthene	83-32-9	1	µg/L	<1.0	<1.0	0.00	No Limit
		EP075(SM): Fluorene	86-73-7	1	µg/L	<1.0	<1.0	0.00	No Limit
		EP075(SM): Phenanthrene	85-01-8	1	µg/L	<1.0	<1.0	0.00	No Limit
		EP075(SM): Anthracene	120-12-7	1	µg/L	<1.0	<1.0	0.00	No Limit
		EP075(SM): Fluoranthene	206-44-0	1	µg/L	<1.0	<1.0	0.00	No Limit
		EP075(SM): Pyrene	129-00-0	1	µg/L	<1.0	<1.0	0.00	No Limit
		EP075(SM): Benzo[a]anthracene	56-55-3	1	µg/L	<1.0	<1.0	0.00	No Limit
		EP075(SM): Chrysene	218-01-9	1	µg/L	<1.0	<1.0	0.00	No Limit
		EP075(SM): Benzo[e]fluoranthene	205-99-2	1	µg/L	<1.0	<1.0	0.00	No Limit
		EP075(SM): Benzo[k]fluoranthene	207-09-9	1	µg/L	<1.0	<1.0	0.00	No Limit
		EP075(SM): Indeno[1,2,3-cd]pyrene	193-39-5	1	µg/L	<1.0	<1.0	0.00	No Limit
		EP075(SM): Dibenzo[a,h]anthracene	53-70-3	1	µg/L	<1.0	<1.0	0.00	No Limit
		EP075(SM): Benzo[g,h,i]perylene	191-34-2	1	µg/L	<1.0	<1.0	0.00	No Limit
<b>EP080/971: Total Petroleum Hydrocarbons (QC Loc: 3247512)</b>									
EM2015518-001	Anonymous	EP080: C6 - C9 Fraction	---	20	µg/L	<20	<20	0.00	No Limit
EM2015512-001	Anonymous	EP080: C6 - C9 Fraction	---	20	µg/L	<20	<20	0.00	No Limit
<b>EP080/971: Total Petroleum Hydrocarbons (QC Loc: 3247878)</b>									
EM2015515-003	Anonymous	EP071: C15 - C28 Fraction	---	100	µg/L	<100	<100	0.00	No Limit
		EP071: C10 - C14 Fraction	---	50	µg/L	<50	<50	0.00	No Limit
		EP071: C29 - C36 Fraction	---	50	µg/L	<50	<50	0.00	No Limit
EM2015535-002	Anonymous	EP071: C15 - C28 Fraction	---	100	µg/L	<100	<100	0.00	No Limit
		EP071: C10 - C14 Fraction	---	50	µg/L	<50	<50	0.00	No Limit
		EP071: C29 - C36 Fraction	---	50	µg/L	<50	<50	0.00	No Limit
<b>EP080/971: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QC Loc: 3247912)</b>									
EM2015518-001	Anonymous	EP080: C6 - C10 Fraction	C6, C10	20	µg/L	<20	<20	0.00	No Limit

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Sub-Matrix: WATER				Laboratory Duplicate (DUP) Report					
Laboratory Sample ID	Client Sample ID	Substrate Description	CAS Number	LOF	Unit	Original Result	Duplicate Result	RPD (%)	Recovery Limits (%)
<b>EP080/971: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QC Loc: 3247912) - continued</b>									
EM2015512-001	Anonymous	EP080: C6 - C10 Fraction	C6, C10	20	µg/L	<20	<20	0.00	No Limit
<b>EP080/971: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QC Loc: 3247878)</b>									
EM2015515-003	Anonymous	EP071: C10 - C14 Fraction	---	100	µg/L	<100	<100	0.00	No Limit
		EP071: C16 - C28 Fraction	---	100	µg/L	<100	<100	0.00	No Limit
		EP071: C10 - C14 Fraction	---	100	µg/L	<100	<100	0.00	No Limit
EM2015535-002	Anonymous	EP071: C10 - C14 Fraction	---	100	µg/L	<100	<100	0.00	No Limit
		EP071: C16 - C28 Fraction	---	100	µg/L	<100	<100	0.00	No Limit
		EP071: C10 - C14 Fraction	---	100	µg/L	<100	<100	0.00	No Limit
<b>EP080: BTEXN (QC Loc: 3247512)</b>									
EM2015518-001	Anonymous	EP080: Benzene	71-43-2	1	µg/L	<1	<1	0.00	No Limit
		EP080: Toluene	108-88-3	2	µg/L	<2	<2	0.00	No Limit
		EP080: Ethylbenzene	100-41-4	2	µg/L	<2	<2	0.00	No Limit
		EP080: meta- & para-Xylene	106-36-3	2	µg/L	<2	<2	0.00	No Limit
		EP080: ortho-Xylene	106-42-3	2	µg/L	<2	<2	0.00	No Limit
		EP080: Naphthalene	91-20-3	5	µg/L	<5	<5	0.00	No Limit
EM2015512-001	Anonymous	EP080: Benzene	71-43-2	1	µg/L	<1	<1	0.00	No Limit
		EP080: Toluene	108-88-3	2	µg/L	<2	<2	0.00	No Limit
		EP080: Ethylbenzene	100-41-4	2	µg/L	<2	<2	0.00	No Limit
		EP080: meta- & para-Xylene	106-36-3	2	µg/L	<2	<2	0.00	No Limit
		EP080: ortho-Xylene	106-42-3	2	µg/L	<2	<2	0.00	No Limit
		EP080: Naphthalene	91-20-3	5	µg/L	<5	<5	0.00	No Limit

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**Method Blank (MB) and Laboratory Control Spike (LCS) Report**

The quality control item Method Blank (MB) refers to an analysis that must be run on all samples. It is added in the same volume or proportion as used in standard sample preparation. The purpose of this QC parameter is to monitor potential laboratory contamination. The quality control item Laboratory Control Spike (LCS) refers to a certified reference material, or a known interference free matrix spiked with target analytes. The purpose of this QC parameter is to monitor method precision and accuracy independent of sample matrix. Dynamic Recovery Limits are based on statistical evaluation of processed LCS.

Sub-Matrix: **SQL**

Aqua-Matrix: SOL				Method (EPA/MS)		Laboratory Control Spike (LCS) Report			
Method Description	CAS Number	LOD	Unit	Result	Spike Concentration	Spike Recovery (%)		Recovery Limits (%)	
						LCS	Low	High	
EQ001: Total Metals by ICP-AES (QCLot: 3251145)									
EQ001: Arsenic	7440-39-2	5	mg/kg	<5	21.7 mg/kg	100	78.5	107	
EQ001: Barium	7440-39-2	50	mg/kg	<10	143 mg/kg	82.1	76.4	110	
EQ001: Beryllium	7440-41-7	1	mg/kg	<1	5.63 mg/kg	100	85.4	114	
EQ001: Boron	7440-42-8	50	mg/kg	<10	33.2 mg/kg	110	84.4	126	
EQ001: Cadmium	7440-43-9	1	mg/kg	<1	4.64 mg/kg	100	76.2	108	
EQ001: Chromium	7440-47-3	2	mg/kg	<2	43.5 mg/kg	95.5	77.2	110	
EQ001: Cobalt	7440-48-4	2	mg/kg	<2	16 mg/kg	97.1	78.1	112	
EQ001: Copper	7440-50-9	5	mg/kg	<5	32 mg/kg	99.4	78.1	108	
EQ001: Lead	7439-92-1	5	mg/kg	<5	40 mg/kg	104	78.4	108	
EQ001: Manganese	7439-96-5	5	mg/kg	<5	130 mg/kg	100.0	80.5	110	
EQ001: Nickel	7440-02-0	2	mg/kg	<2	55 mg/kg	105	79.9	109	
EQ001: Selenium	7782-49-2	5	mg/kg	<5	5.37 mg/kg	105	92.0	110	
EQ001: Vanadium	7440-02-0	5	mg/kg	<5	29.6 mg/kg	95.9	78.5	106	
EQ001: Zinc	7440-06-6	5	mg/kg	<5	60.8 mg/kg	110	79.1	110	
EQ002: Total Recoverable Mercury by P885 (QCLot: 3211145)									
EQ002: Mercury	7439-97-6	0.1	mg/kg	<0.1	2.57 mg/kg	88.7	76.3	110	
EP075(SM): Polynuclear Aromatic Hydrocarbons (QCLot: 3253343)									
EP075(SM): Naphthalene	91-20-3	0.5	mg/kg	<0.5	3 mg/kg	114	84.5	128	
EP075(SM): Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	3 mg/kg	112	78.9	127	
EP075(SM): Acenaphthene	83-32-9	0.5	mg/kg	<0.5	3 mg/kg	113	85.3	128	
EP075(SM): Fluorene	86-73-7	0.5	mg/kg	<0.5	3 mg/kg	110	82.1	126	
EP075(SM): Phenanthrene	85-01-8	0.5	mg/kg	<0.5	3 mg/kg	114	85.4	133	
EP075(SM): Anthracene	120-12-7	0.5	mg/kg	<0.5	3 mg/kg	117	88.2	136	
EP075(SM): Fluoranthene	206-44-0	0.5	mg/kg	<0.5	3 mg/kg	115	83.4	136	
EP075(SM): Pyrene	129-00-0	0.5	mg/kg	<0.5	3 mg/kg	119	85.1	140	
EP075(SM): Benzo[a]fluoranthene	96-55-3	0.5	mg/kg	<0.5	3 mg/kg	107	83.7	130	
EP075(SM): Chrysene	218-01-8	0.5	mg/kg	<0.5	3 mg/kg	120	85.2	141	
EP075(SM): Benzo[b]fluoranthene	205-99-2	0.5	mg/kg	<0.5	3 mg/kg	102	88.5	120	
EP075(SM): Benzo[k]fluoranthene	207-08-9	0.5	mg/kg	<0.5	3 mg/kg	126	80.1	132	
EP075(SM): Benzo[a]pyrene	50-32-6	0.5	mg/kg	<0.5	3 mg/kg	91.22	87.4	130	
EP075(SM): Indeno[1,2,3-cd]pyrene	193-39-5	0.5	mg/kg	<0.5	3 mg/kg	105	86.0	126	
EP075(SM): Dibenzo[a,h]anthracene	53-70-3	0.5	mg/kg	<0.5	3 mg/kg	101	85.4	127	
EP075(SM): Benzo[g,h,i]perylene	191-24-2	0.5	mg/kg	<0.5	3 mg/kg	105	87.8	127	

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Sub-Matrix: **SQL**

Geo-Alloys: SOIL				Method Name (MS)		Laboratory Control Spike (LCS) Report		
Method Description	CAS Number	LOD	Unit	Result	Spike Concentration	Spike Recovery (%)	Low	High
EP000: Total Petroleum Hydrocarbons (QCLot: 3248462)								
EP000: C6 - C10 Fraction	---	50	mg/kg	<10	30 mg/kg	94.2	61.2	127
EP000T1: Total Petroleum Hydrocarbons (QCLot: 3253343)								
EP001: C10 - C14 Fraction	---	50	mg/kg	<10	900 mg/kg	97.2	71.8	129
EP001: C15 - C21 Fraction	---	100	mg/kg	<100	3030 mg/kg	100	83.9	125
EP001: C22 - C36 Fraction	---	100	mg/kg	<100	1520 mg/kg	95.5	77.9	119
EP001: C10 - C36 Fraction (sum)	---	50	mg/kg	<10	---	---	---	---
EP000T1: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 3248462)								
EP000: C6 - C10 Fraction	---	50	mg/kg	<10	45 mg/kg	95.3	59.5	125
EP000T1: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 3253343)								
EP001: <C10 - C10 Fraction	---	50	mg/kg	<10	1160 mg/kg	96.6	72.2	128
EP001: <C10 - C21 Fraction	---	100	mg/kg	<100	4100 mg/kg	96.0	82.1	122
EP001: <C21 - C40 Fraction	---	100	mg/kg	<100	280 mg/kg	104	55.1	131
EP001: <C40 - C40 Fraction (sum)	---	50	mg/kg	<10	---	---	---	---
EP000: BTEXN (QCLot: 3248462)								
EP000: Benzene	71-43-2	0.2	mg/kg	<0.2	2 mg/kg	82.9	62.7	119
EP000: Toluene	108-98-3	0.5	mg/kg	<0.5	2 mg/kg	88.8	66.6	126
EP000: Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	2 mg/kg	92.8	66.3	124
EP000: meta- & para-Xylene	106-36-3	0.5	mg/kg	<0.5	4 mg/kg	96.4	67.5	126
EP000: ortho-Xylene	106-42-3	0.5	mg/kg	<0.5	2 mg/kg	87.1	73.0	128
EP000: Naphthalene	91-20-3	1	mg/kg	<1	0.5 mg/kg	93.9	61.2	123
Sub-Matrix: WATER								
Method Description	CAS Number	LOD	Unit	Result	Spike Concentration	Spike Recovery (%)	Low	High
EQ020F: Dissolved Metals by ICP-MS (QCLot: 3248326)								
EQ020A-P: Lead	7439-92-1	0.001	mg/L	<0.001	0.1 mg/L	95.3	84.0	107
EP075(SM): Polynuclear Aromatic Hydrocarbons (QCLot: 3247879)								
EP075(SM): Naphthalene	91-20-3	1	µg/L	<1.0	5 µg/L	95.6	41.1	116
EP075(SM): Acenaphthylene	208-96-8	1	µg/L	<1.0	5 µg/L	94.7	47.2	121
EP075(SM): Acenaphthene	83-32-9	1	µg/L	<1.0	5 µg/L	94.2	47.3	118
EP075(SM): Fluorene	86-73-7	1	µg/L	<1.0	5 µg/L	94.3	49.4	121
EP075(SM): Phenanthrene	85-01-8	1	µg/L	<1.0	5 µg/L	98.9	52.5	124
EP075(SM): Anthracene	120-12-7	1	µg/L	<1.0	5 µg/L	96.1	52.3	125
EP075(SM): Fluoranthene	206-44-0	1	µg/L	<1.0	5 µg/L	97.6	52.4	127
EP075(SM): Pyrene	129-00-0	1	µg/L	<1.0	5 µg/L	97.3	51.3	130
EP075(SM): Benzo[a]fluoranthene	96-55-3	1	µg/L	<1.0	5 µg/L	101	50.0	130
EP075(SM): Chrysene	218-01-8	1	µg/L	<1.0	5 µg/L	101	49.6	121



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Sub-Matrix	WATER		
Method/Compound	CPI Number	LOD	Unit
EP075(SM): Polynuclear Aromatic Hydrocarbons (QCLet: 3247872) - continued			
EP075(SM): Benzo(a)fluoranthene	209-09-2	1	µg/L
EP075(SM): Benzo(a)pyrene	209-09-2	1	µg/L
EP075(SM): Benzo(b)fluoranthene	207-08-9	1	µg/L
EP075(SM): Benzo(k)fluoranthene	50-32-8	0.5	µg/L
EP075(SM): Indeno(1,2,3-cd)pyrene	193-39-3	1	µg/L
EP075(SM): Dibenzo(a,h)anthracene	53-70-3	1	µg/L
EP075(SM): Benzo(g,h,i)perylene	197-04-0	1	µg/L
EP080(B7): Total Petroleum Hydrocarbons (QCLet: 3247912)	---	30	µg/L
EP080: C8 - C9 Fraction	---	30	µg/L
EP080(B7): Total Petroleum Hydrocarbons (QCLet: 3247912)	---	30	µg/L
EP071: C10 - C14 Fraction	---	50	µg/L
EP071: C15 - C20 Fraction	---	100	µg/L
EP071: C20 - C26 Fraction	---	30	µg/L
EP080(B7): Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLet: 3247912)	---	30	µg/L
EP080: C8 - C10 Fraction	---	30	µg/L
EP080(B7): Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLet: 3247912)	---	30	µg/L
EP071: <C10 - C16 Fraction	---	100	µg/L
EP071: <C16 - C24 Fraction	---	100	µg/L
EP071: <C24 - C40 Fraction	---	100	µg/L
EP080: BTEX (QCLet: 3247912)	---	30	µg/L
EP080: Benzene	71-43-2	1	µg/L
EP080: Toluene	108-08-3	2	µg/L
EP080: Ethylbenzene	100-41-4	2	µg/L
EP080: meta- & para-Xylene	106-38-3	2	µg/L
EP080: ortho-Xylene	106-42-3	2	µg/L
EP080: Naphthalene	91-20-3	5	µg/L
Matrix Spike (MS) Report			
The quality control term Matrix Spike (MS) refers to an additional sample spiked with a representative set of target analytes. The purpose of this QC parameter is to monitor potential matrix effects on analyte recoveries. Spike Recovery Limits as per laboratory Data Quality Objectives (DQOs). Ideal recovery ranges stated may be waived in the event of sample matrix interference.			
Sub-Matrix	SOIL		
Method/Compound	CAT Number	Concentration	Recovery Limits (%)
EM085(ED09): Total Metals by ICP-AES (QCLet: 3251145)			
EM0215530-004	EM0215530	7439-01-1	250 mg/kg
EM0215530-004	EM0215530	7440-38-2	50 mg/kg
Matrix Spike (MS) Report			
Sub-Matrix	SOIL		
Method/Compound	CAT Number	Concentration	Recovery Limits (%)
EM085(ED09): Total Metals by ICP-AES (QCLet: 3251145)			
EM0215530-004	EM0215530	7439-01-1	250 mg/kg
EM0215530-004	EM0215530	7440-38-2	50 mg/kg
Matrix Spike (MS) Report			
Sub-Matrix	SOIL		
Method/Compound	CAT Number	Concentration	Recovery Limits (%)
EM085(ED09): Total Metals by ICP-AES (QCLet: 3251145)			
EM0215530-004	EM0215530	7439-01-1	250 mg/kg
EM0215530-004	EM0215530	7440-38-2	50 mg/kg
Matrix Spike (MS) Report			
Sub-Matrix	SOIL		
Method/Compound	CAT Number	Concentration	Recovery Limits (%)
EM085(ED09): Total Metals by ICP-AES (QCLet: 3251145)			
EM0215530-004	EM0215530	7439-01-1	250 mg/kg
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Method/Compound	CAT Number	Con	

*Environmental Site Assessment: 156 New Town Road, New Town*

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Work Order : EM2015530

Client : GEO-ENVIRONMENTAL SOLUTIONS

Project : New Town



Sub-Matrix: WATER

Matrix Spike (MS) Report

Laboratory Sample ID	Client Sample ID	Matrix: Contaminant	MS Number	Batch	Spiked Recovery (%)	Recovery Limits (%)
				Concentration	MS	Low High
EP360/571: Total Recoverable Hydrocarbons - NELPM 2013 Fractions (QCLat: 3247512)						
EM2015512-002	Anonymous	EP060: Oil - C10 Fraction	Oil C10	300 µg/L	54.4	44.0 122
EP360: STEAK (QCLat: 3247512)						
EM2015512-002	Anonymous	EP060: Benzene	71-43-2	20 µg/L	66.6	58.0 130
		EP060: Toluene	108-88-3	20 µg/L	75.3	72.0 132



**Environmental**

#### QA/QC Compliance Assessment to assist with Quality Review

Work Order : EM2015530	Page : 1 of 9
Client : GEO-ENVIRONMENTAL SOLUTIONS	Laboratory : Environmental Division Melbourne
Contact : DR JOHN PAUL CUMMING	Telephone : +6138549 9630
Project : New Town	Date Samples Received : 09-Sep-2020
Site : —	Issue Date : 15-Sep-2020
Sampler : JPC	No. of samples received : 15
Order number : —	No. of samples analysed : 15

This report is automatically generated by the ALS LIMS through interpretation of the ALS Quality Control Report and several Quality Assurance parameters measured by ALS. This automated reporting highlights any non-conformances, facilitates faster and more accurate data validation and is designed to assist internal expert and external Auditor review. Many components of this report contribute to the overall DQO assessment and reporting for guideline compliance.

Brief method summaries and references are also provided to assist in traceability.

#### Summary of Outliers

##### Outliers : Quality Control Samples

This report highlights outliers flagged in the Quality Control (QC) Report.

- **NO** Method Blank value outliers occur.
- **NO** Duplicate outliers occur.
- Laboratory Control outliers exist - please see following pages for full details.
- Matrix Spike outliers exist - please see following pages for full details.
- For all regular sample matrices, **NO** surrogate recovery outliers occur.

##### Outliers : Analysis Holding Time Compliance

- **NO** Analysis Holding Time Outliers exist.


##### Outliers : Frequency of Quality Control Samples

- Quality Control Sample Frequency Outliers exist - please see following pages for full details.

RIGHT SOLUTIONS | RIGHT PARTNER

*Environmental Site Assessment: 156 New Town Road, New Town*

Page	2 of 9	
Work Order	EW0015530	
Client	GEO-ENVIRONMENTAL SOLUTIONS	
Project	New Town	



**Outliers : Quality Control Samples**  
 Duplicate, Method Blank, Laboratory Control Samples and Matrix Spikes

Sample Description	Discovery Sample ID	Client Sample ID	Recovery	QC Number	Date	Info	Comment
<b>Laboratory Control (L-C) Recoveries</b>							
EP07501618: Polycyclic Aromatic Hydrocarbons	GC-305312-001	---	Benzo(a)pyrene	50-32.6	120 %	67.4-120%	Recovery greater than upper control limit
<b>Matrix Spikes (MS) Recoveries</b>							
EP080071: Total Petroleum Hydrocarbons	EM015030-003	BH2 0.5-0.6	C29 - C38 Fraction	---	125 %	64.0-118%	Recovery greater than upper data quality objective
EP080071: Total Recoverable Hydrocarbons - NEPM 2	EM015030-003	BH2 0.5-0.6	>C34 - C48 Fraction	---	253 %	44.0-126%	Recovery greater than upper data quality objective

**Outliers : Frequency of Quality Control Samples**

Matrix	QC Type	QC Count	QC Rate (%)	QC Frequency
Water	GC	18	0.00	0.00
Soil	GC	18	0.00	0.00

**Analysis Holding Time Compliance**

If samples are identified below as having been analysed or extracted outside of recommended holding times, this should be taken into consideration when interpreting results. This report summarizes detection / preparation and analysis times and compares each with ALS recommended holding times (referencing USEPA SW 846, APHA, AS and NEPM) based on the sample container provided. Data reported represent first date of extraction or analysis and exclude subsequent dilutions and re-analyses. A listing of breaches (if any) is provided herein. Holding time for each method (e.g. TCLP) vary according to the analyses reported. Assessment compares the breach date with the stated analysis holding time for the equivalent test method. These are: organics: 14 days, mercury (8 days & other metals 100 days). A recorded breach does not guarantee a breach for all non-volatile parameters. Holding times for VOCs in soils vary according to analysis of interest. Vinyl Chloride and Styrene holding time is 7 days, others 14 days. A recorded breach does not guarantee a breach for all VOC analyses and should be verified in case the reported breach is a false positive as Vinyl Chloride and Styrene are not key analyses of interest/contaminants.

