CITY OF WEST TORRENS

Notice of Panel Meeting

Notice is Hereby Given that a Meeting of the

COUNCIL ASSESSMENT PANEL

will be held in the George Robertson Room, Civic Centre
165 Sir Donald Bradman Drive, Hilton

on

TUESDAY, 11 MAY 2021
at 5.00pm

Hannah Bateman
Assessment Manager

City of West Torrens Disclaimer

Council Assessment Panel

Please note that the contents of this Council Assessment Panel Agenda have yet to be considered and deliberated by the Council Assessment Panel therefore the recommendations may be adjusted or changed by the Council Assessment Panel in the process of making the formal Council Assessment Panel decision.

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1 MEETING OPENED

1.1 Acknowledgement of Country

1.2 Evacuation Procedures

2 PRESENT

3 APOLOGIES

Apologies
Panel Member:
Ms Jane Strange

4 CONFIRMATION OF MINUTES

RECOMMENDATION

That the Minutes of the meeting of the Council Assessment Panel held on 13 April 2021 be confirmed as a true and correct record.

5 DISCLOSURE STATEMENTS

In accordance with section 7 of the *Assessment Panel Members – Code of Conduct* the following information should be considered by Council Assessment Panel members prior to a meeting:

A member of a Council Assessment Panel who has a direct or indirect personal or pecuniary interest in a matter before the Council Assessment Panel (other than an indirect interest that exists in common with a substantial class of persons) –

a. must, as soon as he or she becomes aware of his or her interest, disclose the nature and extent of the interest to the panel; and

b. must not take part in any hearings conducted by the panel, or in any deliberations or decision of the panel, on the matter and must be absent from the meeting when any deliberations are taking place or decision is being made.

If an interest has been declared by any member of the panel, the Assessment Manager will record the nature of the interest in the minutes of meeting.

6 REPORTS OF THE ASSESSMENT MANAGER

6.1 TRANSITIONAL APPLICATIONS

6.1.1 108, 110-112 & 114-118 Marion Road and 1 Edwin Street, BROOKLYN PARK

Application No 211/702/2020

Appearing before the Panel will be:

Representors: **M A S Gerges** of 1 Carnarvon Avenue, Brooklyn Park wishes to appear in support of the representation.

J S Kumar of 2 Press Road, Brooklyn Park wishes to appear in support of the representation.

J M Dunstan of 5 Ralph Street, West Richmond wishes to appear in support of the representation.

Applicant: **Rob Gagetti** of Ekistics Planning and Design wishes to appear in response to the representations.

DEVELOPMENT APPLICATION DETAILS

DESCRIPTION OF DEVELOPMENT	Demolition of existing buildings (nine in total), retention of existing Local Heritage Place and construction of new buildings and refurbishment of existing buildings for an integrated mixed use development comprising a restaurant and bar, microbrewery, commercial warehouses and service industries with associated car parking, boundary fencing and landscaping - (Non-Complying)
APPLICANT	L Meyer C/- Ekistics Planning and Design
APPLICATION NUMBER	211/702/2020
LODGEMENT DATE	11 August 2020
ZONE	Commercial Zone Residential Zone
POLICY AREA	District Commercial Policy Area 2 Low Density Policy Area 20
APPLICATION TYPE	Non-Complying
PUBLIC NOTIFICATION	Category 3
REFERRALS	Internal • City Assets • Waste Management • Heritage Advisor External • Department of Infrastructure and Transport (DIT)
DEVELOPMENT PLAN VERSION	Consolidated 21 May 2020

DELEGATION	• The relevant application is for a merit, Category 2 or Category 3 form of development, representations have been received and one or more representors wish to be heard on their representation. • Where the Chief Executive Officer or Assessment Manager form the opinion that the relevant application warrants consideration and determination by the CAP.
RECOMMENDATION	Support with reserved matters and conditions
AUTHOR	Brendan Fewster

BACKGROUND

The application was lodged prior to 19 March 2021 therefore subject to the transitional provisions in the *Planning, Development and Infrastructure Act 2016* (PDI Act) and to be assessed against the Development Plan in accordance with Regulation 11(2) of the *Planning, Development and Infrastructure (Transitional Provisions) Regulations 2017*.

The subject land comprises the former Council works depot and Council Chambers. As the Council has entered into a contract for the sale of the land, a formal request was made to the Minister for Planning for the State Commission Assessment Panel (SCAP) to be appointed as the relevant authority to avoid any perceived conflict of interest.

On 13 October 2020, the delegate of the Minister for Planning confirmed that the appointment of the SCAP as the relevant authority was not warranted in this instance as the Council Assessment Panel is best placed to consider the matter.

SUBJECT LAND AND LOCALITY

The subject land comprises six contiguous allotments that are formally described as:

- Allotment 77 in Deposited Plan 3719 in the area named Brooklyn Park Hundred of Adelaide, Volume 5721 Folio 775;
- Allotment 78 in Deposited Plan 3719 in the area named Brooklyn Park Hundred of Adelaide, Volume 5727 Folio 286;
- Allotment 79 in Deposited Plan 3719 in the area named Brooklyn Park Hundred of Adelaide, Volume 5728 Folio 110;
- Allotment 84 in Deposited Plan 3719 in the area named Brooklyn Park Hundred of Adelaide, Volume 5443 Folio 556;
- Allotment 85 in Deposited Plan 3719 in the area named Brooklyn Park Hundred of Adelaide, Volume 5670 Folio 395;
- Allotment 102 in Deposited Plan 119826 in the area named Brooklyn Park Hundred of Adelaide, Volume 6221 Folio 362;

The subject land comprises the former Council works depot and Council Chambers situated at 108, 110-112 & 114-118 Marion Road and 1 Edwin Street, Brooklyn Park. The overall site is regular in shape with frontages of 90.0 metres (m) to Marion Road and 83.6m to Edwin Street. The total site area is approximately 8300 square metres (m^2). The southern side of the site adjoins the Keswick Creek drainage channel.

It is noted that there are no easements, encumbrances or Land Management Agreements on the Certificate of Titles.

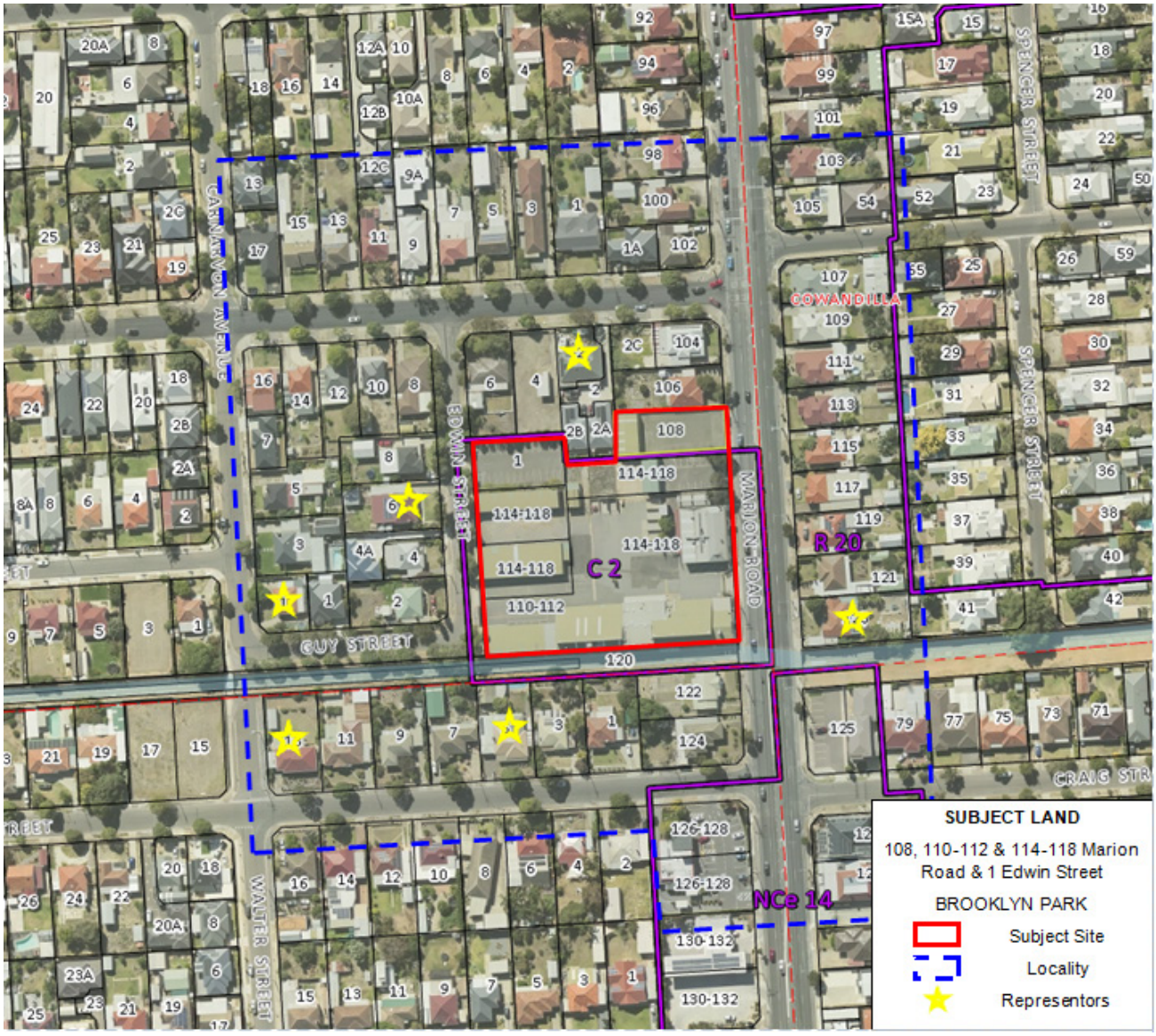
The site currently contains several large workshop buildings of brick and Colorbond © construction that were previously used to store vehicles, machinery and materials associated with the former depot. Immediately adjacent to the Marion Road frontage is the former West Torrens Council Chambers, which is a nominated Local Heritage Place. There are several at-grade bitumen car parks with access from both Marion Road and Edwin Street. There are no Regulated Trees on the subject site or on adjoining land.

The locality is dominated by the Marion Road corridor, which comprises predominantly residential development along this western section of the road. There are commercial uses south of the creek that include a fast food takeaway outlet, a housing display centre, medical clinics and a petrol filling station, all of which are situated within the Neighbourhood Centre Zone. Buildings are mostly single storey.

To the north along Marion Road and to the east and west of the subject land is established housing. These areas are situated within the Residential Zone and contain predominantly detached dwellings at low densities, with some instances of recent infill development.

The amenity in the vicinity of Marion Road is relatively low, which is attributed to high volume and frequency of traffic and the mix of commercial buildings and uses to the south.

The subject land and locality are shown on the aerial imagery below.



RELEVANT APPLICATIONS

DA Number	Description of Development	Decision	Decision Date
211/270/2021	Land division - Community Title; SCAP No. 211/C040/21 - Create twelve (12) additional allotments	Under Assessment (pending outcome of current land use application)	
211/597/2018	Land division - boundary realignment	Approved	17 August 2018
211/1429/2006	Construct colorbond shed	Approved	10 May 2007

PROPOSAL

The proposed development is summarised as follows:

> Demolition of existing buildings (nine in total), retention of existing Local Heritage Place and construction of new buildings and refurbishment of existing buildings for an integrated mixed use development comprising a restaurant and bar, microbrewery, commercial warehouses and service industries with associated car parking, boundary fencing and landscaping - (Non-Complying).

The following is more detailed overview of the proposed development:

Restaurant and Bar

- The existing Local Heritage Place (former Council Chambers) will be used as a licensed restaurant and bar with as gross leasable floor area of approximately 350m²;
- Internal refurbishment of the building with no external alterations;
- Seating for a maximum of 150 people;
- A designated area on the southern side of the building for future outdoor dining; and
- Operating hours between 5:00pm and 12:00am seven (7) days per week.

Microbrewery

- The existing brick building in the south-eastern corner of the site will be used as a microbrewery with a gross leasable floor area of approximately 630m²;
- The proposed use will comprise a brewhouse and fermenting area for beer production and a bar/kitchen area for the purchase and consumption of alcohol and light meals;
- Alcohol production will be up to 310 litres per day;
- Internal refurbishment of the building with minor alterations to the external facades;
- Seating for a maximum of 80 people;
- A designated area on the northern side of the building for future outdoor dining; and
- Operating hours between 10:00am and 6:00pm seven (7) days per week.

Warehouses and Service Industries

- Construction of new buildings and adaption of an existing building to comprise 7 warehouse tenancies and 10 service industry tenancies with a total floor area of approximately 3550m²;
- New buildings to be constructed of precast concrete, brick and Colorbond © cladding and up to 7.5 metres in height; and
- Operating hours between 7:00am to 5:00pm Monday to Saturday and 9:00am to 5:00pm Sundays.

Access and Car Parking

- Retention and modification of existing access points on Marion Road;
- Retention of two existing access points on Edwin Street, with gated access restricted to between 7:00am and 6:00pm (controlled by timer system);
- At-grade car parking for 81 vehicles;
- Warehouse tenancies to be accessed be Small Rigid Vehicles only with the service industry tenancies to be access by Medium Rigid Vehicles;
- Provision of 7 bicycle rails adjacent to the restaurant building.

Bin Storage and Landscaping

- Two waste bin storage areas; one adjacent to Tenancy 1 on the northern side of the site, and one in front of the proposed brewery; and
- A mix of trees, shrubs and ground covers are to be provided for shading and visual enhancement of the car parks, road frontages and the built form.

The relevant plans and documents are contained in **Attachment 2**.

NON-COMPLYING

The application is a non-complying form of development pursuant to the Procedural Matters section of the Development Plan as it comprises a shop (restaurant) with a total floor area greater than 250m² within District Commercial Policy Area 2 and a warehouse within the Residential Zone.

The applicant has provided a Statement of Effect pursuant to Regulation 17 of the *Development Regulations 2008* (refer **Attachment 3**). This document highlights a number of positive social, economic and environmental impacts associated with the proposed development as follows:

- The proposed restaurant, bar and microbrewery will deliver hospitality services for the local community, creating opportunities for social gatherings and interactions within a Commercial Zone and setting where interface impacts can be being appropriately managed;
- The development is expected to generate in the order of 21 direct development and 42 indirect jobs;
- The development is estimated to deliver a direct gross operating surplus of approximately $840,789 to development industry businesses, and a total gross operating surplus of approximately $1.36M across all industries;
- The direct tax impact of the development is estimated to be $188,763 and the total tax impact (including direct and indirect impacts) is estimated to be $429,843;
- The development is estimated to generate direct wages and salaries of $768,861 and combined (direct and indirect) wages and salaries of $1.03M; and
- Environmental impacts have been adequately addressed, which relate to the management of stormwater, the preservation and protection of the adjoining watercourse, hard refuse waste management, noise generation and management, and environmental impacts associated with the operation of the microbrewery including the management of wastewater and airborne emissions.

Should the CAP resolve to approve the application, the concurrence of the State Commission Assessment Panel (SCAP) is not required in this instance given the recent amendments to Section 35 of the *Development Act 1993* under the *COVID-19 Emergency Response (Further Measures) Amendment Act 2020.*

Alternatively, should the CAP refuse the application, no appeal rights are afforded to the applicant. As the Administration resolved, under delegation, to proceed with an assessment of the proposal, the application is now presented to the Panel for a decision.

PUBLIC NOTIFICATION

The application is a Category 3 form of development pursuant to Schedule 9 of the *Development Regulations 2008.*

Properties notified	78 owners/occupiers were notified during the public notification process.
Representations	Seven (7) representations were received.
Persons wishing to be heard	Three (3) representors who wish to be heard. • M A S Gerges of 1 Carnarvon Avenue, Brooklyn Park • J S Kumar of 2 Press Road, Brooklyn Park • J M Dunstan of 5 Ralph Street, West Richmond
Summary of representations	Concerns were raised regarding the following matters: • Anti-social behaviour; • Increased traffic and noise; • Traffic impacts on Edwin Street and Ralph Street; • Impact on residential amenity; • Odour generated by microbrewery; • Environmental impact on creek system; • Management of waste and vermin; • Light spill; • Impact on property values; and • Operating hours.
Applicant's response to representations	Summary of applicant's response: • The liquor licensing process will place conditions on patron behaviour and the Council has powers under the *Local Nuisance and Litter Control Act 2016* to address anti-social behaviour; • Most traffic will access the site from Marion Road and access from Edwin Street will be restricted to between 7am and 6pm (when the restaurant is not in operation); • The acoustic report prepared by Sonus confirms that noise levels generated by all land use activities will not exceed the prescribed thresholds outlined within the *Environment Protection (Noise) Policy, 2007;* • Odour levels will be below EPA standards (refer to Enviroscan report); • All external lighting will be designed in accordance with Australian Standard 4282-1997 *'Control of the obtrusive effects of outdoor lighting'*; • A Construction Environmental Management Plan (CEMP) will address off-site impacts during construction; • A waste management plan has been prepared for the development that includes sound waste management practices; • All waste will be contained within the building and water will be directed to drains that discharge to the sewer system; and • Fencing along the eastern boundary of 2A Press Road has been increased in height.

A copy of the representations and the applicant's response is contained in **Attachment 4**.

INTERNAL REFERRALS

Department	Comments
City Assets	• The applicant has provided a concept design for the retaining wall along the southern boundary next to the creek. While the concept design of this retaining wall is supportable, it should be noted that the underground pier should be constructed within the property boundary. The concept design has indicated that potion of the pier is constructed outside the property boundary. • The FFLs of the proposed development have been assessed as satisfying minimum requirements in consideration of street and/or flood level information. • The proposed internal road that is next to Tenancy 2 & 7 that can be used as a flood corridor, this has been considered as satisfying the flood corridor requirements. • The proposed crossover is acceptable. • The offsets for verge features have been assessed as acceptable. • Parking assessment is supported (81 parking spaces). • 7 bicycle parking spaces has been provided. • Parking layout has been assessed as satisfying relevant parking standards. • The proposed one-way circulation aisleway at the western end should be sign-posted accordingly. • The largest permitted service vehicle for Tenancies 2 to 11 shall be a MRV. • The largest permitted service vehicle for Tenancies 1 and 12 to 17 shall be a SRV. • Loading zone within the building should be clearly indicated on plan and line marked on site. • DIT has confirmed that the median opening located immediately north of the proposed northern access point of the development to be closed as part of the development, to reduce the potential for u-turns to occur for traffic exiting the development. • City Assets would like to reiterate that the Edwin Street access points shall be closed. However, if this is not achievable, the proposed restriction to use the access points from 7am - 6pm with existing gate to prevent vehicular access would be a reasonable compromise. • The proposed detention capacity has been assessed as satisfying minimum requirements. • The proposed stormwater system would achieve the stormwater quality targets.
Waste Management	• The waste management plan is considered suitable and addresses all requirements for this site.

Heritage Advisor	• The proposal is considered satisfactory from a Heritage perspective because the LHP will be conserved and a new compatible use found for it. It will also remain visually prominent to Marion Road on all sides. • In making this assessment signage other than the murals has not been noted. • The only condition is that in forming the new internal opening to the south wall, there should be a nib left to each side and the wall be evident above the opening and below the ceiling line, to provide evidence of the original south wall.

EXTERNAL REFERRALS

Department	Comments
DIT	• DIT supports the proposed access/median arrangements and all road works required to facilitate safe access should be undertaken to DIT standards and requirements with all costs borne by the applicant. • All redundant crossovers should be closed and reinstated with kerb and gutter prior to the businesses becoming operational. • Overall, the proposed parking provisions appear reasonable particularly given the various land uses within the site will have different peak demands. All off-street parking should be designed in accordance with *AS/NZS 2890.1:2004* and *AS/NZS 2890.6:2009*. Additionally, clear sightlines, as shown in Figure 3.3 'Minimum Sight Lines for Pedestrian Safety' in *AS/NZS 2890.1:2004*, should be provided at the property line to ensure adequate visibility between vehicles leaving the site and pedestrians on the adjacent footpath. • The CIRQA report has illustrated that a large refuse vehicle (10 metres in length) can left turn in via the southern access, circulate through the site and exit via a left turn at the northern access. The access points should be suitably flared to ensure two-way access movements can be achieved at all times. In addition, the plan shows that a MRV (8.8 metres in length) can access the other tenancies within the site which is supported. • Council should be satisfied that the largest vehicle required to gain access to the proposed development (e.g. brewery) is under 10 metres in length. All commercial vehicle facilities should be designed in accordance with *AS 2890.2:2018.*

A copy of the relevant referral responses is contained in **Attachment 5**.

RELEVANT DEVELOPMENT PLAN PROVISIONS

The subject land is located within both the Commercial Zone and Residential Zone and, more specifically, is within District Commercial Policy Area 2 and Low Density Policy Area 20 as described in the West Torrens Council Development Plan.

The relevant Desired Character statements are as follows:

Commercial Zone - Desired Character:

No Desired Character Statement

Residential Zone - Desired Character:

This zone will contain predominantly residential development. There may also be some small-scale nonresidential activities such as offices, shops, consulting rooms and educational establishments in certain locations. Non-residential activities will be complementary to surrounding dwellings.

Allotments will be at very low, low and medium densities to provide a diversity of housing options in different parts of the zone. The range of allotment sizes will support the desired dwelling types anticipated in each policy area, and the minimum allotment sizes shall be treated as such in order to achieve the Desired Character for each policy area and, in turn, reinforce distinction between policy areas. Row dwellings and residential flat buildings will be common near centres and in policy areas where the desired density is higher, in contrast to the predominance of detached dwellings in policy areas where the distinct established character is identified for protection and enhancement. There will also be potential for semi-detached dwellings and group dwellings in other policy areas.

Residential development in the form of a multiple dwelling, residential flat building or group dwelling will not be undertaken in a Historic Conservation Area.

Landscaping will be provided throughout the zone to enhance the appearance of buildings from the street as viewed by pedestrians, provide an appropriate transition between the public and private realm and reduce heat loads in summer.

District Commercial Policy Area 2 - Desired Character:

Development within the part of the policy area between Taylors Lane and George Street will be designed to avoid or reduce conflict with the adjacent residential zone and be of a scale, form and finish compatible with adjoining residential development. Landscaping will be provided to screen undesirable views, reduce visual impact of buildings, and contribute to the attractiveness of the streetscape. Planting will be provided along the rear of allotments to diminish the visual impact of buildings. Entrance and exit points will be located so that the use of nearby residential roads by non-residential vehicles visiting the development is avoided or minimised.

Low Density Policy Area 20 - Desired Character:

Allotments in the policy area will be at low density, accommodating predominantly detached dwellings and some other dwellings types such as semi-detached and group dwellings. There will be a denser allotment pattern close to centre zones where it is desirable for more residents to live and take advantage of the variety of facilities focused on centre zones. Battleaxe subdivision will not occur in the policy area to preserve a pattern of rectangular allotments developed with buildings that have a direct street frontage.

Buildings will be up to 2 storeys in height. Garages and carports will be located behind the front façade of buildings.

Development will be interspersed with landscaping, particularly behind the main road frontage, to enhance the appearance of buildings from the street as viewed by pedestrians, provide an appropriate transition between the public and private realm and reduce heat loads in summer. Low and open-style front fencing will contribute to a sense of space between buildings.

Additional provisions of the Development Plan which relate to the proposed development are contained in **Attachment 1**.

ASSESSMENT

In assessing the merits or otherwise of the application, the proposed development is discussed under the following sub headings:

Land Use Suitability

The subject land is situated primarily within the Commercial Zone and more particularly within District Commercial Policy Area 2. The northern-most allotment at 108 Marion Road is situated within Low Density Policy Area 20 of the Residential Zone. The whole of the subject land comprises the former Council depot site and includes the former Council Chambers, several large workshop buildings and bitumen car parking areas.

Objective 1 of the Commercial Zone envisages a range of commercial and business uses. PDC 1 lists shops, light industry and warehouses as appropriate land uses. The Policy Area also supports a range of commercial uses, however there is preference for larger and more intensive uses such as major service industries, wholesaling and even road transport terminals.

The proposed development comprises a contemporary mix of uses. The existing Local Heritage Place fronting Marion Road is to be used as a restaurant and bar with a total floor area of 350m² and a seating capacity of 150. While the size of the restaurant would exceed the floor area prescribed by PDC 4 of the Commercial Zone, which aims to limit the size of a shop to a maximum of 250m², in this instance the benefits of the 'adaptive reuse' of this landmark heritage building are considered to out-weigh any potential land use implications. The adaptive reuse of the building is actively encouraged by Objective 2 of the General Section (Heritage Places). In any event, the overall floor area and intensity of the proposed restaurant is considered to have a negligible impact on the commercial function of the zone and that of nearby centre zones. PDC 3 of the Commercial Zone is therefore reasonably satisfied.

The existing brick building in the south-eastern corner of the site will be used as a microbrewery with a gross leasable floor area of approximately 630m². The proposed use will comprise a brewhouse and fermenting area for beer production and a bar/kitchen area for the purchase and consumption of alcohol and light meals. The microbrewery is considered to be a form of light/service industry as it has been reasonably demonstrated that the brewing activities would not adversely affect the amenity of the locality by way of noise, odour and waste (refer to discussion below). Light industries and service industries are an envisaged form of development within the Zone and Policy Area.

The proposal also includes the construction of new buildings and adaption of an existing building to comprise 7 warehouse tenancies and 10 service industry tenancies with a total floor area of approximately 3550m². These uses are commercial and light industrial in nature and are also envisaged within the Zone and Policy Area.

It is noted that the northern part of the subject land is either within the Residential Zone or interfaces with existing residential properties. Objective 2 of the Zone seeks to ensure that development *"minimises any adverse impacts upon the amenity of the locality within the zone"*. In this regard, the more intensive uses on the site are well removed from adjacent residences, and as considered in more detail below, appropriate measures have been adopted to minimise noise, odour and traffic-related impacts.

For all of the above reasons, the proposed mix of land uses would reinvigorate the site, and when balanced against the intent of the Zone and the existing characteristics of the site, the proposal would not undermine the Objectives of the Commercial and Residential Zones.

Site Contamination

The site was previously used as a Council depot, which typically involved the storage of vehicles, machinery and materials associated with services provided by Council. There was previously four relatively small in-ground fuel tanks located centrally on the site. The tanks were removed and backfilled approximately 12 months ago under the guidance of an environmental consultant to ensure the remediation of the land was compliant with EPA requirements. A Tank Removal and Soil Validation Completion Report was prepared, which concluded that the site remediation would safely allow for on-going use of the land for commercial purposes.

The land is deemed suitable for commercial use following the above remediation works, and apart from some landscaped areas, the whole of the site will continue to be 'capped' with buildings and hard paved surfaces.

Therefore, the subject land is suitable and safe for the proposed uses from a site contamination perspective, in accordance with PDC 13 of the General Section (Hazards).

Heritage Considerations

The application has been referred to Council's Heritage Advisor to consider the proposal in the context of the former Council Chambers, which is a Local Heritage Place.

The Heritage Advisor considers the proposal to be *"satisfactory from a Heritage perspective because the LHP will be conserved and a new compatible use found for it. It will also remain visually prominent to Marion Road on all sides"*.

The proposal has full heritage support and it is recommended that the new 'internal' opening to the south wall should comprise a nib to each side and that the wall be evident above the opening and below the ceiling line to provide evidence of the original wall. A condition to this effect has been included within the recommendation.

Given the above heritage advice, the proposal is considered to satisfy the Objectives and PDC's 1, 2, 5 and 6 of the General Section (Heritage Places).

The heritage advice is contained in **Attachment 5**.

Built Form, Scale and Streetscape

The Development Plan provisions promote contemporary building designs provided there is sufficient regard for the Desired Character of the area. The Desired Character for this part of the Commercial Zone and Policy Area provides minimal guidance with respect to building appearance, scale and siting. More broadly however, Objective 2 of the Commercial Zone requires development to be designed so as to minimise adverse impacts upon the amenity of the locality. In terms of proposed Tenancy 1, which is located within the Residential Zone, PDC 6 of Zone generally allows for buildings of up to two storeys.

The proposed warehouse and industry buildings are of a typical commercial design, incorporating flat roofs, precast concrete, brick and Colorbond © cladding, roller doors and glass entrances. The height of the buildings would not exceed 7.5 metres. The simple modern design and relatively low scale of the proposed buildings is considered to respond appropriately to the adjacent residential area and the public realm. The buildings also would not overwhelm the existing Local Heritage Place or the brewery building that front Marion Road. While there is some blank walling at the western end of Tenancies 2, 7 and 12, the streetscape impacts along Edwin Street would not be significant given the spatial separation to the road, the retention of existing street trees and the use of climbing plants.

Landscaping will also be provided along the Marion Road frontage and adjacent to the northern side boundary for screening and to complement the built form and enhance the streetscape.

The design and appearance of the proposal is of a high commercial standard and when considered against the existing site conditions and the intent of the Commercial Zone, overall, the proposed development would respond positively to the surrounding built form character. Objective 2 of the Commercial Zone and Objective 1 and PDC 1 of the General Section (Design and Appearance) are therefore satisfied.

Interface and Operational Considerations

The subject land interfaces with residential properties immediately to the north, to the east on Marion Road, opposite the watercourse to the south and adjacent to Edwin Street. Several representors who own and occupy land adjacent to the site and within nearby streets have raised concerns with the proposal, particularly with respect to potential noise, odour and traffic nuisance.

Objective 1 and PDC 1 and 2 of the General Section (Interface between Land Uses) seek to ensure that new development is designed and operated in a manner that adequately protects the amenity of the locality. In terms of odour management, the kitchen for the restaurant and microbrewery will be required to meet the exhaust ventilation requirements of the Environment Protection Authority (EPA) to prevent impacts on surrounding residents. The ventilation system is required to comprise a collecting hood, grease filters, motor operated fan and a duct. Council's Environment Health Department is required to inspect/audit the premises prior to the operation of the commercial kitchen. Similarly, odour generated by the proposed microbrewery will need to be dispersed in accordance with EPA standards. While a referral to the EPA under Section 37 of the *Development Act 1993* was not required as the brewing capacity is under the threshold prescribed by Schedule 8 of the *Development Regulations 2008*, the applicant has provided an Odour Emissions Assessment prepared by Enviroscan. The assessment confirms that an exhaust vent will extend the required three metres above the building roofline, with odour levels predicted to be well below 2.0 Odour Units, which complies with EPA requirements.

While the proposal would generate more frequent traffic than the former depot use due to the mix of uses and the extended operational hours, the amount of noise and general disturbance is not expected to be significant in the context of the site and the surrounding area, which is exposed to high volumes and frequency of traffic on Marion Road and noise from Adelaide Airport.

The applicant has submitted an Environmental Noise Assessment (ENA) prepared by Sonus. The report provides an analysis of the existing acoustic environment and the predicted noise levels against Environment Protection Authority (EPA) noise criteria. The assessment recommends a number of acoustic treatments and operational restrictions in order for the development to meet the goal noise levels of the *Environment Protection (Noise) Policy 2007*. These acoustic measures include:

- Some sections of the existing fence along the northern boundary are to be increased to 2.4 metres in height and sealed airtight from top to bottom, including at the ground and at junctions;
- Refuse collection to take place between the hours of 9.00am and 7.00pm on a Sunday or public holiday and between 7.00am and 7.00pm on any other day;
- Delivery vehicles shall turn-off engines immediately after parking and not left running wile deliveries are taking place; and
- Check the fixing of inspection points and grated trenches etc. to remove any potential for noise generation when driven over.

The applicant has confirmed that the recommended acoustic measures will be incorporated into the development, and a Reserved Matter has been included so details of the acoustic fence are to be provided for further assessment. With the recommended acoustic measures in place, the proposed development is considered achieve the relevant *Environment Protection (Noise) Policy* criteria when assessed at the nearest existing noise sensitive premises and therefore would satisfy Objective 1 and PDC 1 and 2 of the General Section (Interface between Land Uses).

From a traffic perspective, there would be minimal impact on surrounding residential streets as most vehicles to access the site would be passing traffic on Marion Road. As considered in the traffic and car parking section below, there is sufficient car parking provided as well as capacity on-site for vehicle queuing and delivery vehicles. While it would be preferable for the existing access points on Edwin Street to be closed, such access is lawfully existing and a compromise has been reached whereby access will be restricted to the day time hours of 7:00am to 6:00pm by means of a gated timer system. A condition to this effect has been included within the recommendation.

A condition has also been included to ensure that any external lighting is designed for access and security purposes only and is directed/shielded so as not to cause light overspill nuisance of nearby properties. This would adequately address some of the concerns raised by the representors.

Accordingly, the proposal would not adversely impact upon the amenity of nearby sensitive uses by way of noise, light spill, glare or traffic. The proposal is considered to satisfy Objectives and Principle of Development Control 1 and 2 of the General Section (Interface between Land Uses).

Vehicular Access, Car Parking and Traffic

The Development Plan provisions seek to ensure that new development provides safe and convenient access for vehicles and pedestrians and sufficient on-site car parking for patrons and staff.

The proposal utilises existing access points on both Marion Road and Edwin Street. There will be two modified crossovers on Marion Road for in/out access with two other crossovers to be reinstated to kerb and gutter. Similarly, the two existing crossovers on Edwin Street will provide in/out access, however the existing gated access will be controlled by a timer system that is to restrict access to between 7:00am and 6:00pm.

The application has been referred to the DIT and the proposed access arrangements onto Marion Road are supported subject to the northern access accommodating left in and left out movements and the southern access being upgraded to provide a channelised right turn lane. The required road works are to be undertaken to the DIT standards with all costs borne by the applicant.
A condition to this effect has been recommended by the DIT. Council's Traffic Engineer has not raised any concerns with the proposed access arrangements, and while the closure of the existing access points on Edwin Street has been recommended, the applicant has agreed to prevent after-hours access which is also supported. It is also noted that bollards will be provided around the proposed outdoor dining areas. The proposed access arrangements are therefore considered to be safe and convenient in accordance with PDC 24 of the General Section (Transportation and Access).

New at-grade car parking with a total of 81 spaces will be provided toward the front of the site and adjacent to the northern side boundary. The design and layout of the car parking areas have been assessed by Council's City Assets Department as satisfying the relevant Australian Standards.

For the purposes of a car parking assessment, *Table WeTo/2 – 'Off Street Vehicle Parking Requirements'* prescribes the following car parking rates:

- Restaurant - greater of 1 space per 3 seats of total floor area or 1 per 15 square metres of total floor area;
- Warehouse / Industry - office component 3.3 spaces per 100m² of floor area and non-office component:
  - up to 200 square metres 2 per 100 square metres of total floor area
  - plus 200 - 2000 square metres 1.33 per 100 square metres of total floor area
  - plus greater than 2000 square metres 0.67 per 100 square metres of total floor area 0.75 per employee

Based on the proposed seats within the restaurant and brewery and the floor area of warehouses and service industries, there is a Development Plan requirement for approximately 140 car parking spaces. While there would be a significant parking shortfall based on the above parking requirements, Council's Traffic Engineer considers the car parking rates to be excessively high. Having regard to the mix of uses and the different operating hours, Council's Traffic Engineer considers that:

- during the daytime period, when the warehouse/service industry tenancies and the brewery are open and the restaurant is closed, the overall parking requirement would be approximately 83 spaces and the resulting parking shortfall would be 2 spaces;
- during the evening period (when the restaurant is open and the warehouse/service industry tenancies and the brewery are closed), the parking requirement would be approximately 42 spaces and there would be a surplus parking arising;
- Given that the parking shortfall during daytime periods would be minor in nature, on balance, there is adequate parking provided for the development.

Given that the subject site is adjacent to an arterial road and would generate additional traffic movements, the applicant has provided a Traffic and Parking Report prepared by a Cirqa Pty Ltd. The report concludes that:

- The proposed access and car parking arrangement are consistent with the Australian Standards;
- Based upon the Council's Development Plan, the proposal would generate a theoretical parking requirement for 145 parking spaces, which is excessively conservative as it does not consider the difference in peak periods for the proposed uses;
- The provision of 81 parking spaces would adequately accommodate the peak parking demands given the parking demand patterns of the different uses;
- Adequate bicycle parking is provided; and
- The development is expected to generate in the order of 15 to 25 additional vehicle movements in peak hour, with such movements primarily distributed to the access points on Marion Road.

The proposal includes the provision of 7 bicycle rails adjacent to the restaurant building. The provision of such bicycle parking and the bus routes along Marion Road and Sir Donald Bradman Road would further reduce the reliance upon on-site car parking.

Given the above considerations, PDC 34 of the General Section (Transportation and Access) is reasonably satisfied.

The proposal has been reviewed by Council's Traffic Engineer, and while some initial concerns were raised with loading zones and servicing, these matters have since been adequately addressed by the applicant and reflected in the amended plans and recommended conditions of approval.

Accordingly, the proposal would sufficiently meet the anticipated car parking demand generated during peak periods and would not lead to conditions detrimental to the free flow and safety of pedestrian and vehicular traffic on the surrounding road network.

Deliveries and Waste Management

Waste collection and delivery goods would take place via both small and medium rigid vehicles (SRV and MRV). All services vehicles would enter and exit the site from Marion Road. As recommended by Council's Engineering Department, the applicant has confirmed that Tenancies 1 and 12 to 17 will be serviced by a SRV while Tenancies 2 to 11 will be serviced by a MRV. Also as recommended, two car parking spaces at the rear of the restaurant will be allocated as a Loading Zone between the hours of 7:00am and 10:00am and sign posted accordingly. Servicing for the brewery will involve service vehicles utilising the driveway aisle adjacent to the bin store. These arrangements are satisfactory given the infrequent traffic movements and that adequate distance would be maintained for vehicles to pass. Loading/unloading associated with the warehouse/industrial tenancies is to take place within the respective building.

Waste collection will take place by a private contractor for the whole of the site, with collection to occur at least three times a week. All tenancies will have access to variety of waste and recycling streams, including general waste, organics, cardboard/paper etc. The bin sizes and collection details are provided in Section 2.2 of the Waste Management Plan (WMP) prepared by Rawtec. There are two bin storage areas; one adjacent to Tenancy 1 on the northern side of the site, and one in front of the proposed brewery. The bin storage areas will be enclosed and not visible from public areas.

Council's Waste Management Officer has reviewed the proposal and considers the WMP prepared by Rawtec to be acceptable. A condition of consent has been included to ensure that waste collection and deliveries take place between 7.00am and 7.00pm Monday to Saturday, except for deliveries for the restaurant and brewery which should be restricted to off-peak periods (7.00am to 10.00am) to minimise traffic conflicts.

The proposal is considered to satisfy PDC 2, 5 and 6 of the General Section (Waste).

Crime Prevention and Public Safety

Objective 1 of the General Section (Crime Prevention) seeks to ensure that public safety is carefully considered in all new development. The proposed development incorporates the following crime prevention measures:

- open palisade style fencing along the Marion Road frontage for security and passive surveillance;
- new boundary fencing of up to 2.4 metres in height along the northern property boundary for noise attenuation and added security for adjoining residences;
- mostly tall stem trees and low lying shrubs near road frontages and adjacent to car parking areas;
- locating car parking areas near Marion Road and Edwin Street;
- defined and legible access points and walking paths;
- lighting provision within the new car parks and around the curtilage of the buildings; and
- restricted access from Edwin Street after 6.00pm and no earlier than 7:00am on any day.

The above building design, lighting, landscaping and security measures would ensure adequate passive and active surveillance from within the site and from adjacent road frontages. The relative openness of the new car parking areas and the separation between the proposed buildings and property boundaries would also ensure there are no areas for potential entrapment in accordance with PDC 10 of the General Section (Crime Prevention).

The proposed development is considered to achieve a safe and secure public environment.

Trees and Landscaping

A detailed landscape plan has been prepared by Hemisphere Design that proposes a mix of trees, shrubs and ground covers to provide shade and visually soften the car parks, road frontages and the built form. The proposed landscaping is comprehensive and would provide a reasonably soft setting for the proposed buildings as well as provide some visual screening between the adjacent residential area to the north. While minimal landscaping is to be provided adjacent to Edwin Street, a climbing trellis will be planted at the western end of Tenancies 2 and 7 to soften the blank walling, and importantly, the existing street trees along Edwin Street, which are well established, will be retained.

The amount of proposed landscaping would be in the order of 10 percent of the site.

The proposed landscaping would therefore enhance the overall appearance and amenity of the development in accordance with PDC 4 and 5 of Richmond Policy Area 14 and PDC 1, 4 and 5 of the General Section (Landscaping, Fences and Walls).

There are no Regulated Trees on the site or on adjoining land.

Stormwater and Flood Management

The proposed development includes a fully engineered stormwater management system designed by Sagero Engineers for the on-site management of stormwater runoff from the proposed buildings, car parking areas and other impervious surfaces. The stormwater system incorporates a series of drains, detention and retention tanks and a filtration system.

Although Council's City Assets Department is satisfied in principle with the civil design, as the stormwater design does include appropriate stormwater quality improvement measures, a Reserved Matter is recommended so these matters can be addressed prior to the granting of Development Approval.

In terms of flood management and protection of the adjacent watercourse (drainage creek), the finished floor levels satisfy Council's flood mitigation requirements and the proposed internal roadway is considered to provide an adequate flood corridor. While the proposal is unlikely to impact on the stability of the adjacent creek, a Reserved Matter has been included so that a final footing and retaining design for the proposed building (Tenancy 12 to 15) along the southern boundary can be assessed.

Construction Management

Some representors have raised concerns with the potential for noise and disturbance during the construction phase of the development. To address these concerns, a Reserved Matter has been recommended that requires the applicant to provide a Construction Management Plan (CMP) for the development. The CMP will be required to identify potential issues and appropriate measures to minimise impacts and disruption to surrounding residents and business owners during the construction phase of the development.

SUMMARY

Having considered all the relevant Objectives and Principles of the Development Plan, the proposal is considered to be not seriously at variance with the Development Plan.

In particular, the proposal:

- comprises an appropriate mix of land uses that would result in an orderly and appropriate form of development in the context of the site and its locality;
- comprises mostly envisaged land uses that are of a scale and intensity that would not undermine the Objectives of the Commercial Zone or the adjacent Residential Zone;
- is appropriately designed in a contemporary manner that would contribute positively to the surrounding built form character and includes the adaptive reuse of a landmark heritage building;
- would not significantly impact upon the amenity of nearby residential properties or the locality given the inclusion of appropriate measures for the control and management of noise, odour and traffic;
- provides sufficient on-site car parking and safe and convenient access so as not to lead to conditions detrimental to the free flow and safety of pedestrian and vehicular traffic within the site and on the adjacent road network;
- incorporates appropriate measures for passive and active surveillance in order to achieve a safe and pleasant public environment; and
- includes landscaping that would enhance the overall appearance of the development and assist with screening to adjacent residential properties.

For all of the above reasons, the proposal would sufficiently achieve the Objectives of the Commercial and Residential Zones without undermining existing and future development within adjacent residential areas. On balance, the proposal accords with the relevant provisions of the West Torrens Council Development Plan and therefore the application warrants the granting of Development Plan Consent.

RECOMMENDATION

The Council Assessment Panel, having considered all aspects of the report and the application for consent to carry out development of land resolves to GRANT Development Plan Consent for Application No. 211/702/2020 by L Meyer C/- Ekistics Planning and Design to undertake the demolition of existing buildings (nine in total), retention of existing Local Heritage Place and construction of new buildings and refurbishment of existing buildings for an integrated mixed use development comprising a restaurant and bar, microbrewery, commercial warehouses and service industries with associated car parking, boundary fencing and landscaping - Non-Complying at 108, 110-112 & 114-118 Marion Road and 1 Edwin Street, Brooklyn Park (CT 5721/775, 5727/286, 5728/110, 5443/556, 5670/395 & 6221/362) subject to the following reserved matters and conditions of consent:

Reserved Matters:

The following information shall be submitted for further assessment and approval by the City of West Torrens as reserved matters under Section 33(3) of the *Development Act 1993*:

1. A Construction Management Plan (CMP) for the proposed development. The CMP should identify potential issues and appropriate measures to minimise impacts and disruption to surrounding residents and business owners during the construction phase of the development. The plan shall also detail the types, volumes and distributions of traffic and how they will be managed.

2. A final footing and retaining design for the proposed building (Tenancy 12 to 15) along the southern boundary that adopts appropriate design techniques for the management of erosion and instability to the adjacent drainage channel (creek).

3. A detailed stormwater management system that includes stormwater quality improvement measures that are demonstrated to satisfy the State Government Water-Sensitive Urban Design policy guidelines.

4. Construction details of the acoustic fence to be located along the northern boundary that are in accordance with the recommendations of the Environmental Noise Assessment (ENA) prepared by Sonus dated November 2020.

Development Plan Consent Conditions:

1. The development must be undertaken, completed and maintained in accordance with the plans and information detailed in this Application except where varied by any conditions listed below:

    - Context & Site Analysis Plan (Drawing No. 3366 DA03, Rev 8 dated 15/02/21) prepared by Brown Falconer;
    - Demolition Plan (Drawing No. 3366 DA04, Rev 12 dated 15/02/21) prepared by Brown Falconer;
    - Site Plan (Drawing No. 3366 DA05, Rev 12 dated 15/02/21) prepared by Brown Falconer;
    - Floor Plans - Building A Heritage (Drawing No. 3366 DA06, Rev 9 dated 15/02/21) prepared by Brown Falconer;
    - Floor Plans - Building B (Drawing No. 3366 DA07, Rev 8 dated 15/02/21) prepared by Brown Falconer;

- Floor Plans - Landscaping (Drawing No. 3366 DA08, Rev 8 dated 15/02/21) prepared by Brown Falconer;
- Elevations (Drawing No. 3366 DA09, Rev 8 dated 15/02/21) prepared by Brown Falconer;
- Elevations (Drawing No. 3366 DA10, Rev 9 dated 15/02/21) prepared by Brown Falconer;
- Elevations (Drawing No. 3366 DA11, Rev 8 dated 15/02/21) prepared by Brown Falconer;
- 3D Images (Drawing No. 3366 DA12, Rev 7 dated 15/02/21) prepared by Brown Falconer;
- Landscape Concept Plan (Drawing No. HD X 010 CD01, February 2021) prepared by Hemisphere Design;
- Stormwater Plan (Drawing No. C01, Issue K dated 24/02/21) prepared by Sagero Engineers;
- Stormwater Plan (Drawing No. C02, Issue K dated 23/02/21) prepared by Sagero Engineers;
- Grading Plan & Details (Drawing No. C03, Issue K dated 24/02/21) prepared by Sagero Engineers;
- Grading Plan & Details (Drawing No. C04, Issue K dated 24/02/21) prepared by Sagero Engineers;
- Civil Stormwater Calculations prepared by Sagero Engineers dated December 2020;
- Letter prepared by Ekistics dated 17 March 2021;
- Environmental Noise Assessment prepared by Sonus dated November 2020;
- Letter prepared by Sonus dated 21 February 2021;
- Traffic and Parking Report prepared by Cirqa dated 16 March 2021;
- Microbrewery Odour Emissions Assessment prepared by Enviroscan Industrial & Marine Surveys dated 24 February 2021; and
- Waste Management Plan prepared by Rawtec dated 1 December 2020.

2. All driveways, parking and manoeuvring areas will be formed, surfaced with concrete, bitumen or paving, and be properly drained prior to occupation, and shall be maintained in reasonable condition at all times to the satisfaction of Council.

   Reason: To ensure safe and convenient vehicle access and to supress dust.

3. All car parking areas shall be marked in a distinctive fashion to delineate the parking spaces, prior to the occupation of the development.

   Reason: To ensure usable and safe car parking.

4. The proposed car parking layout and access areas and vehicle head clearances shall conform to Australian Standard AS 2890.1:2004- Off-street Car parking and Australian Standard 2890.6:2009 - Off-Street Parking for People with Disabilities.

   Reason: To provide adequate, safe and efficient off-street parking for users of the development.

5. Driveway, car parking spaces, manoeuvring areas and landscaping areas shall not be used for storage or display of materials or goods.

   Reason: To ensure the development proceeds in an orderly manner.

6. The operation of the development approved herein shall be between the following hours:

   - Restaurant - 5:00pm to 12:00am Monday to Sunday (7 days per week);
   - Microbrewery - 10:00am to 6:00pm Monday to Sunday (7 days per week);
   - Warehouses and Service Industries - 7:00am to 5:00pm Monday to Saturday and 9:00am to 5:00pm Sunday

   Reason: To ensure there is adequate on-site car parking and minimal disturbance to surrounding properties.

7. Service vehicles for the restaurant and microbrewery shall only access the site between 7:00am and 10:00am on any day. Service vehicles for the warehouse and service industry tenancies shall take place between 7:00am and 5:00pm Monday to Saturday.

   Reason: To ensure traffic safety and to maintain the amenity of the locality.

8. Waste collection for all uses and building tenancies shall take place between the hours of 7.00am and 7.00pm Monday to Saturday and between 9.00am and 7.00pm on a Sunday or public holiday.

   Reason: To ensure traffic safety and to maintain the amenity of the locality.

9. All solid waste shall be stored in bins/containers having a close fitting lid. The bins/containers shall be stored within the designated bin enclosure areas that are identified on the approved plans. Collection of waste shall be carried out at least three times a week by a private contractor and within the approved collection hours (refer to Condition 8).

   Reason: To ensure minimal disturbance to surrounding properties and to maintain the amenity of the locality.

10. Access/egress to and from the site from Edwin Street shall only take place between 7:00am and 6:00pm on any day, with a gated timer system to be installed and operational to the satisfaction of Council prior to the occupation of the development.

    Reason: To ensure traffic safety and to maintain the amenity of the locality.

11. The largest permitted service vehicle to gain access to the site shall be a Small Rigid Vehicle for Tenancies 1 and 12 to 17 and a Medium Rigid Vehicle for Tenancies 2 to 11.

    Reason: To ensure traffic safety and to maintain the amenity of the locality.

12. The one-way circulation aisleway between the Edwin Street boundary and the western end of the service industry building shall be line marked and/or sign posted accordingly.

    Reason: To ensure traffic safety and to maintain the amenity of the locality.

13. No more than 150 seats shall be provided within the restaurant and no more than 80 seats within the microbrewery at any one time.

    Reason: To ensure adequate on-site car parking is available.

14. All landscaping shall be planted in accordance with the approved plans (Landscape Concept Plan, Drawing No. HD X 010 CD01, February 2021 prepared by Hemisphere Design) prior to the occupation of the development. Any person(s) who have the benefit of this approval will cultivate, tend and nurture the landscaping and shall replace any plants which may become diseased or die.

    Reason: To enhance the amenity of the site and locality and to mitigate against heat loading.

15. Floodlighting within car park and around the buildings shall be restricted to that necessary for access and security purposes only and be directed and shielded in such a manner as to cause no light overspill nuisance of nearby properties.

    Reason: To maintain visual amenity and public safety in the locality.

16. The development approved herein shall incorporate the following recommendations outlined in the Environmental Noise Assessment (November 2020) prepared by Sonus to the satisfaction of Council prior to occupation/operation of the development:

    - Sections of the existing fence along the northern boundary are to be increased to 2.4 metres in height and sealed airtight from top to bottom, including at the ground and at junctions;
    - Refuse collection to take place between the hours of 9.00am and 7.00pm on a Sunday or public holiday and between 7.00am and 7.00pm on any other day; and
    - Delivery vehicles shall turn-off engines immediately after parking and not left running wile deliveries are taking place.

    Reason: To ensure minimal disturbance to surrounding properties.

17. The new internal opening to the south wall of the Local Heritage Place shall comprise a nib to each side with the wall to be evident above the opening and below the ceiling line to provide evidence of the original wall.

    Reason: To maintain the historic significance of the Local Heritage Place.

18. Signage for the designated Loading Zones shall be erected prior to occupation/operation of the development.

    Reason: To ensure traffic safety and to maintain the amenity of the locality.

19. The exhaust vent for the microbrewery shall be installed in accordance with the Odour Emissions Assessment prepared by Enviroscan prior to the occupation/operation of the development.

    Reason: To minimise odour and maintain the amenity of the locality.

Department for Infrastructure and Transport Conditions

20. The two access points to Marion Road shall be constructed in general accordance with Brown Falconer, Site Plan, Drawing No. 3366 DA 05, Revision 10 dated 30 November 2020.

21. The northern access shall accommodate left in and left out movements and the southern access shall be upgraded to provide a channelised right turn lane and will accommodate all movements. The existing median opening located adjacent the southern boundary of 108 Marion Road shall be permanently closed and reinstated to the satisfaction of DIT.

22. All road works (e.g. median and line marking alterations, etc.) deemed to be required to facilitate safe access must be designed and constructed to comply with Austroads Guides and Australian Standards and to the satisfaction of DIT, with all costs to be borne by the applicant.

    The applicant shall contact DIT Network Management Services, Senior Network Integrity Engineer, Mr Narendra Patel (08) 8226 8244 or mobile 0400 436 745 (narendra.patel@sa.gov.au) to obtain approval and discuss any technical issues regarding the required works.

23. Any infrastructure within the road reserve that is demolished, altered, removed or damaged during the construction of the project shall be reinstated to the satisfaction of the relevant asset owner, with all costs being borne by the applicant.

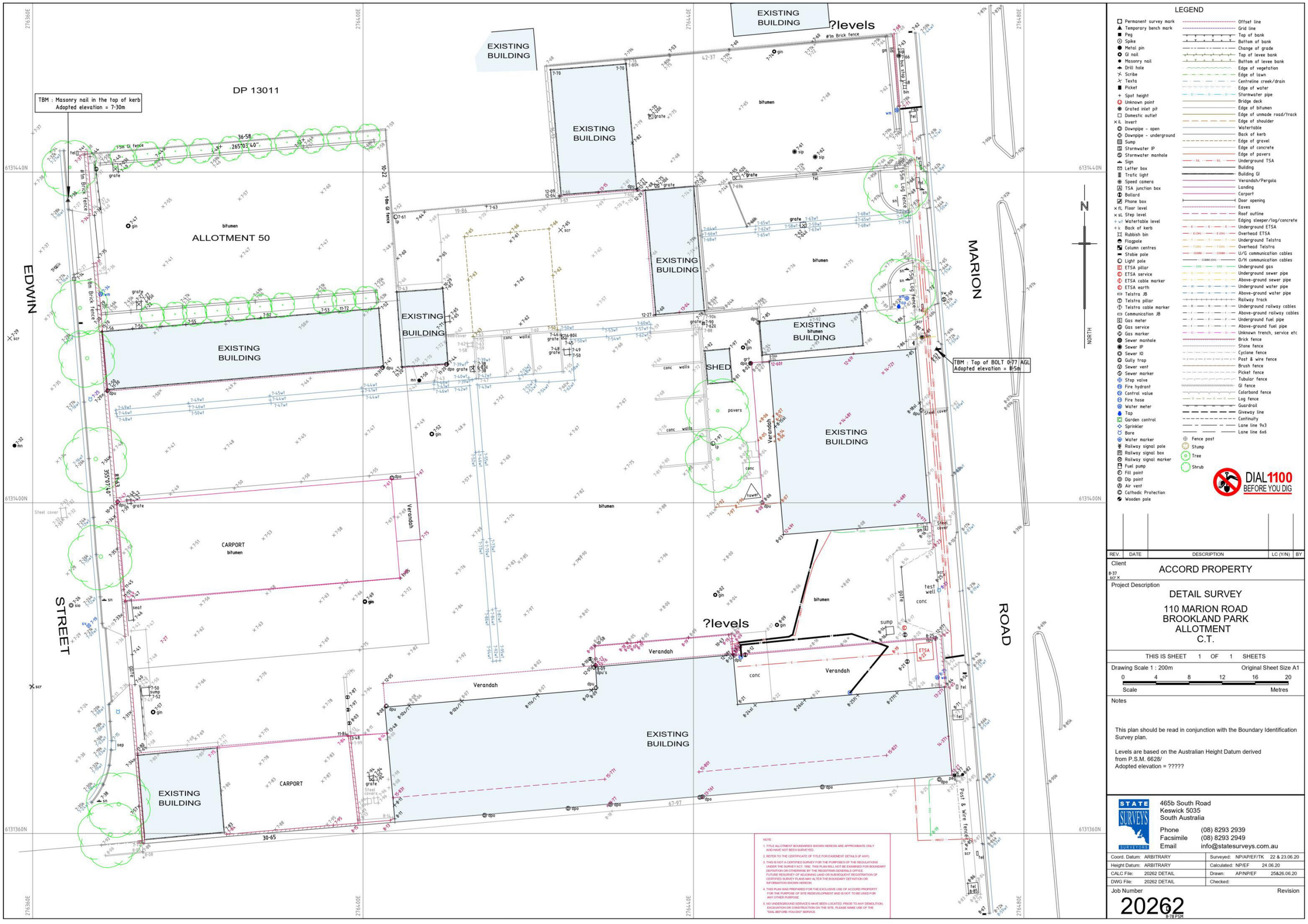
24. All redundant crossovers along the Marion Road frontage shall be closed and reinstated with council standard kerb and gutter prior to the business becoming operational. All costs are to be borne by the applicant.

25. The applicant shall ensure that all stormwater generated by the proposal is appropriately collected and disposed of without entering or jeopardising the safety of the adjacent arterial road network.

Attachments

1. **Relevant Development Plan Provisions**
2. **Proposal Plans & Documents**
3. **Statement of Effect**
4. **Representations and Applicant's Response**
5. **Internal & External Referral Responses**

General Section		
Crime Prevention	*Objectives*	*1*
	Principles of Development Control	*1, 2, 3, 4, 5, 6, 7, 8 & 10*
Design and Appearance	*Objectives*	*1 & 2*
	Principles of Development Control	*1, 2, 3, 4, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22 & 23*
Hazards	*Objectives*	*1, 2, 4, 7, 8, 9 & 10*
	Principles of Development Control	*1, 2, 3, 4, 5, 6, 7 & 13*
Heritage Places	*Objectives*	*1, 2 & 3*
	Principles of Development Control	*1, 2, 3, 4, 5 & 6*
Industrial Development	*Objectives*	*1, 3 & 4*
	Principles of Development Control	*1, 2, 3, 4, 5, 6, 7, 8 & 9*
Interface between Land Uses	*Objectives*	*1, 2 & 3*
	Principles of Development Control	*1, 2, 3, 6, 7, 8, 9, 12 & 13*
Landscaping, Fences and Walls	*Objectives*	*1 & 2*
	Principles of Development Control	*1, 2, 3, 4, 5 & 6*
Orderly and Sustainable Development	*Objectives*	*1, 2, 3, 4 & 5*
	Principles of Development Control	*1, 2, 3, 4, 5, 6, 7 & 8*
Transportation and Access	*Objectives*	*1, 2, 3, 4 & 5*
	Principles of Development Control	*1, 2, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 30, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42 & 43*
Waste	*Objectives*	*1 & 2*
	Principles of Development Control	*1, 2, 3, 4, 5 & 6*



REV.	DATE	DESCRIPTION	LC (Y/N)	BY

Client
ACCORD PROPERTY

Project Description
DETAIL SURVEY
110 MARION ROAD
BROOKLAND PARK
ALLOTMENT
C.T.

THIS IS SHEET 1 OF 1 SHEETS

Drawing Scale 1 : 200m — Original Sheet Size A1

0 4 8 12 16 20
Scale Metres

Notes

This plan should be read in conjunction with the Boundary Identification Survey plan.

Levels are based on the Australian Height Datum derived from P.S.M. 6628/
Adopted elevation = ?????

NOTE
1. TITLE ALLOTMENT BOUNDARIES SHOWN HEREON ARE APPROXIMATE ONLY AND HAVE NOT BEEN SURVEYED.
2. REFER TO THE CERTIFICATE OF TITLE FOR EASEMENT DETAILS (IF ANY).
3. THIS IS NOT A CERTIFIED SURVEY FOR THE PURPOSES OF THE REGULATIONS UNDER THE SURVEY ACT, 1992. THIS PLAN WILL NOT BE EXAMINED FOR BOUNDARY DEFINITION OR OTHERWISE BY THE REGISTRAR-GENERALS OFFICE. FUTURE RESURVEY OF ADJOINING LAND OR SUBSEQUENT REGISTRATION OF CERTIFIED SURVEY PLANS MAY ALTER THE BOUNDARY DEFINITION OR INFORMATION SHOWN HEREON.
4. THIS PLAN WAS PREPARED FOR THE EXCLUSIVE USE OF ACCORD PROPERTY FOR THE PURPOSE OF SITE REDEVELOPMENT AND IS NOT TO BE USED FOR ANY OTHER PURPOSE.
5. NO UNDERGROUND SERVICES HAVE BEEN LOCATED PRIOR TO ANY DEMOLITION, EXCAVATION OR CONSTRUCTION ON THE SITE. PLEASE MAKE USE OF THE "DIAL-BEFORE-YOU-DIG" SERVICE.

STATE SURVEYS SURVEYORS
465b South Road
Keswick 5035
South Australia
Phone (08) 8293 2939
Facsimile (08) 8293 2949
Email info@statesurveys.com.au

Coord. Datum:	ARBITRARY	Surveyed:	NP/AP/EF/TK 22 & 23.06.20
Height Datum:	ARBITRARY	Calculated:	NP/EF 24.06.20
CALC File:	20262 DETAIL	Drawn:	AP/NP/EF 25&26.06.20
DWG File:	20262 DETAIL	Checked:	

Job Number 20262 — Revision 8-78PSM

DA ISSUE

ISSUED FOR DEVELOPMENT APPROVAL

15/02/2021 3:50:25 PM

Rev.	Amendment	Date
1	PRELIMINARY	20.07.20
2	ISSUED TO CONSULTANTS	06.08.20
3	DESIGN UPDATES	07.08.20
4	DA ISSUE	10.08.20
5	CONSULTANT COORDINATION	30.10.20
6	DESIGN UPDATES	19.11.20
7	DESIGN UPDATES	20.11.20
8	PRE-LODGEMENT ISSUE	26.11.20
9	FOR LODGEMENT	30.11.20

ACCORD PROPERTY
BROOKLYN PARK DEPOT REDEVELOPMENT

PLANNING APPLICATION DOCUMENTS - 20 NOVEMBER 2020 - ISSUED FOR CONSULTANT COORDINATION

108-120 MARION ROAD, BROOKLYN PARK

SHEET LIST

BROWN FALCONER
28 Chesser Street, Adelaide, South Australia 5000
Telephone : 08 8203 5800 ABN 65 007 846 586
brownfalconer.com.au

ACCORD PROPERTY

BROOKLYN DEPOT

COVER SHEET

Scale
Date 14.07.20
Job No. 2020071
Dwg No. 3366 DA01 Rev: 9 A1 SHEET

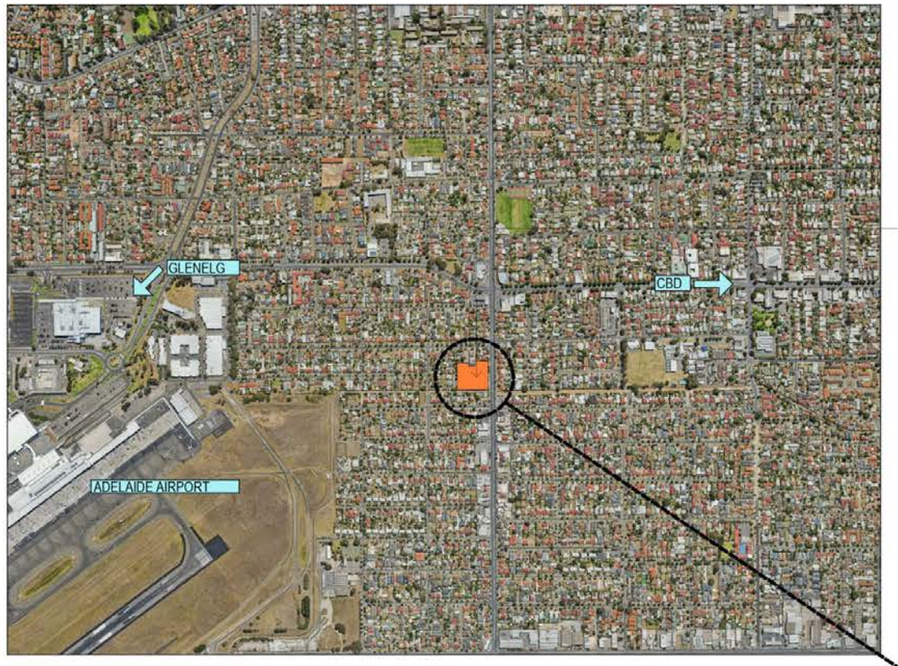
15/02/2021 3:50:25 PM X:\2020\2020071-Accord Brooklyn Park\Drawings\DA\Brooklyn Park.rvt

DA ISSUE

ISSUED FOR DEVELOPMENT APPROVAL

15/02/2021 3:50:46 PM

Rev.	Amendment	Date
1	PRELIMINARY	27.07.20
2	ISSUED TO CONSULTANTS	06.08.20
3	DESIGN UPDATES	07.08.20
4	DA ISSUE	10.08.20
5	CONSULTANT COORDINATION	30.10.20
6	DESIGN UPDATES	19.11.20
7	DESIGN UPDATES	20.11.20
8	PRE-LODGEMENT ISSUE	26.11.20
9	FOR LODGEMENT	30.11.20



CONTEXT PLAN

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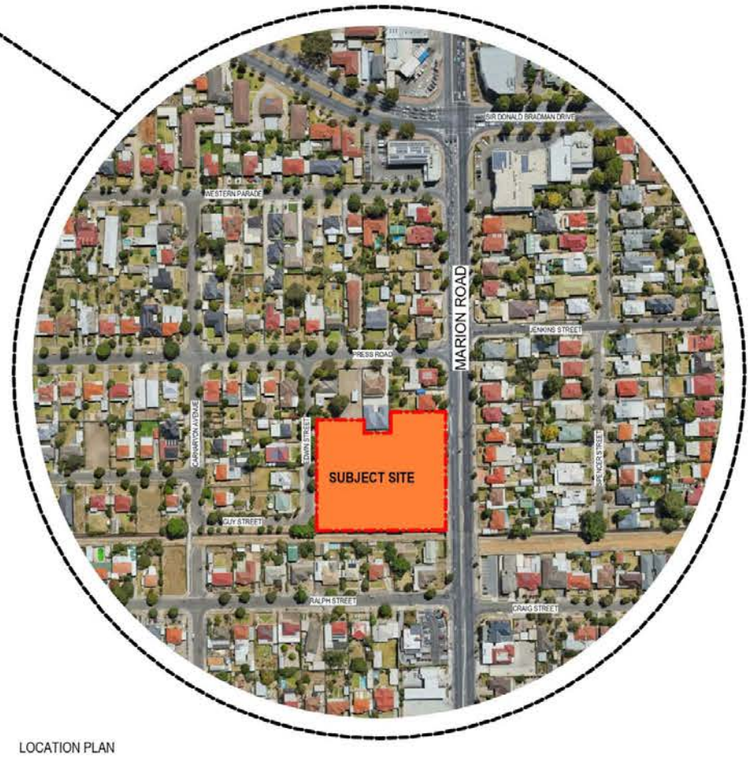
SUBJECT SITE



LOCATION PLAN

1 : 2000

BROWN FALCONER
28 Chesser Street, Adelaide, South Australia 5000
Telephone : 08 8203 5800 ABN 65 007 846 586
brownfalconer.com.au

ACCORD PROPERTY

BROOKLYN DEPOT

EXISTING CONDITIONS

Scale As indicated
Date 14.07.20
Job No. 2020071
Dwg No. **3366 DA02** Rev: **9** A1 SHEET

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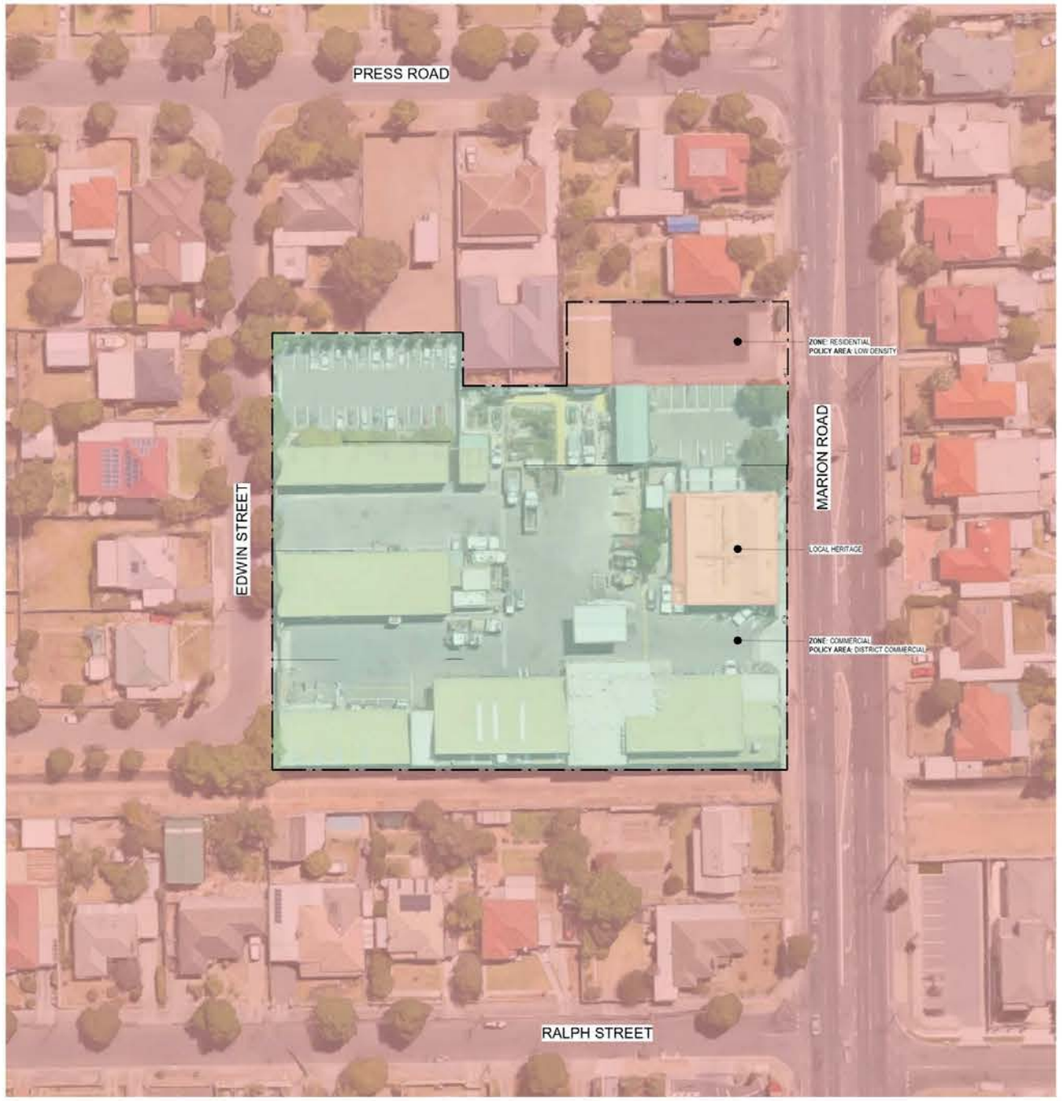
DA ISSUE

ISSUED FOR DEVELOPMENT APPROVAL

15/02/2021 3:51:04 PM

Rev.	Amendment	Date
1	ISSUED TO CONSULTANTS	06.08.20
2	DESIGN UPDATES	07.08.20
3	DA ISSUE	10.08.20
4	CONSULTANT COORDINATION	30.10.20
5	DESIGN UPDATES	19.11.20
6	DESIGN UPDATES	20.11.20
7	PRE-LODGEMENT ISSUE	26.11.20
8	FOR LODGEMENT	30.11.20

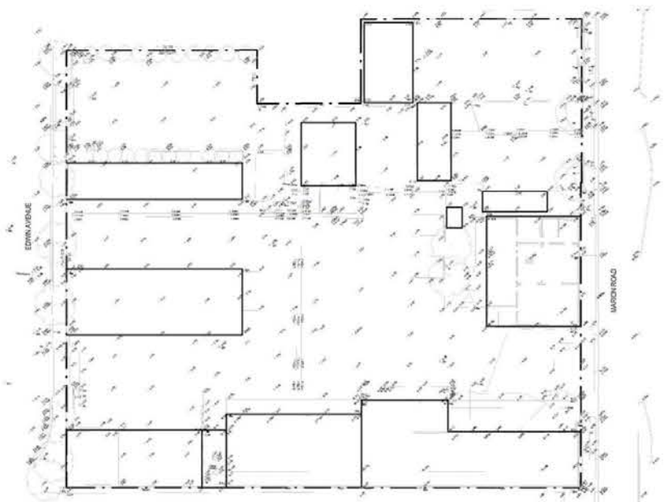


LOCATION & ZONING PLAN

1 : 500

AERIAL AXONOMETRIC

1 : 100



EXISTING SITE PLAN

1 : 500

BROWN FALCONER
26 Chesser Street, Adelaide, South Australia 5000
Telephone 08 8203 5800 ABN 63 007 846 586
brownfalconer.com.au

ACCORD PROPERTY

BROOKLYN DEPOT

CONTEXT & SITE ANALYSIS

Scale As indicated
Date 07/14/20
Job No. 2020071
Dwg No. **3366 DA03** Rev: **8** A1 SHEET

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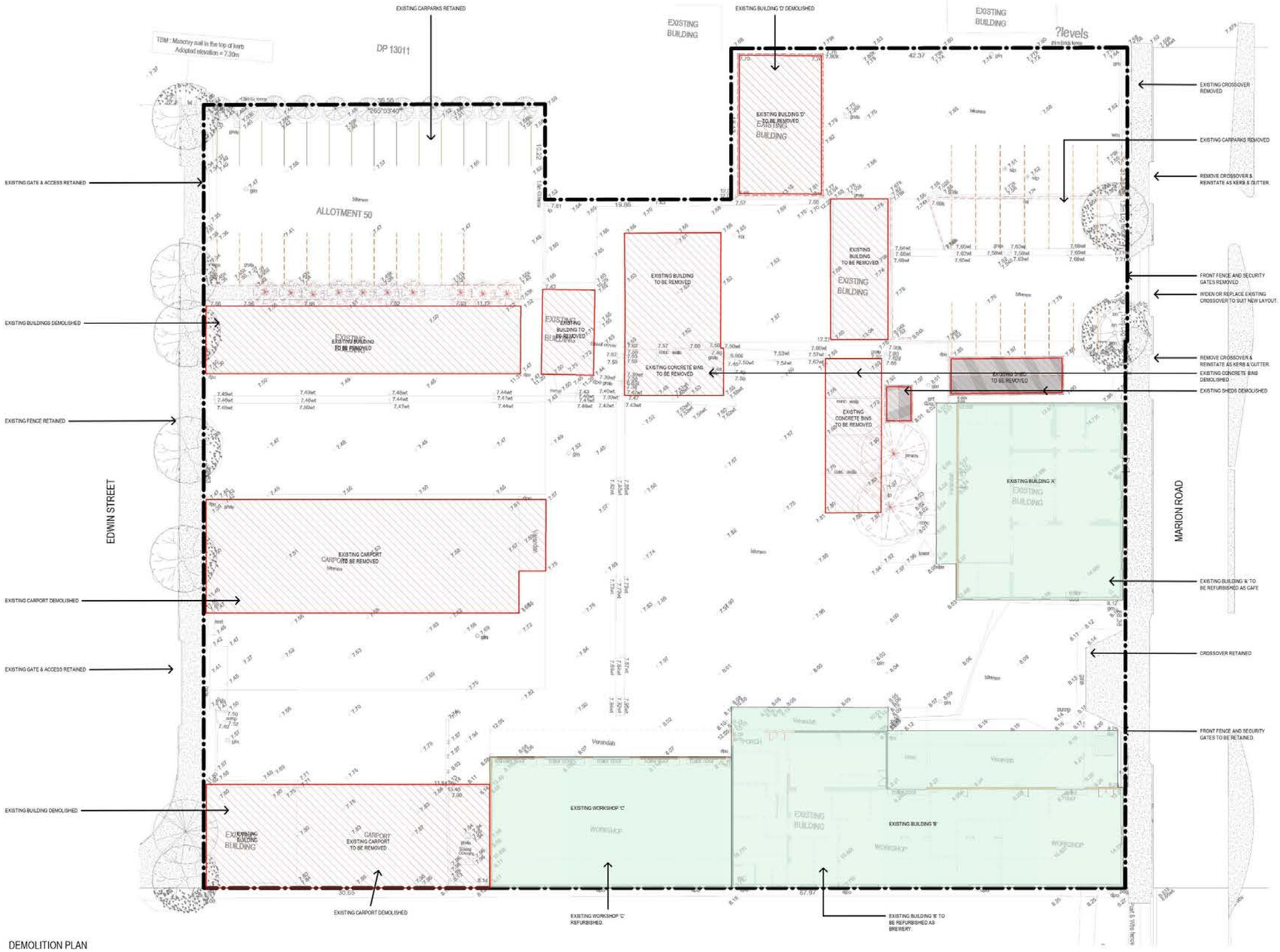

DEMOLITION PLAN

1 : 200

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DA ISSUE

ISSUED FOR DEVELOPMENT APPROVAL

15/02/2021 3:51:35 PM

Rev.	Amendment	Date
1	PRELIMINARY	20.07.20
2	PRELIMINARY	24.07.20
3	ISSUED TO CONSULTANTS	06.08.20
4	DESIGN UPDATES	07.08.20
5	DA ISSUE	10.08.20
6	DA UPDATES	29.09.20
7	CONSULTANT COORDINATION	30.10.20
8	DESIGN UPDATES	19.11.20
9	DESIGN UPDATES	20.11.20
10	PRE-LODGEMENT ISSUE	26.11.20
11	FOR LODGEMENT	30.11.20
12	LANDSCAPING AND CARPARKING ADJUSTMENTS. MARION RD FENCES ADDED. TENANCY 1 ROLLER DOOR ADDED.	15.02.21

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ACCORD PROPERTY

BROOKLYN DEPOT

DEMOLITION PLAN

Scale 1 : 200
Date 14.07.20
Job No. 2020071
Dwg No. 3366 DA04 Rev: 12 A1 SHEET

PROPOSED SITE PLAN

1 : 200

DA ISSUE

ISSUED FOR DEVELOPMENT APPROVAL

16/03/2021 5:18:05 PM

Rev.	Amendment	Date
1	ISSUED TO CONSULTANTS	06.08.20
2	DESIGN UPDATES	07.08.20
3	DA ISSUE	10.08.20
4	DA UPDATES	29.09.20
5	BUILDING AREAS CLARIFIED	26.10.20
6	CONSULTANT COORDINATION	30.10.20
7	DESIGN UPDATES	19.11.20
8	DESIGN UPDATES	20.11.20
9	PRE-LODGEMENT ISSUE	26.11.20
10	FOR LODGEMENT	30.11.20
11	7 OFF BIKE RAILS INCLUDED	01.12.20
12	REVISED TO SUIT PLANNING REPORT.	15.03.21

FLOOR AREAS

BREWERY (INCL MEZZANINE)	628m²
RESTAURANT	350m²
TENANCY	2,477m²
LEVEL 01**	929m²
TOTAL AREA	**4,384m²**
TOTAL SITE AREA	8,300m²
TOTAL CAR PARKS	81

** LEVEL ONE AREA EXPECTED TO BE SPLIT 50/50 BETWEEN MEZZANINE STORAGE AND OFFICE USE

RETAINED AND REFURBISHED

NEW BUILDINGS

FT1	1800MM HIGH COLORBOND FENCE, SEALED AIRTIGHT AT GROUND AND JUNCTIONS.
FT2	2400MM HIGH COLORBOND FENCE, SEALED AIRTIGHT AT GROUND AND JUNCTIONS.
FT3	1800MM HIGH POWDERCOATED ALUMINIUM POOL FENCE, WITH AUTOMATIC SLIDING GATES AT CROSSOVER.

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BROOKLYN DEPOT

SITE PLAN

Scale 1 : 200
Date OCT 2020
Job No. 2020071
Dwg No. **3366 DA05** Rev: **12** A1 SHEET

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DA ISSUE

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Rev.	Amendment	Date
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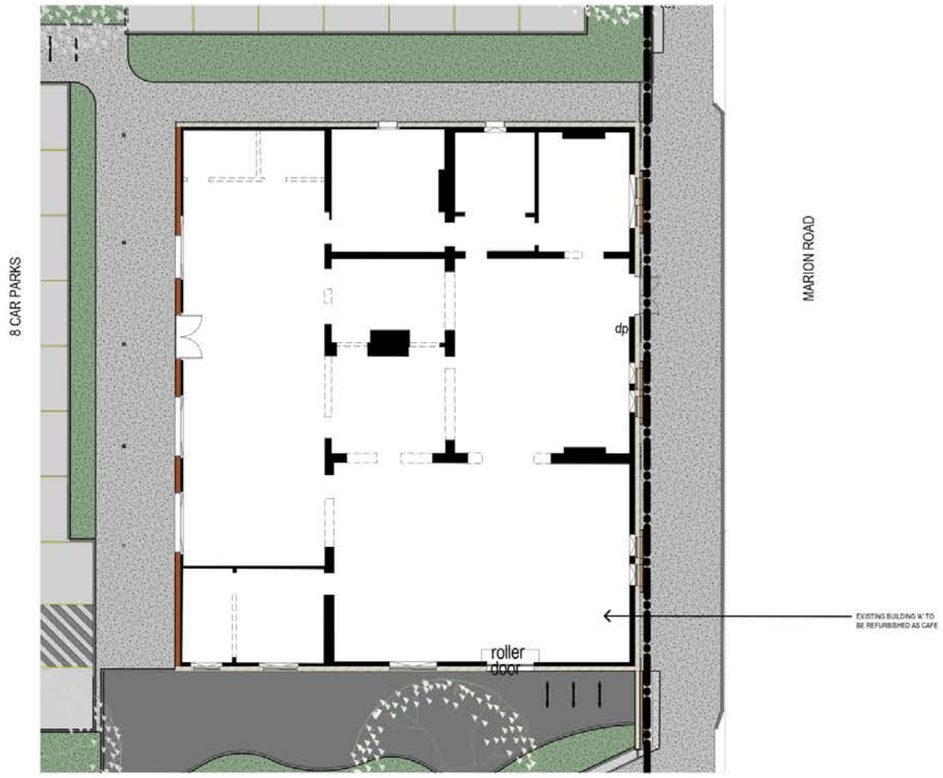

ALL WALLS AND DOORS SHOWN DASHED TO BE DEMOLISHED

FLOOR PLAN - HERITAGE BUILDING A - EXISTING

1 : 100

INTERNAL LAYOUT SHOWN INDICATIVELY ONLY.
TENANT TO PROVIDE UPDATED FITOUT DESIGN.

FLOOR PLAN - HERITAGE BUILDING A - PROPOSED

1 : 100

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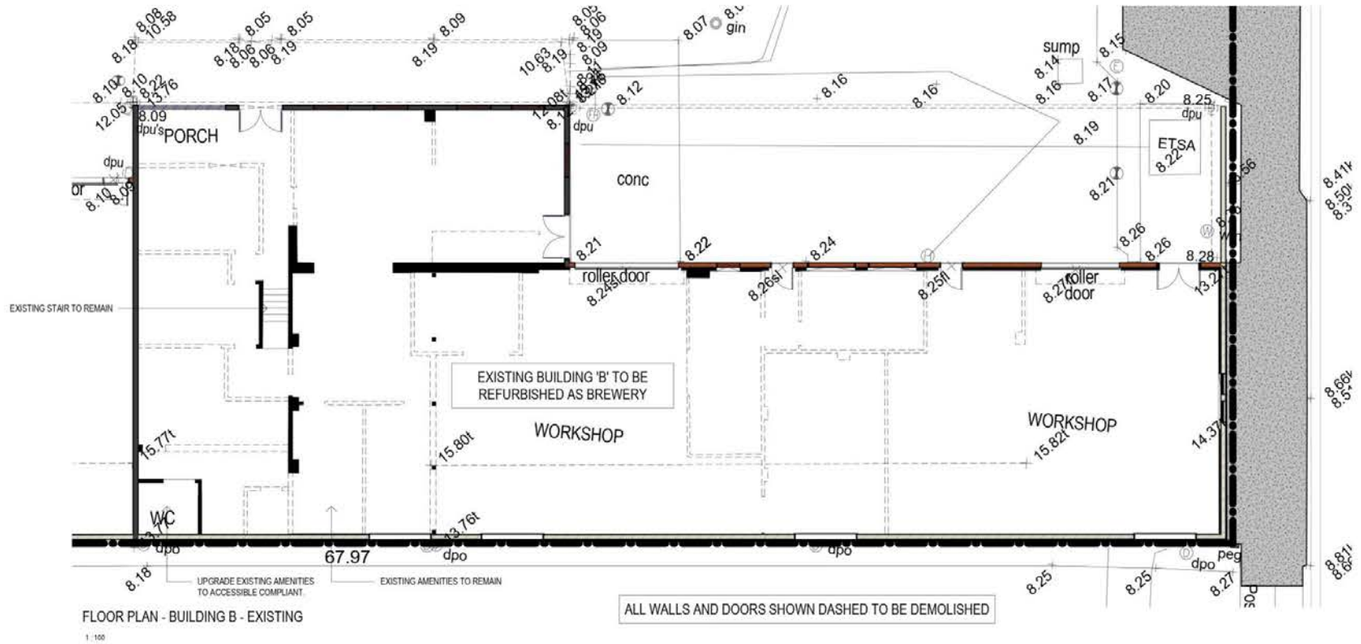
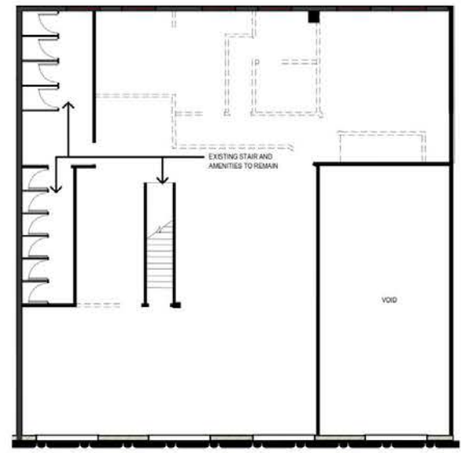
FLOOR PLANS - BUILDING A (HERITAGE)

Scale 1 : 100
Date 14.07.20
Job No. 2020071
Dwg No. **3366 DA06** Rev: **9** A1 SHEET



FLOOR PLAN - BUILDING B - EXISTING

1 : 100



FLOOR PLAN - BUILDING B - EXISTING LEVEL 1

1 : 100

DA ISSUE

ISSUED FOR DEVELOPMENT APPROVAL

15/02/2021 3:51:57 PM

Rev.	Amendment	Date
1	DESIGN UPDATES	07.08.20
2	DA ISSUE	10.08.20
3	CONSULTANT COORDINATION	30.10.20
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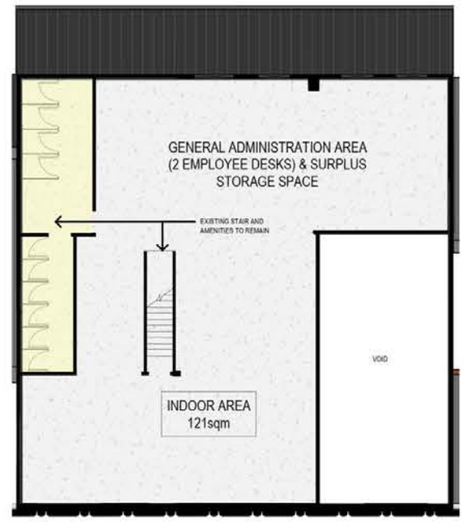
FLOOR PLAN - BUILDING B - PROPOSED

1 : 100

LICENSED AREA



FLOOR PLAN - BUILDING B - PROPOSED LEVEL 1

1 : 100

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BROOKLYN DEPOT

FLOOR PLANS - BUILDING B

Scale 1 : 100
Date 07/08/2020
Job No. 2020071
Dwg No. 3366 DA07 Rev: 8 A1 SHEET

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DA ISSUE

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Rev.	Amendment	Date
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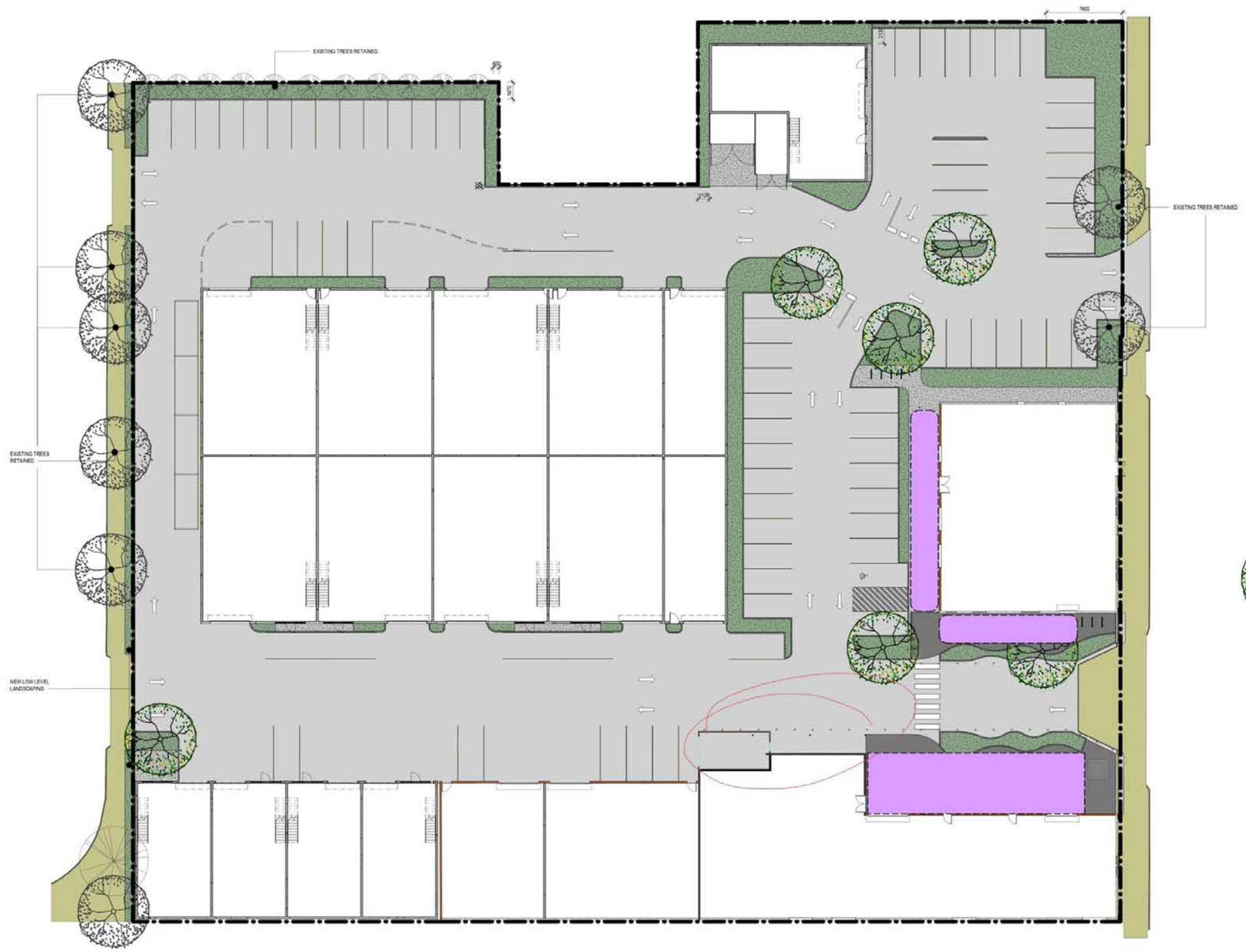

FLOOR PLAN - LANDSCAPING

1 : 200

LANDSCAPING LEGEND

- OUTDOOR SEATING
- EXISTING FOOTPATH
- LANDSCAPING 582m²
- TREE

THIS PLAN REFLECTS THE GENERAL EXTENT OF LANDSCAPE AREAS ONLY. REFER TO LANDSCAPE ARCHITECTS PLANS FOR DETAILS

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ACCORD PROPERTY

BROOKLYN DEPOT

FLOOR PLANS - LANDSCAPING

Scale 1 : 200
Date 14.07.20
Job No. 2020071
Dwg No. **3366 DA08** Rev: **8** A1 SHEET

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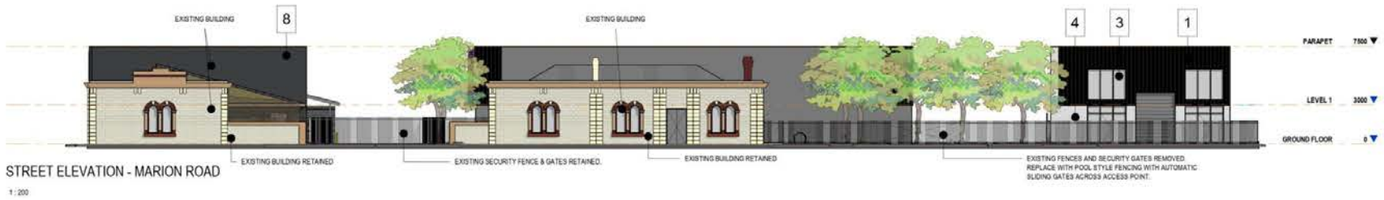
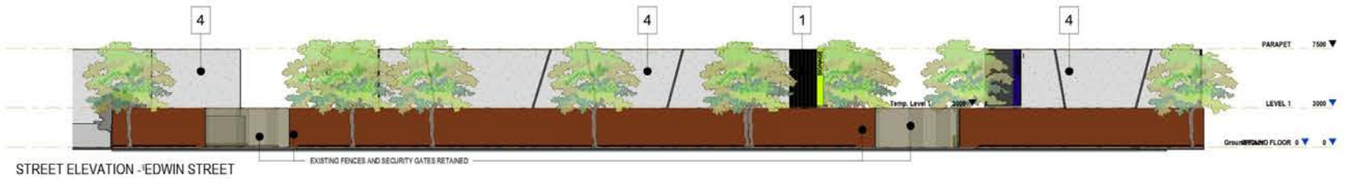


STREET ELEVATION - MARION ROAD

1 : 200

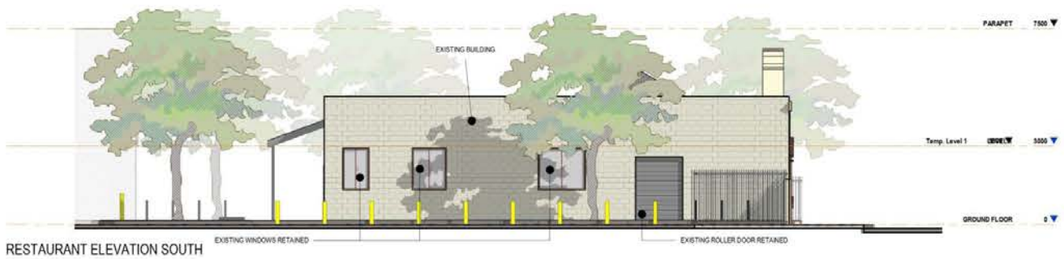


STREET ELEVATION - EDWIN STREET

1 : 200

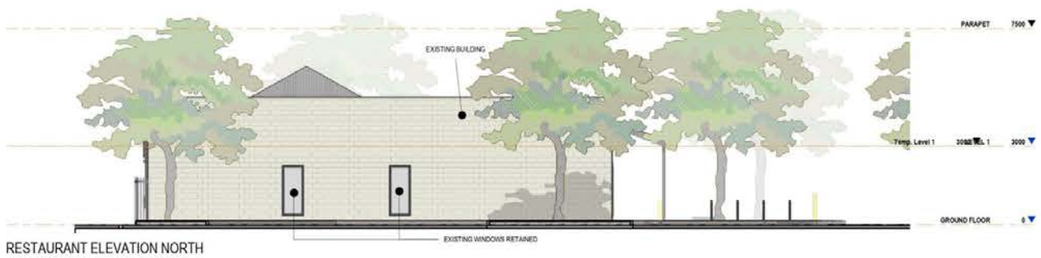
RESTAURANT ELEVATION WEST

1 : 100



RESTAURANT ELEVATION SOUTH

1 : 100



RESTAURANT ELEVATION NORTH

1 : 100

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DA ISSUE

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MATERIAL LEGEND

1 METAL CLADDING (STANDING SEAM). COLOUR: BLACK

2 PREFINISHED METAL AWNING. COLOUR: BLACK

3 GLAZING: ALUMINIUM FRAME, POWDERCOATED BLACK

4 PRE-CAST CONCRETE. NATURAL GREY FINISH

5 BRICK: FACE. COLOUR: RED / WHITE MORTAR

6 GREEN WALL

7 ARTWORK (INDICATIVE). REFER IMAGES.

8 EXISTING CLADDING REPAINTED COLOUR: DOMINO

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ACCORD PROPERTY

BROOKLYN DEPOT

ELEVATIONS

Scale As indicated
Date 14.07.20
Job No. 2020071
Dwg No. **3366 DA09** Rev: **9** A1 SHEET

BREWERY, REFURBISHED TENANCIES, NEW TENANCY (WAREHOUSE 12-17) ELEVATION SOUTH

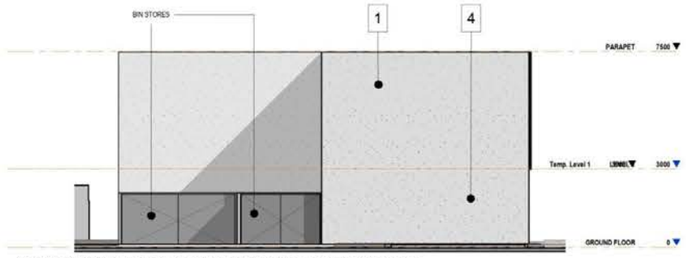
1 : 200

BREWERY & REFURBISHED TENANCIES ELEVATION NORTH

1 : 100

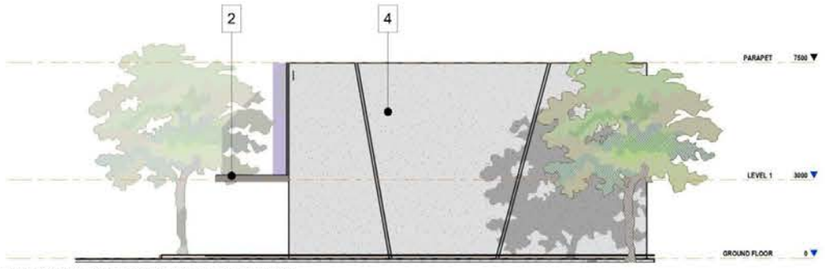
NEW TENANCY (WAREHOUSE 12-17) AND REFURBISHED TENANCY ELEVATION NORTH

1 : 100



NEW TENANCY (WAREHOUSE 1) AND BIN STORE ELEVATION SOUTH

1 : 100



NEW TENANCY (WAREHOUSE 12) ELEVATION WEST

1 : 100

NEW TENANCY (WAREHOUSE 1) ELEVATION EAST

1 : 100

MATERIAL LEGEND

DA ISSUE

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15/02/2021 3:52:23 PM

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BROOKLYN DEPOT

ELEVATIONS

Scale As indicated
Date 14.07.20
Job No. 2020071
Dwg No. 3366 DA10 Rev: 9 A1 SHEET

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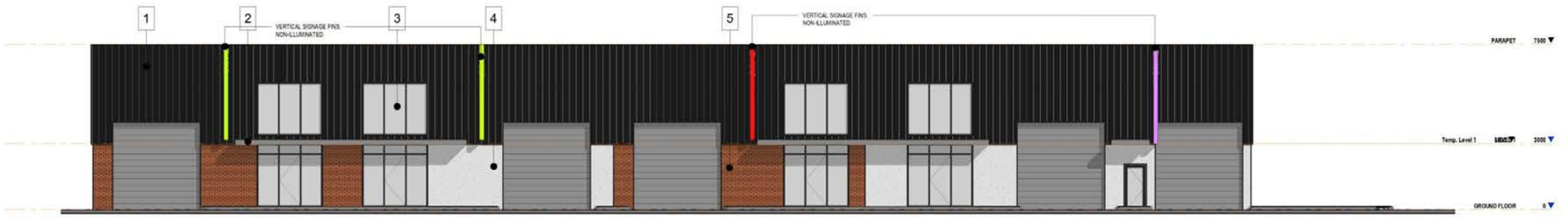
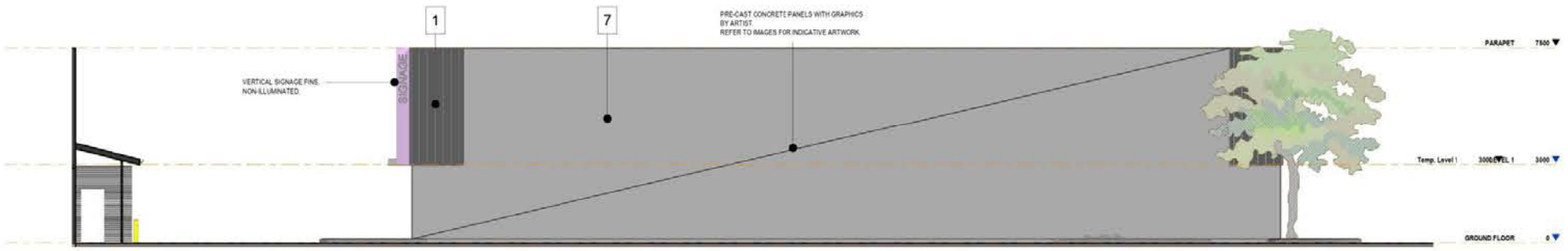


NEW TENANCY (SERVICE INDUSTRY) ELEVATION SOUTH

1 : 100

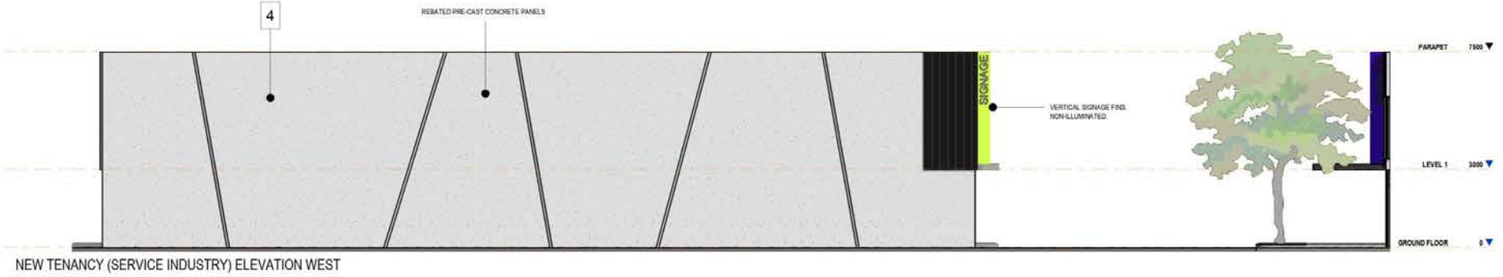


NEW TENANCY (SERVICE INDUSTRY) ELEVATION EAST

1 : 100

NEW TENANCY (SERVICE INDUSTRY) ELEVATION NORTH

1 : 100



NEW TENANCY (SERVICE INDUSTRY) ELEVATION WEST

1 : 100

MATERIAL LEGEND

1. METAL CLADDING. STANDING SEAM. COLOUR: BLACK
2. PREFINISHED METAL AWNING. COLOUR: BLACK
3. GLAZING. ALUMINIUM FRAME. POWDERCOATED BLACK
4. PRE-CAST CONCRETE. NATURAL GREY FINISH
5. BRICK. FACE. COLOUR: RED / WHITE MORTAR
6. GREEN WALL
7. ARTWORK (INDICATIVE). REFER IMAGES.
8. EXISTING CLADDING REPAINTED COLOUR: DOMINO

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ACCORD PROPERTY

BROOKLYN DEPOT

ELEVATIONS

Scale As indicated
Date 14.07.20
Job No. 2020071
Dwg No. **3366 DA11** Rev: **8** A1 SHEET

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BREWERY VIEW

MARION ROAD ENTRANCE 1

EDWIN STREET ENTRANCE

MARION ROAD ENTRANCE 2

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3D IMAGES

Scale
Date 14.07.20
Job No. 2020071
Dwg No. **3366 DA12** Rev: **7** A1 SHEET

Total landscape area 533m^2
Total new trees planted 39no.

Corten steel raised planter.

Trellis with climber.

Suggested Plant Species

Indicative only. Final selection of species, density of planting, size and quantity to be determined at detailed design.

Code	Botanical Name	Spacing (mm)	Size	Quantity
Trees				
	Quercus palustris 'Pringreen' Green Pillar *Deciduous, up to 14m high x 3m wide*	As shown	150L bag	
	Pyrus ussuriensis *Deciduous, up to 7m high x 5m wide*	As shown	150L bag	
	Eucalyptus leucoxylon 'Euky Dwarf' *Native, 7m high*	As shown	150L bag	

Shrubs				
Af	Anigozanthos flavidus	400mm	140 pot	
Mu	Murraya paniculata	500mm	140 pot	
Na	Nandina domestica	500mm	140 pot	
Wf	Westringia fruticosa	700mm	140 pot	
Ground covers				
Hp	Helichrysum petiolare	300mm	140 pot	
Cc	Convolvulus cneorum	400mm	140 pot	

Grasses and sedges				
Dc	Dianella caerulea 'Cassa Blue'	300mm	140 pot	
Li	Liriope muscari	300mm	140 pot	
Pe	Pennisetum advena 'Rubrum'	400mm	140 pot	

N

0 2 5 10m

PROJECT
BROOKLYN PARK DEPOT REDEVELOPMENT

DRAWING
Landscape Concept

CLIENT
ACCORD PROPERTY

DWG NO	HD_X 010_CD01	SHEET NO	Sheet 1
DRAWN	BW	CHECKED	SRH
SCALE	1:200 @ A1	DATE	FEB 2021
		REVISION	C

STATUS **DRAFT FOR DEVELOPMENT APPROVAL**

Hemisphere Design (Aust) Pty Ltd
PO BOX 859 MITCHAM CENTRE, TORRENS PARK SA 5062
P 08 8277 7540 F 08 8277 7641 E admin@hemispheredesign.com.au
ACN 114 503 936

ekistics

17 March 2021 REF No.: 00899-003

City of West Torrens
165 Sir Donald Bradman Drive
HILLTON SA 5033

Attention: Brendan Fewster – Contract Development

By Email: bfewster@wtcc.sa.gov.au

Dear Brendan,

RE: DA 211/702/2020 – REDEVELOPMENT OF FORMER WEST TORRENS PUBLIC SERVICE DEPOT COMPRISING WAREHOUSES, SERVICE INDUSTRIES, RESTAURANT AND MICROBREWERY

We refer to Development Application 211/702/2020 lodged with Council to redevelop the former West Torrens Council Depot site. The proposal is for a mixed-use development comprising warehouses, service industries, a restaurant and microbrewery.

The application was advertised as a Category 3 development and seven (7) representations were received. Pursuant to Section 38(8) of the *Development Act 1993,* this letter provides our formal response to the representations received, and also responds to feedback provided by the Council in its letter dated 25 January 2021.

Our response has been informed by the following plans and documentation:

- **Appendix 1:** Summary of representations;
- **Appendix 2:** Revised plans prepared by Brown Falconer Architects;
- **Appendix 3:** Revised landscape plan prepared by Hemisphere;
- **Appendix 4:** Revised civil plans prepared by Sagero;
- **Appendix 5:** Supporting documentation prepared by Sonus;
- **Appendix 6:** Updated CIRQA Traffic and Parking Report;
- **Appendix 7:** Odour assessment performed by Enviroscan; and
- **Appendix 8:** Microbrewery Waste Management Strategy.

def:E-KIS-TICS[noun]:The Science of Human Settlements...
PO Box 32, Goodwood SA 5034 Lvl 1/16 Vardon Ave, Adelaide SA 5000 p 08 7231 0286 e contact@ekistics.com.au w ekistics.com.au ABN 34 918 250 862

ekistics

1. Summary of Amendments

In response to feedback provided by Council and representors, the following amendments have been made to the application:

- Additional tree plantings and landscaping for improved amenity.
- To accommodate the additional plantings, various parking spaces have been reduced to a length of 4.8 metres, and now include wheel stops to manage vehicle overhang, in accordance with the relevant Australian Standards. The parking spaces have been designed in accordance with advice provided by CIRQA on the revisions to the carpark design.
- Pool-style fencing reaching a height of 1.8 metres has been included on the plans, and encloses the northern end of the site's frontage to Marion Road;
- As requested by Council, two sign posted parking spaces (situated to the north of the disabled parking space) have been allocated as dedicated loading zones between 7:00am and 10:00am to assist with the servicing of the brewery and restaurant.
- Annotations now included on architectural plans confirming that redundant crossovers will be replaced with kerb and gutter to Council's satisfaction.
- Notations included on the site plan confirming pedestrian and vehicle access to/from Edwin Street will be restricted to the hours of 7am and 6pm.
- The inclusion of rainwater tanks with a combined retention/detention capacity of 4,000 litres to be attached to the roof areas of Warehouse 1 and the Restaurant.
- Height of fence along the eastern boundary of 2A Press Street has been increased to 2.4 metres in height.
- Changes to the stormwater management system, and in particular a change to the stormwater treatment devices to be used.

The above-mentioned amendments are discussed in further detail below. The relevant item number (as referenced within Council's written correspondence) has also been noted for ease of reference.

2. Response to Council Feedback

2.1 Erosion control and creek embankment protection along the southern end of the site (Item 1)

A concept design for the management of erosion along the southern end of the site (adjacent the drainage change) is illustrated on the Sagero Grading Plan (Dwg. No. CO4K) contained within ***Appendix 4.*** Whilst the design is still conceptual, the proposed retaining wall design reflects the suggested design illustrated in Council's letter dated 25 January 2021.

Sagero also notes that as the drainage channel has been constructed entirely in concrete, the risk of unmanageable erosion and instability is low. Accordingly, it is entirely appropriate and reasonable for the

relevant authority to condition the provision of additional details on erosion control and retaining wall design during the detailed design phase, and prior to the issuing of Building Rules Consent.

2.2 Edwin Street Access (Item 2)

Council has requested the permanent closure of the vehicle and pedestrian access to Edwin Street on the basis that the proposal *"is considered to exacerbate the traffic-related impact on the adjacent residential street and the surrounding Residential Zone".* Council further states that when the site operated as a Council depot, access via Edwin Street was limited to day-time hours.

The applicant has confirmed that access via Edwin Street is fundamental to the viability of the project. Notwithstanding, and in light of Council's concerns, the application has now been amended to restrict vehicle and pedestrian access to between the hours of 7am and 6pm daily. Access arrangements will be managed via the installation of a time automated gate, restricted to the hours referenced above.

In relation to the volume and distribution of traffic to be generated by the development, we also note the following comments provided by CIRQA in their Traffic and Parking Report submitted with the application:

- That the peak hours for each proposed land use will not directly coincide;
- Traffic generated by all proposed uses would be in the order of an additional 15 am and 25 pm peak hour trips;
- That the majority of movements would primarily be distributed between the site's two access points on Marion Road (with minimal use of the Edwin Street access points);
- That the additional volumes to be generated by the development will be negligible and that the movements will be easily accommodated at the adjacent access points and on the surrounding road network.

Noting the site's long standing use as a Council depot which included access via Edwin Street, restrictions to the times of access via Edwin Street (which we understand generally coincides the operating hours of former Council depot), and commentary provided by CIRQA which suggests that the majority of vehicles will access/leave the site via Marion Road, we are of the opinion that the preservation of the Edwin Street access during daytime hours is appropriate ad will not unreasonably impact on the amenity of the locality.

2.3 Size of service vehicle for Warehouse Tenancy 1 (Item 3)

Tenancy 1 and the adjacent carpark area has been designed to accommodate access arrangements for a Small Rigid Vehicle. The revised site plan contained within ***Appendix 2*** now shows the location of the roller door for Tenancy 1, whilst swept turning paths prepared by CIRQA demonstrating vehicle movements are provided in ***Appendix 6.***

2.4 Servicing arrangements for Microbrewery and Restaurant (Items 4 and 5)

In accordance with Council's recommendation, two parking spaces to the north of the disable parking spaces have been allocated as Loading Zones between the hours of 7:00am and 10:00am. This change has been reflected on the revised site plans (***Appendix 2***).

ekistics

To accommodate service vehicle movements for the Microbrewery, Council has suggested the creation of a parallel parking bay which could be located between the pedestrian crossing and the bin store. This parallel bay would act as a loading zone for Microbrewery service vehicles during off peak periods (i.e. between 7:00am and 10:00am). Council's suggestion has been considered by CIRQA, who has confirmed that there is insufficient room to accommodate the loading zone in the location suggested by Council, due to the location of an existing verandah which extends from the façade the existing building and is located between the pedestrian crossing and the bin store.

The revised Traffic and Parking report prepared by CIRQA confirms that service vehicles for the Microbrewery will store within the aisle adjacent the bin store. CIRQA confirms that adequate distance would be maintained for other vehicles to pass service vehicles stored adjacent the brewery. It is also suggested that due to the relatively low volumes of traffic anticipated for the site and the frequency of such loading arrangements, that the proposed loading arrangements can be accommodated without adversely impacting on the operation of the site or site access. We also note that this arrangement is not dissimilar to the servicing arrangements for each of the proposed commercial tenancies.

2.5 Redundant Driveway Access Points (Item 6)

Notations have been included on all architectural and civil plans to confirm that all redundant crossovers and driveway access points will be reinstated with kerb and gutter to Council's satisfaction. Specifically, we refer you to the following plans:

- The demolition plan and site plan contained within ***Appendix 2*** (Dwg. No. DA04 & DA05); and
- The grading plan contained within ***Appendix 4*** (Dwg. No. SC03).

2.6 Operating hours (Item 7)

As noted within the Statement of Effect, we confirm that application is seeking consent for the follow hours of operation:

- **Commercial tenancies**: 7:00am to 5:00pm Monday to Saturday and 9:00am to 5:00pm Sundays.
- **Microbrewery**: 10:00am to 6:00pm, seven (7) days per week.
- **Restaurant**: 5:00pm to 12:00am seven (7) days per week.

Mr Kumar (representor from 2 Press Road, Brooklyn Park) has sought clarification on the extent of any other restaurant activities which may occur beyond 12:00am. The hours identified above reflect the trading hours for both the Microbrewery and Restaurant, and these trading hours will also be reflected in the liquor license issued for each land use. Activities to occur following the close of business will be limited to general 'business preparation' and 'business closure' activities.

Referring to the above, there is a 1 hour overlap in operating hours between the microbrewery and restaurant. Accordingly, Council has requested that the hours for the Microbrewery be reduced to a closing time of 5:00pm to address this overlap and to ensure adequate onsite parking is provided for all proposed land uses.

The revised Traffic and Parking Assessment contained within ***Appendix 6*** addresses the overlap in operating hours between the restaurant/bar and microbrewery. We note that the hours of operation referenced within the CIRQA report have also been updated to reflect the actual proposed operating hours referenced within our Statement of Effect.

CIRQA have identified the follow parking rates for the microbrewery and restaurant:

- Microbrewery
  - Public access – **26.67 spaces** (applying the Development Plan Restaurant rate of 1 space per 3 seats [80 seats in total);
  - Non-public access – **5.92 spaces** (applying industry rates prescribed within the Development Plan).
- **Restaurant: 50 spaces** (applying the Development Plan Restaurant rate of 1 space per 3 seats [150 seats in total);

Applying the above rates, both land uses will generate a maximum parking demand for 83 spaces (rounded up) between 5:00pm and 6:00pm. The development will provide a total of 81 onsite parking spaces and accordingly, there will be a theoretical shortfall of 2 spaces for a 1 hour period.

Notwithstanding, CIRQA notes the following:

> *"The theoretical 'night-time' peak would be unlikely to be realised, given peak patronage associated with the microbrewery would most likely occur prior to 5pm and he park patronage associated with the restaurant would be likely to occur after 6:30pm. The overlap of peak demands for these two uses is extremely unlikely (i.e. the brewery will be in 'closing/shut down' mode, whereas the restaurant will be in the 'start-up' mode.*

Accordingly, CIRQA concludes that the anticipated parking demands would be adequately accommodate onsite. On this basis, the applicant has advised that they do not propose to amend the operating hours of the Microbrewery.

2.7 Mobility-impaired access arrangements for the Restaurant (Item 8)

We confirm that disabled access for the Restaurant will be available to the rear of the building, so as to avoid further modifications to the Local Heritage Place entrance.

2.8 Landscaping (Item 9)

It is suggested by Council that the level of landscaping proposed is inadequate for providing shade to parked vehicles, softening blank walls and minimising heat loads. Council also references PDC 4 of the General Section (Landscaping Fences and Walls) provisions of the Development Plan which suggests that at least 10 percent of the site area should be allocated to landscaping.

The proposal in question is commercial in nature and the majority of landscaping (as now proposed) has been located towards the front of the site, in areas which will be visible from outdoor seating areas and the public

realm more generally. Areas to west of the site accommodating the commercial tenancies are largely functional in nature. That is, external areas are primarily used to support service and waste vehicle movements, and occupants of this space will primarily be employees of individual commercial tenancies (rather than the general public). Views into the site from Edwin Street are also screened by the existing boundary fence. Accordingly, we maintain the view that the extent of landscaping proposed is appropriate, taking into account the nature of the development proposed and the restricted external views available of the western end of the site from adjacent properties.

Notwithstanding, further improvements to the landscape design are proposed, and are reflected in the revised landscape plan attached as ***Appendix 3***. The proposed number of trees to be planted has significantly increased to 39 (from 27), and these additional plantings have been accommodated by modifying pathway widths and the length of carparks (now 4.8 metres with wheel stops). The west facing wall of Tenancy 2 and 7 will now accommodate a vertical green wall to improve the appearance of this elevation and reduce heat loads.

We also note that the outdoor dining area associated within the brewery and restaurant will also be landscaped. However, this landscaping has intentionally been excluded from this application as this landscaping will be completed by the operators of the Microbrewery and Restaurant.

In our opinion the proposed landscape design is appropriate and reasonable taking into account the nature of the development proposed, and will significantly improve the amenity of locality. Any notable increases in landscaping cannot be achieved without significant alterations to the design of the development which (in our view) is not warranted.

2.9 Air Emissions Study (Item 10)

Please find attached a copy of the Odour Emissions Assessment performed by Enviroscan (***Appendix 7***). The findings of this assessment are discussed further in Section 3.

2.10 Boundary Fencing (Item 11)

The site plan and elevation drawings have been revised to include 1.8-metre-high pool style fencing, which is to be installed along the site's frontage to Marion Road. The fence will commence from the corner of the Local Heritage Place, and will connect with the new Colorbond® fencing to be installed along the northern boundary. Sliding gates will be installed along the driveway entrance, and a gated pedestrian entrance will also provide access to a pedestrian path which runs parallel with the northern elevation of the restaurant.

The permeable nature of the fence will reduce the visual impact of the boundary fencing, and will also accommodate opportunities for passive surveillance.

2.11 Water Sensitive Urban Design (Item 12)

Council has requested the implementation of initiatives for the collection and re-use of stormwater. In accordance with Council's request, the development has been amended to include 2 x 2000 litre detention/retention tanks, which will be attached to the roof area of Warehouse Tenancy 1 and the Restaurant.

Collected water will be plumbed back into wet areas for reuse. Overflow will be directed to landscaped garden beds for irrigation purposes.

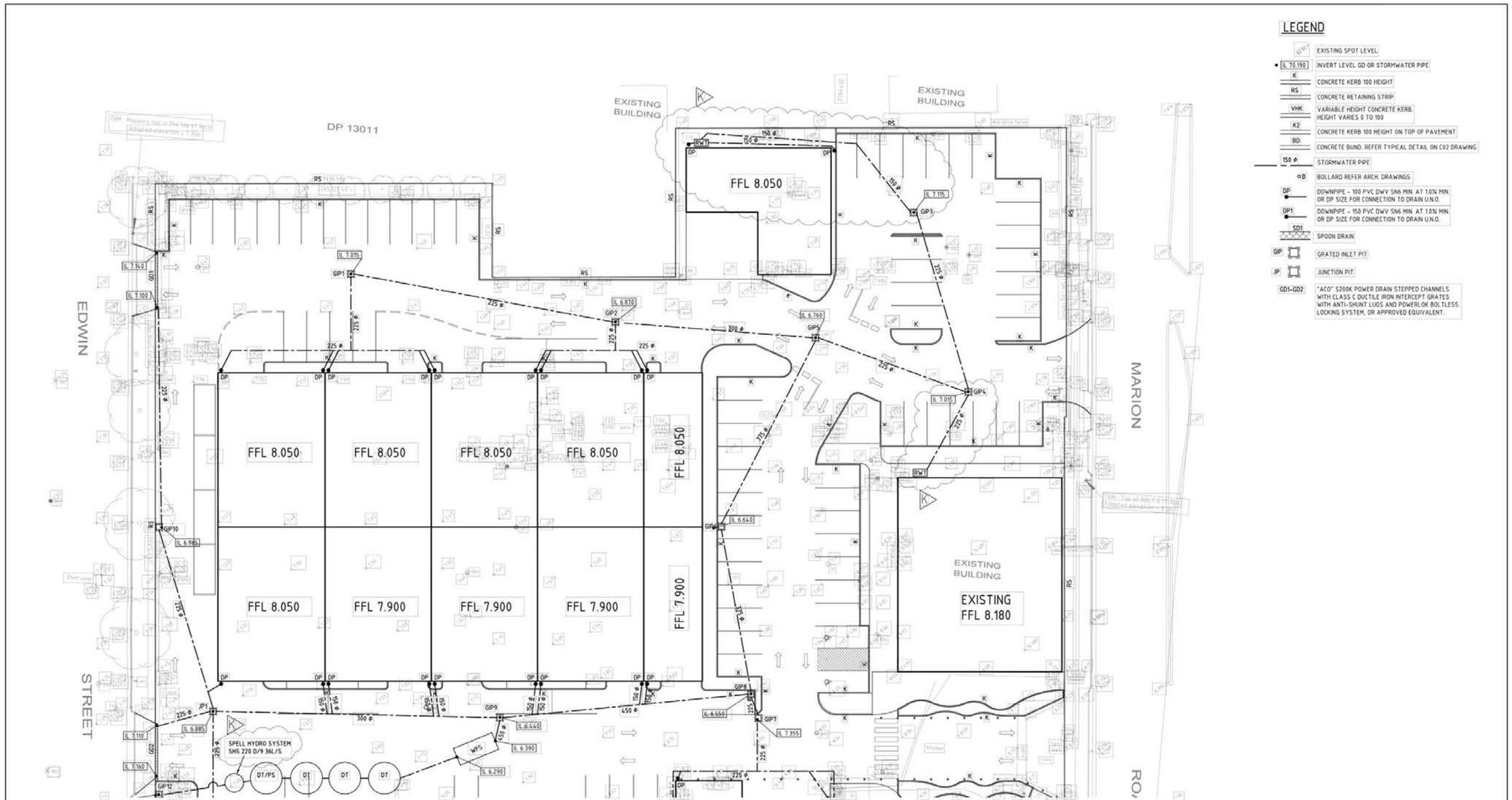
2.12 Stormwater Management (Item 12)

Council has requested further clarification regarding the suitability of Ecosol RSF 4450 and Spel Hydrosystem 1500 selected to treat surface and roof water collected from the stie. In particular, Council has requested additional information on the following:

- *Confirmation from the manufacturers that this model (including but not limited to the inlet/outlet pipe size, flow speed etc.) is suitable for a site of this size;*
- *Brochure clarification from SPEL should be provided to demonstrate that the stormwater quality target can be achieved; and*
- *The SPEL Hydrosytem unit is located behind the pump station. It is unclear if the maximum site discharge can be controlled within the allowable value for this arrangement. Generally, a stormwater proprietary product should be located prior to a pump station not after a pump station.*

Updated stormwater management plans, together with A SPEL Hydrosystem Field Testing Review, SPEL Hydrosystem sizing chart and Ecosol Technical Specifications are attached as ***Appendix 4***. In response to Council's enquiries, Sagero have advised of the following:

- The Technical Specifications confirm that the Ecosol RSF 4450 will accommodate the prescribed 1 in 20 flow rate.
- The proposed Spel Hydrosystem 220D/9 is now proposed, and the attached field-testing review confirms that this proposed system is capable of achieving the prescribed stormwater quality targets.
- The proposed Ecosol system has been designed to remove larger forms of sediment and objects, with only nitrates and phosphates removed by the Hydrosystem. Accordingly, Sagero has advised that the location of the Ecosol system and Spell Hydrosystem is appropriate.