**Matrix: SOIL**

Method	Sample Date	Extraction / Preparation	Analysis
Extraction / Preparation	Date extracted	Due for extraction	Evaluation
Analysis	Date analysed	Due for analysis	Evaluation

**EA015: Moisture Content (Dried @ 105-110°C)**

Soil Glass Jar - Unpreserved (EA015)						
BH1 0.5-0.6	BH1 1.5-1.6	02-Sep-2020	---	---	10-Sep-2020	16-Sep-2020
BH2 0.5-0.6	BH2 1.5-1.6					
BH3 0.5-0.6	BH3 1.5-1.6					
BH4 0.5-0.6	BH4 1.5-1.6					
BH5 0.5-0.6	BH5 1.5-1.6					
BH6 0.5-0.6	BH6 1.5-1.6					
BH7 0.5-0.6	BH7 1.5-1.6					

**EA015: Moisture Content (Dried @ 105-110°C)**

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BH1 0.5-0.6	BH1 1.5-1.6	02-Sep-2020	12-Sep-2020	01-Mar-2021	12-Sep-2020	01-Mar-2021
BH2 0.5-0.6	BH2 1.5-1.6					
BH3 0.5-0.6	BH3 1.5-1.6					
BH4 0.5-0.6	BH4 1.5-1.6					
BH5 0.5-0.6	BH5 1.5-1.6					
BH6 0.5-0.6	BH6 1.5-1.6					
BH7 0.5-0.6	BH7 1.5-1.6					

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BH2 0.5-0.6	BH2 1.5-1.6					
BH3 0.5-0.6	BH3 1.5-1.6					
BH4 0.5-0.6	BH4 1.5-1.6					
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BH4 0.5-0.6	BH4 1.5-1.6					
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**EA015: Moisture Content (Dried @ 105-110°C)**

Soil Glass Jar - Unpreserved (EA015)						
BH1 0.5-0.6	BH1 1.5-1.6	02-Sep-2020	12-Sep-2020	01-Mar-2021	12-Sep-2020	01-Mar-2021
BH2 0.5-0.6	BH2 1.5-1.6					
BH3 0.5-0.6	BH3 1.5-1.6					
BH4 0.5-0.6	BH4 1.5-1.6					
BH5 0.5-0.6	BH5 1.5-1.6					
BH6 0.5-0.6	BH6 1.5-1.6					
BH7 0.5-0.6	BH7 1.5-1.6					

**EA015: Moisture Content (Dried @ 105-110°C)**

Soil Glass Jar - Unpreserved (EA015)						
BH1 0.5-0.6	BH1 1.5-1.6	02-Sep-2020	12-Sep-2020	01-Mar-2021	12-Sep-2020	01-Mar-2021
BH2 0.5-0.6	BH2 1.5-1.6					
BH3 0.5-0.6	BH3 1.5-1.6					
BH4 0.5-0.6	BH4 1.5-1.6					
BH5 0.5-0.6	BH5 1.5-1.6					
BH6 0.5-0.6	BH6 1.5-1.6					
BH7 0.5-0.6	BH7 1.5-1.6					

**EA015: Moisture Content (Dried @ 105-110°C)**

Soil Glass Jar - Unpreserved (EA015)						
BH1 0.5-0.6	BH1 1.5-1.6	02-Sep-2020	12-Sep-2020	01-Mar-2021	12-Sep-2020	01-Mar-2021
BH2 0.5-0.6	BH2 1.5-1.6					
BH3 0.5-0.6	BH3 1.5-1.6					
BH4 0.5-0.6	BH4 1.5-1.6					
BH5 0.5-0.6	BH5 1.5-1.6					
BH6 0.5-0.6	BH6 1.5-1.6					
BH7 0.5-0.6	BH7 1.5-1.6					

**EA015: Moisture Content (Dried @ 105-110°C)**

Soil Glass Jar - Unpreserved (EA015)						
BH1 0.5-0.6	BH1 1.5-1.6	02-Sep-2020	12-Sep-2020	01-Mar-2021	12-Sep-2020	01-Mar-2021
BH2 0.5-0.6	BH2 1.5-1.6					
BH3 0.5-0.6	BH3 1.5-1.6					
BH4 0.5-0.6	BH4 1.5-1.6					
BH5 0.5-0.6	BH5 1.5-1.6					
BH6 0.5-0.6	BH6 1.5-1.6					
BH7 0.5-0.6	BH7 1.5-1.6					

**EA015: Moisture Content (Dried @ 105-110°C)**

Soil Glass Jar - Unpreserved (EA015)						
BH1 0.5-0.6	BH1 1.5-1.6	02-Sep-2020	12-Sep-2020	01-Mar-2021	12-Sep-2020	01-Mar-2021
BH2 0.5-0.6	BH2 1.5-1.6					
BH3 0.5-0.6	BH3 1.5-1.6					
BH4 0.5-0.6	BH4 1.5-1.6					
BH5 0.5-0.6	BH5 1.5-1.6					
BH6 0.5-0.6	BH6 1.5-1.6					
BH7 0.5-0.6	BH7 1.5-1.6					

**EA015: Moisture Content (Dried @ 105-110°C)**

Soil Glass Jar - Unpreserved (EA015)						
BH1 0.5-0.6	BH1 1.5-1.6	02-Sep-2020	12-Sep-2020	01-Mar-2021	12-Sep-2020	01-Mar-2021
BH2 0.5-0.6	BH2 1.5-1.6					
BH3 0.5-0.6	BH3 1.5-1.6					
BH4 0.5-0.6	BH4 1.5-1.6					
BH5 0.5-0.6	BH5 1.5-1.6					
BH6 0.5-0.6	BH6 1.5-1.6					
BH7 0.5-0.6	BH7 1.5-1.6					

**EA015: Moisture Content (Dried @ 105-110°C)**

Soil Glass Jar - Unpreserved (EA015)						
BH1 0.5-0.6	BH1 1.5-1.6	02-Sep-2020	12-Sep-2020	01-Mar-2021	12-Sep-2020	01-Mar-2021
BH2 0.5-0.6	BH2 1.5-1.6					
BH3 0.5-0.6	BH3 1.5-1.6					
BH4 0.5-0.6	BH4 1.5-1.6					
BH5 0.5-0.6	BH5 1.5-1.6					
BH6 0.5-0.6	BH6 1.5-1.6					
BH7 0.5-0.6	BH7 1.5-1.6					

**EA015: Moisture Content (Dried @ 105-110°C)**

Soil Glass Jar - Unpreserved (EA015)						
BH1 0.5-0.6	BH1 1.5-1.6	02-Sep-2020	12-Sep-2020	01-Mar-2021	12-Sep-2020	01-Mar-2021
BH2 0.5-0.6	BH2 1.5-1.6					
BH3 0.5-0.6	BH3 1.5-1.6					
BH4 0.5-0.6	BH4 1.5-1.6					
BH5 0.5-0.6	BH5 1.5-1.6					
BH6 0.5-0.6	BH6 1.5-1.6					
BH7 0.5-0.6	BH7 1.5-1.6					

**EA015: Moisture Content (Dried @ 105-110°C)**

Soil Glass Jar - Unpreserved (EA015)						
BH1 0.5-0.6	BH1 1.5-1.6	02-Sep-2020	12-Sep-2020	01-Mar-2021	12-Sep-2020	01-Mar-2021
BH2 0.5-0.6	BH2 1.5-1.6					
BH3 0.5-0.6	BH3 1.5-1.6					
BH4 0.5-0.6	BH4 1.5-1.6					
BH5 0.5-0.6	BH5 1.5-1.6					
BH6 0.5-0.6	BH6 1.5-1.6					





*Environmental Site Assessment: 156 New Town Road, New Town*

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**Quality Control Parameter Frequency Compliance**

The following report summarizes the frequency of laboratory QC samples analyzed within the analysis (or(s) in which the submitted sample(s) was/were) processed. Actual rate should be greater than or equal to the expected rate. A listing of breaches is provided in the Summary of Outliers.

Matrix: <b>SOIL</b>		Evaluation: * = Quality Control frequency not within specification - * = Quality Control frequency within specification		Quality Control Specification		
Quality Control Sample Type	Method	Count		Actual	Expected	Pass (%)
Analytical Methods		QC	Recover			
<b>Laboratory Duplicate (LOD)</b>						
Molecular Content	EA055	2	19	19.53	10.00	✓
PAH/Phenols (S/M)	EP075(S/M)	2	14	14.29	10.00	✓
Total Mercury by FIMS	E00057	1	8	12.00	10.00	✓
Total Metals by ICP-AES	E00057	2	20	10.00	10.00	✓
TRH - Semivolatile Fraction	EP071	2	14	14.29	10.00	✓
TRH Volatiles/STEX	EP080	2	20	10.00	10.00	✓
<b>Laboratory Control Samples (LCS)</b>						
PAH/Phenols (S/M)	EP075(S/M)	1	14	7.14	5.00	✓
Total Mercury by FIMS	E00057	1	8	12.00	5.00	✓
Total Metals by ICP-AES	E00057	1	20	5.00	5.00	✓
TRH - Semivolatile Fraction	EP071	1	14	7.14	5.00	✓
TRH Volatiles/STEX	EP080	1	20	5.00	5.00	✓
<b>Method Blanks (MB)</b>						
PAH/Phenols (S/M)	EP075(S/M)	1	14	7.14	5.00	✓
Total Mercury by FIMS	E00057	1	8	12.00	5.00	✓
Total Metals by ICP-AES	E00057	1	20	5.00	5.00	✓
TRH - Semivolatile Fraction	EP071	1	14	7.14	5.00	✓
TRH Volatiles/STEX	EP080	1	20	5.00	5.00	✓
<b>Matrix Spike (MS)</b>						
PAH/Phenols (S/M)	EP075(S/M)	1	14	7.14	5.00	✓
Total Mercury by FIMS	E00057	1	8	12.00	5.00	✓
Total Metals by ICP-AES	E00057	2	20	10.00	5.00	✓
TRH - Semivolatile Fraction	EP071	1	14	7.14	5.00	✓
TRH Volatiles/STEX	EP080	1	20	5.00	5.00	✓
<b>Matrix: <b>WATER</b></b>						
Quality Control Sample Type		Evaluation: * = Quality Control frequency not within specification - * = Quality Control frequency within specification		Quality Control Specification		
Analytical Methods	Method	Count		Actual	Expected	Pass (%)
		QC	Recover			
<b>Laboratory Duplicate (LOD)</b>						
Dissolved Metals by ICP-MS - Suite A	EQ025A-F	2	13	19.38	10.00	✓
PAH/Phenols (GC/MS - S/M)	EP075(S/M)	1	9	11.11	10.00	✓
TRH - Semivolatile Fraction	EP071	2	16	11.11	10.00	✓
TRH Volatiles/STEX	EP080	2	16	12.00	10.00	✓
<b>Laboratory Control Samples (LCS)</b>						
Dissolved Metals by ICP-MS - Suite A	EQ025A-F	1	13	7.69	5.00	✓
PAH/Phenols (GC/MS - S/M)	EP075(S/M)	1	9	11.11	5.00	✓

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Matrix: <b>WATER</b>		Evaluation: * = Quality Control frequency not within specification - * = Quality Control frequency within specification		Quality Control Specification		
Quality Control Sample Type	Method	Count		Actual	Expected	Pass (%)
Analytical Methods		QC	Recover			
<b>Laboratory Duplicate (LOD) - Continued</b>						
TRH - Semivolatile Fraction	EP071	1	16	5.56	5.00	✓
TRH Volatiles/STEX	EP080	1	16	6.25	5.00	✓
<b>Method Blanks (MB)</b>						
Dissolved Metals by ICP-MS - Suite A	EQ025A-F	1	13	7.69	5.00	✓
PAH/Phenols (GC/MS - S/M)	EP075(S/M)	1	9	11.11	5.00	✓
TRH - Semivolatile Fraction	EP071	1	16	5.56	5.00	✓
TRH Volatiles/STEX	EP080	1	16	6.25	5.00	✓
<b>Matrix Spike (MS)</b>						
Dissolved Metals by ICP-MS - Suite A	EQ025A-F	1	13	7.69	5.00	✓
PAH/Phenols (GC/MS - S/M)	EP075(S/M)	1	9	11.11	5.00	✓
TRH - Semivolatile Fraction	EP071	0	16	0.00	5.00	✗
TRH Volatiles/STEX	EP080	1	16	6.25	5.00	✓

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**Brief Method Summaries**

The analytical procedures used by the Environmental Division have been developed from established internationally recognized procedures such as those published by the US EPA, APHA, AS and NEPM. In-house developed procedures are employed in the absence of documented standards or by client request. The following report provides brief descriptions of the analytical procedures employed for results reported in the Certificate of Analysis. Sources from which ALS methods have been developed are provided within the Method Descriptions.

Preparation Method	Method	Matrix	Method Description
Moisture Content	EA055	SOIL	In house: A gravimetric procedure based on weight loss over a 12 hour drying period at 105-110 degrees C. This method is compliant with NEPM Schedule B(3).
Total Metals by ICP-AES	EG001T	SOIL	In house: Referenced to APHA 3120, USEPA SW 846 - 8010. Metals are determined following an appropriate acid digestion of the soil. The ICP-AES technique utilizes a highly efficient argon plasma to ionize selected elements. Ions are then passed into a high vacuum mass spectrometer, which separates the analytes based on their distinct mass to charge ratios prior to their measurement by a discrete dynode ion detector.
Total Mercury by FIMS	EG001T	SOIL	In house: Referenced to AS 3550, APHA 3112 Hg - B (Flow-injection (SnCl <sub>2</sub> ) (Cold Vapour generation) AAS). FIMS-AAS is an automated flameless atomic absorption technique. Mercury in solids are determined following an appropriate acid digestion. Ionic mercury is reduced online to atomic mercury vapour by SnCl <sub>2</sub> which is then purged into a heated quartz cell. Quantification is by comparing absorbance against a calibration curve. This method is compliant with NEPM Schedule B(3).
TRH - Semivolatile Fraction	EP071	SOIL	In house: Referenced to USEPA SW 846 - 8015. Sample extracts are analysed by Capillary GC/FID and quantified against alkane standards over the range C10 - C40. Compliant with NEPM Schedule B(3).
PAH/Phenols (SIM)	EP071(SIM)	SOIL	In house: Referenced to USEPA SW 846 - 8270. Extracts are analysed by Capillary GC/MS in Selective Ion Mode (SIM) and quantification is by comparison against an established 5 point calibration curve. This method is compliant with NEPM Schedule B(3).
TRH Volatiles/BTEX	EP000	SOIL	In house: Referenced to USEPA SW 846 - 8260. Extracts are analysed by Purge and Trap, Capillary GC/MS. Quantification is by comparison against an established 5 point calibration curve. Compliant with NEPM Schedule B(3) amended.
Dissolved Metals by ICP-MS - Suite A	EG004-F	WATER	In house: Referenced to APHA 3120, USEPA SW846 - 8020, AS GW-ENH020. Samples are 0.45µm filtered prior to analysis. The ICP-MS technique utilizes a highly efficient argon plasma to ionize selected elements. Ions are then passed into a high vacuum mass spectrometer, which separates the analytes based on their distinct mass to charge ratios prior to their measurement by a discrete dynode ion detector.
TRH - Semivolatile Fraction	EP071	WATER	In house: Referenced to USEPA SW 846 - 8015. The sample extract is analysed by Capillary GC/FID and quantification is by comparison against an established 5 point calibration curve of n-Alkane standards. This method is compliant with the QC requirements of NEPM Schedule B(3).
PAH/Phenols (GC/MS - SIM)	EP071(SIM)	WATER	In house: Referenced to USEPA SW 846 - 8270. Sample extracts are analysed by Capillary GC/MS in SIM Mode and quantification is by comparison against an established 5 point calibration curve. This method is compliant with NEPM Schedule B(3).
TRH Volatiles/BTEX	EP000	WATER	In house: Referenced to USEPA SW 846 - 8260. Water samples are directly purged prior to analysis by Capillary GC/MS and quantification is by comparison against an established 5 point calibration curve. Alternatively, a sample is equilibrated in a headspace vial and a portion of the headspace determined by GC/MS analysis. This method is compliant with the QC requirements of NEPM Schedule B(3).

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Preparation Method	Method	Matrix	Method Description
Hot Block Digest for metals in soils, sediments and sludges	EN050	SOIL	In house: Referenced to USEPA 200.2. Hot Block Acid Digestion. 1.0g of sample is heated with Nitric and Hydrochloric acids, then cooled. Peroxide is added and samples heated and cooled again before being filtered and bulked to volume for analysis. Digest is appropriate for determination of selected metals in sludge, sediments, and soils. This method is compliant with NEPM Schedule B(3).
Methanolic Extraction of Solids for Purge and Trap	CR016	SOIL	In house: Referenced to USEPA SW 846 - 5030A. 5g of solid is shaken with surrogate and 10mL methanol prior to analysis by Purge and Trap - GC/MS.
Tumbler Extraction of Solids	CR017	SOIL	In house: Mechanical agitation (tumbler). 10g of sample, Na2SO4 and surrogate are extracted with 30mL 1:1 DCM/Acetone by end over and tumbler. The solvent is decanted, dehydrated and concentrated (by KD) to the desired volume for analysis.
Separatory Funnel Extraction of Liquids	CR014	WATER	In house: Referenced to USEPA SW 846 - 3510. 100 mL of sample is transferred to a separatory funnel and serially extracted three times using DCM for each extract. The resultant extracts are combined, dehydrated and concentrated for analysis. This method is compliant with NEPM Schedule B(3). ALS default extracts sediment which may be resident in the container.
Volatiles Water Preparation	CR016-W	WATER	A 5 mL aliquot or 5 mL of a diluted sample is added to a 40 mL VDG vial for sparging.

*Environmental Site Assessment: 156 New Town Road, New Town*

## Appendix 8 Certificate of Analysis



**ALS Environmental**

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**CERTIFICATE OF ANALYSIS**

<p><b>Work Order</b> EM2015530</p> <p><b>Client</b> GEO-ENVIRONMENTAL SOLUTIONS</p> <p><b>Contact</b> DR JOHN PAUL CUMMING</p> <p><b>Address</b> 29 KIRKSWAY PLACE BATTERY POINT TASMANIA, AUSTRALIA 7004</p> <p><b>Telephone</b> +61 03 8223 1839</p> <p><b>Product</b> New Town</p> <p><b>Order number</b> -</p> <p><b>Q/CAC number</b> -</p> <p><b>Sampler</b> JPC</p> <p><b>Site</b> -</p> <p><b>Quote number</b> EN0222</p> <p><b>No. of samples received</b> 15</p> <p><b>No. of samples analysed</b> 15</p>	<p><b>Page</b> 1 of 12</p> <p><b>Laboratory</b> Environmental Division Melbourne</p> <p><b>Contact</b> Shirley LeGore</p> <p><b>Address</b> 4 Wootton Rd Springvale VIC Australia 3171</p> <p><b>Telephone</b> +6138549 9630</p> <p><b>Date Samples Received</b> 09-Sep-2020 13:30</p> <p><b>Date Analysis Commenced</b> 09-Sep-2020</p> <p><b>Issue Date</b> 15-Sep-2020 13:29</p>
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Accreditation No. 811  
Accredited for compliance with  
ISO/IEC 17025 - Testing

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results
- Surrogate Control Limits

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QMOC Compliance Assessment to assist with Quality Review and Sample Receipt Notifications.

**Signatories**  
 This document has been electronically signed by the authorized signatories below. Electronic signing is carried out in compliance with procedures specified in 21 CFR Part 11.

Signatories	Position	Accreditation Category
Diana Fernando	Senior Inorganic Chemist	Melbourne Inorganics, Springvale, VIC
Xing Lin	Senior Organic Chemist	Melbourne Organics, Springvale, VIC

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RIGHT SOLUTIONS | RIGHT PARTNER

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**Work Order** EM2015530

**Client** GEO-ENVIRONMENTAL SOLUTIONS

**Product** New Town



**General Comments**

The analytical procedures used by ALS have been developed from established internationally recognised procedures such as those published by the USEPA, APHA, AS and NEN. In house developed procedures are fully validated and are often at the client request.

Where moisture determination has been performed, results are reported on a dry weight basis.

Where a reported result is higher than the LOR, this may be due to primary sample extract/dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

When sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes.

Where a result is reported to meet compliance limits the associated uncertainty must be considered. Refer to the ALS Contact for details.

**Key:**

- QAS Number = QAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.
- LOR = Limit of reporting
- == This result is calculated from individual analysis detections at or above the level of reporting
- = ALS is not NATA accredited for these tests
- = indicates an estimated result

- **EPDT (BBL)** Where reported, Benzodioxane Toxicity Equivalent Quotient (TEQ) per the NEN (2013) is the sum total of the concentration of the eight carcinogenic PAHs multiplied by their Toxicity Equivalence Factor (TEF) relative to Benzo[a]pyrene. TEF values are provided in brackets as follows: Benzo[a]anthracene (0.1), Chrysene (0.01), Benzo[b]a, Benzo[k]fluoranthene (0.1), Benzo[a]pyrene (1.0), Indeno[1,2,3-cd]pyrene (0.1), Dibenz[a,h]anthracene (0.1), Benzo[e]pyrene (0.1), Benzo[g,h,i]perylene (0.01). Less than LOR results for TEQ Zero are treated as zero.
- **Benzodioxane Toxicity Equivalent Quotient (TEQ) per the NEN (2013)** is the sum total of the concentration of the eight carcinogenic PAHs multiplied by their Toxicity Equivalence Factor (TEF) relative to Benzo[a]pyrene. TEF values are provided in brackets as follows: Benzo[a]anthracene (0.1), Chrysene (0.01), Benzo[b]a, Benzo[k]fluoranthene (0.1), Benzo[a]pyrene (1.0), Indeno[1,2,3-cd]pyrene (0.1), Dibenz[a,h]anthracene (0.1), Benzo[e]pyrene (0.1), Benzo[g,h,i]perylene (0.01). Less than LOR results for TEQ Zero are treated as zero, for TEQ 1/2 LOR are treated as half the reported LOR, and for TEQ LOR are treated as being equal to the reported LOR. Note: TEQ 1/2 LOR and TEQ LOR will calculate as 0.0001g/kg and 0.0002g/kg respectively for samples with non-detects for all of the eight TEQ PAHs.
- **EPDT (BBL)** Where reported, Total Chlordane is the sum of the reported concentrations of 2-Methylchlordane and 3,5-Dimethylchlordane at or above the LOR.
- **EPDT (BBL)** Where reported, Total Chlordane is the sum of the reported concentrations of 2-Methylchlordane and 3,5-Dimethylchlordane at or above the LOR.

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 Project : New Town

#### Analytical Results

Substrate: SOL (Matrix: SOL)				Client Sample ID					BH1 6.5-0.8					BH1 1.5-1.6					BH2 6.5-0.8					BH2 1.5-1.6					BH3 6.5-0.8														
Client sampling date / time				02-Sep-2020 00:00					02-Sep-2020 01:00					02-Sep-2020 00:00					02-Sep-2020 00:00					02-Sep-2020 00:00																			
Compound				CAS Number					LOI					Unit					Result					Result					Result														
EA555: Moisture Content (Dried @ 105-110°C)				---					1.0					%					10.8					12.2					15.3														
EA555: Moisture Content				---					---					---					---					---					---														
EQ055: Total Metals by ICP-AES				---					---					---					---					---					---														
Arsenic				7440-39-2					5					mg/kg					---					---					---														
Barium				7440-39-3					10					mg/kg					---					---					---														
Beryllium				7440-41-7					1					mg/kg					---					---					---														
Boron				7440-42-8					50					mg/kg					---					---					---														
Cadmium				7440-43-0					1					mg/kg					---					---					---														
Chromium				7440-47-3					2					mg/kg					---					---					---														
Cobalt				7440-48-4					2					mg/kg					---					---					---														
Copper				7440-50-8					5					mg/kg					---					---					---														
Manganese				7439-96-5					5					mg/kg					---					---					---														
Nickel				7440-00-0					3					mg/kg					---					---					---														
Selenium				7782-49-2					5					mg/kg					---					---					---														
Vanadium				7440-62-2					5					mg/kg					---					---					---														
Zinc				7440-66-6					5					mg/kg					---					---					---														
Lead				7439-92-1					5					mg/kg					710					11					804					110					227				
EQ05T: Total Recoverable Mercury by FIMS				---					---					---					---					---					---					---									
Mercury				7439-97-6					0.1					mg/kg					---					---					40.1					0.2					---				
EP075/SMB: Polynuclear Aromatic Hydrocarbons				---					---					---					---					---					---					---									
Naphthalene				81-20-3					0.5					mg/kg					+0.5					+0.5					+0.5					+0.5					0.5				
Acenaphthylene				208-96-6					0.5					mg/kg					+0.5					+0.5					+0.5					+0.5					1.8				
Acenaphthene				83-32-0					0.5					mg/kg					+0.5					+0.5					+0.5					+0.5					0.5				
Fluorene				86-73-7					0.5					mg/kg					+0.5					+0.5					+0.5					+0.5					9.5				
Phenanthrene				80-61-6					0.5					mg/kg					0.8					+0.5					+0.5					+0.5					7.7				
Anthracene				120-12-7					0.5					mg/kg					+0.5					+0.5					+0.5					+0.5					1.8				
Fluoranthene				208-44-0					0.5					mg/kg					1.8					+0.5					+0.5					+0.5					18.5				
Pyrene				129-00-0					0.5					mg/kg					2.1					+0.5					+0.5					+0.5					19.5				
Benzo[a]anthracene				156-91-0					0.5					mg/kg					1.2					+0.5					+0.5					+0.5					9.3				
Chrysene				218-01-8					0.5					mg/kg					1.8					+0.5					+0.5					+0.5					9.6				
Benzo[b]fluoranthene				205-98-2					0.5					mg/kg					2.8					+0.5					+0.5					+0.5					13.3				
Benzo[k]fluoranthene				207-08-0					0.5					mg/kg					0.8					+0.5					+0.5					+0.5					3.7				
Benzo[a]pyrene				50-32-8					0.5					mg/kg					2.8					+0.5					+0.5					+0.5					12.7				
Indeno[1,2,3-cd]pyrene				193-38-5					0.5					mg/kg					1.1					+0.5					+0.5					+0.5					6.3				
Dibenz[a,h]anthracene				53-70-9					0.5					mg/kg					+0.5					+0.5					+0.5					+0.5					2.1				

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 Work Order : SW001536  
 Client : GEO-ENVIRONMENTAL SOLUTIONS  
 Project : New Town

#### Analytical Results

Substrate: SOL (Matrix: SOL)				Client Sample ID					BH1 6.5-0.8					BH1 1.5-1.6					BH2 6.5-0.8					BH2 1.5-1.6					BH3 6.5-0.8																			
Client sampling date / time				02-Sep-2020 00:00					02-Sep-2020 01:00					02-Sep-2020 00:00					02-Sep-2020 00:00					02-Sep-2020 00:00																								
Compound				CAS Number					LOI					Unit					Result					Result					Result																			
EP075/SMB: Polynuclear Aromatic Hydrocarbons - Continued				---					---					---					---					---					---					---														
Benzo[a]pyrene				191-24-2					0.5					mg/kg					1.5					+0.5					0.8					+0.5					8.3									
* Sum of polycyclic aromatic hydrocarbons				---					---					---					---					---					---					---					115									
* Benzo[a]pyrene TEG (sum)				---					---					---					---					---					---					---					16.2									
* Benzo[a]pyrene TEG (air LOR)				---					---					---					---					---					---					---					9.6									
* Benzo[a]pyrene TEG (LCR)				---					---					---					---					---					---					---					16.2									
EP080/071: Total Petroleum Hydrocarbons				---					---					---					---					---					---					---					---									
C6 - C8 Fraction				---					10					mg/kg					<10					<10					+10					+10					+10									
C10 - C14 Fraction				---					50					mg/kg					<50					<50					+50					+50					+50									
C15 - C28 Fraction				---					100					mg/kg					330					<100					790					130					489									
C29 - C36 Fraction				---					100					mg/kg					280					<100					1760					310					448									
* C10 - C36 Fraction (sum)				---					50					mg/kg					430					<50					2460					440					890									
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions				---					---					---					---					---					---					---					---									
C6 - C10 Fraction				---					10					mg/kg					<10					<10					+10					+10					+10									
C6 - C10 Fraction minus BTEX (P)				---					10					mg/kg					<10					<10					+10					+10					+10									
* C10 - C16 Fraction				---					50					mg/kg					+50					+50					+50					+50					+50									
* C16 - C34 Fraction				---					100					mg/kg					370					<100					1910					330					750									
* C34 - C40 Fraction				---					100					mg/kg					+100					+100					1160					220					249									
* C10 - C40 Fraction (sum)				---					50					mg/kg					+50					+50					3870					860					899									
* C10 - C16 Fraction minus Naphthalene (P)				---					50					mg/kg					+50					+50					+50					+50					+50									
EP080: BTEX				---					---					---					---					---					---					---					---					---				
Benzene				71-43-2					0.2					mg/kg					<0.2					<0.2					+0.2					+0.2					+0.2									
Toluene				108-88-3					0.5					mg/kg					<0.5					<0.5					+0.5					+0.5					+0.5									
Ethylbenzene				100-41-4					0.5					mg/kg					<0.5					<0.5					+0.5					+0.5					+0.5									
meta- & para-Xylene				106-38-5					0.5					mg/kg					<0.5					<0.5					+0.5					+0.5					+0.5									
ortho-Xylene				95-47-6					0.5					mg/kg					<0.5					<0.5					+0.5					+0.5					+0.5									
* Sum of BTEX				---					0.2					mg/kg					<0.2					<0.2					+0.2					+0.2					+0.2									
* Total Xylenes				---					0.5					mg/kg					<0.5					<0.5					+0.5					+0.5					+0.5									
Naphthalene				81-20-3					1					mg/kg					<1					<1					+1					+1					+1									
EP075/SMB: Phenolic Compound Surrogates				---					---					---					---					---					---					---					---					---				
Phenols				131-27-8					0.5					%					910					90.8					94.5					94.1					93.7									
3-Chlorophenol O4				93-11-7					0.5					%					97.8					98.8					99.6					99.8					99.8									
2,4,6-Trichlorophenol				118-79-6					0.5					%					99.9					99.9					99.9					99.9					99.9									



*Environmental Site Assessment: 156 New Town Road, New Town*

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 Work Order: EW20-1530  
 Client: GEO-ENVIRONMENTAL SOLUTIONS  
 Project: New Town



**Analytical Results**

Sub-Matrix: SOIL (Matrix: SOIL)				Client Sample ID:		BH1 0.5-0.6	BH1 1.5-1.6	BH2 0.5-0.6	BH2 1.5-1.6	BH3 0.5-0.6
				Client sampling date / time		02-Sep-2021 00:00	02-Sep-2021 01:00	02-Sep-2021 00:30	02-Sep-2021 00:30	02-Sep-2021 00:00
Compound				CAS Number	LOD	Unit	Result	Result	Result	Result
<b>EP075(SM): PAH Surrogates</b>										
2-Fluorobiphenyl	32140-8	0.5	%				104	101	104	108
Anthracene-d10	1719-06-8	0.5	%				111	107	100	107
4-Tagphenyl-d14	1718-61-0	0.5	%				104	105	101	104
<b>EP085(TPH)/BTEX Surrogates</b>										
1,3-Dichlorobenzene-d4	17080-07-0	0.2	%				88.3	91.9	89.5	88.5
Toluene-d8	2057-28-5	0.2	%				81.2	81.4	81.3	84.4
4-Bromofluorobenzene	490-00-4	0.2	%				88.2	81.8	80.1	81.9

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 Client: GEO-ENVIRONMENTAL SOLUTIONS  
 Project: New Town



**Analytical Results**

Sub-Matrix: SOIL (Matrix: SOIL)				Client Sample ID:		BH3 1.5-1.6	BH4 0.5-0.6	BH4 1.5-1.6	BH5 0.5-0.6	BH5 1.5-1.6
				Client sampling date / time		02-Sep-2021 00:00	02-Sep-2021 01:00	02-Sep-2021 00:30	02-Sep-2021 00:30	02-Sep-2021 00:00
Compound				CAS Number	LOD	Unit	Result	Result	Result	Result
<b>EA005: Moisture Content (Dried @ 105-110°C)</b>										
Moisture Content	---	1.0	%				10.9	10.3	24.3	21.1
<b>EG005(E093): Total Metals by ICP-AES</b>										
Lead	7439-92-1	5	mg/kg				8	89	12	97
<b>EP075(SM): Polynuclear Aromatic Hydrocarbons</b>										
Naphthalene	91-20-3	0.5	mg/kg				<0.5	<0.5	<0.5	<0.5
Acenaphthylene	215-60-0	0.5	mg/kg				<0.5	8.6	<0.5	9.6
Acenaphthene	85-52-9	0.5	mg/kg				<0.5	<0.5	<0.5	<0.5
Fluorene	16-75-7	0.5	mg/kg				<0.5	<0.5	<0.5	<0.5
Phenanthrene	85-01-8	0.5	mg/kg				<0.5	1.1	<0.5	1.2
Anthracene	120-12-7	0.5	mg/kg				<0.5	<0.5	<0.5	<0.5
Fluoranthene	206-44-0	0.5	mg/kg				<0.5	3.8	<0.5	4.1
Pyrene	129-00-0	0.5	mg/kg				<0.5	4.4	<0.5	4.7
Benzo[a]anthracene	16-60-3	0.5	mg/kg				<0.5	2.3	<0.5	2.6
Chrysene	218-08-9	0.5	mg/kg				<0.5	2.2	<0.5	2.5
Benzo[b]fluoranthene	205-99-7	0.5	mg/kg				<0.5	3.7	<0.5	3.7
Benzo[k]fluoranthene	207-06-9	0.5	mg/kg				<0.5	1.3	<0.5	1.4
Benzo[a]pyrene	105-52-8	0.5	mg/kg				<0.5	3.3	<0.5	3.6
Indeno[1,2,3-cd]pyrene	193-38-5	0.5	mg/kg				<0.5	1.7	<0.5	1.8
Dibenz[a,h]anthracene	53-70-3	0.5	mg/kg				<0.5	8.5	<0.5	8.6
Benzo[g,h,i]perylene	191-24-2	0.5	mg/kg				<0.5	3.2	<0.5	2.4
Sum of polycyclic aromatic hydrocarbons	---	0.5	mg/kg				<0.5	27.1	<0.5	28.1
Sum of polycyclic aromatic hydrocarbons (TEQ sum)	---	0.5	mg/kg				<0.5	4.7	<0.5	5.2
Sum of polycyclic aromatic hydrocarbons (TEQ sum) (LOD)	---	0.5	mg/kg				0.6	4.7	5.2	5.6
Sum of polycyclic aromatic hydrocarbons (TEQ sum) (LOD)	---	0.5	mg/kg				1.2	4.7	5.2	5.6
<b>EP080(B): Total Petroleum Hydrocarbons</b>										
C8 - C8 Fraction	---	10	mg/kg				<10	<10	<10	<10
C10 - C14 Fraction	---	50	mg/kg				<50	<50	<50	<50
C16 - C20 Fraction	---	100	mg/kg				<100	<100	<100	<100
C22 - C26 Fraction	---	100	mg/kg				<100	<100	<100	<100
C10 - C26 Fraction (sum)	---	50	mg/kg				<50	<50	<50	<50
<b>EP080(B): Total Recoverable Hydrocarbons - NEPM 2013 Fractions</b>										
C8 - C18 Fraction	C8, C10	10	mg/kg				<10	<10	<10	<10
C8 - C18 Fraction minus BTEX (P)	C8, C10-BTEX	10	mg/kg				<10	<10	<10	<10

*Environmental Site Assessment: 156 New Town Road, New Town*

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 Work Order : 0700-1530  
 Client : GEO-ENVIRONMENTAL SOLUTIONS  
 Project : New Town



**Analytical Results**

Sub-Matrix: SOIL (Matrix: SOIL)		Client Sample ID		BH3 1.5-1.6	BH4 0.5-0.6	BH4 1.5-1.6	BH5 0.5-0.6	BH5 1.5-1.6
Other sampling date / time		02-Sep-2021 00:00		02-Sep-2021 00:00	02-Sep-2021 00:00	02-Sep-2021 00:00	02-Sep-2021 00:00	02-Sep-2021 00:00
CAS Number		LOI		LOI	LOI	LOI	LOI	LOI
Compound		Unit		Result	Result	Result	Result	Result
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions - Continued								
C10 - C16 Fraction		---	50	mg/kg	<50	<50	<50	<50
C16 - C34 Fraction		---	100	mg/kg	<100	230	<100	<100
C34 - C48 Fraction		---	100	mg/kg	<100	<100	<100	<100
C10 - C48 Fraction (sum)		---	50	mg/kg	<50	230	<50	<50
C10 - C16 Fraction minus Naphthalene (P2)		---	50	mg/kg	<50	<50	<50	<50
EP030: BTEX								
Benzene		74-45-2	0.2	mg/kg	<0.2	<0.2	<0.2	<0.2
Toluene		108-88-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5
Ethylbenzene		100-41-4	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5
meta- & para-Xylene		108-38-3 106-42-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5
ortho-Xylene		95-47-6	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5
Sum of BTEX		---	0.2	mg/kg	<0.2	<0.2	<0.2	<0.2
Total Xylenes		---	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5
Naphthalene		84-26-3	1	mg/kg	<1	<1	<1	<1
EP025/060: Phenolic Compound Surrogates								
Phenol-d6		13127-69-3	0.5	%	92.7	94.1	95.7	94.4
2-Chlorophenol-d4		13311-73-6	0.5	%	85.6	91.1	90.4	85.3
2,4,6-Trichlorophenol		118-79-6	0.5	%	79.1	93.1	94.2	84.8
EP075/060: PAH Surrogates								
2-Fluorenylphenyl		32140-8	0.5	%	109.0	107	104	99.9
Anthracene-d10		1719-06-0	0.5	%	185	111	105	102
4-Terphenyl-d14		1718-51-0	0.5	%	182	185	187	173
EP060: TPH/UVI/TEX Surrogates								
1,2-Dichlorobenzene-d4		12300-07-0	0.2	%	95.9	90.4	92.2	91.2
Toluene-d8		2037-26-5	0.2	%	90.4	87.2	84.8	87.6
4-Bromofluorobenzene		400-80-4	0.2	%	101	94.7	93.6	90.9

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**Analytical Results**

Sub-Matrix: SOIL (Matrix: SOIL)		Client Sample ID		BH5 0.5-0.6	BH7 0.65-0.95	BH7 1.5-1.6	Duplicate	---			
Other sampling date / date				02-Sep-2021 00:00	02-Sep-2021 00:00	02-Sep-2021 00:00	02-Sep-2021 00:00	---			
CAS Number				LOI	LOI	LOI	LOI	---			
Unit				Result		Result	Result	Result			
EA055: Moisture Content (Dried @ 105-110°C)											
Moisture Content				---	1.0	%	14.7	12.9	22.5	10.9	---
EG005/060: Total Metals by ICP-AES											
Lead				7439-92-1	5	mg/kg	16	<5	7	463	---
EP075/060: Polynuclear Aromatic Hydrocarbons											
Naphthalene				81-20-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	---
Acenaphthylene				215-46-0	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	---
Acenaphthene				85-52-9	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	---
Fluorene				16-75-7	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	---
Phenanthrene				85-01-8	0.5	mg/kg	<0.5	<0.5	<0.5	9.8	---
Anthracene				120-12-7	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	---
Fluoranthene				206-44-0	0.5	mg/kg	<0.5	<0.5	<0.5	1.9	---
Pyrene				129-00-0	0.5	mg/kg	<0.5	<0.5	<0.5	2.1	---
Benzo[a]anthracene				16-56-3	0.5	mg/kg	<0.5	<0.5	<0.5	1.4	---
Chrysene				218-08-9	0.5	mg/kg	<0.5	<0.5	<0.5	1.2	---
Benzo[b]fluoranthene				205-99-7 205-42-3	0.5	mg/kg	<0.5	<0.5	<0.5	2.8	---
Benzo[k]fluoranthene				207-06-9	0.5	mg/kg	<0.5	<0.5	<0.5	0.8	---
Benzo[a]pyrene				105-32-8	0.5	mg/kg	<0.5	<0.5	<0.5	2.8	---
Indeno[1,2,3-cd]pyrene				193-38-5	0.5	mg/kg	<0.5	<0.5	<0.5	1.8	---
Dibenz[a,h]anthracene				53-70-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	---
Benzo[g,h,i]perylene				191-24-2	0.5	mg/kg	<0.5	<0.5	<0.5	1.4	---
Sum of polycyclic aromatic hydrocarbons				---	0.5	mg/kg	<0.5	<0.5	<0.5	14.4	---
Benzo[a]pyrene TEQ (sum)				---	0.5	mg/kg	<0.5	<0.5	<0.5	2.6	---
Benzo[a]pyrene TEQ (d.GR)				---	0.5	mg/kg	0.6	0.6	0.6	2.8	---
Benzo[a]pyrene TEQ (d.GR)				---	0.5	mg/kg	1.2	1.2	1.2	3.0	---
EP080/071: Total Petroleum Hydrocarbons											
C8 - C9 Fraction				---	10	mg/kg	<10	<10	<10	<10	---
C10 - C14 Fraction				---	50	mg/kg	<50	<50	<50	<50	---
C15 - C28 Fraction				---	100	mg/kg	<100	<100	<100	<100	---
C29 - C36 Fraction				---	100	mg/kg	<100	<100	<100	<100	---
C10 - C36 Fraction (sum)				---	50	mg/kg	<50	<50	<50	<50	---
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions											
C8 - C10 Fraction				C8, C10	10	mg/kg	<10	<10	<10	<10	---
C8 - C10 Fraction minus BTEX (P1)				C8, C10-BTEX	10	mg/kg	<10	<10	<10	<10	---



*Environmental Site Assessment: 156 New Town Road, New Town*

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 Work Order: 0920-1530  
 Client: GEO-ENVIRONMENTAL SOLUTIONS  
 Project: New Town



**Analytical Results**

Sub-Matrix: SOIL (Matrix: SOIL)		Client Sample ID		BH6 0.5-0.8	BH7 0.85-0.95	BH7 1.5-1.6	Duplicate	
		Client Sampling Date / Time		02-Sep-2021 00:00	03-Sep-2021 01:00	02-Sep-2021 00:30	02-Sep-2021 00:30	---
Compound	CAS Number	LOI	Unit	EM2015530-011	EM2015530-012	EM2015530-013	EM2015530-014	---
Result								
<b>EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions - Continued</b>								
>C10 - C16 Fraction	---	50	mg/kg	<50	<50	<50	<50	---
>C10 - C34 Fraction	---	100	mg/kg	125	<100	<100	160	---
>C34 - C48 Fraction	---	100	mg/kg	<100	<100	<100	<100	---
>C10 - C48 Fraction (sum)	---	50	mg/kg	125	<50	<50	160	---
* >C10 - C16 Fraction minus Naphthalene	---	50	mg/kg	<50	<50	<50	<50	---
<b>EP080: BTEX</b>								
Benzene	71-43-2	0.2	mg/kg	<0.2	<0.2	<0.2	<0.2	---
Toluene	108-88-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	---
Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	---
meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	---
ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	---
* Sum of BTEX	---	0.2	mg/kg	<0.2	<0.2	<0.2	<0.2	---
* Total Xylenes	---	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	---
Naphthalene	81-05-3	1	mg/kg	<1	<1	<1	<1	---
<b>EP075/060: Phenolic Compound Summation</b>								
Phenol	131-27-6	0.5	%	84.1	96.2	79.8	96.7	---
2-Chlorophenol	13311-73-6	0.5	%	86.6	92.3	73.6	90.9	---
2,4-Dibromophenol	118-79-0	0.5	%	76.8	81.1	71.2	84.6	---
<b>EP075/060: PAH Summation</b>								
2-Fluorenylphenyl	321-60-8	0.5	%	183	167	87.2	166	---
Anthracene-d10	1719-06-0	0.5	%	110	114	86.6	113	---
4-Terphenyl-d14	1718-51-0	0.5	%	986	111	87.2	169	---
<b>EP060: TPH/VBTEX Summation</b>								
1,2-Dichloroethane-D4	1706-07-0	0.2	%	24.9	80.1	91.0	83.6	---
Toluene-D8	2057-26-5	0.2	%	87.6	82.2	92.3	80.6	---
4-Bromofluorobenzene	400-80-4	0.2	%	21.5	85.3	104	83.6	---

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 Project: New Town



**Analytical Results**

Sub-Matrix: WATER (Matrix: WATER)		Client Sample ID		Result				
		Client Sampling Date / Time		02-Sep-2021 00:00	---	---	---	---
Compound	CAS Number	LOI	Unit	EM2015530-015	---	---	---	---
Result								
<b>EG020: Dissolved Metals by ICP-MS</b>								
Lead	7439-92-1	0.001	mg/L	<0.001	---	---	---	---
<b>EP075/060: Polynuclear Aromatic Hydrocarbons</b>								
Naphthalene	91-20-3	1.0	µg/L	<1.0	---	---	---	---
Acenaphthylene	216-96-8	1.0	µg/L	<1.0	---	---	---	---
Acenaphthene	83-32-0	1.0	µg/L	<1.0	---	---	---	---
Fluorene	86-73-7	1.0	µg/L	<1.0	---	---	---	---
Phenanthrene	95-01-8	1.0	µg/L	<1.0	---	---	---	---
Anthracene	120-12-7	1.0	µg/L	<1.0	---	---	---	---
Fluoranthene	206-44-0	1.0	µg/L	<1.0	---	---	---	---
Pyrene	129-00-0	1.0	µg/L	<1.0	---	---	---	---
Benzo[a]anthracene	165-03-3	1.0	µg/L	<1.0	---	---	---	---
Chrysene	218-01-6	1.0	µg/L	<1.0	---	---	---	---
Benzo[b]fluoranthene	205-99-2 205-42-3	1.0	µg/L	<1.0	---	---	---	---
Benzo[k]fluoranthene	207-08-0	1.0	µg/L	<1.0	---	---	---	---
Benzo[a]pyrene	50-32-8	0.5	µg/L	<0.5	---	---	---	---
Indeno[1,2,3-cd]pyrene	193-39-5	1.0	µg/L	<1.0	---	---	---	---
Dibenzo[a,h]anthracene	53-70-3	1.0	µg/L	<1.0	---	---	---	---
Benzo[a,h]perylene	191-24-2	1.0	µg/L	<1.0	---	---	---	---
* Sum of polycyclic aromatic hydrocarbons	---	0.5	µg/L	<0.5	---	---	---	---
* Benzo[a]pyrene TEQ (sum)	---	0.5	µg/L	<0.5	---	---	---	---
<b>EP080/071: Total Petroleum Hydrocarbons</b>								
C6 - C8 Fraction	---	20	µg/L	<20	---	---	---	---
C10 - C14 Fraction	---	50	µg/L	<50	---	---	---	---
C16 - C28 Fraction	---	100	µg/L	<100	---	---	---	---
C29 - C36 Fraction	---	50	µg/L	<50	---	---	---	---
* C10 - C36 Fraction (sum)	---	50	µg/L	<50	---	---	---	---
<b>EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions</b>								
C6 - C18 Fraction	---	20	µg/L	<20	---	---	---	---
* C6 - C18 Fraction minus BTEX (PT)	---	20	µg/L	<20	---	---	---	---
>C10 - C16 Fraction	---	100	µg/L	<100	---	---	---	---
>C10 - C34 Fraction	---	100	µg/L	<100	---	---	---	---
>C34 - C48 Fraction	---	100	µg/L	<100	---	---	---	---
* >C10 - C48 Fraction (sum)	---	100	µg/L	<100	---	---	---	---

*Environmental Site Assessment: 156 New Town Road, New Town*

Page : 11 of 12  
 Work Order : EW20-5530  
 Client : GEO-ENVIRONMENTAL SOLUTIONS  
 Project : New Town



#### Analytical Results

Sub-Matrix: WATER		Client Sample ID		Pincode					
Matrix: WATER		Client Sample Date / time		02-Sep-2021 00:00					
Compound	CAS Number	LOD	Unit	Result					
<b>EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions - Continued</b>									
<sup>1</sup> >C10 - C18 Fraction minus Naphthalene (P2)		100	µg/L	<100					
<b>EP080: BTEX</b>									
Benzene	71-43-2	1	µg/L	<1					
Toluene	106-96-3	2	µg/L	<2					
Ethylbenzene	105-64-4	3	µg/L	<3					
meta- & para-Xylene	106-36-3 106-42-3	2	µg/L	<2					
ortho-Xylene	95-47-6	2	µg/L	<2					
<sup>1</sup> Total Xylenes		2	µg/L	<2					
<sup>1</sup> Sum of BTEX		1	µg/L	<1					
Naphthalene	84-20-3	5	µg/L	<5					
<b>EP075(SIM): Phenolic Compound Surrogates</b>									
Phenol-d6	13127-68-3	1.0	%	35.5					
2-Chlorophenol-d4	93351-73-6	1.0	%	72.7					
2,4,6-Trichlorophenol	118-79-6	1.0	%	85.8					
<b>EP075(SIM): PAH Surrogates</b>									
2-Fluorobiphenyl	321-60-8	1.0	%	60.8					
Anthracene-d10	1719-06-8	1.0	%	88.8					
4-Terphenyl-d14	1718-61-0	1.0	%	88.1					
<b>EP080S: TPH(V)/BTEX Surrogates</b>									
1,2-Dichloroethane-d4	17060-07-0	2	%	82.7					
Toluene-d8	2037-26-6	2	%	86.1					
4-Bromofluorobenzene	460-00-4	2	%	98.3					

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 Work Order : EW20-5530  
 Client : GEO-ENVIRONMENTAL SOLUTIONS  
 Project : New Town



#### Surrogate Control Limits

Sub-Matrix: SOIL		Recovery Limits (%)	
Compound	CAS Number	Low	High
<b>EP075(SIM): Phenolic Compound Surrogates</b>			
Phenol-d6	13127-68-3	54	125
2-Chlorophenol-d4	93351-73-6	65	123
2,4,6-Trichlorophenol	118-79-6	34	122
<b>EP075(SIM): PAH Surrogates</b>			
2-Fluorobiphenyl	321-60-8	61	125
Anthracene-d10	1719-06-8	82	130
4-Terphenyl-d14	1718-61-0	67	133
<b>EP080S: TPH(V)/BTEX Surrogates</b>			
1,2-Dichloroethane-d4	17060-07-0	51	125
Toluene-d8	2037-26-6	55	125
4-Bromofluorobenzene	460-00-4	56	124
<b>Sub-Matrix: WATER</b>			
Compound	CAS Number	Low	High
<b>EP075(SIM): Phenolic Compound Surrogates</b>			
Phenol-d6	13127-68-3	10	46
2-Chlorophenol-d4	93351-73-6	23	104
2,4,6-Trichlorophenol	118-79-6	26	130
<b>EP075(SIM): PAH Surrogates</b>			
2-Fluorobiphenyl	321-60-8	26	114
Anthracene-d10	1719-06-8	51	119
4-Terphenyl-d14	1718-61-0	48	127
<b>EP080S: TPH(V)/BTEX Surrogates</b>			
1,2-Dichloroethane-d4	17060-07-0	73	129
Toluene-d8	2037-26-6	70	125
4-Bromofluorobenzene	460-00-4	71	129



17/08/21

Sarah Lindsay  
LXN Architecture & Consulting  
Sarah@lxn.com.au

**RE: Amended Development Plans 156 New Town Road – Environmental Site Assessment**

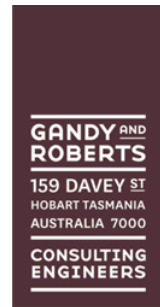
Sarah, this letter is to confirm I have reviewed the amended plans for the proposed development at 156 New Town Road as provided in your email dated the 16<sup>th</sup> of August 2021. As you are aware my company (Geo-Environmental Solutions Pty Ltd) provided an environmental site assessment for the property in November 2020. The environmental assessment report concluded that the site is suitable for the proposed development and there is no site contamination that would pose an undue risk to human health or the environment during or post the development provided the management recommendations were followed.

The revised plans include ground level apartments which differs from the earlier draft scheme for the project. The ESA report concluded that if there were to be ground level apartments or public open space with potential for human soil contact then a Contamination management Plan (CMP) would be required to manage the possible risk to health during and post construction. This conclusion in the ESA is therefore applicable and a CMP will be required as part of the development to manage the identified risk. I can confirm that the amended development plans do not change the rest of the conclusions and recommendations in the environmental assessment report that the development is compliant with clause E.5 P1 and clause E2.6.2 of the Hobart City Council Interim Planning Scheme.

Kind regards,

A handwritten signature in blue ink, appearing to read 'John Paul Cumming', with a long horizontal flourish extending to the right.

Dr John Paul Cumming B.Agr.Sc (hons) PhD CPSS GAICD  
Director



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# Concept Services Report

## Planning Scheme Compliance & Existing Infrastructure Assessment

156 New Town Road  
for Renewal Developments

03/03/2022

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20.0457 – Concept Services Report – 156 New Town Road — 03/03/2022

Version control

Revision	Description	Issue date	Issued by
A	Planning Approval	08/10/2021	Dale Hayers
B	Planning Approval	03/03/2022	Dale Hayers

PROJECT NUMBER **20.0457**  
REPORT AUTHOR **Dale Hayers**  
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20.0457 – Concept Services Report – 156 New Town Road – 03/03/2022

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20.0457 – Concept Services Report – 156 New Town Road – 03/03/2022

## 1 Context

Gandy and Roberts Consulting Engineers have been engaged by LXN Architecture and Consulting to provide concept servicing documentation for the proposed Apartment Development at 156 New Town Road in New Town. This report has been prepared for the Development Application submission process and aims to discuss the methodology in which the sites sewer, water and stormwater infrastructure will be delivered to existing TasWater and Hobart City Council (HCC) owned infrastructure.

## 2 Development Locality

### 2.1 Development Site and Details

The proposed development is located at 156 New Town Road in New Town on a site currently used for coffee sales and a training centre.

### 2.2 Adjacent Affected Properties

To service development at this property, an upgrade to the existing sewer property connection is required. To undertake these works, access to the 18 Roope Street (CT7973/1) is required.