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A	ISSUED FOR INFORMATION	06.08.20	CPS	RGS
Issue.	Description	Date	Drawn	Chkd

DO NOT SCALE

FOR INFORMATION

North

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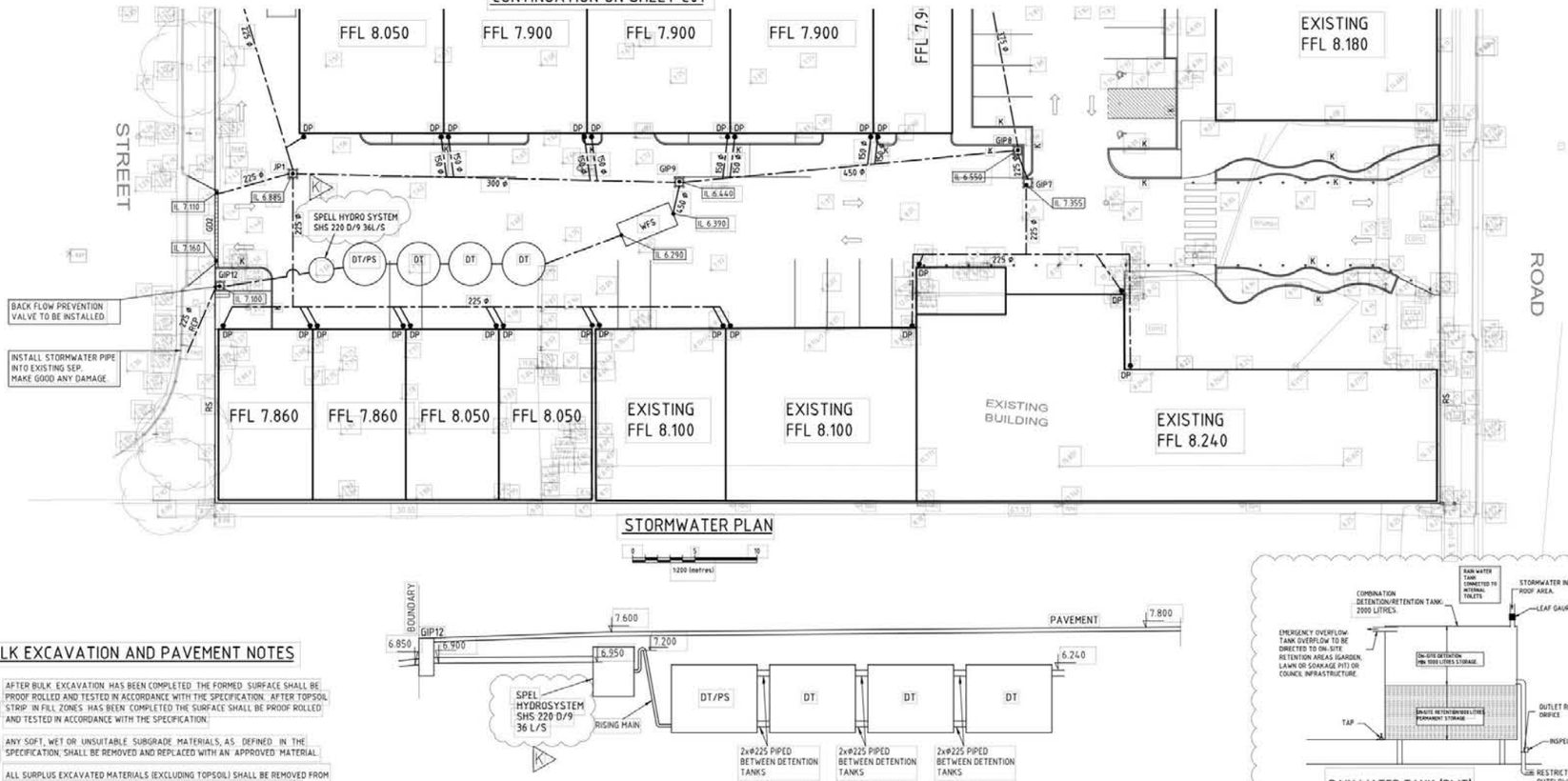
110 MARION ROAD
BROOKLYN PARK SA

Drawing Title: STORMWATER PLAN
NOTES, LEGEND AND
SCHEDULE

Drawn		Scale A1	G.A. Check	Date
CPS	AUGUST 2019	1:200 AND AS NOTED		
Designed	Project No.	Dwg. No.	Issue
RGS	SA200018	C01	K



LEGEND

- EXISTING SPOT LEVEL
- IL 70.190 — INVERT LEVEL GD OR STORMWATER PIPE
- K — CONCRETE KERB 100 HEIGHT
- RS — CONCRETE RETAINING STRIP
- VHK — VARIABLE HEIGHT CONCRETE KERB. HEIGHT VARIES 0 TO 100
- K2 — CONCRETE KERB 100 HEIGHT ON TOP OF PAVEMENT
- BD — CONCRETE BUND. REFER TYPICAL DETAIL ON C02 DRAWING
- 150 ϕ — STORMWATER PIPE
- ϕB — BOLLARD REFER ARCH. DRAWINGS
- DP — DOWNPIPE - 100 PVC DWV SN6 MIN. AT 1.0% MIN. OR DP SIZE FOR CONNECTION TO DRAIN U.N.O.
- DP1 — DOWNPIPE - 150 PVC DWV SN6 MIN. AT 1.0% MIN. OR DP SIZE FOR CONNECTION TO DRAIN U.N.O.
- SD1 — SPOON DRAIN
- GIP — GRATED INLET PIT
- JP — JUNCTION PIT
- GD1-GD2 — "ACO" S200K POWER DRAIN STEPPED CHANNELS WITH CLASS C DUCTILE IRON INTERCEPT GRATES WITH ANTI-SHUNT LUGS AND POWERLOK BOLTLESS LOCKING SYSTEM, OR APPROVED EQUIVALENT.

NOTES

STORMWATER DRAINAGE

1. ALL PIPEWORK TO BE CLASS DWV WITH SOLVENT WELDED JOINTS U.N.O.
2. GIP = REINFORCED CONCRETE PIT WITH CAST IRON GRATE AND FRAME. REFER TO PIT SCHEDULE.
   JP = REINFORCED CONCRETE PIT WITH CAST IRON GRATE AND COVER. REFER TO PIT SCHEDULE.

FOR PAVEMENT NOTES REFER DRG. C04

WFS = WASTE WATER FILTRATION SYSTEM
ECOSOL RSF 4450
CLASS ONE FULL RETENTION OIL SEPARATOR WITH ALARM.

PROVIDE CLASS "C" FRAME AND LID INSPECTION COVERS OVER INSPECTION OPENINGS.
INLET IL 6.390
OUTLET IL 6.290

DT/PS = STORMWATER DETENTION TANK/PUMPING STATION
23 M³ DETENTION TANK.
PUMPING DESIGN BASED ON 2 No. PUMPS WITH DISCHARGE = 35.37 L/S EACH.
ONE PUMP TO BE USED AS A BACK UP.

DT = STORMWATER DETENTION TANK
3x23 M³ DETENTION TANK

BULK EXCAVATION AND PAVEMENT NOTES

B1. AFTER BULK EXCAVATION HAS BEEN COMPLETED THE FORMED SURFACE SHALL BE PROOF ROLLED AND TESTED IN ACCORDANCE WITH THE SPECIFICATION. AFTER TOPSOIL STRIP IN FILL ZONES HAS BEEN COMPLETED THE SURFACE SHALL BE PROOF ROLLED AND TESTED IN ACCORDANCE WITH THE SPECIFICATION.

B2. ANY SOFT, WET OR UNSUITABLE SUBGRADE MATERIALS, AS DEFINED IN THE SPECIFICATION, SHALL BE REMOVED AND REPLACED WITH AN APPROVED MATERIAL.

B3. ALL SURPLUS EXCAVATED MATERIALS (EXCLUDING TOPSOIL) SHALL BE REMOVED FROM THE SITE AT THE BUILDER's EXPENSE TO A PLACE OF LEGAL DISPOSAL UNLESS DIRECTED OTHERWISE BY THE PROJECT MANAGER.

B4. EXCAVATED MATERIAL WHICH CONFORMS WITH THE SPECIFICATION REQUIREMENTS FOR CLAY FILL MAY BE USED AS FILL REFER SPECIFICATION.

B5. APPROVED FILL MATERIALS SHALL BE PLACED IN UNIFORM LAYERS, COMPACTED, TESTED AND PROOF ROLLED IN ACCORDANCE WITH THE SPECIFICATION. THE FINISHED EARTHWORKS LEVEL SHALL BE PROOF ROLLED AND TESTED AS SPECIFIED PRIOR TO PAVEMENT CONSTRUCTION.

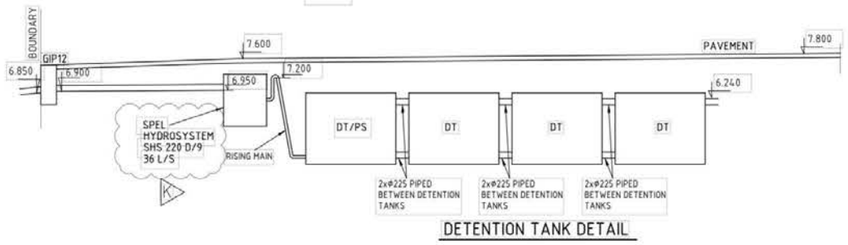
B6. DURING CONSTRUCTION THE BUILDER SHALL BE RESPONSIBLE FOR CONSTRUCTING AND MAINTAINING A TEMPORARY SITE DRAINAGE SYSTEM AND TO MAINTAIN THE SITE IN A DRY AND STABLE CONDITION. DETAILS OF THE DRAINAGE SYSTEM SHALL BE TO THE APPROVAL OF THE PROJECT MANAGER.

B7. UNLESS NOTED OTHERWISE ALL BATTERS SHAPED TO FINAL PROFILE SHALL BE CONSTRUCTED AT A SLOPE OF 1 IN 4 (CUT AND FILL). TEMPORARY CONSTRUCTION BATTERS SHALL BE LIMITED TO 1 IN 2. STEEPER SLOPES SHALL NOT BE CONSTRUCTED UNLESS APPROVED BY THE PROJECT MANAGER. STABILISATION AND EROSION PROTECTION SHALL BE PROVIDED AS DIRECTED BY THE PROJECT MANAGER, AT THE BUILDER'S EXPENSE. THE BUILDER SHALL BE RESPONSIBLE FOR THE STABILITY OF HIS TEMPORARY WORKS.

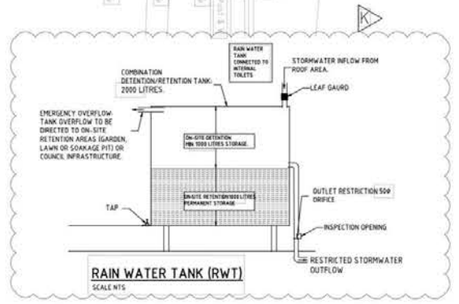
B8. ALL UNDERGROUND SERVICES SHALL BE LAID PRIOR TO FINAL SEALING OF PAVEMENTS.

B9. REFER ARCHITECT'S DRAWING FOR PAVEMENT LINEMARKING AND KERB SETOUT.

NOTE:
BEFORE STARTING ANY PAVEMENT AND BUILDING WORKS, ENSURE THE SUB-GRADE COMPACTION IS AS REQUIRED IN THE STRUCTURAL AND CIVIL SPECIFICATIONS. PROOF ROLLING AND OR COMPACTION TESTS SHALL BE CARRIED OUT.



DETENTION TANK DETAIL

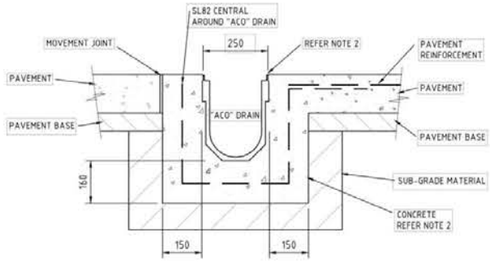


RAIN WATER TANK (RWT)
SCALE NTS

STORMWATER PIT SCHEDULE

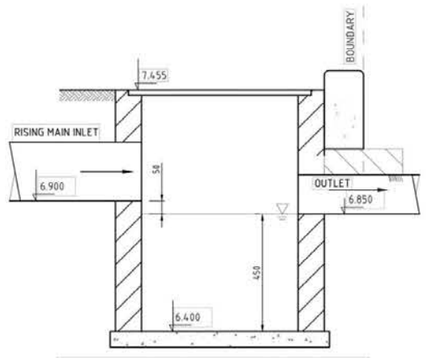
PIT No.	SIZE (INERNAL)	TOP R.L.	INVERT R.L.	COVER TYPE
GIP1	600 x 600	7.500	IL 7.015	CLASS C CAST IRON FRAME AND COVER
GIP2	600 x 600	7.725	IL 6.870	
GIP3	600 x 600	7.600	IL 7.115	
GIP4	600 x 600	7.800	IL 7.015	
GIP5	600 x 600	7.800	IL 6.760	
GIP6	900 x 900	7.600	IL 6.640	
GIP7	600 x 600	7.840	IL 7.355	
GIP8	900 x 900	7.750	IL 6.550	
GIP9	900 x 900	7.700	IL 6.440	
GIP10	600 x 600	7.500	IL 6.985	
GIP11	OMITTED			
GIP12	600 x 600	7.445 X	IL 6.850	
JP1	900 x 900	7.675 X	IL 6.885	

X APPROXIMATE R.L. - MATCH TO ADJACENT LEVELS.
XX ENSURE TOP OF GRATE IS A MIN. 50 ABOVE ADJACENT SURFACE.



"ACO" S200K DRAIN INSTALLATION DETAIL

NOTES:
1. CONCRETE STRENGTH N32. VIBRATE CONCRETE TO ELIMINATE AIR POCKETS.
2. THE FINISHED LEVEL OF THE CONCRETE SURROUND MUST BE APPROXIMATELY 3mm ABOVE THE TOP OF THE CHANNEL EDGE.
3. ALL MATERIALS AND COMPONENTS WITHIN THE SCOPE OF THIS SYSTEM SHALL BE OBTAINED FROM "ACO" AND THE WORK CARRIED OUT AS DETAILED ON THE DRAWING.
4. INSTALL DRAIN IN ACCORDANCE WITH THE MANUFACTURER'S PRINTED INSTRUCTIONS.



STORMWATER GRATED INLET PIT - GIP12

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FOR INFORMATION

Issue	Description	Date	Drawn	Chkd
K	CHANGES SHOWN	23.02.21	CPS	RGS
J	RWT AMENDED	23.02.21	CPS	RGS
H	RWT ADDED	23.02.21	CPS	RGS
G	REVISED AS PER LATEST ARCH	17.02.21	CPS	RGS
F	DETENTION TANKS REVISED	07.12.20	CPS	RGS
E	REVISED AS PER LATEST ARCH	27.11.20	CPS	RGS
D	REVISED AS PER LATEST ARCH	26.11.20	CPS	RGS
C	ECOSOL REVISED	12.11.20	CPS	RGS
B	REVISED AS PER LATEST ARCH	10.11.20	CPS	RGS
A	ISSUED FOR INFORMATION	06.08.20	CPS	RGS

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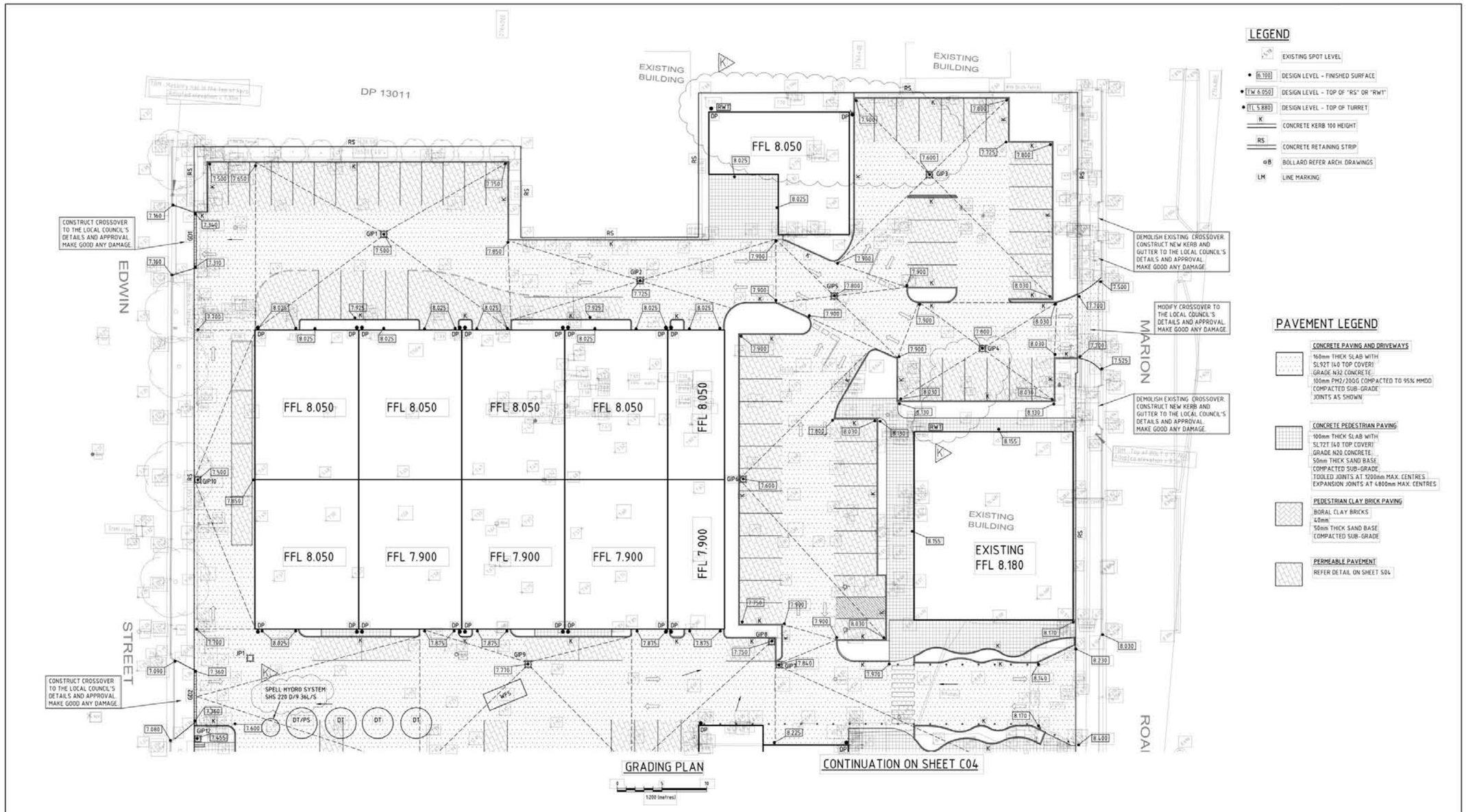
Drawing Title: STORMWATER PLAN NOTES, LEGEND AND SCHEDULE

Drawn		Scale: A1	G.A. Check	Date
CPS	AUGUST 2019	1:200 AND AS NOTED		
Designed	Project No.	Dwg. No.	Issue
RGS	SA200018	C02	K



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Project: PROPOSED DEVELOPMENT
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Drawing Title: GRADING PLAN AND DETAILS

Drawn		Scale	G.A. Check	Date
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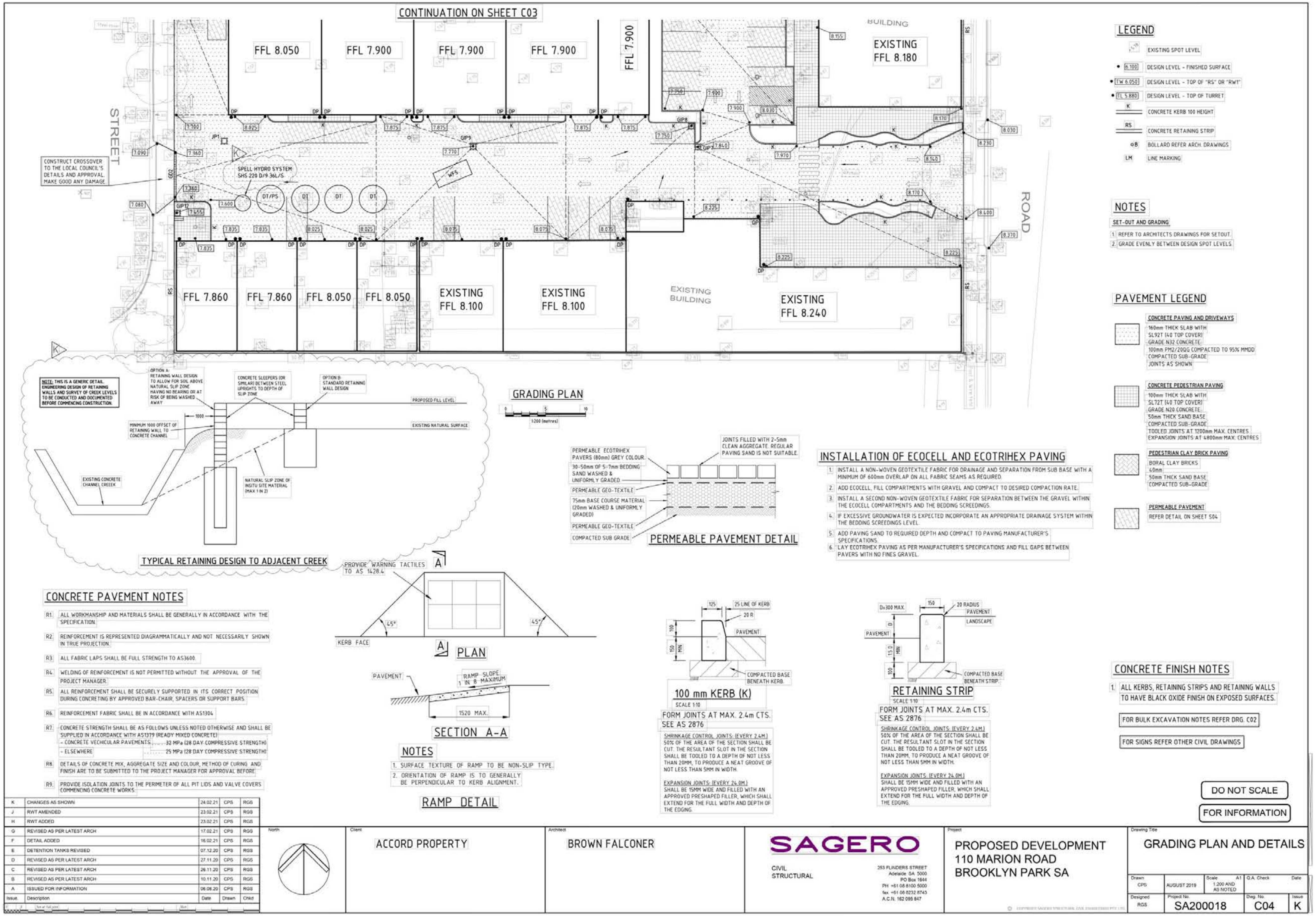
Designed	Project No.	Dwg. No.	Issue
RGS	SA200018	C03	K


CONTINUATION ON SHEET C03
STREET
ROAD
FFL 8.050
FFL 7.900
FFL 7.900
FFL 7.900
FFL 7.900
EXISTING FFL 8.180
BUILDING
CONSTRUCT CROSSOVER TO THE LOCAL COUNCIL'S DETAILS AND APPROVAL. MAKE GOOD ANY DAMAGE
SPELL HYDRO SYSTEM SHS 220 D/9.36L/S
FFL 7.860
FFL 7.860
FFL 8.050
FFL 8.050
EXISTING FFL 8.100
EXISTING FFL 8.100
EXISTING BUILDING
EXISTING FFL 8.240
GRADING PLAN
1:200 (metres)
LEGEND
EXISTING SPOT LEVEL
DESIGN LEVEL - FINISHED SURFACE
DESIGN LEVEL - TOP OF "RS" OR "RWT"
DESIGN LEVEL - TOP OF TURRET
CONCRETE KERB 100 HEIGHT
CONCRETE RETAINING STRIP
BOLLARD REFER ARCH. DRAWINGS
LINE MARKING
NOTES
SET-OUT AND GRADING
1. REFER TO ARCHITECTS DRAWINGS FOR SETOUT.
2. GRADE EVENLY BETWEEN DESIGN SPOT LEVELS.
PAVEMENT LEGEND
CONCRETE PAVING AND DRIVEWAYS
160mm THICK SLAB WITH SL92T (40 TOP COVER) GRADE N32 CONCRETE. 100mm PM2/20QG COMPACTED TO 95% MMDD COMPACTED SUB-GRADE JOINTS AS SHOWN
CONCRETE PEDESTRIAN PAVING
100mm THICK SLAB WITH SL72T (40 TOP COVER) GRADE N20 CONCRETE. 50mm THICK SAND BASE COMPACTED SUB-GRADE TOOLED JOINTS AT 1200mm MAX. CENTRES. EXPANSION JOINTS AT 4800mm MAX. CENTRES
PEDESTRIAN CLAY BRICK PAVING
BORAL CLAY BRICKS 40mm 50mm THICK SAND BASE COMPACTED SUB-GRADE
PERMEABLE PAVEMENT
REFER DETAIL ON SHEET S04
NOTE: THIS IS A GENERIC DETAIL. ENGINEERING DESIGN OF RETAINING WALLS AND SURVEY OF CREEK LEVELS TO BE CONDUCTED AND DOCUMENTED BEFORE COMMENCING CONSTRUCTION.
TYPICAL RETAINING DESIGN TO ADJACENT CREEK
PERMEABLE ECOTRIHEX PAVERS (80mm) GREY COLOUR
30-50mm OF 5-7mm BEDDING SAND WASHED & UNIFORMLY GRADED
PERMEABLE GEO-TEXTILE
75mm BASE COURSE MATERIAL (20mm WASHED & UNIFORMLY GRADED)
PERMEABLE GEO-TEXTILE
COMPACTED SUB GRADE
JOINTS FILLED WITH 2-5mm CLEAN AGGREGATE. REGULAR PAVING SAND IS NOT SUITABLE.
PERMEABLE PAVEMENT DETAIL
INSTALLATION OF ECOCELL AND ECOTRIHEX PAVING
1. INSTALL A NON-WOVEN GEOTEXTILE FABRIC FOR DRAINAGE AND SEPARATION FROM SUB BASE WITH A MINIMUM OF 600mm OVERLAP ON ALL FABRIC SEAMS AS REQUIRED.
2. ADD ECOCELL, FILL COMPARTMENTS WITH GRAVEL AND COMPACT TO DESIRED COMPACTION RATE.
3. INSTALL A SECOND NON-WOVEN GEOTEXTILE FABRIC FOR SEPARATION BETWEEN THE GRAVEL WITHIN THE ECOCELL COMPARTMENTS AND THE BEDDING SCREEDINGS.
4. IF EXCESSIVE GROUNDWATER IS EXPECTED INCORPORATE AN APPROPRIATE DRAINAGE SYSTEM WITHIN THE BEDDING SCREEDINGS LEVEL.
5. ADD PAVING SAND TO REQUIRED DEPTH AND COMPACT TO PAVING MANUFACTURER'S SPECIFICATIONS.
6. LAY ECOTRIHEX PAVING AS PER MANUFACTURER'S SPECIFICATIONS AND FILL GAPS BETWEEN PAVERS WITH NO FINES GRAVEL.
CONCRETE PAVEMENT NOTES
R1. ALL WORKMANSHIP AND MATERIALS SHALL BE GENERALLY IN ACCORDANCE WITH THE SPECIFICATION.
R2. REINFORCEMENT IS REPRESENTED DIAGRAMMATICALLY AND NOT NECESSARILY SHOWN IN TRUE PROJECTION.
R3. ALL FABRIC LAPS SHALL BE FULL STRENGTH TO AS3600.
R4. WELDING OF REINFORCEMENT IS NOT PERMITTED WITHOUT THE APPROVAL OF THE PROJECT MANAGER.
R5. ALL REINFORCEMENT SHALL BE SECURELY SUPPORTED IN ITS CORRECT POSITION DURING CONCRETING BY APPROVED BAR-CHAIR, SPACERS OR SUPPORT BARS.
R6. REINFORCEMENT FABRIC SHALL BE IN ACCORDANCE WITH AS1304.
R7. CONCRETE STRENGTH SHALL BE AS FOLLOWS UNLESS NOTED OTHERWISE AND SHALL BE SUPPLIED IN ACCORDANCE WITH AS1379 (READY MIXED CONCRETE)
- CONCRETE VECHICULAR PAVEMENTS ... 32 MPa (28 DAY COMPRESSIVE STRENGTH)
- ELSEWHERE ... 25 MPa (28 DAY COMPRESSIVE STRENGTH)
R8. DETAILS OF CONCRETE MIX, AGGREGATE SIZE AND COLOUR, METHOD OF CURING AND FINISH ARE TO BE SUBMITTED TO THE PROJECT MANAGER FOR APPROVAL BEFORE.
R9. PROVIDE ISOLATION JOINTS TO THE PERIMETER OF ALL PIT LIDS AND VALVE COVERS COMMENCING CONCRETE WORKS.
PROVIDE WARNING TACTILES TO AS 1428.4
KERB FACE
A PLAN
PAVEMENT
RAMP SLOPE 1 IN 8 MAXIMUM
1520 MAX.
SECTION A-A
NOTES
1. SURFACE TEXTURE OF RAMP TO BE NON-SLIP TYPE.
2. ORIENTATION OF RAMP IS TO GENERALLY BE PERPENDICULAR TO KERB ALIGNMENT.
RAMP DETAIL
100 mm KERB (K)
SCALE 1:10
FORM JOINTS AT MAX. 2.4m CTS. SEE AS 2876
SHRINKAGE CONTROL JOINTS: (EVERY 2.4M) 50% OF THE AREA OF THE SECTION SHALL BE CUT. THE RESULTANT SLOT IN THE SECTION SHALL BE TOOLED TO A DEPTH OF NOT LESS THAN 20MM, TO PRODUCE A NEAT GROOVE OF NOT LESS THAN 5MM IN WIDTH.
EXPANSION JOINTS: (EVERY 24.0M) SHALL BE 15MM WIDE AND FILLED WITH AN APPROVED PRESHAPED FILLER, WHICH SHALL EXTEND FOR THE FULL WIDTH AND DEPTH OF THE EDGING.
RETAINING STRIP
SCALE 1:10
FORM JOINTS AT MAX. 2.4m CTS. SEE AS 2876
CONCRETE FINISH NOTES
1. ALL KERBS, RETAINING STRIPS AND RETAINING WALLS TO HAVE BLACK OXIDE FINISH ON EXPOSED SURFACES.
FOR BULK EXCAVATION NOTES REFER DRG. C02
FOR SIGNS REFER OTHER CIVIL DRAWINGS
DO NOT SCALE
FOR INFORMATION
K CHANGES AS SHOWN 24.02.21 CPS RGS
J RWT AMENDED 23.02.21 CPS RGS
H RWT ADDED 23.02.21 CPS RGS
G REVISED AS PER LATEST ARCH 17.02.21 CPS RGS
F DETAIL ADDED 16.02.21 CPS RGS
E DETENTION TANKS REVISED 07.12.20 CPS RGS
D REVISED AS PER LATEST ARCH 27.11.20 CPS RGS
C REVISED AS PER LATEST ARCH 26.11.20 CPS RGS
B REVISED AS PER LATEST ARCH 10.11.20 CPS RGS
A ISSUED FOR INFORMATION 06.08.20 CPS RGS
Issue Description Date Drawn Chkd
North
Client ACCORD PROPERTY
Architect BROWN FALCONER
SAGERO CIVIL STRUCTURAL
253 FLINDERS STREET Adelaide SA 5000 PO Box 1844 PH +61 08 8100 5000 fax +61 08 8232 8743 A.C.N. 162 095 847
Project PROPOSED DEVELOPMENT 110 MARION ROAD BROOKLYN PARK SA
Drawing Title GRADING PLAN AND DETAILS
Drawn CPS AUGUST 2019 Scale A1 1:200 AND AS NOTED
Designed RGS Project No. SA200018 Dwg. No. C04 Issue K

SAGERO
CIVIL & STRUCTURAL

253 Flinders Street., ADELAIDE SA 5000
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A.C.N. 162 095 847

CIVIL STORMWATER CALCULATIONS

REFERENCE NO	**SA200018**
ISSUE DATE	**DECEMBER 2020**
AGENT	**ACCORD PROPERTY**
SITE LOCATION	**PROPOSED DEVELOPMENT 110 MARION ROAD BROOKLYN PARK SA**

Note:

1. These calculations are to be read in conjunction with relevant Construction Reports, Structural Drawings and Architectural Drawings

2. All work to comply with the Building Code of Australia and relevant Australian and Australian and New Zealand Standards,

AS 1012 - Ready Mixed Concrete
AS 1254 - PVC Pipes and fittings for Storm/Surface Water Applications
AS 1260 - Unplasticised PVC (UPVC) Pipes and Fittings for Sewerage Applications
AS 1289 - Method of Testing Soils for Engineering Purposes
AS 1342 - Precast Concrete Drainage Pipes
AS 1379 - Specification and Supply of Concrete
AS 1415 - Unplasticised PVC Pipes and Fittings for Soil, Waste and Vent Applications
AS 1428.1 - Design for access and mobility
AS 1478 - Chemical Admixtures for use in Concrete
AS 4049.1 - Paints and Related Materials
AS 1646 - Rubber Joint Rings for Water Supply, Sewerage and Drainage Purposes
AS 1742 - Manual of Uniform Traffic Control Devices
AS 2008 - Residual Bitumen for Pavements
AS 2302 - Code of Practice for Installation of UPVC Pipe Systems
AS 2566 - Plastics Pipe Laying Design
AS 2758 - Concrete Aggregates
AS 3500 - National Plumbing and Drainage
AS 3600 - Concrete Structures
AS 3610 - SAA Formwork for Concrete
AS 3725 - Loads on Buried Concrete Pipes
AS 3792 - Portland and Blended Cements
AS/NZS 2890 1 - Parking Facilities - Off-street car parking
AS/NZS 2890 6 - Off-street parking for people with disabilities

Title: 110 MARION RD BROOKYLN PARK
Reference: SA200018
Date: DECEMBER 2020

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Pre developed site

Existing details:

Total area=	8300 m^2		
Exisiting roof area =	2897 m^2	C' roof=	0.25
Exist. pavement area=	5118 m^2	C' pave=	0.25
Existing land area =	285 m^2	C' land=	0.25

ARI (in years) 'y' = 20 Years
t_c (in minutes) 'm' = 10 minutes
Intensity of rainfall 'I^y_m' = 89.3 mm/Hour
Discharge 'Q' =CIA/3600 = 51.47 Litres/Sec
Allowable discharge = 35.37 Litres/Sec

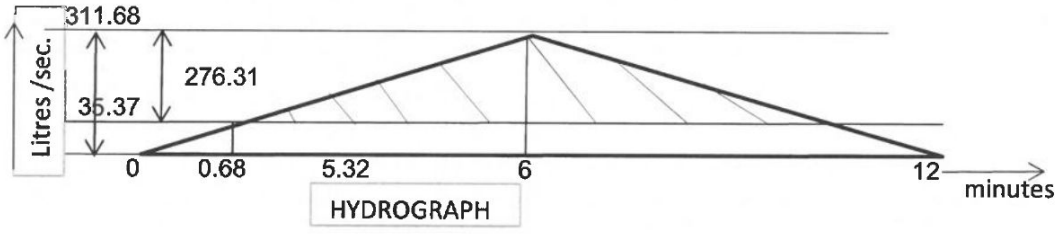
(MINUS FLOW FROM EXISTING COUNCIL CHAMBER ROOF 16.1L/s)

Post developed site

Proposed details:

Roof area=	3465 m^2	C'roof=	0.9	1.2xC'roof≤1.0=	1.08	1
Pavement area=	2872 m^2	C' pave.=	0.75	1.2xC'pave≤1.0=	0.9	0.9
Land area=	1579 m^2	C' land=	0.25	1.2xC'land≤1.0=	0.3	0.3

ARI (in years) 'y' = 100 Years
t_c (in minutes) 'm' = 6 minutes
Intensity of rainfall 'I^y_m' = 172 mm/Hour
Discharge 'Q' =CIA/3600 = **311.68** Litres/Sec



HYDROGRAPH

Detention volume = **276.31** X 5.32 X60/1000= **88.18** m^3

Title: 110 MARION RD BROOKYLN PARK
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Date: DECEMBER 2020

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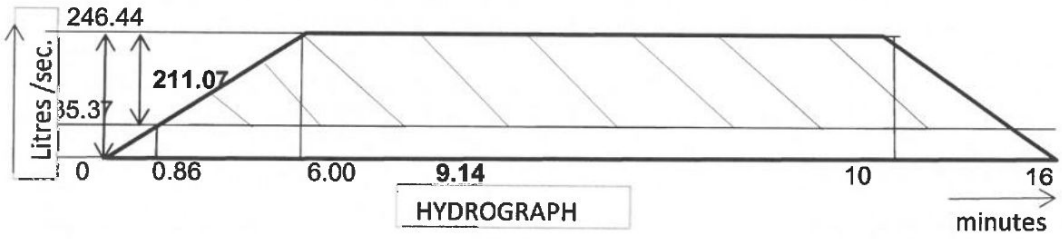
Check for critical storm

Try duration: **10** minutes

Intensity of rainfall 'I^{y}_{m}' = 136 mm/Hour

Discharge 'Q'
=CIA/3600 = **246.44** Litres/Sec



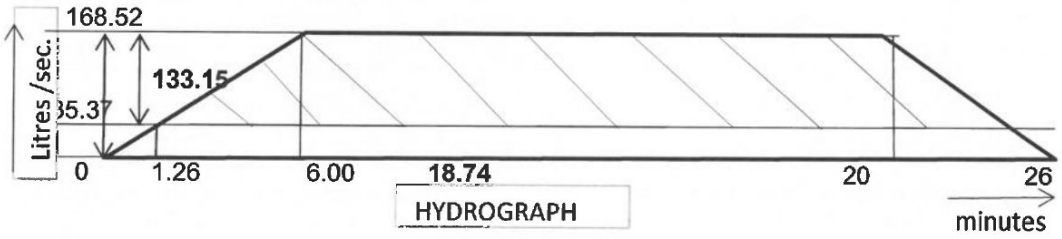
Detention volume = **211.07** X 9.14 X60/1000= **115.74** m^3

Check for critical storm

Try duration: **20** minutes

Intensity of rainfall 'I^{y}_{m}' = 93 mm/Hour

Discharge 'Q'
=CIA/3600 = **168.52** Litres/Sec

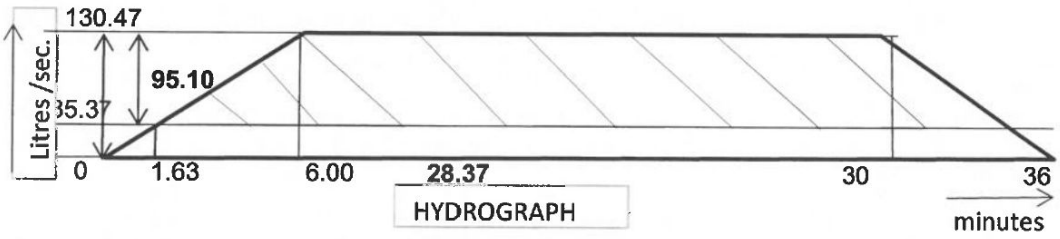


Detention volume = **133.15** X 18.74 X60/1000= **149.72** m^3

Try duration: **30** minutes

Intensity of rainfall 'I^{y}_{m}' = 72 mm/Hour

Discharge 'Q'
=CIA/3600 = **130.47** Litres/Sec



Detention volume = **95.10** X 28.37 X60/1000= **161.90** m^3

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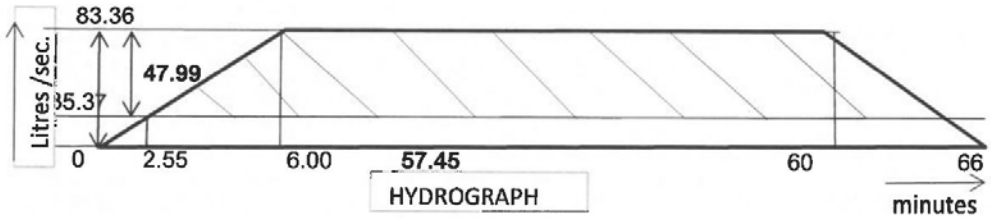
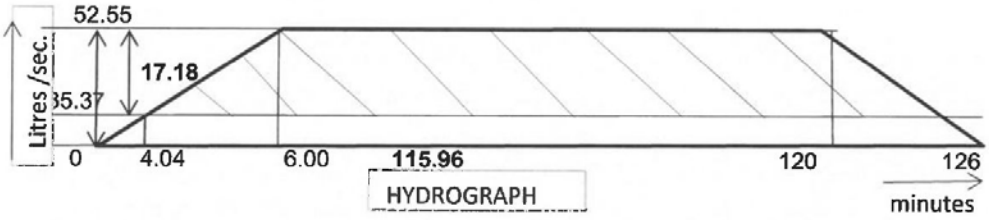
Try duration: 60 minutes
Intensity of rainfall 'I^{y}_{m}' = 46 mm/Hour
Discharge 'Q'
=CIA/3600 = **83.36** Litres/Sec



Detention volume = **47.99** X 57.45 X60/1000= **165.42** m^3

Try duration: 120 minutes
Intensity of rainfall 'I^{y}_{m}' = 29 mm/Hour
Discharge 'Q' **52.55** Litres/Sec



Detention volume = **17.18** X 115.96 X60/1000= **119.54** m^3

TOTAL DETENTION REQ = 165.4m³

ABOVE GROUND STORAGE

GTP1 : $V = \frac{18.5 \times 29 \times 0.115}{3} = 23.9m^3$, GTP2 : $V = \frac{29 \times 8.5 \times 0.125}{3} = 10.3m^3$

GTP3 : $V = \frac{22m \times 17m \times 0.2m}{3} = 24.4m^3$, GTP4 : $V = \frac{11.5 \times 17 \times 0.1}{3} = 6.5m^3$

GTP5 : $V = \frac{15 \times 6.5 \times 0.1}{3} = 3.25m^3$, GTP6 : $V = \frac{23 \times 17.5 \times 0.2}{6} = 13.4m^3$

TOTAL = 82.3m³

UNDERGROUND TANK'

4X23m³ TANKS - V = 92m³

TOTAL = 82.342 = 174.3m³ > 165.4 ∴ OK

Drapper Environmental Consultants Pty Ltd
12 Treetops Avenue
Springfield Lakes, QLD 4300
darren@drapperconsultants.com

Your Ref:

To Whom It May Concern;

INTERNATIONAL FIELD TEST DATA REVIEW
SPEL HYDROSYSTEM DEVICE

The purpose of this document is to present a summary of the international field data on the Hydrosystem 1000, normalised to be representative of Australian rainfall and pollutant concentration conditions. Please find attached in the Appendices, the test data from the Bremer Strasse site in Hamburg-Harburg, Germany, and the Loewe site in Geissen, Germany. Results from a German field test site in Giessen (Loewe) has been combined with the Bremerstrasse dataset to determine the overall efficiency of the Hydrosystem across the full dataset of 32 rain events.

It is acknowledged that, particularly for Total Nitrogen, the tabulated influent concentrations are occasionally higher than that typically observed on Australian urban residential catchments. Therefore the dataset has been compared with the doctorate research conducted by An Liu on Australian residential catchments (2011) so that we can identify the outliers and bring the dataset into line with Australian rainfall and runoff conditions.

For the Australian catchments, the mean TN concentration was 3.178mg/L with a standard deviation of 3.321. In statistics, the empirical rule states that 95% of all values lie within 2 standard deviations of the mean, and 99.7% of all values lie within 3 standard deviations of the mean, in a normal distribution. Therefore, a dataset representative and transferrable from road runoff to residential, could be expected to be between 0mg/L and 13.141mg/L, based on the actual field monitoring of residential catchments detailed in Liu's thesis.

Taking a conservative approach, to remove possible outliers and the influence of high influent values, if in this case the dataset is confined to 2 standard deviations from the mean, it would exclude TN observations above 9.82mg/L. Where an influent concentration falls outside the 2SD range, the outlet concentration is also excluded from the statistical analysis.

Where influent concentrations are observed to be below the Limit of Detection (LOD) of the analytical tests, they have also been excluded from the statistical evaluation. Where outlet concentrations are recorded as below the LOD, they are represented mathematically as 50% of the LOD to enable calculation of the average removal efficiency and CRE. (Geosyntec Inc, 2010).

Australia field testing is currently underway on a commercial site in southeast Queensland. This project is presently part way through the evaluation process but data is not yet publicly available from the University of Sunshine Coast. Further updated information will be publicly released and

published when the statistical requirements of the Stormwater Australia SQID Evaluation Protocol can be satisfied.

Summary

Based on the combined international field monitoring data, constrained to within 2 Standard Deviations of An Liu's urban residential dataset, it appears that based on Australian conditions the **Hydrosystem is capable of reducing TSS by 84%, TP by 81% and TN by 47%.**

Please don't hesitate to contact us if you have further concerns or wish to discuss the evaluation process, on 0431 299 875.

Kind Regards,

Dr Darren Drapper,
B.Eng(Env) Hons, PhD(EnvEng), MBA, Cert IV (WHS), MIEAust, CPEng, RPEQ.
Principal Engineer
Drapper Environmental Consultants

With information kindly supplied by,

Mr Andy Hornbuckle

Team Leader Asia Pacific – Water Quality

SPEL Environmental

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3P Technik Filtersysteme GmbH

Report

Results of 2009

Investigation of a treatment device for road runoff at the Bremer Straße in Hamburg-Harburg over a period of three years

February 11th, 2010

author: Dr.-Ing. C. Dierkes

3P Technik Filtersysteme GmbH, Öschstraße 14, 73072 Donzdorf

Contents

Introduction

This report is a supplement to the ICUD publication about a stormwater treatment device at Bremer Straße in Hamburg-Harburg and describes the performance and the retention of substances over the third year of operation 2009.

Results of the samplings

Since the installation in December 2006 the stormwater treatment device at the Bremer Straße has been manually sampled at regular intervals in order to control the function and the harmful substance retention. The results of the first years are indicated in a publication for the ICUD conference in Edinburgh in 2008. Here the performance in the third year after installation is described. Now the current filter elements have been operated since two years without maintenance.

Precipitation and runoff situation

The data of the weather station Hamburg Fuhlsbüttel were used for the assessment of the precipitation, because they are freely available on the internet (www.wetteronline.de). Although the measuring point is situated some distance away northwards, the tendencies of the precipitation should basically match.

As the device was taken into operation on 06.12.2006, the precipitation has been observed since this date. The monthly sums of the precipitation are illustrated in figure 1. This report refers to the complete year of operation from December 2008 to December 2009.

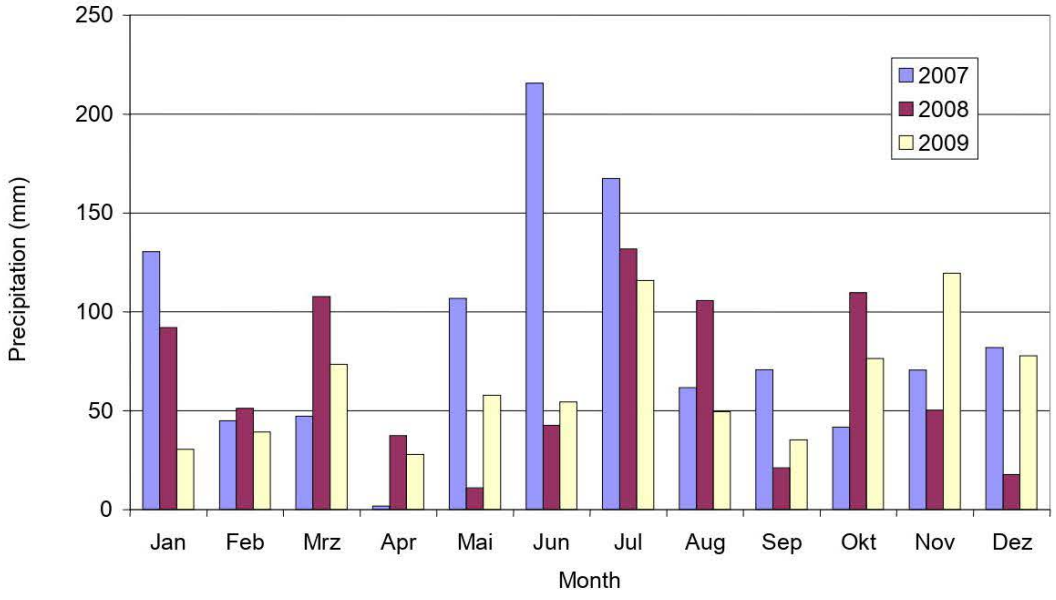


figure 1: monthly precipitation in Hamburg from January 2007 to December 2009

The year 2009 has lower precipitation than the previous years (with 757 mm). Especially the first half-year is drier than the previous ones; the autumn 2009 is clearly wetter than autumn 2007 and 2008 (figure 2.)

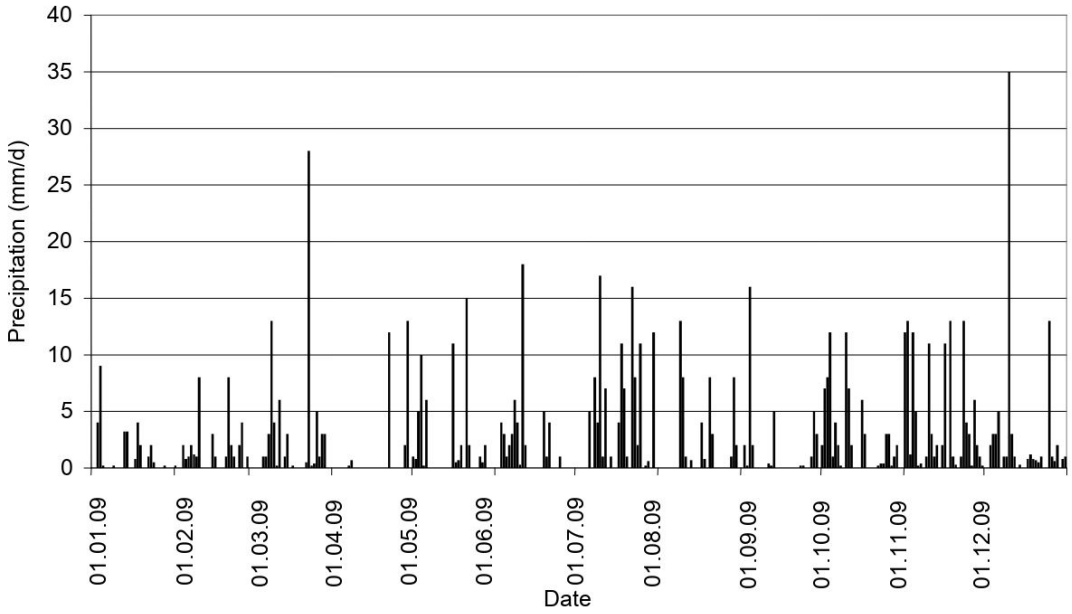


figure 2: daily precipitation over the period of examination

Also the daily precipitation is more balanced. The heaviest daily precipitation in December amounts only 35 mm. In the previous years almost 50 mm was achieved several times (figure 2).

Considering a connected road area of 2.300 m^2 that means for the total volume of water, which flew by 31.12.2009 through the filter plants, that approx. 5,400 m^3 street drain got into the plant with a scheduled discharge coefficient of 0.9. In the year 2009 there were 1,570 m^3 treated.

Pressure heads and emergency overflows

Also in 2009 the pressure heads in the system have continually been recorded in order to determine the bypass spillways. The pressure heads are illustrated in figure 3. The battery failed twice in the period of examination due to corrosion at the contacts. The periods are described in the diagram. 6 overflows were detected in the measuring period, however two of them reached just the overflow height. Here it is not clear, if it has really come to an overflow. The measured overflow duration in the year 2009 amounts 40 minutes. In total the whole duration of the storm drainage 2009 amounts approx. 800 hours. Thus more than 95 % of the yearly runoff volume was treated.

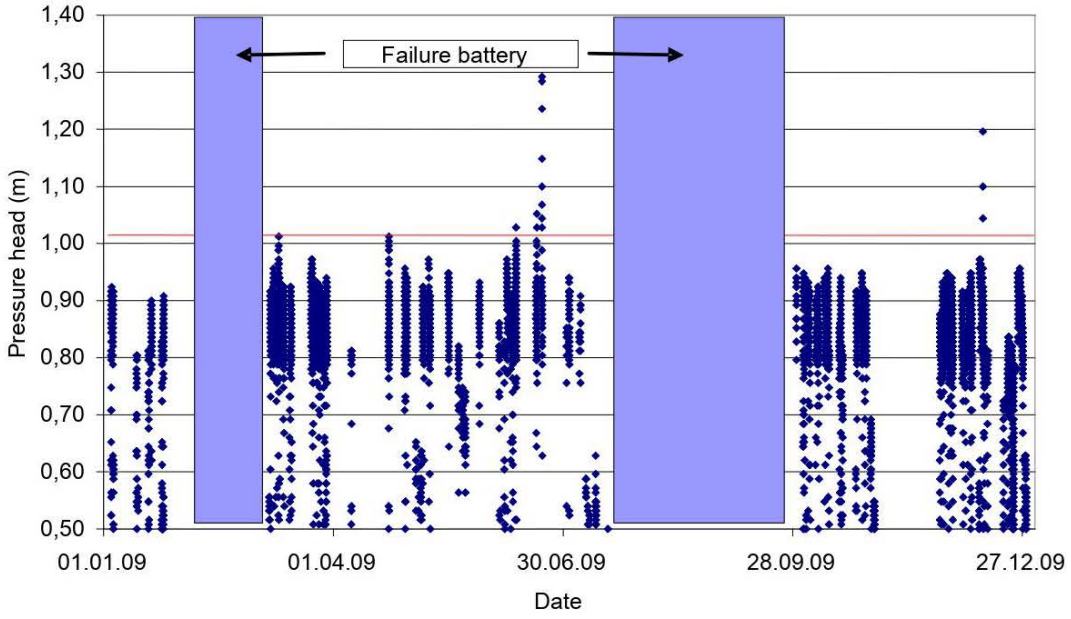


figure 3: pressure heads in the system over the year 2009

However the performance of the device clearly changed compared to the years 2008 and 2009. The filters were not rinsed after one year operation despite the extreme conditions. Only the sludge traps were emptied once a year together with the sedimentation trap. Figure 4 shows the pressure heights in the system referring to the duration of the rain drainage.

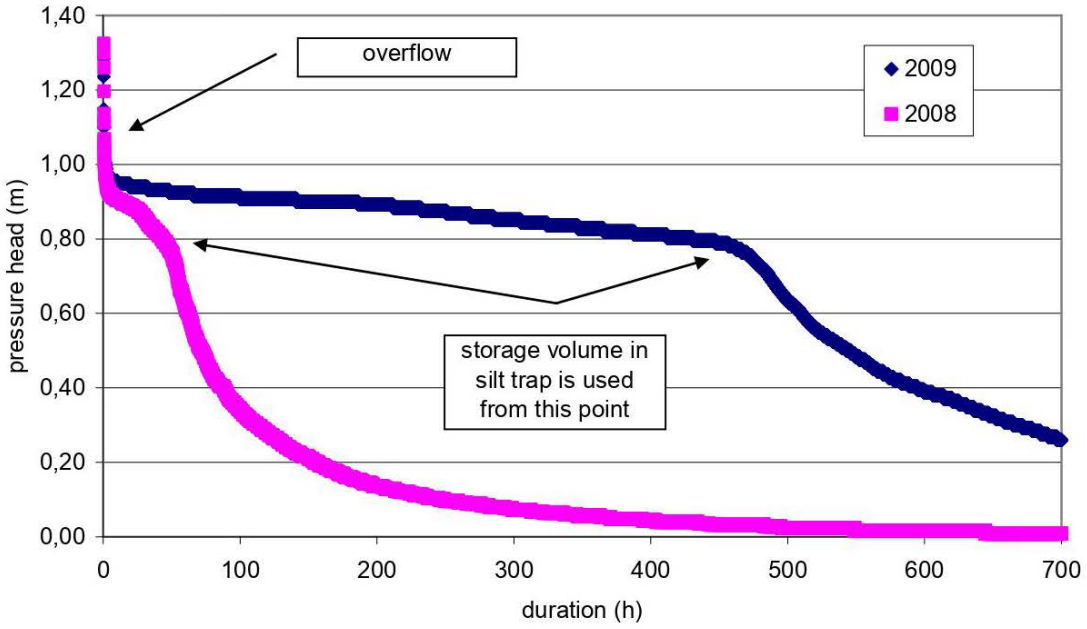


Figure 4: performance comparing the years 2008 and 2009

Here one can clearly see the decreasing permeability of the filter. From a pressure height of 80 cm the sedimentation pit is stowed. Thus an additional retention is used. In 2008 this was the case for only approx. 50 hours. In 2009 the sedimentation trap was operated approx. 450 hours as retention volume.

Pollutant retention

As in the previous years samples were taken manually from inflow and outflow of the plant in order to make statements about the solids retention at one month intervals at rain events. The samples were pumped by means of a submersible pump out of the distribution shaft in front of the plant and from the water above the filter.

The inflow samplings were taken from the distribution shaft and not from the sedimentation trap, because the performance of the filter systems should be examined as a matter of priority.

The parameters total suspendable solids (TSS) and the heavy metals zinc, copper, lead, cadmium and the hydrocarbons were analyzed. Deviating from the samplings of the years 2007 and 2008 the total phosphorus content P_{ges} instead of ortho phosphate and the total nitrogen N_{ges} instead of the ammonium were determined. This decision was made, because these parameters are used abroad (especially in Australia and the USA) for assessment of stormwater treatment plants. All measured values of the year 2009 are indicated in enclosure A. We refer to the previous report for the earlier measured values.

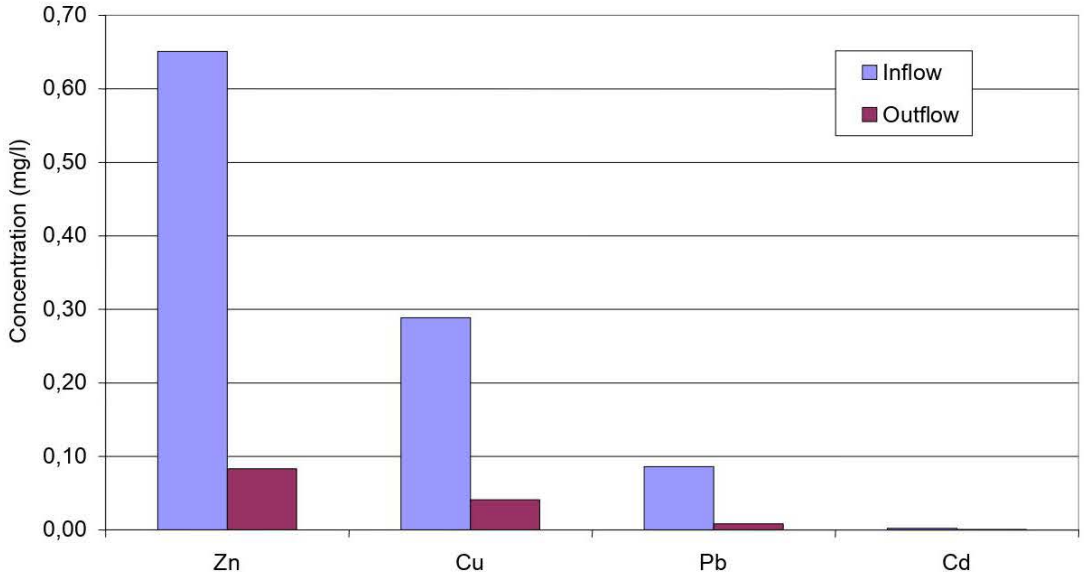


figure 5: Medium concentrations of the heavy metals from inflow and outflow for the year 2009

Figure5 shows the medium inflow and outflow concentrations for the heavy metals. For zinc the concentrations of 650 µg/l are reduced to 80 µg/l. Thus the values can be easily compared to the values of the previous years. This is particularly for copper, lead and cadmium. Cadmium could not be detected in the outflow.

In figure 6 the results for phosphorus and nitrogen as well as for hydrocarbons are illustrated. Here the reduction of P amounts approx. 85 % similar to the reduction of ortho-phosphate of the previous years. The total nitrogen is reduced by approx. 65 %. For the hydrocarbons the target value of 0.2 mg/l could be met.

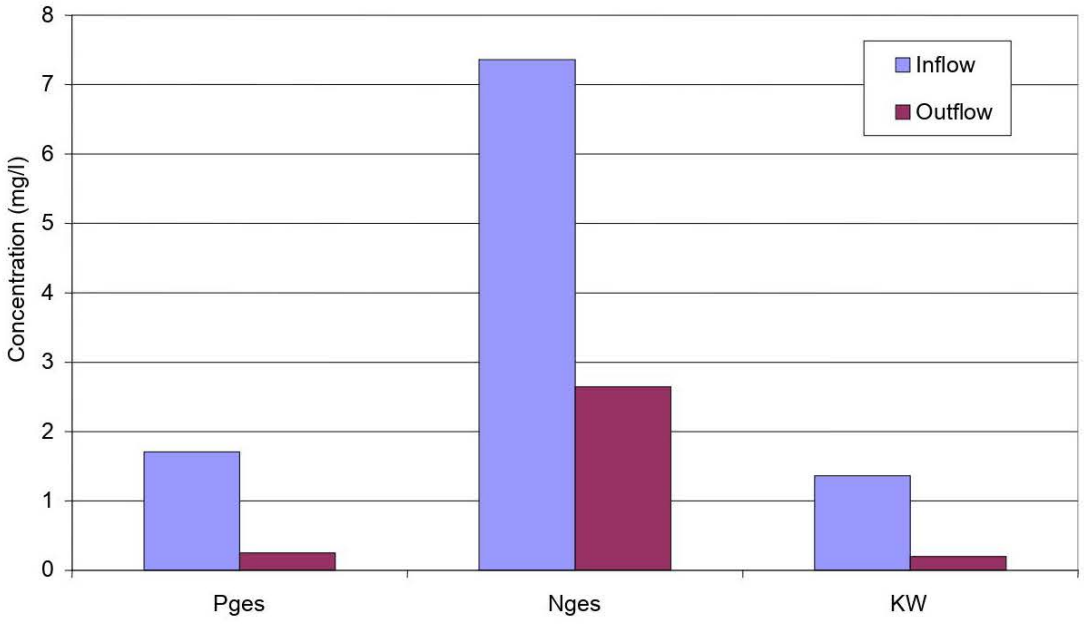


figure 6: inflow and outflow concentrations of P, N and the hydrocarbons

Figure 7 shows a comparison of the efficiency of the plant for three years of operation. The TSS were retained with approx. 92 %. One can see a constant cleaning performance for the heavy metals over the three years between 80 % and 90 %. Ortho phosphate and total-P were retained for approx. 80 to 85 %. Whereas ammonium was removed for more than 90 %, the retention of total-N amounts only approx. 65 %. This has to be attributed to the compounds, which cannot be treated, as nitrate. The hydrocarbon retention amounts approx. 90 %.

The results of three years sampling of the rain water treatment plant show that up to now almost all relevant substances are removed with a high level from the road runoff. The cleaning result has been very constant over the three years of operation.

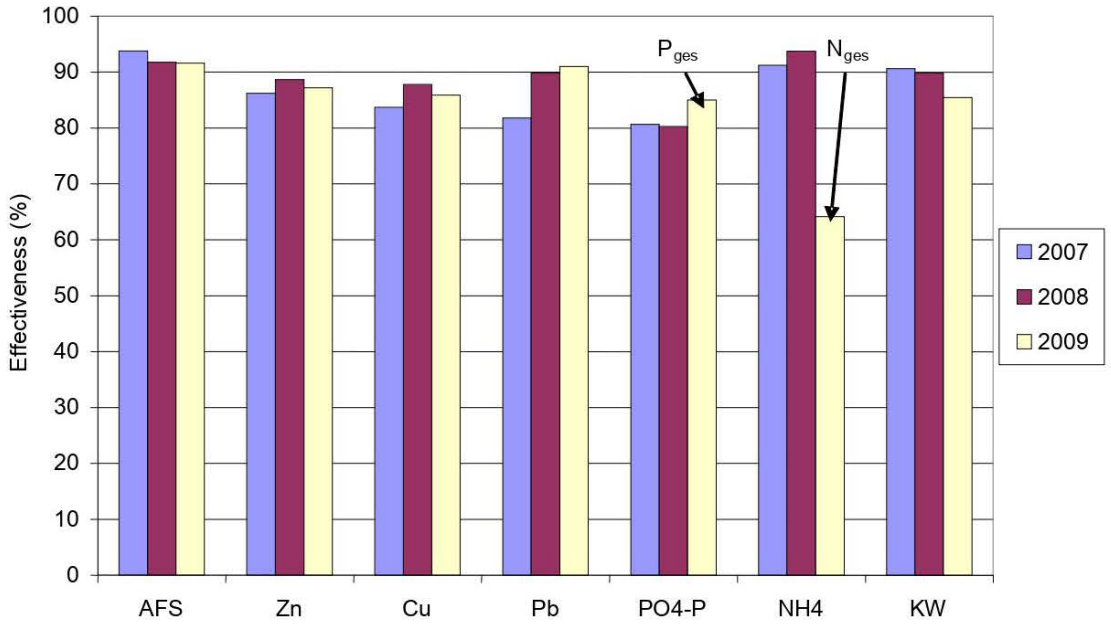


figure 7: Efficiency of the device for the years 2007, 2008 and 2009

Outlook

The measurements and samplings will be carried out further on. After the end of the frost period in March/April 2010 the filters will firstly be rinsed at site with a new procedure in order to see, if the permeability can be restored. Subsequently the filter elements will be exchanged, because they reach the capacity limit after two years of operation under these conditions. In future the rinsings will be done once a year. The sludge chamber will be emptied further on an annual basis.

Summary

Since the installation of the filter device at the B75 in Hamburg Harburg samplings of the system were taken at rain events over a period of three years in approx. one month intervals. A volume of approx. 5,400 m^3 water was treated. As contrary to the initial layout of the filter system more than twice the of the impermeable area was connected, there were 4 to 6 rain events in 2009 when the internal overflow of the system led past the filters (possibly more due to a temporary failure of the measurements). In total max. 5 % of the annual runoff volume was not treated by means of the filters. The filters were intentionally not rinsed or cleaned over the last two operating years. Only the sludge chambers were regularly emptied.

The inflow of the filter system and the outflow were analysed for TSS, heavy metals, hydrocarbons and nutrients. The following results were found in 2009:

- Total suspendable solids (TSS) are reduced by 92 %.
- The concentration-related efficiencies for heavy metals are between 80 % and 90 %.
- P_{tot} is removed by approx. 85 % and N_{tot} by 65 % from the stormwater.
- In 2009 the hydrocarbon index in the inflow showed an average of 1.4 mg/l and in the outflow 0.2 mg/l.
- The target concentrations for the outflow, which were gathered from the permissible limits of the Federal Soil Protection Act for the path soil groundwater (if available), are currently met without exception, although more than twice the area is connected to the filter system as the area for which it has been really layouted.

Especially the flat catchment area as well as a certain retention volume of the sedimentation and distribution shafts and pipes have a positive effect. They allow a temporary retention of the water and thus compensate extreme inflow peaks in the volume flow. This became clear in 2009, because the pressure heads in the system increase due to a stronger clogging of the filters. But this does not impinge on the number of bypass spillways.

According to these results a yearly rinsing of the filters seems to be necessary. The filters should be exchanged every two years under these conditions.

The system will be further on observed and sampled in order to follow the development of the operating behaviour.

Enclosure A: measured values

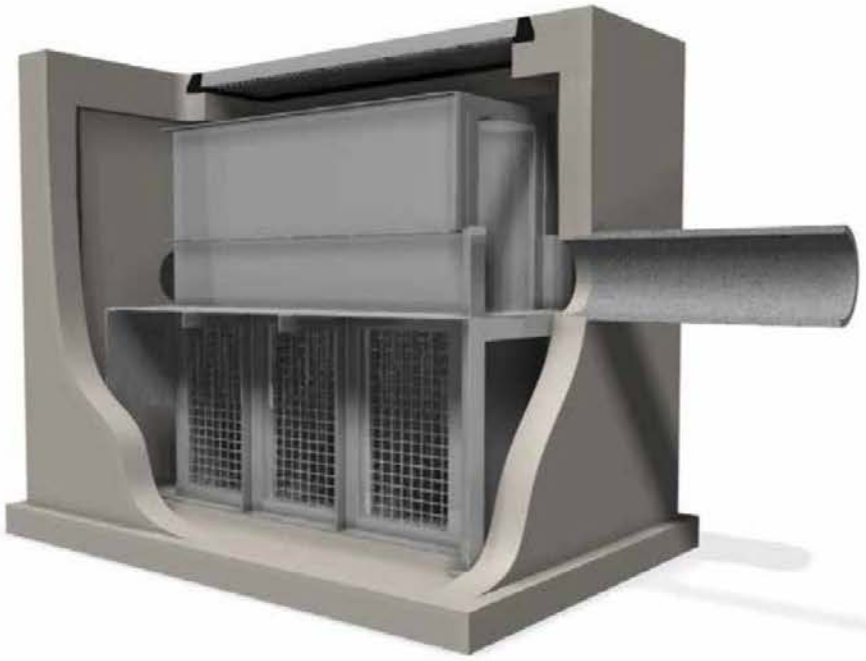
Date	TSS mg/l	Zn mg/l	Cu mg/l	Pb mg/l	Cd mg/l	P_{tot} mg/l	N_{tot} mg/l	HC mg/l
Inflow								
12.01.2009	346	0.26	0.087	0.025	0.0007	0.22	2.10	0.6
12.02.2009	224	0.62	0.340	0.067	< 0.002	1.10	0.61	0.1
30.03.2009	136	0.11	0.035	< 0.005	< 0.0005	< 0.3	4.60	4.7
27.04.2009	545	0.14	0.057	< 0.01	< 0.0005	< 0.3	8.10	0.7
28.05.2009	37	4.30	2.300	0.510	0.0043	7.80	26.00	0.1
23.06.2009	234	0.20	0.089	0.024	< 0.0005	0.36	8.50	0.8
23.07.2009	576	0.06	0.028	0.005	< 0.0005	< 0.3	2.20	0.2
27.08.2009	213	0.95	0.049	0.098	0.001	1.80	15.00	5.0
25.09.2009	67	0.13	0.055	0.011	< 0.0005	0.81	8.40	0.1
27.10.2009	156	0.25	0.078	0.019	< 0.0005	0.70	4.20	1.3
27.11.2009	617	0.14	0.054	0.014	< 0.0005	0.84	1.20	< 0.2
Outflow								[2]
12.01.2009	24	0.27	0.110	0.030	< 0.0005	0.39	2.00	0.9
12.02.2009	12.5	0.09	0.045	0.012	< 0.0005	< 0.3	0.60	0.1
30.03.2009	36	0.11	0.037	< 0.005	< 0.0005	< 0.3	4.00	0.5
27.04.2009	12.5	0.20	0.100	0.021	< 0.0005	0.53	5.30	0.1
28.05.2009	27	0.03	0.019	< 0.005	< 0.0005	0.42	2.80	0.1
23.06.2009	54	0.03	0.008	< 0.005	< 0.0005	< 0.3	1.30	0.1
23.07.2009	12.5	0.03	0.019	< 0.005	< 0.0005	< 0.3	1.80	0.1
27.08.2009	34	0.05	0.042	0.005	< 0.0005	< 0.3	5.00	0.2
25.09.2009	27	0.00	0.020	< 0.005	< 0.0005	< 0.3	3.10	0.0
27.10.2009	12.5	0.07	0.029	0.006	< 0.0005	0.06	2.90	0.2
27.11.2009	12.5	0.03	0.019	< 0.005	< 0.0005	0.44	0.25	0.1
averages								
average inflow	286	0.65	0.288	0.086	0.002	1.70	7.36	1.4
average outflow	24	0.08	0.041	0.015	< 0.0005	0.37	2.64	0.2
efficiency	92	87	86	91	-	85	64	85

SPEL HYDROSYSTEM
SIZING CHART - FILL IN YELLOW CELL ONLY

MODEL No:		Updated: 27/12/2019		Treatment Flow Rate
		ITEM	QTY	L/second
SHS.150D/ 4	.1C.225.PVC	1500 ID FRP TANK - 4 Filter Cartridges	4	16
SHS.150D/ 6	.1C.225.PVC	1500 ID FRP TANK - 6 Filter Cartridges	6	24
SHS.185D/ 7	.1C.225.PVC	1850 ID FRP TANK - 7 Filter Cartridges	7	28
SHS.220D/ 9	.1C.225.PVC	2200 ID FRP TANK - 9 Filter Cartridges	9	36
SHS.250D/ 16	.1C.300.PVC	2500 ID FRP TANK - 16 Filter Cartridges	16	64
SHS.300D/ 21	.1C.300.PVC	3000 ID FRP TANK - 21 Filter Cartridges	21	84
SHS.350D/ 31	.1C.375.PVC	3500 ID FRP TANK - 31 Filter Cartridges	31	124
SHS.400D/ 39	.1C.375.PVC	4000 ID FRP TANK - 39 Filter Cartridges	39	156

Model No:	Smaller Hydrosystem Models		L/s Treatment Flow Rate
HS.400	1000 ID Poly Tank	1	2.5
HS.800	1200 FRP Tank	2	5
HS.1000	1200 FRP Tank	4	12

Ecosol™ Gross PollutantTrap Technical Specification



environmentally engineered
for a better future

URBAN
ASSET SOLUTIONS™

Contents

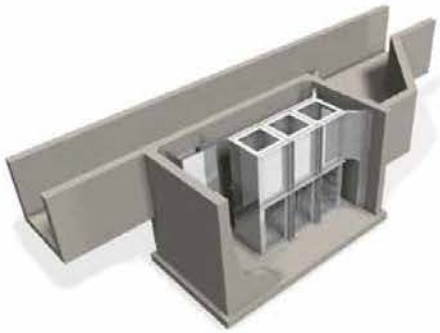
URBAN ASSET SOLUTIONS™

1.0 Introduction

Increasingly stringent environmental best management practice requires planners and developers to apply a fit-for-purpose treatment train approach to stormwater treatment to achieve today's water quality objectives (WQOs). An integral element to any good WSUD is primary treatment or pre-screening of stormwater flows to remove coarse sediment and gross pollutants prior to downstream secondary or tertiary treatment systems such as wetlands.

The Ecosol™ Gross Pollutant Trap provides effective primary treatment of stormwater flows thereby significantly enhancing the operational life of downstream secondary and tertiary treatment systems.

Typical In-Line Ecosol™ GPT configuration



Typical Off-Line Ecosol™ GPT configuration

The system has been designed to provide a robust and durable cost effective primary treatment system that captures and retains solid pollutants conveyed in stormwater conduits.

In developing this innovative stormwater treatment system careful consideration has been given to durability, longevity, cost and maintainability. Key commercial technical features include:

- low visual impact and energy footprint;
- designed hydraulics with proven performance and longevity;
- scalable design; and
- cost effective maintenance regime.

This technical manual describes the operation and performance characteristics of the system.

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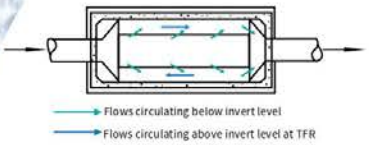
1.1 How and Why the Ecosol™ GPT Works

The objective of stormwater treatment is to achieve a real, visible, and sustainable improvement in water quality. Pollution control measures, including Gross Pollutant Traps (GPT's), such as the Ecosol™ GPT, litter baskets, sediment basins, grass swales, infiltration systems and sand filters all reduce the level and concentration of a variety of pollutants, thereby enhancing water quality.

The Ecosol™ GPT is a non-blocking, wet sump, tangential filtration system that has been specifically designed to filter stormwater pollutants conveyed in stormwater conduits by capturing and retaining all contaminants larger than 2mm up to a designed treatable flow rate (TFR). It can play and integral role in reducing pollution in urbanised catchments and help reduce the footprint of a total stormwater treatment train by providing essential prescreening.



Developed in 1996 and tested by the University of South Australia and also EngTest the commercial consulting division of the Adelaide University it remains today one of the most widely recognised and used stormwater primary treatment systems. Today as part of our continual product improvement program the modern Ecosol™ GPT is designed to provide high pollutant retention rates with little hydraulic impact on the drainage infrastructure.

2.0 Ecosol™ GPT Credentials and Case Studies

The Ecosol™ GPT is designed specifically to provide essential primary treatment of stormwater runoff. It is a compact, efficient and cost-effective solution to the ever-increasing problem of gross pollutants present in stormwater flows. Key to its success is the robust, engineered design and tangential screens housed in a pre-cast concrete pit that provides a significantly greater screening area than that of traditional direct screening trash rack designs. Further its large detention chamber enables gravitational separation to occur retaining fine particulate matter conveyed in stormwater.

THE UNIVERSITY of ADELAIDE

Urban Water Resources Centre – University of South Australia Product Performance Testing.

In 1997 and 1998 the University of South Australia (UniSA), was commissioned to undertake a series of tests on the widely-used Ecosol™ GPT (formerly known as the RSF 4000) to confirm the product's performance. The tests measured the capture efficiency of the system under varying flow conditions and gradients and also the hydraulic headloss of the system under varying flows and gradients.

University of South Australia

EngTest Department of Civil and Environmental Engineering – University of Adelaide – Product Performance Testing

In October 1998 after further product development Ecosol commissioned Engtest the Department of Civil and Environmental Engineering at the University of Adelaide to undertake further testing on the system to confirm hydraulic head loss and capture efficiencies.

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2.0 Ecosol™ GPT Credentials and Case Studies Continued

Avocet Consulting - CFD modelling to determine pollutant trapping performance and fluid hydraulic characteristics under varying flow conditions.

In early 2000 to mid-2001 as part of the companys continuous product improvement program Ecosol engaged the services of Avocet Consulting to assess the Ecosol™ GPTs hydraulic performance, structural integrity, capture efficiency, treatable flow rates relevant to product sizing and scaling. Additional laboratory testing was also completed to monitor its performance as it filled and also to review the non-blocking, tangential filtration longevity of the system under varying flow conditions and percentage of fill.

EngTest Department of Civil and Environmental Engineering – University of Adelaide – Performance Review

In June 2013 the University of Adelaide (EngTest) completed a series of additional product tests to further verify product performance and concurrently reviewed all past laboratory and field testing on the performance of the product to comprehensively determine its performance for current industry applications.

3.0 Warranty and Life Expectancy

The Ecosol™ GPT has a one-year warranty covering all components and workmanship. Urban Asset Solutions Pty Ltd will rectify any defects that fall within the warranty period. The warranty does not cover damage caused by vandalism and may be invalidated by inappropriate cleaning procedures or where the unit is not cleaned within the recommended frequency. The Ecosol™ GPT is designed to meet strict engineering guidelines and manufacturers guarantees and is one of the most durable stormwater treatment systems available. The stainless steel components have a life expectancy of 15 years while the pre-cast concrete pit has a life expectancy of 50 years providing appropriate maintenance practices are employed.

4.0 Safety Considerations

The simple, yet effective design of the Ecosol™ GPT reduces OH&S risks as most of the work is undertaken in a controlled factory environment. The unit arrives to site complete and ready for installation reducing significantly on-site time, an important factor given the costs associated with delays that can be caused by inclement weather.

5.0 Key Features and Benefits

The Ecosol™ GPT captures and retains more than 98% of pollutants larger than 2000µm and whilst designed as a primary treatment solution, can capture and retain attached particulate Suspended Solids, Phosphorous and Nitrogen at its design Treatable Flow Rate (TFR).

Its efficiency is largely dependant on the chemical composition of the particles and the bonding of these chemical constituents to the surface of particles and the body of pollutants forming a media within the device.

Easily installed, the pre-cast modular Ecosol™ GPT can be fitted to conduits of almost any size and shape, either within the drainage network or off-line adjacent to creeks or open channels. Its range of applications include industrial and commercial sites, such as car parks, shopping centres and wash-bays, residential developments, airports, freeways, civil construction projects and wetlands.

Key Features	Benefits
Hydraulics	• Low headloss (k) factor • Designed and managed hydraulics eliminates blockage risk • Patented hydraulically-driven barrier reduces premature by-pass • Non-blocking tangential filtration screening
Pollutant Capture and Retention	• Captures and retains more than 98% of solid pollutants > 2000µm • Captures and retains up to 99% free oils and grease in spill situations • No remobilisation of captured settled Gross Pollutants
Design and Construction	• Can be sized to suit a wide range of flows, gradients and pipe sizes • Up to a GPT 4900 unit comes complete to site making installation easy and safe • Shallow depth below invert reduces water table problems • Product is made in-house thereby reducing lead times significantly
Cleaning and Maintenance	• Cost-effective vacuum cleaning so no need for the pollutants to be handled • Large pollutant storage capacity • Baffle design for emergency spill storage
Environmental Impact	• Effective pre-screening as part of a treatment train to achieve water quality objectives • Positive effect on natural ecosystem by improving water quality • Unit is housed in its own pit with little effect on the site aesthetics
Tried and Tested	• Independently laboratory field tested • Meets industry standards and guidelines

Table 1 - Ecosol™ GPT key features and benefits.

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6.0 Key Dimensions

The table below shows the approximate dimensions and holding capacities for, the Ecosol™ GPT. Their capacity to retain large quantities of captured pollutants ensures that its specified capture efficiency is maintained between scheduled cleaning events.

Ecosol GPT Product Code	Maximum Inlet/Outlet Pipe Diameter	Treatable Flow Rate (L/s)	Approximate External Dimensions (L x W x D from inlet invert level) (mm)	Pollution Holding Capacities		
				Solid Pollutants >2mm	Free Oils and Grease	Water
				m^3	Litres	Litres
GPT 4200	Up to 300mm	Up to 51	2200 x 900 x 750	0.23	268	667
GPT 4300	Up to 525mm	Up to 120	2700 x 1350 x 750	0.32	469	1,181
GPT 4450	Up to 600mm	Up to 260	3600 x 1650 x 1050	1.03	1,347	3,348
GPT 4600	Up to 900mm	Up to 470	4500 x 1950 x 1350	2.43	2,994	7,211
GPT 4750	Up to 1050mm	Up to 730	5600 x 2300 x 1650	4.83	5,711	13,608
GPT 4900	Up to 1350mm	Up to 1,050	6500 x 2600 x 1975	8.30	9,576	22,768
GPT 41050	Up to 1500mm	Up to 1,430	7450 x 2950 x 2300	13.11	14,850	35,262
GPT 41200	Up to 1800mm	Up to 1,870	8630 x 3300 x 2625	19.52	22,793	51,698
GPT 41350	Up to 1950mm	Up to 2,370	9700 x 3700 x 2950	27.70	30,578	72,495
GPT 41500	Up to 2100mm	Up to 2,930	10680 x 4000 x 3250	37.94	41,491	98,317
GPT 41800	Up to 2400mm	Up to 4,210	12730 x 4700 x 3900	65.33	70,452	166,836

Table 2 - Key product dimensions

Notes:
1. The unit can be sized to suit almost any type of pipe or box culvert.
2. Unit dimensions can vary depending on the vehicle load requirements and the wall thickness.

The Ecosol™ GPT is available in four configurations:
- In-line/End of Line;
- Off-Line;
- Fixed tangential screens for vacuum truck cleaning;
- Removable basket configuration for cleaning by crane truck.

Unit Design Loading
The range of Ecosol™ GPT's are designed for Class B, D and up to Class G loadings suitable for underground installations in highways, airport and wharf applications.

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7.0 Capture Efficiencies

In order to determine a meaningful characterisation of the products collection efficiency, an extensive verification phase was undertaken by Avocet Consulting Pty Ltd, Ecosol and EngTest (The University of Adelaide). Tables 3 and 4 summarise these results.

Particulate Size (Micron)	Capture Efficiency
20 - 60	23%
60 - 200	67%
200 - 600	94%
600 - 2000	98%

Table 3 – Typical PSD results

ECOSOL GPT CAPTURE EFFICIENCY PERFORMANCE SUMMARY		
Pollutants	**Capture Efficiency**	**Details**
Gross Pollutants (GP)	98%	Particulate >2000 micron
Total Suspended Solids (TSS)	61%	Particulate 20-2000 micron (mean averages)
Total Phosphorous (TP)	29%	Particulate and dissolved mean average efficiency less standard deviation
Total Nitrogen (TN)	1%	Particulate and dissolved mean average efficiency less standard deviation
Total Petroleum/Hydrocarbon (TPH)	99%	In dry weather emergency oil spill solutions
	23%	In a high flow event

Table 4 – Mean average pollutant percentage reductions

Figures quoted are mean collection efficiency statistics based on available product testing data. It is important to note that the water quality CE values are indicative of potential field CEs given that the product is designed as a primary treatment solution providing physical screening and the removal of chemical constituents is largely dependent on the chemical composition of the particles and the bonding of these chemical constituents to the surface of particles. Further, finer and attached particle filtration performance of the product is also dependent on the body of pollutants forming a media already captured by the filter. Quoted CE values are intended as a general guide, please consult with your Urban Asset Solutions Pty Ltd representative for site specific product sizing and modelling.

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8.0 MUSIC Modelling Guidelines

These guidelines provide instruction to the creation and application of a treatment node for the Ecosol™ GPT for the Model for Urban Stormwater Improvement Conceptualisation (MUSIC). The Ecosol™ GPT can be modelled in MUSIC using the Gross Pollutant Trap Treatment node to represent the results derived from independent laboratory testing and field testing by the University of South Australia and the University of Adelaide (Engtest The school of Civil, Environmental and Mining Engineering). The guidelines apply to the creation of the treatment node within MUSIC V6.1.0.

8.1 Creating the Node

Insert a GPT treatment node into your model by selecting "GPT" under the treatment nodes menu. When the node is created the node properties dialog is displayed. There are several changes that need to be made in this dialog.

- Adjust the text in the location box to read "Ecosol GPT" plus any other relevant information (4200, 4300 etc.).
- Adjust the low flow bypass to reflect any flow (m³/ sec) diverted away from the unit before treatment (usually zero)
- Adjust the high flow bypass to reflect the treatable flow rate (TFR values are detailed in table 2) (m³/sec) any higher flows will bypass treatment.

NOTES: Can be used to describe assumptions or location of reduction values for authority approvals.

Adjust the transfer function for each pollutant selecting the pollutant and editing (right click on the function point) the input and output values on the graph below to reflect capture efficiencies (CE) of the treatment device. Table 5 provides the input and output values for the Ecosol™ GPT based on High Flows. Table 5 provides input and output nodes for the Ecosol™ based on Low Flows.

Pollutant	Removal Rate (%)	Entered Input Value	Entered Output Value
Total Suspended Solids (20 - 2000µm)	61	1000	390
Total Phosphorus	29	1000	710
Total Nitrogen	1	1000	990
Gross Pollutants (>2000µm)	98	1000	20

Table 5 - Ecosol™ Gross Pollutant Trap – input and output values

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9.0 Design Guidelines

To ensure your system is appropriately designed for its intended application and meets local water quality objectives it is essential that the following minimum information is provided.

- Confirm the required treatable flow rate – this is the minimum stormwater run-off volume that must be treated. Typically this is the 1 in 3 month to 1 in 1 year ARI.
- Confirm the maximum design flow capacity of the drainage line. This is important as it allows us to appropriately design and model the system to cater for these peak flows at minimal head-loss.
- Confirm the proposed number and locations of Ecosol™ GPT's to be installed. Where possible please provide clearly marked drainage plans indicating the proposed locations.
- Confirm local water quality objectives - Recent state governmental planning policies have established clear stormwater quality bench mark objectives for local and regional councils. Accordingly local and regional council water sensitive urban design objectives have been amended to meet these stormwater pollution reduction targets. It is important we are provided this information specific to your site and local council regulations so that we can clearly advise you of the products removal efficiency relevant to these WQO's.

For further assistance in sizing or specifying a system for your next project please complete the form in Appendix 1 and forward to your local Urban Asset Solutions Pty Ltd representative.

Urban Asset Solutions Pty Ltd engineering team is able to provide a comprehensive design proposal for almost any project where the Ecosol™ GPT is proposed either individually or in conjunction with any other filtration systems working together in a treatment-train approach. Services offered include preliminary hydraulic, structural, and total concept designs, as well as consideration to access and hardstand designs for cleaning and maintenance. This includes MUSIC (Model for Urban Stormwater Improvement Conceptualisation) modelling, CAD drawings and product specifications together with maintenance schedules and associated costs.

Further, Urban Asset Solutions Pty Ltd can also undertake all civil and structural installation works, and our complete turnkey service also includes full maintenance of the proposed stormwater treatment systems and reporting.

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10.0 Hydraulic Specification

Gross Pollutant Traps (GPT's), such as the Ecosol™ GPT, are primarily designed to remove gross pollutants (>2mm) from stormwater at high treatable flow rates (TFR) and can play an integral role in reducing pollution in heavily-urbanised catchments that discharge into our waterways.

The Treatable Flow Rate (TFR) is the minimum flow that a GPT must treat, without by-pass, to achieve the desired pollutant capture criteria for a particular development. It varies dependent on that catchment size and percentage of impervious area thereby determining the pipe size and gradient. Typically, the Ecosol™ GPT is designed to treat the 1-in-3 month Annual Rainfall Intensity (ARI) discharges, with greater flows by-passing the unit.

Ecosol GPT Product Code	maximum Inlet/Outlet Pipe Diameter	Treatable Flow Rate (L/s)	Approximate External Dimensions (L x W x D from inlet invert level) (mm)
GPT 4200	Up to 300mm	Up to 51	2200 x 900 x 750
GPT 4300	Up to 525mm	Up to 120	2700 x 1350 x 750
GPT 4450	Up to 600mm	Up to 260	3600 x 1650 x 1050
GPT 4600	Up to 900mm	Up to 470	4500 x 1950 x 1350
GPT 4750	Up to 1050mm	Up to 730	5600 x 2300 x 1650
GPT 4900	Up to 1350mm	Up to 1,050	6500 x 2600 x 1975
GPT 41050	Up to 1500mm	Up to 1,430	7450 x 2950 x 2300
GPT 41200	Up to 1800mm	Up to 1,870	8630 x 3300 x 2625
GPT 41350	Up to 1950mm	Up to 2,370	9700 x 3700 x 2950
GPT 41500	Up to 2100mm	Up to 2,930	10680 x 4000 x 3250
GPT 41800	Up to 2400mm	Up to 4,210	12730 x 4700 x 3900

Table 6 - Ecosol GPT indicative product Treatable Flow Rates

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10.1 By-Pass Capacity and Head-Loss

The range of Ecosol™ GPT's has been designed to cater for maximum flow by-pass at minimal head-loss. The placement of any structure into a stormwater line will induce headloss. The extent of this head-loss is a function of the velocity in the outlet pipe and the k factor adopted. The k factor must be representative of the type of structure and its operation during full-flow conditions as distinct from the TFR.

The Ecosol™ GPT has one of the lowest k factors of any GPT currently available. Extensive independent testing has been carried out to confirm the unit's k factor for a range of pipe and unit sizes based on full flow, worst case scenarios. These tests show that the k factor can vary between 0.6 and 1.5 depending on the pipe configuration and the relative unit size, as shown below.

Gradient	*k* Factor
1%	0.6
2%	1.0
3%	1.5

Table 7 – Measured maximum k factor for the Ecosol™ GPT at the suggested treatable flow rate for non surcharged flows.

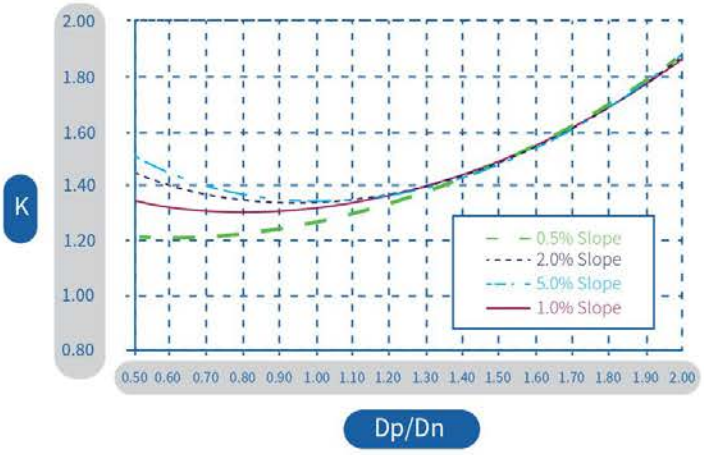

Figure 1 Measured maximum k factors for the Ecosol™ GPT at its designed maximum by-pass flow rate (designed discharge rates) in a surcharged environment.

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11.0 Cleaning and Maintenance

The cleaning frequency and the cost, depends heavily on the catchment size and type, the unit's proximity to a waste facility and the quality and quantity of stormwater runoff

Cleaning frequencies are based on typical pollution loads of 0.280m³ /ha/year for gross pollutants and 0.380m³ /ha/year for sediment generated on typical fully developed fully developed urban catchment. For larger catchments or during extended dry weather periods additional system cleaning may be required.

Urban Asset Solutions Pty Ltd specialises in the cleaning and maintenance of all Stormwater Treatment Devices including vegetated solutions and would be pleased to assist you with your ongoing asset maintenance.

Ecosol GPT Product Code	Pollution Holding Capacities			Optimal Catchment Area (Ha)	Recommended Cleaning Frequency
	Solid Pollutants >2mm	Free Oils and Grease	Water		
	m³	Litres	Litres	Ha	Per Annum
GPT 4200	0.23	268	667	0.35	1
GPT 4300	0.32	469	1,181	0.50	1
GPT 4450	1.03	1,347	3,348	1.50	1
GPT 4600	2.43	2,994	7,211	3.60	1
GPT 4750	4.83	5,711	13,608	7.30	1
GPT 4900	8.30	9,567	22,768	12.50	1
GPT 41050	13.11	14,850	35,262	19.80	1
GPT 41200	19.52	22,793	51,698	29.50	1
GPT 41350	27.70	30,578	72,495	41.90	1
GPT 41500	37.94	41,491	98,317	57.40	1
GPT 41800	65.33	70,452	166,836	98.90	1

Table 8 - Ecosol™ GPT Recommended Cleaning Frequencies

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12.0 Monitoring

Under normal weather and operating conditions, your Ecosol™ GPT should be checked, minimum every 3 months depending on quality and quantity of the inflow to the unit. Initially, Urban Asset Solutions Pty Ltd recommends that monitoring is undertaken monthly or immediately after a major rain event. Once the unit has been in operation for an extended period of time (say, 12 months) then the monitoring schedule can be adjusted to reflect the actual operating conditions specific to the catchment.

Under normal operating conditions the unit would normally require cleaning approximately every 12 months.

13.0 Monitoring, Cleaning and Maintenance Service

An essential element of any good stormwater management program includes regular inspections, cleaning, and maintenance of installed Stormwater Quality Improvement Devices (SQIDS) to ensure that they continue to capture and retain pollutants to their designed specifications without premature by-pass and without any adverse impact on the drainage capacity of the stormwater conduit that it is installed on.

Cleaning frequencies, methodologies and even they equipment used to maintain these systems will vary depending on the type of device installed the catchment type, size and rainfall patterns.

At Urban Asset Solutions Pty Ltd we offer:

- a competitive cleaning and maintenance service;
- a long-standing record in safe work practices, supported by Quality Assured processes;
- in-depth knowledge and experience with all popular types and brands of GPTs;
- a complete understanding of pollution removal and disposal regulations and processes that ensures your unit is cleaned effectively and efficiently without risk of damage and;
- useful, easy-to-read reports, allowing you to track performance and pollution loading.

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14.0 Applications and Configurations Continued

The Ecosol™ GPT is usually installed In-Line/end-of-line on stormwater pipes or box culverts ranging in size from 200mm to 1800mm, although is suitable for larger pipes and box culverts. The product can be easily integrated into most drainage designs for residential, commercial or industrial applications .

Commercial Precincts

Car Parks

Residential Developments

The unit is also suitable for installation off-line adjacent to large open channels or drains.

The Ecoso™ GPT is able to be custom designed specific to you application. We can vary the loading class, pit depth and accommodate varying pipe types and sizes.

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15.0 Turnkey Services

Urban Asset Solutions Pty Ltd design and estimating staff provide a dedicated management approach towards your project. In addition all staff are capable of liaising with the client, the consulting engineer, the contractor, and all other interested third parties to achieve a successful outcome.

16.0 Accreditation

Urban Asset Solutions Pty Ltd is accredited to ISO 14001 (Environment) and AS/NZS 9001 (Quality). Our commitment to continuously improving our products and services is demonstrated by our ongoing accreditation for Quality and Environmental Management. Urban Asset Solutions Pty Ltd is also committed to a safe environment for its employees. We are fully third-party accredited to AS/NZS 4801and OHSAS 18001.

17.0 Suppiler and Technical Product Contact Details

For any maintenance or technical product enquiries please contact:
Urban Asset Solutions Pty Ltd
Tel: 1300 706 624
Fax: 1300 706 634
Email: info@urbanassetsolutions.com.au

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Appendix 1

Ecosol™ GPT Essential Information Form

To ensure your system is appropriately designed for its intended application and meets local water quality objectives it is essential that the following minimum information is provided:

Customer Details	
Contact Person:	
Company Name:	
Phone:	
Fax:	
Email:	

Project and Site Information	
Project Name:	
Project Address:	
Type of Development/Catchment Type:	
Pollutant Removal Targets (%): Site Water Quality Objectives (WQO's)	Gross Pollutants (>2000µm)
	Total Suspended Solids (20 – 2000µm)
	Total Phosphorus
	Total Nitrogen
	Heavy Metals
	Total Petroleum/ Hydrocarbon
	Other
Local Authority:	
Device Location:	
Designed Discharge (Peak ARI Flow Rate) L/s:	
Treatable Flow Rate (L/s):	
Tidal or submerged (inundated) system:	
Inlet Pipe Diameter/Size	
Depth to Inlet pipe invert level	
Preferred access cover type and loading (Grated or solid top) (Class A, B or D)	
Other essential design or site relevant information:	

Please forward the above information for your next project to your local Urban Asset Solutions Pty Ltd representative. On receipt Urban Asset Solutions Pty Ltd will model and design the most appropriately sized system to suit your application to assist you achieve the project Water Sensitive Urban design objectives.
Email: info@urbanassetsolutions.com.au - Fax: 1300 706 634.

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Appendix 2

References

Please note that the **Ecosol™ GPT** was originally known as the **Ecosol RSF 4000.**

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Appendix 2 Continued

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Prof. M Lambert, Dr. A Zecchin (2013) Performance Review of the Ecosol GPT Stormwater Pollutant Filter – EngTest , The Department of Civil and Environmental Engineering – The Adelaide University.

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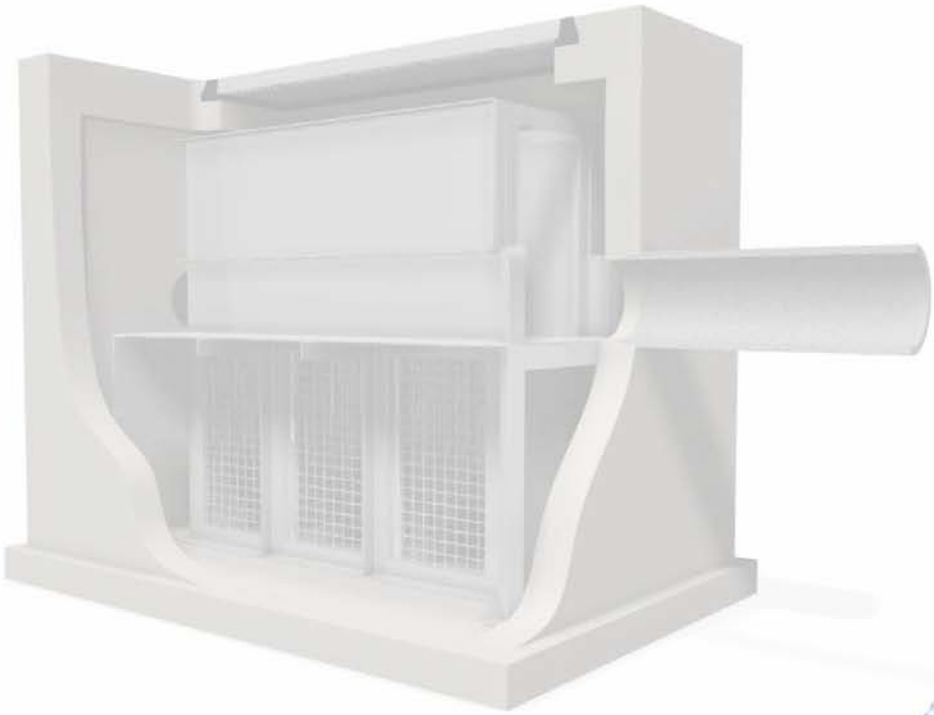

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Ekistics
Level 1, 16 Vardon Avenue
ADELAIDE SA 5000

S6690C3

Attention: Rob Gagetti **21 February 2021**

Dear Rob,

BROOKLYN DEPOT
RESPONSE TO REPRESENTATIONS

An environmental noise assessment was previously conducted for the proposed mixed use development at 108-120 Marion Road, Brooklyn Park. The assessment was summarised in Sonus report "S6690C2", dated November 2020 (***the assessment***).

Since the assessment, a number of representations have been made, which identify noise from the development as a concern. The representations include general concerns regarding the noise level from various activities and a representation which raises a concern regarding the noise assessment methodology.

General Noise Concerns

The noise from operation of the brewery, restaurant and warehouse tenancies is raised in a number of the representations. The concerns include the proposed operating times, the noise sources and the associated impacts. One area of concern is that the noise from the nearby Adelaide Airport is not sufficient to offset the potential impacts of the proposed development.

The environmental noise assessment for the site considers the requirements for the Development Plan and objectively assesses the noise from each proposed tenancy against the *Environment Protection (Noise) Policy 2007* (the Policy). In accordance with the Policy, appropriate objective noise criteria are determined with consideration given to the existing noise environment, including the Adelaide Airport and Marion Road traffic.

With the inclusion of specific acoustic treatment and the assumptions regarding the level of activity at the site, as detailed in the assessment, the predicted noise achieves the criteria determined in accordance with the Policy.

The proposed activity has therefore been designed to not detrimentally affect the amenity of the locality or cause unreasonable interference through noise, thereby achieving the relevant provisions of the Development Plan.

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Noise Assessment Methodology

A representation raised concern that the noise inside residences was considered, rather than outdoors. The representation received from 5 Ralph Street, West Richmond includes:

> *… I note in your documents you refer to the Airport Noise Abatement Scheme which saw a staggered zone of houses double glazed and sealed to noise. I would hope that this is not considered to be your total solution to any additional noise coming from this development, as practically speaking, noise abatement aids only work when we are inside with the doors closed. I enjoy my garden and my patio, and I entertain my 3 family outdoors when I can…*

As noted in the assessment, dwellings in the vicinity of the proposed development were subject to upgraded constructions, including glazing and wall/ceiling insulation, either as part of the Adelaide Airport Noise Amelioration Program or through the Development Application process for new houses. The Policy requires that where acoustic treatment is incorporated into the building facade, the relevant measurement location becomes inside the dwelling.

Notwithstanding the above, the noise level within the yard of the residence at 5 Ralph Street has been predicted, to address the concerns. The predictions from activity at the closest tenancies (within the Commercial Zone) have been compared against the outdoor noise criteria which would apply within a Residential Zone, being 52 dB(A) during the day and 45 dB(A) at night. Predictions indicate that the noise level outside will be no more than 42 dB(A) during the day period and 34 dB(A) during the night, when including a penalty for noise associated with activity at warehouses and service industry tenancies. Based on the above, the predicted noise is well below the outdoor criteria for 5 Ralph Street.

If you have any questions or require clarification, please call me.

Yours faithfully
Sonus Pty Ltd

Chris Turnbull
Principal

+61 417 845 720
ct@sonus.com.au

Brooklyn Depot Development

108-120 Marion Road

Environmental Noise Assessment

November 2020

S6690C2

sonus.

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Brooklyn Depot – Marion Road
Environmental Noise Assessment
S6690C2
November 2020

sonus.

Document Title	: Brooklyn Depot – 108-120 Marion Road Environmental Noise Assessment
Document Reference	: S6690C2
Date	: November 2020
Author	: Alexander Lee, MAAS
Reviewer	: Chris Turnbull, MAAS

INTRODUCTION

An environmental noise assessment has been made of the proposed Brooklyn Park Depot development at 108-120 Marion Road.

The development is located across 7 allotments and includes constructing several new buildings for warehouse and service industry tenancies, fitout of two existing buildings for use as a restaurant and a brewery and the associated car parking facilities to accommodate these land uses. Appendix A shows the proposed site layout, including the various buildings and car park arrangements.

The assessment considers the potential noise impacts of the development, including the following noise sources at the site;

- Mechanical plant, including air conditioning, refrigeration and exhaust fans serving each of the tenancies;
- Vehicle movements and activity in the car park;
- Outdoor patrons at the restaurant and brewery;
- Activity such as workshop noise within the warehouse and service industry tenancies;
- Truck deliveries to the warehousing and commercial tenancies;
- Use of forklifts for unloading at the warehouse and service industry tenancies; and,
- Rubbish collection from the site.

It is noted that the existing site has previously been used as a council depot, with activity including large vehicle movements and workshop activities in the early morning. The proposed warehouses and service industry tenancies will result in a lowering of intensity from large vehicle movements in comparison with the council depot and will restrict movements to after 7:00am.

The closest noise sensitive locations to the proposed site in each direction are the existing dwellings to the immediate north, on the opposite side of Marion Road to the east, opposite Edwin Street to the west and to the south on the opposite side of Keswick Creek. The locations of the existing dwellings in relation to the subject site are shown in Appendix A.

All of the nearby dwellings are exposed to very high levels of aircraft noise, with flyovers in the order of 90 dB(A). Each dwelling therefore includes acoustic treatment to reduce noise from the activity outside.

Older dwellings were eligible for the Adelaide Airport Noise Amelioration Program and recently built dwellings have been required to provide acoustic treatment as part of a Development Application.

The assessment has been based on;

- Brown Falconer drawings of the proposal "Brooklyn Depot", job number "2020071", dated 30 October 2020;
- Continuous noise monitoring;
    - On the subject site from 30 October to 4 November 2020, at a location representative of the dwellings fronting Marion Road; and,
    - Adjacent Edwin Street at the rear of the site from 4 to 9 November 2020, in a location representative of dwellings which are shielded from Marion Road.
- The understanding that the operating hours of the development will be as follows;
    - Restaurant: 5:00pm to 12am, 7 days per week;
    - Brewery: 10:00am to 6:00pm, 7 days per week;
    - Commercial / Warehouse tenancies: 7:00am to 5:00pm Monday to Saturday and 9:00am to 5:00pm Sunday.
- The patron capacity of the restaurant being 150 and the brewery being 80;
- The understanding that there is not proposed to be live or elevated levels of music associated with the restaurant or brewery. That is, if music is provided, it will be at a level which is no more than background music and adjusted such that it is inaudible at the closest dwellings.

CRITERIA

Development Plan

The subject site is predominantly located within the Commercial Zone of the West Torrens Council Development Plan, while a single allotment is within the Residential Zone. All nearby noise sensitive locations are within the Residential Zone. The Development Plan has been reviewed and particular regard given to the following noise related provisions:

GENERAL SECTION

Interface Between Land Uses

Objectives

Objective 1 *Development located and designed to minimise adverse impact and conflict between land uses.*

Objective 2 *Protect community health and amenity from adverse impacts of development.*

Objective 3 *Protect desired land uses from the encroachment of incompatible development.*

Principles of Development Control

1. *Development should not detrimentally affect the amenity of the locality or cause unreasonable interference through any of the following:*

   ...

   b. Noise

   ...

2. *Development should be sited and designed to minimise negative impact on existing and potential future land uses desired in the locality.*
6. *Non-residential development on land abutting a residential zone should be designed to minimise noise impacts to achieve adequate levels of compatibility between existing and proposed uses.*

Noise Generating Activities

8. *Development that emits noise (other than music noise) should include noise attenuation measures that achieve the relevant Environment Protection (Noise) Policy criteria when assessed at the nearest existing noise sensitive premises.*
9. *Development with the potential to emit significant noise (e.g. industry) should incorporate noise attenuation measures that prevent noise from causing unreasonable interference with the amenity of noise sensitive premises.*

10. *Outdoor areas (such as beer gardens or dining areas) associated with licensed premises should be designed or sited to minimise adverse noise impacts on adjacent existing or future noise sensitive development.*

Environment Protection (Noise) Policy 2007

The Development Plan references the Environment Protection (Noise) Policy. The current version is the *Environment Protection (Noise) Policy 2007* (the Policy).

The Policy is based on the World Health Organisation Guidelines to prevent community annoyance, sleep disturbance and unreasonable interference and therefore compliance with the Policy is considered to satisfy the noise related provisions of the Development Plan. The Policy includes specific requirements for activities such as rubbish collection as well as goal noise levels for the assessment of general activity at a site.

Rubbish Collection

The Policy deals with rubbish collection by limiting the collection hours to the least sensitive period of the day unless it can be shown that the maximum (L_{Amax}) instantaneous noise level of 60 dB(A) is not exceeded. Division 3 of the Policy establishes the hours to be between 9:00am and 7:00pm on a Sunday or public holiday, and between 7:00am and 7:00pm on any other day.

General Activity

The Policy provides goal noise levels to be achieved at noise sensitive receivers based on the principally promoted land use of the Development Plan zones of the noise source (the development) and the noise receivers (the existing dwellings). Each of the proposed land uses has been assessed against the goal noise levels of the Policy, being the individual warehouse and service industry tenancies, brewery and restaurant.

Where a dwelling incorporates acoustic treatment in to the facade to reduce the noise from external sources, the appropriate assessment location becomes inside the *habitable rooms* of the dwelling. In these circumstances, the noise criteria are as follows:

- For a land use within the Commercial Zone;
    - an average ($L_{Aeq,15min}$) noise level of 32 dB(A) during the day (7:00am to 10:00pm);
    - an average ($L_{Aeq,15min}$) noise level of 25 dB(A) at night (10:00pm to 7:00am); and,
    - a maximum instantaneous (L_{Amax}) noise level of 40 dB(A) at night (10:00pm to 7:00am).

- For a land use within the Residential Zone;
    - an average ($L_{Aeq,15min}$) noise level of 27 dB(A) during the day (7:00am to 10:00pm);
    - an average ($L_{Aeq,15min}$) noise level of 25 dB(A) at night (10:00pm to 7:00am); and,
    - a maximum instantaneous (L_{Amax}) noise level of 40 dB(A) at night (10:00pm to 7:00am).

When measuring or predicting noise levels for comparison with the Policy, penalties may be applied to the average goal noise levels for each characteristic of tone, impulse, low frequency and modulation of the noise source. To apply a penalty, the characteristic must be considered dominant in the ambient noise environment. In some instances a penalty would apply to activities such as patrons, warehousing or service industry for the character of modulation, or to reversing trucks for tonality, effectively reducing the goal noise levels by 5 dB(A) for one character or 8 dB(A) for two. The application of penalties is discussed further in the Assessment section, with comparison against the existing noise levels of the environment.

ASSESSMENT

Rubbish Collection

In order for rubbish collection to achieve the requirements of the *Environment Protection (Noise) Policy 2007,* the hours of collection should be restricted to that of Division 3 of the Policy. That is, only between the hours of 9am and 7pm on a Sunday or public holiday, and 7am and 7pm on any other day.

These hours correspond to the least sensitive period of the day and times when the background noise level from other activity in the environment will be highest.

Other Activity

The noise from activity other than rubbish collection has been predicted based on measurements of similar land uses at other sites. These include:

- car park activity such as people talking as they vacate or approach their vehicles, the opening and closing of vehicle doors, vehicles starting, vehicles idling, and vehicles moving into and accelerating away from their park position;
- general vehicle movements on site;
- patrons in outdoor areas;
- movement of delivery trucks;
- unloading and loading activity by forklifts;
- brewery activity including the use of pumps and forklifts; and,
- general workshop activity within service industry or warehouse buildings.

The overall sound power level data for the above activities are summarised in Appendix C.

As is typical at the Development Application stage of a project, the mechanical plant has not yet been designed or selected. The assessment of mechanical plant has therefore been based on the assumption that equipment will be located on the roof of each tenancy and will generally consist of the following;

Land Use	*Equipment*	*Quantity*	*Sound Power Level (each)*
Restaurant	Refrigeration Unit	2	80 dB(A)
	Kitchen Exhaust Fan (with attenuator)	1	71 dB(A)
	A/C	2	76 dB(A)
Brewery	Refrigeration Unit	2	80 dB(A)
	Exhaust Fan (with attenuator)	1	71 dB(A)
	A/C	2	76 dB(A)
Service Industry or Warehouse	A/C	2	76 dB(A)

The assessment considers the worst case noise level at each of the nearby dwellings as a result of each land use. The predictions have been based on the following level of activity at each of the land uses;

- At the warehouse or service industry tenancies in the Commercial Zone;
  - Continuous operation of the mechanical plant listed above;
  - A truck entering the car park, parking outside the building and being unloaded by a forklift (includes 1 minute of idling on arrival/leaving the site and a forklift outside the building for 5 minutes);
  - Continuous workshop activity within the building and the roller doors being open.
- At the warehouse tenancy in the Residential Zone ("Warehouse 1");
  - Continuous operation of the mechanical plant listed above;
  - A truck entering the car park, parking outside the building and being unloaded by hand (includes 1 minute of idling on arrival/leaving the site).
- At the restaurant tenancy;
  - Continuous operation of the mechanical plant listed above;
  - 150 patrons within the outdoor area (total capacity of restaurant being 150).
- At the brewery tenancy;
  - Continuous operation of the mechanical plant listed above;
  - Continuous activity within the "brewery" portion of the building, including use of pumps and forklifts;
  - 80 patrons within the outdoor area (total capacity of brewery being 80).

In addition to the above, the predictions of noise from each tenancy have also included the following level of vehicle activity within the car park;

- During the day period;
    - 40 vehicle movements into or out of the car park.
- During the night period (10:00pm to 12:30am);
    - 20 vehicle movements into or out of the car park.

Based on the above, a noise model of the site and surrounding area has been developed using SoundPlan software. The noise model accounts for the level of activity at the land use being considered, the separation distance to dwellings, the shielding of barriers and buildings and meteorological conditions conducive to noise propagation (resulting in the highest noise level).

For dwellings in the vicinity of the subject site, acoustic treatments have been incorporated to the building constructions to address the noise from Adelaide Airport. All new dwellings are required to incorporate treatment at the Development Application stage, while existing dwellings were upgraded as part of the Noise Amelioration Program. Both the Amelioration Program and the requirements at the Development Application stage relate to achieving the AS 2021-2000 "Acoustics – Aircraft Noise Intrusion – Building Siting and Construction" (the Australian Standard). The Australian Standard recommends maximum noise levels from aircraft within habitable rooms of 50-55 dB(A) and the outdoor flyover noise for domestic aircraft in the vicinity of the site is 89 dB(A). That is, a noise reduction of 34 to 39 dB(A) is required across the facade of *habitable rooms*. This assessment has been based on a conservative 30 dB(A) reduction across the facade.

In order for each of the land uses to achieve the noise criteria, the following acoustic treatment of the site is recommended;

- Construct a minimum 2.4m high 0.42 BMT sheet steel ("Colorbond" or similar) fence for the extent shown below as **RED**. For the extent shown as **BLUE**, it should be ensured that the existing boundary fence is no less than 1.8m high. All fences should be sealed airtight at all junctions, including at the ground.

- Ensure that delivery vehicles switch off engines immediately after parking and are not left running during deliveries.
- Ensure there are no irregularities on the site and all inspection points, grated trenches, etc. are correctly fixed to remove the potential for impact noise being generated when driven over.

With the recommended acoustic treatments incorporated and the level of activity described above, the noise level from each of the land uses is predicted to achieve the project noise criteria. The following table summarises the highest noise level predicted from each land use and a comparison with the criteria;

Land Use	***Day Period (7:00am to 10:00pm)***		***Night Period (10:00pm to 12:00am)***	
	Predicted Noise Level	***Criteria***	***Predicted Noise Level***	***Criteria***
Restaurant	22	32	21	25
Brewery	24	32	**	25
Warehouse or Service Industry Tenancy (Commercial Zone)	31	32	**	25
Warehouse or Service Industry Tenancy (Residential Zone)	25	27	**	20

*** Outside of proposed land uses operating hours*

Given the potential for reversing tones from delivery vehicles at the warehouse and service industry tenancies, a 5 dB(A) penalty has been applied to the predictions from these locations. However, given the low predicted noise levels from the restaurant and brewery tenancies and the high background noise levels in the vicinity of Marion Road (refer Appendix B), no penalties have been applied to the predicted noise levels from these uses given the noise character will not be dominant in the existing acoustic environment.

It is noted that the noise level and any acoustic treatment associated with mechanical plant should be reviewed during the detailed design phase, should the final equipment selections have higher sound power levels or should a higher number of units be proposed than those specified within this report. The review should ensure that the combined noise level from all sources at each land use achieve the goal noise levels set out in this report when assessed in accordance with the *Environment Protection (Noise) Policy 2007*.

In addition to the above, the maximum (L_{Amax}) noise level from activity after 10:00pm has been predicted at the nearby dwellings. The noise from activity such as doors opening and closing, vehicles accelerating and people talking has been measured at other similar facilities. In this instance, it is predicted that the noise from these activities will be no more than 28 dB(A) inside any dwelling. The level easily achieves the project noise criterion and is well below the level already experienced at these locations (refer to the noise logging results in Appendix B).

Based on the above, the site is predicted to achieve the requirements of the Policy at all existing dwellings in the vicinity.

CONCLUSION

An environmental noise assessment has been made of the proposed mixed use development at 108-102 Marion Road Brooklyn Park.

The assessment considers the noise from the proposed land uses, being a number of warehouse and service industry premises, a brewery and a restaurant. The brewery and restaurant are proposed to be developed within existing buildings fronting Marion Road, while the warehouse and service industry premises are proposed within a combination of existing and new buildings. The warehouse and service industry land uses are proposed to operate with similar noise sources to the existing council depot site, with additional restrictions in hours.

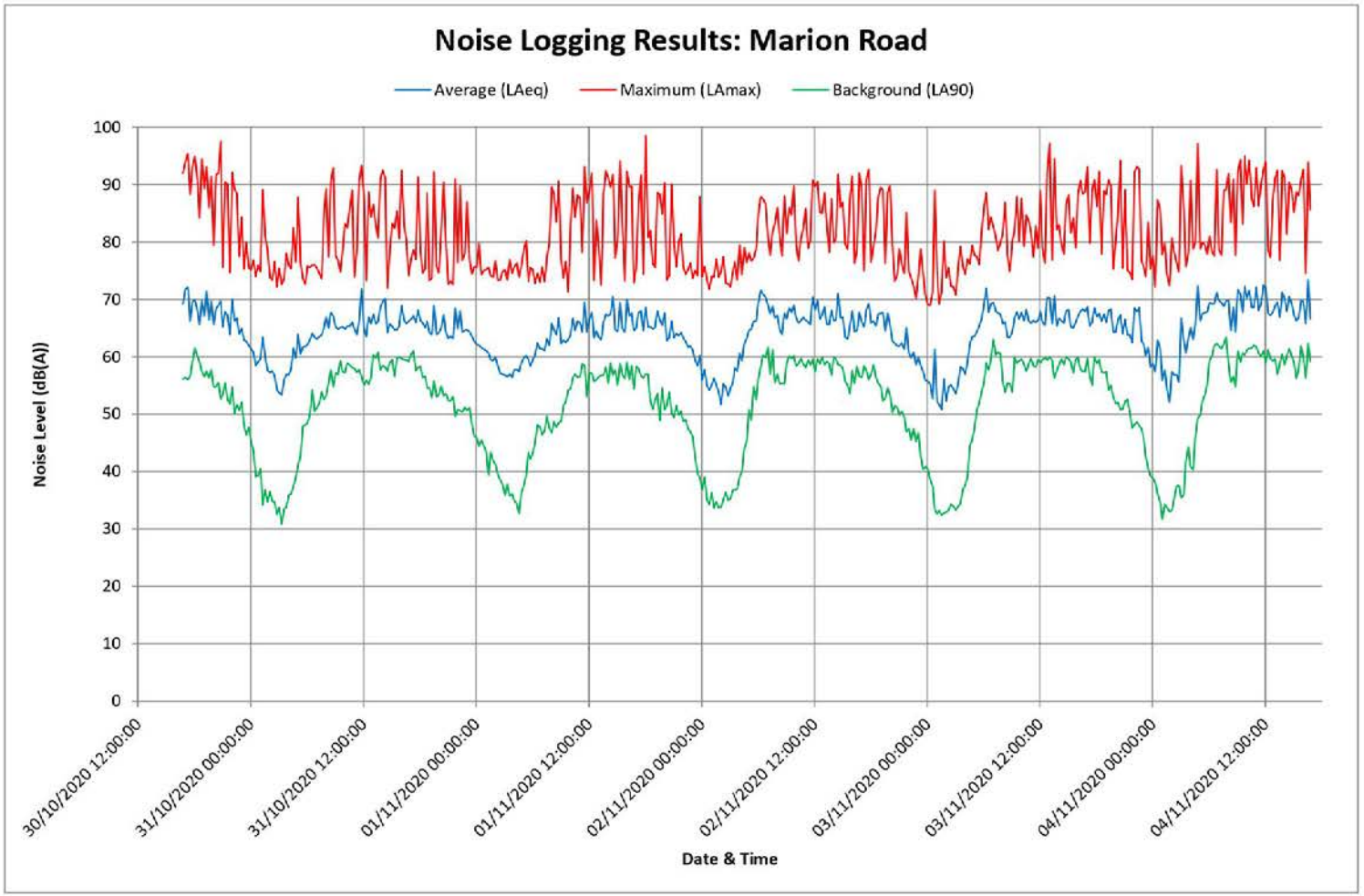
The predicted noise levels are compared to objective noise criteria derived in accordance with the *Environment Protection (Noise) Policy 2007*, with consideration for the acoustic treatments for aircraft noise incorporated into the nearby dwelling constructions.

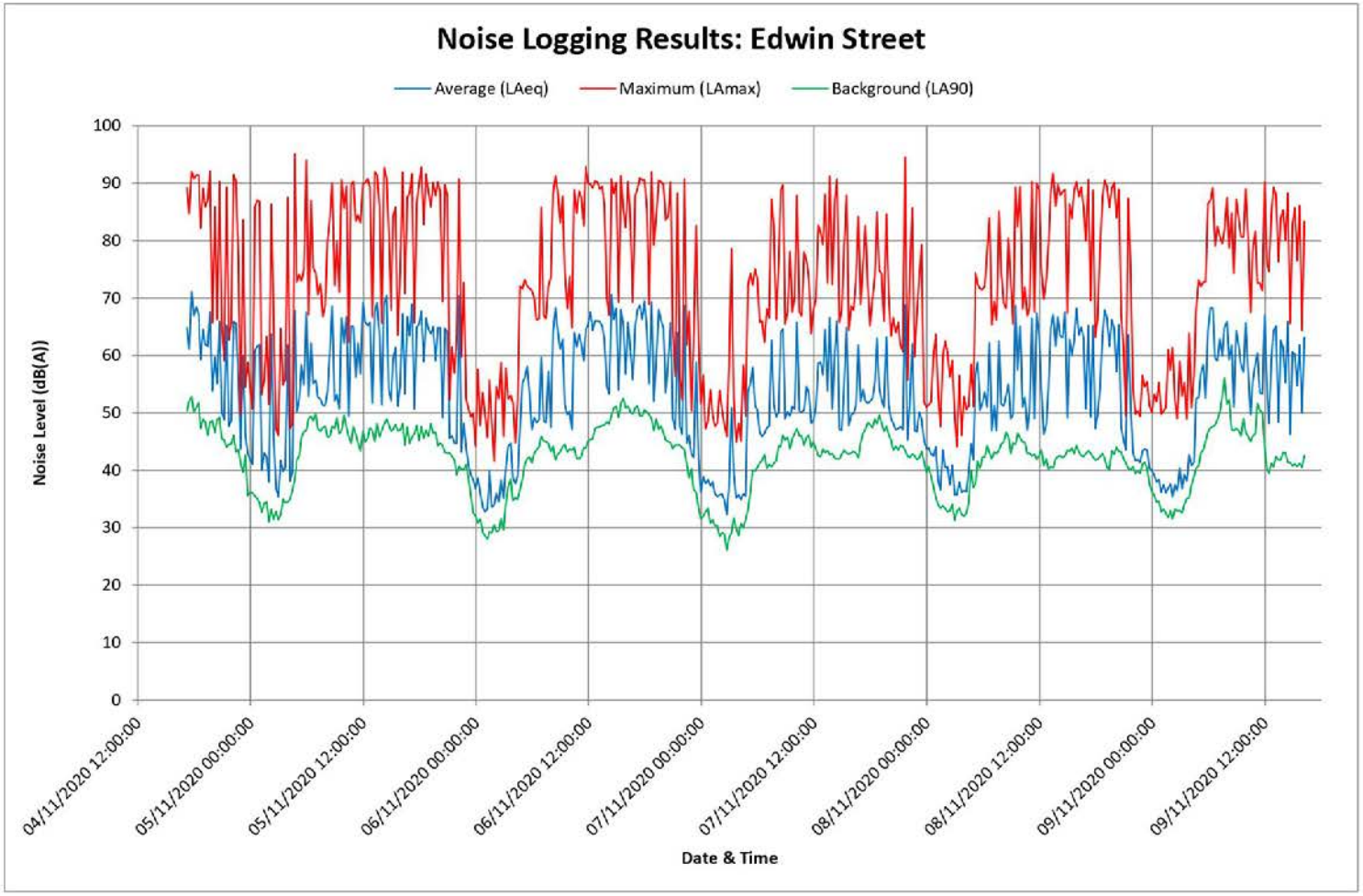
With the inclusion of acoustic treatments such as specific fencing, truck idling times and restrictions in the hours of rubbish collection, the noise from the site is predicted to achieve the requirements of the *Environment Protection (Noise) Policy 2007* at all noise sensitive locations in the vicinity.

In doing so, it is considered that the development will not detrimentally affect the amenity of the locality or cause unreasonable interference through noise, thereby achieving the relevant provisions of the Development Plan.

APPENDIX A: *Subject Site & Nearby Dwellings*

APPENDIX B: *Noise Logging Results*




Noise Logging Results: Edwin Street
Average (LAeq)
Maximum (LAmax)
Background (LA90)
Noise Level (dB(A))
100
90
80
70
60
50
40
30
20
10
0
04/11/2020 12:00:00
05/11/2020 00:00:00
05/11/2020 12:00:00
06/11/2020 00:00:00
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08/11/2020 00:00:00
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Date & Time

APPENDIX C: *Sound power level data.*

	Equipment/Activity	Sound Power Level
Car Park Activity	General activity	83 dB(A)
	Idling car	75 dB(A)
	Moving car	82 dB(A)
Patrons	Each outdoor patron	76 dB(A)
Deliveries	Forward moving 14m truck	101 dB(A)
	Reversing moving 14m truck	99 dB(A)
	Idling 14m truck	96 dB(A)
	Forklift unloading	89 dB(A)

BROOKLYN DEPOT REDEVELOPMENT
MARION ROAD, BROOKLYN PARK

TRAFFIC AND PARKING REPORT

CIRQA™

DISCLAIMER

DOCUMENT CONTROL

Report title:	Brooklyn Depot Redevelopment, Marion Road, Brooklyn Park Traffic and Parking report
Project number:	20215
Client:	Accord Property Pty Ltd
Client contact:	Lance Meyer

Version	Date	Details/status	Prepared by	Approved by
Draft	27 Nov 20	For review	BNW	BNW
V1	2 Dec 20	For submission	BNW	BNW
V1.1	16 Mar 21	Minor update	BNW	BNW

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1. INTRODUCTION

CIRQA has been engaged to provide design and assessment advice for a mixed use (re)development at the Brooklyn Depot, 108-120 Marion Road, Brooklyn Park. Specifically, CIRQA has been engaged to provide advice in respect to traffic and parking aspects of the proposal.