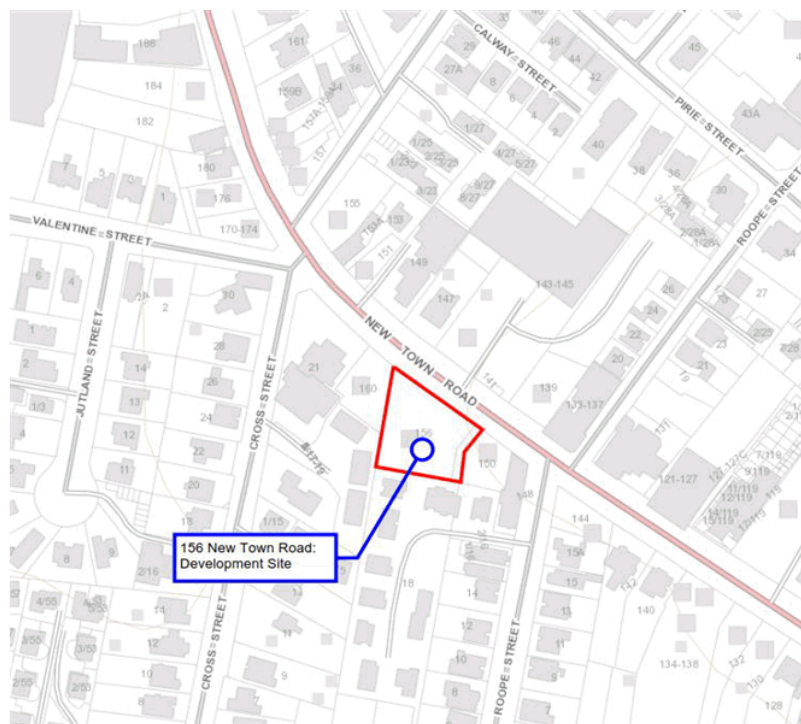


Figure 1: Development Locality

### **3 Existing Site Services**

#### **3.1 Site Sewer Connections**

The site is currently serviced by an assumed DN100 sewer connection off a DN150 TasWater sewer main located on the adjacent title at the rear of the development site.

#### **3.2 Site Water Connections**

The site is currently serviced by a DN25 low hazard, in ground water connection off a DN100 CICL TasWater water main within New Town Road located on the same side of the road as the site.

#### **3.3 Site Stormwater Connections**

The site is currently serviced by a DN150 stormwater connection off a DN150 HCC main located on the adjacent title at the rear of the development site, whilst there is also an existing kerb adaptor delivering stormwater runoff to New Town Road.

Much of the carparking area is directed to the existing kerb outlet (approx. 830m<sup>2</sup>), along with all roof runoff from the existing building (approx. 280m<sup>2</sup>). The existing flow rate to the kerb is estimated at 24.4 L/s (5% AEP).

Flow to the rear connection is estimated at 5.9 L/s, this generated from part of the carparking area. Figure 2 provides an overview of the existing stormwater runoff from the site. It is evident that that rear lot connection was added as part of a historical carpark extension, whilst it is noted that the buildings roof drainage is connected to a concrete pipe in ground, suggesting that roof drainage has always been delivered to the kerb. Onsite review of this connection shows that it exits the sites via several DN150 bends and is shallow in nature. The HCC owned manhole at the rear of 18 Roope St was not visually located.

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Figure 2: Existing Stormwater Run-Off Locality

## 4 Proposed Site Connections

### 4.1 Site Sewer Connections

Sewer flows have been calculated using both AS3500.2:2018 as well as the Taswater Supplement to the WSA 02-2014-3.1 the WSAA Gravity Sewerage Code of Australia.

Development Flows for the Buildings are shown in Table 1.

**Table 1:** Development Sewage Flows

Design Parameter	Unit
Fixture Units (AS3500.2:2018)	449
Equivalent Tenements	17.72
Average Dry Weather Flow (ADWF)	0.10 L/s
Peaking Factor 'd'	12.40
Peak Dry Weather Flow (PDWF)	1.19 L/s

*Note: The listed sewage flows require the installation of DN150 private sewer drainage at a minimum grade of 1.00% in accordance with AS3500.2:2018*

It is proposed that the existing connection to the site will be maintained but is required to be upgraded to DN150. These works are to be undertaken by TasWater at the developer's expense.

### 4.2 Site Water Connections

Domestic water pipework has been sized in accordance with AS3500.1:2018 for probable simultaneous demand, this on the basis that Equivalent Tenements for the development are < 100 in accordance with Taswater Supplement to the Water Supply Code of Australia WSA 3-2011.3.1 MRWA Editions V2.0.

Development Flows for the accommodation buildings are shown in Table 2.

The proposed development is likely Class 2 with Class 9b parts on the ground floor level in accordance with the National Construction Code (NCC). Fire compartments are likely to be under 500 m<sup>2</sup> and only 1 fire hydrant is required to operate and deliver 10 L/s @ 200 kPa in accordance with AS2419:2005.

Schematic design advice as provided by Pitt and Sherry Building Surveyors has suggested that it is unlikely that fire sprinklers are required to be installed the building.

**Table 2:** Development Water Flows

Design Flows	Unit
Domestic Water (AS3500.1:2018)	1.90 L/s @ 700 kPa
Fire Services	10.00 L/s @ 700 kPa

*Note: The above listed domestic water flows require the installation of DN65 private water pipework in accordance with AS3500.1:201*

TasWater confirmed via Service Inquiry TWSI 2021/00375-HCC on 27/5/2021 that the existing DN100 CICL main in New Town Road can deliver 49.9m (499kPa) under a 20 L/s fire demand and 27.8m (278kPa) under a 40 L/s demand.

It is proposed that a new DN100 fire and DN65 domestic water connection will be provided from the existing TasWater Main.

### 4.3 Site Stormwater Connections

**Table 3:** Development Stormwater Flows

Design Flows	Unit
Hardstand ( $Q_{20}$ )	4.5 L/s
Landscape Zones ( $Q_{20}$ )	2.1 L/s
Roof ( $Q_{20}$ )	23.7 L/s

Where possible, all ground level landscape and hardstand zones will be directed to HCC infrastructure via gravity. A charged drainage system will be required to deliver roof drainage to the proposed treatment and site stormwater detention tank (see Section 5). A pump station will be sized during detailed building design in accordance with AS3500.3:2018 to service the basement area and zones where gravity and charged drainage systems are not practical.

The existing stormwater connection at the rear of the site is proposed to be abandoned as part of the development and all stormwater runoff delivered to an upgraded kerb connection in the same location as the existing kerb connection. Abandoning the existing rear lot connection is proposed due to the fact it will not be easily accessible under the proposed development and any stormwater treatment/detention infrastructure required at this location will not be easily maintained.

## 5 Planning Scheme Requirements

The current Hobart Interim Planning Scheme 2015 requires that this development manages stormwater in compliance with the Stormwater Management Code. Code requirements for this development are:

Acceptable Solution A1 of Clause E7.7.1 Stormwater Drainage and Disposal states:

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

It is proposed that the existing site stormwater connection will be reused and therefore acceptable solution A1 is addressed.

Acceptable Solution A2 of Clause E7.7.1 Stormwater Drainage and Disposal states:

*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;*

<sup>R1</sup> *Water Sensitive Urban Design Engineering Procedures for Stormwater Management in Southern Tasmania or the Model for Urban Stormwater Improvement Conceptualisation (MUSIC), a nationally recognised stormwater modelling software package used to assess land development proposals based on local conditions including rainfall, land use and topography, is recognised as current best practice.*

(c) a subdivision is for more than 5 lots.

This development meets criteria (b) of the clause and therefore water sensitive urban design principles must be incorporated into the design of stormwater management for the site. Water sensitive urban design strategies have been detailed in Section 6 of this report.

Acceptable Solution A3 of Clause E7.7.1 Stormwater Drainage and Disposal states:

*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.*

This development meets criteria (b) of the clause and therefore stormwater is to be managed such that runoff from the site will be no greater than existing. The proposed stormwater detention design has been detailed in Section 7 of this report.

## 6 Water Sensitive Urban Design

### 6.1.1 Performance Criteria

Performance Criteria P2 of Clause E7.7.1 states:

*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.*

The acceptable stormwater quality and quantity targets are:

<i>80% reduction in the average annual load of total suspended solids (TSS) based on typical urban stormwater TSS concentrations.</i>
<i>45% reduction in the average annual load of total phosphorus (TP) based on typical urban stormwater TP concentrations.</i>
<i>45% reduction in the average annual load of total nitrogen (TN) based on typical urban stormwater TN concentrations.</i>
<i>Stormwater quantity requirements must always comply with requirements of the local authority including catchment-specific standards. All stormwater flow management estimates should be prepared according to methodologies described in Australian Rainfall and Runoff (Engineering Australia 2004) or through catchment modelling completed by a suitably qualified person.</i>



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### 6.1.2 Stormwater Treatment

A final treatment system design shall be confirmed during detailed design. A concept treatment system for the proposed development has been proposed, incorporating the following design elements:

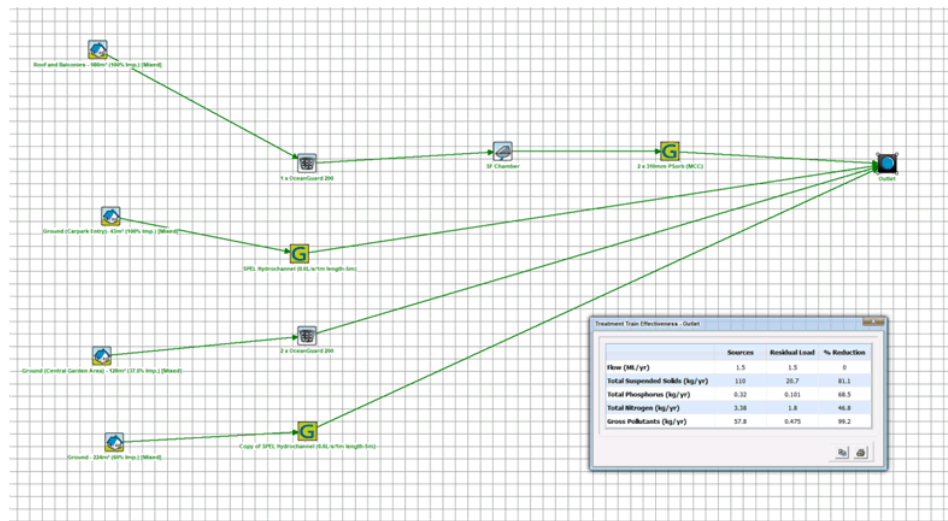
- Ocean Protect Storm Filters
- Ocean Protect Ocean Guards
- SPEL Hydro-Channel

### 6.1.3 MUSIC Modelling

MUSIC V6.2.1 was used to model the performance of the proposed stormwater system. The model predicted the following performance outcomes:

- Total Suspended Solids reduction of 81.1%
- Total Phosphorus reduction of 68.5%
- Total Nitrogen reduction of 46.8%
- Gross Pollutants reduction of 99.2%

These reduction percentages satisfy Performance Criteria P2 of Clause E7.7.1.



**Figure 3: MUSIC Treatment Train**

## 7 Stormwater Detention

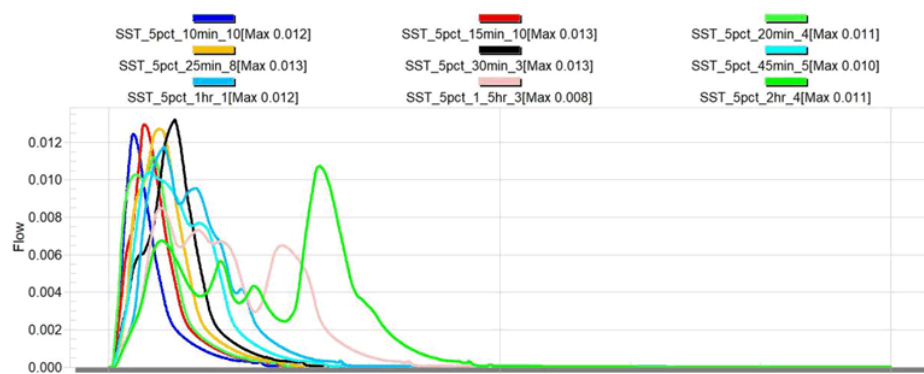
The development title is 1475 m<sup>2</sup> in size and it is proposed that all stormwater runoff will be delivered to an upgraded kerb adaptor connection to New Town Road. Despite the existing runoff to the kerb adaptor having a higher runoff rate (see section 3.3), the maximum flow rate (5% AEP) is proposed to be limited to 13 L/s. Runoff from landscaped zones at the ground level through the central portion between the two building is proposed to discharge to the kerb un-detained, whilst runoff from upper-level roofs, balconies, driveway entry and rear landscaping zones are to be mitigated.

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In order to determine the flow hydrograph for the site a hydrological analysis was undertaken in XP storm 2019 using the methods recommended by Australian Rainfall and Runoff (ARR) 2019. Rainfall data for the site was extracted from the Bureau of Meteorology (BOM) and temporal patterns were downloaded from the ARR Data Hub.

Storm durations from 10 minutes to 2 hours were considered in this analysis with the median storm for each rainfall duration identified. Analysis using XP storm indicates that a detention tank of 5600 L with an orifice-controlled outlet of size 75mm will sufficiently limit size discharge to under 13 L/s. Figure 3 shows the flow rate at the site discharge under the ensemble of median storms.

The 5600 L is proposed to be constructed as an above ground precast concrete tank of approx. size 5.9 x 1.2 x 0.85 m and to be formed within the central landscaping zone. The lid of this tank shall be formed to provide for landscaping with suitable access points to maintain filters and the orifice outlet.

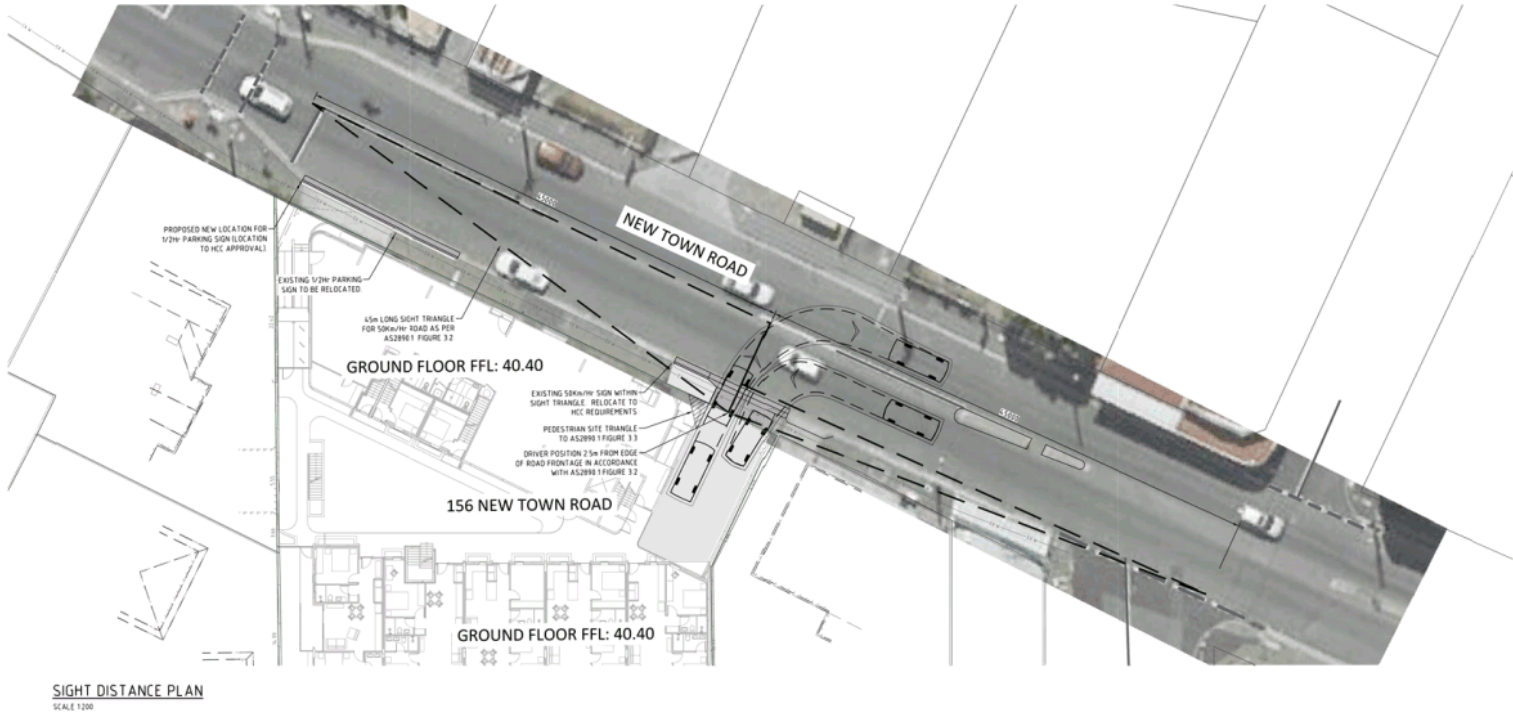


**Figure 4:** Flow rate to upgraded kerb connection

## 8 Appendix A: Concept Servicing Plans

The following drawings shall be read in conjunction with this report for a more detailed overview of the proposed development:

- C010 – Access Details
- C011 – Swept Paths 01
- C013 – Ramp Details
- C020 – Concept Servicing Plan 01
- C021 – Concept Servicing Plan 02
- C022 – Concept Servicing Plan 03



REV	DESCRIPTION	APPD	DATE	REV	DESCRIPTION	APPD	DATE
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A	PLANNING APPROVAL	SP	08.10.2021				

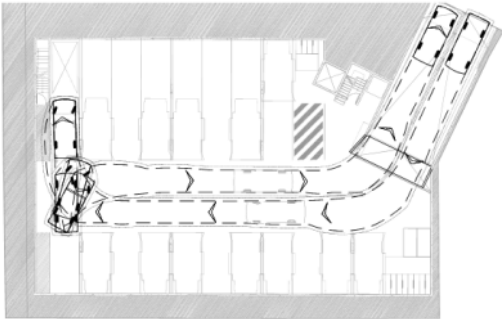
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APPROVED FOR CONSTRUCTION



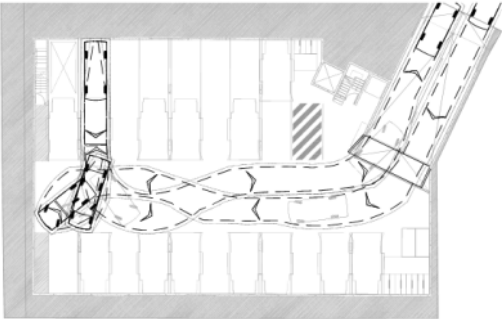
**GANDY AND ROBERTS**  
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PROPOSED APARTMENT BUILDING  
156 NEW TOWN ROAD  
TASMANIA 7008  
DRAWING TITLE  
ACCESS DETAILS

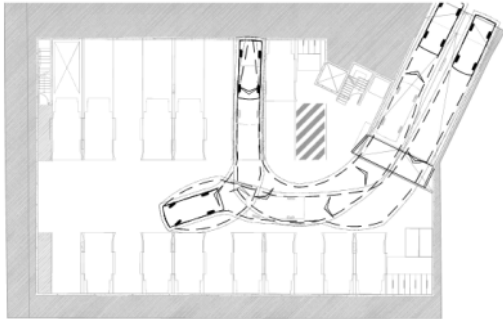
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PROJECT	DRAWING	REVISION
20.0457	C010	C



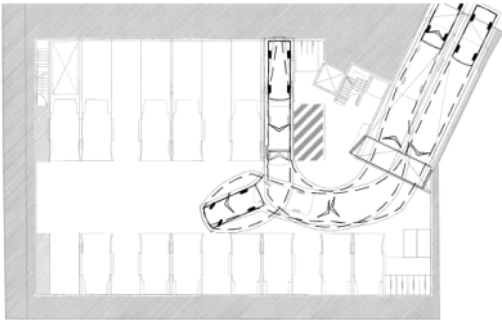
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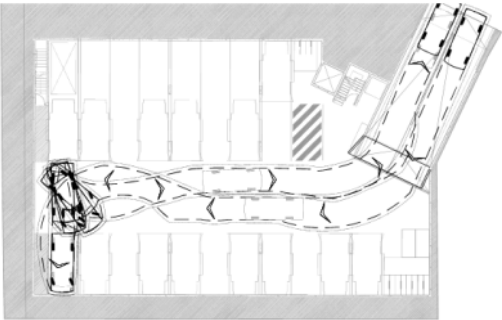
BASEMENT BAYS 2-11 (TYPICAL) - REVERSE ENTRY



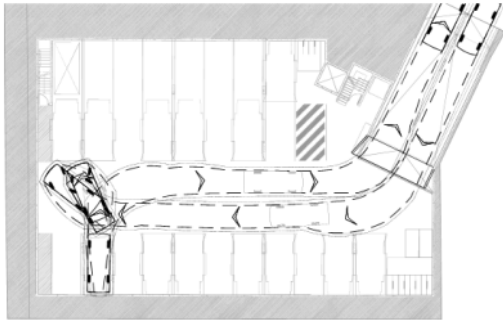
BASEMENT BAYS 12-13 (TYPICAL) - REVERSE ENTRY



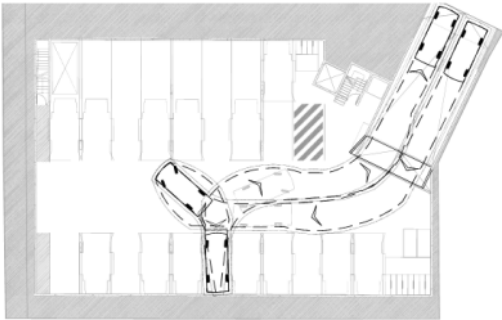
BASEMENT BAY 14-15 (TYPICAL) - REVERSE ENTRY



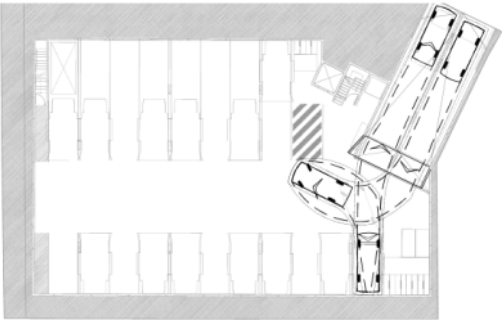
BASEMENT BAY 16 - FORWARD ENTRY



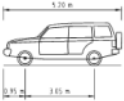
BASEMENT BAYS 17-19 (TYPICAL) - REVERSE ENTRY



BASEMENT BAY 20-23 (TYPICAL) - REVERSE ENTRY



BASEMENT BAYS 24-26 (TYPICAL) - REVERSE ENTRY



STANDARDS AUSTRALIA AS/NZS 2940:2004  
BOS VEHICLE (REALISTIC MIN RADIUS)  
OVERALL LENGTH 5.10 m  
OVERALL WIDTH 1.76 m  
OVERALL BODY HEIGHT 1.88 m  
MIN BODY GROUND CLEARANCE 0.27 m  
TRACK WIDTH 1.86 m  
LOCK-TO-LOCK TIME 4.00 s  
WHEEL-TO-WHEEL TURNING RADIUS 9.25 m  
SWEEP PATHS GENERATED USING AUTODESK  
VEHICLE TRACKING 2018 SOFTWARE

DESIGN VEHICLE DETAILS  
(STANDARD FOR ALL TEMPLATES)

REV	DESCRIPTION	APPD	DATE	REV	DESCRIPTION	APPD	DATE
C	PLANNING APPROVAL	SP	03.03.2022				
A	PLANNING APPROVAL	SP	08.10.2021				