This report provides a review of the subject site, the proposed development, its access and parking provisions and the associated traffic impact on the adjacent road network. The traffic and parking assessments have been based upon plans prepared by Brown Falconer (drawing nos. 2020071 3366 DA05, DA06 and DA07, refer Appendix A).

2. BACKGROUND

2.1 SUBJECT SITE

The subject site is located on the western side of Marion Road. The site is bound by residential properties to the north, Keswick Creek to the south and Edwin Street to the west. The City of West Torrens' Development Plan identifies that the majority of the site is located within a Commercial Zone (Policy Area 2 – District Commercial) with the exception of 108 Marion Road which is located within a Residential Zone.

The subject site is currently occupied by the former City of West Torrens Works Depot. Access is provided via the following access points:

- a two-way access on Marion Road near the southern end of the site. This access point accommodates all turning movements. A separated right-turn lane is provided for right-turns into the site;
- a two-way, left-in/left-out access on Marion Road approximately 25 m south of the site's northern boundary (right-turn movements are restricted by the central median;
- a two-way access on Marion Road approximately 12 m south of the site's northern boundary. Right-turn in movements are restricted by the central median, however an opening is provided to accommodate right-out movements;
- a two-way access (with all turning movements permitted) on Edwin Street approximately 20 m north of the site's southern boundary; and
- a two-way access (with all turning movements permitted) on Edwin Street approximately 8 m south of the site's northern boundary.

2.2 ADJACENT ROAD NETWORK

Marion Road is an arterial road under the care and control of the Department for Infrastructure and Transport (DIT). Adjacent the site, Marion Road comprises two traffic lanes and a bicycle lane in each direction (7:00 am to 10:00 am and 3:00 pm to 7:00 pm Monday to Friday). Traffic data obtained from DIT indicates that this section of Marion Road has an Annual Average Daily Traffic (AADT) volume in the order of 35,000 vehicles per day (vpd). Adjacent the site, a 60 km/h speed limit applies on Marion Road.

Edwin Street is a local road under the care and control of the West Torrens Council. Edwin Street comprises a 7.2 m wide carriageway (approximate) with a single traffic lane in each direction. A 50 km/h speed limit applies on Edwin Street.

Figure 1 illustrates the location of the subject site and the adjacent road network.

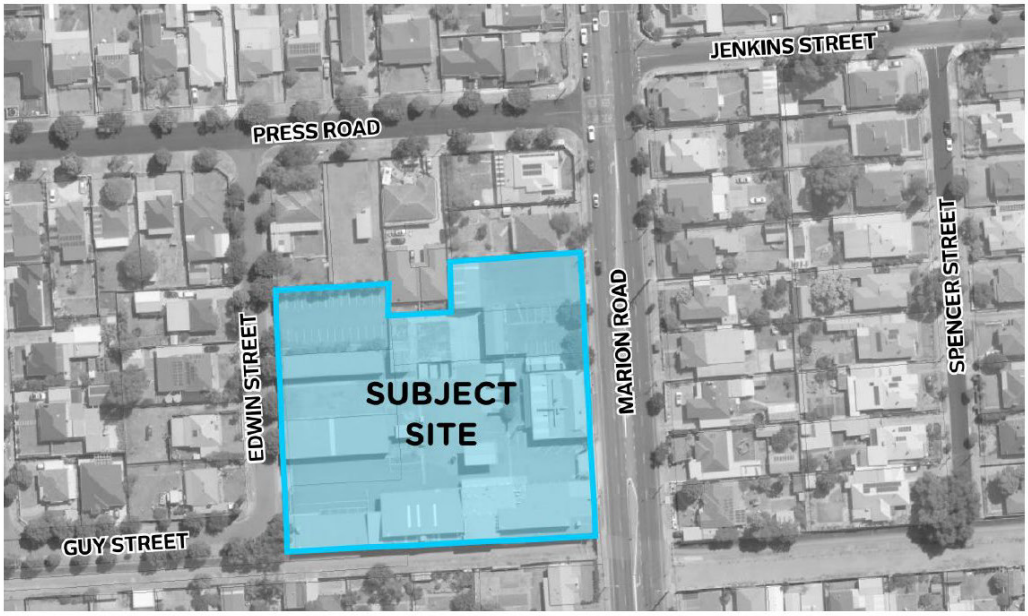


Figure 1 – Location of the subject site and the adjacent road network

2.3 WALKING AND CYCLING

Footpaths are provided on both sides of Marion Road and Edwin Street which connect to the broader pedestrian network. Bicycle lanes (part-time) are provided on Marion Road. A secondary (north-south) route within the BikeDirect network is located to the west of the site (at the western end of Guy Street) which provides connectivity to the broader BikeDirect network.

2.4 PUBLIC TRANSPORT

The site is well serviced by public transport with regular bus services operating on Marion Road as well as Sir Donald Bradman Drive to the north of the site. Bus

stops on Marion Road are located immediately adjacent the subject site and are serviced by the following routes:

- 100 – Arndale Centre Interchange to Glen Osmond;
- 100B – Arndale Centre Interchange/Urrbrae Agricultural High School to Brooklyn Park;
- 101 – Arndale Centre Interchange to Flinders University;
- H20/H20C – Glenelg Interchange to Paradise Interchange/City
- J7 – West Lakes Centre Interchange to Marion Centre Interchange; and
- J8 – West Lakes Centre Interchange to Marion Centre Interchange.

The closest stops (less than 300 m) from the site on Sir Donald Bradman Drive are serviced by the following routes:

- 163 – City to West Beach;
- J1 – Elizabeth Interchange to Adelaide Airport and Glenelg;
- J1G – Glenelg to Golden Grove Interchange;
- J1T – Adelaide Airport to Tea Tree Plaza; and
- J2 – Greenwith to Adelaide Airport and Harbour Town.

3. PROPOSED DEVELOPMENT

3.1 LAND USE AND YIELD

The proposed development comprises the demolition of a proportion of the existing buildings on the subject site and the construction of the following land uses:

- a 623 m² microbrewery within the existing building in the south-eastern corner of the site. This will comprise a publicly accessible capacity of 80 seats/patrons (within indoor and outdoor areas), 223 m² of brewery area/ back-of-house areas and 121 m² of mezzanine area (primarily accommodating storage but also accommodating two employee desks);
- a 374 m² restaurant (with a maximum capacity for 150 seats/patrons) within the existing building located mid-block along the site's Marion Road frontage; and
- 14 tenancies comprising 819 m² of warehouse tenancies plus 234 m² of associated mezzanine (office) area and 1,658 m² of service industry tenancies plus 695 m² of mezzanine (office) floor area.

The proposed restaurant will trade between 5:00 pm and 12 midnight (it will not open during the day-time). The brewery will trade between 10:00 am and 6:00 pm (it will not open in the evenings/night after 6pm). The warehouse/service industry tenancies will be trade between 7:00 am to 5:00 pm Monday to Saturday and 9:00 am to 5:00 pm Sunday (albeit activity on weekends would typically be low).

3.2 ACCESS AND PARKING DESIGN

It is proposed to retain the existing southern and central crossovers on Marion Road to provide the primary access points for the site. The northern Marion Road access will be closed which will reduce the number of conflict points on Marion Road (including removal of the right-out movement at this location). The Edwin Street access points will be retained (as will their gated arrangements).

The site will be serviced by 81 parking spaces (inclusive of two spaces reserved exclusively for use by people with disabilities). A further seven bicycle parking spaces are also proposed. The parking area will comply with the requirements of Australian/New Zealand Standard, *Parking Facilities Part 1: Off-street car parking* (AS/NZS 2890.1:2004) and Australian/New Zealand Standard, *Parking Facilities Part 6: Off-street parking for people with disabilities* (AS/NZS 2890.6:2009) in that:

- angled parking spaces which range in width from 2.4 m (for 'staff only' spaces) to 2.7 m and will be 5.4 m long (or 4.8 m with 600 mm overhang to low level landscaping);
- parallel spaces will be 2.3 m wide and 5.4 m long for unobstructed end spaces and 5.9 m long for intermediate spaces (with a one-way aisle width of at least 3.8 m);
- disabled parking spaces will be 2.4 m wide and 5.4 m long (with an adjacent shared space of the same dimension);
- the two-way parking aisles will be at least 5.8 m wide;
- a 1.0 m end-of-aisle extension will be provided beyond the last parking space in the aisle; and
- 0.3 m clearance will be provided to all objects greater than 0.15 m in height.

3.3 SERVICING AND DELIVERIES

The small warehouse tenancies will be able to be accessed by small rigid vehicles whereas the remaining (larger) tenancies will be able to be accessed by medium rigid vehicles. Such vehicles will be able to be reversed into the tenancies and then exit in a forward direction. Indicative turn paths are provided on the plan attached in Appendix B.

Deliveries associated with the microbrewery and restaurant will be accommodated within two spaces designated as part-time loading bays (i.e.

between 7 am and 10 am). It is noted that larger vehicles may, on occasion, service the microbrewery. Such vehicles will store within the parking aisle adjacent the microbrewery's bin store. Adequate distance would be maintained for other vehicles to pass a vehicle stored adjacent the brewery. Given the relatively low traffic volumes anticipated within the site and the infrequency of such loading arrangements, it is considered that this can be easily accommodated without impacting the operation of the site nor the adjacent access point.

Refuse collection will be undertaken by private contractor. Bins will be stored within two bin stores. Collection vehicles (anticipated to be in the order of 8.8 m to 11.0 m in length would circulate and undertake bin collection via the primary aisles (with the contractor wheeling bins to/from the collection vehicle).

4. PARKING ASSESSMENT

4.1 CAR PARKING

The City of West Torrens' Development Plan identifies the following parking requirements relevant to the subject proposal:

- restaurant
  - greater of one space per three seats or one space per 15 m² of total floor area;
- industry and warehouse
  - 3.3 spaces per 100 m² for the office component; plus
  - two spaces per 100 m² for up to 200 m², plus 1.33 spaces per 100 m² of floor area between 200 to 2,000 m² plus 0.67 spaces per 100 m² of floor area above 2,000 m².

On the basis of the above, the proposal theoretically requires a total of 145 spaces (rounded up) comprising the following:

- **restaurant** – 50 spaces;
- **brewery** (public access) – 26.67 spaces (given the seating level will be restricted, this has been based on a 'per seat' basis);
- **brewery** (non-public areas based on the industry rates) – 5.92 spaces; and
- **warehouse/service industry** – 61.79 spaces.

However, this assessment does not include consideration of the different operating times and peak periods associated with the various land uses and therefore overestimates realistic peak demands. Taking into account the

proposed operating times, the following peak demand periods are forecast (based on the Development Plan rates):

- day-time peak demand – 95 parking spaces (based on 100% tenancy demand and 100% brewery demand); and
- night-time peak demand – 77 parking spaces (based on 100% restaurant demand and 100% microbrewery demand at the 5pm to 6 pm overlap).

The above assessment indicates that there would be a small shortfall of 14 parking spaces during the day-time peak demand period with no shortfall during the theoretical night-time demand period. However, in reality, the peak demands will be lower than suggested above as:

- the peak day-time period of the brewery (public areas) would occur during the evening or on weekends (not weekday day-time). Similarly, during weekend day-time peak periods, the warehouse/service industry tenancies would generate much lower demands than suggested above. The absolute (worst-case) overlap of peak demands would therefore be below that suggested above and within the level of parking provided on site;
- the same rate from the Development Plan has been applied to the service industry and warehouse tenancies. In reality, it is likely the warehouse tenancies will generate lower demands. For instance, the Aurecon "Parking Spaces for Urban Places" study identifies lower rates for warehousing than other types of industrial uses. If applied, these rates would result in the day-time (as well as night-time) peak demands being less than the proposed parking provision);
- it is likely that a proportion of parking demand associated with the tenancies would occur within the warehouses themselves (i.e. a builders' ute stored/ parked behind the roller door/within the tenancy). This would not only provide effective additional spaces on-site but also reduce the floor area that would be considered to 'generate' demand (reducing the overall shortfall from two 'angles'); and
- the theoretical 'night-time' peak would be unlikely to be realised, given peak patronage associated with the microbrewery would most likely occur prior to 5pm and the peak patronage associated with the restaurant would be likely to occur after 6:30 pm. The overlap of peak demands for these two uses is extremely unlikely (i.e. the brewery will be in 'closing/shut down' mode, whereas the restaurant will be in 'start-up' mode).

Accordingly, it is considered that peak demands would be adequately accommodated on site.

4.2 BICYCLE PARKING

Council's Development Plan does not identify bicycle parking rates for development within the subject zone nor the proposed uses. Nevertheless, the Development Plan does seek provision of bicycle parking (it just doesn't quantify the extent required). It is proposed to provide seven bicycle parking spaces within the site. These will primarily service the restaurant and brewery uses as demands associated with the warehouse and service industry tenancies could easily be located within the tenancies themselves. Such a provision would equate to approximately 10% of the parking requirement associated with the brewery and restaurant uses, and is considered to be a reasonable and appropriate level of bicycle parking provision for the proposed uses.

5. TRAFFIC ASSESSMENT

The RTA's "*Guide to Traffic Generating Developments*" (the RTA Guide), and its subsequent updates, is a document commonly used by traffic engineers in order to determine the forecast traffic generation of a variety of land uses. The following rates from the RTA Guide have been adopted for assessment of the proposal:

- **restaurant** (applied to the restaurant and publicly accessible areas of the brewery) – five peak hour movements per 100 m²; and
- **business park/industrial estate** (applied to the service industry, warehouse and non-public brewery areas) – 0.7 am and 0.78 pm peak hour trips per 100 m² floor area.

On the basis of the above, the proposal is forecast to generate the following:

- **restaurant** – 19 peak hour trips;
- **brewery** (public access) – 22 peak hour trips;
- **brewery** (non-public areas based on the industry rates) – three am and four pm peak hour trips; and
- **warehouse/service industry** – 24 am and 27 pm peak hour trips.

On the basis of the above, there would be a total of 68 am and 72 pm peak hour trips. However, in reality, the restaurant and public areas of the brewery would generate minimal traffic during the am peak hour (noting the operating hours proposed). Furthermore, the peak hours of each use would be unlikely to directly coincide. Hence, at most, it is likely that traffic generation associated with the proposed uses would be in the order of 30 am and 40 pm peak hour trips.

The above assessment does not include consideration of the traffic generation associated with the previous use of the site as a Council depot. It is understood the depot use had a gross floor area of approximately 1,915 m². Applying the above 'business park' rate to this area, there would be approximately 14 am and 15 pm peak hour trips associated with the site. In reality, given over 50 parking spaces (excluding Council equipment/appliance parking) were accommodated on the site, it is likely a higher traffic volume was generated by the depot use.

Nevertheless, using the volume calculated on the basis of the 'business park' rate would suggest (conservatively) that the proposal could generate an additional 15 to 25 trips during the am and pm (commuter) peak hours. These movements would primarily be distributed between the site's two access points on Marion Road (with minimal use of the Edwin Street access points). Such additional volumes are negligible and the movements will be easily accommodated at the adjacent access points and on the surrounding road network.

In addition, it is reiterated that the proposal will close one of the existing access points on Marion Road. This will remove a number of existing conflict points including the removal of a right-out movement. Such an outcome will provide a positive impact in relation to conditions at the site access points and on Marion Road.

6. SUMMARY

The proposal comprises the redevelopment of the Brooklyn Park depot site to accommodate a restaurant, brewery and warehousing/service industry tenancies. The development will be serviced by a total of 81 parking spaces including two spaces for use by persons with disabilities.

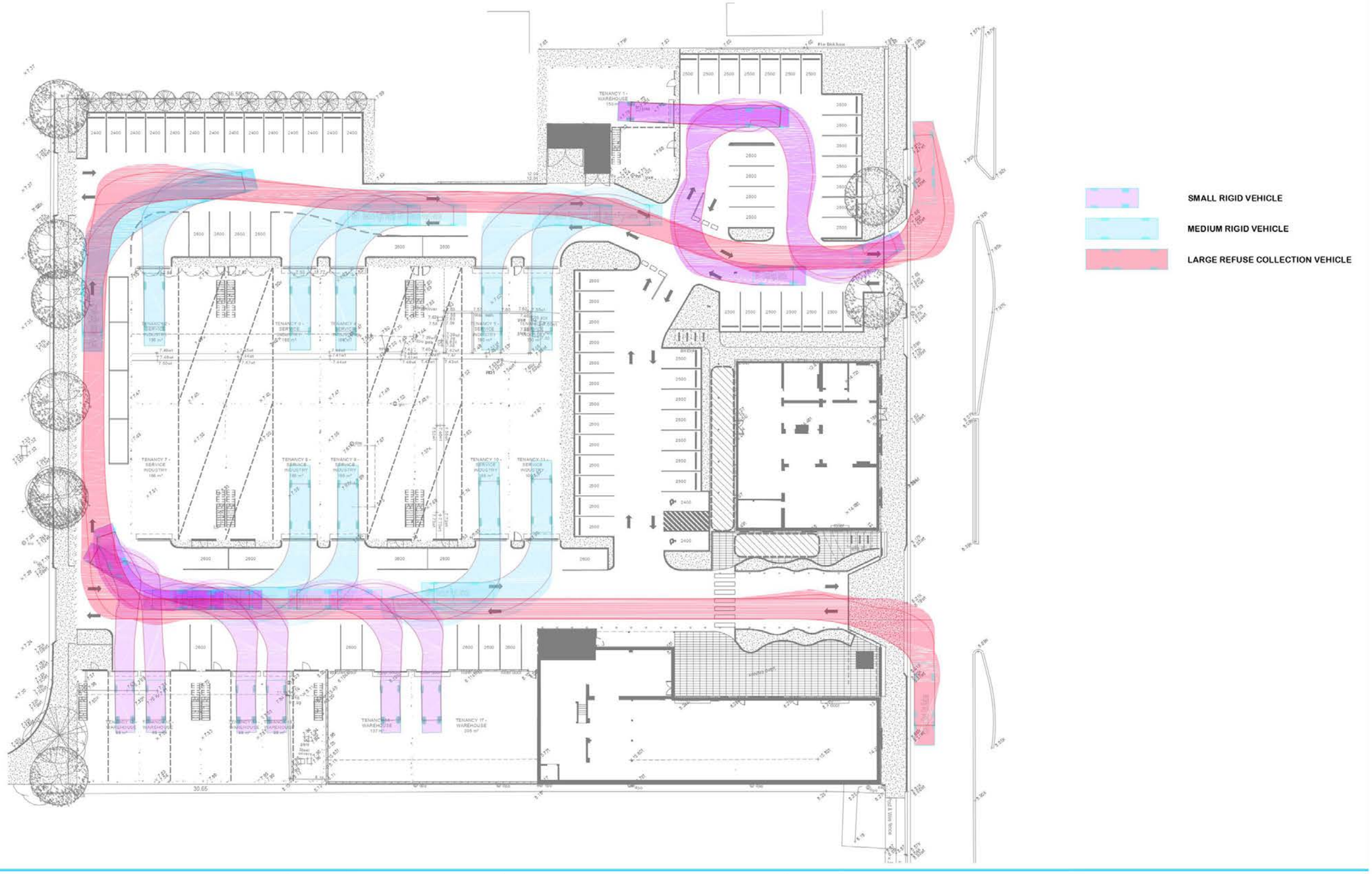
The access arrangements and parking spaces will be provided in accordance with the relevant Australian Standards. The site will primarily be serviced by two access points on Marion Road with secondary (minor) access via the existing gated access points on Edwin Street. An existing access on Marion Road (including right-out accommodation) will be removed (closed). The site layout and access points have been designed to accommodate the turning movements of the relevant design vehicles (enabling forward-in/forward-out access).

Based upon the Council's Development Plan, the proposal would generate a theoretical parking requirement for 145 parking spaces. However, such an assessment is excessively conservative and unrealistic. In particular, it does not consider the difference in peak periods associated with the various uses and, in particular, the different trading hours proposed. Based on various considerations associated with parking demand patterns for the different uses, the proposed provision of 81 spaces will adequately accommodate peak parking demands

within the site (with no reliance on on-street parking). Bicycle parking will also be provided within the site.

In respect to traffic generation, it is forecast that the proposal will generate in the order of 15 to 25 additional peak hour trips (taking into account the previous land uses and the differing peak periods for the various uses). These movements will primarily be distributed between the site's two access points on Marion Road with minimal impact on the adjacent road network.

APPENDIX B
INDICATIVE TURN PATHS



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DRAWING AMENDMENTS

VER	DATE	DESCRIPTION	DWN	CHK
A	02/12/2020		BNW	BNW
B	16/03/2021		BNW	BNW

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BROOKLYN DEPOT

MARION ROAD, BROOKLYN PARK
TURN PATH REVIEW

PROJECT # 20215 SHEET # 03_SH01

ekistics

Appendix 7. Enviroscan Odour Assessment

ENVIROSCAN

INDUSTRIAL & MARINE SURVEYS

Microbrewery odour emissions assessment

Report 21-0221

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NATA

AIR SOIL WATER

Microbrewery odour emissions assessment

Report 21-0221

Prepared for: Accord Property
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Version	Document	Issued	Prepared	Authorised
Final	R21-0221	24/02/21	B McLeod BSc Air Quality Scientist	B Severne PhD Supervising Scientist

CONTENTS

TABLES

FIGURES

1. Background

The Brooklyn Park Depot Redevelopment on Marion Road is the site of the former West Torrens public service depot.

A microbrewery is proposed in the south east corner of the site with a maximum brew of 500 litres per day (DA 211/702/2020 City of West Torrens). The site is surrounded by single storey residences (Figure 1).
City of West Torrens requested additional information (25 January 2021) on odour control measures to minimise impacts on the amenity of the surrounding area.

The most significant source of odour in a brewery is considered to be the evaporation of volatile organic compounds from the wort kettle during a 60-minute boiling period, on two or three days per week.

Enviroscan was commissioned by Accord Property to assess wort kettle odour emissions at the proposed microbrewery with regard to potential odour impacts on surrounding residences.

Figure 1 Microbrewery location and wort kettle exhaust vent

2. Methods

Odour assessment of a new facility can be based on atmospheric dispersion modelling or past experience with a similar process operating elsewhere.
In this case there was no quantitative data for operating microbreweries.

The nature of brewing odours is subjective but experience in Europe (VDI, 1994) for more than 20 years has led to standardised methods to quantify odour intensity and character or hedonic tone.
Brewery odours are considered to be neutral i.e., neither pleasant nor unpleasant.

Odour concentration is reported as odour units (OU) and is measured in the laboratory by dynamic olfactometry (AS 4323.3:2001).
Enviroscan has NATA accreditation for odour sampling to AS 4323.3 and AS4323.4:2009.
Ambient odour can also be measured by a Nasal Ranger field olfactometer to record odour dilutions to threshold as OU_{EQ}.
This field instrument can quantify odour strength well below the detection limit (~30 OU) of the more-rigorous laboratory-based dynamic olfactometry method (AS 4323.3), and although not strictly comparable, it is an effective tool for odour assessment.

Odour measurements were made by Nasal Ranger on emissions from a scaled down standard wort boil, prepared by Ryan Bickley (microbrewery operator). The wort simulated a normal hybrid between a typical Australian Lager and Pale Ale, and bittering was done with Centennial hops.
Odour concentrations ranged from 30 to 60 $OU_{EQ,}$ over a 30-minute period.

The proposed wort kettle exhaust vent parameters are listed in Table 1.
The wort kettle has a 500 litre brew capacity with an exhaust vent fitted in the hood. An in-duct exhaust fan will provide the 10 m/s exit velocity.
The adopted odour concentration for this assessment was set at 1000 OU to provide a very conservative factor for any future variation in the wort boiling kettle process. The exhaust vent height is 3 meters above the roofline in accord with EPA guidelines. Raising the exhaust vent by an additional two meters would minimise building wake effects and provide significant improvement in odour dispersion, with associated reduction in ground level odour concentration.

Exhaust vent height	8m
Exhaust vent diameter	0.15m
Exhaust gas exit temperature	20^0C
Exhaust gas exit velocity	10 m/s
Exhaust gas flow	0.18m^3/s in-stack
Odour Concentration	1000 OU
Odour flux	180 OUV/s

Table 1 Wort kettle emission parameters

3. Dispersion Modelling Assessment

Dispersion modelling was performed with CALPUFF version 7.3 (Scire et al 2000) in accord with the EPA “Ambient air quality assessment” 2016 guidelines.
CALPUFF is a multi-layer non-steady-state puff dispersion model able to simulate effects of variable meteorology on pollutant transport.
Y2019 met data was generated by TAPM version 4 as input to CALMET which is the meteorological pre-processor for CALPUFF.

Model configuration used here is summarised in Table 1.

Year modelled	2019, 1 January to 31 December
Grid centre	$34^0$56’ S, $138^0$36’ E
Terrain	Shuttle Radar Topography Mission 3 arc second data
TAPM grid domains	Five nested grids with 41 x 41 horizontal grid points, with spacing of 10, 4, 2, 1 and 0.4 km 30 vertical levels up to 8km above sea level
CALMET grid domain	36 x 36 horizontal grid points, 0.4 km spacing 6 vertical levels up to 1 km above sea level
CALMET run type	No surface, overwater or upper air observations. Initial 3D wind fields from TAPM.
Radius of terrain influence	7 km
CALPUFF grid domain	65 x 65 horizontal grid points, 25 m spacing
Building wake effects	Plume Rise Model Enhancement algorithm (PRIME).
Deposition	Not applied; pollutants modelled as conserved species.

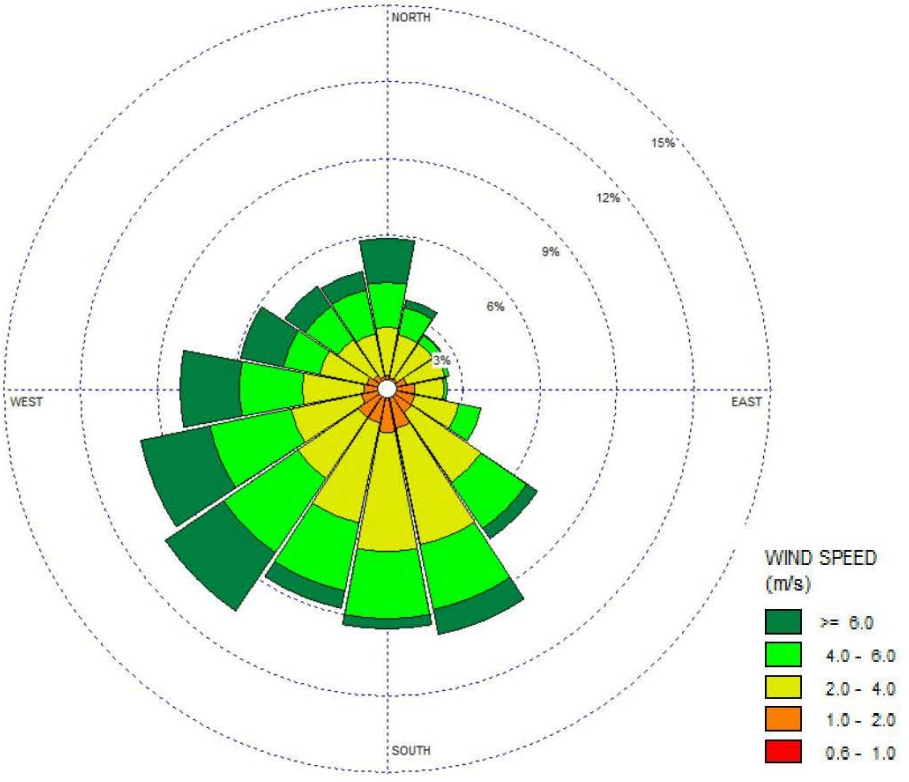
Table 2 Dispersion model configuration

The TAPM V4 model was described by Hurley et al. in CSIRO Research Paper No. 25, 2008. In this situation, modelling used a series of 5 grids, each 1681 points with 30 vertical levels. The outer grid (400km square) with 10 km spacing is used to calculate the wide scale meteorology. The five grids are nested with each inner grid providing about 2 times more resolution. The innermost grid spacing of 400 metres defines the area for local scale meteorology. Within this grid is a slightly smaller CALMET grid (14 x 14km at 400m spacing).
Meteorological data is extracted from the CSIRO synoptic database into the outer grid. Meteorology for the points in between those for which data is available from the database is then calculated. These calculations take into account insolation, reflection or absorption of solar energy at ground level due to type of ground cover, temperature, soil moisture and terrain. The process is repeated for each hour of the year. Meteorological information from this grid is

then transferred to the next grid and the infill calculated as for the outer grid. This is repeated until meteorological data is complete for all five grids.

TAPM meteorology is then fed into the CALMET pre-processor to produce three dimensional fields of wind components and other microscale meteorological variables for the CALPUFF dispersion model.

A Y2019 wind rose was constructed for the Marion Road site (Figure 2) showing dominant winds from the southern quadrants.



Total meteorology data: 8760 hours	Average wind speed: 3.9 m/s	Calm frequency (≤0.5 m/s): 0.5 %

Figure 2 West Torrens microbrewery site wind rose

4. Modelling Results

The predicted ground level odour concentration (3-minute average) is shown in Figure 3, contoured at 0.2 and 0.4 Odour Units (OU).
The maximum odour concentration of 0.6 OU is indicated on the eastern boundary of the site (+) just north of the wort kettle exhaust vent.
The exhaust vent would extend 3 meters above the roofline in accord with EPA guidelines.
These odour levels are well below the 2 OU level specified by EPA for metropolitan Adelaide (Air Quality Policy 2016, Schedule 3), and would not be detected by the average person.

The proposed microbrewery under normal operating conditions, with a wort boil of about one hour in the afternoon, is predicted to have no discernible odour impact on the amenity of the local area, with ground level odour less than 1 OU at the surrounding residences.

Figure 3 Predicted odour (OU) from microbrewery wort boil

5. References

City of West Torrens (2020). Development Application 211/702/2020

Hurley, P.J. (2008). TAPM V4. Part 1: Technical Description. CSIRO Marine and Atmospheric Research Paper No. 25, October 2008.

Scire, J.S., Strimaitis, D.G. and Yamartino, R.J. (2000). A user's guide for the CALPUFF dispersion model. Earth Tech, Inc. Concord, MA.

SA EPA (2016) Ambient air quality assessment, August 2016.

SA EPA (2016): Environmental Protection (Air Quality) Policy 2016.

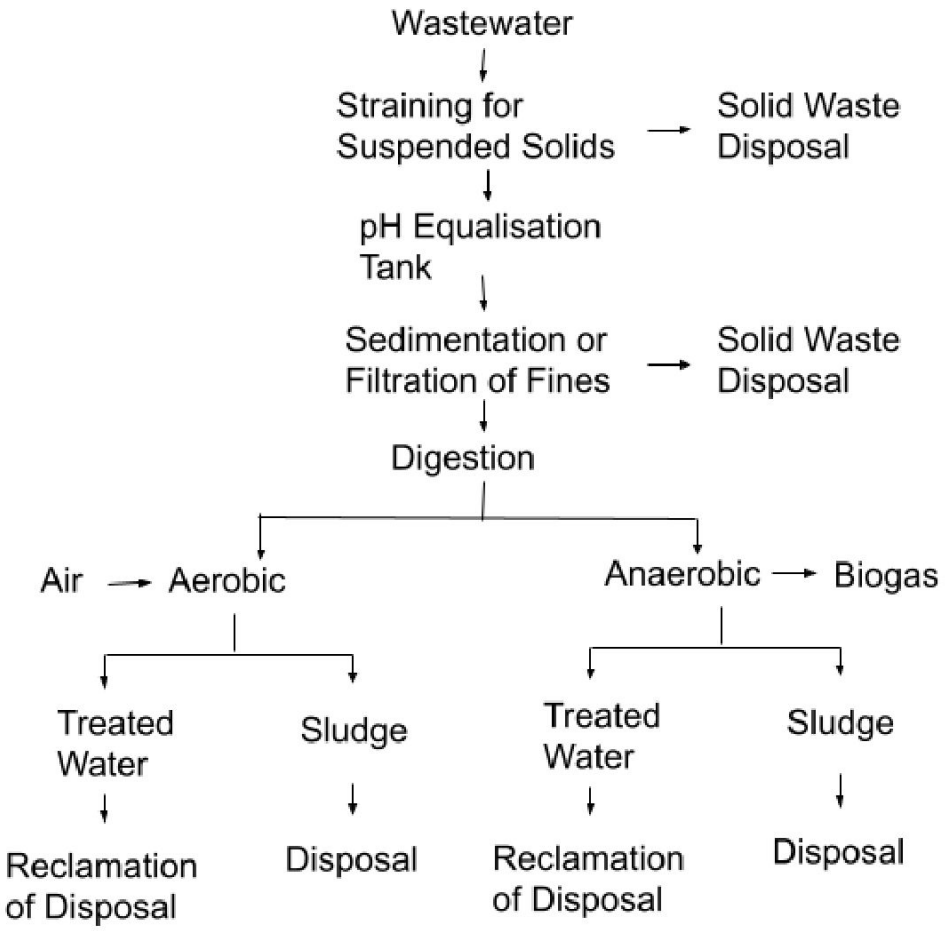
VDI (1994) VDI 3882 Determination of Odour Hedonic Tone

Waste Cycle

Waste Water

Typical brewery wastewater can contain suspended solids in the range of 400-800ppm and BOD of 2000-3500ppm. The temperature can exceed 60C. The pH of the discharge can easily exceed the 5-11pH limits due to the cleaning caustics and acid rinsing.
The discharge of a brewery will vary depending on the particular activity at the time. Brewery waste can be more effectively handled by first diverting it to a holding tank where it can be diluted with other wastewater, and then fed at a more uniform rate to the sewer over an extended period of time.

A typical process is shown below.



Our production space will have a 2 degree sloped, epoxy sealed floor running to stainless drains in the middle. The area is surrounded by bunding to prevent any spillover. The drains slope to a sump pit, where the waste is then taken to our waste water treatment plant, before being tested and then sent to the sewer.

South Australian requirements for wastewater to be discharged to the sewer varies depending on the facility it goes to. The federal guidelines for food industry waste are as follows

Waste Parameter	Limit
pH	6-10
Temperature	38C
BOD	1000mg/L
SS	500mg/L
TDS	1500mg/L

Our wastewater treatment plant has been designed to far exceed the minimum specifications above. We have also made it modular so that should we need to increase capacity, we can do so easily, and without risk of spills.

1. Pump waste from Sump Pit
2. 2mm Mesh Filter will remove the majority of large solids.
3. 1000L Settling Tank
    a. Proteins and other solids will settle out here.
4. 1000L pH Adjustment Tank
    a. This adjusts the waste for the anaerobic bacteria later downstream
    b. The adjustment will also cause some more solids to precipitate out.
5. Fine Filter
    a. The fine filter needs to be backflushed weekly to remove deposits
6. 1000L Anaerobic Digestion Tank
    a. Nitrogen will be added via ammonia additions to maintain waste BOD/nitrogen/phosphate ratio of 100:5:1 for best performance.
    b. This will reduce most of the BOD
7. 1000L Aeration and final pH Check and Adjust Tank
8. Drain

Spent Grain

Brewers' spent grain is one of the largest by-products of the brewing process, however it still contains over 20% protein and fibre, which can provide the essential nitrogen-containing nutrients animals require in their feed. We will have our spent grain removed by animal feed producers who process the spent grain as a base material for animal feed.

We will collect our spent grain at the end of a brew day and store it in sealed containers. A 0.3% Potassium Sorbate solution will be added to it to prevent any unwanted growth prior to it being collected for feed.

Other Major Waste Products

Hops used in brewing are unable to be reused, unless put through an expensive extraction process. Unlike grain, spent hops are intensely bitter and animals will not consume them. Because of this, we will be sending our hops to green waste to be composted.

Yeast is easily harvested and reused from batch to batch. This is a good cost saving measure for any brewery. Yeast cells do multiply up to 10x during fermentation, which means that there is often a buildup of excess yeast. We will be using excess yeast to make milk cookies. We can also offer up the excess as free fertiliser for patrons, due to it's high nitrogen content.

Accord Properties – Brooklyn Park Depot Redevelopment

Waste Management Plan

Document verification

Date	Version	Title	Prepared by	Reviewed by	Approved by
1 Dec 2020	V1 (DRAFT)	Accord Properties - Brooklyn Park Redevelopment	J. Webb	K. Le Gallou	J. Webb
1 Dec 2020	V1 (FINAL)	Accord Properties - Brooklyn Park Redevelopment	J. Webb	J. Webb	J. Webb

Important notes

Document summary

Rawtec prepared this waste management plan (WMP) to support the planning application of the development. We consulted the client, project manager, project architect and traffic consultant and considered all relevant policy requirements (see Appendix 1).

This WMP includes a high-level proposal for a waste management system, with a preliminary design to show how waste can be managed at the site. If land uses and waste management arrangements for the development change during detailed design, this WMP will need to be updated.

The WMP is aligned with the *South Australian Better Practice Guide – Waste Management in Residential or Mixed Use Developments (Green Industries SA, 2014).*

1. Development summary

Project	Brooklyn Depot Redevelopment, Brooklyn Park
Client	Accord Properties
Architect	Brown Falconer
Project manager	Ekistics
Traffic consultant	CIRCA

1.1. Land use and occupancy

Table 1 lists the tenancy/land uses and estimated area assumption that will generate waste and recycling at the development, based on the latest architectural plans.

Table 1: Tenancy/land use and occupancy overview

Tenancy/land use	Waste resource generation category	Estimated size (m^2)
Warehouse tenancies	*NA*	2,575m^2
Warehouse tenancy offices	*Offices or Consulting Rooms*	885m^2
Brewery (bar and dining areas)	*Hotel or Motel (Combined Bar & Dining Areas)*	400m^2 estimated waste generating area
Brewery (warehouse areas)	*NA*	223m^2 estimated waste generating area
Brewery (offices)	*Offices or Consulting Rooms*	70m^2 estimated waste generating area
Restaurant	*Café/Restaurant*	235m^2 estimated waste generating area

NA = Unable to be estimated to varying potential tenancy types

1.2. Site collection contract arrangement

To minimise the number of vehicles accessing the development, it is recommended that a single contractor service the site. The contract will need to be administered/managed by a site manager. This single contract would include the following proposed bin collection service arrangements.

- A single contractor appointed for the whole site (tender process managed by site manager).
- Each tenancy has access to set waste and recycling bin streams:
  - General waste
  - Comingled recycling
  - Organics recycling
  - Mixed cardboard/paper recycling (via the communal bins in the bin compound)
  - Paper/confidential paper
  - Others upon request.
- Collections will occur outside of regular business hours.
- Bins will be collected on a regular frequency or an as needs basis (e.g. collection vehicle visits the site three times per week and tenants place bins in front roller doors if they need emptying).
- Data on collection details (bin size, collection and weight collected) and invoices for individual tenancies will be provided to the site manager by the contractor and passed on to individual tenancies regularly.

1.3. Recommended services

To manage waste and recycling effectively, the development needs to include the services listed in Table 2.

Table 2: Recommended waste management services

	Required/recommended waste and recycling collection services						
	Development land uses	**Restaurant**	**Warehouses**	**Warehouse Offices**	**Brewery (Bar/Food Service)**	**Brewery (Warehouse)**	**Brewery (Office)**
Routine collection (rear lift)	General waste	**X**	**X**	**X**	**X**	**X**	**X**
	Comingled recycling	**X**	**X**	**X**	**X**	**X**	**X**
	Organics recycling	**X**	**X (Optional)**	**X**	**X**	**X (Optional)**	**X**
	Cardboard recycling	**X**	**X (Communal)**	NS	**X**	**X (Optional)**	NS
	Paper recycling	NS	**X (Optional)**	**X**	NS	**X (Optional)**	**As required**
	Confidential paper recycling	NS	**X (Optional)**	**X**	NS	**X (Optional)**	**As required**
On-call or external drop-off	Hard waste	**X**	**X**	**X**	**X**	**X**	**X**
	E-waste	**X**	**X**	**X**	**X**	**X**	**X**
	CFL/Lighting	**X**	**X**	**X**	**X**	**X**	**X**
	Printer Cartridges	**X**	**X**	**X**	**X**	**X**	**X**
	Batteries	**X**	**X**	**X**	**X**	**X**	**X**

X = Required/Desired

NS = Not serviced as separate service not required

2. Waste management analysis

2.1. Waste and recycling volumes

2.1.1. Warehouse tenancies

Due to the varying tenancy types expected to be located at the development, volumes of waste were unable to be estimated for the warehouse land uses at the development. This includes the microbrewery.

To manage the potential volumes of waste in the warehouse land uses, tenancies will have access to a range of different services and different collection frequencies for bins (see Section 1.2 for further details on this arrangement).

2.1.2. Restaurant and Brewery land uses.

The Restaurant and Brewery (excluding the microbrewery operations) land uses will generate about 37,500 litres of waste and recycling per week (Table 3) .[1]

Table 3: Estimated volume of waste and recycling generated at the Restaurant and Brewery land uses

Estimated waste generation volumes (litres per week)					
Land use type		**Commercial**	**Commercial**	**Commercial**	**Total**
Development land use		**Restaurant**	**Brewery (Bar/Food Service)**	**Brewery (Office)**	
WRGR classification		*Café/Restaurant*	*Hotel or Motel (Combined Bar & Dining Areas)*	*Offices or Consulting Rooms*	
Waste stream	General waste	4,900	8,400	100	**13,400**
	Comingled recycling	800	700	50	**1,600**
	Organics recycling	6,600	11,200	20	**17,800**
	Cardboard recycling	2,500	2,100	NE	**4,600**
	Paper recycling	NE	NE	50	**100**
	Confidential paper recycling	NE	NE	6	**10**
Total site volume		**14,800**	**22,400**	**200**	**37,500**

*Totals have been rounded and may not equate

NE = Not Estimated as Not Required

[1] Estimates are based on the proposed land-use data provided by the client/architect and metrics from the *South Australian Better Guide Practice Guide – Waste Management for Residential and Mixed Use Developments*. Some metrics have been further developed by Rawtec based on industry knowledge and experience.

2.2. Bin size and collection details

2.2.1. Warehouse tenancies

Each warehouse tenancy will have at minimum the following bin services, collected on an as needs basis or regularly by the site appointed collection contractor.

- 1 x 1.5m^3 front-lift general waste bin
- 1 x 1.5m^3 front lift comingled recycling bin
- Access to the communal 2 x 4.5m^3 cardboard recycling bins.

2.2.2. Restaurant and Brewery

Based on the estimated volumes of waste and recycling in Table 3, the Restaurant and the Brewery (excluding the microbrewery operations) will require the bin sizes and collection frequencies identified Table 4.

Table 4: Estimated bin requirements and collections per week (Restaurant and Brewery)

	Restaurant				Brewery			
	Total volumes (L per week)*	Bin size (L)	Number of bins required	Collections per week	Total volumes (L per week)*	Bin size (L)	Number of bins required	Collections per week
General waste	4,900	1,500	1	4	8,500	1,500	1	6
Comingled recycling	800	1,500	1	1	700	1,500	1	1
Organics recycling	6,600	660	2	5	11,200	660	4	5
Cardboard recycling	2,500	Access to communal 4.5m3 cardboard recycling bins			2,100	1,500	1	2
Paper recycling					100		As required	
Confidential paper recycling					100		As required	
10c Bottles & Cans	NA	1,100	1	As required	NA	1,100	1	As required
Total	**14,800**		**5**	**10**	**22,900**		**8**	**14**

*Totals have been rounded and may not equate

The following irregular waste streams will be managed as they occur onsite:

- **Electronic waste** (E-waste such as batteries, printer cartridges, lighting) will be stored at the development. E-waste will be collected by a certified collection contractor or taken to a licensed facility (e.g. recycling depot or participating retailer).
- **Hard waste** (during tenancy fit-out or in residential developments) will be stored at the development and managed via a pull-in/pull-out collection service. This must be arranged by tenants and the building manager, so hard waste can be collected from the loading area at a suitable time.

Other advice

- **Bins and signage** must meet the Australian Standard for Mobile Waste Containers (AS 4123.7–2006 Mobile Waste Containers).
- **E-waste/hard waste collection:** Provide a central and accessible storage point for E-waste and hard waste. If hard waste is collected from individual locations, the building manager and tenant may need to be present for collection and costs may increase.

2.3. Waste storage area

Figures 1-5, how the bin storage areas can be designed.

- Proposed bin compounds for the communal cardboard/paper bins and Restaurant (Figure 1)
- How bins (minimum services) can be stored within warehouse tenancies (Figure 2)
- Proposed bin storage area for the Brewery (Figure 3).

When planning the waste storage area, consider the additional waste management design advice listed in Section 5.

Figure 1: Waste storage area design (Communal Cardboard Recycling Bins and Restaurant Bin Compound)

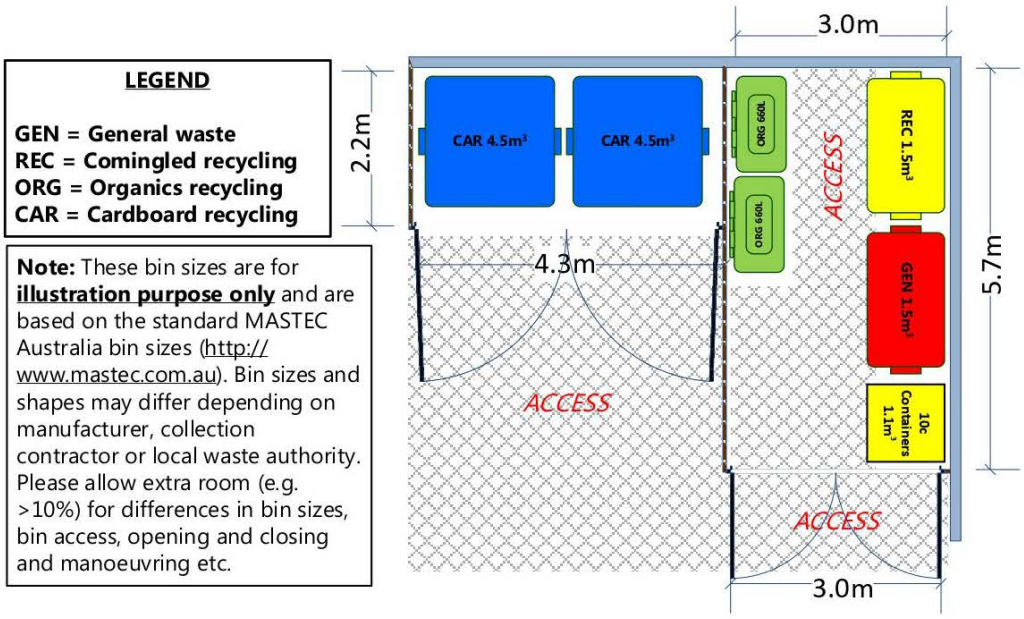


Figure 2: Waste storage area design (Brewery)

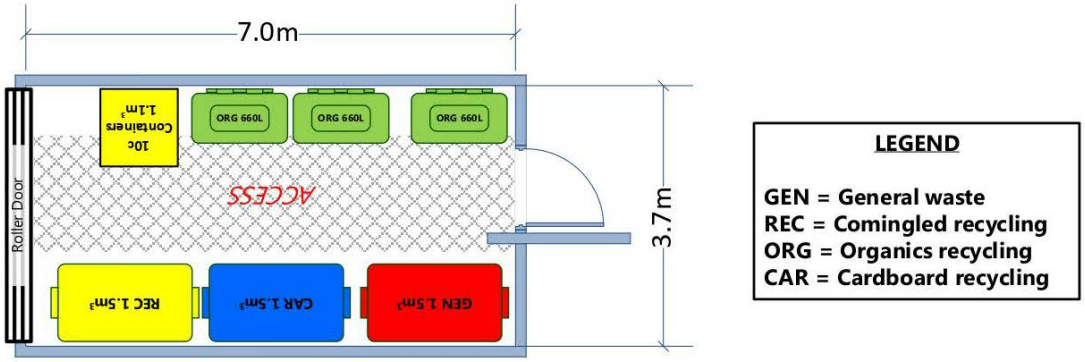
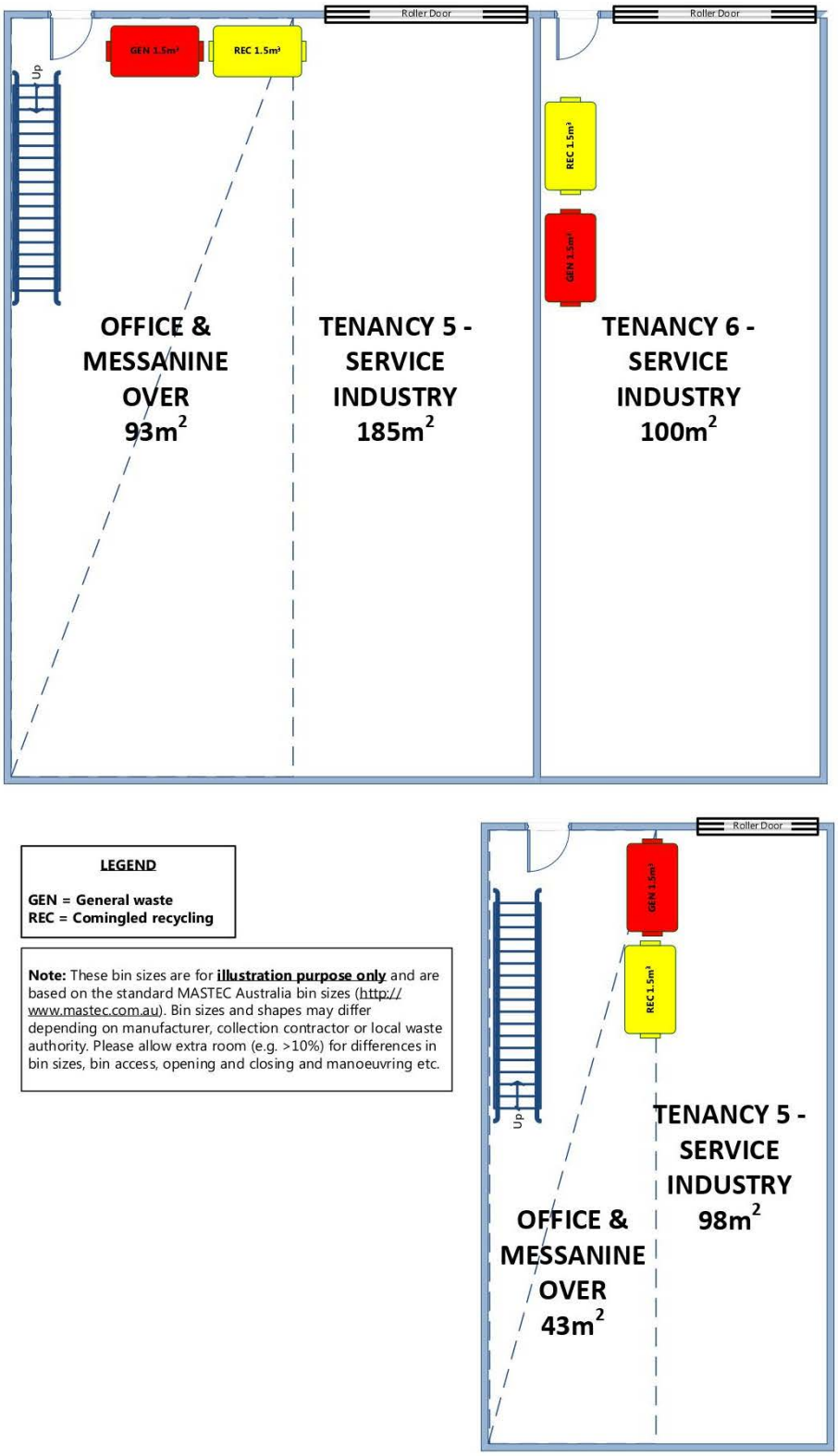


Figure 3: Waste storage area design (Warehouse tenancies)



3. Waste management system

The waste management system (WMS) explains how to manage the waste and recycling generated at the development (Table 7 for Warehouse Tenancies and Table 5 for Restaurant and Brewery). It covers each land use and considers the relevant waste management policies (see Appendix 1).

When planning the WMS, consider the waste management design advice in Section 5.

Table 5: Proposed waste management system for the development (Restaurant and Brewery)

Proposed waste management system		
Waste/recycling services	• General waste • Comingled recycling	• Organics recycling • Cardboard recycling
WMS step	**WMS notes**	
1. User storage	• Staff/cleaners will collect waste and recycling in back of house areas: – General waste will be collected using black bin liners – Organics will be collected using compostable bin liners – Comingled recycling will be collected loose – Cardboard will be collected loose.	
2. Transfer pathways, aggregation and storage	• Waste and recycling bags and containers will be transported to bulk bins in the nominated bin compound or room when required.	
3. Bin collection	• The site collection contractor will collect bins on a regular frequency as required.	

Table 6: Proposed waste management system for the development (Restaurant and Brewery)

Proposed waste management system		
Waste/recycling services	Minimum per tenancy: • general waste • comingled recycling • cardboard recycling (via communal cardboard recycling bins).	Optional services: • organics recycling • cardboard recycling (individual bin if excessive volumes generated by tenancy) • paper recycling • confidential paper recycling • soft/hard plastic recycling.
WMS step	**WMS notes**	
1. User storage, aggregation and transfer (as required)	• Required bins will be located within tenancies. Waste and recycling will be collected in smaller internal bins or placed directly into the bulk bins. • Cardboard will be stored loose (e.g. on trolley) and taken to the communal cardboard recycling bins as required.	
2. Bin collection	• When bins are required to be collected, tenancies will be placed bins in front of their roller doors prior to the nominated collection day/time. • The collection contractor will collect the presented bulk and return them to the location left by the tenancy.	

4. Collection requirements

4.1. Vehicle movements per week

Based on the waste and recycling volumes and collection service frequency in Table 4, the development will need up to an estimated 14 regular collections per week. This includes the following:

- The Warehouse tenancies will require, at minimum, an estimated 6 collection per week (3 times per week for general waste bins and 3 times per week for comingled recycling bins). However, individual tenancies will have access to a range of services and collection frequencies to match their individual requirements.
- The Restaurant will require 10 collections per week and the Brewery 14 collections per week. This may vary during tenancy occupation (e.g. due different patronage levels at different times of the year).

Please note that these estimates are based on a single contractor for the whole site (as detailed in Section 1.2). If multiple collection providers are used for separate tenancies, the number of collections may increase.

Other advice

- **Collection times:** Schedule waste collection timing and frequency to reduce the impact of noise and traffic on residents, neighbours and the public.
- **Peak periods:** More waste is usually generated during holiday periods like Easter, Christmas and public holidays. Extra collections may be needed at these times.

4.2. Collection vehicles

Table 7 lists approximate truck dimensions to help the traffic consultant's analysis. Please note:

- Vehicle dimensions and operating conditions can differ between waste collection contractors.
- Rawtec does not guarantee that the collection area can accommodate waste collection vehicles. The traffic consultant must confirm that collection vehicles can enter and exit the development and operate safely.
- The client must confirm with the preferred waste collection contractor that it can service the development before collection can begin.

Table 7: Approximate collection vehicle dimensions

Collection vehicle dimensions			
Vehicle type	Front-lift	Rear lift	Pan-tech/Flat bed
Collection type	Collection of 1.5m^3 to 4.5m^3 bins	Collection of bins up to 1,100 L	At call waste streams
Dimensions	3.9 minimum, up to 4.2m (h) x 2.5m (w) x minimum 10, up to 12m (l)	3.4m minimum to 4m (h) × 2.5m (w) × 8.8m minimum to 11m (l)	Up to 4.5m (h) × 2.5m (w) × 8.8m (l)
Rear loading space required	Approx. 3m in front of the vehicle	2 m	-
Operational vehicle height	Up to 8.5m	Up to 4 m	Up to 4.5 m
Vehicle turning circle	20-25m	18-25 m	10 m

Note: Vehicle width dimensions are based on Australian MRV standard specifications - AS 2890.2-2002. Vehicle length and heights are based on common collection vehicles operating in the South Australian market. Waste and recycling collection vehicles are custom designed and may differ from these specifications.

5. Other waste management and design advice

Table 8 lists advice on designing developments to encourage good waste management practices, based on the *South Australian Better Practice Guide – Waste Management for Residential and Mixed Use Developments*.

Table 8: Other waste management and design advice

Area	To consider
Bin transfer routes	• Transfer routes should be at least 1.25 m wide, free of obstructions and steps, and with a slope of no more than 1:10. • Transfer routes should not pass through living areas or dwellings.
Bin washing	• It is recommended that bin rooms/compounds, include bin washing facilities. A bin washing station must: – slope to a drain connected to the sewer – have a tap and a hose with mains supply – be at least 2 m × 2 m – be slip resistant. • Note: – Line marking and bunding are not required. – Bins can be stored on top of the bin wash area. During washing, other bins can be placed outside the room. – The bin wash area can be installed outside the waste room. – The waste contractor may provide this service (either onsite or offsite).
Container deposit scheme (10-cent) containers	• Businesses with large volumes of 10-cent refund drink containers (e.g. restaurants, cafes, hotels) could organise a collection service with a business that shares the revenue from the containers (e.g. Scouts SA).
Education and training	• The building manager should educate and train residents/tenants to use the waste management system correctly. • Consider including better practice waste management requirements in strata or commercial lease agreements.
Health and amenity	• Effective WMS design should: – reduce and stop odour and noise – consider and preserve visual amenity for residents/tenants, neighbours and the public – prevent waste spreading beyond the defined location – specify washable services enabling periodic cleaning – provide adequate ventilation.

6. Appendix 1: Waste policies

This WMP is based on the following policies, design and operational requirements:

- The South Australian Environment Protection (Waste to Resources) Policy 2010, Government of South Australia, version 1.6.2019:
  - Waste is subject to resource recovery processes, which can include source separation, before disposal to landfill.
- *South Australian Better Practice Guide – Waste Management in Residential or Mixed Use Developments*, Green Industries SA, 2014.
- *Operating Guideline – Waste and Recycling Services*, City of Adelaide, 2014:
  - Identifies Council's basic and enhanced services for collecting waste and recycling from

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STATEMENT OF EFFECT
MIXED USE DEVELOPMENT

Former West Torrens Depot Site:
108-114 Marion Road, Brooklyn Park

Prepared for:
Adelaide Nominees

Date:
December 2020

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Proprietary Information Statement

Document Control

Revision	Description	Author	Date
DRAFT	Statement of Effect	RG	30/11/2020
V1	Statement of Effect	RG	1/12/2020
V2	Updates to address client feedback	RG	02/12/2020

Reviewed by: J Rhodes Planning Consultant Date: 1/12/2020

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1. Executive Summary

Category	Details
ADDRESS OF SITE	108, 110-112 & 114-118 Marion Road Brooklyn Park
CERTIFICATES OF TITLE	Lot 77 in Certificate of Title Volume 5721, Folio 775; Lot 78 in Certificate of Title Volume 5727, Folio 286; Lot 79 in Certificate of Title Volume 5728, Folio 110; Lot 84 in Certificate of Title Volume 5443, Folio 556; Lot 85 in Certificate of Title Volume 5670, Folio 395; and Lot 102 in Certificate of Title Volume 5513, Folio 362.
SITE AREA	Approximately 8,300m^2
PRIMARY SITE FRONTAGE (MARION ROAD)	Approximately 89.6 metres
SECONDARY FRONTAGE (EDWIN STREET)	Approximately 83.6 metres
LOCAL GOVERNMENT	City of West Torrens
RELEVANT AUTHORITY	City of West Torrens
DEVELOPMENT PLAN	West Torrens Council Development Plan (consolidated 21 May 2020)
ZONE AND POLICY AREA	Commercial Zone & District Commercial Policy Area 2 Residential Zone & Low Density Policy Area 20
EXISTING USE	Former West Torrens Depot (public service depot) and former West Torrens Council Chambers (LHP)
DESCRIPTION OF DEVELOPMENT	Demolition of existing buildings, and to establish an integrated, mixed-use commercial development which includes the adaptive reuse of, and alterations to an existing Local Heritage Place to be used as a licensed bar and restaurant, the refurbishment of an existing commercial building to be used as a microbrewery (service industry and licensed bar), and to establish 17 commercial tenancies to be used as service industries and warehouses, together with associated shared parking, landscaping and signage.
NATURE OF DEVELOPMENT	Non-complying
PUBLIC NOTIFICATION	Category 3
APPLICANT	Adelaide Nominees Pty Ltd
CONTACT PERSON	Robert Gagetti Ekistics Planning and Design – (08) 7231 0286
OUR REFERENCE	00951-002
COUNCIL'S REFERENCE	D.A 211/702/2020

2. Introduction

Development Application 211/702/2020 proposes the redevelopment of the former West Torrens public service depot, which occupies land located at 108, 110-112 & 114-118 Marion Road Brooklyn Park (the 'site').

By letter dated 21 August 2020, the Council resolved to proceed with an assessment of the Development Application in accordance with Regulation 17(3)(b) of the *Development Regulations, 2008.*

Accordingly, this Statement of Effect has been prepared to facilitate Council's assessment of the application and addresses the following criteria, which is prescribed by Regulation 17(5):

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- *A description of the development and the nature of its locality; and*
- *A statement as to the provisions of the Development Plan which are relevant to the assessment of the proposed development; and*
- *An assessment of the extent to which the proposed development complies with the provisions of the Development Plan; and*
- *An assessment of the expected social, economic and environmental effects of the development on its locality;*
- *Any other information specified by the relevant authority when it resolves to proceed with an assessment of the application (being information which the relevant authority reasonably requires in the circumstances of the particular case).*

Our consideration of the proposal has been informed by the following plans and supporting documentation, which area contained within the following appendices:

- ***Appendix 1:*** *Certificates of Title;*
- ***Appendix 2:*** *Site survey;*
- ***Appendix 3:*** *Architectural drawings prepared by Brown Falconer Architects;*
- ***Appendix 4:*** *CIRQA traffic report;*
- ***Appendix 5:*** *Sagero civil plans;*
- ***Appendix 6:*** *Sonus acoustic report;*
- ***Appendix 7:*** *Hemisphere landscape plan; and*
- ***Appendix 8:*** *Rawtec Waste Management Plan.*

For the purposes of this Statement of Effect, the West Torrens Council Development Plan will be referred to as the 'Development Plan', the *Development Act, 1993* will be referred to as the 'Act' and the *Development Regulations,* 2008 will be referred to as the 'Regulations'.

3. Site and Locality

3.1 Site

The subject site occupies the former West Torrens Depot, which comprises land formally identified as follows:

- Lot 77 in Certificate of Title Volume 5721, Folio 775;
- Lot 78 in Certificate of Title Volume 5727, Folio 286;
- Lot 79 in Certificate of Title Volume 5728, Folio 110;
- Lot 84 in Certificate of Title Volume 5443, Folio 556;
- Lot 85 in Certificate of Title Volume 5670, Folio 395; and
- Lot 102 in Certificate of Title Volume 5513, Folio 362.

The subject site is spatially illustrated in ***Figure 3.1*** over-page.

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Figure 3.1 *Subject site*

The attached Certificates of Title (***Appendix 1***) confirm that all allotments are free of easements, encumbrances and any other caveats which may otherwise hinder redevelopment of the site in the manner intended.

The site is relatively flat and has a primary frontage to Marion Road (a Secondary Arterial road) to the east of approximately 89.6m, and a secondary frontage to Edwin Street to the west of approximately 83.6m. To the south, the site adjoins a drainage channel (Keswick Creek), whilst residential properties adjoin the site to the north. The site comprises a total land area of approximately 8,300m^2.

The site is presently occupied by the former Council depot and accommodates notable commercial/industrial-style buildings scattered across the site. The combined floor area of these existing buildings is approximately 1,915m^2. The location of buildings, carparks and access points are indicatively illustrated on ***Figure 3.2*** over-page.

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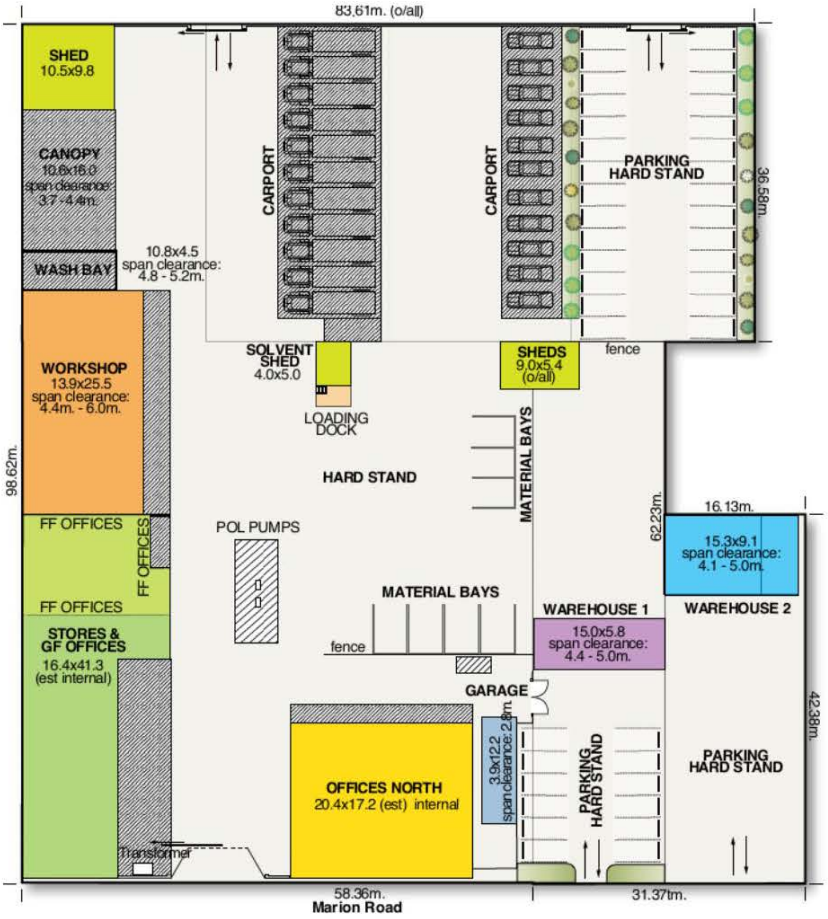
Figure 3.2 *Existing building layout*



The site also accommodates the former West Torrens Council Chambers, which is identified within the Development Plan as a Local Heritage Place (*Table WeTo/2 – Local Heritage Places*). The building is identified in ***Figure 3.2*** as 'Offices North' and is directly adjacent the Marion Road frontage.

The following commentary has been taken from the Flightpath Report *'Heritage Assessment of Significance: Options, Benefits and Risks'* and identifies those elements of the building with heritage value:

> *"The area of the Primary Heritage Value or Primary Significance is limited to the original front two rooms and chimney of the 1888 West Torrens Council Chambers, incorporated under the main hipped roof line and facing Marion Road. The original rear lean-to portion of has been modified and is considered to be of secondary significance. It is associated with a more recent office addition to the west, which is of little or no significance.*
>
> *The former Ambulance Headquarters to the southern end is also considered to be of secondary significance, because this 1949 addition has also been altered and is a later addition that is specifically excluded from the Development Plan listing.*

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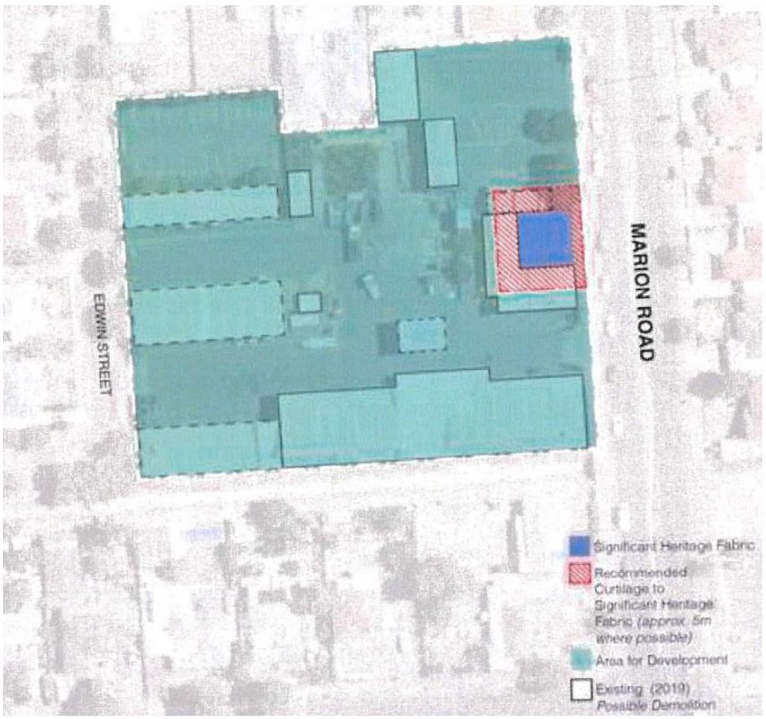
The later addition to the South of the site with parapet frontage to Marion Road is considered to have little to no significance.

The City of West Torrens Development Plan description of the Former West Torrens Council Chambers describes in its Local Heritage listing, the earliest sections of building, consistent with the area of Primary Significance identified in this report. The Development Plan listing excludes later additions and extensions.

Retention of the portion of Primary Heritage Value would ensure that Development Act Section 23(4) are not diminished especially if associated with conservation works to reconstruct the original main roof."

Figure 3.3 identifies those areas of the building with primary and secondary heritage significance, as well as those areas of the building with little/no heritage significance.

Figure 3.3 *Delineation of 'significant' local heritage fabric*



The Marion Road frontage accommodates three access points, including the main gated driveway south of the Local Heritage Place, and two un-gated driveways providing access to the existing northern carpark. A fourth driveway crossover is also present, however access to the site via this driveway is restricted by existing boundary fencing.

The site is also accessible via two gated driveways connecting with Edwin Street. The southern driveway provides direct access to the Council depot, whilst the northern driveway provides access to a carpark formerly associated with the Council depot use. The balance of the Edwin Street frontage is enclosed by a brick wall

which substantially obstructs views of the site from adjacent residential properties to the west. The development will retain all existing fencing and gated access points to Edwin Street.

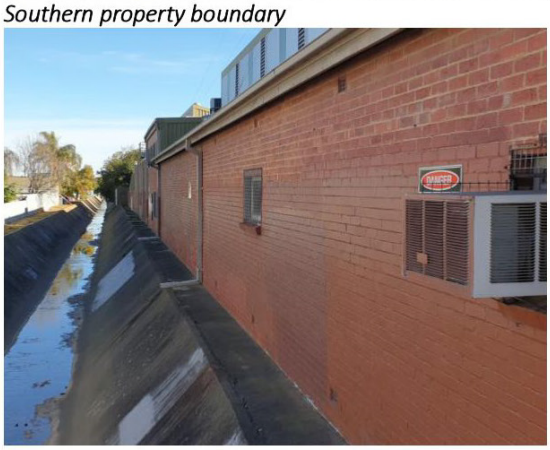
Images of the site are illustrated in ***Figure 3.4*** and ***Figure 3.5*** below.

Figure 3.4 *Site Images*

Marion Road frontage (south-west view)

Former Council Chambers

Southern property boundary



Edwin Street road frontage

Figure 3.5 *Internal views of the site*

View looking south-east

View looking north-west

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3.2 Locality

The land surrounding the site is characterised by low density residential development, which primarily takes the form of single storey detached dwellings.

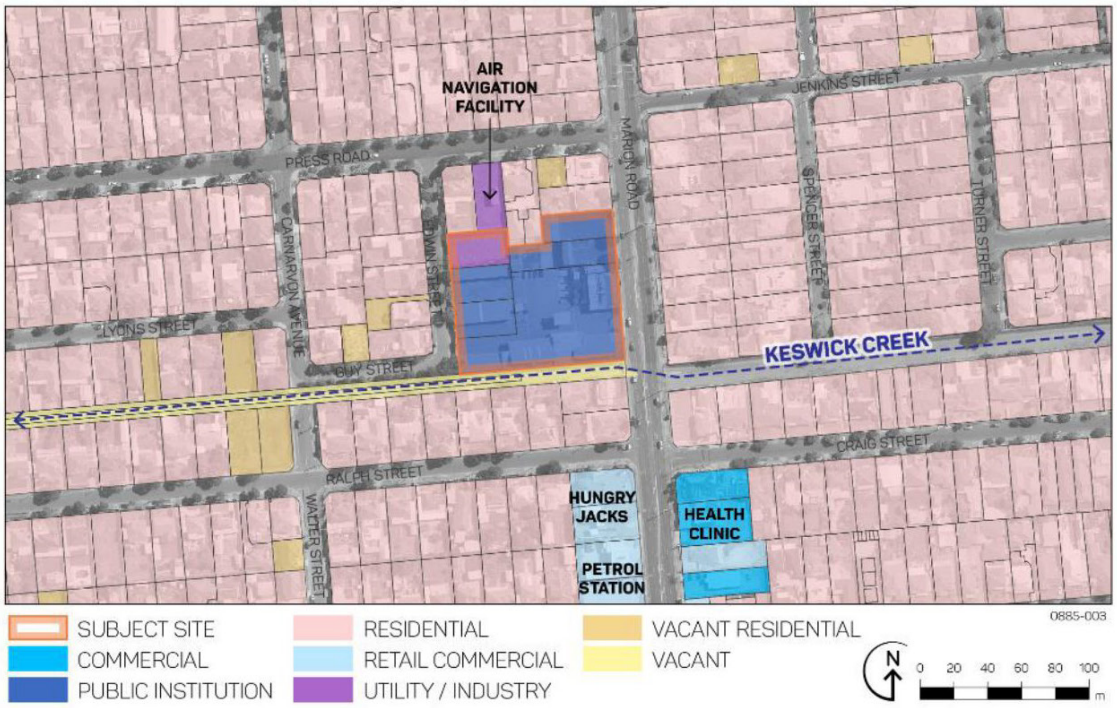
We note that the subject site adjoins four (4) dwellings to the north, including two group-dwellings which are located at 2A and 2B Press Road. The adjoining property located at 4 Press Road is occupied by an Air Navigation Facility.

The site is separated from adjacent residential properties to the south by Keswick Creek, while residential properties to the west and east are separated from the site by Marion Road and Edwin Street, respectively.

The Adelaide Airport is situated approximately 390 metres west of the subject site.

The land use mix for the locality is displayed spatially in ***Figure 3.6***.

Figure 3.6 *Land Use and Locality Plan*



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4. Development Proposal

Architectural plans (including site plans, floor plans, elevations, perspectives) are provided in ***Appendix 3***.

Key components of the proposed development are summarised below:

- The adaptive reuse of the former Local Heritage Place (and non-heritage additions) as a licensed restaurant and Bar, including provision for outdoor seating;
- The refurbishment and reuse of existing commercial buildings as a microbrewery (service industry and bar);
- 17 commercial tenancies comprising the following uses:
  - Tenancy 1 and Tenancies 12 to 17 to be used as warehouses with associated offices (mezzanine level);
  - Tenancies 2 to 5 and 7 to 10 to be used as service industries with associated offices (mezzanine level); and
  - Tenancy 6 and 11 will also be used as service industries without an associated mezzanine level;
- The provision of 81 onsite parking spaces, accessed via four (4) existing two-way driveways connecting with Marion Road and Edwin Street;
- Restaurant waste storage and collection point and communal bulk cardboard storage and collection point situated to the south of Warehouse Tenancy 1;
- A separate waste storage and collection point allocated to the microbrewery;
- Associated landscaping and non-illuminated vertical signage panels.

Further details on the proposed development is provided below.

4.1 Restaurant and Bar

The former West Torrens Council Chambers (which comprises the Local Heritage Place and later additions) will accommodate a dine-in, licensed restaurant and bar with a gross leasable floor area of 374m^2 (excluding outdoor seating areas to the south and west of the restaurant).

The application seeks consent for up to 150 seats, with the ratio and distribution of internal and external seating to be managed by the operator (according to demand).

It is envisaged that the restaurant and bar will operate concurrently, but as independent uses trading under separate liquor licensing arrangements. More specifically, we understand that patrons who use the bar may not necessarily use the restaurant (and vice versa). Notwithstanding, it is expected that a percentage of patrons accessing the bar will do so prior to, or after consuming meals and accordingly, synergies between these complementary uses are expected. Similarly, it is expected that patrons of the microbrewery will also make use of restaurant and bar facilities (and vice versa), particularly noting the staggered operating hours between each use (discussed below).

Whilst a 'bar' is an undefined land use, a 'restaurant' is a form of 'shop' and is also separately defined within Schedule 1 of the Regulations as *"land used primarily for the consumption of meals on the site".*

Alterations to the Local Heritage Place to accommodate the proposed use will be limited to internal alterations (refer to 'Option 1' in the Flightpath Heritage Report). It is also expected that some internal walls will also be removed to accommodate the layout of the restaurant. No changes to existing external facades are proposed. The restaurant/bar operator is presently resolving the final design for this business, the conceptual illustration of the internal layout accurately reflects the activity spaces for the land use.

4.2 Microbrewery (Bar and Service Industry)

Existing buildings will be adapted, refurbished and reused as a microbrewery comprising a floor area of 623m^2 (inclusive of amenities and upper level mezzanine, but excluding external areas allocated to outdoor seating). The microbrewery will comprise two distinct land use elements, including a 'service industry' and 'bar'.

A blocking plan conceptually illustrating activity spaces for the microbrewery is contained within ***Appendix 3*** (Dwg. No 3366. DA07). Key elements of each land use activity are summarised below:

4.2.1 Service Industry

The onsite production and sale of alcohol from an area not exceeding 200m^2 is a form of 'service industry' as defined by Schedule 1 of the *Development Regulations 2008:*

> ***Service industry*** *means a light industry in which –*
>
> *(a) Goods manufactured on the site (but not any other goods) are sold or offered for the sale to the public from the site; or*
>
> *(b) Goods (other than vehicles or vehicle parts) area serviced, repaired or restored,*
>
> *And the site occupied for such sale, service, repair or restoration (but not manufacture) does not exceed 200 square metres.*

Elements of the microbrewery forming part of the service industry are summarised below.

Brewhouse and Fermenting Area

The brewhouse and fermenting area will occupy the eastern and portion of the southern ends of the building and is where the bulk of the production process occurs. Activities to occur in this space includes the following:

- The milling of whole malt grains to obtain grist;
- The processing of grist to a mash, which is heated to break down starches into fermentable sugars;
- Sweet mash is removed from spent grains and liquid (wort) which is moved to a large kettle and boiled with hops;
- Hopped wort is transferred to a whirlpool machine used to separate hop residue and excess proteins upon transfer to the fermenter;

- Yeast is added to the wort to commence the fermentation process; and
- Fermented product will then be stored in wooden vessels along the southern end of the building as part of the aging process.

The microbrewery will be equipped with a 7 hectolitre brewhouse, which is capable of producing 700 litres of wort per batch over an approximate brewing period of 8 hours. However, the brewing capacity for the business is restricted by available space for fermenting machinery, as well as the duration of the fermenting process. The average ale takes approximately 28 days to produce, with lagers taking approximately 56 days. Fermenters will consist of 6 x 700 litre single batch vessels and 3 x 1,500 litre double batch vessels. Approximately 80% of fermenting capacity will be used for the production of ales, with the balance of fermenting capacity allocated to the production of lagers. Applying this 80:20 split, the approximate output of alcohol produced will be 280 litre per day, or 310 litre where only ales are produced.

Storage Area

The ground level storage area will be used to store products and items relating to the operation of the brewery including:

- Brewery stock such as grain that is used in the brewing process;
- Finished product including stock which is fit for sale and recently packaged stock that is still awaiting conditioning;
- Brewery cleaning chemicals which are typically stored in drums ranging in sizes between 20 to 200 litres;
- Empty kegs and new bottles/cans;
- Machinery and parts associated within the operation of the brewing and fermenting process;
- Stock and equipment associated with the operation of the bar.

Cool Room

Alcohol produced onsite will also be sold 'by the keg' and stored within a cool room. The cool room will also be used for the storage of hops and yeast, and alcohol produced and consumed onsite (by the bar).

4.2.2 Mezzanine Level

The mezzanine level will be available for exclusive use of the brewery operators/management. The mezzanine will accommodate a small administration area for two people, with the balance of the mezzanine used for general storage space.

4.2.3 Bar and Kitchen

The bar will accommodate up to a maximum of 80 patrons and will include internal and external seating. The bar will sell alcohol produced onsite by the brewery, as well as alcohol purchased from offsite sources. It is

expected that the majority of alcohol consumed on the premises will also be produced on the premises. The kitchen facility will be used for the preparation of light meals which may be purchased by patrons.

4.2.4 External Works

External refurbishment works relating to the microbrewery use are indicatively illustrated in ***Figure 4.1*** below.

Figure 4.1 *Microbrewery Façade Changes*

4.3 Commercial Tenancies (Warehouses and Service Industries)

4.3.1 Warehouses

Tenancy 1, and Tenancies 12 to 17 will be used as 'Warehouses', as defined within Schedule 1 of the Regulations:

> ***Warehouse*** *means a building or enclosed land used for the storage of goods and the carrying out of commercial transactions involving the sale of such goods, but does not include any land or building used for sale by retail.*

The combined floor area allocated to the commercial tenancies is 3,548m^2 comprising 2,477m^2 of ground floor area, plus 929m^2 of mezzanine floor area, to be used as associated office and storage space.

Tenancy 1 will comprise a ground floor area of 153m^2, plus an associated mezzanine comprising an area of 38m^2. The building will be set back 2.1 metres and 1.1 metres from the northern and western boundaries respectively, and will replace an existing commercial building comprising an area of 139m^2, which abuts the dividing northern and western boundaries between the site and adjoining residential properties.

Tenancies 12 to 15 will each comprise a ground floor area of 98m^2, plus associated mezzanine levels of 49m^2 each.

Tenancy 16 and 17 will comprise a total area of 137m^2 and 205m^2, respectively. However, these tenancies will not accommodate mezzanine levels.

4.3.2 *Service Industries*

Tenancy 2 to 5 and 7 to 10 (inclusive) will be used as service industries, and each will comprise a total area of 279m^2, including a mezzanine area of 93m^2 to be used as office and general storage space. Tenancy 6 and 11 will also be used as service industries and each will comprise an area of 100m^2. However, these tenancies will not accommodate mezzanine levels.

Whilst tenancy 16 and 17 will occupy existing refurbished buildings to be recladding in Colorbond® sheet metal, new commercial buildings will be constructed to accommodate all other warehouse and service industry tenancies. Each commercial building will reach a maximum height of 7.5 metres, and will be constructed in a variety of building materials and colours.

Wall cladding will comprise a combination of brick face and pre-cast concrete, whilst mezzanine levels will be constructed in black pre-coloured metal cladding. Windows, awnings, roller doors and coloured vertical signage panels will articulate tenancy frontages. Blank walls will be articulated using rebated pattern work, whilst the eastern elevation of Tenancy 6 and 11 will be designed as a feature wall with artwork.

Perspectives illustrating the design intent for the development is illustrated below in ***Figure 4.2*** below.

Figure 4.2 *Warehouse and service industry building perspectives*


BREWERY VIEW


MARION ROAD ENTRANCE 1


EDWIN STREET ENTRANCE


MARION ROAD ENTRANCE 2

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4.4 Hours of Operation

This application seeks consent for the following operating hours:

- **Commercial tenancies:** 7:00am to 5:00pm Monday to Saturday and 9:00am to 5:00pm Sundays.
- **Microbrewery:** 10:00am to 6:00pm, seven (7) days per week.
- **Restaurant and Bar:** 5:00pm to 12:00am seven (7) days per week.

Hours of operation for the commercial tenancies, bar, restaurant and microbrewery have been informed by the carparking and acoustic requirements for the development.

4.5 Advertising

Non-illuminated vertical signage fins will be attached the façade of each commercial tenancy. This application does not seek approval for any other signage.

4.6 Access and Parking

A Traffic Impact Assessment prepared by GTA Consultants is attached as ***Appendix 4.***

The plans initially submitted with the Statement of Support have been updated to accommodate to include compliant parking bays and swept turning paths for all vehicle types, in accordance with the requirements of *Australian Standard: AS: 2890.2-2018: Off-street Commercial Vehicle Facilities*.

The development will provide a total of 81 parking spaces, inclusive of two disabled parking spaces positioned in proximity to the restaurant and brewery. Available parking spaces will be shared between each land use, and the staggered operating hours will also assist with the management of onsite parking demand.

The proposal seeks to retain the existing southern and central crossover, whilst the existing northern crossover will be closed to reduce the number of conflict points on Marion Road (including removal of the right-out movement at this location). Existing gated access arrangements connecting with Edwin Street are proposed to be retained, and the traffic and parking analysis performed by CIRQA considers the likely distribution of traffic, which is discussed in further detail in Section 6.7 of this Statement of Effect.

4.7 Landscaping and Fencing

The conceptual landscape plan prepared by Hemisphere is attached as ***Appendix 7***.

Landscaping will consist of a variety of trees, shrubs, ground covers, grasses, sedges and vertical plantings, selectively planted within landscape beds placed throughout the site. In particular, we note the following landscape features:

- Tall narrows trees and trellis with climbers planted along the eastern façade of the central commercial building;
- Tall narrow trees with shade tolerant under-storey shrubs and tall screen hedging placed between Tenancy 1 and the northern boundary (separating the site from adjoining residences);

- Feature trees, shrubs and ground cover plantings placed within landscape beds throughout the site to enhance the amenity of outdoor areas and to soften the visual impact of hard stand spaces;
- Existing vegetation adjacent the northern boundary to be retained and supplemented with additional understorey plantings;
- Large format outdoor pavers and raised planter beds to outdoor dining areas to delineate outdoor seating areas from the internal roadway; and
- Landscaped spaces will comprise 5.4% of the site (or 450m^2).

Landscaping for outdoor seating areas will be further developed by the operators of the restaurant/bar and microbrewery.

4.8 Waste Management

The development has been designed in accordance with the recommendations outlined within the Rawtec Waste Management Plan (***Appendix 8***). Estimated waste generation rates are identified in ***Table 4.1*** below:

Table 4.1 *Estimated waste generation rates*

Estimated waste generation volumes (litres per week)					
Land use type		**Commercial**	**Commercial**	**Commercial**	**Total**
Development land use		**Restaurant**	**Brewery (Bar/Food Service)**	**Brewery (Office)**	
WRGR classification		*Café/Restaurant*	*Hotel or Motel (Combined Bar & Dining Areas)*	*Offices or Consulting Rooms*	
Waste stream	General waste	4,900	8,400	100	**13,400**
	Comingled recycling	800	700	50	**1,600**
	Organics recycling	6,600	11,200	20	**17,800**
	Cardboard recycling	2,500	2,100	NE	**4,600**
	Paper recycling	NE	NE	50	**100**
	Confidential paper recycling	NE	NE	6	**10**
Total site volume		**14,800**	**22,400**	**200**	**37,500**

Key features of the waste management system are summarised below:

- All waste will be collected by one private waste contractor to be appointed by the owner;
- The restaurant/bar, microbrewery and individual commercial tenancies will have access to the following waste bins:
  - General waste;
  - Comingled recycling;
  - Organics recycling;

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- Mixed cardboard/paper recycling (via the communal bins in the bin compound); and
- Paper/confidential paper;

- A 'user pays' arrangement is proposed where bins will be collected on an 'as needed' basis;
- For commercial tenancies, individual bins will be stored within each tenancy and wheeled to the carpark on collection day;
- Separate dedicated waste areas are proposed for the microbrewery and restaurant;
- A communal bin compound adjacent Tenancy 1 will be used for the storage and collection of mixed carboard/recycling; and
- All bins will be collected outside standard operating hours of the microbrewery and commercial tenancies, and within the timeframes prescribed within the *Environment Protection (Noise) Policy 2007* (refer to Section 6.4.1).

4.9 Siteworks and Drainage

Civil plans prepared by Sagero and contained within ***Appendix 5*** have been revised to address feedback provided by Council in its email dated 01 September 2020.

All roof water and surface water will be collected via a series of sumps and conveyed via an underground drainage network to a series of below ground detention tanks with a capacity of 92m^3. Detained water will discharge to a side entry pit within Edwin Street at a discharge rate of 35.37L/s. All water will be treated using an appropriately sized Wastewater Filtration System (GPT 4450), and domestic parking bays will be constructed in permeable paving to reduce surface water run-off rates.

The subject site adjoins Keswick Creek to the south. In accordance with Council's request, the Finished Floor Levels (FFL's) have been revised to protect new buildings from flooding. Whilst the proposed building has been designed to abut the southern boundary and will be located on the edge of the creek line, we note that Keswick Creek is a concrete drainage channel and Sagero has advised that the creek is not susceptible to erosion as a result of the proposed development. Earthworks for the development will be negligible, and only nominal retaining wall strips are proposed along the northern, western and eastern boundaries.

5. Procedural Considerations

5.1 Relevant Authority

The City of West Torrens is the owner of the site in question and has entered into a contract with the applicant who intends to the purchase and develop the site (as per the attached plans). Pursuant to Section 34(b)(vi)(A) of the Act, and by letter dated 27th August 2020, the City of West Torrens wrote to the Minister for Planning to declare an interest in the development. By response letter dated 13th October 2020, the Minster's delegate has confirmed that any potential conflict can be appropriately managed if a decision on the application is made by the City of West Torrens Council Assessment Panel (an independent decision-making body).

In accordance with the recommendation provided by the Ministers delegate, we understand that the City of West Torrens (via the CAP) will be the relevant authority.

5.2 Nature of Development

In our opinion, the nature of development is appropriately described as follows:

> *Demolition of existing buildings, and to establish an integrated, mixed-use commercial development which includes the adaptive reuse of, and alterations to an existing Local Heritage Place to be used as a licensed bar and restaurant, the refurbishment of an existing commercial building to be used as a microbrewery (service industry and licensed bar), and to establish 17 commercial tenancies to be used as service industries and warehouses, together with associated shared parking, landscaping and signage.*

5.3 Zone and Policy Framework

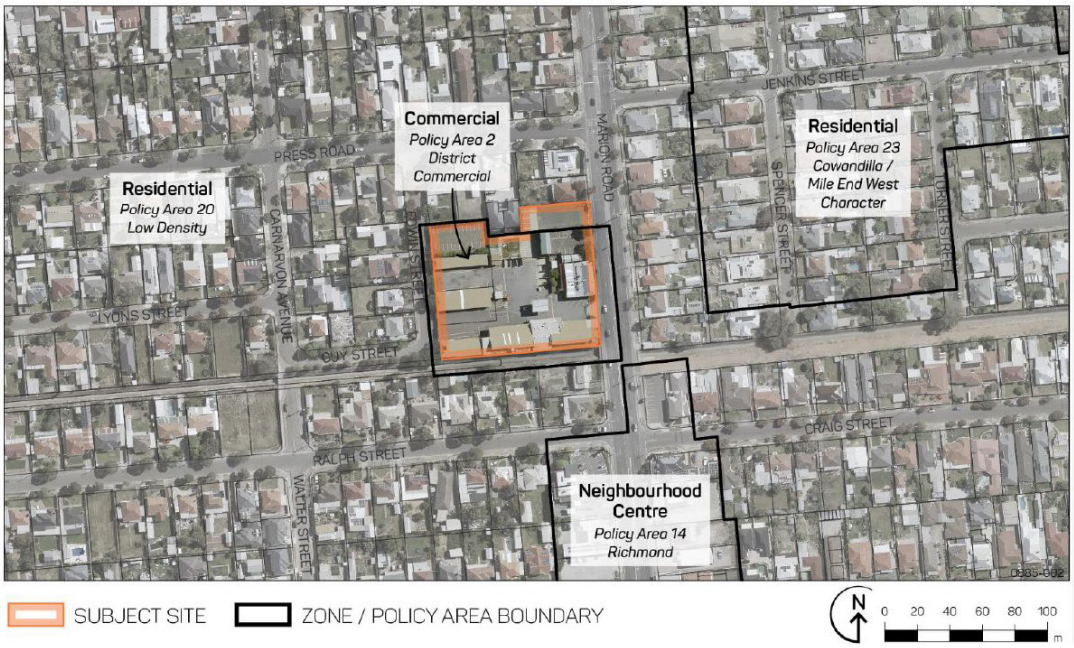
Referring to the West Torrens Council Development Plan (consolidated 21 May 2020), the site is located within the following Zones and Policy Areas:

- **District Commercial Policy Area 2** of the **Commercial Zone**; and
- **Low Density Policy Area 20** of the **Residential Zone**.

The area of the site located within the Residential Zone is limited to a single land parcel (Lot 84) which will be occupied by Tenancy 1 and car parking, with the balance (and majority) of the subject site located within the Commercial Zone. All adjacent land surrounding the subject site is situated within the Residential Zone.

Zoning for the site and locality is illustrated in ***Figure 5.1*** below.

Figure 5.1 *Zone and Policy Area Map*



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5.4 Assessment Pathway

The development involves the following land use elements:

- **Warehouse** and **service industry** tenancies with associated Offices;
- A **restaurant** and **bar**; and
- A microbrewery comprising a **service industry** and **bar.**

Within the District Commercial Policy Area, a Shop (or group of Shops) with a floor area of 250m^2 or more is listed as a non-complying form of development, whilst a Warehouse located within the Residential Zone is also a non-complying form of development.

Accordingly, we are of the opinion that the application is for a **non-complying** development for the following reasons:

- The proposed restaurant is situated within the District Commercial Policy Area and comprises a gross leasable area exceeding 250m^2; and
- Warehouse Tenancy 1 is proposed to be established within the Residential Zone.

5.5 Public Notification

As a non-complying form of development, the application will be subject to **Category 3** public notification (as prescribed by Schedule 9 of the Regulations).

5.6 Agency Consultation

A referral to the **Commissioner of Highways** (via the Department for Infrastructure and Transport) is required as the proposed development will change the nature of movements onto Marion Road.

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6. Development Plan Assessment

6.1 Relevant Provisions of the Development Plan

Regulation 17(5)(b) prescribes that a Statement of Effect must identify those provisions of the Development Plan which are relevant to the assessment of a non-complying application. Accordingly, ***Table 6.1*** identifies those provisions of the Development Plan which have been considered in the assessment of the application.

Table 6.1 *Relevant Planning Provisions*

ZONES		
Commercial Zone	**Residential Zone**	
OBJ: 1 & 2	OBJ: 1, 2 & 3	
PDC: 1, 2, 3 & 4	PDC: 1, 2 & 3	
District Commercial Policy Area 2	**Low Density Policy Area 20**	
OBJ: 1 & 2	OBJ: 1	
PDC: 1 & 2	PDC 1 & 2	
COUNCIL WIDE		
Advertisements	**Crime Prevention**	**Design & Appearance**
OBJ: 1, 2 & 3	OBJ: 1	OBJ: 1 &2
PDC: 1, 2, 3, 4, 5, 67, 8, 9, 10, 11, 14 & 22	PDC: 1, 2, 3, 4, 5, 6, 7 & 10	PDC: 1, 2, 3, 4, 7, 8, 9, 10, 11, 13, 14, 15, 19, 20, 21, 22 & 23
Hazards	**Heritage Places**	**Industrial Development**
OBJ: 2, 4, 8 & 9	OBJ: 1, 2 & 3	OBJ: 1, 2, 3, 4 & 5
PDC: 1, 2, 4, 5, 6, 7 & 13	PDC: 1, 2, 3, 4, 5 & 6	PDC: 1, 2, 3, 4, 5, 6, 7 & 8
Infrastructure	**Interface Between Land Uses**	**Landscaping, Fences and Walls**
PDC: 3, 4, 5, 6 & 8	OBJ: 1, 2 & 3	OBJ: 1
	PDC: 1, 2, 3, 6, 7, 8, 9, 10, 11, 12 & 13	PDC 1, 2, 3, 4, 5 & 6
Natural Resources	**Transportation and Access**	**Waste**
OBJ: 5, 6, 7 & 11	OBJ: 2, 4 & 5	OBJ: 1
PDC: 1, 2, 3, 5, 7, 8, 9, 10, 11, 12, 13, 14, 16, & 17	PDC: 1, 2, 5, 6, 8, 9, 10, 11, 12, 13, 14, 16, 17, 18, 19, 20, 21, 22, 23, 24, 26, 27, 28, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42 & 43	PDC: 1, 2, 5 & 6
Mapping (WeTo/8)	**Tables**	
Zone and Policy Area Transport Overlay Map Development Constraints Heritage	WeTo/2 – Off Street Vehicle Parking WeTo/4 - Local Heritage Place	

The following section of this Statement of Effect provides an assessment of the proposal against the key Development Plan Objectives (OBJs) and Principles of Development Control (PDCs). This assessment is grouped under a series of headings addressing the specific aspects of the proposed development. To avoid repetition only key planning provisions have been referred to in the discussion below.

6.2 Land Use Suitability

The Commercial Zone is intended to accommodate a range of commercial and business land uses, and Policy Area PDC 1 providers the following list of 'envisaged' uses:

> ***PDC 1:*** *The following forms of development are envisaged specifically in the policy area:*
>
> - *Office*
> - *Road transport terminal*
> - *Store*
> - *Wholesale*
> - *Warehouse*

In accordance with PDC 1, all new commercial tenancies will be used as service industries and warehouses, together with associated offices. Noting that the commercial tenancies will occupy the majority of the proposed floor area, we note that the development will primarily accommodate land uses which are specifically envisaged for the Policy Area.

Although Warehouse Tenancy 1 will be situated within the Residential Zone, this use will replace an existing commercial building which previously formed part of the former Council depot (also a non-complying form of development within the Residential Zone). Taking into account the former long-standing use of the land as a public service depot, we are of the opinion that the establishment of a warehouse within the Residential Zone is appropriate in this circumstance.

The proposed restaurant and bar will comprise an area of 374m^2 (or 8.4% of the total floor area to be established, but excluding outdoor dining areas). Zone PDC 1 lists a 'shop' as an 'envisaged' use where the gross leasable area is 250m^2 or less. Zone PDC 3 also suggests that *"retail development in the zone should not hinder the development or function of any centre zone".*

The size of the restaurant and bar (374m^2) represents a minor departure from the floor area cap prescribed by the Development Plan, and its scale will not jeopardise the ability for the balance of land within the Commercial Zone (occupied entirely by the subject site) to function in a manner intended by the Development Plan, or hinder the development or function of any other centre.

Further, we note that the restaurant and bar will occupy the existing Local Heritage Place and will preserve those elements of the building with heritage value (discussed in Section 6.4 below).

The microbrewery comprises two land use elements, namely a service industry and bar. As discussed above, the service industry is an envisaged use for the Policy Area. Although a bar is not specifically listed as an envisaged use, the bar will be associated with the service industry use. That is, both land use elements will form

part of the microbrewery and will operate under one management structure, and lagers and ales produced onsite will also be sold to bar patrons. Finally, the proposed bar forming part of the microbrewery will occupy a relatively small area of the overall development and will not jeopardise the ability for the zone to substantially function in a manner contemplated by the Development Plan.

Finally, the proposed restaurant, bar and microbrewery will also deliver hospitality services for the local community, creating opportunities for social gatherings and interactions within a Commercial Zone in a setting where interface impacts on adjacent residential properties can be being appropriately managed (discussed below).

For the reasons outlined above, and taking into account the former, long standing use of the site as a public service depot, we are of the opinion that the proposed uses are appropriate when assessed on merit against the relevant provisions of the Development Plan.

6.3 Design Considerations

6.3.1 Materiality

The proposed commercial buildings will be constructed in a variety of materials including brick face, pre-cast grey concrete and pre-finished metal cladding. Glazing to upper and lower levels, protruding window awnings, coloured vertical signage fins and an artwork feature wall applied to the eastern elevation of Tenancy 6 and 11 will further articulate the buildings and create visual interest. The variation in building materials and decorative elements of the design is largely consistent with the following provisions of the Development Plan:

Design and Appearance

PDC 1: *Buildings should reflect the desired character of the locality while incorporating contemporary designs that have regard to the following:*

(a) building height, mass and proportion

(b) external materials, patterns, colours and decorative elements

(c) roof form and pitch

(d) façade articulation and detailing

(e) verandas, eaves, parapets and window screens.

Industrial Development

PDC 5: *Building facades facing a non-industrial zone, public road, or public open space should:*

(c) use a variety of building finishes

(d) not consist solely of metal cladding

(e) contain materials of low reflectivity

(f) incorporate design elements to add visual interest

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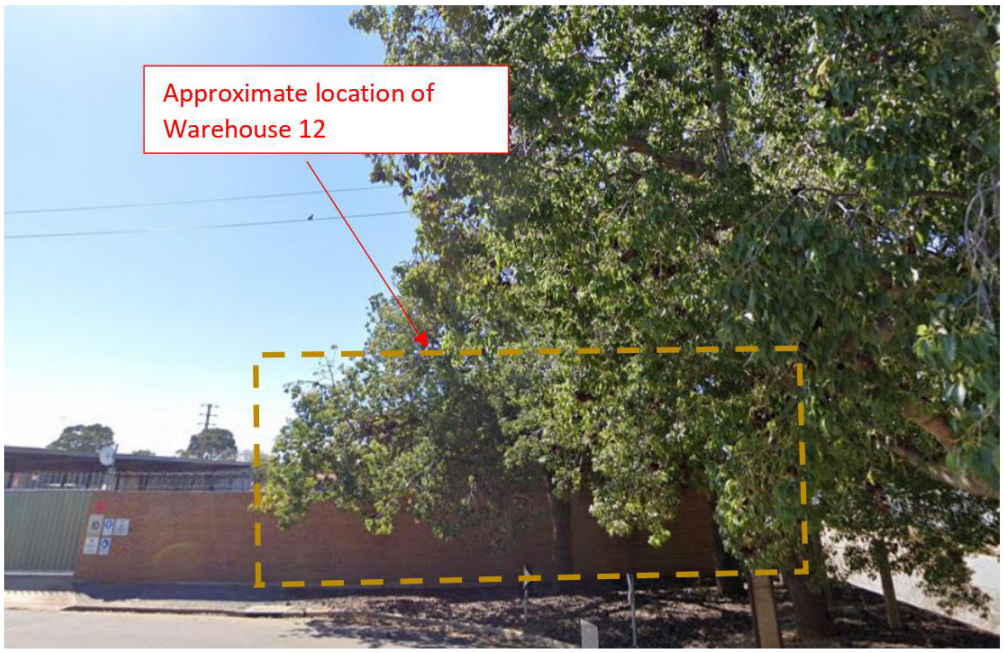
(g) avoid large expanses of blank walls.

Design and Appearance PDC 14 seeks to ensure that buildings are *"designed and sited to avoid extensive areas of uninterrupted walling facing areas exposed to public view".* The western elevation of warehouse Tenancy 12 will abut the Edwin Street property boundary. Rebated pattern work will be applied to this elevation to create additional visual interest. The western elevation wall will also replace an existing corrugated iron wall which abuts this boundary for a similar length. As illustrated in Figure 6.1, the wall will also be substantially screened by existing vegetation.

Figure 6.1 *Approximate location of warehouse 12*



The southern elevation of warehouse Tenancy 12 to 15 will also be generously separated from adjacent residential properties by Keswick Creek. Further, the southern elevation wall will not be visible from the public realm and accordingly, the visual impact of this wall will be negligible.

Further to the above discussion, we are of the opinion that the design and materiality of the proposed commercial building exhibits a high degree of architectural merit, and is aligned with Design and Appearance Objective 1:

> ***OBJ 1:*** *Development of a high design standard and appearance that responds to and reinforces positive aspects of the local environment and built form.*

6.3.2 Building Setbacks

The following setback provisions have been considered in the assessment of the proposed development:

Interface between Land Uses

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PDC 7: *Non-residential buildings and structures in zones other than the Urban Corridor Zone should be set back from boundaries of the site where its abuts the Residential Zone:*

(a) a minimum of 5 metres from the front property boundary

(b) a minimum of 3 metres from side or rear property boundaries where the vertical wall height (from natural ground level) is 4 metres or less, plus an additional 0.6 metres for every metre that the vertical wall height (from natural ground level) exceeds 4 metres.

Design and Appearance

PDC 20 *Except in areas where a new character is desired, the setback of buildings from public roads should:*

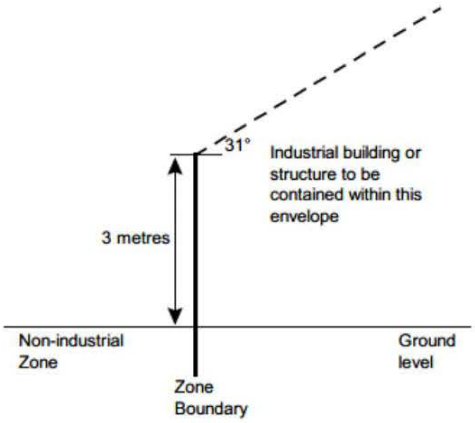
(a) be similar to, or compatible with, setbacks of buildings on adjoining land and other buildings in the locality

(b) contribute positively to the function, appearance and/or desired character of the locality

PDC 22: *Except in areas where a new character is desired or where specified in a zone, policy area or precinct, the setback of development from a secondary street frontage should reflect the setbacks of the adjoining buildings and other buildings in the locality.*

Industrial Development

PDC 2 *Except in areas where a new character is desired or where specified in a zone, policy area or precinct, the setback of development from a secondary street frontage should reflect the setbacks of the adjoining buildings and other buildings in the locality.*



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Tenancy 1

Tenancy 1 is located within the Residential Zone and is adjacent private open space of an adjoining residential property situated at 106 Marion Road. Tenancy 1 is also adjacent the side elevation of an existing single storey dwelling located at 2 Press Road.

Tenancy 1 will be positioned 2.1 metres and 1.15 metres from the northern and western boundaries, respectively. Warehouse Tenancy 1 will also replace an existing commercial shed which currently straddles both property boundaries.

Although the proposed warehouse tenancy is taller than the existing shed, the increase in setback from the northern property boundary will accommodate screening vegetation which, once mature, will partially screen the building when viewed from the adjoining residence to the north. The length of the western elevation is also approximately half the length of the existing commercial building and will not be readily visible from the private open space or internal living areas of the adjoining property.

Finally, we note that the location of proposed warehouse Tenancy 1 will not result in unreasonable overshadowing.

For the reasons outlined above, and taking into consideration the existing site context, we are of the opinion that the proposed setback of warehouse Tenancy 1 is appropriate and will not unreasonably impact on existing residential amenity.

Tenancies 12 to 15

As previously discussed, the commercial building comprising Tenancies 12 to 15 will be located along the western and southern property boundaries. This commercial building will replace an existing commercial building in the same location. The southern elevation will be generously set back from adjacent residential properties situated on the opposite side of Keswick Creek, whilst the western elevation wall (abutting Edwin Street) will be screened by established vegetation. Accordingly, we are of the opinion that the location and setback of this proposed commercial building is acceptable and will not unreasonably impact on the amenity of the locality.

We note that existing buildings which abut the Marion Road frontage are to be retained and reused. The proposed commercial building accommodating Tenancies 2 to 11 will also be generously set back from all property boundaries and will replace existing deleterious buildings positioned along the Edwin Street property boundary.

6.4 Heritage

The proposed development will retain, adapt and reuse the existing Local Heritage Place as a restaurant and bar.

Referring to the report prepared by Flight Path Architects: *Heritage Assessment of Significance: Options, Benefits and Risks for the Former West Torrens Depot*, the development will retain all building elements

identified within the heritage report as having primary or secondary significance. On this basis, the development satisfies the following Heritage objectives of the Development Plan:

Heritage Places

OBJ 1: *The conservation of State and local heritage places.*

OBJ 2: *The continued use, or adaptive reuse of State and local heritage places that supports the conservation of their cultural significance.*

OBJ 3: *Conservation of the setting of State and local heritage places.*

The proposed extent of internal demolition works is illustrated in Dwg. No. DA06 of ***Appendix 3.*** These works are required to accommodate the final internal layout of the restaurant and bar and will not involve any external changes to the existing building.

6.5 Interface Impacts

6.5.1 Noise

The acoustic report prepared by Sonus which is provided in ***Appendix 6*** considers the noise related impacts to be generated by the various land use activities proposed, as discussed below.

Rubbish Collection

In accordance with recommendations outlined within the Sonus Report, rubbish collection will only occur between the hours or 9am and 7pm on Sundays and public holidays, and between 7am and 7pm on any other day. Collection within this period will comply with the requirements of the *Environment Protection (Noise) Policy 2007.*

General Activity

The following additional noise generating activities have been considered by Sonus:

- Mechanical plant, including air conditioning, refrigeration and exhaust fans serving each tenancy;
- Vehicle movements and carpark activity;
- Outdoor activities associated with the restaurant and brewery;
- Workshop activity within the warehouse and service industry tenancies;
- Machinery used in the operation of the brewery;
- Truck deliveries relating to the operation of warehouse and service industry tenancies; and
- The use of forklifts for unloading at warehouse and service industry tenancies.

Operational assumptions are based on worst-case scenarios, as outlined on pages 9 and 10 of the Sonus report. These operational assumptions have been modelled to predict noise levels, taking into account various environmental factors including setbacks to dwellings, shielding barriers and buildings, meteorological conditions etc. Importantly, the assessment performed by Sonus has not considered the impacts of live or

elevated levels of music generated by either the microbrewery or restaurant. No live music is proposed, and any other music will be limited to background music which is inaudible at the closest dwellings.

Existing Noise Sources

The assessment performed by Sonus also takes into consideration the noise characteristics of the existing locality, including noise generated by traffic along Marion Road, and aircraft noise.

Due to the site's locality relative to the Adelaide Airport, dwellings within the locality are exposed to very high levels of noise with aircraft noise predicted to be in the order of 90 dB(A). New dwellings are required to be designed with acoustic treatments to manage aircraft noise impacts, whilst older established dwellings were upgraded with acoustic treatments via the Adelaide Airport Noise Amelioration Program. Both new and established dwellings are required to achieve the requirements of AS 2021-2000 *"Acoustics – Aircraft Noise Intrusion – Building Siting and Construction"* and façade treatments should be treated so that maximum noise levels within habitable rooms are within the range of 50-55 dB(A) assuming a maximum flyover noise level of 89 dB(A). Whilst the Standard requires a noise reduction of 34 to 39 dB(A) across habitable rooms, the assessment performed by Sonus conservatively assumes a lesser reduction of 30 dB(A).

Also considered by Sonus is the former long-standing use of the site as public service depot. Sonus notes that proposed warehouse and service industry land uses have similar noise characteristics to the former council depot, but with more restricted operating hours.

Acoustic Recommendations

Based on noise modelling performed, Sonus recommend the following acoustic treatments to manage the transmission of noise:

- Installation of a combination of 2.4 and 1.8 metre high Colorbond® fencing (or other similar fencing with the same density), sealed air-tight at all junctions;
- That delivery vehicles switch off engines immediately after parking; and
- That there are no irregularities on the site and all inspection points, grated trenches, etc. are correctly fixed to remove the potential impact of noise generated by moving vehicles.

Subject to adhering to the above, Table 6.1 identifies predicted noise levels to be generated by the various land uses.

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Table 6.1 *Predicted noise levels*

Land Use	Day Period (7:00am to 10:00pm)		Night Period (10:00pm to 12:00am)	
	Predicted Noise Level	Criteria	Predicted Noise Level	Criteria
Restaurant	22	32	21	25
Brewery	24	32	**	25
Warehouse or Service Industry Tenancy (Commercial Zone)	31	32	**	25
Warehouse or Service Industry Tenancy (Residential Zone)	25	27	**	20

*** Outside of proposed land uses operating hours*

Source: *Sonus acoustic report*

Acoustic fencing recommended by Sonus is illustrated on the site plan contained within ***Appendix 3***, whilst the other recommendations may be addressed via conditions of consent. With the recommended acoustic treatments installed, Sonus concludes that *"the development will not detrimentally affect the amenity of the locality or cause unreasonable interference through noise, thereby achieving the relevant provisions of the Development Plan".*

The above discussion demonstrates that the proposed development has been designed to appropriately manage interface impacts to result from the generation of noise, taking into account proposed hours of operation, the nature of activities to occur from the premises and the characteristics of the surrounding locality. Accordingly, the proposed development satisfies the relevant Interface between Land Uses provisions of the Development Plan:

OBJ. 1: *Development located and designed to minimise adverse impact and conflict between land uses*

PDC 1: *Development should not detrimentally affect the amenity of the locality or cause unreasonable interference through any of the following:*

(a) Noise

.....

(g) Hours of operation

6.5.2 Overshadowing

Tenancy 1 is situated 1.15 metres from the closest adjoining residential property to the west, which is located at 2 Press Road, Brooklyn Park. The proposed building will replace an existing shed which abuts the entire length of the common boundary. The western elevation wall of Tenancy 1 stops short of the adjoining private open space and the proposed development will increase the amount of sunlight received by this adjoining property,

with any shadow cast by the development falling on the roof of the adjoining dwelling, which is absent of roof-mounted solar panels. All other proposed buildings are generously separated from all adjacent residential properties and the development has been designed to satisfy the following Design and Appearance provisions of the Development Plan relating to overshadowing:

> ***PDC 10:*** *Except where otherwise specified in a zone, policy area or precinct, development should ensure that:*
>
> *(a) north-facing windows to living rooms of existing dwelling(s) on the same allotment, and on adjacent allotments, receive at least 3 hours of direct sunlight over a portion of their surface between 9 am and 3 pm on the 21 June*
>
> *(b) ground level private open space of existing buildings receive direct sunlight for a minimum of 2 hours between 9 am and 3 pm on 21 June to at least the smaller of the following:*
>
> *(i) half of the existing ground level private open space*
>
> *(ii) 35 square metres of the existing ground level private open space*
>
> *(c) where overshadowing already exceeds the requirements contained in part (b), development should not increase the area overshadowed.*

6.5.3 Light spill

It is expected that carpark lighting will be installed to support evening use of the microbrewery, restaurant and bar. As the development is generously separated from adjacent residences and is either screened by the existing building or buffered by Marion Road, light spill and glare can be managed to address interface impacts. All lighting will be design in accordance with Australian Standard 4282-1997 *'Control of the obtrusive effects of outdoor lighting'*, to ensure lix levels and light glare does not unreasonably impact on the amenity of the locality.

6.6 Landscaping

The landscape plan prepared by Hemisphere is attached as ***Appendix 7***.

Opportunities for additional landscaping to enhance the appearance of development when viewed from the public realm are significantly restricted due to the location of existing boundary fencing and buildings.

Notwithstanding, and in accordance with Landscaping, Fences and Walls PDC 3, the northern carpark includes a 2.3 metre wide landscape bed which will accommodate two existing mature Pyrus Trees, and one additional Pyrus Tree. Ground covers and small shrubs will be interspersed between these trees, and the nature of planting in this location will soften the appearance of the carpark and Tenancy 1 beyond, whilst maintaining opportunities for passive surveillance in accordance with Crime Prevention PDC 1:

> ***PDC 1:*** *Development should be designed to maximise surveillance of public spaces through the incorporation of clear lines of sight, appropriate lighting and the use of visible permeable barriers wherever practicable.*

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Landscaping continues along the northern boundary with taller narrow Pine Oak Pillar Green trees to be planted within the 2.1 metre landscape bed located between the northern boundary and Tenancy 1 to provide a visual screen to the building when viewed from the adjoining residence. Hedging will be used to screen the cardboard refuse area from the private open space area of the adjoining residence to the west, and existing mature Pyrus Trees adjacent the northern boundary carpark will be retained and supplemented with additional ground covers and low-lying shrubs. Additional garden beds accommodating ground covers, shrubs and trees are located throughout the site, but primarily in high use areas in proximity to outdoor seating areas for enhanced amenity. A raised garden bed will provide a physical barrier to separate the internal roadway and outdoor seating areas. Taller trees and trellis climbers will also be used to soften the appearance of the eastern elevation of Tenancy 6 and 11.

Further to the above discussion, the development has been designed to enhance internal occupant amenity, and the selection of ground covers, shrubs, climbers and trees will soften the visual impact of parking areas and taller buildings. In our opinion, the landscape design is consistent with the Landscaping Fences and Walls provisions of the Development Plan, most notably PDC 1:

> ***PDC 1:*** *Development should incorporate open space and landscaping in order to:*
>
> *(a) complement built form and reduce the visual impact of larger buildings (eg taller and broader plantings against taller and bulkier building components)*
>
> *(b) enhance the appearance of road frontages*
>
> *(c) screen service yards, loading areas and outdoor storage areas*
>
> *(d) minimise maintenance and watering requirements*
>
> *(e) enhance and define outdoor spaces, including car parking areas*
>
> *(f) provide shade and shelter*
>
> *(g) assist in climate control within buildings*
>
> *(h) minimise heat absorption and reflection*
>
> *(i) maintain privacy*
>
> *(j) maximise stormwater re-use*
>
> *(k) complement existing native vegetation*
>
> *(l) contribute to the viability of ecosystems and species*
>
> *(m) promote water and biodiversity conservation.*

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6.7 Traffic, Parking and Access

The Traffic and Parking Assessment prepared by CIRQA is attached as ***Appendix 4***. The following discussion provides an assessment of the development against the relevant Transportation and Access Provisions of the Development Plan.

6.7.1 Parking Demand and Supply

Referring to *Table WeTo/2 – Off Street Vehicle Parking Requirements*, the following parking rates are applicable to the development:

- **Restaurant (traditional)**
  - Greater of one space per three seats or one space per 15m^2 of total floor area
- **Industry and Warehouse**
  - 3.3 spaces per 100m^2 for the office component; plus
  - Two (2) spaces per 100m^2 for up to 200m^2, plus 1.33 spaces per 100m^2 of floor area between 200 to 2,000m^2 plus 0.67 spaces per 100m^2 of floor area above 2,000m^2

Applying the above parking rates, the development attracts a theoretical parking demand of 145 spaces as summarised below:

- The restaurant comprising 150 seats - **50 spaces**;
- The microbrewery bar comprising 80 seats - **26.67 spaces** (applying the restaurant rate of 1 space per three seats);
- The service industry component of the microbrewery comprising an area of 344m^2- **5.9 spaces;** and
- The commercial tenancies which will be used as service industries (1,658m^2) with associated office/storage mezzanine (695m^2) and warehouses (819m^2) with associated office/storage mezzanine (695m^2) - **61.79 spaces**.

Notwithstanding the theoretical shortfall in onsite parking, consideration should also be given to the mixed-use nature of the development, and the variations in operating times and peak demand periods for the different land uses. When these factors are considered, CIRQA identify the following parking demand during peak periods:

- A daytime peak parking demand of 95 spaces (assuming all tenancies are occupied, and the microbrewery is operating at full capacity); and
- A night-time peak demand of 50 spaces (assuming the restaurant/bar is operating at full capacity).

Taking into account the above, the development will result in a minor shortfall off 14 onsite spaces (i.e. 81 spaces with a peak demand for 95 spaces at any one time). Notwithstanding, CIRQA note that the actual peak parking demands for each proposed land use is likely to be less than referenced within the Development Plan for the following reasons:

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- **Staggered peaking parking demand periods:** CIRQA notes that the peak parking demand for the microbrewery will be on weekends, whilst the peak parking demand for commercial tenancies is typically during the working week.
- **Lower parking demand for warehouse tenancies:** The Development Plan prescribes a generic parking rate for all forms of industry. However, a service industry includes a manufacturing component and is therefore a more labour-intensive form of commercial land use when compared with a warehouse. On this basis, it reasonable to expect that a warehouse will attract a lower parking demand than a service industry, as is recognised in the Aurecon *"Parking Spaces for Urban Places"* study which provides a separate parking rate for warehouses[1]. When these parking rates are applied to the development, the onsite provision of parking caters for the peak daytime demand for vehicle parking.
- **Parking within commercial tenancies:** It is expected that some business owners will park their vehicles within their own individual commercial tenancies, thereby freeing up parking spaces and also reducing useable area of commercial tenancy space.

In addition to the above, the provision of seven (7) bicycle parking spaces within outdoor areas associated with the microbrewery and restaurant will further assist to lessen the demand for onsite vehicle parking, as will the availability of public bus services and conveniently located bus stops, situated in proximity to the site.

On this basis, CIRQA concludes that the provision of 81 onsite parking spaces will cater for peak parking demands generated by the development.

6.7.2 Carpark Design

Transportation and Access PDC 35 suggests that carparks for development should be designed in accordance with *AS 2890 Parking Facilities*. In accordance with this provision, CIRQA notes that the carpark has been designed to comply with the requirements of AS/NZS, *Parking Facilities Part 1: Off-street car parking* (AS/NZS 2890.1:2004) and AS/NZS, *Parking Facilities Part 6: Off-street parking for people with disabilities* (AS/NZS 2890.6:2009).

In addition to the above, the indicative swept turning paths prepared by CIRQA demonstrates that the manoeuvring areas are capable of accommodating safe and convenient vehicle movements for all vehicle types, including small and medium rigid vehicles accessing commercial tenancies, and waste collection vehicles collecting waste for designated bin storage areas.

On this basis the development has been designed to accommodate safe and convenient vehicle movements, in accordance with Transportation and Access PDC 14:

> ***PDC 14:*** *Development should provide for the on-site loading, unloading and turning of all traffic, including any waste collection vehicles, likely to be generated.*

[1] 1 car parking space per employee (if employee numbers known) with a minimum of 2 spaces per premises OR 1.85 spaces per 100 sq m GFA (if employee numbers not known) with a minimum of 2 spaces per premises

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6.7.3 *Access Arrangements and Traffic Volumes*

The proposal seeks to retain the two driveway connections with Edwin Street, and the southern and central driveway connections with Marion Road. The northern driveway connection with Marion Road is to be removed and replaced with kerb and gutter.

Applying the traffic generation rates identified within the RTA's *"Guide to Traffic Generating Developments"*, CIRQA conclude that the development is forecast to generate the following traffic movements:

- Restaurant/bar – 19 Peak hour trips;
- Microbrewery (bar component) – 22 peak hour trips;
- Microbrewery (service industry component) three (3) am and four (4) pm peak hour trips; and
- Warehouse /service industry – 24 am and 27 pm peak hour trips.

The above equates to between 68 am and 72 pm peak trips. However, noting the staggered operating hours and variation in peak parking demand periods for the various land uses, CIRQA notes that actual traffic generation rates associated with the proposed uses would be in the order of 30 am and 40 pm peak hour trips. When the traffic generation rates for the former public service depot are also considered, the development is expected to generate an additional 15 and 25 trips during the am and pm (commuter) peak periods, respectively.

CIRQA also notes that the majority of traffic movements will be distributed to the site's main access points on Marion Road, with minimal use of Edwin Street expected. On this basis CIRQA concludes that the *"additional volumes are negligible and the movements will be easily accommodated at the adjacent access points and on the surrounding road network"*.

Our assessment of the access arrangements has considered Transportation and Access PDC 12 which stipulates that *"development should be designed to discourage commercial and industrial vehicle movements through residential streets and adjacent other sensitive land uses"*. Whilst the proposal seeks to gain access via Edwin Street, it is important to note that these access arrangements already exist (and have so for some time). Noting the negligible levels of additional traffic to be generated by the development (the majority of which will be distributed to/from Marion Road), we are of the opinion that the preservation of the driveway connections with Edwin Street provides multiple options for accessing the site without resulting in additional impacts on the surrounding residential environment.

6.8 Stormwater Management

Detailed civil plans prepared by Sagero found in ***Appendix 5*** illustrates how the quality and quantity of stormwater collected from the site will be managed.

The Development Constraints Overlay Map (*WeTo/8*) suggests that the site may be subject to flooding. Accordingly, the finished floor levels of the proposed commercial tenancies have been adjusted in accordance with Council's recommendations, and to satisfy Hazards PDC 7:

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PDC 7: Ground floor levels of all development on land subject to a 1-in-100 year average return interval flood event as shown on Overlay Maps - Development Constraints should be located above a design flood level which:

(a) provides an acceptable level of risk to persons and property

(b) minimises the impact of floodwaters onto adjoining properties

(c) ensures development will not adversely affect the level of floodwaters on adjoining properties.

All surface and roof water will be detained within a serious of below ground detention tanks with a combined capacity of 92m^3. The capacity of these tanks together with the proposed stormwater discharge rate of 35.37L/s has been designed to ensure discharge rates do not exceed pre-development conditions, with the proposed drainage system connecting directly into the side entry pit located within the Edwin Street verge.

Domestic parking spaces will be constructed using pervious paving to further reduce stormwater discharge rates, whilst the proposed wastewater treatment device will preserve water quality. The design of the detention system combined with the above-mentioned Water Sensitive Urban Design initiatives satisfy the following Natural Resources provisions of the Development Plan:

PDC 8: *Water discharged from a development site should:*

(a) be of a physical, chemical and biological condition equivalent to or better than its pre-developed state

(b) not exceed the rate of discharge from the site as it existed in pre-development conditions.

PDC 9: *Development should have adequate provision to control any stormwater over-flow runoff from the site and should be sited and designed to improve the quality of stormwater and minimise pollutant transfer to receiving waters.*

PDC 10: *Development should include stormwater management systems to mitigate peak flows and manage the rate and duration of stormwater discharges from the site to ensure the carrying capacities of downstream systems are not overloaded.*

PDC 11: *Development should include stormwater management systems to minimise the discharge of sediment, suspended solids, organic matter, nutrients, bacteria, litter and other contaminants to the stormwater system.*

Council has also requested further clarification on how impacts of the development on the adjoining watercourse will be managed. In this regard, the following Natural Resources provision is particularly relevant to the assessment of the proposal:

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PDC 17: Development should ensure watercourses and their beds, banks, wetlands and floodplains are not damaged or modified and are retained in their natural state, except where modification is required for essential access or maintenance purposes.

As Keswick Creek is encased in concrete, we have been advised by Sagero that any potential impacts on the adjoining watercourse can be managed. The proposed commercial tenancies to be established along the southern boundary will also require minimal earthworks, with retaining limited to the construction of a minor retaining wall plinth. Impacts of the construction process on the adjoining watercourse can also be addressed via the implementation of the Construction Environmental Management Plan (CEMP) prepared to the reasonable satisfaction of the Council.

Having reviewed the stormwater management plan against the relevant provisions of the Development Plan, the development has been appropriately designed to manage stormwater run-off generated by additional impervious areas resulting from the development.

6.9 Waste Management

6.9.1 Hard Refuse

The Waste Management Report prepared by Rawtec is attached in ***Appendix 8***, and the following Waste provisions of the Development Plan are particularly relevant to the assessment of the development.

PDC 5 Development should include appropriately sized area to facilitate the storage of receptacles that will enable the efficient recycling of waste.

PDC 6 Development that involves the production and/or collection of waste and/or recyclable material should include designated collection and storage area(s) that are:

(a) screened and separated from adjoining areas

(b) located to avoid impacting on adjoining sensitive environments or land uses

(c) designed to ensure that wastes do not contaminate stormwater or enter the stormwater collection system

(d) located on an impervious sealed area graded to a collection point in order to minimise the movement of any solids or contamination of water

(e) protected from wind and stormwater and sealed to prevent leakage and minimise the emission of odours

(f) stored in such a manner that ensures that all waste is contained within the boundaries of the site until disposed of in an appropriate manner.