THIS DRAWING HAS NOT BEEN  
APPROVED FOR CONSTRUCTION

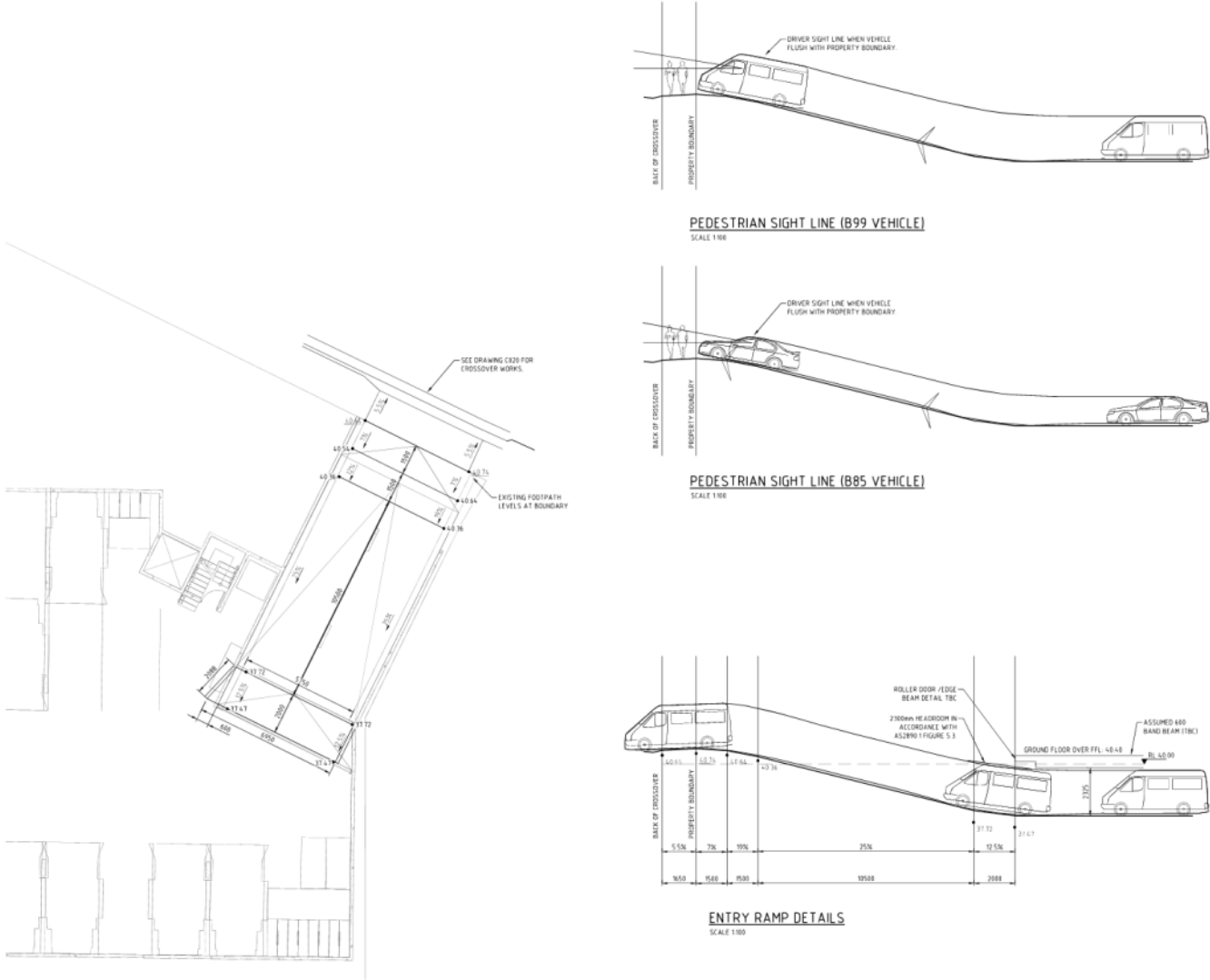


**GANDY AND  
ROBERTS**  
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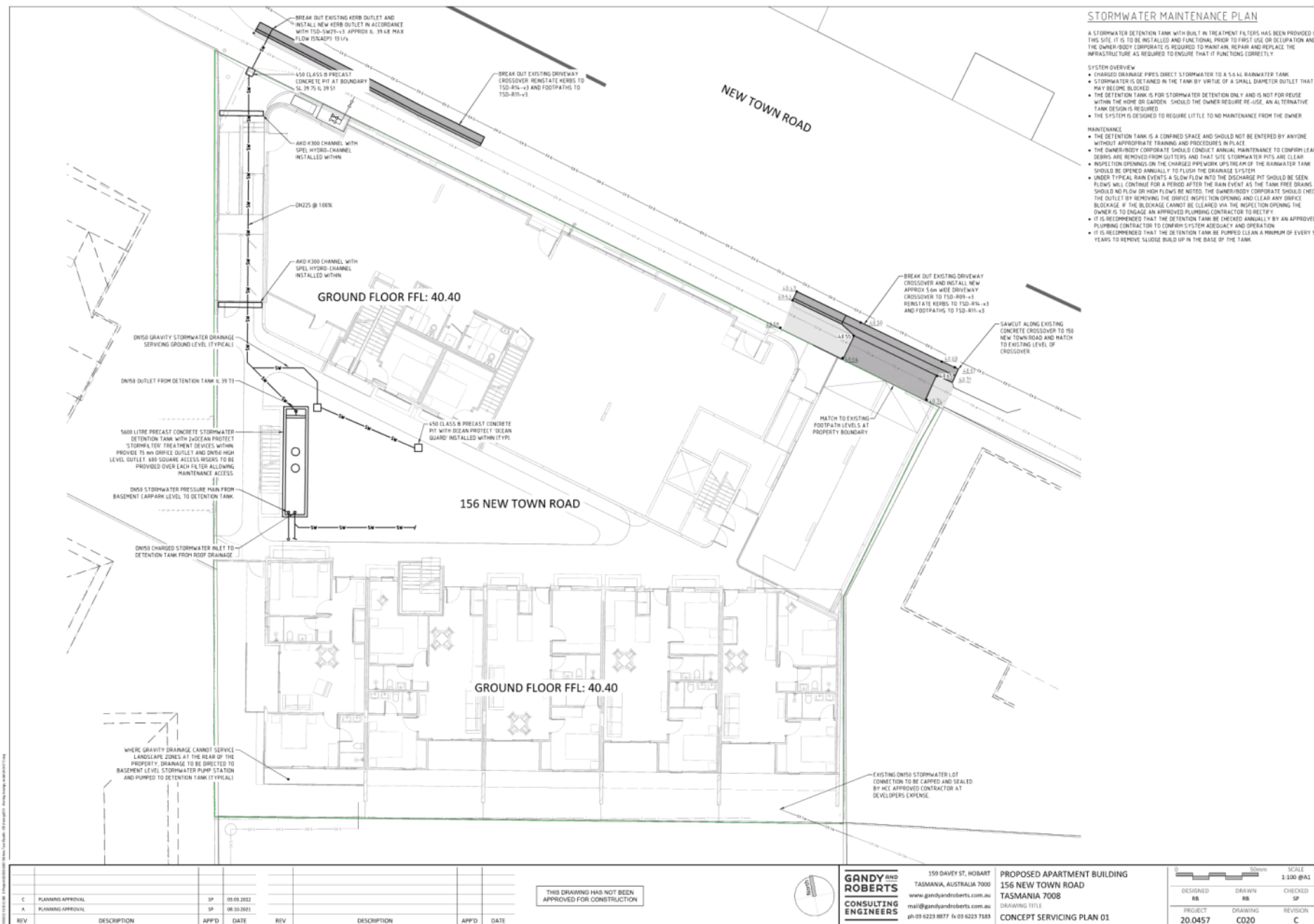
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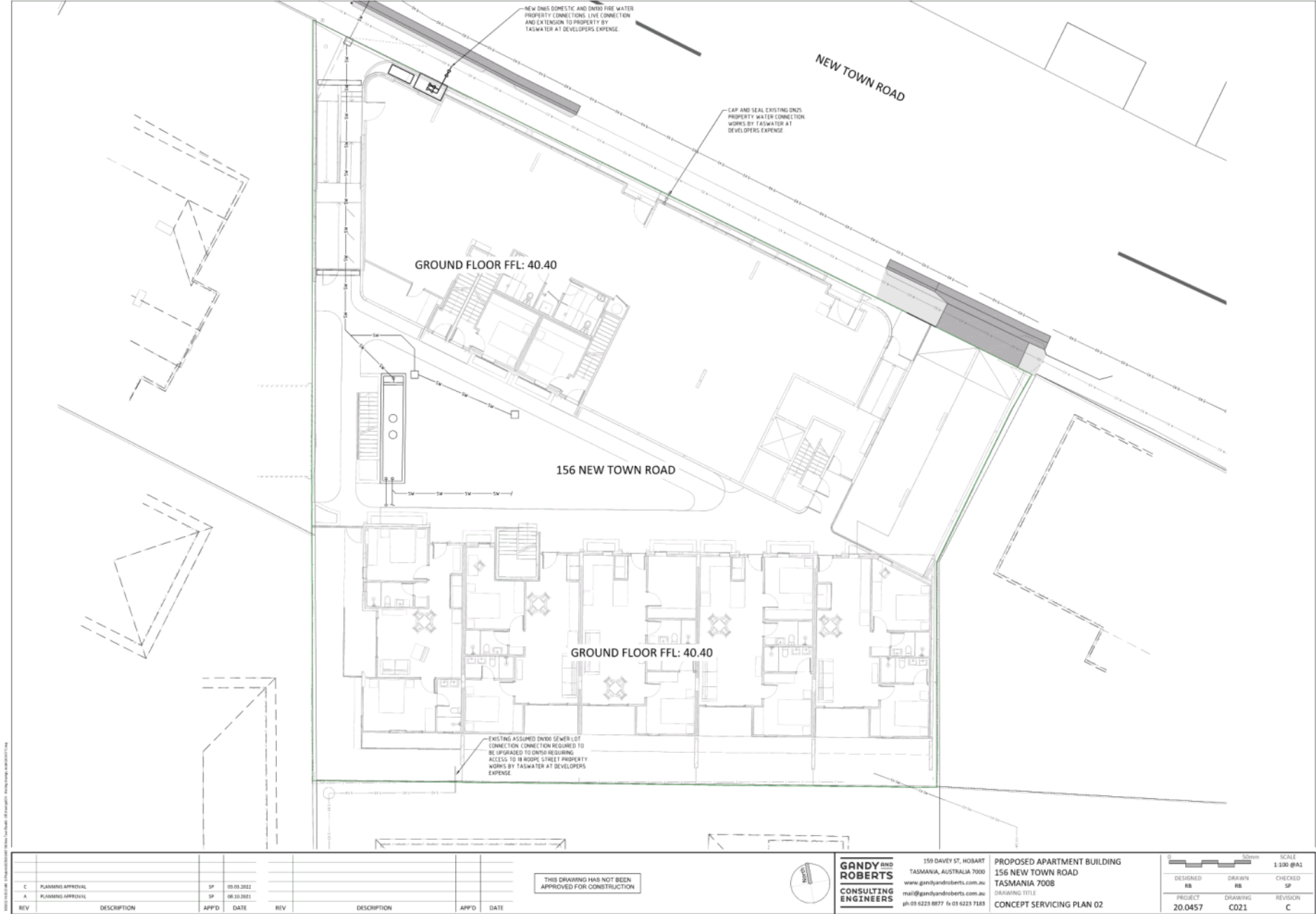
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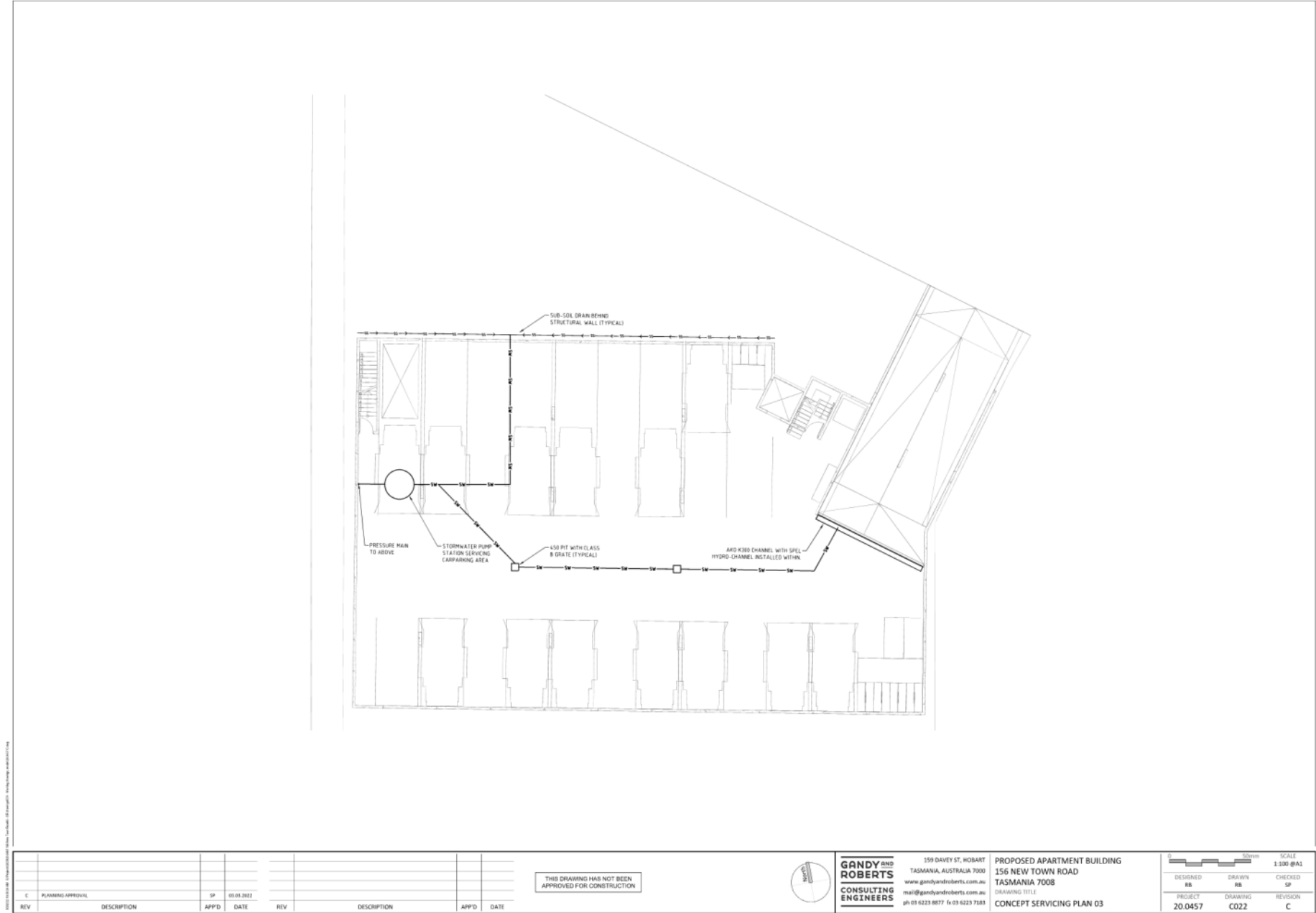


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LXN Architecture Waste Management Plan

# 156 NTR

## 156 New Town Road, Hobart 7000

### WASTE MANAGEMENT PLAN

**Project Name:** 156 NTR, 156 New Town Road, Hobart 7000.

**Client:** Renewal Developments

**Project/Report Reference:** A20121\_WMP\_156 NTR

**File Path:** [smb://192.168.15.69/01\\_LXN\\_Architecture/00\\_Projects/A20101\\_156\\_NTR/06\\_REPORTS/06\\_01\\_CURRENT/A20121\\_WMP\\_156\\_NTR](smb://192.168.15.69/01_LXN_Architecture/00_Projects/A20101_156_NTR/06_REPORTS/06_01_CURRENT/A20121_WMP_156_NTR)

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Version: 01

Prepared By: Joshua Crossin

Reviewed By: Sarah Lindsay

Date: 20/10/2021

Date: 20/10/2021

LXN Architecture Waste Management Plan

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LXN Architecture Waste Management Plan

## 1.0 INTRODUCTION

LXN Architecture and Consulting has been engaged by Renewal Developments Pty Ltd to prepare a Waste Management Plan for a proposed 156 NTR Apartments located at 156 New Town Road, New Town 7008. This Waste Management Plan (WMP) has been prepared based on industry best practice. Waste generation rates enclosed herein are based on the South Australia Better Practice Guide Waste Management for Residential and Mixed-Use Developments, <https://www.unmakingwaste.org/zero-waste-sa/>.

## 2.0 INCLUDED IN THIS REPORT

Enclosed is the Waste Management Plan for the proposed development at 156 New Town Road, New Town 7008.

Included are details regarding:

- Land use;
- Waste generation;
- Waste systems;
- Bin quantity, size and colour;
- Collection frequency;
- Bin storage area;
- Signage;
- Waste collection;
- Scaled waste management drawings.

## 3.0 LAND USE

Planning application number: CoH TBC  
Planning Scheme: Hobart Interim Planning Scheme 2015  
Land Zone: 15.0 Urban Mixed Use Zone  
Number of levels: 3  
Number of Apartments: 19 total;

- 1 studio apartment,
- 13 off two-bedroom apartments, and
- 5 off three-bedroom apartments

Commercial Tenancy:

- 360m<sup>2</sup> Commercial gymnasium

## 4.0 WASTE MANAGEMENT PLAN

### 4.1 Residential Waste Generation

Residential waste generation rates are shown in Table 1.  
Calculations are based on 7 days per week occupancy.

\* Waste generation calculator is based on the South Australia Better Practice Guide Waste Management in Residential or Mixed use developments as established by the *Zero Waste SA ACT 2004*.



LXN Architecture Waste Management Plan

Table 1 Waste Generation Rates

Use	Garbage (L/bedroom/week)	Recycling (L/bedroom/week)	Organics (L/bedroom/week)
High Density Residential Dwelling	30*	25*	10*

\*\* The City of Hobart Waste Management Strategy 2015-2030 states, the current kerbside service provision to residents is a weekly collection of a 120L waste bin, and fortnightly collections of a 240L recycling bin per rateable property. The applied Waste Generation Rates for this project are less than the current CoH provision.

A residential waste generation assessment is provided in Table 2.

Table 2 Waste Generation Assessment

Use	Bedrooms	Waste Per Week		
		Garbage	Recycling	Organics
High Density Residential Dwelling	42	1,260L	1,050L	420L
<b>Total Waste Generated per Week</b>		<b>1,260L</b>	<b>1,050L</b>	<b>420L</b>

#### 4.1.1 Residential Waste Systems

Waste would be sorted on-site (in apartments) by residents as appropriate into the following streams:

- Garbage (General Waste),
- Comingled Recycling,
- Organics (CoH FOGO), and
- Bulky Waste

##### 4.1.1 Garbage (General Waste)

Each apartment will include a dual integrated under bench bin to accommodate Garbage and Comingled Recyclables with a minimum capacity of 15 litres for the temporary holding of General Waste. Residents will be required to apply a plastic liner to their general waste bin.

To dispose of the waste from apartments, residents will need to take their waste to refuse themselves.

Garbage is to be disposed of bagged.

##### 4.1.2 Comingled Recycling

Each apartment will include a dual integrated under bench bin to accommodate Garbage and Comingled Recyclables with a minimum holding capacity of 12 litres for the temporary holding of comingled recycling.

To dispose of the waste from apartments, residents will need to take their waste to refuse themselves.

Comingled Recyclables are to be disposed of loosely.

LXN Architecture Waste Management Plan

#### 4.1.3 Organic Waste

Each apartment would be supplied an Organics Waste Bin (similar to the City of Hobart FOGO bin) to for the temporary holding of organic waste. These bins have a maximum capacity of 5 litres. Residents of all apartments would dispose of organics from these bins directly into the appropriate organics bin provided with in the ground floor refuse area.

Organic Waste bin will be collected by private contractor.

#### 4.1.4 Bulky Goods

A minimum annual storage capacity of 14.63m<sup>3</sup> is required for the storage of Bulky Goods Waste. This has been calculated on a rate of 0.77m<sup>3</sup> of Bulky Waste generated per household per annum. A volume of 4.9m<sup>3</sup> with the minimum dimensions of 1500mmW x 1500mmD x 2300mmH has been allocated in the basement adjacent to the lift lobby and carpark access point. This space is a temporary storage space with the expectation that the building manager would arrange (3) collections occurring per year or residents. Residents can also utilise the City of Hobarts McRobbies transfer station that provides up to five free entry weekends for residents of the City and located 9.1km south west to the site.

The storage area would be clearly marked and accessed via the carpark. Refer appendix 1 for the location.

#### 4.2 Commercial Waste Generation

Commercial waste generation rates are shown in Table 3.  
 Calculations are based on 7 days per week occupancy.

\* Waste generation calculator is based on the South Australia Better Practice Guide Waste Management in Residential or Mixed use developments as established by the *Zero Waste SA ACT 2004*.

**Table 3 Waste Generation Rates**

Use	Garbage (L/10m <sup>2</sup> /week)	Recycling (L/10m <sup>2</sup> /week)	Organics (L/10m <sup>2</sup> /week)
Commercial – Retail greater than 100m <sup>2</sup>	6*	6*	0.3*

A commercial waste generation assessment is provided in Table 4.

**Table 4 Waste Generation Assessment**

Use	Waste Per Week		
	Garbage	Recycling	Organics
Commercial 360m <sup>2</sup>	216L	216L	10.8L
<b>Total Waste Generated per Week</b>	<b>216L</b>	<b>216L</b>	<b>10.8L</b>

LXN Architecture Waste Management Plan

#### 4.2.1 Commercial Waste Systems

Waste would be sorted on-site (in gymnasium) by staff and clients as appropriate into the following streams:

- Garbage (General Waste),
- Comingled Recycling,
- Organics (CoH FOGO), and
- Bulky Waste

#### 4.2.2 Garbage (General Waste)

The gymnasium will be furnished with plastic lined bins for the temporary holding of garbage waste, to have a minimum cumulative capacity of 30.9L. This capacity is based on the transfer of waste to the refuse occurring once per day.

Staff and cleaners will dispose of waste from these bins directly into the appropriate 1,100L bin provided in the refuse.

To dispose of the waste from gymnasium, staff will need to take their waste to refuse themselves.

Garbage is to be disposed of bagged.

#### 4.2.3 Comingled Recycling

The gymnasium will be furnished with plastic lined bins for the temporary holding of comingled recycling, to have a minimum cumulative capacity of 30.9L. This capacity is based on the transfer of waste to the refuse occurring once per day.

Staff and cleaners will dispose of waste from these bins directly into the appropriate 1,100L bin provided in the refuse.

To dispose of the waste from gymnasium, staff will need to take their waste to refuse themselves.

Comingled Recyclables are to be disposed of loosely.

#### 4.2.4 Organic Waste

The kitchenette will be furnished with bins lined with compostable bags for the temporary holding of organics. These bins will have the minimum cumulative capacity of 1.6L, based on the transfer of waste to the refuse once per day.

Organic Waste bin will be collected by private contractor.

#### 4.2.5 Bulky Goods

There is a space allocated in the refuse for any bulky goods, should they be generated.

#### 4.3 Bin Quantity, Size and Collection Frequency

LXN Architecture Waste Management Plan

The bin quantity, size and the frequency of collection are shown below in Table 5 and Table 6. Two garbage waste collections per week is recommended given the volume and nature of the waste generated in the proposed development.

**Table 5 Waste Bin Size and Collection Frequency**

Waste Stream	Collection per Week	Bin Size	No. Bins	Total weekly volume	Weekly capacity per bedroom	Weekly capacity Commercial (L/10m2)	Total weekly capacity
Garbage	2	1,100	1	1,476L	30L	6L	2,200L
Comingled Recycling	2	1,100	1	1,266L	25L	6L	2,200L
Organics	1	660	1	430.8L	10L	0.3L	500L

**Table 6 Typical Waste Bin Dimensions**

Capacity	Width (mm)	Depth (mm)	Height (mm)	Area (m <sup>2</sup> )
1100	1240	1070	1330	1.33
660	1260	780	1200	0.98
360	680	848	1100	0.58

\* Bin dimensions based on typical SULO Pty Ltd refer

#### 4.4 Bin Colour and Supplier

All bins will be provided by private supplier. The below bin colours are specified by Australian Standard AS 4123.7-2006, however due the private nature of the collection, these are only recommendations and are not mandatory:

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

#### 4.5 Waste Storage Area

Table 7 demonstrates the cumulative space requirements and provision of waste areas in the proposed development.

Please refer to scaled drawing shown in Appendix 1.

**Table 7 Waste Area Space Requirements**

Waste Type	Space Required (excl. circulation)	Space Provided
Garbage	1.33m <sup>2</sup>	6.15m <sup>2</sup>
Comingled Recycle	1.33m <sup>2</sup>	
Organics	0.98m <sup>2</sup>	
Bulky Goods	2.25m <sup>2</sup>	
<b>Total</b>	<b>5.89m<sup>2</sup></b>	<b>6.15m<sup>2</sup></b>

Waste management would be overseen by building management.

#### 4.6 Signage

Waste storage areas and bins would be clearly marked and signed with the industry standard signage approved, or equivalent, as illustrated in Figure 1.

Figure 1: Sustainability Victoria Signage

LXN Architecture Waste Management Plan



Figure 2: City of Hobart FOGO Signage



#### 4.7 Waste Collection

Waste would be collected by private contractor, as follows:

- One 1,100L garbage bin collected twice per week,
  - One 1,100L comingled recycling bins collected twice per week, and
  - One, 660L organic bin collected once per week
1. All waste bins would be stored on-site in the bin refuse area provided with in the site.
  2. General waste collections would occur via nominally an 8.8m medium rigid vehicle.
  3. Waste collection vehicles would draw parallel to the kerb of Argyle Street and prop for collection (similar to CoH contractors)
  4. Vehicle operators would ferry waste bins from the bin refuse area and return upon emptying.
  5. Waste collections would be performed at off peak hours (i.e. prior or post peak traffic flows) to ensure safe access and pedestrian safety.

#### Design Drawings

ARCHITECTURAL STATEMENT

—

NEW TOWN ROAD APARTMENTS

156 Newtown Rd, Hobart

—

LXN Architecture & Consulting

October 2021



LXN

—

## PROJECT DESCRIPTION

The proposed development is located at 156 New Town Road (the site), on the Western side between Cross Street and Roope Street. The site neighbours the Former Methodist Church Parsonage to the North and the New Town Cat Clinic to the South.

The proposed development includes the demolition of existing structures and construction of a new three story mixed use building, accommodating; a basement carpark, communal courtyard, commercial tenancy and 19 residential apartments.

The inner urban suburb of New Town provides a high level of residential amenity and is conducive to infill projects of an increased residential density.

The design response to the site and client brief is summarised in the following moves:

- Reinststate a built edge to the street,
- Pull back from the Former Methodist Parsonage and Church,
- Maximise the opportunity for natural light and ventilation to each apartment,
- Develop a material palette that is consistent with the New Town streetscape narrative; materials and colours.

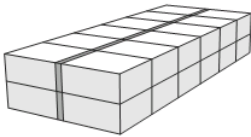
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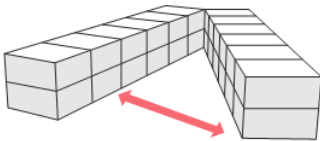
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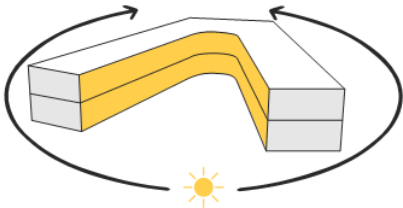
DESIGN APPROACH - SITE RESPONSE



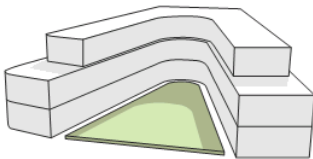
Traditional double stacked apartment plan.