The restaurant/bar and microbrewery will have separate waste management areas, whilst waste bins associated with new commercial tenancies will be installed within individual tenancies and wheeled to the carpark on collection day.

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Each waste storage area has been designed to accommodate anticipated waste generation rates identified by Rawtec, whilst also allowing for the provision of organic and recycling bins, and a communal area for the storage and collection of cardboard, as contemplated by PDC 5. The waste storage areas associated with the restaurant/bar and microbrewery will be enclosed by screens to obscure views from the public realm.

Further to the waste management plan prepared by Rawtec, we are of the opinion that the waste management system has been designed to accommodate the appropriate storage, management and disposal of waste in accordance with the relevant Waste provisions of the Development Plan.

6.9.2 Other waste

Waste PDC 10 also seeks to the ensure that wastewater generated by the operation of the microbrewery is also appropriately managed:

> ***PDC 10:*** *Development that produces any sewage or effluent should be connected to a waste treatment system that complies with (or can comply with) the relevant public and environmental health legislation applying to that type of system.*

The area of the microbrewery identified as 'Brewhouse/Fermenters/Storage' will be designed as a wet area, with a separate drainage system. Wastewater associated with the operation of the microbrewery will connect to mains sewer in accordance with a trade waste discharge authorisation to be separately obtained by the microbrewery operator.

6.10 Social, Economic and Environmental Effects

In accordance with Clause 17(5)(d) of the Regulations, an assessment of the expected social, economic and environmental effects of the development are discussed below.

6.10.1 Social Effects

The proposed restaurant, bar and microbrewery will deliver hospitality services for the local community, creating opportunities for social gatherings and interactions within a Commercial Zone and setting where interface impacts can be being appropriately managed.

6.10.2 Economic Effects

The project has an estimated development cost of $3,000,000.

The Property Insights report prepared for the Urban Development Institute of Australia (UDIA) in 2009 examines the economic impact of investing one million dollars in property investment. The economic measures used in this study have been applied to the development in question and are summarised below:

Full time equivalent jobs

According to Property Insights, every million dollars of development industry investment in South Australia generates 6.9 full time equivalent development industry jobs.

Development industry investment also indirectly supports jobs in a range of other industries. For every million dollars of development industry investment, the combined direct and indirect employment impact is fourteen (14) full time equivalent jobs.

Applying the above rates, the development is expected to generate in the order of 21 direct development and 42 indirect jobs.

Gross Operating Surplus

Gross operating surplus is a measure of business profits. According to Property Insights, every million dollars of development industry investment in South Australia generates direct profits of $280,263 to development industry businesses. Indirect impacts on other businesses arising from development industry investment generate additional gross operating surplus across a range of industries. The combined direct and indirect gross operating surplus impact of one million dollars of development industry investment is estimated to be $455,296.

The development is therefore estimated to deliver a direct gross operating surplus of approximately $840,789 to development industry businesses, and a total gross operating surplus of approximately $1.36M across all industries.

State and Federal Taxes

Development industry activity attracts a range of State and Federal taxes. The industry contributes around 4.8% of the State tax base. Property Insights estimates that for every million dollars of development industry investment, direct taxes of $62,921 are generated. When indirect taxation impacts are considered, total taxes generated by one million dollars of development industry investment is estimated to be $143,281.

The direct tax impact of the development is estimated to be $188,763 and the total tax impact (including direct and indirect impacts) is estimated to be $429,843.

Wages and Salaries

Property Insights estimates that a one million dollar investment in the development industry generates wages and salaries of $256,287 within the development industry.

The indirect impact on wages and salaries arising from development industry activity is substantial, and is estimated to be an additional $344,997 for every million dollars of investment.

The development is estimated to generate direct wages and salaries of $768,861 and combined (direct and indirect) wages and salaries of $1.03M.

6.10.3 Environmental Effects

Environmental impacts have been identified within this Statement of Effect and relate to the management of stormwater, the preservation and protection of the adjoining watercourse, hard refuse waste management, noise generation and management, and environmental impacts associated with the operation of the

microbrewery including the management of wastewater and airborne emissions. In relation to each of these environmental impacts, we note the following:

- Collected stormwater will be detained and treated to ensure water discharged from the site is maintained to a high quality and the carrying capacity of the drainage network is not overloaded.
- The development requires minimal earthworks, and the adjacent watercourse is encased in concrete, reducing its susceptibility to erosion and damage. Notwithstanding, the applicant will prepare a CEMP to manage erosion and pollution of the watercourse throughout the construction phase of the development.
- The acoustic report prepared by Sonus confirms that interface impacts relating to noise generation can be appropriately managed to ensure noise levels do not exceed the maximum permissible noise levels prescribed by the *Environment Protection (Noise) Policy 2007*.
- The waste management system has been developed in accordance with the recommendations outlined within the Rawtec Waste Management Report, and accommodates receptacles to support the efficient recycling of waste.
- The brewing, fermenting and storage area associated with the microbrewery will be connected to a separate drainage system which will discharge to sewer in accordance with a separate trade waste authorisation.

Finally, we understand that matters relating to the site contamination and remediation have been resolved by the City of West Torrens as the current landowner.

7. Conclusion

This development application seeks approval for the construction of an integrated mixed-use development comprising a restaurant and bar, microbrewery, warehouses and service industry tenancies, together with associated advertising displays, shared parking, acoustic fencing and landscaping on land located at 108 to 114 Marion Road, Brooklyn Park.

Following an inspection of the subject site and locality, a review of the proposed plans and associated documentation accompanying the application and a detailed assessment of the proposed development against the relevant provisions of the West Torrens Council Development Plan, we have formed the opinion that the proposed development represents appropriate and orderly development which aligns with the relevant provisions of the Development Plan for the following reasons:

- The proposed land uses are appropriate for the following reasons:
  - The development will replace an existing and long-standing public service depot;
  - Warehouses and service industries are envisaged forms of development within the Commercial Zone;

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  - The microbrewery includes a service industry with an ancillary bar; and
  - Although a non-complying form of development, the floor area allocated to the proposed restaurant of 374m^2 (excluding outdoor seating areas) represents a minor departure from the floor area cap prescribed by the Development Plan, and will not jeopardise the ability for the balance of the land (which occupies the entirety of the Commercial Zone) to function in a manner intended by the Development Plan.

- The restaurant will occupy the existing Local Heritage Place and has been designed to retain all building elements with heritage value. Accordingly, the preservation and adaptive reuse of the Local Heritage Place is consistent with 'Heritage Places' General Section provisions of the Development Plan.
- The proposed commercial tenancies exhibit a high degree of architectural merit, and together with other design features (including landscaping, the proposed feature wall, external seating areas, etc.), will significantly improve upon the existing amenity of the locality, and will create an inclusive environment which supports a variety of land uses.
- Landscaping placed throughout the site will soften the visual impact of hardstand areas and new commercial buildings, enhancing amenity and improving the outlook particularly for microbrewery and restaurant patrons, together with adjoining residential properties to the north.
- Warehouse Tenancy 1 will replace an existing commercial building, and a proposed increase in setback combined with boundary landscaping will address the visual impact of this building when viewed from adjoining residential properties.
- All other proposed commercial buildings are generously set back from adjacent residential properties and, for the most part, will replace existing commercial buildings in similar locations.
- Interface impacts relating to noise, overshadowing, and light spill have been appropriately addressed in the design of the development and can be managed through appropriately worded conditions attached to any forthcoming consent.
- The CIRQA Traffic and Parking Report confirms that the development has been designed in accordance with the relevant Australian Standards, with sufficient onsite parking to accommodate safe and convenient vehicle movements, whilst additional traffic volumes generated by the development will be low and are not expected to compromise the safety or function of the surrounding road network.
- The waste management report prepared by Rawtec confirms that the waste management system designed for the development supports the safe and efficient disposal of waste in accordance with the relevant provisions of the Development Plan.
- The civil plans prepared by Sagero demonstrate that the development has been designed to accommodate the safe and efficient disposal of stormwater, and to protect new buildings from flooding.

For the reasons outlined above, we are of the opinion that the development will not result in adverse social, economic or environmental impacts, is closely aligned with the relevant provisions of the Development Plan, and warrants Development Plan Consent.

Government of South Australia
Department of Planning, Transport and Infrastructure

Product	Register Search (CT 5443/556)
Date/Time	20/08/2018 02:07PM
Customer Reference	6055412
Order ID	20180820007283
Cost	$28.75

REAL PROPERTY ACT, 1886
South Australia

The Registrar-General certifies that this Title Register Search displays the records maintained in the Register Book and other notations at the time of searching.

Certificate of Title - Volume 5443 Folio 556

Parent Title(s) CT 4306/731

Creating Dealing(s) CONVERTED TITLE

Title Issued 20/08/1997 **Edition** 3 **Edition Issued** 07/05/2008

Estate Type

FEE SIMPLE

Registered Proprietor

CITY OF WEST TORRENS
OF 165 SIR DONALD BRADMAN DRIVE HILTON SA 5033

Description of Land

ALLOTMENT 84 DEPOSITED PLAN 3719
IN THE AREA NAMED BROOKLYN PARK
HUNDRED OF ADELAIDE

Easements

NIL

Schedule of Dealings

NIL

Notations

Dealings Affecting Title	NIL
Priority Notices	NIL
Notations on Plan	NIL
Registrar-General's Notes	NIL
Administrative Interests	NIL

Government of South Australia
Department of Planning, Transport and Infrastructure

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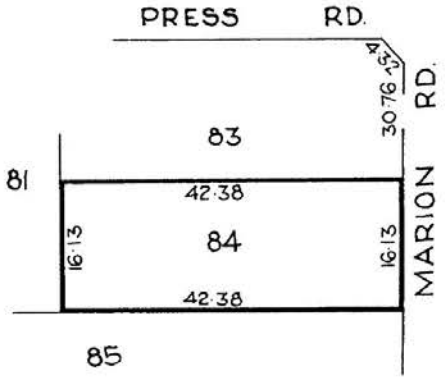
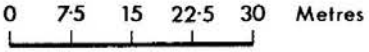
Date/Time	20/08/2018 02:07PM
Customer Reference	6055412
Order ID	20180820007283
Cost	$28.75





Government of South Australia
Department of Planning, Transport and Infrastructure

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Date/Time	20/08/2018 02:11PM
Customer Reference	6055412
Order ID	20180820007390
Cost	$28.75

REAL PROPERTY ACT, 1886
South Australia

The Registrar-General certifies that this Title Register Search displays the records maintained in the Register Book and other notations at the time of searching.

Certificate of Title - Volume 5670 Folio 395

Parent Title(s) CT 2396/42

Creating Dealing(s) CONVERTED TITLE

Title Issued 12/07/1999 **Edition** 1 **Edition Issued** 12/07/1999

Estate Type

FEE SIMPLE

Registered Proprietor

CITY OF WEST TORRENS
OF 165 SIR DONALD BRADMAN DRIVE HILTON SA 5033

Description of Land

ALLOTMENT 85 DEPOSITED PLAN 3719
IN THE AREA NAMED BROOKLYN PARK
HUNDRED OF ADELAIDE

Easements

NIL

Schedule of Dealings

NIL

Notations

Dealings Affecting Title	NIL
Priority Notices	NIL
Notations on Plan	NIL
Registrar-General's Notes	NIL
Administrative Interests	NIL

Government of South Australia
Department of Planning, Transport and Infrastructure

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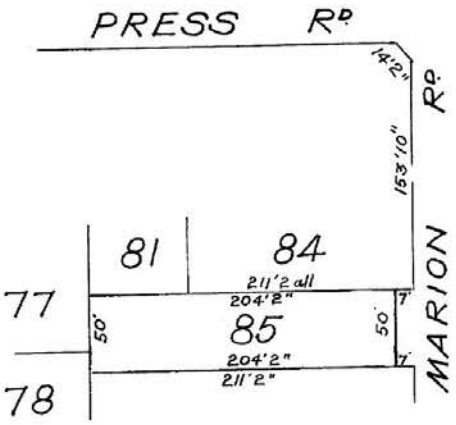
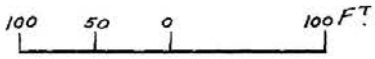
Date/Time	20/08/2018 02:11PM
Customer Reference	6055412
Order ID	20180820007390
Cost	$28.75





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1 FOOT	=	0·3048 METRES
1 INCH	=	0·0254 METRES

Government of South Australia
Department of Planning, Transport and Infrastructure

Product	Register Search (CT 5721/775)
Date/Time	20/08/2018 01:12PM
Customer Reference	60539268
Order ID	20180820006223
Cost	$28.75

REAL PROPERTY ACT, 1886
South Australia

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Certificate of Title - Volume 5721 Folio 775

Parent Title(s) CT 1803/152

Creating Dealing(s) CONVERTED TITLE

Title Issued 23/12/1999 **Edition** 1 **Edition Issued** 23/12/1999

Estate Type

FEE SIMPLE

Registered Proprietor

CITY OF WEST TORRENS
OF 165 SIR DONALD BRADMAN DRIVE HILTON SA 5033

Description of Land

ALLOTMENT 77 DEPOSITED PLAN 3719
IN THE AREA NAMED BROOKLYN PARK
HUNDRED OF ADELAIDE

Easements

NIL

Schedule of Dealings

NIL

Notations

Dealings Affecting Title	NIL
Priority Notices	NIL
Notations on Plan	NIL
Registrar-General's Notes	NIL
Administrative Interests	NIL

Government of South Australia
Department of Planning, Transport and Infrastructure

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Date/Time	20/08/2018 01:12PM
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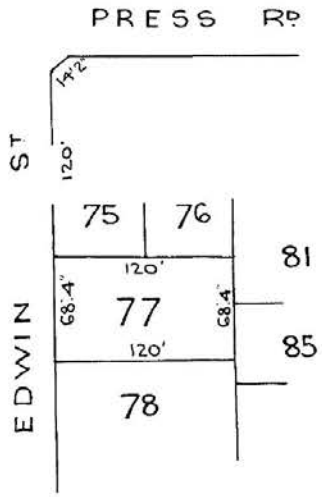
Order ID	20180820006223
Cost	$28.75



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DISTANCES ARE IN FEET AND INCHES
FOR METRIC CONVERSION
1 FOOT = 0·3048 METRES
1 INCH = 0·0254 METRES

Government of South Australia
Department of Planning, Transport and Infrastructure

Product	Register Search (CT 5727/286)
Date/Time	20/08/2018 01:56PM
Customer Reference	6055412
Order ID	20180820007017
Cost	$28.75

REAL PROPERTY ACT, 1886
South Australia

The Registrar-General certifies that this Title Register Search displays the records maintained in the Register Book and other notations at the time of searching.

Certificate of Title - Volume 5727 Folio 286

Parent Title(s) CT 1707/159

Creating Dealing(s) CONVERTED TITLE

Title Issued 24/01/2000 **Edition** 1 **Edition Issued** 24/01/2000

Estate Type

FEE SIMPLE

Registered Proprietor

CITY OF WEST TORRENS
OF 165 SIR DONALD BRADMAN DRIVE HILTON SA 5033

Description of Land

ALLOTMENT 78 DEPOSITED PLAN 3719
IN THE AREA NAMED BROOKLYN PARK
HUNDRED OF ADELAIDE

Easements

NIL

Schedule of Dealings

NIL

Notations

Dealings Affecting Title	NIL
Priority Notices	NIL
Notations on Plan	NIL
Registrar-General's Notes	NIL
Administrative Interests	NIL

Government of South Australia
Department of Planning, Transport and Infrastructure

Product	Register Search (CT 5727/286)
Date/Time	20/08/2018 01:56PM
Customer Reference	6055412
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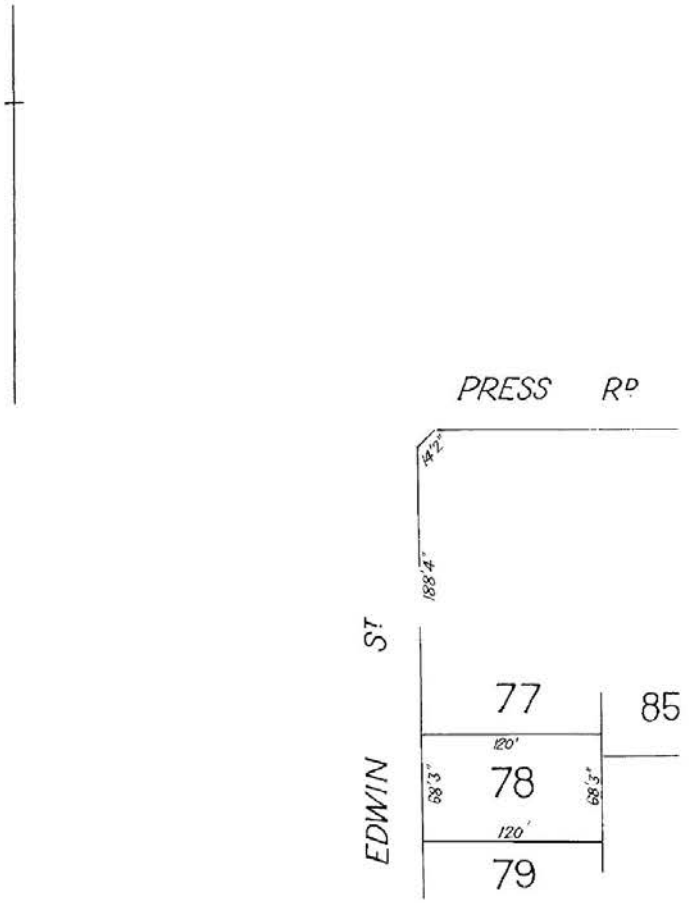


DISTANCES ARE IN FEET AND INCHES
FOR METRIC CONVERSION
1 FOOT = 0·3048 METRES
1 INCH = 0·0254 METRES

Government of South Australia
Department of Planning, Transport and Infrastructure

Product	Title Details
Date/Time	20/08/2018 01:40PM
Customer Reference	6055412
Order ID	20180820006717
Cost	$10.20

Certificate of Title

Title Reference	CT 5727/286
Status	CURRENT
Easement	NO
Owner Number	90006210
Address for Notices	165 SIR DONALD BRADMAN DRIVE HILTON SA 5033
Area	740M² (APPROXIMATE)

Estate Type

FEE SIMPLE

Registered Proprietor

CITY OF WEST TORRENS
OF 165 SIR DONALD BRADMAN DRIVE HILTON SA 5033

Description of Land

ALLOTMENT 78 DEPOSITED PLAN 3719
IN THE AREA NAMED BROOKLYN PARK
HUNDRED OF ADELAIDE

Last Sale Details

There are no sales details recorded for this property

Constraints

Encumbrances

NIL

Stoppers

NIL

Valuation Numbers

Valuation Number	Status	Property Location Address
2124058019	CURRENT	114-120 MARION ROAD, BROOKLYN PARK, SA 5032

Notations

Dealings Affecting Title

NIL

Notations on Plan

NIL

Registrar-General's Notes

Government of South Australia
Department of Planning, Transport and Infrastructure

Product	Title Details
Date/Time	20/08/2018 01:40PM
Customer Reference	6055412
Order ID	20180820006717
Cost	$10.20

NIL

Administrative Interests

NIL

Government of South Australia
Department of Planning, Transport and Infrastructure

Product	Register Search (CT 5728/110)
Date/Time	20/08/2018 02:00PM
Customer Reference	6055412
Order ID	20180820007118
Cost	$28.75

REAL PROPERTY ACT, 1886
South Australia

The Registrar-General certifies that this Title Register Search displays the records maintained in the Register Book and other notations at the time of searching.

Certificate of Title - Volume 5728 Folio 110

Parent Title(s) CT 1698/112

Creating Dealing(s) CONVERTED TITLE

Title Issued 25/01/2000 **Edition** 1 **Edition Issued** 25/01/2000

Estate Type

FEE SIMPLE

Registered Proprietor

CITY OF WEST TORRENS
OF 165 SIR DONALD BRADMAN DRIVE HILTON SA 5033

Description of Land

ALLOTMENT 79 DEPOSITED PLAN 3719
IN THE AREA NAMED BROOKLYN PARK
HUNDRED OF ADELAIDE

Easements

NIL

Schedule of Dealings

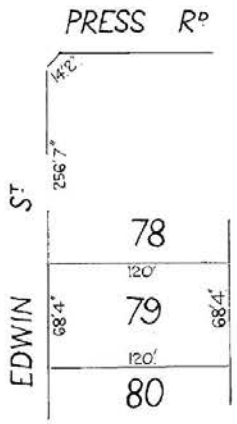
NIL

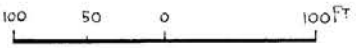
Notations

Dealings Affecting Title	NIL
Priority Notices	NIL
Notations on Plan	NIL
Registrar-General's Notes	NIL
Administrative Interests	NIL

Government of South Australia
Department of Planning, Transport and Infrastructure

Product	Register Search (CT 5728/110)
Date/Time	20/08/2018 02:00PM
Customer Reference	6055412
Order ID	20180820007118
Cost	$28.75





DISTANCES ARE IN FEET AND INCHES
FOR METRIC CONVERSION
1 FOOT = 0·3048 METRES
1 INCH = 0·0254 METRES

Land Services Page 2 of 2

Government of South Australia
Department of Planning, Transport and Infrastructure

Product	Title Details
Date/Time	20/08/2018 01:44PM
Customer Reference	6055412
Order ID	20180820006766
Cost	$10.20

Certificate of Title

Title Reference	CT 5728/110
Status	CURRENT
Easement	NO
Owner Number	90006210
Address for Notices	165 SIR DONALD BRADMAN DRIVE HILTON SA 5033
Area	740M² (APPROXIMATE)

Estate Type

FEE SIMPLE

Registered Proprietor

CITY OF WEST TORRENS
OF 165 SIR DONALD BRADMAN DRIVE HILTON SA 5033

Description of Land

ALLOTMENT 79 DEPOSITED PLAN 3719
IN THE AREA NAMED BROOKLYN PARK
HUNDRED OF ADELAIDE

Last Sale Details

There are no sales details recorded for this property

Constraints

Encumbrances

NIL

Stoppers

NIL

Valuation Numbers

Valuation Number	Status	Property Location Address
2124058019	CURRENT	114-120 MARION ROAD, BROOKLYN PARK, SA 5032

Notations

Dealings Affecting Title

NIL

Notations on Plan

NIL

Registrar-General's Notes

Government of South Australia
Department of Planning, Transport and Infrastructure

Product	Title Details
Date/Time	20/08/2018 01:44PM
Customer Reference	6055412
Order ID	20180820006766
Cost	$10.20

NIL

Administrative Interests

NIL

LAND SERVICES SA

Product	Title Details
Date/Time	10/08/2020 04:51PM
Customer Reference	Marion Rd
Order ID	20200810011901

Certificate of Title

Title Reference	CT 6221/362
Status	CURRENT
Easement	YES
Owner Number	90006210
Address for Notices	165 SIR DONALD BRADMAN DRIVE HILTON SA 5033
Area	4389M² (CALCULATED)

Estate Type

FEE SIMPLE

Registered Proprietor

CITY OF WEST TORRENS
OF 165 SIR DONALD BRADMAN DRIVE HILTON SA 5033

Description of Land

ALLOTMENT 102 DEPOSITED PLAN 119826
IN THE AREA NAMED BROOKLYN PARK
HUNDRED OF ADELAIDE

Last Sale Details

There are no sales details recorded for this property

Constraints

Encumbrances

NIL

Stoppers

NIL

Valuation Numbers

Valuation Number	Status	Property Location Address
2124057518	CURRENT	110-112 MARION ROAD, BROOKLYN PARK, SA 5032
2124058027	CURRENT	114-118 MARION ROAD, BROOKLYN PARK, SA 5032

Notations

Dealings Affecting Title

NIL

Notations on Plan

NIL

Registrar-General's Notes

LAND SERVICES SA

Product	Title Details
Date/Time	10/08/2020 04:51PM
Customer Reference	Marion Rd
Order ID	20200810011901

NIL

Administrative Interests

NIL

RECEIVED - CWT IM
3 1 DEC 2020

Mrs. Margaret Rainford
13 Ralph St
West Torrens
S.A 5033

30-12-20

To the Town Planner,

Dear Sir I am writing to the Council regarding the developing of "Restaurant & Micro Brewery"

City of West Torrens
3 1 DEC 2020
City Development

N° 211/702/2020

108-120 Marion Road
Brooklyn Park

I am against the above because of the increase of noise + Traffic which will affect my personal way of quiet living + the sale of my property Thank you

Margaret.

Statement of Representation

City of West Torrens
Between the City and the Sea

Submission date:	3 January 2021, 9:13PM
Receipt number:	35
Related form version:	5

Development No.	211/702/2020
Property address	120 Marion Rd, 108 Marion Rd,110-112 Marion Rd, 114-118 Marion Rd Brooklyn Park SA 5032
First name	Jeetendra
Last name	Singh
Address	123 Marion Rd No coordinates found
Contact number	
Email address	
Nature of interest	Owner of the land in the vicinity
Reason/s for representation	Owner of the land in the vicinity. Our concerns are; 1. Will there be parking and traffic changes on Marion Rd as part of this development? 2. Increase in noise level – during demolition and construction (mitigation steps planned)? 3. Increase in noise level - during operational phase? what mitigation steps are planned? 4. Micro - brewery – Odor from the brewery 5. Mitigation of rubbish being thrown in the neighbouring gardens (already Hungary Jack and McDonalds Issue) 6. Hours of construction? During weekends? Bank holidays? 7. Hours of operations for production and warehouses?? 8. for restaurants and services? taking into account that the airport does have a curfew between 11 pm and 6 am, we would appreciate the same. Strongly oppose Restaurant and Bar up to 12 am - crowd and drunkards loafing in front of our house. 9. any compensation planned for potential drop of market value of neighbouring properties? 10.any funding planned for closed fencing for front yard due to crowd/ drunkards loafing in our currently open front yard?
My representation would be overcome by:	NA

Please indicate whether or not you wish to be heard by Council in respect to this submission:	**I do not wish to be heard**
Extra Information	
Signature	 Link to signature
Today's date	**03/01/2021**

Statement of Representation

City of West Torrens
Between the City and the Sea

Submission date:	4 January 2021, 3:25PM
Receipt number:	36
Related form version:	5

Development No.	211/702/2020
Property address	108-120 Marion Rd, Brooklyn Park SA 5032
First name	Jayshween
Last name	Kumar
Address	2 Press Rd, Brooklyn Park SA 5032, Australia Map (-34.9346107, 138.5519065)
Contact number	
Email address	
Nature of interest	Adjoining resident and owners of land/houses in the vicinity (Jayshween and Sanjay Kumar)
Reason/s for representation	Adjoining resident and owners of land/houses in the vicinity (Jayshween and Sanjay Kumar)
My representation would be overcome by:	Address my concerns raised in attached document pertaining to : Noise Odor Pests Traffic Parking Property Value Ability to attract and lease Demotion and construction works (Noise and dust) Fencing Night-Time Operations and lighting
Please indicate whether or not you wish to be heard by Council in respect to this submission:	I desire to be heard personally
Extra Information	Representation 2 Press Rd.pdf
Signature	 Link to signature

2 Press Rd
Brooklyn Park
SA 5032

4th January 2021

Representation for Development plan 211/702/2020

Dear Mr Brendan Fewster,

A very happy 2021 to you and your team.

Thank you for sending through the notice of development application to the old depo site. Notwithstanding the appreciation for the aesthetic improvement to the adjoining property that any development will bring, I wish to point out some serious concerns that will impact our daily lives if the proposed development as it stands is approved.

And while some of these items appear to have been addressed, I do not believe that it adequately captures the effect these developments will have on the residents/owners.

NOISE

First and foremost, the placement of a brewery so close to residential properties is a big ask. We made the choice to live close to the airport and accepted that we will be dealing with aircraft noise as a consequence. This however is limited to 6am till 11pm. However, we did not envision the continuous noise that we will be subject to through-out its operating hours as the machinery does its work to produce alcohol. Nor the ongoing traffic that is literally on our doorstep once the restaurant and brewery open up. Is it even fair to further increase the noise that we are accustomed to by increasing production facilities and increasing traffic and people within our living space?

Additionally, the restaurant will be open till 12am, outside of the airport curfew hours. Will the restaurant stop all work at 12am or continue to close shop after 12am, therefore in reality be making noise past 12am?

The plans outline the intent for patrons to move between the brewery and restaurant. This adds further noise as hopefully happy and more likely rowdy patrons will be walking across from one building to another. This level of noise is not comparable to aircraft noise as it flies over our home within seconds and is not continuous. Additionally, if you live here and listen for yourself, planes come and go whereas the machinery from the brewery and the kitchen from the restaurant will have an ongoing noise for a continuous periods of time each day.

The plan also mentions that as the site was previously used as a depo, noise levels would remain same. This is not true. The depo has set times when vehicles would be started and leave for their destinations. We did not hear continuous noise from vehicles throughout the day nor on weekends. Also, the depo was one organisation managed with consideration to its proximity to residences. The development proposes to place 17 tenants, 81 carparks and 230 guests at peak (150 for restaurant

and 80 for brewery) not including employees that may occupy the space immediately next to our home.

ODOR

Unless the brewery has figured out a way to be odorless, I cannot imagine how we will live with the smell of yeast fermenting next to our home every day. The first thing you notice about breweries is its smell. All residents will have to live with this once the brewery is in operation.

I also note that the bins behind warehouse 1 have been located within meters of 2A's eastern boundary. And the only provision to manage any and all smell from this is a 1.8 meter wall which I find inadequate. Is it not possible to locate the bins away from residential properties?

PESTS

The increase in rubbish from the restaurant and brewery as well as other tenancies, that will remain in the bins for longer periods than residential household rubbish will no doubt attract pests such as rats and mice and these will overflow into our homes. How will this be addressed. Again, I request that the bins be placed further away from residential properties.

TRAFFIC

Again, the plan has referenced the use of the site as depo to compare traffic. The depo did not have 81 car parks that had continuous movement of in/out throughout the day accommodating foot traffic of up to 240+ people (if the restaurant and brewery was filled to capacity). The two are incomparable. I bring to your attention the plan for vehicles to pass through within metres of where families live and play - the private open space of 2A and 2B. I understand that for most homes within meters of the main road this is normal however you are placing an additional traffic zone on another side of our home (this will be in addition to the planes flying over their homes). No consideration has been given to the fencing arrangements for the areas that is the private open space for 2A and 2B on the west and south side for 2A and the east and south side for 2B. Or how often vehicles would be passing along that route while people are trying to watch TV, sleep and/or just enjoy some time in the small backyard they have.

Access to the site via Edwin Street also increase traffic on Press Rd. This has been a concern from before whereby there is restrictions on turning into the road at peak times when school kids would be using the road. Vehicles trying to access the site via Edwin street or vacating it via Edwin street will add to the traffic congestion and near mishaps that occur at the corner of Marion and Press Rd.

PARKING

Within the plan itself there is notice of inadequate car parking and I wonder how this will impact our off-street parking. As of now, all the spots in from of 2C Press Rd, 2 -6 Press Rd and across the road on the other side is usually used by residents. If the plans were to be approved regardless, I would urge the council to restrict the area to residents parking only.

PROPERTY VALUE AND ABILITY TO LEASE

We are also owners of 2A and 2B. With the proposed plans, we are concerned that our ability to attract tenants and lease our properties will decline to due to its proximality to a brewery and restaurant. We already have to deal with the fact that we are right under the flight path, to add noise, traffic, odor and parking problems from the development of a brewery and restaurant is asking a lot.

The plan highlights that this development will attract patrons, but will it attract people wanting to live close to a brewery? It is not the same as Bowden which is apartment living. These are proper Aussie homes, albeit with less of a backyard that the traditional Aussie home.

Our tenants have already expressed that the brewery will be a reason for them to terminate their tenancy. Is this something that the developers are willing to compensate for? Not to mention decrease in the values of property to this development. Does the developer or council have any stats to indicate that residential property values are not adversely impacted by such developments?

DEMOLITION AND CONSTRUCTION WORKS

We, including our tenants, will be affected while demolition and construction work is carried out with noise and dust overflowing into our homes. How does the developer plan to manage this? Will we be provided alternative accommodation or compensated in any way?

FENCING

I would expect that any non-residential development next to residences would encourage that the dividing fence be of an adequate height to avoid exposure (access and/or visibility into private open spaces) and that this cost would be borne by the developers. Can there be further discussions on this?

NIGHT-TIME OPERAIONS AND LIGHT

With the depo we only had one light dimly spilling into the private open spaces of 2A and 2B. With cars passing by next to living rooms and bedrooms of 2A and 2B, lights form the carpark on 2B's west side and lights from the warehouse on 2A's south side and lights from other tenant building, will there be timers to switch of the lights after 11pm? How would the lights in the carparks affect us? Can they be non-aggressive lights that do not spill over into our bedrooms and living rooms?

I thank you sincerely for taking the time to read through our concerns. While we appreciate that development is good for the area, the plans as they stand now have given us a lot to be concerned with. I do not have solutions to everything but I am hoping that with everyone else's concerns brought to the fore and your expertise, the council will make a decision that is good for all residents, new ones and existing ones who have faithfully paid their dues 😊.

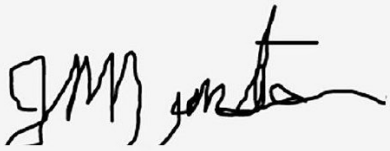
With kind regards,

Jayshween Kumar (Mrs) Sanjay Kumar (Mr)

Statement of Representation

City of West Torrens
Between the City and the Sea

Submission date:	24 December 2020, 3:00PM
Receipt number:	34
Related form version:	5

Development No.	211/702/2020
Property address	120 Marion Road Brooklyn Park; 108 Marion Road Brooklyn Park; 110-112 Marion Road Brooklyn Park; 114-118 Marion Road Brooklyn Park
First name	Jennifer
Last name	Dunstan
Address	5 Ralph St, West Richmond SA 5033, Australia Map (-34.9358721, 138.5516719)
Contact number	
Email address	
Nature of interest	Adjoining Resident
Reason/s for representation	Adjoining Resident
My representation would be overcome by:	Cessation of the intention to sell alcohol anywhere within the said development
Please indicate whether or not you wish to be heard by Council in respect to this submission:	I desire to be heard personally
Extra Information	Category 3 Development Response.docx
Signature	 Link to signature
Today's date	24/12/2020

Development No. 211/702/2020
108 -120 Marion Road Brooklyn Park

I reside at 5 Ralph Street West Richmond and wish to make the following representation with respect to the above Category 3 Development:

Firstly, I have no opposition to the commercial warehouse portion of the development, provided the type of businesses allowed and the hours of operation comply with that stipulated in the documents.

Restaurant / Bar

This development is not suitable for a predominantly residential area as the noise and traffic movement in the evening will impact the residents who are entitled to enjoy the evening hours peacefully in their homes.

The service of alcohol, particularly up until midnight has the propensity to allow intoxicated patrons onto the surrounding residential streets. Residents should not have to face the prospect of drunkenness in the neighbourhood and the often socially unacceptable behaviour it creates.

A licensed venue operating until midnight whilst surrounded by residential homes is an unacceptable development and damages the amenity of the area. This is our home and we should be allowed to enjoy what we have built and established without it being impinged upon by unacceptable noise and increased traffic.

Micro Brewery

An additional bar and brewery on the same site as the restaurant is an unacceptable development in a residential area and will detract from the amenity of our homes.

I am opposed to the noise and pollution which will be generated from this development, particularly odour pollution from the fermenting and brewing of hops and the subsequent disposal of this waste. Overseas data has shown that the odour from micro-breweries cannot be removed and, as residents, we should not have to put up with such odours emitting from this site. Current Australian data reveals that intense scrubbing of contaminated air may lessen these odours but I cannot see where this is covered in any great detail in your development plan.

The siting of the micro-brewery on the creek line of Keswick Creek is reckless as it leaves no room for error should there be a spill of wastes. Even though the creek is cement lined in this area, it is still a fragile environmental creek system that needs to be protected from possible industrial spillage.

The proposed outdoor seating for patrons of the brewery is unacceptable in this area as noise from patrons will not be contained within a building on the site. I enjoy the ambiance of my backyard and my garden and I do not want this to be impacted by noisy drinkers across the creek. Once again, this is my home, my place of calm and it should not be diminished by a development of this kind.

Traffic

As a resident of some 37 years I have seen a huge increase in traffic along Marion Road, to the point where the traffic is stationary every morning and every evening along Marion Road because of the huge numbers of vehicles using this corridor. It was my understanding that the council yard was disbanded in some part due to the difficulty with access from the site to Marion Road. This being the case, how could a development of the type proposed even be considered.

The additional vehicle traffic of patrons attending at the brewery will overload an already stressed road.

Ralph Street has already seen an increase in traffic with Hungry Jacks now at the corner. Cars park in the street (and dump their rubbish) on a daily basis and the entry and exit from Hungry Jacks has made the Ralph Street / Marion Road corner tricky to navigate. The addition of brewery patrons also parking in this street will amplify the problem. I do note on the development plans that there is onsite parking but for many reasons people prefer to park in residential streets and this is unacceptable. The street is dangerous enough already.

The intersection of Press Road / Marion Road and across to Jenkins Street is a hazard and always has been. There is no room to accommodate more than 1 car turning right into Jenkins Street from Marion Road and the new signage on the roadway has tried to alleviate the problem but it is still a chaotic corner. The new development will add significantly to that chaos.

As an adjunct to this, I have been in contact with council numerous times since Hungry Jacks opened to try and reduce the traffic hazard at the corner of Ralph Street. (I have been asking for a no parking (yellow line) to be instated on the southern side of Ralph Street, between the entry to Hungry Jacks' carpark and the drive through exit so that a clear line of sight can be established for drivers exiting the drive through. I have narrowly avoided collision numerous times entering my street because drivers turning east out of the drive through towards Marion Road cannot see approaching vehicles. I now have to come to an almost standstill to avoid collision in this location, having to anticipate the likelihood of a driver entering the street oblivious to other traffic.) My local knowledge of this street means I avoid collision but random patrons to the brewery would have no idea what to expect. My particular thought is, considering my approaches to council via phone, email, and photographs of congested traffic have been met with absolute silence (not even the courtesy of an acknowledgement), how confident can we be in the management of the increased traffic the development will bring.

Noise

This development will add a significant noise factor to the surrounding homes. I note in your documents you refer to the Airport Noise Abatement Scheme which saw a staggered zone of houses double glazed and sealed to noise. I would hope that this is not considered to be your total solution to any additional noise coming from this development, as practically speaking, noise abatement aids only work when we are inside with the doors closed. I enjoy my garden and my patio, and I entertain my

family outdoors when I can. Noise abatement doesn't work outside and an outdoor bar for 80 patrons right at my back fence will impact significantly on my ability to enjoy my outdoor area. I find this totally unacceptable.

Summary

I am opposed to the sale of alcohol from any of the areas contained with the Category 3 redevelopment. Alcohol should not be allowed to be brewed or sold in a predominantly residential area. I am also opposed to the restaurant and brewery development as not being in keeping with the amenity of the area and will impact adversely on the surrounding residents. The increased traffic this will bring to the area will create further chaos on an already burdened traffic corridor.

Jenny and PhilResp Dunstan

STATEMENT OF REPRESENTATION

Pursuant to Section 38 of the Development Act 1993

TO Chief Executive Officer
City of West Torrens
165 Sir Donald Bradman Drive
HILTON 5033

City of West Torrens
23 DEC 2020
City Development

DEVELOPMENT No. 211/702/2020
PROPERTY ADDRESS: 120 Marion Road, BROOKLYN PARK SA 5032, 108 Marion Road, BROOKLYN PARK SA 5032, 110-112 Marion Road, BROOKLYN PARK SA 5032, 114-118 Marion Road, BROOKLYN PARK SA 5032

YOUR FULL NAME	JODIE LEANNE BEAMES
YOUR ADDRESS	6 EDWIN ST BROOKLYN PARK SA 5032
YOUR PHONE No	
YOUR EMAIL	
NATURE OF INTEREST *(eg. Adjoining resident, owner of land in the vicinity etc.)*	Property owner adjacent to development

REASON/S FOR REPRESENTATION

Concern regarding possible traffic in Edwin St as the street is small and quite narrow. Not only that but the additional traffic down Press Rd would be hazardous to all concerned within this area.

MY REPRESENTATIONS WOULD BE OVERCOME BY
(state action sought)

Not allowing entry or exit to development once complete via Edwin St. Entry and exit would only be allowed via Marion Rd.

Please indicate in the appropriate box below whether or not you wish to be heard by Council in respect to this submission:

I DO **NOT** WISH TO BE HEARD ☐
I DESIRE TO BE HEARD PERSONALLY ☐
I DESIRE TO BE REPRESENTED BY _____ ☐
(PLEASE SPECIFY)

SIGNED _____
DATE 22-12-2020

RECEIVED - CWT IM
23 DEC 2020

Responsible Officer: Brendan Fewster
Ends: Tuesday 5 January 2021

From: antonia buzzerio
To: Development
Subject: Development 211 702 2020 Appl. L Meyer
Date: Monday, 4 January 2021 8:03:22 PM

To whom it may concern,

We recently received a public notification about the above development. As a resident of Brooklyn Park and Guy St, which is off the boundary of the development I wish to strongly advise my wishes against the development.

We purchased the vacant land in 2017, and established our dwelling in 2020. Due to complex council requirements which were non apparent to us at the beginning, and resulted in a large sum, it took us a number of attempts to build our family home. We persisted due to the area, being well known due to its family friendly surroundings and location being very central with a number of schools, restaurants and bars in close proximity, with the serenity of Brooklyn park and surrounding streets being maintained.

We are devastated to learn that a new development of this volume is being considered in a neighbourly area. I live on Guy St. thus I'm directly next to the proposed boundary and am concerned about the volume of general public, traffic, the noise, and associated vermin. Traffic on the Marion road is already a massive issue. I have noted that the restaurant and bar will be open until 12am, 7 days a week which is incredibly tough for us so close to the development.

I am concerned after all the trouble we have gone through to live in this area, an unfavourable development will be built which eradicates all the positives which pushed us to reside in the area.

Also taken into consideration is that there is a school zone down the road, and surrounding streets have many children and their parents roaming due to its safety. I am concerned the general safety of the area will significantly decrease.

Kind regards
Antonia Buzzerio

ekistics

17 March 2021 REF No.: 00899-003

City of West Torrens
165 Sir Donald Bradman Drive
HILLTON SA 5033

Attention: Brendan Fewster – Contract Development

By Email:

Dear Brendan,

RE: DA 211/702/2020 – REDEVELOPMENT OF FORMER WEST TORRENS PUBLIC SERVICE DEPOT COMPRISING WAREHOUSES, SERVICE INDUSTRIES, RESTAURANT AND MICROBREWERY

We refer to Development Application 211/702/2020 lodged with Council to redevelop the former West Torrens Council Depot site. The proposal is for a mixed-use development comprising warehouses, service industries, a restaurant and microbrewery.

The application was advertised as a Category 3 development and seven (7) representations were received. Pursuant to Section 38(8) of the *Development Act 1993,* this letter provides our formal response to the representations received, and also responds to feedback provided by the Council in its letter dated 25 January 2021.

Our response has been informed by the following plans and documentation:

- **Appendix 1:** Summary of representations;
- **Appendix 2:** Revised plans prepared by Brown Falconer Architects;
- **Appendix 3:** Revised landscape plan prepared by Hemisphere;
- **Appendix 4:** Revised civil plans prepared by Sagero;
- **Appendix 5:** Supporting documentation prepared by Sonus;
- **Appendix 6:** Updated CIRQA Traffic and Parking Report;
- **Appendix 7:** Odour assessment performed by Enviroscan; and
- **Appendix 8:** Microbrewery Waste Management Strategy.

def:E-KIS-TICS[noun]:The Science of Human Settlements...
PO Box 32, Goodwood SA 5034 Lvl 1/16 Vardon Ave, Adelaide SA 5000 **p** 08 7231 0286 **e** contact@ekistics.com.au **w** ekistics.com.au ABN 34 918 250 862

ekistics

1. Summary of Amendments

In response to feedback provided by Council and representors, the following amendments have been made to the application:

- Additional tree plantings and landscaping for improved amenity.
- To accommodate the additional plantings, various parking spaces have been reduced to a length of 4.8 metres, and now include wheel stops to manage vehicle overhang, in accordance with the relevant Australian Standards. The parking spaces have been designed in accordance with advice provided by CIRQA on the revisions to the carpark design.
- Pool-style fencing reaching a height of 1.8 metres has been included on the plans, and encloses the northern end of the site's frontage to Marion Road;
- As requested by Council, two sign posted parking spaces (situated to the north of the disabled parking space) have been allocated as dedicated loading zones between 7:00am and 10:00am to assist with the servicing of the brewery and restaurant.
- Annotations now included on architectural plans confirming that redundant crossovers will be replaced with kerb and gutter to Council's satisfaction.
- Notations included on the site plan confirming pedestrian and vehicle access to/from Edwin Street will be restricted to the hours of 7am and 6pm.
- The inclusion of rainwater tanks with a combined retention/detention capacity of 4,000 litres to be attached to the roof areas of Warehouse 1 and the Restaurant.
- Height of fence along the eastern boundary of 2A Press Street has been increased to 2.4 metres in height.
- Changes to the stormwater management system, and in particular a change to the stormwater treatment devices to be used.

The above-mentioned amendments are discussed in further detail below. The relevant item number (as referenced within Council's written correspondence) has also been noted for ease of reference.

2. Response to Council Feedback

2.1 Erosion control and creek embankment protection along the southern end of the site (Item 1)

A concept design for the management of erosion along the southern end of the site (adjacent the drainage change) is illustrated on the Sagero Grading Plan (Dwg. No. CO4K) contained within ***Appendix 4.*** Whilst the design is still conceptual, the proposed retaining wall design reflects the suggested design illustrated in Council's letter dated 25 January 2021.

Sagero also notes that as the drainage channel has been constructed entirely in concrete, the risk of unmanageable erosion and instability is low. Accordingly, it is entirely appropriate and reasonable for the

relevant authority to condition the provision of additional details on erosion control and retaining wall design during the detailed design phase, and prior to the issuing of Building Rules Consent.

2.2 Edwin Street Access (Item 2)

Council has requested the permanent closure of the vehicle and pedestrian access to Edwin Street on the basis that the proposal *"is considered to exacerbate the traffic-related impact on the adjacent residential street and the surrounding Residential Zone"*. Council further states that when the site operated as a Council depot, access via Edwin Street was limited to day-time hours.

The applicant has confirmed that access via Edwin Street is fundamental to the viability of the project. Notwithstanding, and in light of Council's concerns, the application has now been amended to restrict vehicle and pedestrian access to between the hours of 7am and 6pm daily. Access arrangements will be managed via the installation of a time automated gate, restricted to the hours referenced above.

In relation to the volume and distribution of traffic to be generated by the development, we also note the following comments provided by CIRQA in their Traffic and Parking Report submitted with the application:

- That the peak hours for each proposed land use will not directly coincide;
- Traffic generated by all proposed uses would be in the order of an additional 15 am and 25 pm peak hour trips;
- That the majority of movements would primarily be distributed between the site's two access points on Marion Road (with minimal use of the Edwin Street access points);
- That the additional volumes to be generated by the development will be negligible and that the movements will be easily accommodated at the adjacent access points and on the surrounding road network.

Noting the site's long standing use as a Council depot which included access via Edwin Street, restrictions to the times of access via Edwin Street (which we understand generally coincides the operating hours of former Council depot), and commentary provided by CIRQA which suggests that the majority of vehicles will access/leave the site via Marion Road, we are of the opinion that the preservation of the Edwin Street access during daytime hours is appropriate ad will not unreasonably impact on the amenity of the locality.

2.3 Size of service vehicle for Warehouse Tenancy 1 (Item 3)

Tenancy 1 and the adjacent carpark area has been designed to accommodate access arrangements for a Small Rigid Vehicle. The revised site plan contained within ***Appendix 2*** now shows the location of the roller door for Tenancy 1, whilst swept turning paths prepared by CIRQA demonstrating vehicle movements are provided in ***Appendix 6.***

2.4 Servicing arrangements for Microbrewery and Restaurant (Items 4 and 5)

In accordance with Council's recommendation, two parking spaces to the north of the disable parking spaces have been allocated as Loading Zones between the hours of 7:00am and 10:00am. This change has been reflected on the revised site plans (***Appendix 2***).

To accommodate service vehicle movements for the Microbrewery, Council has suggested the creation of a parallel parking bay which could be located between the pedestrian crossing and the bin store. This parallel bay would act as a loading zone for Microbrewery service vehicles during off peak periods (i.e. between 7:00am and 10:00am). Council's suggestion has been considered by CIRQA, who has confirmed that there is insufficient room to accommodate the loading zone in the location suggested by Council, due to the location of an existing verandah which extends from the façade the existing building and is located between the pedestrian crossing and the bin store.

The revised Traffic and Parking report prepared by CIRQA confirms that service vehicles for the Microbrewery will store within the aisle adjacent the bin store. CIRQA confirms that adequate distance would be maintained for other vehicles to pass service vehicles stored adjacent the brewery. It is also suggested that due to the relatively low volumes of traffic anticipated for the site and the frequency of such loading arrangements, that the proposed loading arrangements can be accommodated without adversely impacting on the operation of the site or site access. We also note that this arrangement is not dissimilar to the servicing arrangements for each of the proposed commercial tenancies.

2.5 Redundant Driveway Access Points (Item 6)

Notations have been included on all architectural and civil plans to confirm that all redundant crossovers and driveway access points will be reinstated with kerb and gutter to Council's satisfaction. Specifically, we refer you to the following plans:

- The demolition plan and site plan contained within ***Appendix 2*** (Dwg. No. DA04 & DA05); and
- The grading plan contained within ***Appendix 4*** (Dwg. No. SC03).

2.6 Operating hours (Item 7)

As noted within the Statement of Effect, we confirm that application is seeking consent for the follow hours of operation:

- **Commercial tenancies**: 7:00am to 5:00pm Monday to Saturday and 9:00am to 5:00pm Sundays.
- **Microbrewery**: 10:00am to 6:00pm, seven (7) days per week.
- **Restaurant**: 5:00pm to 12:00am seven (7) days per week.

Mr Kumar (representor from 2 Press Road, Brooklyn Park) has sought clarification on the extent of any other restaurant activities which may occur beyond 12:00am. The hours identified above reflect the trading hours for both the Microbrewery and Restaurant, and these trading hours will also be reflected in the liquor license issued for each land use. Activities to occur following the close of business will be limited to general 'business preparation' and 'business closure' activities.

Referring to the above, there is a 1 hour overlap in operating hours between the microbrewery and restaurant. Accordingly, Council has requested that the hours for the Microbrewery be reduced to a closing time of 5:00pm to address this overlap and to ensure adequate onsite parking is provided for all proposed land uses.

The revised Traffic and Parking Assessment contained within ***Appendix 6*** addresses the overlap in operating hours between the restaurant/bar and microbrewery. We note that the hours of operation referenced within the CIRQA report have also been updated to reflect the actual proposed operating hours referenced within our Statement of Effect.

CIRQA have identified the follow parking rates for the microbrewery and restaurant:

- **Microbrewery**
  - Public access – **26.67 spaces** (applying the Development Plan Restaurant rate of 1 space per 3 seats [80 seats in total);
  - Non-public access – **5.92 spaces** (applying industry rates prescribed within the Development Plan).
- **Restaurant: 50 spaces** (applying the Development Plan Restaurant rate of 1 space per 3 seats [150 seats in total);

Applying the above rates, both land uses will generate a maximum parking demand for 83 spaces (rounded up) between 5:00pm and 6:00pm. The development will provide a total of 81 onsite parking spaces and accordingly, there will be a theoretical shortfall of 2 spaces for a 1 hour period.

Notwithstanding, CIRQA notes the following:

> *"The theoretical 'night-time' peak would be unlikely to be realised, given peak patronage associated with the microbrewery would most likely occur prior to 5pm and he park patronage associated with the restaurant would be likely to occur after 6:30pm. The overlap of peak demands for these two uses is extremely unlikely (i.e. the brewery will be in 'closing/shut down' mode, whereas the restaurant will be in the 'start-up' mode.*

Accordingly, CIRQA concludes that the anticipated parking demands would be adequately accommodate onsite. On this basis, the applicant has advised that they do not propose to amend the operating hours of the Microbrewery.

2.7 Mobility-impaired access arrangements for the Restaurant (Item 8)

We confirm that disabled access for the Restaurant will be available to the rear of the building, so as to avoid further modifications to the Local Heritage Place entrance.

2.8 Landscaping (Item 9)

It is suggested by Council that the level of landscaping proposed is inadequate for providing shade to parked vehicles, softening blank walls and minimising heat loads. Council also references PDC 4 of the General Section (Landscaping Fences and Walls) provisions of the Development Plan which suggests that at least 10 percent of the site area should be allocated to landscaping.

The proposal in question is commercial in nature and the majority of landscaping (as now proposed) has been located towards the front of the site, in areas which will be visible from outdoor seating areas and the public

realm more generally. Areas to west of the site accommodating the commercial tenancies are largely functional in nature. That is, external areas are primarily used to support service and waste vehicle movements, and occupants of this space will primarily be employees of individual commercial tenancies (rather than the general public). Views into the site from Edwin Street are also screened by the existing boundary fence. Accordingly, we maintain the view that the extent of landscaping proposed is appropriate, taking into account the nature of the development proposed and the restricted external views available of the western end of the site from adjacent properties.

Notwithstanding, further improvements to the landscape design are proposed, and are reflected in the revised landscape plan attached as ***Appendix 3***. The proposed number of trees to be planted has significantly increased to 39 (from 27), and these additional plantings have been accommodated by modifying pathway widths and the length of carparks (now 4.8 metres with wheel stops). The west facing wall of Tenancy 2 and 7 will now accommodate a vertical green wall to improve the appearance of this elevation and reduce heat loads.

We also note that the outdoor dining area associated within the brewery and restaurant will also be landscaped. However, this landscaping has intentionally been excluded from this application as this landscaping will be completed by the operators of the Microbrewery and Restaurant.

In our opinion the proposed landscape design is appropriate and reasonable taking into account the nature of the development proposed, and will significantly improve the amenity of locality. Any notable increases in landscaping cannot be achieved without significant alterations to the design of the development which (in our view) is not warranted.

2.9 Air Emissions Study (Item 10)

Please find attached a copy of the Odour Emissions Assessment performed by Enviroscan (***Appendix 7***). The findings of this assessment are discussed further in Section 3.

2.10 Boundary Fencing (Item 11)

The site plan and elevation drawings have been revised to include 1.8-metre-high pool style fencing, which is to be installed along the site's frontage to Marion Road. The fence will commence from the corner of the Local Heritage Place, and will connect with the new Colorbond® fencing to be installed along the northern boundary. Sliding gates will be installed along the driveway entrance, and a gated pedestrian entrance will also provide access to a pedestrian path which runs parallel with the northern elevation of the restaurant.

The permeable nature of the fence will reduce the visual impact of the boundary fencing, and will also accommodate opportunities for passive surveillance.

2.11 Water Sensitive Urban Design (Item 12)

Council has requested the implementation of initiatives for the collection and re-use of stormwater. In accordance with Council's request, the development has been amended to include 2 x 2000 litre detention/retention tanks, which will be attached to the roof area of Warehouse Tenancy 1 and the Restaurant.

Collected water will be plumbed back into wet areas for reuse. Overflow will be directed to landscaped garden beds for irrigation purposes.

2.12 Stormwater Management (Item 12)

Council has requested further clarification regarding the suitability of Ecosol RSF 4450 and Spel Hydrosystem 1500 selected to treat surface and roof water collected from the stie. In particular, Council has requested additional information on the following:

- *Confirmation from the manufacturers that this model (including but not limited to the inlet/outlet pipe size, flow speed etc.) is suitable for a site of this size;*
- *Brochure clarification from SPEL should be provided to demonstrate that the stormwater quality target can be achieved; and*
- *The SPEL Hydrosytem unit is located behind the pump station. It is unclear if the maximum site discharge can be controlled within the allowable value for this arrangement. Generally, a stormwater proprietary product should be located prior to a pump station not after a pump station.*

Updated stormwater management plans, together with A SPEL Hydrosystem Field Testing Review, SPEL Hydrosystem sizing chart and Ecosol Technical Specifications are attached as ***Appendix 4***. In response to Council's enquiries, Sagero have advised of the following:

- The Technical Specifications confirm that the Ecosol RSF 4450 will accommodate the prescribed 1 in 20 flow rate.
- The proposed Spel Hydrosystem 220D/9 is now proposed, and the attached field-testing review confirms that this proposed system is capable of achieving the prescribed stormwater quality targets.
- The proposed Ecosol system has been designed to remove larger forms of sediment and objects, with only nitrates and phosphates removed by the Hydrosystem. Accordingly, Sagero has advised that the location of the Ecosol system and Spell Hydrosystem is appropriate.

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3. Summary of Representations

The map provided in ***Figure 3.1*** below identifies the location of each representor's property.

Figure 3.1 *Location of representors property*

The table contained within ***Appendix 2*** provides an overview of the key concerns and planning considerations raised by each representor. In summary, these matters relate to the following:

- Concerns about anti-social behaviour to be created by intoxicated patrons;
- Traffic related impacts on the adjacent road network including:
  - overflow of parking onto the adjacent local road network;
  - additional traffic movements and potential congestion within the surrounding road network;
- Amenity and interface impacts generated by development including:
  - traffic noise generated by the use of carpark;
  - noise generated by patrons using the Microbrewery, Restaurant and Bar;
  - concerns about the hours of the operation for the Restaurant
  - noise generated by Microbrewery machinery;
  - odour generated by the Microbrewery during the fermenting phase;
  - light spill impacts;
  - overlooking; and
  - construction impacts;

- Waste Management concerns including vermin management and odour; and
- Environmental impacts of the Microbrewery.

Some representors have also raised an objection to the sale of alcohol, whilst other representors have raised concern with the potential impact of the development on property values and the demand for rental properties. As these matters are not relevant planning considerations, they have not been considered further in the response provided below.

4. Response to Representations

4.1 Antisocial Behaviour

Some representors have raised concern that the sale and consumption of alcohol may result in anti-social behaviour.

Notwithstanding any consent issued by the Council (as the local planning authority), the operator of the Microbrewery, Restaurant and Bar will be required to obtain separate liquor licenses for the production, sale and onsite consumption of alcohol. The licenses may include conditions and responsibilities on licensed venue operators to implement strategies for the management of patron behaviour. Further, pursuant to Section 106 of the *Liquor Licensing Act, 1997*, the Commissioner of Liquor and Gambling may issue orders on business operators to resolve issues raised residents with respect to the operation of licensed venues.

The Council may also have powers under the *Local Nuisance and Litter Control Act 2016* to address activities which may adversely impact on the amenity of a locality.

4.2 Traffic Related Impacts

Representors have also raised concern with the impact of additional traffic movements on the adjacent road network, including direct access to/from the site via Edwin and the use of the surrounding road network for parking (including Ralph Street, Edwin Street, Press Road and Guy Street). Concern has also been raised with the ability for Marion Road to accommodate the additional traffic volumes to be generated by the development.

As discussed above and outlined within the Traffic and Parking Report prepared by CIRQA, the development has been designed with sufficient onsite parking and accordingly, the risk of overflow parking onto adjacent local streets is low.

CIRQA's assessment on traffic volumes and distribution suggests that the development could generate an additional 15 to 25 trips during the AM and PM (commuter) peak hours. However, this additional volume of traffic would primarily be distributed to/from the site via Marion Road rather than the surrounding residential road network (i.e. directly via Edwin Street or indirectly via other residential streets such as Ralph Street, Press Road etc.). CIRQA notes that the additional traffic volumes will be negligible and that *"movements will be easily accommodated at the adjacent access points and the surrounding road network".*

We also note that the application has been amended to prevent vehicle and pedestrian movements to/from the site via Edwin Street during the evening hours (i.e. between 6pm and 7am). This amendment will assist with the

management of amenity related impacts caused vehicle and pedestrian movements through the evening period.

4.3 Amenity Related Impacts

4.3.1 Noise Impacts

Representor's have raised concern with the potential for adverse impacts on amenity which may result from the operation of the Microbrewery and Restaurant. In particular, the following noise related concerns have been raised by representors:

- Noise generated by the use of outdoor seating areas;
- Impact of noise on residents using private open space;
- Noise generated by patrons moving between the Microbrewery and the Restaurant;
- Noise generated by Microbrewery machinery and from the kitchen of the Restaurant;

Mr Kumar of 2 Press Road has suggested that the operating hours for the restaurant and bar should cease at 11:00pm, so as to coincide with the Adelaide Airport curfew time.

The supporting letter prepared by Sonus (***Appendix 5***) provides a response to the noise concerns raised by representors, and supplements the more comprehensive report previously submitted with the development application.

The original noise report prepared by Sonus considered the noise-related impacts of the development at the closest noise sensitive receivers. Specifically, the Sonus assessment considered the impacts of the following noise sources:

- Mechanical plant, including air conditioning, refrigeration and exhaust fans serving each tenancy;
- Vehicle movements and activity within the carpark;
- Outdoor patrons using the Restaurant and Microbrewery;
- Activity such as workshop noise within Warehouse and Service Industry tenancies;
- Truck deliveries for commercial tenancies;
- Use of forklifts for unloading at each commercial tenancy;
- Noise generated by the Microbrewery machinery; and
- Rubbish collection from the site.

Noise predictions for activities other than rubbish collection have been informed by noise measurements taken by other similar activities. For example, in the case of the Microbrewery, Sonus have advised that the key noise source features (including pumps and forklifts) have been modelled on other similar microbrewery operations. Mr Kumar of 2 Press Road has raised concern with the continuous noise to be generated by Microbrewery machinery which may go beyond the proposed operating hours of the facility. We note that the production process for the Microbrewery is not continuous, and will only occur through the daytime periods as reflected in Figure 4.1.

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Subject to the installation of the required acoustic fencing, ***Figure 4.1*** illustrates that noise levels generated by all land use activities will not exceed the prescribed thresholds outlined within the *Environment Protection (Noise) Policy, 2007.*

Figure 4.1 *Predicted Noise Levels vs Noise Level Criteria*

Land Use	Day Period (7:00am to 10:00pm)		Night Period (10:00pm to 12:00am)	
	Predicted Noise Level	Criteria	Predicted Noise Level	Criteria
Restaurant	22	32	21	25
Brewery	24	32	**	25
Warehouse or Service Industry Tenancy (Commercial Zone)	31	32	**	25
Warehouse or Service Industry Tenancy (Residential Zone)	25	27	**	20

*** Outside of proposed land uses operating hours*

We note that several representors have suggested that the operating hours of the Restaurant and Bar should be confined to the Adelaide Airport flightpath curfew of 11:00pm. As illustrated in ***Figure 4.1***, night-time noise predictions for the restaurant will not exceed the prescribed noise criteria. Accordingly, no change in proposed operating hours is warranted in this instance.

As stated in the original report prepared by Sonus, noise mitigation measures applied to the facades of dwellings via the Airport Noise Abatement Scheme or through the Development Application process (for more recently constructed dwellings) is relevant to the assessment of noise impacts. In particular, Sonus note that where acoustic treatments have been incorporated into the façade of existing and new dwellings (to address noise generated by aircraft), that the relevant noise measurement is taken from inside the dwelling.