The plan is opened in response to the wedge shaped site.



The floor plate is only one apartment deep, maximising opportunities for solar access and natural ventilation.



The negative space creates an opportunity for communal activities and landscaping and reduces the built edge against the neighbouring Heritage Buildings.

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DESIGN APPROACH - STREET SCAPE ANALYSIS

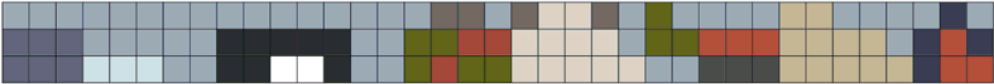
An study of the existing streetscape was undertaken, to analyse the predominant colours and building materials. This analysis informed the selection of the proposed materials and their composition.



Streetscape analysis of materials and colours



Application of grid to facilitate colour study



Colour Study of Existing Condition



Proposed colour palette

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## UDAP NOTES

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**(Aerial Image) Proposal**

- Mixed use development
- Commercial tenancy with gym use
- 19 residential dwellings
- The existing building (circa 1970s will be removed), formerly a service station more recently laundromat and cafe
- Neighbouring buildings: are a combination of unit type housing, commercial shop fronts and State Heritage Listed Parsonage and Former Methodist Church

**Site Approach & Brief**

- The project brief was for a mixed use development
- residential and commercial
- Many options for the site were considered; terrace style townhouses, clusters of apartments
- Through this process of testing the site opportunities and constraints became apparent and the brief was also refined
- Single depth building
- Re-instating the street edge
- Taking advantage of the wedge shaped site allowed building to be opened up to the north to take advantage of solar access from two elevations and allow for natural ventilation within the dwellings
- The communal north-facing courtyard provides amenity to the residents and reinforces a sense of community

**Landscape Plan**

- Landscape plan reflects the conceptual response and will be developed in consultation with a specialist
- Essentially the focus has been on extending the street edge landscape that is provided by the church grounds
- Providing substantial screening plants to the residential neighbours
- Create a green space in the centre of the site that can be enjoyed by the community
- Hard landscaping is shown in a light coloured brick and a red brick and serves to provide legibility and identification for the residential vs the commercial access
- Ground floor dwellings have planter boxes at each apartment entry, signifying the front door and providing opportunity for personalised landscaping

**Survey**

- Circa 1m fall along New Town Road
- Site was previously built up to accommodate the building, resulted in substantial fill and level change in the North West corner

**Site Plan**

- Urban Mixed Use Zone
- Neighbouring residential zone to the north and west

**Basement**

- Secure basement carpark residents only
- 2-way access via ramp from New Town Road
- 12 bicycle parking spaces
- 26 Carparks
- 2x motor cycle/ scooter parking spaces
- Secure access to all floors via the lift
- Access to the central courtyard via the stairs.

**Ground Floor**

- Mixed use building
- Commercial and residential access is clearly delineated
- A mix of housing options were desired; on-grade level access to townhouses, as well as apartment style
- non-negotiables were;
  - no walking past another person's window,
  - enclosed (weather protected) lobbies
  - light and ventilation and access to sunlight to all apartments where possible
- The mix of dwelling types provides options for a wide cross section of the community
- dwellings 1-5 are more of a townhouse style with level, on grade access via the courtyard and

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- landscaped outdoor space to the north.
- Dwellings 6, 7 and 8 are accessed via the courtyard and they function more like a 2-story 'walk-up'.
- Dwellings 7 & 8 include a GF bedroom which could function as a study (work from home) or 3rd bedroom.

**Level 1**

- There are 10 dwellings on Level 1,
- Majority are 2-bed room apartments
- There is 1x1 bed apartment and 3x 3 bedroom apartments
- The lobby is weather protected and connects to the basement carpark via the lift

**Level 2**

- There 4 dwellings on Level 2
- 3x 3bed room and 1 x 2 bedroom
- The lobby is weather protected and connects to the basement carpark via the lift
- The building setbacks at apartment 16 pull back from the parsonage to preserve views to the Church site
- The setbacks to the north and west for apartments 18 and 19 comply with the required setback to the residential zone

**Elevations/ 3Ds**

- The new town road frontage is a very only elevation
- The commercial frontage provides multiple access points, allowing alternate tenancy configurations and breaking up the frontage to a scale that is more compatible with the streetscape context
- On level 1 the brick facade is a homogenous material, articulated through a stepping of the facade which provides shadows and articulation.
- This subtle approach was preferred and is more consistent with the techniques employed in the brick, stone and rendered buildings within the context.
- The stepping roof form is intended to break down the linear form and provides a datum that aligns with church roof.

**Material Palette**

- The material palette has been developed in conjunction with heritage consultant Lucy Bourke-Smith
- The process of developing the palette involved a site and context walk and analysis of the building materials and colours in the surrounding commercial streetscape,
- this analysis was primarily to the south of the site in the existing civic/ commercial centre of New Town

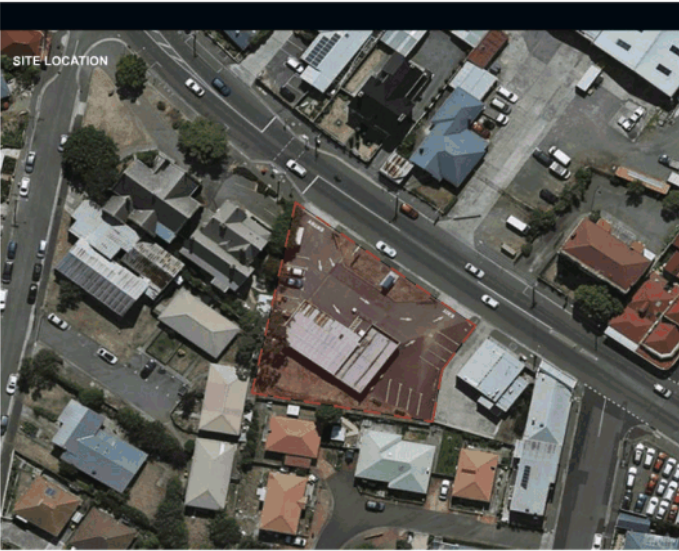
**Building Envelope**

- The building sits within the required building envelope regarding building height and setbacks.
- There is a technical issue regarding the setback of the basement, triggering the performance criteria, however the building above basement level is compliant with the building setbacks and height and fits within the permitted building envelope

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6

156 NTR  
DEVELOPMENT APPLICATION



DRAWING SCHEDULE	
DA-01	COVER PAGE
DA-02	SITE SURVEY
DA-03	EXST. / DEMO PLAN
DA-04	PROPOSED SITE PLAN
DA-05	BASEMENT PLAN
DA-06	GROUND FLOOR PLAN
DA-07	LEVEL 1 FLOOR PLAN
DA-08	LEVEL 2 FLOOR PLAN
DA-09	ROOF PLAN
DA-10	LANDSCAPE PLAN
DA-11	ELEVATIONS
DA-12	ELEVATIONS
DA-13	SECTIONS
DA-14	SECTIONS
DA-15	BUILDING HEIGHT ENVELOPE - 15.4.1
DA-16	BUILDING SETBACK ENVELOPE - 15.4.2
DA-17	STREET ELEVATION
DA-18	MATERIAL PALETTE / STREETSCAPE ANALYSIS
DA-19	PHOTOMONTAGE SHEET 1
DA-20	PHOTOMONTAGE SHEET 2
DA-21	ROOPE ST - STREETSCAPE ELEVATION

PROJECT INFORMATION	
<b>ADDRESS</b> 156 New Town Road, New Town, Tasmania	
<b>LAND TITLE REFERENCE</b> CT: 171614/1	
<b>MUNICIPALITY</b> City of Hobart	
<b>AREA SUMMARY</b> Site: 1474m <sup>2</sup> Proposed Work (Total GFA): 2008m <sup>2</sup>	
Basement: 764m <sup>2</sup> GFA Ground Floor: 837m <sup>2</sup> GFA Level 1: 820m <sup>2</sup> GFA Level 2: 487m <sup>2</sup> GFA	
<b>WIND CLASSIFICATION:</b>	TBC
<b>SOIL CLASSIFICATION:</b>	Refer GES Report
<b>BUILDING CLASS:</b>	2, 6, 7a
<b>BAL RATING:</b>	N/A
<b>CLIMATE ZONE:</b>	7
<b>ALPINE AREA:</b>	N/A
<b>CORROSION ENVIRONMENT:</b>	N/A
<b>OTHER HAZARDS:</b>	Refer GES Report

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REVISIONS		
RevID	Issue Name	Date
A	Development Application	11/10/21
B	Development Application - RFI	2/3/22
C	New Development Application	4/5/22

**PROJECT NAME**  
**156 NTR**  
**SITE**  
156 New Town Road  
**CLIENT**  
#Client Full Name

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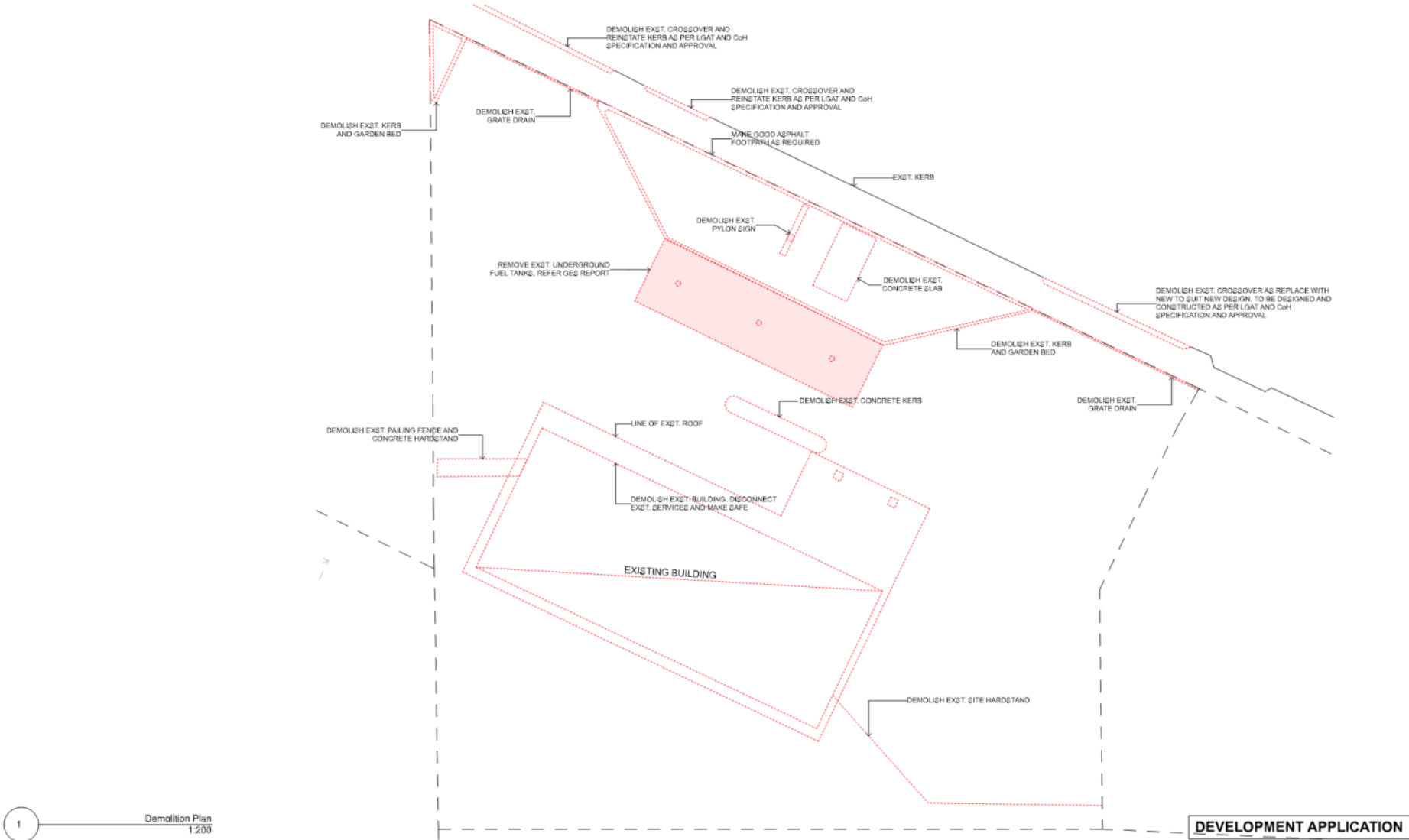
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**DA-01**

**REVISION**  
**C**

FILE A20101\_156 NTR\_DA\_CoH.pln DATE 4/5/22







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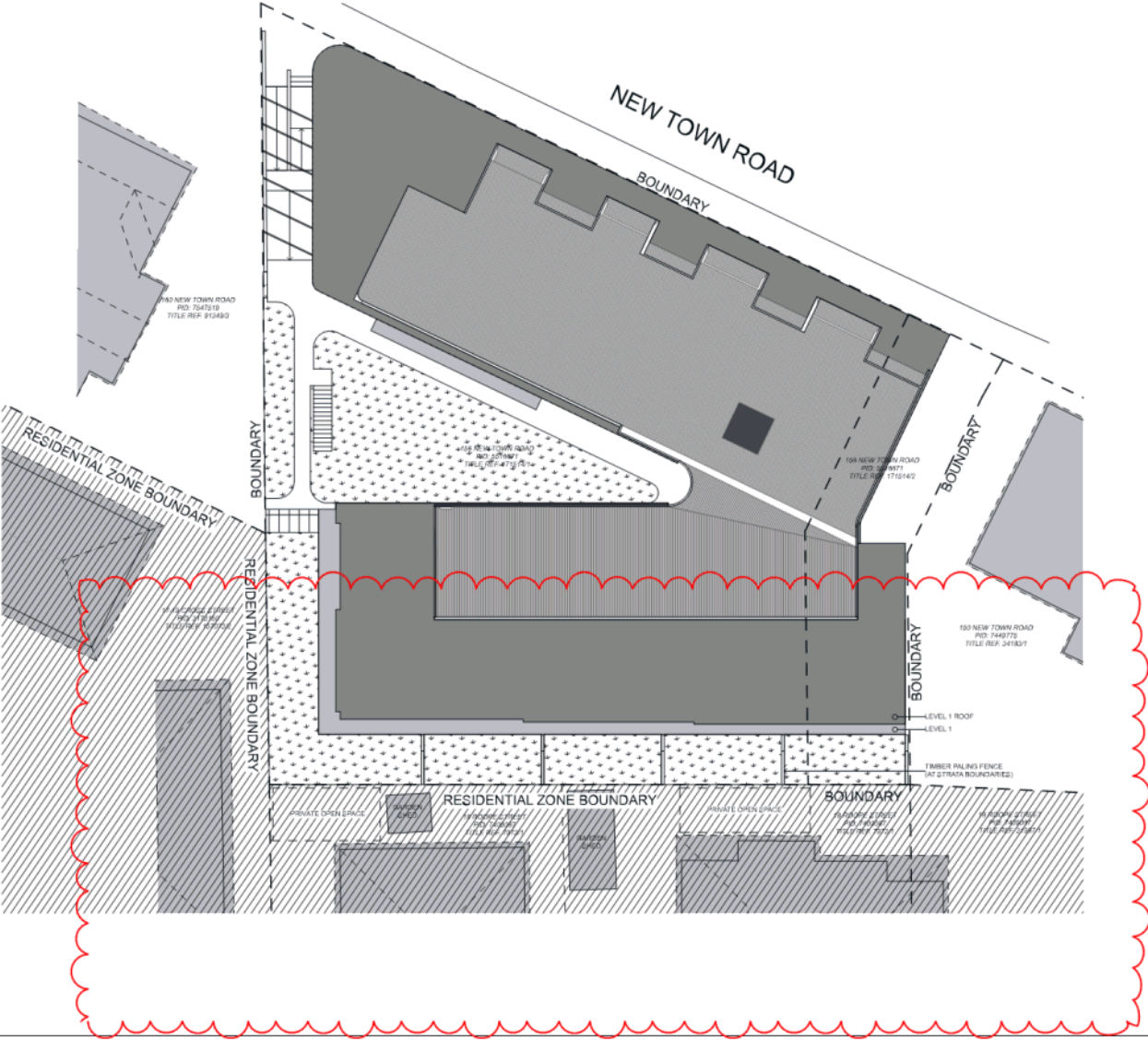
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B	New Development Application	4/5/22

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SCALE  
3/ A3  
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**EXST. / DEMO PLAN**  
DRAWING  
**DA-03**  
REVISION  
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1 Site Plan  
1:250

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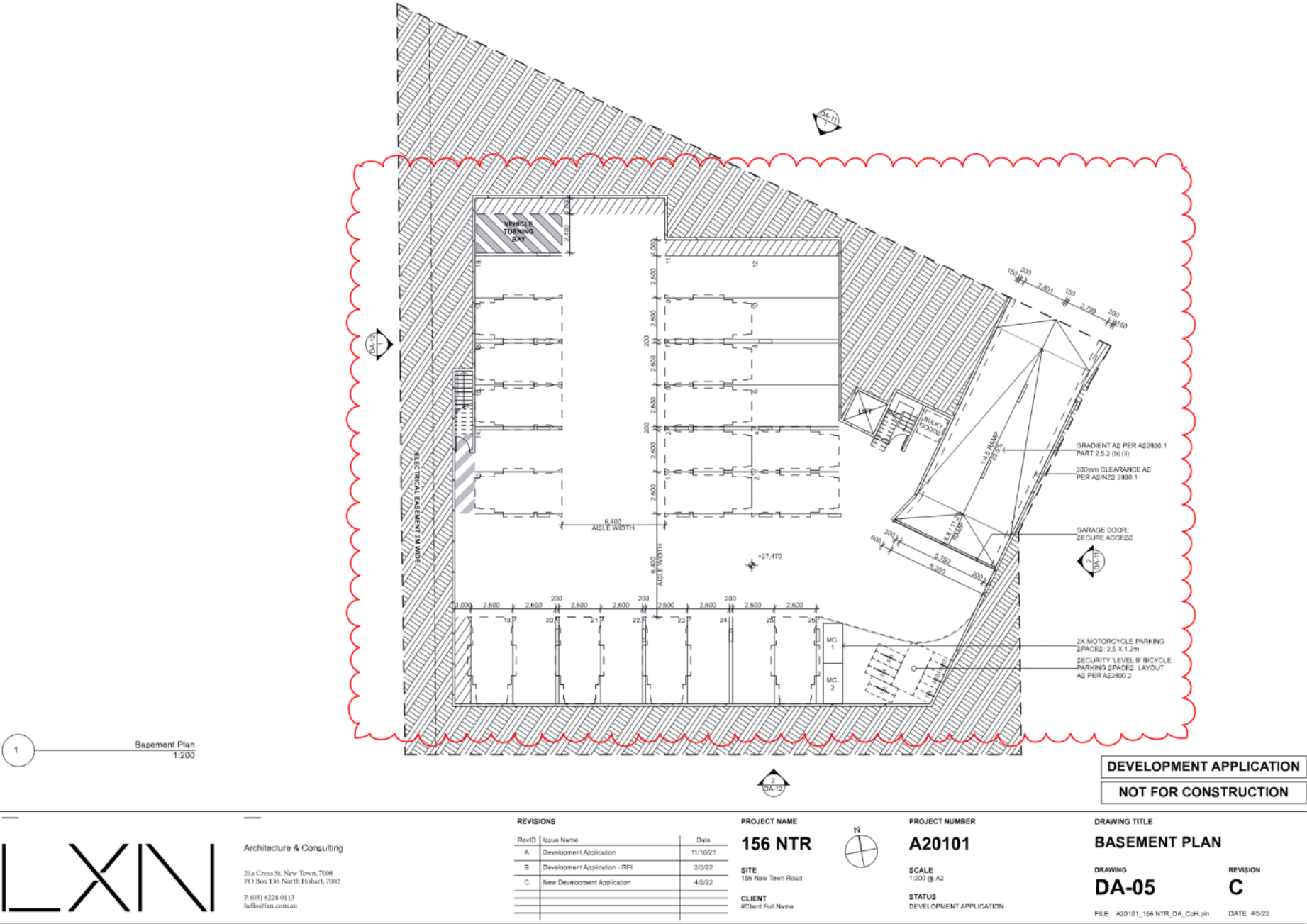
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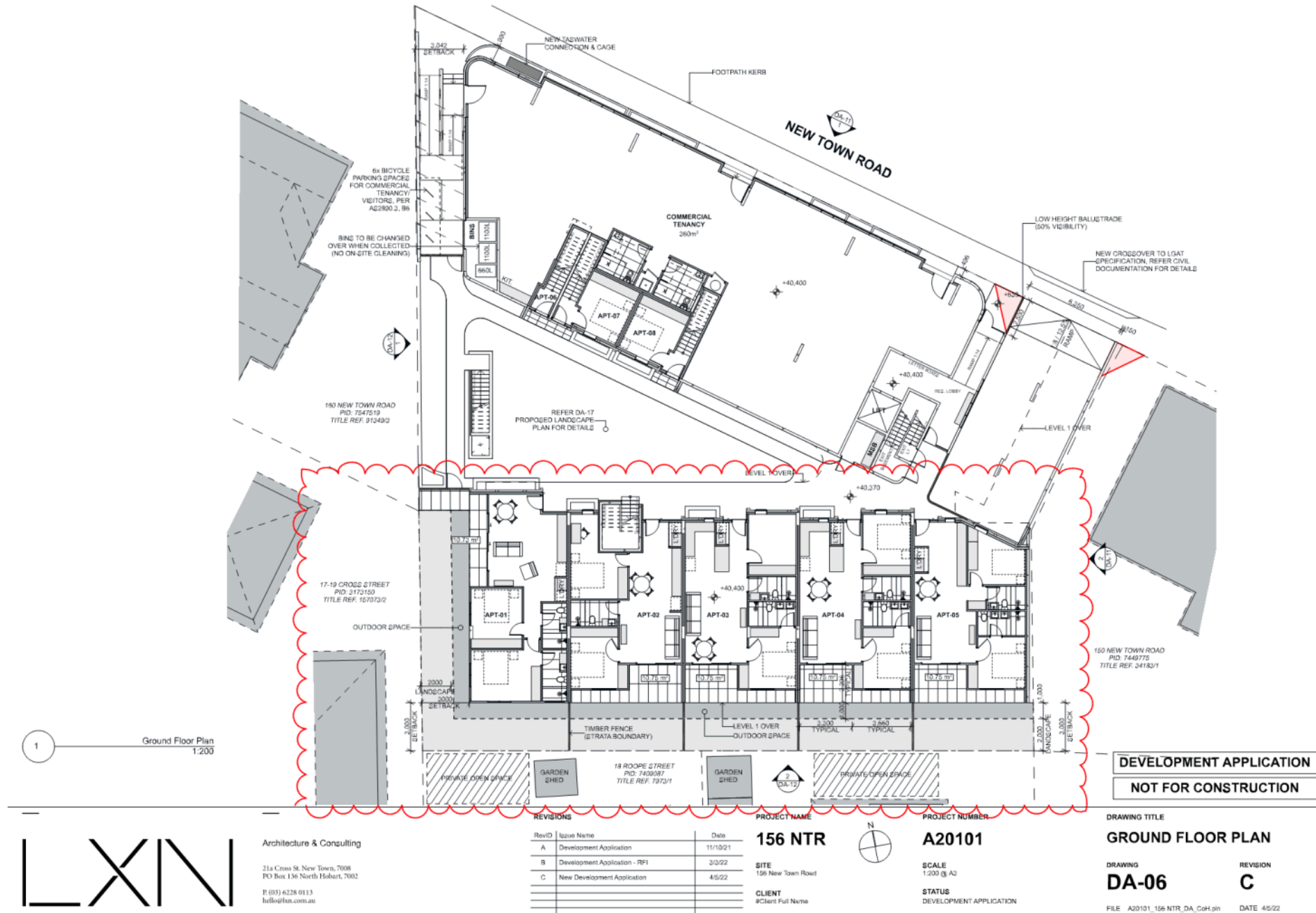


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FILE A20101\_156 NTR\_DA\_Coh1.pln DATE 4/5/22

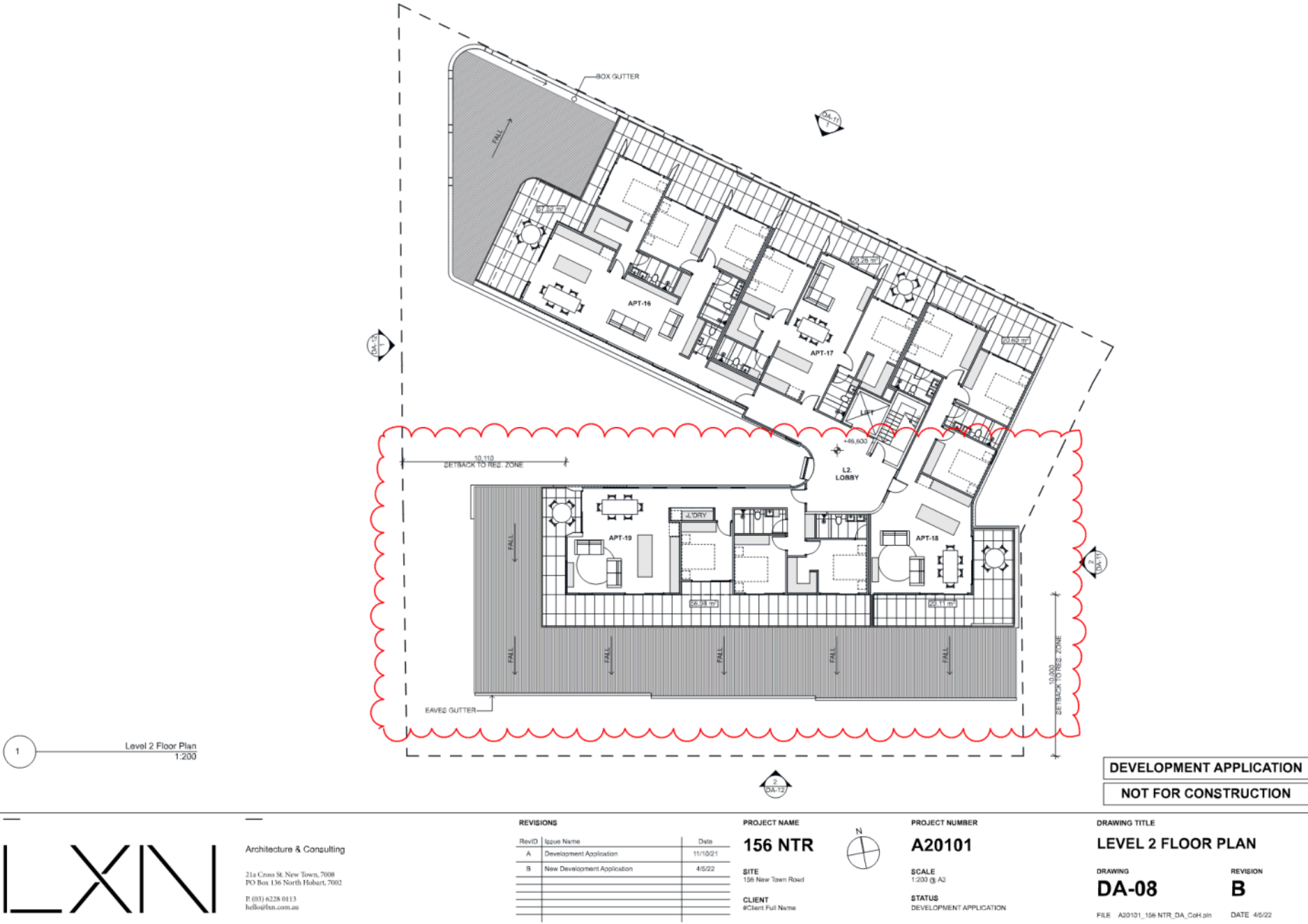


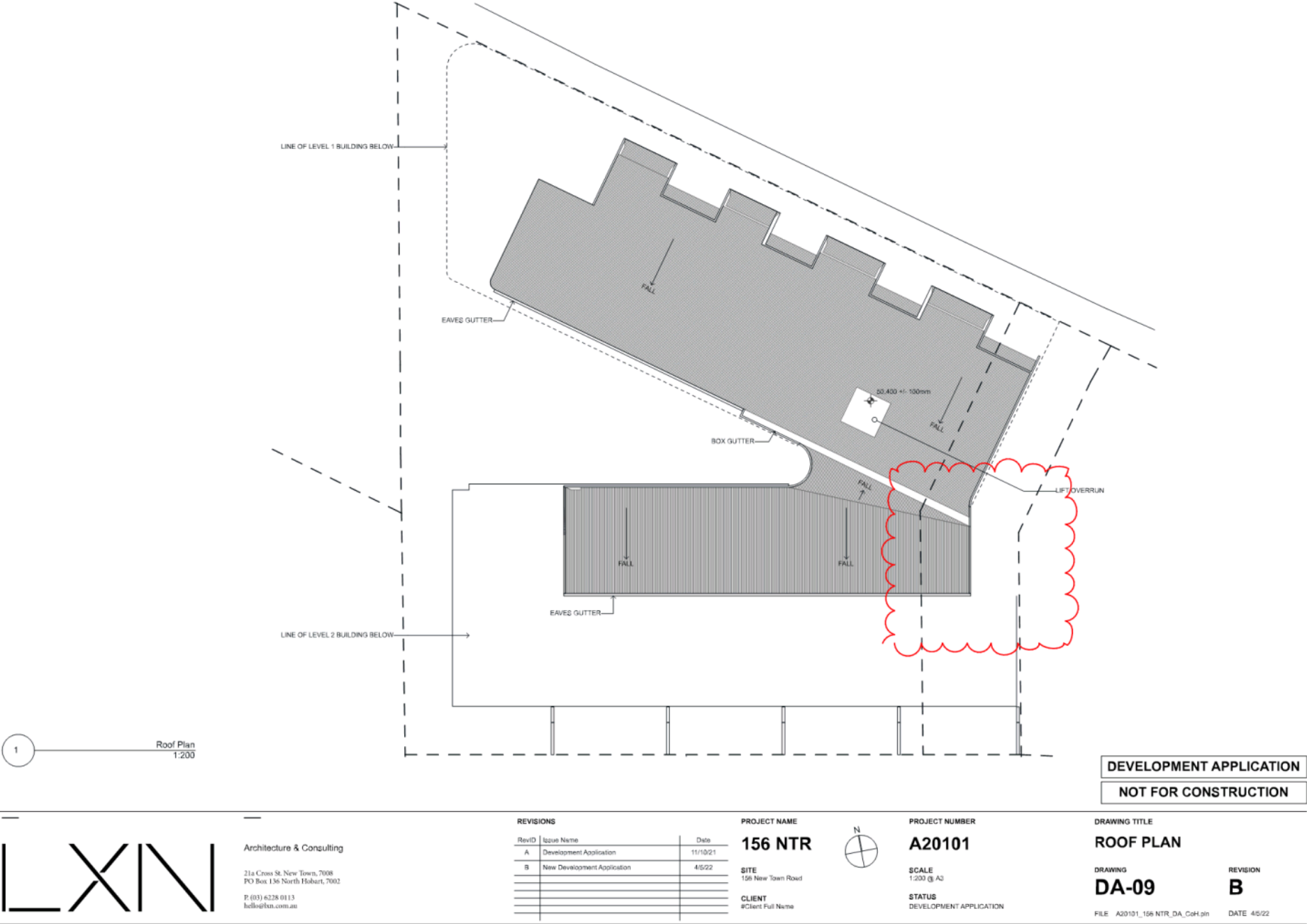













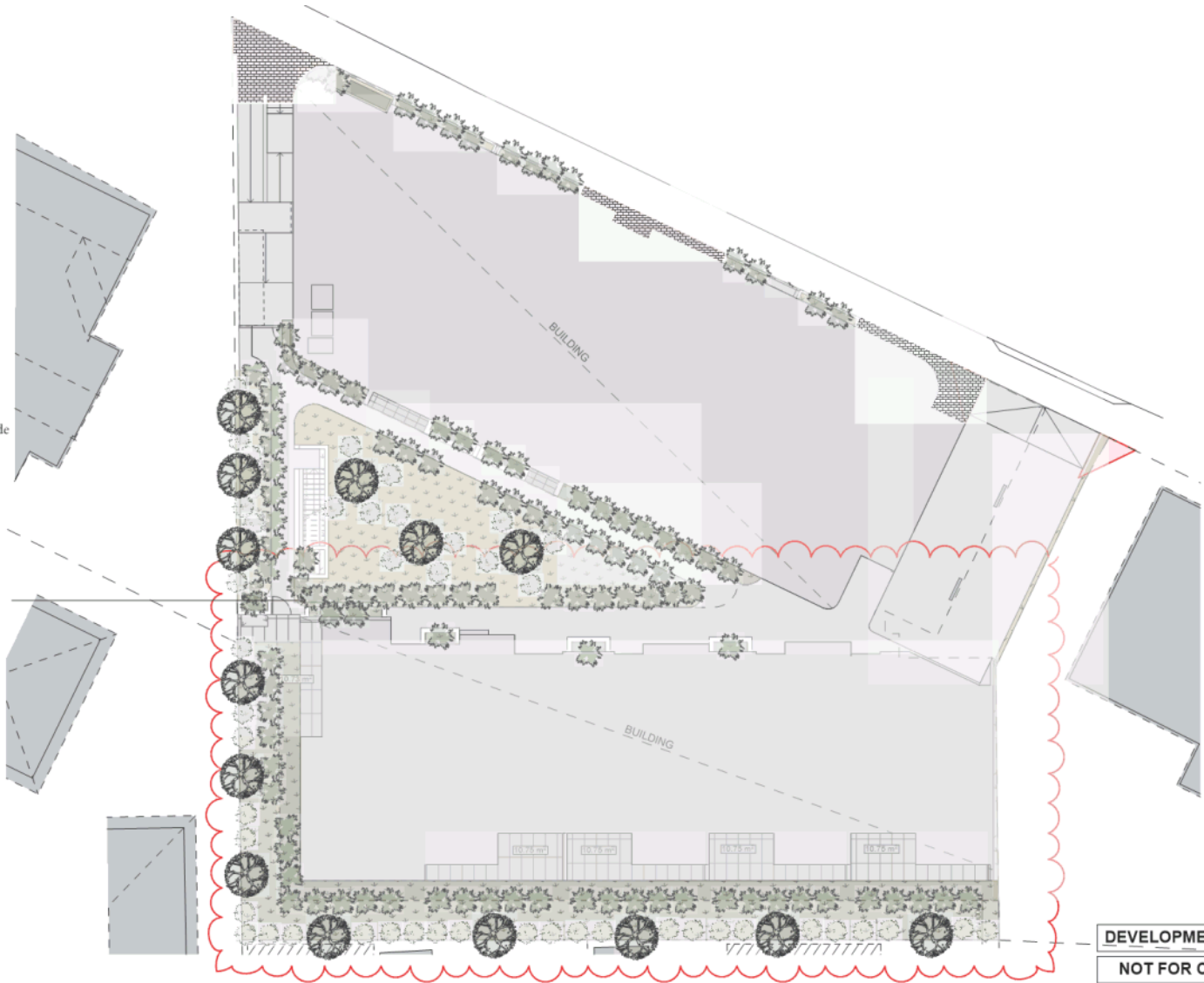


Legend

-  Raphiolepis Indica  
Dwarf Indian Hawthorn  
Max 1 meter tall, 1 meter wide
-  Camelia Our Melissa  
Dwarf Rose of Sharon  
Max 2 meters tall, 1 meter wide
-  Malus Ioensis Plena  
Flowering Crab Apple  
Max 6 meters high, 3 meters wide

Future landscape design to  
accommodate plants in raised  
beds in central garden

1 Landscape Plan  
1:200



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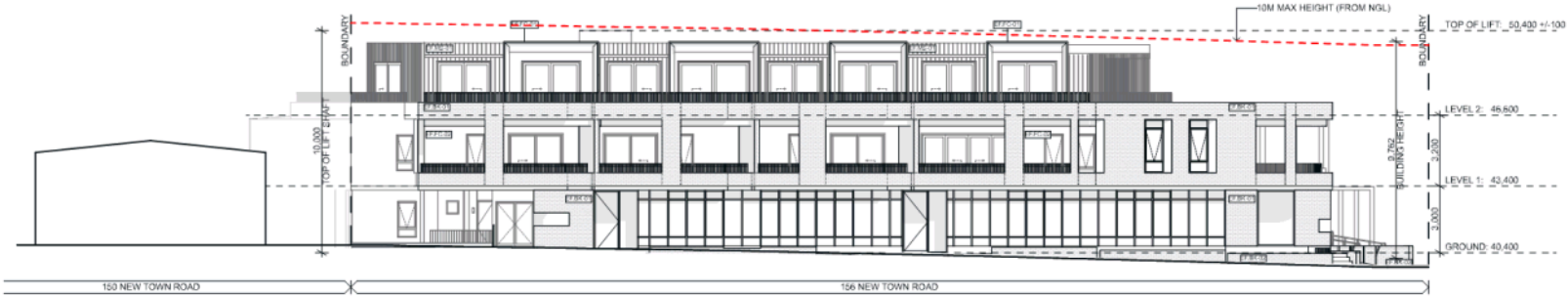
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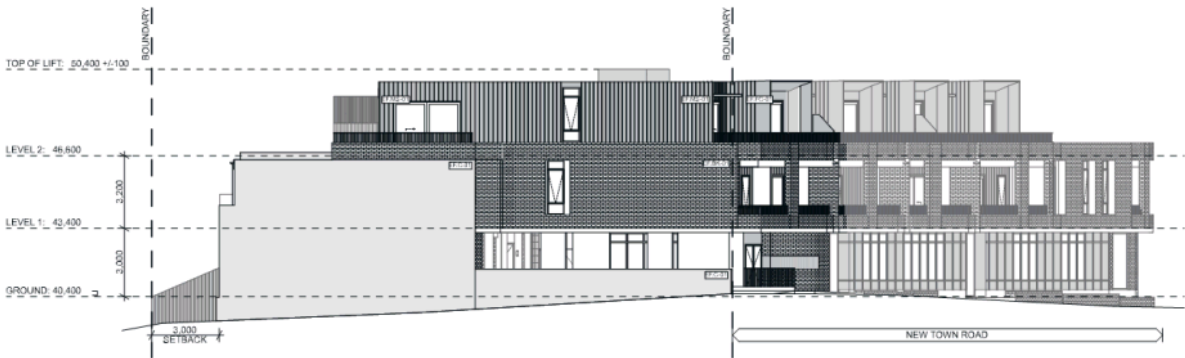
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156 New Town Road  
  
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PROJECT NUMBER  
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DRAWING  
**DA-10**  
FILE A20101\_156 NTR\_DA\_Coll.psk  
  
REVISION  
**C**  
DATE 4/5/22



1 North Elevation  
1:200



2 East Elevation  
1:200

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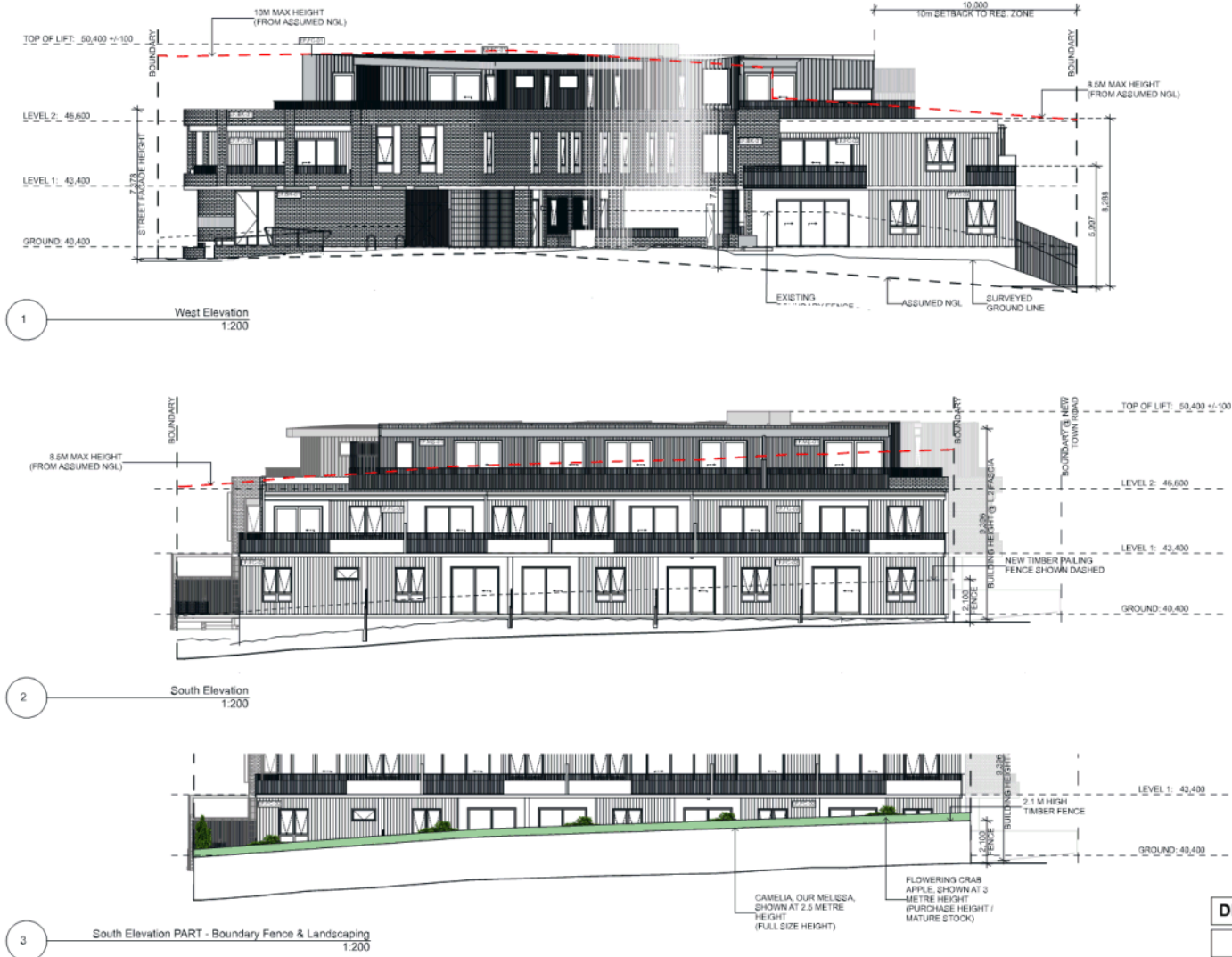
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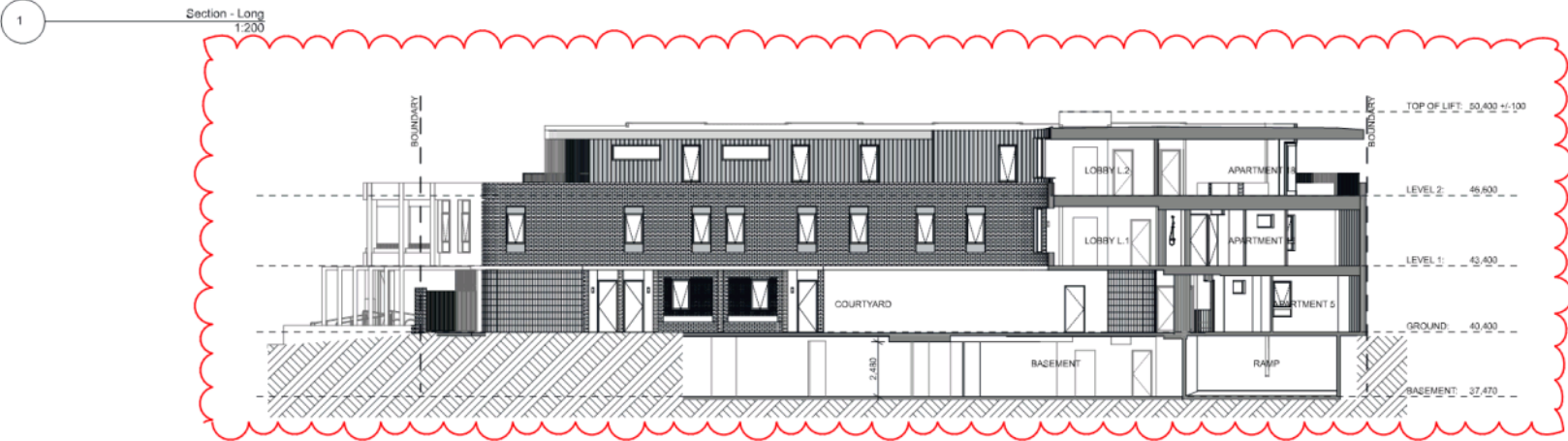
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STATUS  
DEVELOPMENT APPLICATION

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PROJECT NUMBER  
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SCALE  
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STATUS  
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**DA-13**  
FILE A20101\_156 NTR\_DA\_Coh1.pln  
REVISION  
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1 Section - Ramp  
1:100

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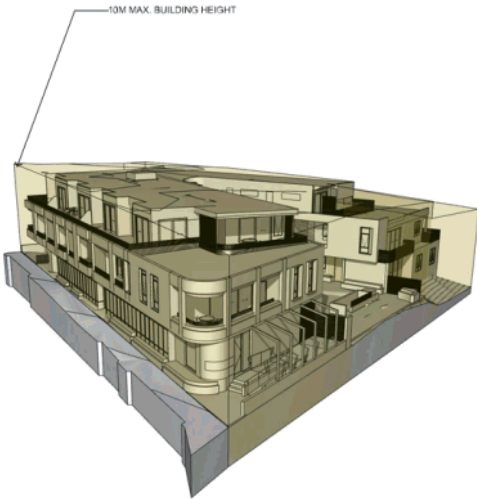
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A	Development Application	11/10/21
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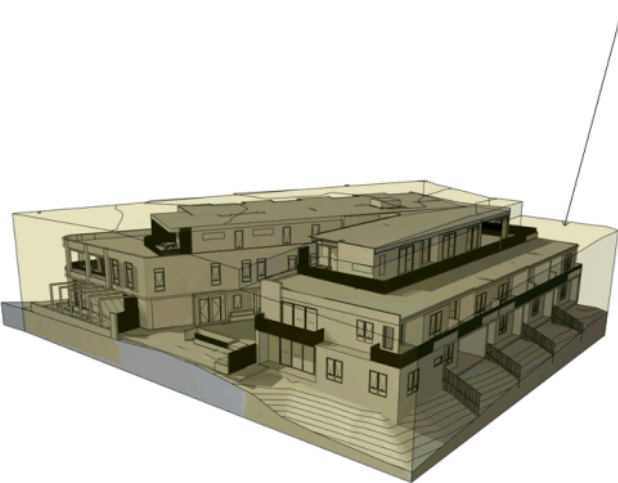
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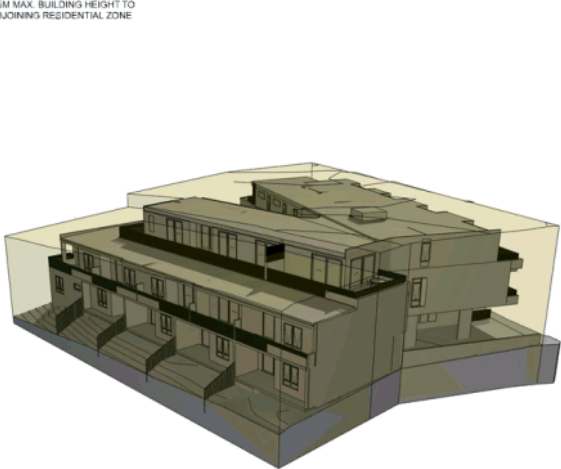
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REVISION  
**B**  
  
DATE 4/5/22



1 Building Height Envelope - Assumed NGL - North East View



2 Building Height Envelope - Assumed NGL - North West



3 Building Height Envelope - Assumed NGL - South West

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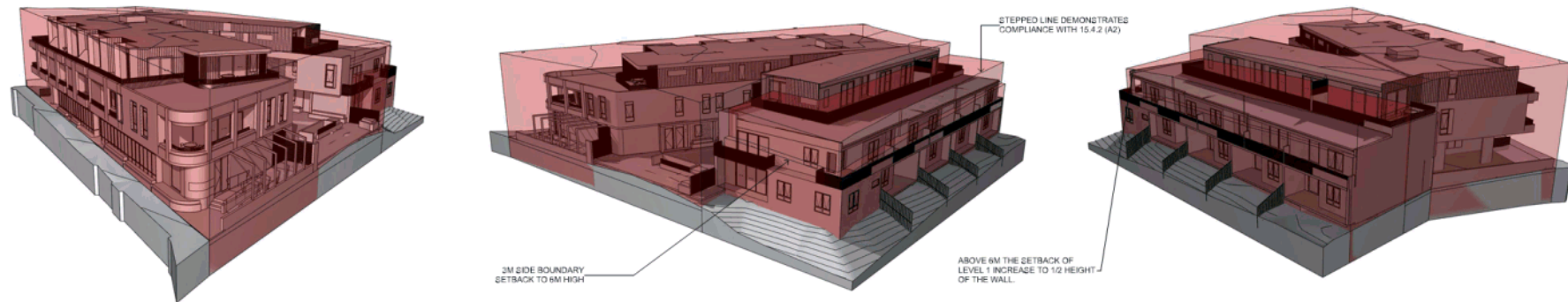
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PROJECT NAME  
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156 New Town Road  
  
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SCALE  
@ A3  
  
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DEVELOPMENT APPLICATION

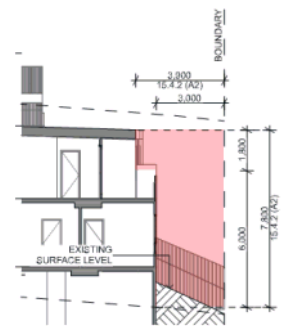
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ENVELOPE - 15.4.1**  
  
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REVISION  
**B**  
DATE 4/5/22



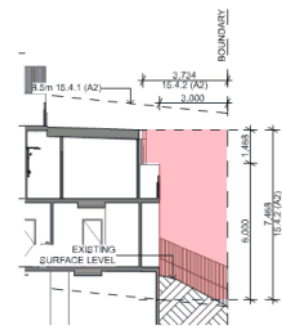
1 Setbacks - North East

2 Setback - North West

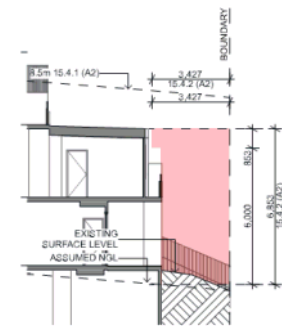
3 Setback - South West



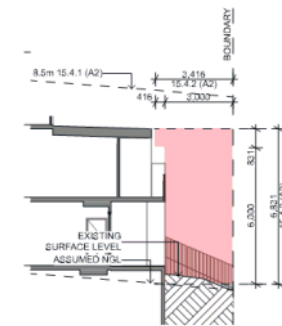
4 APT 11 - Western Boundary Section 1:200



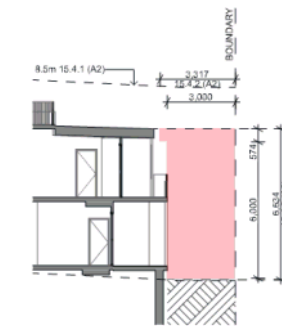
5 APT 12 - Western Boundary Section 1:200



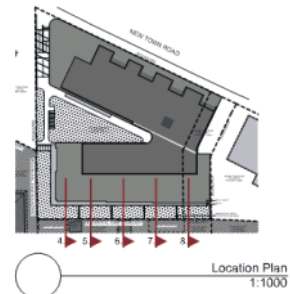
6 APT 13 - Western Boundary Section 1:200



7 APT 14 - Western Boundary Section 1:200



8 APT 15 - Western Boundary Section 1:200



Location Plan 1:1000



THE AREA SHOWN 'RED' ILLUSTRATES THE EXTENT OF REQUIRED BUILDING SETBACK AND DEMONSTRATES COMPLIANCE WITH 15.4.2 (A2). SECTIONS ARE TAKEN AT VARIOUS LOCATIONS ALONG THE WESTERN BOUNDARY.