Ms Dunstan of 5 Ralph Street has raised concern with the effectiveness of the noise assessment methodology on the grounds that the assessment does not consider the impact of noise for residents occupying private yards. In response to this concern (and whilst not strictly relevant to the assessment), Sonus note that noise levels within the yard area of 5 Ralph Street would not exceed the thresholds outlined within the Policy:

> *".....the noise level within the yard of the residence at 5 Ralph Street has been predicted, to address the concerns. The predictions from activity at the closest tenancies (within the Commercial Zone) have been compared against the outdoor noise criteria which would apply within a Residential Zone, being 52 dB(A) during the day and 45 dB(A) at night. Predictions indicate that the noise level outside will be no more than 42dB(A) during the day period and 34dB(A) during the night, when including a penalty for noise associated with activity at warehouses and service industry tenancies. Based on the above, the predicted noise is well below the criteria for 5 Ralph Street."*

Further to the above discussion together with the additional supporting documentation prepared by Sonus, the proposed development has been designed to address unreasonable noise impacts.

4.3.2 Odour

Several representors have raised concern with the potential impacts to result from odour to be generated by the operation of the Microbrewery. In response to these concerns, an odour emissions assessment has been prepared by Enviroscan (***Appendix 7***).

Enviroscan note that the most significant source of odour generated by a brewery is created by the evaporation of volatile organic compounds from the wort kettle during a 60-minute boiling period, 2 to 3 times per week.

The assessment performed by Enviroscan has been informed by wort kettle specifications provided by the Microbrewery operator, and assumes an exhaust vent height of 3 metres above the roofline of the existing building (as prescribed by the EPA guidelines).

Applying predicted odour concentrations (OU's) generated during the wort boil, Enviroscan has performed dispersion modelling to identify likely odour levels at the closest sensitive receivers. The modelling identifies a maximum odour concentration of 0.6 OU at the Marion Road property boundary, with a lower odour concentration of 0.4 OU and 0.2 OU on adjacent residential properties to the south and east (opposite side of Marion Road).

On this basis, Enviroscan have formed the following conclusions:

> *"The odour levels are well below the 2 OU level specified by the EPA for metropolitan Adelaide (Air Quality Policy 2016, Schedule 3), and would not be detected by the average person.*
>
> *The proposed microbrewery under normal operating conditions, with a wort boil of about one hour in the afternoon, is predicted to have no discernible odour impact on the amenity of the local area, with the ground level odour less than 1 OU on surrounding residences."*

4.3.3 Light spill

Mr Kumar of 2 Press Road has raised concern with the potential for light spill to impact on amenity.

Carparking areas will be illuminated throughout the evening to the support the operation of the Restaurant/Bar. All lighting will be designed in accordance with Australian Standard 4282-1997 *'Control of the obtrusive effects of outdoor lighting'*, to ensure lux levels and light glare does not unreasonably impact on the amenity of the locality. We also note that the all carpark lighting will be turned off following at the close of business for the Restaurant and Bar.

If required, the provisions of detailed light spill diagram may be addressed as a condition of consent.

4.3.4 Construction impacts

Several representors have raised concern with amenity related impacts which may result during the demolition and construction process.

As is usual with construction projects such as is proposed, offsite impacts during construction will be managed via a comprehensive Construction Environmental Management Plan (CEMP) that would be prepared following receipt of Development approval. The CEMP will describe how activities undertaken during the construction phase of development will be managed to avoid or mitigate negative environmental impacts and how those environmental management requirements will be implemented. It is anticipated that the CEMP will demonstrate how possible noise, dust, waste, water quality and traffic will be managed during construction to prevent impacts on the subject site and locality.

We also note that the Planning Consent does not derogate the applicant's legislative obligations to manage offsite impacts pursuant to the requirements of the *Local Nuisance and Litter Control Act 2016* and the *Environment Protection Act 1993.*

4.3.5 Overlooking

Mr Kumar of 2 Press Road has raised requested that the height of fencing between the subject site and 2A and 2B Press Road is replaced with taller fencing to prevent views in private open space. There will be no overlooking in adjoining residential properties.

4.4 Waste Management

Several representors have raised concern with the management of vermin which may be attracted to waste stored onsite. Odours which may be generated by stored waste has also been raised as a concern. Because of these concerns, Mr Kumar has requested the relocation of the waste store which is positioned adjacent the residential properties located at 2A and 2B Press Road.

The waste management system for the development has been designed in accordance with recommendations provided by Rawtec. The waste management system has been designed to support the regular collection of perishable waste generated by the Restaurant and Microbrewery (i.e. 10 collections per week for the Restaurant and 14 collections per week for the Microbrewery). The frequent collection of waste will assist with the management of odour and vermin, as will sound waste management practices, including the regular washing of bins and bin storage areas. Subject to the implementation of sound waste management practices (which can be addressed via conditions of consent), concerns raised in relation to odour and vermin can be appropriately managed.

It is also expected that the majority of waste generated by commercial tenancies will primarily comprise of non-perishable items including cardboard and surplus palettes. Accordingly, the nature of waste generated by the commercial tenancies is unlikely to result in unreasonable levels of odour. Further, as illustrated in the waste management plan, bins for cardboard will be placed alongside the eastern boundary of the dwelling located at 2B Press Road.

The Microbrewery operator has advised that spent grain, hops, and yeast are key waste by-products associated with the brewing process (refer to ***Appendix 8***).

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Spent grain will be stored in sealed containers, before being exported offsite and reused by farmers as base material for animal feed. Hops will be disposed of as green waste for reuse as compost. Yeast will be reused as a base product for the production of food and as a fertiliser (due to its high nitrogen content). The reuse of the majority of waste generated by the fermenting process is reflective of the sustainable management practices to be implemented by the Microbrewery operator. Importantly, all waste generated by the Microbrewery will be installed within the building or an enclosed waste store, which will assist with the management of odour.

4.5 Environmental impacts on the adjoining watercourse

Ms Dunstan of 5 Ralph Street has raised concern with the potential environment impact of the Microbrewery (including accidental spillages) on the adjoining creek line.

All wastes associated within operation of Microbrewery will be generated and stored within the building. Importantly, the floor within the alcohol production area will be sealed and bunded to manage spills. The floor will grade to a sump and sub-surface drains will divert water to a wastewater treatment plant, before discharging to sewer, in accordance with the trade waste approval to be separately issued by SA Water. Further information on the waste management system to be developed for Microbrewery is contained within the ***Appendix 8***.

The drainage system for the Microbrewery will be developed during the detailed design phase of the development. Subject to the implementation of this drainage system, the environmental risks for the adjoining watercourse are low.

4.6 Fencing

To address potential interface impacts, Mr Kumar of 2 Press Road has requested that the proposed fencing which separates the subject site from 2A and 2B Press Road be increased in height. The application originally included 2.4-metre high fencing along sections of the northern boundary separating the site form 2A and 2B Press Road. As requested by Mr Kumar, fencing along the eastern boundary of 2A Press Road has also been increased to a height of 2.4 metres.

5. Summary

We trust that Council now has sufficient information to finalise an assessment of the proposed development application, as amended.

We note that various representors have requested the opportunity to address the Council Assessment Panel (CAP) in support of their submissions. Accordingly, we welcome the opportunity to also address the CAP in response to the matters raised by the representors and to respond to any questions which may be raised by the Panel.

Should you require further clarification, please do not hesitate to contact the undersigned on (08) 7231 0286.

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Yours Sincerely,

Rob Gagetti
Senior Associate

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Appendix 1. Summary of Representations

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Representor	Seeking to Present Verbally (Yes/No)	Address	Summary of Comments
Michael Gerges and Alis Shenouda	Yes	1 Carnarvon Avenue, Brooklyn Park	• Does not support the proposed bar and microbrewery – Alleged intoxicated patrons will result in anti-social behavior.
Jodie Leanne Beams	Did not specify	6 Edwin Street, Brooklyn Park	• Traffic related impacts of additional traffic through Edwin Street and Press Road. **Representation would be overcome by:** • Restricting access to/from Marion Road.
Margaret Ranford	Did not specify	13 Ralph Street, West Richmond	• Adverse impact on residential amenity due to an increase in traffic and noise.
Jennifer Dunstan	Yes	5 Ralph Street, West Richmond	• No opposition to the proposed commercial warehouse/service industry component of the project. • Does not support the bar/restaurant due to the impact of additional noise, traffic and intoxicated patrons on the residential amenity of the locality. • Impact of noise (including noise generated by patrons seated in the outdoor area) on residential amenity. • Odour/air emissions generated by the microbrewery and waste disposal methods. • Environmental impact of microbrewery on the adjoining creek system. • Difficulty accessing Marion Road from the site and impacts on the free-flow of traffic. • Overflow of parking onto Ralph Street. • Additional traffic generated by the use and impacts on the Marion Road/Press Road and Marion Road/Jenkins Road intersection. • Existing traffic issues caused by the operation of the Hungry Jacks have not been resolved by Council to the representor's satisfaction. The representor is therefore concerned that additional traffic movements along Ralph Street to be generated by the development will not be managed by Council. • Additional noise impacts on residential amenity. The Airport Noise Abatement Scheme does not consider noise impacts within private open space areas. • Does not support alcohol being brewed or sold from the property.
Jayshween Kumar	Yes	2 Press Road, Brooklyn Park	• Amenity impact of noise generated by the operation of the microbrewery machinery. • Amenity impact of noise generated by the operation of the restaurant until 12:00am – will there be any other activities occurring after 12:00am? • Aircraft noise limited to between 6am and 11pm – restaurant noise to occur after 11:00pm. • Noise impacts of patrons moving between to the brewery and restaurant.

			• Impact of odour generated by the brewery (fermenting process). • Impact of odour generated by rubbish stored adjacent POS of 2A Press Road- consider relocating bins away from residential properties. • Vermin attracted by the storage of waste, and impact on residential amenity. • Impact of additional traffic movements (including noise related impacts), and proximity of carparks relative to adjoining residential properties, including 2A and 2B Press Road. • No consideration of the fencing arrangements between the site and 2A and 2B Press Road. • Access to the site via Edwin Street will also increase traffic movements on Press Road, including additional congestion at the Press Road/Marion Road intersection. • Overflow of parking onto Press Road. • Development may adversely impact on property values and may make it more difficult to lease existing residential properties at 2A and 2B Press Road. • Amenity impacts to result during the demolition and construction process. • Fencing to be increased in height to obstruct views into the POS of adjoining residential properties. • Impact of light spill on residential amenity.
Antonia Buzzerio	Did not specify	1 Guy Street Brooklyn Park (TBC)	• Additional traffic and pedestrian movements, noise and vermin. • Operating hours of restaurant and bar. • Additional traffic movements along Marion Road (already excessive). • Impact of additional traffic movements on the safety of parents and children, due to proximity of school zone.
Jeetendra Singh	Does not wish to be heard	123 Marion Road, Brooklyn Park	• Will there be parking and traffic changes along Marion Road? • Noise impacts during the demolition and redevelopment process – how will this be managed? • Increase in noise during operational phase- how will this be managed? • Odour generated by the operation of the microbrewery? • Onsite management of rubbish? • Hours of operation for construction? • Operating hours of warehouses and service industries? • Recommends that operating hours of the Restaurant and Bar be confined to the flightpath curfew hours (11pm and 6am) • Will there be any compensation for the drop in property values? • Will there be any funding to construct an enclosed fence to address bar/restaurant/microbrewery patrons from accessing the front yard of the representor's property?

Preliminary Traffic, Flooding & Stormwater Assessment

Development Application No: 211/702/2020

Assessing Officer:	Brendan Fewster
Site Address:	120 Marion Road, BROOKLYN PARK SA 5032, 108 Marion Road, BROOKLYN PARK SA 5032, 110-112 Marion Road, BROOKLYN PARK SA 5032, 114-118 Marion Road, BROOKLYN PARK SA 5032
Certificate of Title:	CT-6221/361, CT-5443/556, CT-5670/395, CT-6221/362, CT-5670/395, CT-5727/286, CT-5728/110, CT-6221/362
Description of Development	Demolition of existing buildings (nine in total), retention of existing Local Heritage Place and construction of new buildings and refurbishment of existing buildings for an integrated mixed use development comprising a restaurant and bar, microbrewery, commercial warehouses and service industries with associated car parking, boundary fencing and landscaping - Non-Complying Development

TO THE TECHNICAL OFFICER - CITY ASSETS

Please provide your comments in relation to:

☐ Site drainage and stormwater disposal

☐ Required FFL

☐ On-site vehicle parking and manoeuvrability

☐ New Crossover

☐ Your advice is also sought on other aspects of the proposal as follows:

.....
.....

PLANNING OFFICER - Brendan Fewster DATE 23 March, 2021

City of West Torrens
Between the City and the Sea

Memo

To	Brendan Fewster
From	Richard Tan
Date	23-Mar-2021
Subject	211/702/2020, 120 Marion Road, BROOKLYN PARK SA 5032, 108 Marion Road, BROOKLYN PARK SA 5032, 110-112 Marion Road, BROOKLYN PARK SA 5032, 114-118 Marion Road, BROOKLYN PARK SA 5032

Brendan Fewster,

The following City Assets Department comments are provided with regards to the assessment of the above development application:

1.0 Watercourse Impacts

1.1 For proposed developments adjacent to major watercourses, there are two typical considerations which Council's City Assets Department seek to be addressed within the planning assessment process.

Firstly, the offset of any new substantial structure should be sufficiently separated from the creek banks to prevent the potential for creek erosion and movement from impacting the structures. Typically 10m offset from the centreline of the adjacent creek would sort.

Tenancy 12 - 15 have been proposed to be constructed to the property boundary, which is approximately 4m from the centre of the creek measured from West Map. However, it is my understanding that the planner had further discussion with the Manager of City Assets, Joseph Ielasi, and has agreed that for this case, a less than 10m offset from the centreline of the adjacent creek would be supported. (Refer to Objective ID A2552715).

The provided planning report has indicated that:

Earthworks for the development will be negligible, and only nominal retaining wall strips are proposed along the northern, western and eastern boundaries.

It should be noted that although a less than 10m offset from the centreline of the adjacent creek has been supported, consideration is still required to be given to the potential impacts and stabilisation of any structures or retaining proposed to be constructed on or within proximity of the creek and its banks. The diagram below outlines the scale of

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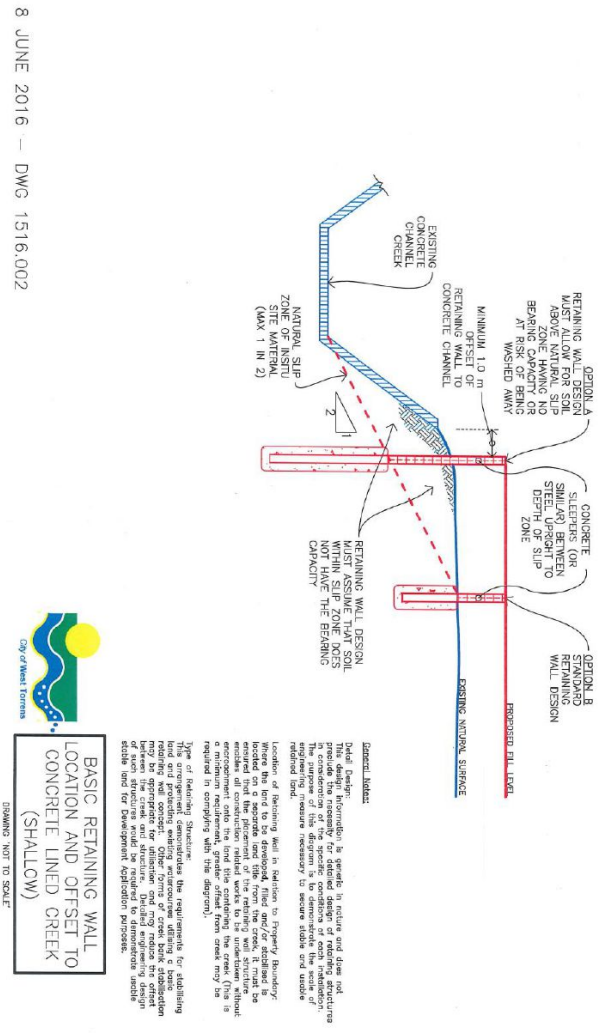
retaining which typically need to be considered within proximity of a watercourse.



The applicant has provided a concept design for the retaining wall along the southern boundary next to the creek. While the concept design of this retaining wall is supportable, it should be noted that the underground pier should be constructed within the property boundary. The concept design has indicated that potion of the pier is constructed outside the property boundary.

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As the concept design for the retaining wall has been supported, it would not be unreasonable for the detailed design of the retaining wall and the amended pier location to be reviewed as a RESERVED MATTER.

2.0 Flood Consideration – Finished Floor Level (FFL) Requirement – 250mm to 500mm Zone

2.1 This development is located predominately within the '250mm to 500mm' area of flood effect as nominated in Council's Development Plan within the Keswick and Brown Hill Creek flood plain mapping.

In accordance with the provided 'Stormwater Plan' (Sagero, Ref: SA200018-C01&C02-E, dated 27/11/2020) the FFLs of the proposed development as following have been assessed as satisfying minimum requirements in consideration of street and/or flood level information:

Tenancy	Proposed minimum FFL	Minimum FFL required
1 to 7	8.050	8.050
8 to 11	7.900	7.900
12 to 13	7.860	7.860
14 to 15	8.050	8.050

2.2 In the '250mm to 500mm' anticipated flood depth zone, it is typically requested that a minimum 1000mm wide flood corridor be provided along all boundaries.

To preserve the ability for flood flows to move through this site, it will also be required that the flood flow corridors indicated above and the general site levels be maintained within 200mm of the existing natural site levels.

As the proposed development is located at the edge of the 250-500mm inundation depth area, and the proposed internal road that is next to Tenancy 2 & 7 that can be used as a flood corridor, this has been considered as satisfying the flood corridor requirements.

3.0 Verge Interaction

3.1 City Assets has previously commented that the northern existing crossover at Marion Road should be reinstated to vertical kerb prior to the completion of any building works at the applicant's expense and should be indicated on revised plans that any redundant crossovers will be reinstated. However, I noticed that only the architectural plan has indicated that the crossover will be reinstated, and the civil plan has leave the crossover as its current state.

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I leave this to the planner's consideration on whether to refer this back to the applicant to revised the inconsistency in plans or to **condition all redundant crossover to be closed and reinstated to vertical kerb.**

It is recommended that revised plans showing the reinstatement of redundant crossovers be provided to Council.

3.2 The proposed crossover is acceptable.

3.3 The offsets for verge features have been assessed as acceptable in accordance with the site layout shown on 'Stormwater Plan' (Sagero, Ref: SA200018-C01&C02-E, dated 27/11/2020)

3.4 It should be noted that there is a rise at the entrance of the existing heritage building at South Road. As this building has been constructed to the boundary, if the applicant wishes to construct the entrance to DDA compliant, then the slope should be constructed within the building.

4.0 Traffic Requirements

My comments for the re-referral as following:

- Parking assessment has previously been supported (81 parking spaces)
- 7 bicycle parking spaces has been provided.
- Parking layout has been assessed as satisfying relevant parking standards
- **The proposed one-way circulation aisleway at the western end should be sign-posted accordingly**
- The largest permitted service vehicle for Tenancies 2 to 11 shall be the MRV.

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- The largest permitted service vehicle for Tenancies 1 and 12 to 17 shall be the SRV.
- **Loading zone within the building should be clearly indicated on plan and linemarked on site.**
- **DIT has confirmed that the median opening located immediately north of the proposed northern access point of the development to be closed as part of the development, to reduce the potential for u-turns to occur for traffic exiting the development.**
- **City Assets would like to reiterate that the Edwin Street access points shall be closed. However, if this is not achievable, the proposed restriction to use the access points from 7am - 6pm with existing gate to prevent vehicular access would be a reasonable compromise.**

Note that the above dot points in **bold** are still considered as outstanding.

I have also attached the recommendation from Mr Frank Siow, that if approval were to be granted, the following conditions should be included:

- The car parking layout shall be designed in accordance with AS/NZS 2890.1-2004 and AS/NZS 2890.6-2009 (disabled parking).
- Commercial vehicle facilities shall be designed in accordance with AS 2890.2-2018.
- The largest permitted service vehicle for Tenancies 2 to 11 shall be the MRV.
- The largest permitted service vehicle for Tenancies 1 and 12 to 17 shall be the SRV.
- The opening hours of Tenancies 1 to 17 shall be 7am to 5pm Monday to Saturday and 9am to 5pm Sunday
- The seating capacity for the restaurant shall be limited to 150.
- The opening hours of the restaurant shall be 5pm to 12 midnight.
- The seating capacity for the brewery shall be limited to 80.
- The opening hours of the brewery shall be 7am to 5pm.
- The car park shall operate in the form of a shared arrangement between the land uses that occupy the site.
- Servicing of the restaurant and brewery shall be restricted to off-peak periods, between 7am and 10am.
- Two (2) of the parking spaces adjacent to the disabled parking spaces shall be sign-posted as LOADING ZONE spaces between 7am and 10am to assist servicing of the restaurant.

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- A parallel service bay shall be provided in front of the brewery building and restricted in use between 7am and 10am to assist servicing of the brewery.
- The Edwin Street access points shall be closed or, if the access points were to be left open, a restriction shall be included to prevent use of the access points after-hours with appropriate physical barriers installed to prevent vehicular access.

Additional recommendation from City Assets: The loading/unloading zone within the building should be clearly indicated on plan, and linemarked.

5.0 Waste Management

5.1 Due to the nature of this application, it is recommended that further assessment from Council's Waste Management Team is required.

It is recommended that further assessment from Council's Waste Management Team is required.

6.0 Stormwater Management

6.1 Stormwater Harvest and Re-use

The applicant has indicated 2 number of combination tank (1kL detention and 1kL retention) for stormwater collection and reuse.

6.2 Stormwater Detention

The proposed detention capacity of 174.3m3 (82.3m3 of surface detention and 92m3 of underground tank) with maximum site discharged rate of 35.37l/sec has been assessed as satisfying minimum requirements. The detention tank capacity is also sufficient to contain runoff from a 5 year ARI critical storm event and hence there will be no surface ponding in a 5 year ARI critical storm event.

A back-flow prevention valve has been proposed for the stormwater to be discharged directly to Council's SEP at Edwin Street.

6.3 Stormwater Quality

No further assessment provided. Item still considered outstanding.

The proposed stormwater management indicates that site runoff will be filtered by Ecosol RSF 4450 and Spel Hydrosystem 220D/9. The provided additional documentation has supported that these products will assist in achieving the stormwater quality target.

Regards
Richard Tan
Civil Engineer

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Preliminary Traffic, Flooding & Stormwater Assessment

Development Application No: 211/702/2020

Assessing Officer:	Brendan Fewster
Site Address:	120 Marion Road, BROOKLYN PARK SA 5032, 108 Marion Road, BROOKLYN PARK SA 5032, 110-112 Marion Road, BROOKLYN PARK SA 5032, 114-118 Marion Road, BROOKLYN PARK SA 5032
Certificate of Title:	CT-6221/361, CT-5443/556, CT-5670/395, CT-6221/362, CT-5670/395, CT-5727/286, CT-5728/110, CT-6221/362
Description of Development	Demolition of existing buildings (nine in total), retention of existing Local Heritage Place and construction of new buidings and refurbishment of existing buildings for an integrated mixed use development comprising a restaurant and bar, microbrewery, commercial warehouses and service industries with associated car parking, boundary fencing and landscaping - Non-Complying Development

TO THE TECHNICAL OFFICER - CITY ASSETS

Please provide your comments in relation to:

☐ Site drainage and stormwater disposal

☐ Required FFL

☐ On-site vehicle parking and manoeuvrability

☐ New Crossover

☐ Your advice is also sought on other aspects of the proposal as follows:

.....
.....

PLANNING OFFICER - Brendan Fewster DATE 15 December, 2020

City of West Torrens
Between the City and the Sea

Memo

To	Brendan Fewster
From	Richard Tan
Date	15-Dec-2020
Subject	211/702/2020, 120 Marion Road, BROOKLYN PARK SA 5032, 108 Marion Road, BROOKLYN PARK SA 5032, 110-112 Marion Road, BROOKLYN PARK SA 5032, 114-118 Marion Road, BROOKLYN PARK SA 5032

Brendan Fewster,

The following City Assets Department comments are provided with regards to the assessment of the above development application:

1.0 Watercourse Impacts

1.1 For proposed developments adjacent to major watercourses, there are two typical considerations which Council's City Assets Department seek to be addressed within the planning assessment process.

Firstly, the offset of any new substantial structure should be sufficiently separated from the creek banks to prevent the potential for creek erosion and movement from impacting the structures. Typically 10m offset from the centreline of the adjacent creek would sort.

Tenancy 12 - 15 have been proposed to be constructed to the property boundary, which is approximately 4m from the centre of the creek measured from West Map. However, it is my understanding that the planner had further discussion with the Manager of City Assets, Joseph Ielasi, and has agreed that for this case, a less than 10m offset from the centreline of the adjacent creek would be supported. (Refer to Objective ID A2552715).

The provided planning report has indicated that:

Earthworks for the development will be negligible, and only nominal retaining wall strips are proposed along the northern, western and eastern boundaries.

It should be noted that although a less than 10m offset from the centreline of the adjacent creek has been supported, consideration is still required to be given to the potential impacts and stabilisation of any structures or retaining proposed to be constructed on or within

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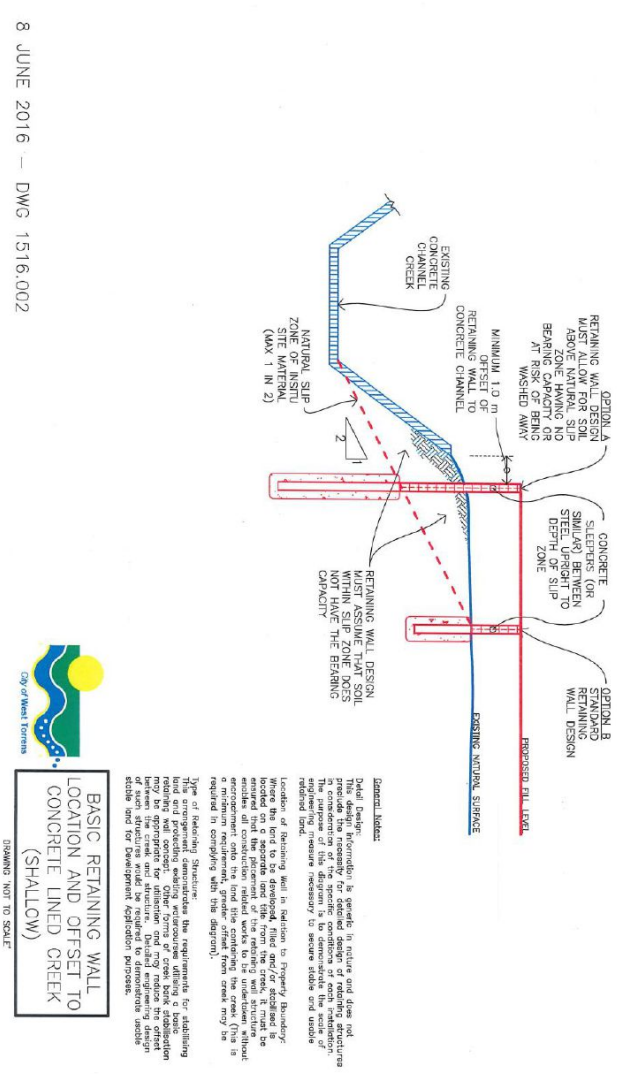
proximity of the creek and its banks. The diagram below outlines the scale of retaining which typically need to be considered within proximity of a watercourse.



It is recommended that amended plan satisfying to the above requirements should be provided. In the events that the applicant will proposed another new building within the proximity of the creek, then further information including the survey of creek and information regarding the proposed location, scale and construction technique for the proposed retaining wall elements to be located with proximity of the creek should be provided.

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2.0 Flood Consideration – Finished Floor Level (FFL) Requirement – 250mm to 500mm Zone

2.1 This development is located predominately within the '250mm to 500mm' area of flood effect as nominated in Council's Development Plan within the Keswick and Brown Hill Creek flood plain mapping.

In accordance with the provided 'Stormwater Plan' (Sagero, Ref: SA200018-C01&C02-E, dated 27/11/2020) the FFLs of the proposed development as following have been assessed as satisfying minimum requirements in consideration of street and/or flood level information:

Tenancy	Proposed minimum FFL	Minimum FFL required
1 to 7	8.050	8.050
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2.2 In the '250mm to 500mm' anticipated flood depth zone, it is typically requested that a minimum 1000mm wide flood corridor be provided along all boundaries.

To preserve the ability for flood flows to move through this site, it will also be required that the flood flow corridors indicated above and the general site levels be maintained within 200mm of the existing natural site levels.

As the proposed development is located at the edge of the 250-500mm inundation depth area, and the proposed internal road that is next to Tenancy 2 & 7 that can be used as a flood corridor, this has been considered as satisfying the flood corridor requirements.

3.0 Verge Interaction

3.1 The northern existing crossover at Marion Road has been proposed to be closed. This crossover should be reinstated to vertical kerb prior to the completion of any building works at the applicant's expense. It should also be indicated on revised plans that any redundant crossovers will be reinstated.

It is recommended that revised plans showing the reinstatement of redundant crossovers be provided to Council.

3.2 No further assessment provided. Item still considered outstanding.

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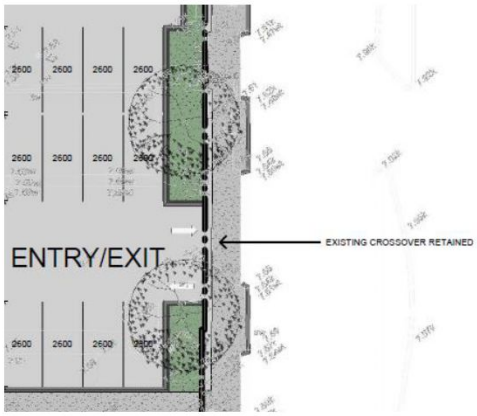
While the middle crossover at Marion Road has been marked as being retained from existing crossover, it is in fact a new crossover modified from existing crossovers.



It is noted that the existing crossover will be made redundant. This crossover should be reinstated to vertical kerb prior to the completion of any building works at the applicant's expense. It should also be indicated on revised plans that any redundant crossovers will be reinstated.

It is recommended that revised plans showing satisfaction to the above requirements be provided to Council.

3.3 The offsets for verge features have been assessed as acceptable in accordance with the site layout shown on 'Stormwater Plan' (Sagero, Ref: SA200018-C01&C02-E, dated 27/11/2020)

3.4 It should be noted that there is a rise at the entrance of the existing heritage building at South Road. As this building has been constructed to the boundary, if the applicant wishes to construct the entrance to DDA compliant, then the slope should be constructed within the building.

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4.0 Traffic Requirements

The following comments have been provided by Council's Traffic Consultant, Mr Frank Siow:

I refer to the above redevelopment proposal for the former West Torrens Council depot site. I have previously provided preliminary traffic advice regarding development at the subject site.

The proposal is a mix of land uses that has different opening hours:

- warehouse/service industry with associated offices (17 tenancies) - 7am to 5pm Monday to Saturday and 9am to 5pm Sunday
- restaurant (350m2 floor area with a seating capacity of 150 seats) - 5pm to 12 midnight
- brewery (223m2 of brewery area/back of house, 121m2 of mezzanine area and with a capacity of 80 seats for patrons) - 7am to 5pm
- Car parking for 81 spaces

4.1 Parking Assessment

For the purpose of the parking assessment, the relevant floor areas and seat numbers are detailed below.

Warehouse/Service Industry land uses

Tenancies 2 to 11 would cater for MRV size trucks, while Tenancies 12 to 17 would cater for SRV size trucks. The turn path diagrams provided show that the service trucks would park wholly within each building when servicing the tenancy. The proposed 17 tenancies would have the following floor areas relevant to my parking assessment:

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Tenancy 1
Office/mezzanine - 38m2 area
Ground level 153m2 (service vehicle access not clarified)

Tenancies 2 to 5 and 7 to 10
Office/mezzanine - 93m2 area
Ground level 186m2 less internal MRV truck parking say 30m2 - net 156m2

Tenancies 6 and 11
Ground level 100m2 less internal MRV truck parking say 30m2 - net 70m2

Tenancies 12 to 15
Office/mezzanine - 49m2 area
Ground level 98m2 less internal SRV truck parking say 20m2 - net 78m2

Tenancy 16
137m2 floor area less internal SRV truck parking say 20m2 - net 117m2

Tenancy 17
205m2 floor area less internal SRV truck parking say 20m2 - net 185m2

Restaurant (Local Heritage Place building)
150 seats

Brewery
80 seats
344m2 brewery area

The following assumptions are adopted in my assessment:

- Warehouse/Service Industry tenancies - assessed as individual tenancies (as an Industry and Warehouse land use). As the turn path diagrams show that the service truck would be parked inside the building, a reduction in floor area of 30m2 (for an MRV truck) and 20m2 (for an SRV truck) has been applied to the ground floor areas of each of the tenancies.
- Brewery - Approximately 344m2 of the floor area would be taken up for the production function. A parking rate of 1.3 spaces per 100m2 is used to assess the brewery (based on the NSW guidelines for a 'factory' type land use, ie akin to a production facility).

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- Restaurants - 100% occupancy during the evening period (open after 5pm only).
- Brewery seating - 100% occupancy during the daytime period (closed after 5pm).
- A 15% discount to the parking requirement is adopted to take into account the proximity of GO ZONE bus services on Sir Donald Bradman Drive, bicycle lanes on Marion Road and Sir Donald Bradman Drive and the re-use of the local heritage building.
- Given the fairly large number of small commercial tenancies proposed, an additional 10% discount could be considered to allow for some efficiencies in parking, for example visitors to the individual commercial tenancies may not all be present at the same time.

Given the different opening hours, I have had regard to the likely daytime and evening parking demands in my assessment of the proposal.

Based on the above assumptions, I estimate the following:

- during the daytime period, when the warehouse/service industry tenancies and the brewery are open and the restaurant is closed), the overall parking requirement would be approximately 83 spaces and the resulting parking shortfall would be 2 spaces.
- during the evening period (when the restaurant is open and the warehouse/service industry tenancies and the brewery are closed), the parking requirement would be approximately 42 spaces and there would be a surplus parking arising.

Given that the parking shortfall during daytime periods would be minor in nature, on balance, I am satisfied that adequate parking would be provided for the development.

Seven (7) bicycle parking spaces would be provided on-site for the development. I consider this provision to be satisfactory.

4.2 Parking Layout

- The provision of 2 disabled parking spaces is acceptable.
- The proposed parking space dimensions and aisleway widths, as detailed in Page 4 of the CIRQA traffic report, would be

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consistent with the requirements of the relevant parking standards.

- Where 2.4m wide spaces are proposed for staff parking, these should be clearly designated and sign-posted accordingly.
- The proposed one-way circulation aisleway at the western end should be sign-posted accordingly.

4.3 Servicing

It is unclear what size service trucks would require access to Tenancy 1 and where this service vehicle would park. If the proposed roller door of the warehouse building faces east, then it would suitably accommodate an SRV or MRV manoeuvre. Further clarification should be provided by the Applicant.

Based on the turn path diagrams provided in the CIRQA traffic report, the proposed Tenancies 2 to 17 (warehouse/service Industry tenancies) would be able to cater for service vehicles expected. These service vehicles would park inside the building when servicing.

It is unclear how the brewery and restaurant would be serviced. However, if the servicing were to be of an infrequent nature and were to occur during off-peak periods, there would likely be surplus parking spaces available adjacent to both buildings that could be used by smaller service vehicles. I recommend that say 2 parking spaces adjacent to the disabled parking spaces be allocated as LOADING ZONE, say between 7am to 10am, to assist in the servicing of the restaurant and brewery.

For a larger truck that may be used occasionally to service the restaurant, this truck could park on the aisleway and temporarily obstruct the LOADING ZONE spaces, noting that the traffic flow around the aisleways would not be obstructed. While it would be desirable to have a dedicated parking area for the restaurant, on balance, it is considered that the informal arrangement for the larger truck would be acceptable.

The brewery is likely to generate more frequent service vehicle movements, given its land use which is akin to a production facility. There appears to be space available between the pedestrian crossing and the bin area, in front of the building, for a parallel bay type arrangement to be provided. It would allow medium sized truck to park adjacent to the building when servicing. If servicing were to be restricted to off-peak periods, say 7am to 10am, the bollards could

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then be raised to prevent vehicle parking and to facilitate safe customer access into the building. I recommend that the servicing for the brewery include such a parallel bay.I estimate that the overall proposal should generate in the order of 50 to 60 vph during the peak period. This may be similar or lower than the previous Council depot, where employee vehicle movements and Council truck movements would have been quite significant. As the access on Marion Road would be left in/left out only, I do not have concerns with the impact on Marion Road.

4.4 Traffic Assessment

As Marion Road is a road under the care and control of the Department for Infrastructure and Transport (DIT), I leave it to the department to specify the requirements for the proposed access points in Marion Road.

I note that currently there is a median break located immediately north of the proposed northern access point of the development. DIT may require this median opening to be closed as part of the development, to reduce the potential for u-turns to occur for traffic exiting the development.

I note also that DIT may require a capacity analysis to be undertaken of the adequacy of the current right turn sheltered lane in Marion Road to be used as the proposed main entrance for the development.

There are two proposed access points shown in Edwin Street. When the site operated as a council depot, daytime use of the Edwin Street access point was restricted and night time use of the access points did not occur. I recommend that the Edwin Street access points be closed so that there is no traffic impact on the adjoining residential dwellings within this Residential Zone. The proposed car park should be able to operate satisfactorily without the Edwin Street access points. Council should therefore ensure that the proposed Edwin Street access points are deleted from the proposal.

Note from City Assets: City Assets strongly recommend that the existing median opening (to allow right turn out from the site) on Marion Road, which appears to be associated with the previous land use shall be closed.

4.5 Summary

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Based on the above assessment, I am of the opinion that adequate parking would be provided for the development. Servicing of the site would be reasonably catered for, although I have made some recommendations to improve servicing of the restaurant and brewery. The parking layout would be acceptable.

In terms of the traffic impact, I leave it to DIT to determine if additional assessment may be required regarding the right turn sheltered lane in Marion Road or if SIDRA analysis may be required from the Applicant to check the capacity issue of this right turn lane. There is also an existing redundant median opening in Marion Road that should be closed (DIT matter).

All redundant crossovers for the subject site shall be closed at the Applicant's expense. The rear access points in Edwin Street should be closed to minimise the traffic impact in the adjacent residential area.

If the Edwin Street access is not to be closed, it would be desirable to prevent the use of the access points after-hours, so that night time traffic impacts do not arise for the adjacent residents from the development land uses that generate night time activity on the site. I understand that when the site operated as a council depot, daytime use was restricted and night time use did not occur. The proposed development would therefore introduce a new night time usage of Edwin Street that is not desirable, from a traffic impact perspective, in the adjacent Residential Zone. I do not know if it would be possible or practical to include a condition restricting the use of Edwin Street for access after-hours.

I recommend that, if approval were to be granted, the following conditions should be included:

- The car parking layout shall be designed in accordance with AS/NZS 2890.1-2004 and AS/NZS 2890.6-2009 (disabled parking).
- Commercial vehicle facilities shall be designed in accordance with AS 2890.2-2018.
- Tenancy 1 shall enable a service vehicle (up to MRV size) to park within the building for servicing purposes.
- The largest permitted service vehicle for Tenancies 2 to 11 shall be the MRV.
- The largest permitted service vehicle for Tenancies 12 to 17 shall be the SRV.

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- The opening hours of Tenancies 1 to 17 shall be 7am to 5pm Monday to Saturday and 9am to 5pm Sunday
- The seating capacity for the restaurant shall be limited to 150.
- The opening hours of the restaurant shall be 5pm to 12 midnight.
- The seating capacity for the brewery shall be limited to 80.
- The opening hours of the brewery shall be 7am to 5pm.
- The car park shall operate in the form of a shared arrangement between the land uses that occupy the site.
- Servicing of the restaurant and brewery shall be restricted to off-peak periods, between 7am and 10am.
- Two (2) of the parking spaces adjacent to the disabled parking spaces shall be sign-posted as LOADING ZONE spaces between 7am and 10am to assist servicing of the restaurant.
- A parallel service bay shall be provided in front of the brewery building and restricted in use between 7am and 10am to assist servicing of the brewery.
- The Edwin Street access points shall be closed or, if the access points were to be left open, a restriction shall be included to prevent use of the access points after-hours with appropriate physical barriers installed to prevent vehicular access.

Additional recommendation from City Assets: The loading/unloading zone within the building should be clearly indicated on plan, and linemarked.

5.0 Waste Management

5.1 Due to the nature of this application, it is recommended that further assessment from Council's Waste Management Team is required.

It is recommended that further assessment from Council's Waste Management Team is required.

6.0 Stormwater Management

6.1 Stormwater Harvest and Re-use

City Assets typically strongly encourages the inclusion of stormwater collection and active re-use, particularly if there is any area with high demand of water reuse and hence a high volume of reduction of stormwater runoff from the site can be simply achieved.

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Collection and active re-use of stormwater in developments of this nature can go a long way towards the achieving the other stormwater management measures if water quality and detention, as well as the sustainability benefits which area achieve through water conservation considerations.

It is strongly encourage that the applicant explore the stormwater collection and re-use option as above.

6.2 Stormwater Detention

The proposed detention capacity of 174.3m3 (82.3m3 of surface detention and 92m3 of underground tank) with maximum site discharged rate of 35.37l/sec has been assessed as satisfying minimum requirements. The detention tank capacity is also sufficient to contain runoff from a 5 year ARI critical storm event and hence there will be no surface ponding in a 5 year ARI critical storm event.

A back-flow prevention valve has been proposed for the stormwater to be discharged directly to Council's SEP at Edwin Street.

6.3 Stormwater Quality

No further assessment provided. Item still considered outstanding.

The proposed stormwater management indicates that site runoff will be filtered by Ecosol RSF 4450 and Spel Hydrosystem 1500. While the principle of the stormwater quality has been accepted, however, the following should be clarified in order for the stormwater management plan to be approved:

6.3.1 It is recommended that clarification from manufacturers should be provided indicating that this model (including but not limited to the inlet/outlet pipe size, flow speed etc) is suitable for the site of this size.

6.3.2 It is recommended that brochure/clarification from SPEL should be provided to demonstrate stormwater quality target can be achieved.

6.3.3 The Spel Hydrosystem unit is located behind the pump station. It is unclear how this is going to affect the Spel Hydrosystem and how the maximum site discharge can be controlled within the allowable value with this arrangement. Generally a stormwater proprietary product should be located prior to a pump station and not after a pump station.

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The above issue should be addressed to demonstrate how the water quality requirements are to be met and should be provided on revised site plans prior to the finalisation of the planning assessment for this development.

Regards
Richard Tan
Civil Engineer

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City of West Torrens
Between the City and the Sea

Waste Management Assessment

Development Application No: 211/702/2020

Assessing Officer: Brendan Fewster

Site Address:	120 Marion Road, BROOKLYN PARK SA 5032, 108 Marion Road, BROOKLYN PARK SA 5032, 110-112 Marion Road, BROOKLYN PARK SA 5032, 114-118 Marion Road, BROOKLYN PARK SA 5032
Certificate of Title:	CT-6221/361, CT-5443/556, CT-5670/395, CT-6221/362, CT-5670/395, CT-5727/286, CT-5728/110, CT-6221/362
Description of Development	Demolition of existing buildings (nine in total), retention of existing Local Heritage Place and construction of new buildings and refurbishment of existing buildings for an integrated mixed use development comprising a restaurant and bar, microbrewery, commercial warehouses and service industries with associated car parking, boundary fencing and landscaping - Non-Complying Development

TO TEAM LEADER WASTE MANAGEMENT - REGULATORY SERVICES

Please provide your comments in relation to:

☐ Any aspect that you feel needs further attention or detail

.....
.....

Memo

To	Brendan Fewster
From	Nick Teoh
Date	17-Dec-2020
Subject	211/702/2020 120 Marion Road, BROOKLYN PARK SA 5032, 108 Marion Road, BROOKLYN PARK SA 5032, 110-112 Marion Road, BROOKLYN PARK SA 5032, 114-118 Marion Road, BROOKLYN PARK SA 5032

Dear Brendan Fewster

The following Waste Management comments are provided with regards to the assessment of the above develop application:

Waste Management

The nature of this development regarding intended use and the density of the site precludes access to Council's standard kerbside waste service, commercial waste is required to service the proposed development.

A waste management plan is requested to further assess suitability for a commercial waste service.

As a restaurant/café and brewery are indicated on the proposed plan, further assessment by Environmental Health is recommended.

Kind regards

Nick Teoh
Team Leader Waste Management

From: Nick Teoh
To: Brendan Fewster
Subject: RE: 211/702/20 - 120 Marion Road, Brooklyn Park
Date: Thursday, 21 January 2021 1:48:10 PM

Hi Brendan,

No further comments from me, the waste management plan is considered suitable and addresses all requirements for this site.

Thanks,
Nick Teoh
Team Leader Waste Management
City of West Torrens
165 Sir Donald Bradman Drive
Hilton SA 5033

From: Brendan Fewster
Sent: Wednesday, 20 January 2021 2:10 PM
To: Nick Teoh
Subject: 211/702/20 - 120 Marion Road, Brooklyn Park

Hi Nick

I refer to your previous response in relation to the above application.

The applicant has provided a Waste Management Plan.

Can you please review it and provide your comments.

Thanks

Brendan Fewster
Contract Development Assessment
City of West Torrens
165 Sir Donald Bradman Drive
Hilton SA 5033

City of West Torrens
Heritage Advisor Comment

Planning Application No.:	**211/702/2020**
Location:	**108-120 Marion Road, BROOKLYN PARK**
Zone:	**Commercial and Residential**
Policy Area:	**District Commercial Policy Area 2 and Low Density Residential Policy Area 20**
Heritage Status:	**Local Heritage Place**
Proposal:	**Demolition of 9 structures and construction of an integrated mixed use development incorporating a restaurant and bar, microbrewery, warehousing and offices**
To:	**Cathryn Jones**
Date:	**26 August 2020**

City of West Torrens
Heritage Advisor Comment

City of West Torrens
Heritage Advisor Comment

FLOOR PLAN - HERITAGE BUILDING A - EXISTING

FLOOR PLAN - HERITAGE BUILDING A - PROPOSED

STREET ELEVATION - MARION ROAD

BREWERY VIEW

MARION ROAD ENTRANCE 1

EDWIN STREET ENTRANCE

MARION ROAD ENTRANCE 2

City of West Torrens
Heritage Advisor Comment

Description:

The Subject Land is mostly within the District Commercial Policy Area 2, Commercial Zone, with a portion of the proposal within Low Density Residential Policy Area 20 Residential Zone.

The portion of the development within the Residential Zone, as a Warehouse, may trigger non-complying development; this is considered outside of the heritage assessment. However it is clear the land forms part of the existing land use, there being a bitumen carpark and shedding.

The proposed development involves:

- Demolition of 9 existing structures across the site to the rear of the Local Heritage Place;
- The refurbishment and adaptive reuse of Local Heritage listed Former West Torrens Council Chambers fronting Marion Road to accommodate Restaurant and Bar involving demolition of an internal wall to form an opening;
- The refurbishment of existing buildings to the southern boundary to accommodate microbrewery and warehousing;
- The construction of a new mixed use development including tenancies, warehousing and offices across the site and to the rear of the Local Heritage Place;
- Demolition of existing security fence and gate to Marion Road (existing security fence and gate to Edwin Street to remain);
- New carparking across site (existing crossovers to remain).

The development involves the demolition of 9 structures across the site including sheds, canopy/carport structure and warehouses which are not considered to form part of the heritage listing.

The proposal includes the refurbishment of existing warehouse to the south boundary to accommodate brewery and bar. The façade to Marion Road is to be retained and new warehousing to be constructed abutting the west side. The building is also considered not to form part of the heritage listing.

The proposed structure to the south boundary abuts the west side of the existing building. The proposed structure has a finished height of 7500mm to match the height of the existing warehouse to the southern boundary. It is constructed of precast concrete to a height of 3000mm with standing seam steel cladding in black to a finished height of 7500mm to match height of the existing warehouse. It also includes coloured vertical signage fins along the northern elevation.

The proposed building central to the site and to the rear of the Local Heritage Place is to be constructed of red brick and precast concrete plinth to height of 3000mm and standing seam steel cladding in black to finished height of 7500mm. The east elevation is proposed as precast concrete panelling to include graphics/mural. It also includes coloured vertical signage fins along the northern and southern elevation.

City of West Torrens
Heritage Advisor Comment

The proposed building to the north of the site is constructed of precast concrete to a height of 3000mm with standing seam steel cladding in black to a finished height of 7500mm.

Proposed works to the LHP include the formation of an opening to the now internal wall that was the original south wall, internal refurbishment to accommodate bar and restaurant and new amenities. Chimneys to the Local Heritage Place are retained.

The subject land includes Local Heritage Place listed in the Development Plan under Table WeTo/4 - Local Heritage Places as:

Property Address	Description and/or Extent of Listed Place	Lot No. or Part Sec	Plan No.	Certificate of Title	Section 23(4) Criteria	DPLG ID
112-120 Marion Road, BROOKLYN PARK	Former West Torrens Council Chambers; Extent of earliest sections of building including rendered mouldings to window and door openings and parapeted frontages to Marion Road, and masonry sections of buildings behind including early chimneys, walls and other original elements. Later additions and extensions do not form part of the listing. 1998 Heritage Survey Ref. BP04	76	F144404	CT 5861/944	a, c, d	21075

The Local Heritage Place is listed on the State Heritage Database as:

LOCATION	
Address	112-120 Marion Road BROOKLYN PARK
Accuracy	H - high level confidence
Development Plan	West Torrens Council
Polygon Type	P - parcel (from DCDB)
DESCRIPTION	
Details (Known As)	Former West Torrens Council Chambers
Registered Name	
Extent of listing	Extent of earliest sections of building including rendered mouldings to window and door openings and parapeted frontages to Marion Road, and masonry sections of buildings behind including early chimneys, walls and other original elements. Later additions and extensions do not form part of the listing. 1998 Heritage Survey Ref. BP04
Class	Local
Local Heritage Place Class Type	-
STATUS	
Authorisation Date	02-OCT-2008

City of West Torrens
Heritage Advisor Comment

REFERENCE	
LGA	West Torrens
Heritage Number	21075
Council Reference	108
SECTION 23 INFORMATION	
Section 23	a - it displays historical, economic or social themes that are of importance to the local area c - it has played an important part in the lives of local residents d - it displays aesthetic merit, design characteristics or construction techniques of significance to the local area

As development affecting a Local Heritage Place and other structures within the District Commercial Policy Area 2, Commercial Zone, with a portion of the proposal within Low Density Residential Policy Area 20 Residential Zone, I have considered the following Development Plan Provisions:

- Heritage Places
- OBJECTIVES: 1, 2,3
- PRINCIPLES OF DEVELOPMENT CONTROL: 1,2,3,4,5,6,7,8
- Design and Appearance
- PRINCIPLES OF DEVELOPMENT CONTROL: 7,8
- District Commercial Policy Area 2
- OBJECTIVES: 1,2
- DESIRED CHARACTER
- PRINCIPLES OF DEVELOPMENT CONTROL: 1,2
- 2 Development should not be undertaken unless it is consistent with the desired character for the policy area.
- Commercial Zone
- OBJECTIVES: 1,2
- PRINCIPLES OF DEVELOPMENT CONTROL : 1,2,3,4
- Low Density Policy Area 20
- OBJECTIVES:1
- DESIRED CHARACTER
- PRINCIPLES OF DEVELOPMENT CONTROL : 1,2
- Residential Zone:
- OBJECTIVES: 1,2,3,4
- DESIRED CHARACTER
- PRINCIPLES OF DEVELOPMENT CONTROL: 1, 2,3,4,5

Assessment:

Heritage Places

Heritage Places Objective 1 is satisfied because the Heritage Place will be conserved.

The proposal involves the adaptive reuse of the LHP, satisfying Heritage Places Objective 2.

City of West Torrens
Heritage Advisor Comment

The new buildings are considered sufficiently separated from the rear of the Heritage Place so as not to affect the prominent setting facing Marion Road, satisfying Objective 3.

The formation of an internal opening is not considered to upset Principle of Development Control (PDC) 1, particularly if evidence of the wall remains, through the retention of nibs and head of opening.

Also the Principal elevations, important views to and from the Place, setting and setbacks to Marion Road and materials and form will be retained, satisfying PDC 2. This can also be said for the new building to the north, which is also set back, maintaining views of the Place. The proposal will be compatible with Heritage Value of the Place, because the proposal will not diminish Section 23(4) Criteria that fulfil the listing.

The proposal does not alter the previously altered render and paint finish and therefore PDC 4 is not affected.

Proposed buildings will be located to the rear and separated from the Place, satisfying PDC 5.

While the proposal is sufficiently separated, it is also of a distinguishable compatible scale and bulk and modern composition of design elements and colour and texture of materials that satisfy PDC 6. The separation ensures that PDC 7 is unaffected and while signage is not provided, the murals provide visual interest that does not dominate the Place, nor obstruct historic detailing.

Design and Appearance
Development Adjacent Heritage Places

PDC 7 is satisfied because the new buildings are not considered to detract from the form and materials of the Place, through the separation and rear location. The new buildings form a visually interesting and separate backdrop to the rear of the LHP, thereby through simple design and form reinforcing the historic character of the Place, retraining its prominence to Marion Road, satisfying PDC 8.

I note also the northern new building, while located within the Residential Zone, is set back to the rear allotment, ensuring views of the LHP from the north are maintained and the prominence of the Place also preserved.

District Commercial Policy Area 2

It appears that DC PA 2 Objectives 1 and 2 and PDC 2 are satisfied through the screen planting provided and the separation offered by Edwin Street and internal roadways. The land use is as contemplated in PDC 1.

Commercial Zone

Similarly Objectives 1 and 2 of the Commercial Zone and PDC 1 are satisfied.

Low Density Policy Area 20 and Residential

City of West Torrens
Heritage Advisor Comment

Low Density PA 20 and the Residential Zone are less inviting of the proposal, the land use not being contemplated within the Policy Area or Zone; my reading of this is non-complying development. However, the existing land use may ensure this form of development is acceptable, because it will continue the existing non-residential use and improve the amenity of the development, through forming a visually cohesive element with the other portions of the Subject Land.

Conclusion:

The proposal is considered satisfactory from a Heritage perspective because the LHP will be conserved and a new compatible use found for it. It will also remain visually prominent to Marion Road on all sides.

In making this assessment I have not noted signage other than the murals.

The only condition is that in forming the new opening to the south wall, there should be a nib left to each side and the wall be evident above the opening and below the ceiling line, to provide evidence of the original south wall.

Douglas Alexander

In reply please quote: 2020/00291, Process ID: 652854
Enquiries to: Reece Loughron
Telephone: 08 7109 7876
E-mail: dit.landusecoordination@sa.gov.au

Government of South Australia
Department for Infrastructure and Transport

TRANSPORT PLANNING AND PROGRAM DEVELOPMENT

Transport Assessment

GPO Box 1533
ADELAIDE SA 5001

ABN 92 366 288 135

14 January 2021

Mr Brendan Fewster
City of West Torrens
165 Sir Donald Bradman Drive
HILTON SA 5033

Dear Mr Fewster,

SCHEDULE 8 - REFERRAL RESPONSE

Development No.	211/702/20
Applicant	Ekistcs Planning and Design
Location	108, 110-112, 114-118 and 120 Marion Road (and Edwin Street), Brooklyn Park
Proposal	Restaurant and bar, Service Industries and Warehouses, Microbrewery (service industry and bar) together with associated carparking and landscaping.

I refer to the above development application forwarded to the Commissioner of Highways (CoH) in accordance with Section 37 of the *Development Act 1993*. The proposed development involves development adjacent a main road as described above.

The following response is provided in accordance with Section 37(4)(b) of the *Development Act 1993* and Schedule 8 of the *Development Regulations 2008*.

CONSIDERATION

The subject site abuts Marion Road and Edwin Street. Marion Road is an arterial road under the care, control and management of the CoH. The adjacent section of Marion Road is identified as a Major Traffic Route, Primary Freight Route, a Public Transport Corridor and a Major Cycling Route under the Department for Infrastructure and Transport's *'A Functional Hierarchy for South Australia's Land Transport Network'*. At this location, Marion Road carries approximately 35,000 vehicles per day (5% commercial vehicles) and has a posted speed limit of 60 km/h. Edwin Street is a local road and has a default urban speed limit of 50km/h.

Access and Road Safety

DIT has reviewed the Ekistics Statement of Effect (reference 0095-002, dated 2 December 2020), associated Traffic and Parking Report by CIRQA (refer Project 20215, Version 1 dated 2 December 2020) as well as the Brown Falconer Plan set.

The development is proposing a complete redevelopment of the land and it is proposed to gain access via a two-way access catering for all movements near the southern boundary and a two-way access catering for left in and left out only approximately 24 metres south of the northern boundary. Two access points will also be provided to Edwin Street. In conjunction with the southern access on Marion Road it is proposed to alter the existing median to provide a channelised right turn lane and also remove the existing median opening located at the common boundary of Lot 84 and 85 (in DP3719). DIT supports the proposed access/median

arrangements and all road works required to facilitate safe access should be undertaken to DIT standards and requirements with all costs borne by the applicant.

All redundant crossovers should be closed and reinstated with kerb and gutter prior to the businesses becoming operational.

Parking

Overall, the proposed parking provisions appear reasonable particularly given the various land uses within the site will have different peak demands. All off-street parking should be designed in accordance with *AS/NZS 2890.1:2004* and *AS/NZS 2890.6:2009*. Additionally, clear sightlines, as shown in Figure 3.3 'Minimum Sight Lines for Pedestrian Safety' in *AS/NZS 2890.1:2004*, should be provided at the property line to ensure adequate visibility between vehicles leaving the site and pedestrians on the adjacent footpath.

Delivery Vehicles

In regards to delivery vehicles, the CIRQA report has illustrated that a large refuse vehicle (10 metres in length) can left turn in via the southern access, circulate through the site and exit via a left turn at the northern access (refer CIRQA, Sheet #3_SH01, dated 2 December 2020). The access points should be suitably flared to ensure two-way access movements can be achieved at all times. In addition, the plan shows that a MRV (8.8 metres in length) can access the other tenancies within the site which is supported.

Council should be satisfied that the largest vehicle required to gain access to the proposed development (eg. brewery) is under 10 metres in length. All commercial vehicle facilities should be designed in accordance with *AS 2890.2:2018*.

ADVICE

The Department for Infrastructure and Transport supports the proposed development and advises the planning authority to attach the following conditions to any approval:

1. The two access points to Marion Road shall be constructed in general accordance with Brown Falconer, Site Plan, Drawing No. 3366 DA 05, Revision 10 dated 30 November 2020.

2. The northern access shall accommodate left in and left out movements and the southern access shall be upgraded to provide a channelised right turn lane and will accommodate all movements. The existing median opening located adjacent the southern boundary of 108 Marion Road shall be permanently closed and reinstated to the satisfaction of DIT.

3. All road works (eg. median and line marking alterations, etc) deemed to be required to facilitate safe access must be designed and constructed to comply with Austroads Guides and Australian Standards and to the satisfaction of DIT, with all costs to be borne by the applicant.

   The applicant shall contact DIT Network Management Services, Senior Network Integrity Engineer, Mr Narendra Patel (08) 8226 8244 or mobile 0400 436 745 (narendra.patel@sa.gov.au) to obtain approval and discuss any technical issues regarding the required works.

4. Any infrastructure within the road reserve that is demolished, altered, removed or damaged during the construction of the project shall be reinstated to the satisfaction of the relevant asset owner, with all costs being borne by the applicant.

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5. All redundant crossovers along the Marion Road frontage shall be closed and reinstated with council standard kerb and gutter prior to the business becoming operational. All costs are to be borne by the applicant.

6. The applicant shall ensure that all stormwater generated by the proposal is appropriately collected and disposed of without entering or jeopardising the safety of the adjacent arterial road network.

Yours sincerely

A/MANAGER, TRANSPORT ASSESSMENT
for **COMMISSIONER OF HIGHWAYS**

A copy of the decision notification form should be forwarded to dpti.developmentapplications@sa.gov.au

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6.2 PDI ACT APPLICATIONS

Nil

7 REVIEW OF ASSESSMENT MANAGER DECISION

Nil

8 CONFIDENTIAL REPORTS OF THE ASSESSMENT MANAGER

Nil

9 RELEVANT AUTHORITY ACTIVITIES REPORT

9.1 Activities Summary - May 2021

Brief

This report presents information in relation to:

1. Any development appeals before the Environment, Resources and Development (ERD) Court where the Council Assessment Panel (CAP) is the relevant authority;
2. Other appeal matters before the ERD Court of which SCAP are the relevant authority;
3. Any deferred items previously considered by the CAP
4. Summary of applications that have been determined under delegated authority where CAP is the relevant authority; and
5. Any matters being determined by the State Commission Assessment Panel (SCAP).

RECOMMENDATION

The Council Assessment Panel receive and note the information.

Development Application appeals before the ERD Court (CAP is the relevant authority)

DA number	Address	Description of development	Status
211/356/2016/A	50 Davenport Terrace, RICHMOND	Variation to Development Application 211/356/2016 - Increase Group 'C' building from 3 storeys to 5 storeys containing a total of 98 dwellings (38 additional dwellings)	Hearing has been set for 1-3 June 2021. Council has engaged Kelledy Jones Lawyers.

Other relevant appeals before the ERD Court (SCAP is the relevant authority)

Relevant authority	DA number	Address	Description of development	Status
SCAP	211/M015/19	1 Glenburnie Terrace, PLYMPTON	Six-storey residential flat building (32 dwellings) & associated car parking	Compromise Plans have been received by SCAP and referred to Council for comment. To be tabled at future SCAP meeting in May - to be heard in confidence.
SCAP	211/M022/17	79 Port Road, THEBARTON	Multi-storey mixed use development, incorporating commercial tenancy, 2 storey car park, 9-storey residential flat building, four x 3-storey residential flat buildings and car parking	Compromise plans have been received and Council comments provided to SCAP 09 November 2020. The compromise proposal was scheduled for conciliation conference 28 January 2021.

Deferred CAP Items

Nil

Development Applications determined under delegation (CAP is the relevant authority)

Nil

Development Applications pending determination by SCAP

DA Number	Reason for referral	Address	Description of development
211/L131/21 Lodged 04/03/21	Schedule 10	20-118 James Melrose Drive, Novar Gardens	Installation of two (2) water storage tanks
211/M135/21 Lodged 16/03/21	Schedule 10	1 Selby Street, Kurralta Park	Construction of a 10-storey residential flat building with associated car parking and site works.

211/M129/21 Lodged 17/02/21	Schedule 10 (Council comments sent through to SCAP 18/03/21)	8 Eton Road, Keswick	Construction of a six (6) storey mixed use building comprising residential and commercial tenancies together with car parking and landscaping
211/M030/18 Lodged 30/11/18	Schedule 10 (pending - application on hold)	192 Anzac Highway, Glandore	Demolition of existing structures and construction of an eight (8) storey residential flat building comprising 40 dwellings, including the removal of a significant tree

Conclusion

This report is current as at 03 May 2021.

Attachments

Nil

10 OTHER BUSINESS

11 MEETING CLOSE