\*3m SETBACK APPLIED UPTO 6m HIGH, SETBACK OF "HALF THE HEIGHT OF THE WALL" APPLIED ABOVE 6m

DEVELOPMENT APPLICATION  
NOT FOR CONSTRUCTION



Architecture & Consulting  
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PO Box 136 North Hobart, 7002  
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REVISIONS		
RevID	Issue Name	Date
A	Development Application	11/10/21
B	New Development Application	4/5/22

PROJECT NAME  
**156 NTR**  
  
SITE  
156 New Town Road  
  
CLIENT  
#Client Full Name

PROJECT NUMBER  
**A20101**  
  
SCALE  
1:200, 1:1000 @ A3  
  
STATUS  
DEVELOPMENT APPLICATION

DRAWING TITLE  
**BUILDING SETBACK  
ENVELOPE - 15.4.2**  
  
DRAWING  
**DA-16**  
FILE A20101\_156 NTR\_DA\_Coh.pln  
  
REVISION  
**B**  
DATE 4/5/22



1 New Town Road Street Elevation  
1:500

DEVELOPMENT APPLICATION  
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REVISIONS		
RevID	Issue Name	Date
A	Development Application	11/13/21
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PROJECT NAME  
**156 NTR**  
  
SITE  
156 New Town Road  
  
CLIENT  
#Client Full Name

PROJECT NUMBER  
**A20101**  
  
SCALE  
1:500 @ A3  
  
STATUS  
DEVELOPMENT APPLICATION

DRAWING TITLE  
**STREET ELEVATION**  
  
DRAWING  
**DA-17**  
FILE A20101\_156 NTR\_DA\_CoH1.sh  
  
REVISION  
**B**  
DATE 4/5/22



### Streetscape Analysis



An analysis of the existing streetscape condition has informed the proposed material palette. The prominent buildings in the surrounding streetscape largely consist of red brick, rendered brick, or sandstone. Where render has been used the colouring is predominantly white, cream or beige, which compliments the sandstone of the (fmr.) Methodist Church. The use of 'Sand' coloured brick (featured at L1 of the proposal) references this colouring, by contrast the red brick planterbox which forms a plinth to the street edge and the red-brick paving makes reference to the use of 'Hobart Red' bricks.

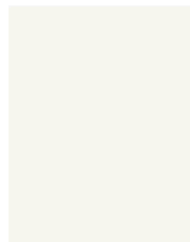
### Proposed Material Palette



**EEBK-01**  
Face Brickwork  
Mineral Contours,  
Colour: 'Sand'



**EEFC-02**  
Painted Cement Sheet:  
Axon 133, Smooth. Paint  
Colour: Dulux 'Snowy  
Mountains Half'



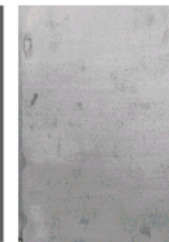
**EEAL-01**  
Powdercoated Aluminium  
Dulux Duralloy, Colour:  
'White' Satin Finish



**EEFS-01**  
Prefinished metal sheet  
with ribbed profile, Colour:  
'Woodland Grey'



**EEFC-01**  
Painted Cement Sheet:  
Axon 133, Smooth. Paint  
Colour: Dulux  
'Woodland Grey'



**EEC-01**  
Precast Concrete  
Panel, natural, clear  
seal only



**EEBK-02**  
Face Brickwork  
Bowral Satin,  
Colour: 'Capitol Red'

**DEVELOPMENT APPLICATION**

**NOT FOR CONSTRUCTION**



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#### REVISIONS

RevID	Issue Name	Date
A	Development Application	11/10/21
B	Development Application - RFI	3/3/22
C	New Development Application	4/6/22

#### PROJECT NAME

**156 NTR**

**SITE**  
156 New Town Road

**CLIENT**  
iClient Full Name

#### PROJECT NUMBER

**A20101**

**SCALE**  
@ A3

**STATUS**  
DEVELOPMENT APPLICATION

**DRAWING TITLE**  
**MATERIAL PALETTE /**  
**STREETSCAPE ANALYSIS**

**DRAWING**  
**DA-18**

**REVISION**  
**C**

FILE A20101\_156 NTR\_DA\_ColLph

DATE 4/6/22



1 New Town Road - Cross St. Intersection Looking South

DEVELOPMENT APPLICATION  
NOT FOR CONSTRUCTION



Architecture & Consulting  
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REVISIONS		
RevID	Issue Name	Date
A	Development Application	11/10/21
B	New Development Application	4/5/22

PROJECT NAME  
**156 NTR**  
  
SITE  
156 New Town Road  
  
CLIENT  
#Client Full Name

PROJECT NUMBER  
**A20101**  
  
SCALE  
@ A3  
  
STATUS  
DEVELOPMENT APPLICATION

DRAWING TITLE  
**PHOTOMONTAGE SHEET 1**  
  
DRAWING  
**DA-19**  
FILE A20101\_156 NTR\_DA\_Coh1.pn  
  
REVISION  
**B**  
DATE 4/5/22





1

New Town Road - Looking North

DEVELOPMENT APPLICATION  
NOT FOR CONSTRUCTION



Architecture & Consulting  
21a Cross St. New Town, 2008  
PO Box 136 North Hobart, 2002  
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REVISIONS		
RevID	Issue Name	Date
A	Development Application	11/10/21
B	Development Application - RFI	3/3/22
C	New Development Application	4/5/22

PROJECT NAME  
**156 NTR**  
  
SITE  
156 New Town Road  
  
CLIENT  
#Client Full Name

PROJECT NUMBER  
**A20101**  
  
SCALE  
@ A3  
  
STATUS  
DEVELOPMENT APPLICATION

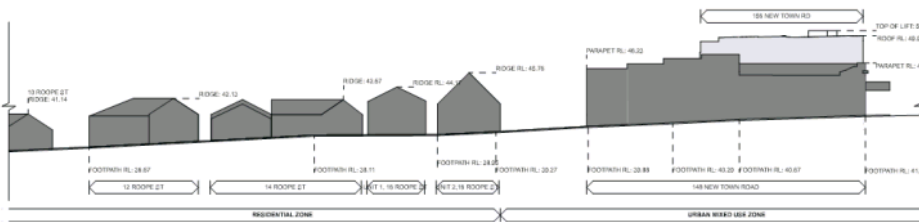
DRAWING TITLE  
**PHOTOMONTAGE SHEET 2**  
  
DRAWING  
**DA-20**  
FILE A20101\_156 NTR\_DA\_Coh.pjn  
  
REVISION  
**C**  
DATE 4/5/22



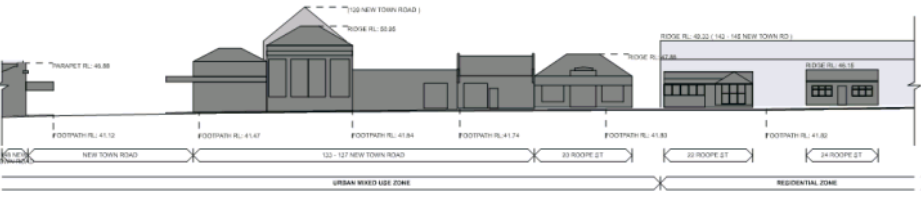
1A ELEVATION MARKER KEY (PDA Survey Plan)  
1:1000



2A ELEVATION MARKER KEY (PDA Survey Plan)  
1:1000



1B ROOPE ST EAST - STREETSCAPE ELEVATION  
1:500



2B ROOPE ST EAST - STREETSCAPE ELEVATION  
1:500



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REVISIONS		
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A	Development Application - RPI	3/3/22
B	New Development Application	4/5/22

PROJECT NAME  
**156 NTR**

SITE  
156 New Town Road

CLIENT  
#Client Full Name

SCALE  
@ A3

PROJECT NUMBER  
**A20101**

DRAWING TITLE  
**ROOPE ST - STREETSCAPE ELEVATION**

DRAWING  
**DA-21**

FILE A20101\_156 NTR\_DA\_Coh.pln

REVISION  
**B**

DATE 4/5/22

## Application Referral Cultural Heritage - Response

<b>From:</b>	Megan Baynes
<b>Recommendation:</b>	Proposal is acceptable subject to conditions.
<b>Date Completed:</b>	
<b>Address:</b>	156 NEW TOWN ROAD, NEW TOWN
<b>Proposal:</b>	Demolition, Subdivision (Lot Consolidation), and New Building for 19 Multiple Dwellings and Fitness Centre (Sports and Recreation)
<b>Application No:</b>	PLN-22-272
<b>Assessment Officer:</b>	Adam Smee,

---

### Referral Officer comments:

#### Background/Description:

156 New Town Road is located in New Town 4 Heritage Precinct which is noted as significant for the reasons including:

- 1. It contains examples of Georgian, Victorian and Federation commercial and residential buildings that illustrate the growth of the area as a local service centre along a historically early main arterial road and transport route.*
- 2. It contains individual high quality examples of architectural styles in a streetscape that is eclectic in form and scale.*
- 3. The residences in close proximity to the main road contribute to an understanding of the historical pattern of its development and the tendency to reside in close proximity to commercial and community facilities.*

As the name suggests, New Town was where wealthy people built a 'new town' away from Hobart Town at Sullivan's Cove which, with its convict activities and early industrial activity associated with the Hobart Rivulet, was considered to be a less than desirable address in the late 19th century.

The former Church (1866), Parsonage, Post Office (1891) and the old Town Hall (1897) are all now adapted for other uses. These buildings and many of the houses in the precinct provide a sense of the late 19th century/early 20th century public, domestic and commercial character and activity along this high street.

The property at 156 New Town Road was once the location of Rose Cottage, demolished in 1962 for a service station. The service station was decommissioned in about 1980. The subject site is currently 'a missing tooth' in the streetscape, as a mid 20th century building with hard stand to the front without soft landscaping. As is often the case, the demolition of a period house has weakened the spatial structure of the streetscape but presents an opportunity for development without the constraint of existing significant heritage assists on site.

The precinct extends across New Town Road and through adjacent streets, including Roope Street.

The subject site sits on rising land on a curving road and this means that development would be seen obliquely, particularly from the north and south.

The discretions are demolition and works and subdivision (lot consolidation) in a heritage precinct.

**Assessment Provisions:**

The following provisions apply:

*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.*

*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.*

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.*

*E13.8.3 Subdivision*

*Objective: To ensure that subdivision within a Heritage Precinct is consistent with historic patterns of development and does not create potential for future incompatible development.*

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.*

**Representations:**

Council has received four representations in opposition to the development. One representation raises heritage as a concern. The issue of blocking and dominating views of significant historic buildings in a heritage streetscape is an articulated concern:

"The heritage assessment prepared by Purcell submitted as part of documentation for this proposal does not identify the significant impact of the proposal on the heritage streetscape created by the Old Parsonage and Cross Street Church at this location"

"The significance of this key heritage streetscape has been missed by the Purcell Heritage Assessment"



"To reduce these impact we propose that the application be conditioned to require the reduction and redesign of the north-western corner of the building to reduce the impact on the visibility of the Old Parsonage and Cross Street Church"

The representor has nominated a potential condition to assuage concerns, but the proposed condition (to redesign the northern end of the proposed development) is beyond the scope of what can legally be imposed.

Representations also raise the issue of the potential for damage to an adjacent garden in a heritage precinct. The removal of vegetation is not being proposed, but the impact of the proposed construction project on trees in the front garden of the adjacent former Parsonage is the concern. It may be possible to place advice for tree protection to safeguard trees both during and after construction.

**Assessment:**

The 1960s service station building and associated hard landscaping at 156 New Town Road is proposed to be demolished. The site does not contain any buildings or works that possess historic cultural heritage value as defined in the statements of significance in Table E 13.2. The loss of historic heritage values is not anticipated as a function of the proposed demolition. Clause E13.8.1 P1 is satisfied.

The applicant has commissioned an architect to prepare a design in response to the various regulated stipulations. The design appears to be a low risk strategy where planning discretions have been minimised.

The applicant is proposing a 2-3 storey building to be sited close to the street edge. The height of the proposed development would likely sit comfortably within the range of heights of existing buildings when viewed from New Town Road.

The setback of the proposed development would be minimal, approximately 0.5m and this appears to less generous than the historic setbacks on this side of New Town Road.

The adjacent former Parsonage and Church are set back 7.5m and 10m respectively and have gardens around them. They have archetypal Victorian era ecclesiastical details such as steeply pitched roofs and details including finials.

The heritage consultant has linked significant cultural heritage values with adjacent commercial and residential development, although this is questioned. A non-heritage building at 152 New Town has a 1.3m setback. The shop on the corner at 148 New Town Road has a 0m setback. The siting of proposed development is purported to acceptable because it abides by commercial setbacks such as the buildings at 148 and 152 New Town Road and beyond.

Significant heritage listed buildings are in the vicinity, including the former Church (c1866) and associated former Parsonage (Victorian era). The consultant's submission contains an aerial photograph from 1957 (Page 55 Appendix 4) which demonstrates how historically this part of New Town Road has been characterised by setbacks manifested as gardens.

As was previously noted, the garden at 156 New Town Road was demolished in 1962 and there is no requirement in the Historic Heritage Code to reinstate lost landscaping or garden.

The cultural heritage significance of Heritage Precinct New Town 4 is linked to the area being a late 19th century and early 20th century town centre along a main road. Various period buildings contribute to this this, but it is above all an urban ensemble, along a high street, a key transport route, surrounded by residential development. As such, buildings are the physical fabric which demonstrate what was of use and value to the local community.

For example, the former Church and Parsonage demonstrated the value placed by a Georgian and Victorian era community upon religion. The former Post Office was critical communications infrastructure in its day. The former Town Hall was the municipal seat of power and administration. Pubs and shops provided groceries and food & drink for locals and visitors. The things that the community needed or desired were available in this part of New Town Road. There has been a degree of visual change, the demolition of period buildings, the introduction of telegraphs and power poles and the introduction and removal of trams for example. The streetscape is robust and has evolved, rather than being completely static. Key period buildings have endured.

The Historic Heritage Code states that the design and siting of buildings within a heritage precinct 'must not result in detriment'. The primary visual experience of the precinct is from New Town Road. When doing so views are available of historic facades.

Streetscape views will no doubt change as a function of the proposed development.

Detriment means 'loss, damage, or injury'. Assuming that historic buildings endure in place, it is difficult to assert that significant cultural heritage values as described in the above statements of significance will be lost, damaged or injured.

The former Parsonage will appear 'hemmed in' by the proposed development, but because the actual removal of period buildings or landscapes is not being proposed, significant historic values are unlikely to be forgone.

The proposed development would be approximately the 'right' height to match the scale of existing buildings (at least those that can be considered in this statutory context – which means those visible from public spaces in the context of assessment at a heritage precinct). The former Town Hall at 139 New Town Road would exceed the height of proposed development.

The siting of the proposed development may fail to provide a dignified or respectful contextual setting for its historic neighbour, the former Parsonage, but there is no statutory requirement to do so. There are no adjacency clauses in relation to heritage listed places in this area in the *Hobart Interim Planning Scheme 2015*. Rather development 'must not result in detriment'. The placement of new things next to old things does not, in itself, equate to detriment. In fact, arguably, difference heightens appreciation of historic character by virtue of providing contrast.

Critically, the statement of significance use the word '*eclectic*'. This means a broad or wide. Diversity and variety are implied (as opposed to consistency, for example).

The heritage consultant report states that the architect's response to the adjacent Parsonage was to create a wedge shaped landscaped courtyard internal to the block. However, this courtyard will only be marginally visible from public space in the precinct and so would not have impacts, negative or positive, in the heritage streetscape.

It must be acknowledged that the former service station and associated hard landscaping fails to provide a dignified setting for the former Parsonage.

This returns us to the notion of detriment. Will the streetscape be diminished as a function of proposed development? Landscapes and planting can potentially contribute to cultural heritage significance. The gardens of the former Parsonage and Church are not listed specifically in Table E 13.1 and are not identified as Significant Trees in Table E 24.1. Front gardens are not identified in the statements of significance for NT 4. The Historic Heritage Code does not identify these gardens as being of historic heritage value.

The proposed 2-3 level development would be further from the former Parsonage, than the



space between the former Parsonage and the former Church. These distances have been measured as being approximately 8m and 2-3m respectively.

The bulk of proposed development would mean that the former Church and Parsonage would be less visible from certain footpaths and roadways in the precinct (from the south) however the former Parsonage and Church would remain visually available from New Town Road, albeit more acutely than is currently the case.

The siting and design of the proposed development, close to the street edge, is likely to be seen in the context of views of the historic streetscape (when viewed from the north).

The subdued tones of materials proposed would likely result in the proposed building appearing bland (visually recessive) relative to the visual complexity of historic facades which include the warm and rich tones of unpainted brickwork/stonework with intricate period details (which would remain visually prominent).

The advertised information contains some ambiguity in relation to primary façade design. The ground floor elevation is shown in some montages as a sandy coloured brick veneer and in other as glossy dark green tiles. The extent of glazing to solid ground floor façade is unclear. It is possible to place a condition should a permit be issued for colours and finishes to be resolved and clarified.

The decision to site a building forward of adjacent historic setbacks, and its sheer size, means that the proposed development would inevitably be clearly visible. In a heritage precinct described as eclectic, a 2-3 storey building sited approximately 0.5m from the street edge is likely to have an acceptable visual impact and the proposed building would be demonstrative of this period (2022).

That the architects have chosen to express the façade as a single horizontal entity ensures that the proposed development will not be confused with period buildings in the historic streetscape.

Siting and design choices are logical and sensible rather than inspired, but are unlikely to result in detriment to the historic cultural heritage significance of the precinct. Extant period buildings would endure and continue to be able to be viewed from public spaces in New Town Road providing high quality examples of their respective architectural periods.

E13.8.2 P1 is satisfied.

The consultant heritage report does not make reference to the subdivision (lot consolidation) provisions in relation to a Heritage Precinct. The proposed development triggers a land adhesion order to re-adhere a small area of land (now used as a carpark) which was created in the 1960s. The original lot of the now demolished Rose Cottage is thus being reformed. Therefore, the proposed subdivision (lot consolidation) would be consistent with historic patterns of development.

Clause E13.8.3 P1 (a)-(d) is satisfied.

**Summary:**

The proposal is for a 2-3 storey mixed use infill development on the site of a former service station in a historic local centre which is located within a heritage precinct.

The consultant's report asserts that the cultural heritage significance of the precinct is linked to period commercial and residential buildings and that the setback of proposed development would be consistent with nearby commercial and residential setbacks and therefore the visual impact of development would be acceptable in the precinct.

A representor asserts that the cultural heritage significance of the precinct is linked to views of a particular cluster of period buildings including a Georgian era Church, a Victorian era Parsonage and a Federation era Post Office. The median setback of nearby heritage listed buildings is greater than that which is being proposed. It is asserted that the visual impact would be unacceptable. The representor contends that views and settings of historic buildings would be compromised.

The cultural heritage significance for this Heritage Precinct includes references to period commercial and residential buildings and high quality examples of a range of architectural styles (which would include former public and ecclesiastical buildings). Gardens are not mentioned in the statements of significance for the precinct. The collection of period buildings strung along a local service centre on an early arterial route are the key heritage assets.

The demolition of Georgian, Victorian or Federation era buildings is not being proposed. The height of proposed development would not exceed that of nearby historic buildings.

The Historic Heritage Code requires that development does not result in detriment to the stated significant cultural heritage values.

The use of the term 'eclectic' implies a wide range or diversity, rather than an expectation of conformity in relation to siting and design.

The proposed development will appear to be a new element in the streetscape. The proposed siting and design is unlikely to result in detriment to the historic cultural heritage significance of the precinct as defined in Table E 13.2 of the Historic Heritage Code of the *Hobart Interim Planning Scheme 2015*.

The proposed development satisfies E13.8.1 P1, (Demolition) E13.8.2 P1 (Buildings and Works) and E13.8.3 (a-d) (Subdivision) of the Historic Heritage Code of the Scheme. Advice and a condition in relation to tree protection and colours & finishes respectively is required.

MB  
CHO  
11  
04  
2022

Reviewed  
SW  
SCHO  
12 April 2022

## URBAN DESIGN ADVISORY PANEL

REPORT FROM THE MEETING OF THE URBAN DESIGN ADVISORY PANEL  
HELD AT 1:00 PM ON TUESDAY 29 MARCH 2022 IN THE LADY OSBORNE  
ROOM

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### 156 NEW TOWN ROAD – PLN-21-718

Attending: Josh Crossin – LXN Architecture  
Sarah Lindsay – LXN Architecture  
Megan Gale – Renewal Developments Pty Ltd

The Panel met to discuss the proposal in detail and the below report is a summary of the Panel's views and is provided for the consideration of the proponents and officers.

#### Description:

The proposal is to demolish the existing building on the site and to construct a new building that would potentially contain a fitness centre and 19 multiple dwellings. The new building would have three storeys and a basement. Car parking and storage is proposed in the basement. The fitness centre would be on the part of the ground floor of the building fronting onto New Town Road. The proposed apartment style dwellings would occupy the remaining parts of the development. The proposed building would have a maximum height of 10m and a total floor area of 2938m<sup>2</sup>. Proposed external materials include face brickwork (sand and red), painted cement sheet (grey and light grey), powder-coated aluminium (white), prefinished metal sheet (grey), and precast concrete (natural finish).

#### Panel Report:

The Panel noted that 156 New Town Road – PLN-21-718 is a lodged planning application currently on public advertising. The following comments will be included in the Development Appraisal Planner's report.

The Panel support the development's intent to provide a variety of dwelling types but were concerned regarding the impact of the proposed development on residents of the neighbouring properties to the south. The proposal will present an overbearing presence, and overlook and overshadow these properties. The Panel felt the development was trying to put too much yield on the site, compounded by the approach to open up the space between apartments facing to New Town Road and to the south. Where the application has tried to meet development standards, and at times has not achieved compliance, it does so by failing to address the impact on the amenity of the neighbouring properties to the south. The Panel would also have

URBAN DESIGN ADVISORY PANEL  
REPORT  
29 March 2022

preferred to see a long section from the New Town Road side that included the neighbouring properties to the south, and feel that the application suffers from the lack of that information.

The Panel noted that the existing fence on the southern side will be retained, up to which there will be a steep bank and then private open space for units. The Panel had concerns with the resident's amenity of the south-facing recessed private open spaces, though noted the proponent's comment these would have views to kunanyi/Mount Wellington. The steep bank area, nominated by the proponents as a planted services corridor (to be managed by the body corporate?) should be a nuanced pleasant vegetated outlook that is well maintained and a positive contribution for residents' of the new development and all neighbours – balancing visual privacy, views to the mountain and summer western sun.

The proposal has created a courtyard space between New Town Road and south facing apartments, to achieve sunlight in to living spaces. The Panel questioned this interpretation and do not believe many apartments achieve this. The Panel noted that in winter, the courtyard will be in shade the whole day. The quality of the courtyard space is also questionable with bedrooms overlooking and close to passing residents. The applicant advised that the landscape design is at a conceptual stage, but the courtyard has an area that can achieve deep planting and a design will be chosen that can work for the whole year.

The Panel were concerned about the impact of the building on the streetscape. The design presents a uniform long building to the street edge that in the opinion of the Panel is not sympathetic with the character of this area. The Panel questioned if further modulation in the streetscape to creating stepping within the design, had been explored. They felt that modulation to the street frontage and street-edge detail were critical. In terms of the issues of the street modulation, the decision to make a linear building doesn't help. The Panel were also concerned with the design-approach to pixelate the streetscape to inform the composition and colour of the street façade, noting the streetscape context should also have regard to material, detail, form that is not considered in such a stylized approach to the façade.

The Panel was also concerned with the public edge to the street including the window finish to the commercial tenancy. It was noted there was no awning to the commercial frontage, typical to the precinct. To reinforce the commercial character of ground floor activities in the precinct, the panel would like to see a condition on any potential permit

URBAN DESIGN ADVISORY PANEL  
REPORT  
29 March 2022

that the glazing remained clear and not opaque or treated with vinyl, to maintain visibility between outside and inside.

The use of planters along New Town Road would require vegetation that is more substantial than the anticipated low plants suggested in the application. The Panel would be looking for an approach to planting that is compatible to the adjacent church building precinct.

The Panel also felt that the new cross-over and steep driveway would change the character of the footpath and public edge, though recognise there is limited scope for its placement.

Overall the Panel recognised that whilst the application is a DA review, they would like to have seen it as a pre-application. The Panel felt that whilst the proponents had sought to make design decisions to address the 'deemed to satisfy' provisions, development does fail to achieve some provisions in the view of the Panel, and the proposal presented shortcomings in terms of overlooking and overshadowing to adjacent dwellings. Though it is noted that had the proposal achieved the minimum required setback to the south boundary, the overshadowing impact would not be mitigated. The Panel also questioned the amenity to the south-facing apartments and were concerned about the impact of the building's long facade on the streetscape in relation to the streetscape and adjoining properties (such as the church grounds) and the street-level relationship between public and proposed commercial use(s).

